THE GOVERNMENT OF THE REPUBLIC OF CROATIA

National recovery and resilience Plan 2021-2023

15. Decembe r

2020.

Content

Table List

List of abbreviations

APN	Agency for mediation in transactions of real estate
CSR	Specific recommendations of the Council of the EU for 2019 and 2020 (Country specific Recommendation)
EC	European Commission
ESIF	European Structural and Investment Funds
EU	European Union
FZO!	Reconstruction Fund
FEEZEU	Environmental Protection and Energy efficiency Fund
HAMAG-BICRO	Croatian Agency for small business, Innovation and Investments
HANFA!	Croatian Agency for supervision of Financial services
CNB	Croatian National Bank
HZHM	Croatian Institute of Emergency medicine
HZMO	Croatian pension Insurance Institute
CROATIAN EMPLOYMENT SERVICE	Croatian Employment Service
LC (R)SGU	Local and regional self-government units
MFIN	Ministry of Finance
MINGOR	Ministry of economy and Sustainable Development
MINTS	Ministry of Tourism and Sports
MIZ	Ministry of Health
MKM	Ministry of Culture and Media
MMPI	Ministry of the Sea, Transport and infrastructure
MPGI	Ministry of physical planning, Construction and State property
MPOLJ	Ministry of Agriculture
RAMP	Ministry of Justice and Administration
MRMSOSP	Ministry of Labour, pension system, family and Social Policy
MRDEUF	Ministry of Regional Development and EU Funds
MINISTRY OF INTERIOR	Ministry of the Interior
MZO	Ministry of Science and Education
NECP	Integrated climate and energy plan from 2021 to 2030
NN	Official Gazette
NPOO	National recovery and resilience plan
E.G.	National Reform Programme 2020
NRR	Draft National Development Strategy by 2030
PU	Tax Administration
REPUBLIC OF CROATIA	Republic of Croatia
RRF	Recovery and Resistance Mechanism *Recovery and Resilience facility*)
SDUDM	Central State Office for Demography and Youth
SDUOSZ	Central State Office for Reconstruction and housing
SDURDD	Central State Office for the Development of the Digital Society
SABS	State administration bodies
MFF	The Multi-Annual Financial Framework for the period 2021-2027

PREFACE

On 27 May 2020, the European Commission (EC) proposed a recovery plan for Europe to help Member States remove the economic and social consequences resulting from the CIVIL pandemic .19, and to contribute to the launch of economic recovery and the strengthening of the resilience of the economy at European Union (EU) level. On 21 July 2020, EU Member States' leaders agreed on a recovery plan, namely an instrument entitled "EU for Next generations" and a multiannual financial framework for the period 2021-2027. (MFF) This enabled Member States to use €1.824.3 billion to recover and strengthen the resilience of the European economy, namely: €750 billion from the "EU for Next generations" instrument and €1.074,3 billion from MFF.

The "EU for Next generations" instrument introduced the Rehabilitation and Resistance Mechanism (CPI). *Recovery and Resilience facility (RRF*) which will allow Member States to use grants and loans totalling EUR 672.5 billion to finance reforms and related investments that accelerate recovery and increase the resilience of the economy.

Grants in the framework amount of EUR 5.95 billion or HRK 44.75 billion and loans in the indicative amount of EUR 3.40 billion or HRK 25.61 billion will be available to the Republic of Croatia (RH) within the framework of the RDF.

The precondition for the use of funds from the RDF is the National recovery and Resistance Plan 2021-2023. (NPO) which, in accordance with the objectives of the RDF, includes reforms and investments to be undertaken in the following years, and no later than 30 August 2026.

In addition to the challenges of economic recovery from the health and socio-economic consequences of the CIVIL-19 pandemic and the reconstruction of Zagreb and its surroundings, reforms already under way will be implemented, which should additionally support adjustments to new circumstances and strengthen the competitiveness of the Republic of Croatia at the European and global level. For the Republic of Croatia, this means reforms and investments related to the green and digital transition**,** employment, skills development, education, research and innovation, improvement of the business environment, efficiency of public administration, health care system, etc.

The Government's priority will be to use the funds for recovery fully in such a way as to ensure a speedy recovery of the Croatian economy and investment in other priority areas.

NPOO will also contribute to the fulfilment of commitments stemming from specific recommendations addressed by the Council of the EU to the Republic of Croatia within the framework of the European Semester for 2019 and 2020. (CSR).

Progress in the implementation of the Plan will be reported in the framework of the European Semester.

MACROECONOMIC FRAMEWORK 2020-2023

The world faces materialisation of the economic consequences of the global health crisis caused by the HUMAN-19 pandemic, which has hit the world economy at a time when global activity, particularly trade, is already weakening. The particularity of this economic crisis is its completely exogenous and symmetrical character, the unprecedented intensity of the initial shock in a short period of time, and the simultaneity and global distribution of effects.

The economic materialisation of the crisis has characteristics of a symmetric shock of supply and demand. The initial shock on the supply side manifested itself through disturbances in global supply chains, bans on the operation of certain, mostly service activities, isolation and social distancing measures for workers and the closure of borders. Shock on the demand side is caused by physical impossibility of consumption or postponement of purchase of consumer and investment goods due to disrupted mood and expectations among economic subjects. As a result of loss of income and jobs, reduction of liquidity, but also of company solvency, retention of uncertainty and distorted expectations of consumers and the business sector, successive rounds of additional effects on economic activity have led to an unprecedented total multiplicative effect on economic growth.

The health and economic effects of the crisis, visibly conflicting, have led to a problem of MANAGING THE CIVIL-19 crisis, with not all countries choosing the same strategies, although epidemiological measures largely overlap everywhere. The epidemiological reaction in the Republic of Croatia in the first wave was timely, and the approach of relatively strict measures to limit social gatherings and economic activities was strategically chosen in order to minimize negative health consequences, primarily human victims. Since this led to the desired results, there was a relaxation of measures in three phases in late April and May 2020. However, on the economic side, this approach undoubtedly led to a sharp reduction in economic activity. However, the impact of the crisis in the case of the Republic of Croatia is expected to be lower than the global financial crisis in 2008, since the consequences of the 2008 crisis have extended to six recession years. In addition, on 22 March 2020, Zagreb and its surroundings hit the strongest earthquake in 140 years, causing major infrastructure damage and additional pressure on the functioning of public services.

The fact is that the Republic of Croatia, unlike the global financial crisis in 2008, received this crisis much more prepared, with less external and internal imbalances. This primarily refers to the long-term process of deleveraging of domestic sectors induced by the previous crisis, to the increased sector of exchangeable goods, as well as a smaller share of certain domestic sectors with lower productivity oriented exclusively towards the internal market, which were financed primarily by debt before 2008, thus burdening the economy. These processes were supported by responsible fiscal policy and accession to the EU and resulted in much more favourable indicators of debt sustainability and net foreign position. This should be accompanied by a generally more favourable labour market situation with a record low unemployment rate just before the outbreak of THE CIVIL-19 crises. However, the growth potential is lower than it was before 2008, with low productivity growth and an unfavourable demographic perspective, but its structure is more favourable.

Croatia's economy is characterized by relatively low representation of industry in value added, and high representation of services sector, with a still low share of goods exports in GDP, a significant direct and indirect contribution of tourism activity and high import dependence. All sectors of the economy are affected by this crisis, but to a significantly

different extent. Since they are primarily suffering from non-discretionary household consumption and activities with social aspect involved, hospitality, trade, as well as most of the remaining services sector are particularly affected by activities. The suspension of travel strongly affects the tourism sector (accommodation, catering, transportation, and related micro-activities) for which there is a risk of prolonged duration of the disturbance and recovery.

Therefore, already in March and then in April of this year, the government passed a package of economic measures aimed primarily at helping the private sector overcome the crisis as successfully as possible through the preservation of jobs, the payment of salaries, and the resolution of illiquidity problems to those whose business activity has been reduced. In this context, horizontal measures aimed at helping the economy and the population, such as delays and write-offs of direct taxes and contributions to businesses with operational difficulties, aid for job preservation in the most vulnerable sectors affected by the pandemic, measures targeting micro, small and medium-sized enterprises supported by ESIF financial instruments, as well as loans granted directly through HBOR or commercial banks, have been adopted. In addition, a number of measures aimed at mitigating the negative effects in individual sectors have been adopted.

Table 1. Gross domestic product 2019-2023

	2019.	Projection 2020	Projection 2021	Projection 2022	Projection 2023
GDP - real growth (%)	**2,9**	**-8,0**	**5,0**	**3,4**	**3,1**
Personal consumption	3,5	-6,3	4,5	3,0	2,7
Government spending	3,3	2,4	2,2	2,1	2,2
Gross fixed capital formation	7,1	-6,1	3,9	5,3	5,2
Export of goods and services	4,6	-24,7	24,0	5,9	5,0
Import of goods and services	4,8	-17,6	19,3	5,6	5,1

Note: Data for 2019 are preliminary.

Source: CBS, Ministry of Finance

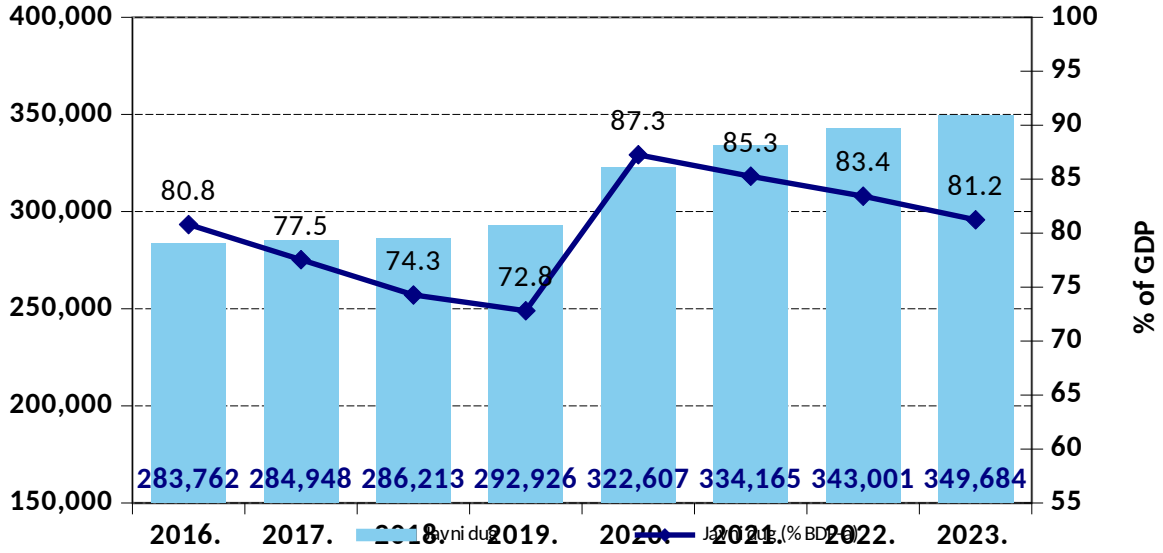
In conclusion, THE HUMAN-19 pandemic IN 2020 has led to significant negative socio-economic consequences and a GDP decrease of 8.0% is expected in 2020, followed by a gradual recovery of the economy. As in most EU countries, this recovery will be slow and long-term and the precrisis level of economic activity will only be achieved in 2023. Thus, a real GDP growth of 5.0% is expected in 2021, followed by a growth of 3.4% in 2022 and 3.1% in 2023. This economic dynamics will also affect fiscal trends. According to the latest government projections, the general budget deficit is expected to amount to 6.6% of GDP in 2020, while in 2021 it will be at the level of 2.9% of GDP, followed by 2.1% of GDP and 1.6% of GDP in 2022 and 2023. At the same time, it is expected that, as a result of the civil-19 pandemic, public debt-to-GDP ratio will increase to 86% of GDP in 2020, after which it should decrease by an average of 2 percentage points per year.

Table 2. Deficit/surplus of general budget in the period 2019-2023, ESA 2010 methodology

(in million kuna)	2019.	Plan 2020	Projection 2021	Projection 2022	Projection 2023
CONSOLIDATED GENERAL GOVERNMENT, ESA 2010 methodology	**1.589**	**-29.482**	**-11.558**	**-8.836**	**-6.683**
% of GDP	*0,4*	*-8,0*	*-2,9*	*-2,1*	*-1,6*

Source: CBS, Ministry of Finance

Graph 1 Overview of trends in public debt by 2023



Source: CBS, CNB, Ministry of Finance

DEMOGRAPHIC AND SOCIAL CONTEXT OF RECOVERY

Demographic revitalization is a strategic issue of the Croatian future. Demographic changes are a phenomenon facing most EU member States, which is why the issue of demographic revitalisation has been recognised at the EU level. The Republic of Croatia continues to develop a demographic policy aimed at improving the quality of life for families, especially in the conditions of THE CIVIL-19 disease pandemic.

According to Eurostat data, the Croatian population is among the elderly compared to other EU members. Thus, with a median of 44.0 years in 2019, which represents a value of which exactly half of the population is older and half younger, the population of the Republic of Croatia was slightly older than the population at the EU level (median 43.7 years). Dynamically observed over the past ten years, the median in the Republic of Croatia has increased by 2.3 years, that is, the Republic of Croatia has approximately followed the ageing process present at the EU level (+2.7 years). According to such growth, the median RC occupied approximately the central position among the members, and similar trends were present in a somewhat longer period from 2001 to 2019. what the data shows.

The relatively high age of the population of the Republic of Croatia shows the relationship between the population aged over 65 and the population aged 15 to 64. In the Republic of Croatia, this relationship is again slightly larger than at the level of the whole EU, 31.6% versus 31.4%. Numerous indicators indicate disproportions among large age groups and ageing processes of the total population, which make the problem of population reproduction very unfavourable, which will affect further demographic, economic and social development. If those in the field of migration and the negative migration balance are added to natural change, then the problem of population reproduction shows an even stronger negative factor of overall development. Because of all the above mentioned, the aim of the Republic of Croatia is to strengthen demographic trends and accordingly raise the overall fertility rate to 1.8.

Quality of life and demographic revitalization

An important precondition for demographic revitalisation is the improvement of the quality of life of citizens, as well as their satisfaction with living conditions. The share of population at risk of poverty or social exclusion in 2019 was 23.3% and has been decreasing in the long term. The rate dropped by 7.8 percentage points in ten years. Still, the share is still high. Reforms and investments will contribute to the reduction of the risk of poverty, which is a necessary response to the socio-economic consequences of THE HUMAN-19 pandemic. According to Eurostat data for 2013 and 2018, on the satisfaction with living conditions and the overall quality of life, it is necessary to continuously raise the quality of life for all citizens and focus on improving the utility infrastructure and the availability of public services. Also, by improving the quality of education and the development of lifelong learning, human capital is strengthened and work on higher employment, i.e. lower unemployment rates. The CIVIL-19 pandemic further leads to the risk of poverty and social exclusion of citizens, which necessitates strong state involvement on this issue.

Today, many demographically devastated areas do not have a well developed public water supply and drainage, which is a part of basic infrastructure for the survival and preservation of the population in rural, hilly and demographically endangered areas. Improving the water

management will increase the quality of life of the population, attractiveness of areas for new development investments and creation of new jobs.

Furthermore, the modernization of a sustainable public transportation system plays a major role in the demographic revitalisation of the Republic of Croatia. This particularly refers to rural areas which in this way connect with larger urban centres, which brings a better connection to the population, as well as the possibility of using the services and services necessary for living. Developed infrastructure and the availability of services are particularly important factors for equalising the opportunities of young people in rural areas with a view to making available all services that young people have in urban areas. The modernisation of a sustainable public transport system is also aimed at increasing the capacity of coastal line transport and improving communication with islands that have always been demographically sensitive.

One of the most important items is certainly related to public administration, judiciary and state property, which directly contributes to the safety of citizens and their property, trust in state and public institutions and represents an important factor in the demographic revitalisation of the Republic of Croatia.

Increasing the efficiency of local and regional self-government systems will enable citizens more transparent and quality services at the level of local and regional self-government units (LC (R)SGUs), which will directly contribute to their stay, especially in rural areas whose quality of service will be harmonised with those in urban areas and thus standardized at the national level.

Empowering young people for demographic revitalisation

Within the framework of demographic revitalisation, the Republic of Croatia places special emphasis on encouraging the economic independence of young people, their education and employment, especially of youth in rural communities. Young people are recognized as a very heterogeneous group and a very vulnerable segment of the population, with changes taking place in the modern world almost always and everywhere, before and more than others, hitting them. The challenges that young people face during growing up and taking on lasting social roles affect the quality of their overall social inclusion. The conditions of the pandemic and its consequences are an additional challenge for all young people to whom the Republic of Croatia must find an effective response in order to support each young person.

Cross-sectoral cooperation has received a key role in defining the priorities of national youth policy, including all stakeholders active in areas of relevance to youth, both representatives of state administration bodies and representatives of youth and youth organisations and young people, with the aim of creating the conditions for raising the quality of life of young people.

As for measures related to the development of the economy, from the aspect of youth it is important to underline the need for investment in rural areas. The trend of decline in the number of inhabitants due to the emigration of working active young persons results in depopulation of rural communities and ageing of population, which is intended to prevent the raising of the quality of life in rural communities and to enable equal opportunities to fulfil their own potential. Young people need to be educated, improved, enabled to implement projects and empowered to contribute to better economic recovery and development through the realization of business ideas, self-employment and development of entrepreneurship.

The reconstruction of the existing and the construction of new infrastructure will complement the daily lives of young people and enable them to spend their free time. In rural areas, it is particularly important to support the work of youth centres offering various services, from information and advice to educational and cultural content, and it is particularly important to inform about employment opportunities and the launch of own entrepreneurial ventures, which will positively affect the economic situation.

The development of rural tourism and family agricultural holdings will be encouraged in order to establish sustainable and active tourism that is not dependent on the season, while promoting the village, facilitating mobility in rural areas and creating new jobs which will ultimately contribute to the stay of young people in rural areas.

In order to contribute to better and greater development of the economy, it is necessary to solve property rights which prevent the distribution of state agricultural and building land and, in cooperation with decision makers at the local and national level, work will be done to resolve these relations and speed up bureaucratic land allocation processes for young people in order to realise their entrepreneurial ideas and encourage economic activities.

The development of new technologies, energy renovation of buildings and the creation of renewable energy infrastructures will contribute to a safer housing, development of the economy, but also create opportunities for young and educated experts who will find a job easier in the Republic of Croatia.

Young people should be given the opportunity to engage and actively engage in community life and decision-making processes. This is why the “European Union dialogue with Youth” project, which is very valuable in this area, will continue to be promoted, as it allows young people to find their recommendations and opinions in national and European youth policies. It is also crucial to explore other forms of youth participation, particularly during and after the pandemic, so that cooperation between young people and decision-making bodies becomes the basis for creating future youth policies. In this sense, it is important to establish a relationship between the trust of young people in the public administration system, as well as the justice system in order to achieve more functional cooperation and to better respond to the challenges ahead.

In order to ensure that young people are prepared for life challenges, it is important to provide them with quality learning and to ensure that reforms of the education system go towards guaranteeing universal access to quality education and lifelong learning and encouraging and promoting informal education as a valuable form of knowledge and skills acquisition. Quality education is a condition for successful development of entrepreneurship, but it must also focus on acquiring life and personal skills, learning about human rights and political systems and must include critical and analytical thinking and creativity.

One of the important objectives for young people is to provide quality employment for everyone guaranteeing an affordable labour market and fair working conditions while preserving social protection and health care for all young workers. Equal opportunities should be provided to develop the necessary skills and gain practical experience to facilitate the transition from the education system to the labour market, as well as to ensure equal access to information and different support mechanisms to prepare young people for the labour market.

The planned reforms also seek to modernise the health system to become quality, efficient and accessible to all.

Furthermore, young people in rural and remote areas should be given greater opportunities and, among other things, better health services, all with the aim of improving the quality of their lives. By providing so-called mobile surgeries or renovating existing fixed-term surgeries, young people will have better access to health care, and at the same time an opportunity will be offered for employment, which will be an additional incentive to stay in this area.

The implementation of the planned activities of the NPOO will in all its components have a significant impact on the demographic situation and help resolve the issues which are priorities in the field of demographic and youth policies.

PART I: GENERAL OBJECTIVES AND COHERENCE OF THE PLAN

1. Summary

As an incentive financial framework and mechanism, with a pronounced European and national dimension responding to the consequences of the civil-19 pandemic, NPOO defines reform directions and investment areas in order to achieve the objectives of economic and social recovery, as well as strengthen the resilience of the state and the Croatian economy to crises. As part of a common European response to the socio-economic consequences of the Coronavirus pandemic, NPOO recognizes the challenges facing Croatia, as well as interventions to be undertaken with the aim of recovery and resilience.

NPOO contributes to the achievement of four general objectives at EU level: promoting economic, social and territorial cohesion in the Union, strengthening economic and social resilience, reducing the social and economic impacts of the crisis and fostering green and digital transition. In line with the political priorities of the Union, as well as the Government Programme from 2020 to 2024, economic and social development of all parts of Croatia will be stimulated, with a special focus on demographic revitalisation which is an additional challenge due to the pandemic. Interventions under the NPOO will contribute to strengthening the capacity of the state to respond to shocks, with a view to macroeconomic stability and to raising readiness for rapid, sustainable and inclusive recovery. In addition to stimulating economic activity, it is important to ensure equal opportunities and access to the labour market, fair working conditions and ensure social protection and inclusiveness. Taking into account the objectives of the European Green Plan, as well as the ambitions to achieve a climate-neutral Union in the coming decades, NPOO has climate, environmental, social and digital priorities that Croatia will lead in order to make its own contribution to the achievement of common European goals, but also to implement an energy and digital transition for greater competitiveness of the Croatian economy and the quality of services and citizens' lives. Implementation of the NPOO will contribute to the implementation of seven European flahship initiatives: *power up, Renovate, Recharge and fuel, Connect, Modernise, scale-up* and Reskill and *upskill.*

THE NPOO has taken into account the priorities of short, medium and long-term strategic documents. It is complementary to the National Development Strategy in 2030. (NRR) which is in the process of adoption and thus complements the reform efforts in achieving Croatia's vision by 2030, with the aim of building a “competitive, innovative and safe country, a recognizable identity and culture, a country of preserved resources, quality living conditions and equal opportunities for all”.

The starting point for the creation of the NPOO were the objectives that the Republic of Croatia wants to achieve for economic recovery, complementarity with other plans and investments and current and expected macroeconomic and social impacts. Deadlines, milestones and targets are set for the implementation of the NPOO, reflecting progress in the implementation of reforms and investments and will be related to the disbursement of funds.

NPOO is structured in such a way as to contain components or intervention areas, sub-components or main reforms that are planned to be implemented are defined within the component. Reform measures have been identified for each reform through which the reform will be implemented and reflect reform elements. The description of the measure covers

challenges, objectives, method of implementation, i.e. reform activities that the measure implies, target group, period of implementation and estimated value of investments, i.e. investments that support the implementation of a certain reform measure, as well as reforms as a whole. All investments covered by the NPOO are directly related to the reform and without the same, it is not possible to achieve the objectives of the NPOO.

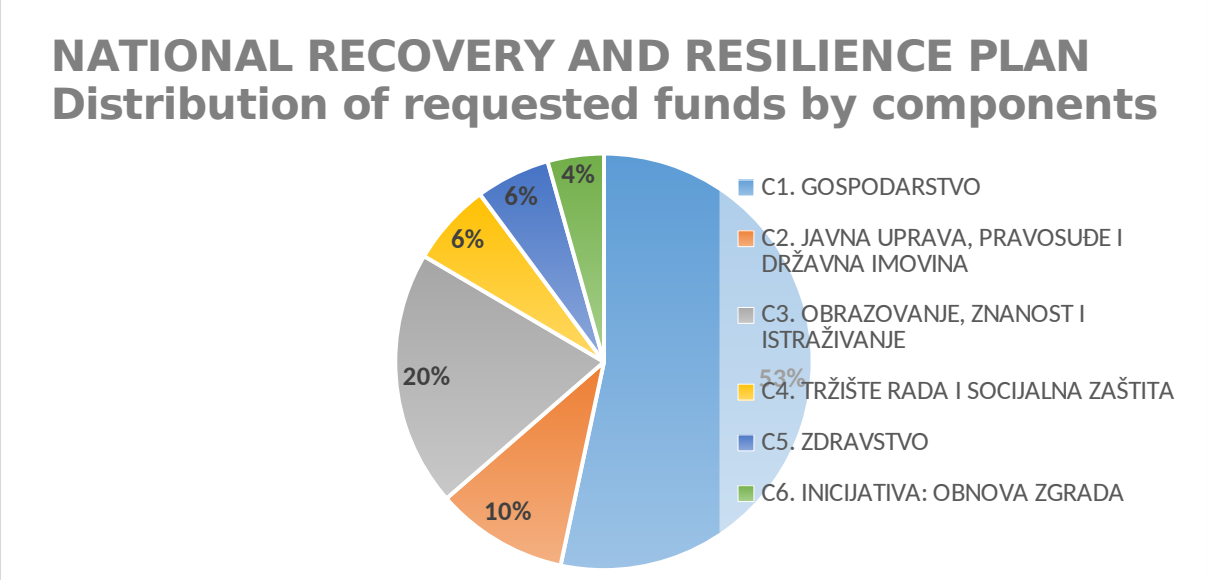
NPOO will contribute to the implementation of CSR sent to the Republic of Croatia within the framework of the European Semester for 2019 and 2020. The deadline for implementation of reforms and investments is August 31, 2026, and payments from the RDF are expected through pre-financing and on the basis of semi-annual payment requests. The approval of payment applications will depend on the satisfactory achievement of relevant milestones and targets.

Planned reforms, measures and investments are structured according to 5 components and one initiative selected as key areas of intervention of the Republic of Croatia in the forthcoming period taking into account the development directions of the Republic of Croatia determined by current strategic acts, on the one hand, and the current economic situation caused by the CIVIL-19 pandemic, on the other hand.

The components of the NPOO are the following:

1. Economy
2. Public administration, judiciary and state property
3. Education, science and research
4. Labour market and social protection
5. Health care
6. *Initiative*: renovation of buildings

The total estimated value of investments from NPOO amounts to **HRK 114,877,208,822.**



THE NPOO refers to the challenges facing the Republic of Croatia, i.e. to strengthening economic and social resilience, mitigating the social and economic effects of the crisis and contributing to the green and digital transition. The objectives were set in response to the

challenges of economic recovery from the health and socio-economic consequences of the CIVIL-19 pandemic AND the reconstruction of Zagreb and its surroundings after the earthquake, taking into account the completion of structural reforms that should further support economic and social recovery.

Reforms and investments under the first component will improve the competitiveness of the economy, strengthening agriculture, transport sector, energy and environmental protection and raising the level of sustainability of tourism by investing in continental tourism and extending the tourist season.

The second component will work to improve the efficiency of public administration, justice and management of state property, as well as the quality and accessibility of public services to citizens and the effective fight against corruption.

The third component is based on strengthening the science and education system, as well as lifelong learning, which should be one of the foundations of Croatia's competitiveness in the years of recovery ahead of us, encouraging scarce professions and excellence.

The fourth component is important for boosting employment, developing skills for the labour market, as well as strengthening the pension and social welfare systems, with additional efforts to combat poverty and social exclusion.

The fifth component is focused on the availability and sustainability of the health care system, with its further modernisation for disease prevention and early detection and development of telemedicine and medical robotics.

The initiative for building reconstruction is an important component of sustainable development in Croatia and includes decarbonization of buildings and energy savings in buildings, seismic reconstruction of Zagreb and surrounding counties, strengthening of capacities for action in natural disasters and reconstruction of buildings with the status of cultural property.

The table below covers the challenges that the Republic of Croatia plans to address in the context of the implementation of the European *flagship* initiatives and contribute to promoting the economic, social and territorial cohesion of the Union, strengthening economic and social resilience and adjustment capacity, mitigating the social and economic impact of the crisis and the green and digital transition.

Table 3. Expected contribution of the implementation of the Plan to achieving EU objectives

***Fagship Initiative*/National starting point**	**Expected contribution to achieving EU objectives**
1. Power up!	
At the end of 2019, the Republic of Croatia adopted **the National Energy and Climate Action Plan from 2021 to 2030**, which mentions the implementation of hydrogen, particularly in traffic. Accordingly, the plan is to develop infrastructure for the use of hydrogen in road traffic, but also to develop infrastructure for the production of green hydrogen. Several firms have already expressed interest in installing electrolysers. The **Energy Development Strategy of the Republic of Croatia until 2030 was adopted in February 2020**	Within THE NPOO, **component 1. THE ECONOMY, a subcomponent of the Energy transition for a sustainable economy**, is planning to reform **the decarbonisation of the** energy sector, in which the **use of hydrogen and new technologies** is proposed as a potential investment, with which the energy sector decarbonisation reform would be fulfilled by a measure related to the installation of at least **30MW of electrolysers** and the construction of at least 6 hydrogen filling plants by 2026.

with a view to 2050, which also mentions the implementation of hydrogen especially in the transport sector, which also requires the development of infrastructure for the production of green hydrogen. Following the Energy Strategy, an analytical study was prepared in 2020 **to draw up scenarios for achieving greater emission reductions by 2030 and climate neutrality in the Republic of Croatia by 2050 for the energy sector**, which strengthens the development of hydrogen economy and accelerated development of green hydrogen production in view of the European Green Plan and full decarbonisation of Europe. **The government's program** under the chapter "Energy self-sufficiency and transition to clean Energy" States that a program for the use of hydrogen and hydrogen technologies will be launched.	Accordingly, the proposed investment directively contributes to the ***flagship initiative power up.***
2. Renovations	
The registered rate of energy renovation of the building stock in the Republic of Croatia from 2014 to 2019 is 0.7% of the floor area of the total building stock, which is less than the EU average of 1%. Article 5 The EED Directive (Energy Efficiency Directive) requires that as of 1 January 2014, 3% of the total floor area of heated/refrigerated buildings owned and used by the central government is restored each year in order to meet the minimum requirements defined by the EED Directive. With an integrated national energy-climate plan and a long-term strategy for the restoration of the national building fund by 2050 adopted by the Government on 14.12.20., the Republic of Croatia has committed itself to achieving an energy-efficient and decarbonised building fund by 2050. In order to achieve the ambitious objectives of the European Union, it is necessary to increase the intensity of reconstruction of the total stock of buildings in the Republic of Croatia. Therefore, the long-term strategy plans to gradually raise the annual rate of renewal to 2% annually by 2026, i.e. 3% annually by 2030, 3.5% from 2031 to 2040 and 4% from 2041 to 2050. This is in line with the European Green Plan and the "Val Reconstruction for Europe" initiative. The EC is in its assessment for Croatia's Integrated National Energy and Climate Plan for 2021-2030. (NECP) made recommendations for NPOO and financial support for NextGeneration EU. The EC proposes that the Republic of CROATIA consider including investment and reform activities and measures in the field of climate and energy, one of which is: "3. Measures to support investments in energy efficiency, including the reconstruction of buildings with a focus on schools, hospitals and social housing, targeting energy-poor households." One subcomponent refers to the energy renovation of buildings with the status of cultural property, since	Building renovation will directly contribute to the realisation of the green transition, contribute to improving energy performance of buildings, reducing greenhouse gas emissions in buildings and achieving the goals of the restoration ave Initiative (page. 10 Commission instructions for the preparation of the recovery plan). The energy renovation of buildings supports the green transition in order to achieve a climate-neutral Europe by 2050, contributes to the restoration of THE post-crisis ECONOMY19, especially in the construction sector, encourages job creation and promotes sustainable growth and contributes to strengthening economic, social and territorial cohesion. Energy renovation of buildings is a precondition for achieving the EU's green goals because buildings consume 40% of primary energy and emit 36% of CO2 emissions. As a precondition for green transition and decarbonisation it is necessary to increase investments in energy efficiency measures and use of renewable sources in the construction sector. Each million euros invested in the energy renovation of buildings generates an average of 18 new jobs in the EU. In the Republic of Croatia, this number is 29, which clearly indicates a strong influence on the Croatian economy. Increasing energy efficiency in buildings is particularly important for achieving ambitious climate targets (reducing CO2 emissions from 40% to 55%). Without increasing the percentage of renovation of buildings, the Republic of Croatia will not be able to achieve basic conditions for decarbonisation of buildings by 2050. Particular emphasis will be placed on alleviating energy poverty and the degree of vulnerability through energy renovation of buildings used by energy-poor households or households at risk of energy poverty, in line with the EC's recommendations on energy poverty

13% of all buildings in the Republic of Croatia are immovable cultural goods or are within protected cultural and historical units, which have not been energy reconstructed so far due to demands for high energy savings which would consequently imply invasive interventions and endangering the property of cultural property. The devastating earthquake that hit three counties in the Republic of Croatia in March 2020 (the City of Zagreb, Krapina-Zagorje and Zagreb County) caused great damage to the public and private sectors on public buildings, residential buildings, family houses and other infrastructure buildings. The estimated value of total direct damage caused by the earthquake amounts to HRK 86.36 billion or EUR 11.57 billion. After the devastating earthquake in Zagreb, more than 6 thousand buildings, including kindergartens, elementary schools, high schools, faculties, institutes, scientific institutions, sports buildings and cultural institutions (about 1.5% of damaged buildings of public use and 98.5% of buildings are privately owned), were labeled unusable or temporarily unusable. In particular, on 15 June 2020, a total of 5487 damaged buildings of the serviceability category were reported in the City of Zagreb: Utility due to external influences, Utility due to damage, temporarily inusable – necessary detailed inspection and temporarily inusable – necessary emergency measures (note: data according to the letter of the City of Zagreb indicating that the data will be cleared by the end of 2020). On 15 June 2020, a total of 81 damaged buildings were reported in the Krapina-Zagorje County, and in the Zagreb County 40 damaged buildings of the serviceability category: inusable due to external influences, inusable due to damage, temporarily inusable - necessary detailed inspection and temporarily inusable - necessary emergency measures. The reconstruction of earthquake damaged buildings will be carried out in packages with energy renovation of the building, thus contributing to the achievement of green targets.	issued by the EC in October 2020. Combating energy poverty brings many benefits to society as a whole: reducing health expenditures, reducing air pollution, improving housing comfort and well-being, increasing household budgets, and all together leading to economic growth. Part of public buildings will be energy renovated according to the ESCO model, which will promote the energy services market and access to that market for SMEs, all under Art. 18. EED Directive (*Energy Efficiency Directive*).
3. Recharge and refuel	
The National Energy and Climate Action Plan from 2021 to 2030 covered the implementation of hydrogen, particularly in transport. It is planned to develop infrastructure for the use of hydrogen in road traffic, but also to develop infrastructure for the production of green hydrogen. Several firms have already expressed interest in installing electrolysers. **The Energy Development Strategy of the Republic of Croatia until 2030 with a view to 2050** also mentions the implementation of hydrogen especially in the transport sector, which requires the development of infrastructure for the production of green hydrogen. Prepared analytical study **drafting scenarios for**	Within THE NPOO, **component 1. THE ECONOMY, a subcomponent of the Energy transition for a viable economy**, is planning to reform **the decarbonisation of the energy sector**, which suggests **the use of hydrogen and new technologies** as a potential investment, with which the energy sector decarbonisation reform would be fulfilled by a measure related to the installation of at least 30MW of electrolysers and the construction of at least **6 hydrogen filling plants by** 2026. Furthermore, within the same component, **the subcomponent development of a competitive, energy-sustainable and efficient transport system** proposed a reform of **traffic greening** and

achieving higher emission reductions by 2030 and climate neutrality in the Republic of Croatia by 2050 for the energy sector the role of hydrogen in view of the European Green Plan and full decarbonisation of Europe further potentiates the development of hydrogen economy and accelerated development of green hydrogen production. **The government's program** under the chapter "Energy self-sufficiency and transition to clean Energy" envisioned the launch of a programme for the use of hydrogen and hydrogen technologies. The same documents also foresee further electrification of traffic and further installation of electric vehicle bottlers and the development of e-mobility. Furthermore, the **Strategy for Transport Development of the Republic of Croatia from 2017 to 2030** defines general objectives: reducing the impact of the transport system on climate change and reducing the impact of the transport system on the environment (environmental sustainability). Mitigation of the negative environmental impact of transport must be achieved by greater energy efficiency, in particular through the use of low or zero hydrocarbon energy sources.	investments **the development of infrastructure for the charging of alternative-powered vehicles** within which the construction of tanks for alternative-fuel vehicles is planned. Accordingly, the proposed investments within THE NPOO directly contribute to the goal ***of flagship initiative Recharge and refuel*** both through the segment of electric refill plants and through the segment of hydrogen filling plants.
4. Connect	
On 7 May 2020, the Government adopted a **National Action Plan for the use of the 470-790 MHz** frequency band setting out measures and activities for the conversion and allowing the use of the 700 MHz frequency band, i.e. the second digital dividend band, for wireless broadband electronic communications services and ensuring availability of the 470-694 MHz frequency band for the terrestrial provision of broadcasting services and the further development of digital terrestrial television on a new transmission system (DVB-T2) and a new coding standard (H.265/HEVC). The objectives of the National Action Plan are in line with the objectives of the EU, expressed in the Digital Single market Strategy for Europe, and by adopting this Plan the Republic of Croatia has fulfilled the obligations of Decision (EU) 2017/899 on the use of the 470-790 MHz frequency band in the Union. At its session held on 23 January 2020, the Government adopted **the conclusion determining the City of Osijek as the first major city in the Republic of Croatia in which 5G networks will be built and 5G services put into operation by 31 December 2020**. A proposal of **the National Plan for Broadband Development in the Republic of Croatia was drafted in the period from 2021 to 2027**, which includes measures for achieving European targets in the field of digital connectivity. Public consultation on the proposal of the above-mentioned National Plan	Within the framework of the measure: Strengthening connectivity as the basis of digital transition of society and economy, the implementation of the **following reform** activities aimed at ensuring the necessary prerequisites for the introduction of 5G networks in the Republic of Croatia is envisaged and encouraging the introduction of very high capacity networks: (i) timely and comprehensive implementation of regulatory framework by adopting the electronic Communications Act which will take over the provisions of Directive (EU) 2018/1972 on the European Code of electronic Communications and National Broadband Development Plan in the Republic of Croatia in the period from 2021 to 2027. Reform activity is carried out by the Ministry of the Sea, Transport and infrastructure (MMPI) in cooperation with the Croatian regulatory Agency for Network Industries. Deadline: 1Q/2021 (NP) and 2Q/2021 (ZEK). (ii) one of the essential measures is the achievement of the necessary preconditions for the implementation of very large capacity networks throughout the Republic of Croatia by removing administrative and regulatory barriers to investment, especially in the area of construction and physical planning. This activity includes the analysis and identification of administrative burdens and regulatory barriers to investments in the deployment of very high capacity networks, including 5G networks, with the adoption of the *Common Union Connectivity Toolbox* "best practice" and the development of proposals for the optimisation of the process of issuing building permits,

lasts until 27 December 2020 and its adoption is envisaged by the end of 1Q/2021.

Priority policies of the National Plan include the following units: ensuring the necessary preconditions for the introduction of very large capacity networks across the entire territory of the Republic of Croatia, ensuring the necessary preconditions for the introduction of 5G networks in the Republic of Croatia and encouraging the deployment of very large capacity networks in parts of the Republic of Croatia where under normal market conditions it is not possible to ensure availability of very high capacity networks.

The National Plan defines four objectives which include the deployment of very high capacity networks and 5G networks, contributing to the further accelerated development of electronic communications networks and services:

(i) introduction of very high capacity networks for households

(ii) implementation of very high capacity networks for public use

(iii) introduction of 5G networks for urban areas and main inland transport routes

(iv) introduction of 5G networks in rural areas.

Measures and activities of the National Plan include administrative, promotional and educational activities, cross-sectoral and institutional connections, participation in the harmonisation of existing and enactment of new legislation and subordinate legislation, all with the aim of facilitating and more efficient implementation of measures of the National Plan, harmonisation with new strategic goals and initiatives adopted by the EU in THE field of electronic communications and digitisation, and ensuring the necessary preconditions and creating an enabling environment for investments in VHCN networks. Result indicators and target values are given in the NP proposal[1].

The allocation of radio spectrum for 5G networks under conditions encouraging investment, i.e. the implementation of licensing procedures for the use of radio spectrum in frequency bands for 5G networks is foreseen in 2Q/2021.

The National Plan envisages the development of a support programme for gigabit connectivity which will enable the use of public funds and support private investments in the next EU financial perspective 2021-2027, with the aim of introducing very large capacity networks in parts of the Republic of Croatia where there is insufficient commercial interest in investments.

with a view to simplifying licensing and compliance with the deadlines and other conditions set out in the Act on measures to reduce the cost of deploying high-speed electronic communications networks and the European Code of electronic[2] Communications Directive. The reform activity is carried out by the Ministry of physical planning, Construction and State property in cooperation with THE MMPI, the Croatian regulatory Agency for Network Industries and the operators of electronic communications networks and services. Deadline: 1Q/2022.

(iii) implementation of licensing procedures for the use of radio spectrum in frequency bands for 5G networks. Procurement of advisory services for 5G spectrum auctioning (700 MHz, 3.6 GHz and 26 GHz) is currently under way. One of the tasks of the selected consulting firm will be to propose an appropriate price to encourage the operator's investment. The reform activity is being implemented by the Croatian regulatory Authority for Network Industries. Deadline: 2Q/2021

(iv) informing and educating the public about the impact of electromagnetic fields, in particular regarding the setting up of 5G networks, refers to public education and transparent publication of all relevant information on 5G and the impact of electromagnetic fields as key components for building public confidence in institutions and reducing resistance to the deployment of 5G networks, and will be continuously implemented. A part of the public in Croatia is quite concerned about the effects that 5G might have on human health and certain measures initiated by HAKOM and the Croatian Association of Employers (HUP) are already being implemented. HAKOM has published on its website a special section dedicated exclusively to 5G technology[3], and HUP ICT is conducting the campaign “connected and safe”[4]. The reform activity is carried out by the Ministry of Health (MIZ) in cooperation with the Croatian Institute for public Health (HZJZ) and the public Health Institute “Dr. A. Stampar”, the MMPI and the Croatian regulatory Authority for Network Industries in the part explaining the application of new technologies

Investment: within the framework national programme for the development of broadband infrastructure in areas where there is insufficient commercial interest in investments, approved national state aid scheme (SA.38626 (2015/N), a number of individual local broadband infrastructure development plans have been developed. The implemented grant procedure was selected for co-financing 20 projects, whose realisation is planned by the end of 2023.

1 https://bit.ly/3mbJw5S

2 NN 121/16

3 https://bit.ly/37RHhzO

4 http://povezanismosigurni.hr

Project financing is also provided in the Connecting Europe Facility (CEF2-Digital) funds that could, according to our forecasts and announcements, be used by the operators of electronic communications networks and services to introduce 5G networks, primarily in larger urban centres and on the main inland transport routes, in accordance with the Action Plan “5G for Europe”.	The NPOO foresees financing of the remaining portfolio of projects relating to 35-50 projects of local self-government units (GS) which are ready and approved by NOP within the NFP and which cannot be financed within OPCC due to lack of funds. The implementation of these projects will require an extension of the EC decision on granting state aid (SA.38626 (2015/N). MRDEUF is responsible for the implementation of tenders and allocation of funds as Intermediate body level 1 in the system of planning and utilisation of EU funds.
5. Modernise	
The digital transition represents one of the four development directions in the NRR proposal, the future umbrella national strategic document, and has been included among the priority areas of the government's programme. The development direction 3 “Green and digital transition” in the NRR defines that it will continue to invest in digital infrastructure and that the introduction of digital solutions will be encouraged in the interest of citizens and the Croatian economy, which will contribute to the building of Europe's digital future. The Government Programme plans to digitize additional services by the end, connect databases and registers in order to enable interoperability of the system. Inefficient administrative processes will be optimized or abolished in order to build a more efficient public administration. By the end of the mandate, the aim is to reach the number of 2.5 million citizens using the e-citizens system, and a digital signature for the entire state and public administration will be introduced. The period of validity and implementation of strategic planning acts, which exclusively relate to the modernisation of public administration and economy (the Strategy for the Development of public Administration for the period 2015-2020 and the e-Croatia 2020 Strategy), is on the run, and a new national strategic framework for one of the priority areas of public policies, the digital transition of society and economy in the Republic of Croatia - “the Digital Croatia Strategy for the period until 2030” will soon be drafted. Digitisation addresses all departments and not only these *flagship* initiatives, and strong coordination, clear vision and a clear plan are needed to ensure that digitisation activities, all public bodies and institutions, take place in parallel, and the adoption of this strategy will ensure one of the main preconditions for this, i.e. for the systematic management of digitisation in the Republic of Croatia, which sets the foundation for the modernised public administration and thus the digital transition of society and the economy.	The measures set out in the Digital transition of society and economy component, designed in line with the criteria and objectives of EU policy and fully aligned with the new EU strategy for sustainable growth, are therefore planned to invest in better connectivity and interoperability and technologies, such as data and cloud infrastructure, including one of the relevant sectors for the EU's strategic economy – strategic digital infrastructure. Given the current situation, i.e. changes in the social and economic life caused by the pandemic and recognised by the EU the potential of electronic ID cards, i.e. electronic identity, these measures will enable citizens and economists reliable and secure access to cross-border public electronic services. Secure electronic identification and authentication will ensure that EU citizens, in addition to the use of online digital services, have control over their own internet identity and data. Since this *flagship* initiative relates to the digitisation of public administration, the proposed measures plan to increase the efficiency of public administration by further standardizing its services and strengthening its interoperability, which will enable an integrated approach in the design of both national and EU policies and projects.
6. Scale-up	

The **National Energy and Climate Action Plan from 2021 to 2030,** adopted in 2019, sets three objectives for Croatia to contribute to the general EU objectives, one of which is to increase energy efficiency. Accordingly, energy efficiency in industry is also important, and ICT industry is one of the big energy consumers and there is room here to increase energy efficiency, especially in server scarves. This particularly fits in with the EC principle "Energy efficiency one", which primarily aims to reduce the required amount of energy for the same performance in all sectors. **The Energy Development Strategy of the Republic of Croatia until 2030 with a view to 2050** also promotes the increase of energy efficiency in all sectors and thus in the industry sector. In this regard, the analytical **study on the elaboration of scenarios for achieving greater emission reductions by 2030 and climate neutrality in the Republic of Croatia by 2050 should also be highlighted for the energy sector** which, in view of the European Green Plan and the complete decarbonisation of Europe, reinforces the increase of energy efficiency in industry and thereby in the service sector.	Within THE NPOO, **component 1. The economy, a subcomponent of the Energy transition for a sustainable economy**, is planning to reform **the decarbonisation of the energy sector, which is proposing as a potential investment the promotion of energy efficiency, heating and renewable energy sources for the decarbonisation of the energy sector** within which an increase in energy efficiency in industry is planned, and some of the funds would be channelled towards ICT sector, given that server windows are defined as large energy consumers and places where significant energy savings can be achieved by 2026.
7. Reskill and upskill	
According to Eurostat data, the level of digital skills in the Republic of Croatia is low. The percentage of people aged 16-74 who declared to have basic or slightly more advanced digital skills in 2017 was the second lowest in the EU (41%, EU average: 57%) 14. The share of regular Internet users is among the lowest in the EU (73%, EU average: 83%). Digital skills of young people aged 16-19 are slightly better than the EU average, but have declined significantly between 2016 (70%) and 2017 (59%). However, the Republic of Croatia is the only EU Member State in which all persons aged 16-19 have at least basic digital skills (the EU average is 82%). The development of digital content, tools and methods was one of the objectives of the education strategy (Education, Science and Technology Strategy, 2014), which will continue as a strategic goal in the new National Plan for the Development of Education systems. Currently, two key projects are being implemented throughout the system – e-schools and the entire curriculum reform – which broadens the use of ICT in teaching and its inclusion in the curriculum and provides equipment for schools, teacher training and the development and application of digital educational content. The Strategic Framework for the Digital maturity of schools, adopted in March 2020, sets out a 2030 Agenda consisting of four areas: a digitally mature environment, digitally mature and self-reliable teachers, ICT to support learning and teaching and digital leadership.	The two reform measures proposed in THE NPOO derive from the existing strategic documents and will be included in the new National Development Plan for the education system. One of the objectives of the measures related to structural reform of the education system is to strengthen the acquisition of basic competences which represent the basis for lifelong learning and the upgrade of skills in accordance with changes in society, technological development and the needs of the economy. Increasing the number of mandatory classes and introducing all-day classes, along with continuous training of teachers and teachers, will increase the effect of initiated substantive reforms which include greater application of ICT in teaching, which will enable and start equipping schools with digital equipment within the framework of comprehensive curriculum reform and e-school projects. Additional time to achieve learning outcomes within mandatory training sessions will allow more room for activities that include active learning and the acquisition of outcomes from cross-sectional courses including ICT. The entire day of instruction will allow more time for additional election and extracurricular activities, which may include activities related to strengthening digital skills. Reform initiatives from the NPOO also include consolidation of vocational programmes, introduction of new modular, initially oriented curricula of priority for the labour market, with special emphasis on green and

The acquisition of student digital skills depends on the level of teacher's digital skills. Teachers and teachers have seen the biggest lack of continuous professional development (CSR) in ICT skills in the EU (26.2%, the EU average is 18%), while 36.2% (EU-22:37,5%) think they are well prepared to use digital tools. The share of teachers who have been using ICT for more than 6 years is the lowest in the EU. During 2019, the Republic of Croatia organized system-wide training for teachers and teachers (more than 40,000 teachers and principals) within the framework of the curriculum reform and the e-school project. The new model of professional training for teachers and instructors was adopted in 2019, and it rewards the success of teaching, innovation and the development of open digital education.

These projects also improve the availability of digital equipment in schools. Eurostat 2019 data showed that schools have far lower digital equipment and connections than the EU average. The time students spend at school on computers is below the EU average. The share of students with access to a virtual learning environment is far lower than the EU average at all levels of education, either at school or at home (e.g. for higher elementary school classes 12% compared to 54% at school and 69% compared to 89% at home). Classroom equipment and staff of all schools has been provided under the e-school project since 2019 (all should be equipped by the end of 2022). As part of the curriculum reform project by 2022, all higher grade pupils of elementary school should get their tablet for use, while in lower classes one tablet should be provided on four pupils. The government also provided the tablets for high school students receiving guaranteed minimum compensation.

The employment rate of persons who recently completed vocational education and training (VET) increased from 68.8% in 2018 to 73.9% in 2019, but still falls below the EU-27 average of 79.1%. The Ministry's campaign promoting inclusion in apprenticeships for SEO offers significantly higher scholarships and grants for apprentices and enterprises in the period 2019-2020, but participation in the work-based learning programme is slowly increasing. The establishment of regional competence centres and the introduction of experimental programmes in dual education should increase the quality of the DGS and facilitate the identification of skills needs. Regional competence centres include innovative learning models, teaching excellence, high quality infrastructure and technology, constructive and creative cooperation with social partners, the public sector, companies, research institutions and higher education institutions, as well as cooperation with similar centres from all over Europe. In the first phase, they were divided into five sectors. In the period 2019-2020, progress has been made with regard to the digital transition, as well as raising the quality of their performance and strengthening work-based learning. Increased quality will also be achieved by increasing the efficiency of investment in vocational education and training. The initial curricular reform of vocational education and training and the further establishment and development of regional competence centres intended for work-based learning, fostering excellence, lifelong learning and training, and the development of innovations and new technologies will increase the employability of young people with vocational training qualifications in line with the European Agenda of skills and the attainment of the objective of increased employment.

The reform measure modernisation of higher education implies a digital transformation of higher education. Investing in digital teaching infrastructure, digital teaching tools and strengthening teachers' competences to teach in the digital environment directly contributes to strengthening adult digital skills. Since the digital transformation of Croatian society and the entire economy opens the space for more intensive investment in strengthening the capacities of Croatian higher education institutions, investments from NPOO will also enable the launch of new and increasing existing study programs with a strong digital component, such as study programs in STEM fields of science. At the same time, higher education institutions will be encouraged to implement shorter programmes that will raise and restore the skills needed for the labour market and the development of the economy in priority areas, including green and digital skills.

development of standardâ professions, but comprehensive curriculum reform is yet to come, i.e. standards of qualifications in the field of the SOE sector, sector curriculum for each SOO sector and a model of curriculum in the field of the SOO should be drawn up. A full transition to a labour market learning outcomes-based system is planned for the period 2022-2023 in response to rapid technological development, globalisation and demographic challenges.	

Appendix 1 of this Plan contains a detailed list of reforms, measures and investments that will benefit from funding from the RDF, showing their contribution to achieving the CSR and EU objectives (*Fagship Initiative*) and showing their interconnectedness within the Plan, and Appendix 2 shows the total estimated investment values.

Also, Annexes 1, 2 and 3 contain a detailed overview of the contribution of planned reform measures and investments to the green and digital transition, measurable objectives and financing structures by year of implementation of the plan and funding sources.

2. Link to the European Semester

The European Semester and THE RRF are essentially linked. Namely, when drafting the NPOO, a link was made with CSRs that are key elements of the process of the European Semester. It was also mentioned in line with the publication of the Annual Strategy for Sustainable growth in 2021, which launched a new cycle of the European Semester and set out strategic guidelines for the implementation of the RDF. The Republic of Croatia is committed to the EU goal of implementing the new growth strategy based on the European green landscape and the concept of competitive sustainability.

Since the deadlines within the framework of the European Semester and the RDF overlap, all activities in the process of drafting NPOs are coordinated in the Republic of Croatia within the framework of the existing institutional framework for the implementation of the European Semester in the Republic of Croatia established by the Decision on coordinating activities within the framework for economic management of the EU.[5]

Therefore, the NAPA also includes reform activities and measures already implemented under the National Reform Programme 2020. (E.G.) which address the challenges identified under the CSR. In a situation when the Republic of Croatia faces a combination of two crises, namely THE CIVIL-19 pandemic and the consequences of earthquakes in the Croatian capital, the government is determined in the initial implementation of activities in all areas. Key areas to ensure long-term sustainability of economic growth rates and impact on potential growth are public administration reform, health care system, judicial system, as well as issues of improving the business environment and other aspects. To stimulate economic recovery, mature public investment projects and promote private investment will be funded through relevant reforms, including growth-enhancing sectors and the green and digital transition.

3. Coherence

When defining the components of the NPOO and their scope, account was taken of the coherence and coherence within each component of the plan and the overall plan, especially of the coherence between the dimensions of the reform, measures and investments. On that occasion it was necessary to align priorities with those defined in the Programme of the Government of the Republic of Croatia 2020-2024 and the NPR, and also to take into account determinants of the future National Development Strategy until 2030. (NRR).

Development potentials of the Republic of Croatia and development challenges at regional, national, European and global level were also taken into account. Development directions and strategic goals aim to eliminate the economic and social damage caused by the global crisis, to stimulate the speedy recovery of the Republic of Croatia and to respond to the set goals within the framework of the European Green Plan and the EU Territorial Agenda 2030, thus providing the basis for sustainable and innovative development of the Republic of Croatia, while achieving the resilience of society and the economy to global crises.

The ultimate goal is the development of a dynamic, innovative society and economy, oriented towards sustainable, low-carbon development, which is nutritional self-sufficient, ecologically

5OG 13/17, 51/17, 97/17, 50/18, 74/19, 16/20 and 89/20

healthy, environmentally attractive, with developed transport, energy and digital infrastructure. Finally, the intention is to continue to build an efficient public administration and an independent judiciary so that the Republic of Croatia is resilient to crises and attractive to investors.

Nacionalni plan oporavka i otpornosti 2021.-2023.

1. GOSPODARSTVO

- Jačanje konkurentnosti i zelena tranzicija gospodarstva
- Energetska tranzicija za održivo gospodarstvo
- Unaprjeđenje vodnog gospodarstva i gospodarenja otpadom
- Razvoj konkurentnog, energetski održivog i učinkovitog prometnog sustava
- Unaprjeđenje korištenja prirodnih resursa i jačanje lanca opskrbe hranom
- Razvoj održivog, inovativnog i otpornog turizma

2. JAVNA UPRAVA, PRAVOSUĐE I DRŽAVNA IMOVINA

- Jačanje kapaciteta za izradu i provedbu javnih politika i projekata
- Daljnje unaprjeđenje učinkovitosti javne uprave
- Digitalna tranzicija društva i gospodarstva
- Jačanje okvira za upravljanje državnom imovinom
- Poboljšanje učinkovitosti pravosudnog sustava
- Jačanje okvira za sprječavanje korupcije
- Jačanje fiskalnog okvira
- Jačanje okvira za sprječavanje pranja novca

3. OBRAZOVANJE, ZNANOST I ISTRAŽIVANJE

- Reforma obrazovnog sustava
- Podizanje istraživačkog i inovacijskog kapaciteta

4. TRŽIŠTE RADA I SOCIJALNA ZAŠTITA

- Unaprjeđenje mjera zapošljavanja i pravnog okvira za moderno tržište rada i gospodarstvo budućnosti
- Razvoj i unaprjeđenje mirovinskog sustava
- Unaprjeđenje sustava socijalne skrbi

5. ZDRAVSTVO

- Jačanje otpornosti zdravstvenog sustava

6. Inicijativa: OBNOVA ZGRADA

- Dekarbonizacija zgrada

PART II: DESCRIPTION OF REFORMS AND INVESTMENTS

1. COMPONENT
ECONOMY

1. Component Description

Policy area		
Economy	Energy	Agriculture
Traffic	Environmental protection	Tourism

General objective

1. Enable the economy to recover from THE civil epidemic, and increase its resilience and competitiveness through green and digital transition.
2. Reduce the environmental footprint of energy production and consumption, reduce air pollution in cities, improve and digitise energy infrastructure, improve waste management, water protection and biodiversity to strengthen resilience to climate change.
3. Development and improvement of environmentally friendly transport systems, as well as development of low CO2 emission transport systems to have a developed transport network and quality, sustainable and adaptable infrastructure in all aspects of transport.
4. Increasing the amount of food produced and raising its quality, sustainable management of natural resources under changing climatic conditions.
5. Strengthen the competitiveness and resilience of Croatian tourism and reduce seasonality by increasing the quality of tourism products and services and developing special forms of tourism.

Reforms and investments covered by the component

C1 .1. Enhancing competitiveness and green transition of the economy	
Reforms	
C1 .1. R1	Enhancing competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies
C1 .1. R2	Increasing the competitiveness of the economy by strengthening the development of innovation
C1 .1. R3	Further improvement of the business environment
C1 .1. R4	Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation
Investments	
C1 .1. R1-I1	Grant investments in the production and technological capacities of enterprises
C1 .1. R1-I2	Liquidity support and investment investments of micro, small and medium-sized enterprises in the form of economic recovery loans and fostering digital and green transition
C1 .1. R1-I3	Mezzanine financial instrument loan for small business entities for economic recovery and fostering digital and green transition
C1 .1. R1-I4	Liquidity support and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green

	transition through guarantees to commercial banks with the possibility of interest rate subsidies
C1 .1. R1-I5	Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects
C1 .1. R1-I6	RRF “Umbrella” guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.
C1 .1. R1-I7	RRF favorable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of HBOR financing + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes
C1 .1. R1-I8	Encouraging the internationalization of the Croatian economy by strengthening the guarantee fund for export insurance and export credit financing activities
C1 .1. R1-I9	Investment in equity and quasi-equity financing instruments (PE)
C1 .1. R1-I10	Strengthening of equity activities in RDI - investment in regional technology transfer fund
C1 .1. R2-I1	Fostering investments in research, development and innovation
C1 .1. R2-I2	Increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation
C1 .1. R2-I3	Establishment and implementation of activities of national digital innovation centres (DIH and EDIH)
C1 .1. R3-I1	Implementation of administrative and para-fiscal relief measures for the economy
C1 .1. R3-I2	Improving the system of economic impact assessment
C1 .1. R3-I3	Creation of a support system for investments and internationalization of business Croatia
C1 .1. R4-I1	Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epide19
C1 .1. R4-I2	Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and developing modernised production capacities for new content
C1 .1. R4-I3	Programmes for stimulating media literacy, investing in quality journalism and strengthening independent media
C1 .2. Energy transition for a sustainable economy	
Reforms	
C1 .2. R1	Decarbonisation of the energy sector
Investments	
C1 .2. R1-I1	Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector
C1 .2. R1-I2	Encouraging energy efficiency, heating and renewable energy sources for decarbonisation of the energy sector

C1 .2. R1-I3	Use of hydrogen and new technologies
C1 .2. R1-I4	Biofuels for advanced biofuels production Sisak
C1 .3. Improving water management and waste management	
Reforms	
C1 .3. R1	Implementation of water management programmes
C1 .3. R2	Implementation of projects for sustainable waste management
Investments	
C1 .3. R1-I1	Programme for Development of public waste water drainage
C1 .3. R1-I2	Programme for Development of public water supply
C1 .3. R1-I3	Disaster risk reduction Programme in the water management sector
C1 .3. R2-I1	Waste disposal reduction Programme
C1 .3. R2-I2	Programme for remediation of closed landfills and locations contaminated by hazardous waste
C1 .4. Development of a competitive, energy-sustainable and efficient transport system	
Reforms	
C1 .4. R1	Road sector reform
C1 .4. R2	Railway sector reform
C1 .4. R3	Reform of maritime affairs and inland navigation
C1 .4. R4	Improving the public transport system
C1 .4. R5	Greening of transport
Investments	
C1 .4. R1-I1	Electronic toll collection system
C1 .4. R1-I2	Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)
C1 .4. R1-I3	Fast road from Kasttel Kambelovac node to Vučevica
C1 .4. R2-I1	Reconstruction of the existing and construction of the second track on the long Selo-Novska section, subsection Kutina-Novska (Phase D)
C1 .4. R2-I2	Modernisation of the M604 Stari-Knin-Split railway
C1 .4. R2-I3	Project for the restoration of railway infrastructure on railway lines R201 and R202 on the section Čakovec-Varazdin-Koprivnica-Pitomaca
C1 .4. R2-I4	Reconstruction of the existing Zadar-Knin railway
C1 .4. R2-I5	Removal of “bottlenecks” on railway infrastructure
C1 .4. R2-I6	Modernization of the Zagreb node

C1 .4. R2-I7	Reconstruction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border
C1 .4. R3-I1	Programme for the modernisation of ports open to public transport
C1 .4. R3-I2	Construction of specialized energy links in the port of Ploče
C1 .4. R3-I3	Construction and reconstruction of municipal berths
C1 .4. R3-I4	Project of expansion and deepening of the waterway attractive gaz
C1 .4. R3-I5	Reconstruction of search and rescue fleet
C1 .4. R3-I6	Purchase/construction of passenger ships for the coastal line transport
C1 .4. R3-I7	Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increasing the safety of navigation
C1 .4. R3-I8	Arranging the sections from the special risk of the Sava River waterway (from Račinovac to Sisak)
C1 .4. R3-I9	Arranging the sections of the special risk of the river Drava waterway from rkm 0 to rkm 12
C1 .4. R4-I1	Purchase of alternative-powered vehicles
C1 .4. R4-I2	Modernisation of tram infrastructure
C1 .4. R4-I3	Modernisation of bus stations
C1 .4. R5-I1	Modernisation and greening of Zadar Airport infrastructure
C1 .4. R5-I2	Greening and digitization of Pula Airport
C1 .4. R5-I3	Reconstruction of passenger building at Osijek Airport
C1 .4. R5-I4	Co-financing programme for the purchase of new alternative fuels vehicles and the development of alternative fuels infrastructure in road transport
C1 .5. Improving the use of natural resources and strengthening the food supply chain	
Reforms	
C1 .5. R1	Establishment of a network of logistical infrastructure to strengthen the production chain in the fruit and vegetables sector
C1 .5. R2	Improving the system for restructuring agricultural land and land consolidation
C1 .5. R3	Digital transformation of agriculture
C1 .5. R4	Improving the food donation system
Investments	
C1 .5. R1-I1	Construction and equipping of logistically distributed fruit and vegetables centres
C1 .5. R2-	Consolidation of agricultural land

I1	
C1 .5. R2-I2	Permanent monitoring programme for agricultural land
C1 .5. R3-I1	Digital transformation of public services in agriculture
C1 .5. R3-I2	Smart agriculture
C1 .5. R3-I3	Traceability system
C1 .5. R4-I1	Infrastructural equipping of food banks and intermediaries in the food donation chain
C1 .6. Development of sustainable, innovative and resilient tourism	
Reforms	
C1 .6. R1	Investments in increasing the resilience and competitiveness of the tourism economy
Investments	
C1 .6. R1-I1	Diversification and specialization of Croatian tourism through investments in the development of health and sports tourism
C1 .6. R1-I2	Transforming the quality of tourism supply by strengthening the competitiveness of SMEs
C1 .6. R1-I3	Strengthening the capacity of the system for resilient and sustainable tourism

Contribution	**A green transition**	**The digital transition**
	40%	100%
Total estimated investment value for the component		**HRK 61,269,776,892**
Share of the total plan		53%
Estimated investments per year and sources of financing		see Annex 3.
Impact assessment		Annexes 4a, 4b and 5 (to be developed)
Response to CSR		see Annex 1.
Contribution to other parts of NPOO		see Annex 1.

2. Main challenges and objectives addressed under the component

C1 .1. Enhancing competitiveness and green transition of the economy

A small open economy, such as Croatia, has no possibility of influencing global trends. It has to recognize them, adapt and through this adjustment find opportunities to achieve its own development potential. The economy of the Republic of Croatia is primarily characterised by a significant share of services, while the share of industrial production in gross domestic product of the Republic of Croatia is relatively low and ranges at the level of 16%.

The Croatian industrial base (in which the processing industry is a part with the largest share in industrial production) consists of low-tech products (47%), medium-low technology structure (31%), medium-high technology level (18%), and only 4% are high-tech products. The index of complexity of industrial products ranking the diversity and sophistication of production knowledge required for the production of products is very low compared to the industries of comparable countries, placing the Republic of Croatia at 30 th of 130 countries or 20 th place from the EU-27. This data has not changed significantly since 2000.

According to the *Digital economy and Society Index* (DESI) in 2020, Croatia ranks 20 th out of 28 European countries. According to available data, 82% of companies in the industrial sector see digital transformation as an opportunity and believe it will improve their business model.

Although since the last financial crisis, the Croatian economy has seen positive developments and economic growth, particularly in the previous few years it is still marked by certain structural mismatches.

The total productivity of production factors in the Republic of Croatia is growing relatively slowly, contributing to the growth of GDP less than in other comparable countries. According to individual research data, only 20% of employees work in the medium-high and high technology level.

The economy of the Republic of Croatia is characterised by a lower level of investment, especially investments in RDI and advanced technologies (including technologies necessary for the digital and green transition of the economy) as a precondition for increasing added value in the economy. A lower level of investment is present in a larger number of sectors regardless of the size of economic operators and can continue to have a significant impact on the planned green and digital transition of the economy. Even in areas where the Republic of Croatia has achieved EU 2020 goals, for example the share of renewable energy sources in total energy sources, the need for further investments is necessary in order to achieve the long-term goals presented.

The lower level of investment is partly due to the lower development of the domestic financial market. According to the HANFA 2020[6] data, banks account for almost 70% (68.1%) of the total financial sector of the Republic of Croatia, followed by pension funds and insurance companies, and only then by other forms of financial services (*leasing* and *factoring* services, VC and PE funds, etc.). Even before the phenomenon of THE CIVIL-19 pandemic, one of the key obstacles in the availability of bank loans on the Croatian market was an obstacle related to the availability of banks with acceptable credit insurance instruments. The adequacy of collateral is particularly highlighted in cases of investment in RDI and high technologies (including digital and green transition).

Based on the latest data from CBS, national R & D allocations in 2019 were at the level of 1.11% of GDP and the Republic of Croatia ranks behind the EU in terms of innovation performance. The Republic of Croatia lags considerably behind the average values at the EU level in research and innovation and is a low level of private sector investment in research and development.

A lower level of investment in RDI and high technology is the result of a less developed market of alternative sources of financing (venture capital, private equity etc.). In order to strengthen the resilience of the Croatian economy in the long term to potential future global

6HANFA - Croatian Agency for supervision of Financial services

or regional market disturbances, it is necessary to further strengthen the aforementioned components of the financial market. In addition to restrictions on financial markets, lower level of investment in RDI is the result of lower private sector cooperation with domestic and international scientific and research institutions.

The lower competitiveness of the Croatian economy, as well as the size and strong openness of the economy, negatively affects the indicators of foreign trade in goods. Namely, the Croatian economy has been characterised by a deficit in foreign trade in goods for many years. Domestic exports are often characterised by exports of goods with lower added value (raw materials, semi-finished products), which further deepens the problem. Moreover, most export activities focus on a narrow circle of regional markets or markets where domestic producers have been present for many years. According to available data on 08 September 2020, the coverage of imports with exports during the first seven months is 62,6%. Despite this, export companies are extremely important for the domestic economy. The fact that only 15% of companies in the Republic of Croatia participate in export activities, but at the same time they represent 51% of employment, 62% of investments and realise 66% of total sales revenues, indicates the importance and need to further support the strengthening of internationalisation and international competitiveness of the economy[7].

The CIVIL-19 pandemic caused a crisis that was reflected through a 14.4% decline in real GDP in the second quarter, i.e. 10% in the third quarter of 2020. Although the reduction of activities has been recorded in a large number of sectors of the economy of the Republic of Croatia, the negative contribution to economic activity highlights service activities in which activity has decreased over 30%, since the activities concerned are the most vulnerable in relation to social distancing measures. This applies equally to domestic demand for services, as well as to exports of services, which decreased by almost 70%. In addition to the short-term direct consequences of THE CIVIL-19 pandemic, or measures taken to suppress it, in the coming periods we can expect additional negative effects, even in sectors that have not suffered direct damages related to the pandemic, taking into account the above mentioned decline in economic activities as well as overall demand levels on the national but also the EU and global market.

The negative impacts of the CIVIL-19 pandemic have also been recorded in the export of goods, due to a general decline in demand on the global market, as well as restrictions resulting from the closure of national borders. Taking into account the fact that the Croatian economy has recorded negative external trade balance so far, it is necessary to support the Croatian economy in the coming periods in a stronger internationalization with regional and global markets.

In addition to the relatively lower level of investment compared to other EU members mentioned above, the domestic economy is characterised by an additional decline in bank lending activity, due to the negative consequences of the civil-19 pandemic.

The decline in business banks' activities can strongly influence further reduction in investment levels. Namely, the Croatian market is characterised by a high dependence of the private and public sector on the activities of traditional banking sources of financing, while the market of alternative sources of financing, as pointed out above, is relatively poorly developed and has small shares in total investments on the Croatian market.

Taking into account all of the above mentioned, in order to ensure faster recovery from the CIVIL-19 pandemic, but also further strengthening of economic activities on the Croatian market, and faster transition towards green and digital technologies, it is necessary to:

- Strengthen investment activity in the economy of the Republic of Croatia, with special emphasis on green and digital technologies, as well as encouragement of production activities
- Strengthen private sector cooperation with scientific research institutions and strengthen investments in RDI and high technologies
- Encourage the activities of the banking system as a key segment of the financial

7 CEPOR – SMEs and Entrepreneurship Policy Centre, 2018

market whose support is essential for the growth of investment investments, as well as the implementation of certain EU programmes and measures
- Encourage the development of alternative funding sources
- Encourage stronger internationalisation of the economy and links with regional and global value chains.

C1 .2. Energy transition for a sustainable economy

In order to become more competitive as it becomes greener and circular, it is essential to ensure the supply of clean and affordable energy and raw materials to the economy. For the realisation of such plans, it is necessary to accelerate the development of energy infrastructure which will ensure the putting into function of national potential of renewable energy sources, greater reception of renewable energy and proper balancing of the system, while also reflecting the increase in the possibility of exchanging sustainable energy with neighbouring Member States. Therefore, an important element on which the Republic of Croatia will insist is reducing dependence on the import of fossil fuels into the EU. As these are dislocated sources that are often not in the region of the main consumers, the interconnection between the internal market is important and the further digitisation of the system that will ensure optimal market management in technical and economic terms and the removal of barriers that may slow down certain RES projects. That is why it is planned to raise energy infrastructure to a new digitally manageable level. Strong sectoral connections are essential for enabling the realisation of renewable energy sources projects in final customers from household categories and an active approach to removing obstacles to further implementation of highly efficient heating systems.

In accordance with the National Energy and Climate Action Plan, five dimensions of the Energy Union set ambitious national reform goals in the Croatian energy sector. The achievement of renewable energy sources targets of 36.4% in final energy production and in particular the share of electricity from renewable sources of over 60% in 2030 will only occur with additional development projects for connection and management of electricity systems. The reform encompasses the necessary accelerated development of the power grid so that new paradigms related to greater participation of end consumers as active energy buyers can also be set up in the legislative sense. Accelerated development of internal infrastructure is also necessary for linking all measures of renewable energy sources and energy efficiency in economic sectors, and it is particularly important to position the heating sector in the construction of new and reconstruction of the existing building stock.

C1 .3. Improving water management and waste management

Increasing investments in research and innovation and introducing new and improving existing infrastructure will contribute to the development of new production processes and job creation. The Republic of Croatia is currently lagging behind in achieving EU waste reduction targets and making slow progress in the transition to a circular economy. The recycling rate of household waste in the Republic of Croatia amounted in 2018 to 25.3%, which is significantly lower than the EU average of 46%, while more than 66% of waste was disposed of in landfills, compared to the EU average rate of 25%.

The use of water from public water supply systems is available for 94% of the population, while the actual connection is 86%. Water losses from water supply systems amount to about 50% of the total amount of water that affects public water supply, and only 53% of the population is connected to public drainage systems. Given the identified climate changes and increasingly frequent extreme hydrological conditions with the emergence of increasing water levels, it is necessary to improve the system of flood defence. The current level of functionality of the flood protection system is 77%, and the goal is to achieve functionality by 87% by the end of 2023 and by 100% by the end of 2038. Another risk associated with climate change is particularly important for keeping the population identified in the area of the Neretva valley, which has been identified as the area most threatened by primary salting processes in the territory of the Republic of Croatia, and it has been established that over 40% of the agricultural areas of the lower Neretva valley have been salted. Three programmes aimed at improving the quality of public water

services and reducing disaster risks in the water management sector are being implemented in order to improve the water management.

C1 .4. Development of a competitive, energy-sustainable and efficient transport system

Transport connections are an indispensable instrument of national and regional development that initiates the exchange of goods and enables better accessibility to all economic, health, tourist, cultural and other facilities. The transport network is uneven, with very underdeveloped railway infrastructure and has no adequate infrastructure for public urban, suburban and interurban transport. The Republic of Croatia has built only 7% of the basic railway network TEN-T, unlike the EU average of over 60% and only 38% of the railway for international traffic in the Republic of Croatia has been electrified. City transport is outdated and cannot meet existing needs nor cope with increasing demand in the future. Furthermore, the share of renewable energy in the transport sector is significantly lower than 10%, which is the target that should be achieved in 2020. Investments are needed in the maritime sector in the construction of new ports and in the reconstruction or relocation of existing passenger and ferry ports in order to further increase the capacity of coastal line transport and improve communication with the islands. The Republic of Croatia implements and supports the European transport policy, and thus the European Green Plan and its transport objectives. The CID-19 pandemic has had a major impact on the transport sector and is now more important than ever to achieve sustainable mobility and to provide users with more accessible and cleaner modes of transport. Consequently, focusing investments in the development of transport connectivity, as well as the green and digital transition in the transport sector through the successful improvement and timely completion of the TEN-T network, the further development of maritime affairs, as well as the development of a sustainable shipping sector and the further establishment of new transport processes in all aspects of transport will contribute to the decarbonisation of transport and the transition to low carbon mobility.

C1 .5. Improving the use of natural resources and strengthening the food supply chain

Agriculture as a basic activity in rural areas is of special interest to the Republic of Croatia. Public and private investments have been stimulated so far, both from European funds and the state budget, with the aim of achieving economic growth and development which is the basis for the revitalisation of these areas. However, Croatian agriculture continues to lag behind the EU average in a number of indicators. According to EC data, labour productivity of Croatian agriculture is approximately 31% of the EU average (data for 2018) and GDP per capita in rural areas of the Republic of Croatia is one third lower than the EU average. Croatia achieves self-sufficiency only in the production of cereals and oil crops. Slowed economic activity and the associated lower living standard of the rural population result in negative demographic trends or depopulation of rural areas. NPOO enables stronger investments in public infrastructure necessary for the development of agriculture and economy in general, which increases the quality of life and stimulates the stay of the population in rural areas. Accordingly, the proposed reform enables the beginning transformation of agriculture with special emphasis on increasing food safety and achieving the objectives of the European Green Plan in the part of environmental concern and adaptation to climate change. The reform also includes public administration services, primarily in the part of the disposal of agricultural land and the digitisation of business operations, all with the aim of achieving preconditions for modern, competitive and sustainable production. This reform, together with complementary investments from EU Common Agricultural Policy funds, will help achieve the vision of agriculture “to produce more nutrient and high quality food, at competitive prices, to sustainably manage natural resources under changing climate conditions and contribute to improving the quality of life and increasing employment in rural areas”.

C1 .6. Development of sustainable, innovative and resilient tourism.

As a strategic activity, tourism accounts for 11.4% of the direct share of GDP, but is also associated with numerous other activities such as retail trade, production of trade goods, food and beverage preparation and service activities, cultural, sports and recreational activities, road, water, rail and air passenger transport, agriculture, nautical charter, etc.

The importance of tourism is reflected in the fact that these industries represent 16.9% of GDP in total, which is the largest share compared to other EU Member States. At the same time, the share of value added is the lowest in the EU, all as a result of the challenges faced by Croatian tourism, which are further exacerbated by the economic crisis caused by the Koronavirus pandemic. The vulnerability of the tourism sector poses a threat to the stability of the Croatian economy, because, like the entire world, it is facing a global health crisis. The Republic of Croatia, together with other member States, will have to make efforts to help the entire tourist ecosystem recover from the crisis.

Some of the key challenges facing tourism in the Republic of Croatia at the moment are: low level of qualifications of human capacities, lack of qualified labour force and high seasonality in employment; lack of specific and thematic content that prevents increased quality, AS well as interests of target groups for the Republic of Croatia outside the tourist season (e.g. lack of services and/or infrastructure/sub-structures in health, nautical, rural, sport, household and other, seasonally non-elastic, types of tourism); insufficient exploitation of potential of G and aquaculture chains. In addition, the problem of insufficient monitoring of green standards and environmental protection has been identified (circular economy, renewable energy sources and energy efficiency), as well as a low level of digital transformation in the operations of the entire sector.

All of the above mentioned problems lead to insufficient level of diversification of tourist offer, which is still based on the concept of sun and sea (85% volume) and, consequently, poor total utilization of existing infrastructure due to insufficient occupancy of facilities at the level of the year, i.e. high seasonality of Croatian tourism. The consequence is the reduced sustainability and resilience of Croatian tourism due to high seasonality and the danger of so-called overtourism, as well as a high level of sensitivity of the sector to crises like this one, which adversely affects national GDP.

The changes to the legislative framework prior to the pandemic were aimed at reforming the tourism sector and related to several key laws, such as the Tourism services Act, the Hospitality services Act, the Tourist associations Act and the promotion of Croatian tourism, the Tourist Association membership fees Act, the Health Protection Act, the Tourist tax Act and the unevaluated building Land Act. These changes have created the preconditions for stimulating business outside the tourist season, developing new thematic forms of tourism, tourism products (health, congress, business, etc.), developing underdeveloped tourist areas, generating new investments by becoming perspective state property and reducing the financial and administrative burden on tourism stakeholders. However, the reform in question needs to be fully implemented in order to facilitate the business of stakeholders in the tourism sector, to foster the investment environment and to ensure the implementation of a reform that will enable the prolongation of the tourist season and, consequently, to increase the annual occupancy of accommodation facilities, as well as the development of thematic forms of tourism and the development of continental tourism. It is precisely because of the above that it is necessary to increase the sustainability and resilience of Croatian tourism by continued implementation of reforms and activation of investments that will positively influence the development of new tourist products, attracting new market segments and more balanced regional distribution of tourism turnover, all in order to reduce seasonality and increase the competitive capacity of the Republic of Croatia as a tourist destination.

(a) main challenges

1. The recycling rate of household waste in the Republic of Croatia amounted in 2018 to 25.3%, which is significantly lower than the EU average of 46%.
6. The percentage of municipal waste disposed of at landfills in the Republic of Croatia amounted in 2018 to 66%, while the EU average is 22%.
7. The use of water from public water supply systems is available for 94% of the population, while the actual connection is 86%. Water losses from water supply systems amount to about 50% of the total amount of water that affects public water

supply, and only 53% of the population is connected to public drainage systems.

8. The current level of functionality of the flood protection system is 77%, and it has been established that over 40% of the agricultural areas of the lower Neretva valley have been covered.
9. The current electricity system will not be able to accept the large amount of renewable energy sources planned by 2030 as one of the most important measures for decarbonising the energy sector, which may call into question the achievement of the objective of increasing RES in gross direct consumption by 2030.
10. The heating industry needs the revitalization and introduction of new systems that will enable the decarbonization of the heating industry. The heating system is not developed enough to support measures of energy efficiency and renovation of buildings and connections with greater use of RES in heating.
11. The share of renewable energy in the transport sector is relatively low (significantly below the planned 10% target for 2020) and needs to be increased by use, increasing the share of advanced biofuels and renewable electricity and hydrogen in transport.
12. The Croatian islands have 78 islands and 524 islets, while in 2020, according to 47 public service contracts, 51 state lines were maintained and it is necessary to satisfy the needs of the population for traffic connections. Furthermore, currently the largest number of coastal line maritime transport vessels use internal combustion engines powered by Diesel fuel.
13. The transport network is uneven, with very underdeveloped railway infrastructure and has no adequate infrastructure for public urban, suburban and interurban transport.
14. Croatia has built only 7% of the TEN-T core rail network, which is significantly lower than the EU average of over 60%, especially.
15. Low productivity of Croatian agriculture and low GDP per capita result in depopulation and further reduction of economic activity in rural areas.
16. Reduced sustainability and resilience of Croatian tourism due to high seasonality, danger of so-called overtourism and high level of sensitivity of the sector to crises.

(b) objectives

AD1. Development of infrastructure for recycling municipal and packaging waste.
Ad2. Closing and remediation of closed landfills and reducing the amount of unprocessed mixed municipal waste disposed of at landfills.
A3. Improve the quality of public water services.
AD4. Reduce disaster risks in the water management sector, which includes flood and water and soil pollution risks in the lower Neretva area.
AD5. Development of electricity infrastructure for transmission and distribution of electricity by 2026. this will ensure that the national potential of renewable energy sources is put into operation and enable the connection of new 800 MW by 2026, and by 2030 more than 2000 MW of new power plants for the production of renewable electricity and the fulfilment of the EU target of the share of RES in consumption (36.4% for the Republic of Croatia), while also ensuring the reduction of losses in optimal management systems and the development of the internal energy market.
Ad6. Ensuring the development of infrastructure by 2026 that would further expand and modernise existing heating systems and ensure the further implementation of high-efficiency heating systems, increase energy efficiency of buildings and better use of RES, thus ensuring that the EU's goal of increasing energy efficiency by 2030 is met.
AD7. Investment in the production of advanced biofuels for transport, further electrification of transport, development of infrastructure for the production and use of renewable hydrogen in transport in order to provide infrastructure by 2026 that will decarbonise transport and enable the fulfilment of the minimum EU target of 14% of the share of renewable energy in the transport sector while reducing the consumption and import of fossil fuels and increasing production from domestic raw materials in a sustainable

manner.
A8. Increasing the capacity of coastal line transport and improving communication with islands, all using alternative technologies that have the potential to reduce CO2 emissions.
AD9. Provide users with more accessible and cleaner modes of transport.
A10. Successful improvement and timely completion of the TEN-T network.
AD11. Transformation of agriculture towards more competitive and sustainable production, with annual growth of agricultural production value by 4%.
AD11 .1. Increase the level of adoption of green standards and environmental protection measures for large companies in the sector, as well as reduce operating costs, which will positively affect business profitability outside the tourist season.
AD11 .2. Improve the educational qualifications of human capacities in tourism by investing in the development and implementation of education programmes at all levels and strengthen the vertical connectivity of stakeholders in tourism.
AD12. Investments in specific and thematic oriented facilities in the segment of health and sports tourism in the public and private sectors, which will consequently contribute to increasing the level of diversification of tourist offer, increasing the utilization of existing infrastructure and occupancy at the level of one year, i.e. it will have a direct impact on reducing the seasonality of Croatian tourism.

3. Description of reforms and investments by subcomponents

C1 .1. Enhancing competitiveness and green transition of the economy

Link with the European Semester and/or strategic documents and the context of the reform

Two waves of THE CIVIL-19 pandemic have been negatively affected, and are still reflected in various sectors, jobs, employee income and business are at risk. The package of measures initiated by the Croatian Government to preserve jobs and prevent worker layoffs includes co-financing wages, exemption from contributions, shortening working hours and direct support for entrepreneurs.

In its recommendations for 2020, the EU Council underlines that the Republic of Croatia should continue to take the necessary measures to respond effectively to the pandemic, maintain the economy and support recovery. The Republic of Croatia should continue with continuous measures to support the liquidity of enterprises through lending and approval of guarantees, in particular state guarantees, primarily to small and medium-sized enterprises and self-employed persons, in order to overcome the crisis and start recovery. According to the EU Council, the banking system should be supported by guarantees to allow SMEs new and better access to finance.

Furthermore, the 2019 recommendations. The EU Council underlined the need to invest in research and innovation capacities and the application of advanced technologies in order to stimulate innovation and accelerate productivity growth, which has slowed due to fragmentation and lack of efficiency in research and innovation policies. It is stressed that the Croatian strategy of “smart specialization” has the opportunity to stimulate innovation, overcome fragmentation of the system and ensure the implementation of research and development activities, but it is expected that this strategy will be implemented quickly. Investments could also encourage cooperation between universities and the business sector to facilitate technology transfer and the commercialisation of research results.

The efforts of the Croatian government to reduce the administrative and regulatory burden and thus create a better business environment have already been recognized. However, the Council of the EU continues to stress through both annual reports that business operations in general continue to be hampered by a high level of burdens, in particular as regards licences, reports and tax proceedings. Free access to professions is essential, which should be ensured by a simpler regulatory framework and related administrative procedures, in particular for SMEs engaged in an autonomous activity.

As part of preparations for the introduction of the euro as currency, and during its participation in the European Exchange rate Mechanism, the Republic of Croatia committed itself to implementing a series of measures of administrative and para-fiscal relief of the economy.

Priorities for the implementation of public policy which will contribute to the strengthening of competitiveness and the green transition of the economy, as well as the improvement of the business environment are contained in the draft NRR as well as in the Government programme.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C1 .1. R1 Enhancing competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies

Challenge

As pointed out above, the economy of the Republic of Croatia is characterised by several key structural mismatches: (i) lower share of industrial production in gross domestic product; (ii) lower level of investment, especially investments in green and digital technologies; (iii) lower level of internationalisation of the economy; (iv) high dependence on traditional sources of financing, as well as a decline in business banks' activities caused

by the CS-19 pandemic; (v) lower development of alternative sources of financing (equity and quasi of equity sources of financing).
As an important segment of the total Croatian economy, industry accounts for 16% in gross domestic product. According to the strategic objectives of the European Commission, the plan is that industry accounts for 20% of the total economy of the European Union. Due to the relatively low share of industrial production in gross domestic product of the Republic of Croatia, it is necessary to transform the existing structure of industry, based on productivity growth and greater competitiveness, while respecting the EU's climate, environmental, social and digital priorities.
In the global economy, digitalisation is becoming a necessary precondition for further development of competitiveness. It is digital transformation and implementation of new technologies that are the main determinants in which market position can be improved. The global crisis caused by THE CYID-19 virus strongly underlined the need for rapid and efficient digital transformation of the economy, and acknowledged the fact that unexpected disturbances of this type cannot be predicted, but it is necessary to provide conditions for quick adaptation precisely to such and similar circumstances.
In order to achieve the strengthening of the domestic and international competitiveness of the economy, as well as the green transition and climate neutrality of the economy, it is necessary to provide acceptable sources of financing for economic operators that will enable the application of technologies and business processes necessary to adapt to climate change and reduce greenhouse gases and increase energy efficiency and share of renewable energy.

Objective

Strengthening the competitiveness of enterprises (large and SMEs) on domestic and world markets by encouraging investment investments in the economy of the Republic of Croatia, with special emphasis on green and digital technologies for the purpose of developing new competencies, increasing production, increasing exports (internationalization) and preserving existing ones and encouraging job creation.

Description

In order to achieve this goal, we plan to develop new grant measures, as well as financial instruments in the form of loans, guarantees and equity and quasi-equity investments, which will, in addition to direct effects in the real sector, result in long-term strengthening of the resilience of the financial market of the Republic of Croatia, as one of the preconditions for general growth of resilience.

Implementation

Taking into account these recommendations and recent developments, it is proposed to implement several horizontal financial measures of grants and financial instruments (guarantees, soft loans, equity and quasi-equity investments), described below (C1.1.R1-I1 to C1.1.R1-I10) aimed at: (i) strengthening competitiveness and growth of investments especially in the field of green and digital technologies; (ii) increasing availability of funding sources (*Access to finance*) through strengthening banking sector activities and other financial sectors in the Republic of Croatia; (iii) supporting the development of alternative funding sources;
The implementation of the aforementioned measures to stimulate investments in competitiveness, internationalisation and digital and green transition of the economy will enable the realisation of the CSR, in the part of encouraging private investment, especially in those sectors that contribute to competitiveness, green and digital transition and are stimulating for growth and contribute to the strengthening of business banks' activities and the development of the capital market.

Implementation holder	The holders of reform measures and investments are: C1.1.R1-I1 MINGOR C1.1.R1-I2 to C1.1.R1-I4 HAMAG-BICRO C1.1.R1-I5 to C1.1.R1-I10 HBOR SINCE 2013, THE MIGOR has been involved in the management

	of operational programmes financed by the EU Cohesion Policy. It is responsible for the preparation of strategic documents, evaluation of project proposals proposed by entrepreneurs for calls for grants, preparation and conclusion of contracts, payments, supervision of the implementation of programmes and projects, and evaluation and reporting. During this period, the Ministry announced a total of 34 calls for proposals worth HRK 7.7 billion. 24 calls with an allocation of HRK 6.4 billion are directly intended for entrepreneurs, 8 calls worth HRK 1.1 billion are aimed at improving entrepreneurial infrastructure and creating a favourable entrepreneurial environment, while the beneficiary is only the Ministry on 2 strategic projects. A total of 4,754 contracts were signed with the beneficiaries selected in the competitive procedure, 4,586 of them contracts for entrepreneurs and 168 contracts for entrepreneurial infrastructure. HBOR performs the functions of the National Development and Export Bank, but also the Export credit Agency of the Republic of Croatia. In accordance with the HBOR Act, the basic activities of the CBRD are: (i) financing the reconstruction and development of the Croatian economy; (ii) financing infrastructure; (iii) promoting exports; (iv) supporting the development of small and medium-sized enterprises; (iv) promoting environmental protection; (v) ensuring the export of Croatian goods and services against non-market risks. Although pursuant to the HBOR Act, the HBOR is exempt from the supervision of the central bank (CNB), pursuant to Article 11 of the same Act, the HBOR minimises business risks, following the principles of banking operations. Taking into account the mentioned Article of the HBOR Act, the business of HBOR is greatly harmonised with the operations of other credit institutions in the Republic of Croatia. The indicator of successful business operations is certainly the fact that since its establishment in 1992, HBOR has not recorded a single year of negative business operations. Despite the lack of supervision by the central bank, the activities of the Croatian Bank for Reconstruction and Development (HBOR) are, in addition to the system of 'internal' control and audit, also controlled by a number of external entities. HBOR activities are subject to supervision: (i) State audits of the Republic of Croatia; (ii) double commercial audits (current auditors are KPMG and BDO); (iii) International rating agency – Standard & Poor's. The HBOR business reports are regularly presented to the Croatian Parliament. In addition to the above mentioned results, the financial position, procedures and methodologies of the HBOR are also subject to control by key financial partners of the HBOR, notably the European Investment Bank (EIB), the Council of Europe Bank (CEB), the International Bank for Research and Development (IBRD), etc. In addition to MFIN, HBOR is the largest and strongest financial and business partner of EIB in the Republic of Croatia, with more than 3.3 billion euros of contracted operations (25 credit agreements between HBOR and EIB) and 5,850 supported projects. Taking into account the EC's proposals regarding the improvement of the business oversight system of the Croatian Bank for Reconstruction and Development (HBOR), in the last few years,

	within the framework of the SRSP as well as[8] the last TSI[9] of the DG Reform programme, the HBOR has proposed the preparation of gap analysis of the business operations of the Croatian Bank for Reconstruction and Development in relation to CRD IV, all with the aim of further harmonisation with good banking practices in the field of risk management and possible improvement of the control system. In addition to the project in question, taking into account the need to continuously adapt its activities to the needs of the Croatian economy, as well as the need to support the achievement of national and EU objectives, in 2019, the HBOR, in cooperation with the EC, implemented a project within the framework of the SRSP, to draft a medium-term strategy for the operation of the HBOR for the period 2020-2024. The project was successfully implemented with the support of the external consultant PricewaterhouseCoopers (PwC). In addition to the analysis of market failures ("market gap" analysis), SWOT analysis of HBOR's operations, analysis of activities of development banks of other EU Member States, strategic business priorities of CBRD have been identified: (i) Fostering the development of the equity and quasi-equity markets in the Republic of Croatia; (ii) Fostering economic and socially balanced and sustainable regional, rural and urban development of the Republic of Croatia; (iii) promoting the internationalisation and globalisation of the Croatian economy; (iv) promoting competitiveness with an emphasis on the environment protection, 4.digitisation and energy efficiency; The priorities described above, as well as the conducted market gap analysis, represent the basis for HBOR measures proposed within the framework of this reform. Considering the existing institutional, operational and human capacities of the Croatian Bank for Reconstruction and Development (HBOR), it is important to mention that the HBOR currently employs about 370 employees, most of them highly educated (90% of employees are highly educated persons). The total assets of the Croatian Bank for Reconstruction and Development (HBOR) amount to approximately HRK 28 billion, the majority of which refers to loans granted to enterprises and commercial banks. The average annual business activity of the Croatian Bank for Reconstruction and Development (HBOR) (average of granted loans, guarantees and export insurance activities in the last three years) amounts to HRK 7.6 billion per year, with the average annual amount of granted loans in the same period amounting to HRK 5.5 billion per year. Taking into account the above average level of credit activity, only assuming that it is maintained over the next five years, the proposed total volume of the measures in question for the period 2021-2026 represents less than 20% of the expected total HBOR activity. In addition to the financial data itself, it is important to note that in 28 years of successful financial market operations in the Republic of Croatia, HBOR has developed a series of models of cooperation with commercial banks and other financial intermediaries (e.g. leasing companies). In addition to usual business operations

8TSI — Technical support instrument

9SRSP – Structural support programme Reform

	through commercial banks (onlendings), as well as the model for the granting of direct loans, HBOR has developed cooperation with commercial banks in the area of lending using the risk-sharing model, portfolio and individual guarantees and insurance policies for loans and other products customary in development banking. Also, in the last few years, HBOR has gained significant experience in the implementation of EU financial instruments financed under THE MFF 2014-2020. HBOR is responsible for the implementation of 5 financial instruments with a volume exceeding 2.5 billion kuna. Additional experience has been gained in the implementation of certain products developed within the Investment Plan for Europe, and the ELENA project focused on energy efficiency is currently being implemented ('Advisory' project developed in cooperation with the EIB). Also, through the development of the first PE funds in the Republic of Croatia as well as intensive cooperation with the EIF, in the last few years HBOR has gained significant experience in the implementation of equity products, which is why it is certainly a state institution with the most knowledge and competence in the field of equity financing in the Republic of Croatia. Taking into account the fact that all proposed measures are in line with the existing knowledge and competences of the Croatian Bank for Reconstruction and Development (HBOR), their implementation would be based on the use of existing institutional resources with the potential need for a smaller strengthening of human resources. As regards the implementation of the proposed measures and the application of state aid rules, it is important to note that the HBOR already has the following State aid schemes already notified by the EC: (i) the State aid scheme of the CBRD – GBER; (ii) the State aid scheme for the agricultural sector – ABER; (iii) the low value aid scheme of the CBRD - De minimis Industrial 1407/2013; (iv) the small VALUE aid scheme for primary agricultural production of the CBRD - De minimis Polje 1408/2013. HBOR also has two state aid schemes (for loans and guarantees) based on the temporary framework developed by the EC for the purpose of implementing Covid 19 measures. Taking into account the above mentioned information, the HBOR plans to implement measures under existing support schemes. HAMAG-BICRO has been participating in the Croatian market for 25 years. HAMAG-BICRO is a significant participant in the Croatian financial market both in the Grant segment and in the Financial instruments segment, which are being profiled into increasingly significant funding instruments. Funding sources for financial instruments are mostly from the ESI Funds and partly from the budget. In addition to internal and national audits, they are also subject to audits by managing authorities (depending on the type of financial instrument), and by the Agency for the Audit of the European Union Programme implementation system (ARPA), as well as all other competent audits. In this way an effective system of control and monitoring of the implementation of financial instruments is ensured. HAMAG-BICRO currently has 290 employees, out of which 70 are working on financial instruments. It is evident from the above that HAMAG-BICRO possesses adequate human capacities for the

	implementation of existing and planned new financial instruments. HAMAG-BICRO continuously invests in the digitisation of processes and development of software used in the processing of applications, in order to ensure fast and efficient process, thus ensuring adequate technical capacity for the implementation of financial instruments.
Target Group	Micro, small, medium and large entrepreneurs
Estimated cost	HRK 21,950,000,000 (investment)
Implementation period	2021. -2026.

C1 .1. R2	**Increasing the competitiveness of the economy by strengthening the development of innovation**

Challenge

Based on the latest data, national R & D allocations are at the level of 1.11% of GDP and the Republic of Croatia is at the back of the EU in terms of innovation performance. The Republic of Croatia lags considerably behind the average values at the EU level in research and innovation and is a low level of private sector investment in research and development. The reform will create a legal and financial framework that will enable investment (public and private) to be channelled into smart specialisation, increasing the impact of the innovation system through reform of innovation policies and implementation measures.

According to the Innovation *Union Scoreboard 2020,* the Republic of Croatia is at the bottom of the EU scale (25 th place). The poor results of the *Innovation Union Scoreboard 2020* in the field of business sector investment in R & D and export of medium and high technology products are of particular concern.

This European Innovation Scoreboard, as the most relevant composite indicator on innovation for the Republic of Croatia in the European context, is monitored and analysed within the framework of the smart Specialization Strategy of the Republic of Croatia for the period 2016-2020. (S3). Within the S3, through the monitoring of data for a set of 14 indicators, the progress of the Republic of Croatia in the field of research, development and innovation is monitored. Their analysis of data so far has shown a trend of stagnation of observed values over a longer period of time from 2013 to 2018[10]. However, there have been slight positive developments in certain indicators in the last period (2018/2017), which is a signal for further investments in the given direction in order to make significant progress.

The trend of positive changes continued and according to the *European Innovation Scoreboard 2020* report, there was a relative improvement in the innovation performance of the Republic of Croatia in 2019 compared to 2018 measured by the aggregated innovation index (AGI). *The Summary Innovation Index*, which amounted in 2019 to 58,8 compared to 54,8 in 2018). The above average results were recorded for individual sub-indicators of the collective innovation index according to which the Republic of Croatia is classified as a strong inventor (sub-indicators: *enterprises providing ICD training*, *SMEs marketing/organizational innovations*, innovative SMEs collaborationg with thers) and even a leader (sub-indicator *Non-R & D innovation expenditures*). However, despite the aforementioned positive move, the Republic of Croatia has remained at the back of a group of moderate innovators.

All the analysed data lead to the conclusion that a further targeted and coordinated investment in the upcoming period is needed for faster growth and progress in innovation. Mechanisms for encouraging investment in research and development through grants (and other forms of incentives) will enable further increase of business investments in research, development and innovation at the national level, thus achieving the preconditions for significant progress of the Republic of Croatia towards higher places on the *European*

10Observed period in the draft report on the implementation of the S3 in the period 2016-2019.

Innovation Scoreboard.

According to the Index of Economic and Social digitisation (DESI), the Republic of Croatia is below the average of the EU countries in total at 20 th place, and on some indicators it achieves worse results. According to the McKinsey Survey data from 2018, only about 5% of GDP of the Republic of Croatia was achieved through the digital economy, which is a weaker result than the average of see countries. The European Commission report on the research and innovation system in the Republic of Croatia points out that Croatian companies are concentrated in low to medium technology sectors, with insufficient state support for innovative companies and with insufficient progress towards export of knowledge-based services (according to *Innovation Union Scoreboard 2020*, the Republic of Croatia has achieved only 6% of the EU reference value for this indicator).

World Bank estimates show that investments in research and development in the Republic of Croatia, which are at the top of the value-adding chain, at the level of 3% of GDP (currently at less than 1%) would lead to a steady 6% growth of Croatian GDP and 13% growth of exports.

Objective

Increasing investments in research and innovation, introducing new and improving existing infrastructure and digitalisation will contribute to the development of new production processes and job creation. The Republic of Croatia will encourage research and innovation in all sectors, with an emphasis on key national and emerging industries.

Description

The establishment and strengthening of the activities of the Digital Innovation centres (DIH) and the European Digital Innovation centres (EDIH) is a direct response to weaknesses identified in this Commission report and the CSR to increase access to digital infrastructure and services and to promote skills acquisition.

As mentioned above, the CSR 2019 includes a recommendation to focus investment policy on research and innovation and to increase the capacity of competent authorities to design and implement public projects and policies. The EC report for Croatia for 2020 States that there is a positive link between R & D based innovation and productivity growth in Croatian companies, especially SMEs, but that state aid programmes are largely aimed at helping mature and large enterprises, while support is less provided for diversification and new ventures. It also States that many support programmes are too complex and poorly adapted to business needs, and the proposed measures to increase the competitiveness of the economy by strengthening innovation directly address these findings of the EC.

Implementation

The measure will cover segments in which the Republic of Croatia lags significantly behind at the EU level in the field of innovation, which requires improvement of investment measures in the areas of smart specialisation and NRR by encouraging digital transition of business and development and application of new technologies in the private and public sector, cooperation and putting into operation innovation infrastructure, and strengthening human resources.

Furthermore, the digital transition is crucial for increasing the competitiveness of the Croatian economy, particularly for the recovery of sectors that are mostly affected by the crisis. The aim is to provide support for the establishment and activities of digital innovation centres in the Republic of Croatia which will provide services for digital transformation of economy especially in the field of artificial intelligence, cyber security and high performance computing (HPC), in accordance with the needs and strengths of local/regional and national economy. The purpose of digital innovation centres (DIH), in particular those to become part of the European Digital Innovation centres (EDIH) network, is to support businesses, the public sector and other stakeholders in the process of business digitalisation, the development of digital skills and mediation between service providers in the field of new technologies and users. The edichs (unlike DIHs) should provide all categories of services under the Digital Europe 2021-2027 programme: pre-investment testing, digital skills development and training, support for access to finance

and support networking and development of the innovation system.	
Implementation holder	MINGOR and HAMAG-BICRO
Target Group	Natural persons, micro, small, medium and large entrepreneurs, managers of innovation clusters, organisations or consortia
Estimated cost	HRK 3,116,000,000 (investment)
Implementation period	2021. -2026.

C1 .1. R3 Further improvement of the business environment

Challenge

As for the business environment, in the past period the Republic of Croatia has achieved growth on the leading competitiveness rankings, the *doing business and Global Competitiveness Index*, but there is still a need to simplify the processes that citizens, economists and potential investors are facing in working with the public administration. One of the important elements of a quality business environment is certainly a predictable and understandable legal framework for entrepreneurial activity. Furthermore, in part of regulated professions, the Republic of Croatia faces relatively high regulatory limitations, and reforms aimed at facilitating access to and work in regulated professions continue within the framework of the European Semester.

Objective

This measure will improve the existing system of regulatory impact assessment on the economy and encourage further administrative relief. The aim is to improve the business environment by making doing business in the Republic of Croatia simpler, cheaper and more stimulating for investments, while representatives of the business community and other social partners are well involved in the preparation of legal and subordinate legislation. Easier access to the services market will also be encouraged to reduce the prices of professional services, increase self-employment or new employment in the services market, and improve the competitiveness of providers of such services.

Description

The implementation of this reform will directly address the CSR related to improving the business climate by relieving entrepreneurs from administrative requirements and reducing non-tax levies. Based on the methodology of calculation of Standard cost (SCM methodology), administrative relief of 686 million kuna is expected, and reduction of non-tax charges by 6%.

Implementation

Further work on developing and implementing new generations of digital tools will improve administrative procedures and facilitate interaction with citizens and businesses online. The same will be implemented through plans for the administrative relief of the economy, then the Action Plan for the reduction of non-tax and para-fiscal levies, as described in the part of this chapter relating to investment.

Furthermore, the implementation of the second Action Plan for liberalisation of services markets in the construction, transport, tourism, attorney's office, audit and taxes and geodetic activities, which is in the final stage of preparation, will continue to implement measures for liberalisation of services markets (more than 230 have been implemented so far). These measures do not require investments or investments, but they are part of the government's reform package in the part of encouraging a better business environment.

Implementation holder	MINGOR, holders of the implementation of measures from action plans.
Target Group	The key beneficiaries of this project are state and public authorities. Final beneficiaries are entrepreneurs and companies, start-up companies, as well as foreign investors in the Republic of

	Croatia whose modern regulations will be a good framework and support for business operations.
Estimated cost	HRK 126,250,000 (investment)
Implementation period	2021. -2024.

C1 .1. R4 Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation

Challenge

The cultural sector was among the first to feel the consequences of the crisis caused by the MANIID-19 outbreak, which had harmful economic effects primarily on entrepreneurs and independent artists, but also on other legal entities such as cultural institutions and associations active in the field of culture and art. According to initial estimates, the risk of job loss in the cultural and creative sectors is more than 5%. The dynamics of the negative impact of the pandemic vary among the subsectors of cultural and creative industries, most of which, due to social distance measures, are affected by activities held in front of the public, especially those taking place indoors. A sudden drop in revenues puts their financial sustainability at risk, and measures to suspend or reduce action due to prescribed protection measures and limited mobility dramatically affect the decline in production activities and the creation of new content. Reduced incomes, necessary redundancies negatively affect the entire value chain from creativity, production, distribution and participation and consequently affect other activities related to economic activity generated by cultural and creative industries. One of the characteristics of work in cultural and creative industries is uncertainty, characterized by project work and predominantly atypical forms of work and employment.

Objective

The reform includes activities aimed at achieving the goals of developing long-term resilience of the culture sector and creative and cultural industries to external influences (pandemics, economic influences).

Description

The goal is to be achieved by ensuring the availability of cultural services and cultural infrastructure, enhancing the competitiveness and innovation of cultural and creative industries, by investing in the development of digital infrastructure.

In its recommendations for 2020, the EU Council underlines the need to take all necessary measures and respond effectively to the pandemic, maintain the economy and support the subsequent recovery. Furthermore, the CSR States that it is necessary to continue implementing measures providing additional liquidity to SMEs and self-employed persons. The reform will make progress in the context of sustainability of businesses of entities in the cultural and creative sectors through grant measures, lending and granting guarantees, in particular state, cultural institutions, enterprises and organisations active in the cultural and creative sectors and independent artists, which will result in overcoming the crisis, strengthening competitiveness and recovery of the sector. The Council of the EU recommends promoting the acquisition of skills that is planned to be implemented within the framework of the measures, as this will ensure the strengthening of skills and knowledge of all involved in the implementation, enable the quality performance of all, especially atypical jobs that characterise this sector and will reduce the uncertainty of employees.

The EC adopted the Communication “European Media in the Digital decade: Action Plan to support recovery and transformation”, stressing the need to speed up the recovery, transformation and resilience of the media industry.

Implementation

The reform envisions three measures that will strengthen the resilience of the cultural and creative sectors by developing new models of investment and necessary infrastructure

while stimulating creativity and innovation.	
Implementation holder	MKM
Target Group	Micro, small, medium and large enterprises, other legal and natural persons active in the fields of culture, art and media.
Estimated cost	HRK 650,000,000
Implementation period	01/2021.-12/2025.

(b) Investments

C1 .1. R1-I1	Grant investments in the production and technological capacities of enterprises

Challenge

The economy of the Republic of Croatia is primarily characterised by a significant share of services, while the share of industrial production in gross domestic product of the Republic of Croatia is relatively low and ranges at the level of 16%. In industrial production, the manufacturing industry has the largest share, while high technology level products account for only 4% of the total technological structure of the products. When it comes to the size of enterprises, small and medium-sized enterprises have the largest share in the number of enterprises (over 99%), but large companies above 250 employees make up a significant segment of the economy that employs more than a quarter of total employees and represents almost 50% of total exports of the Republic of Croatia.

In the last two calls (implemented within the OPCC), oriented towards improving the production capacity of SMEs, basic business indicators show that SMEs receiving support grow at a rate of up to 40%, income over 33%, export revenue 160% and EBITDA around 28%. These data show that such investments can significantly strengthen the position of enterprises on the market in terms of accelerated growth in relation to the sector average.

Objective

The aim is to contribute to increasing production, entering new markets, preserving and creating new jobs. These investments will also contribute to the internationalisation of companies and affect the increase of the ability of the Croatian economy to participate in the single market, as well as in global markets and increase their share in total exports of goods and services.

Description

This measure will finance productive investments by both medium and large enterprises (including mid-cap enterprises) through projects aimed at introducing green and digital technologies and fostering clean and efficient production, digitising business operations and developing digital competences and investing in human resources.

The call will support investments of the aforementioned companies in the implementation of new energy efficient solutions – technologies in production facilities for the purpose of optimization of production processes, rational use of resources, introduction of green/environmentally friendly technologies and fostering sustainable growth with more energy efficient and competitive production. Digital transformation of companies through introduction of technologies related to industry 4.0 will be supported, which implies the introduction of industrial robots, electronic components and systems, cyber security, photonics, Big Data, artificial intelligence the introduction of industrial robots and their implementation into the processes and organization of business operations of companies.

The establishment of processes and technological capacities based on medium to highly developed technologies for competitive high-quality value added goods/services for industries in which the Republic of Croatia has competitive advantages will improve the competitiveness of important segments of the economy.

The emphasis will be placed on industrial activities, which will increase not only the supply but also the demand for sustainable products by investing in construction and equipping of

business units, but also on innovation of process and organisation of business led by the demand for sustainable solutions.

Implementation

Grants to enterprises (pursuant to Regulation 651/2014) for:

(i) investments in the construction and equipping of business units, raising the technological readiness of enterprises through regional investment aid pursuant to Article 14 in accordance with the applicable regional aid map,

(ii) investments in innovation of processes and business organisation pursuant to Article 29;

(iii) aid for the training of employees in order to facilitate permanent adjustment to changing business models, working conditions and new trends pursuant to Article 31

In addition to these, de minimis aid may be granted to prepare project proposal documentation, project visibility activities, advisory project management services and project audit costs.

The measure will effectively contribute to strengthening the potential for growth, job creation and economic and social resilience and mitigate the economic and social impact of the crisis and contribute to strengthening economic, social and territorial cohesion. Also, the programme will contribute to the European Green Plan and the Digital Agenda.

Implementation holder	MINGOR
Target Group	Medium and large enterprises (including mid-cap enterprises) in sectors identified as drivers of the economy (primarily NKD sector C).
Estimated cost	HRK 6,000,000,000
Implementation period	3Q/2021.-8/2026.

C1 .1. R1-I2 Liquidity support and investment investments of micro, small and medium-sized enterprises in the form of economic recovery loans and fostering digital and green transition

Challenge

As pointed out in the introduction, the Croatian market is characterised by a generally lower level of investment, lower level of private sector investment in RDI, green and digital technologies, and high dependence on traditional banking sources of financing.

Since the funds of the Environmental Protection and Energy efficiency Fund (FEEF), which is the main holder of the implementation of environmental projects, are limited and the FEEF is the competent authority for the implementation of all projects related to environmental protection and energy efficiency at the national level (for the population, public authorities, large societies, etc.) from practice it is evident that SMEs are committed to all forms of financing, and the focus of society is still on obtaining grants.

Objective

The objective of the financial instrument is lending micro, small and medium-sized small business entities with more favourable financing conditions. In addition to reducing the interest rate and reducing the level of necessary insurance funds, the objective is to increase the availability of loans to this group of entrepreneurs.

The objective of the financial instrument is financing micro, small and medium-sized small business entities for the purpose of: establishing crafts and companies, modernising and expanding the already existing business, self-employment, keeping the existing and increasing the number of new jobs.

Description

In order to enable faster recovery of the domestic economy, but also to ensure a higher level of investment in RDI, green and digital technologies and greater resilience of the Croatian economy to possible future economic and financial disturbances in the long run, it

is proposed to implement new financial instruments financed by the RDF.

Implementation

Three types of financial instruments are planned: (i) investment loans; (ii) crafts loans; (iii) conditional grant investment loans.

The difference between investment loans and loans for working grants is for the sole purpose, as well as defined interest rates, while investments in green and digital technologies would be eligible for conditional grant investment loans, while the interest rate would be more favorable than conventional investment loans. Loans for investments and loans for working assets are intended to adapt to new changes in the market, job preservation and transition towards a green and digital economy. Investment loans and working funds would be granted to the SME segment that has the need to invest in any segment or liquidity financing.

When talking about investment loans with conditional grants, it is envisaged to provide loans with the option of converting part of the loan into grants, while meeting certain parameters that will be measurable and clearly prescribed by the Programme (e.g.% savings in energy consumption,% reduction in operating costs, etc.). The grant could amount to a maximum of 49% of the loan amount for applicants with the maximum aid intensity for the investment concerned, as part of the grant must not exceed the amount remaining on the financial instrument. It is assumed that investment loans would be granted for a period of up to 10 years, and HAMAG-BICRO would check, under conditions that will be specified exactly by the Programme after half of the duration of the orderly loan repayment, whether the applicant has achieved the set parameters in the form of e.g. energy savings/digitalisation/automation of business processes, etc. in the manner planned by the investment survey. According to the parameters provided for, a percentage of the loan amount would be determined, which would be converted into a grant part, while the rest of the loan would continue to be repaid under previously agreed terms and conditions. Should it prove that the parameters have not been met to the foreseeable extent, the applicant would continue to repay the principal with interest in the manner and within the time limits set by the initial repayment plan.

Since HAMAG-BICRO is an accredited body in the Republic of Croatia for granting grants to the economy and has long-standing experience of crediting, creating and implementing such a financing model combining the financial instrument with conditional grants is a logical sequence[11].

When defining the conditions of these financial instruments through programmes, all relevant documents and recommendations at EU level related to investments in green and digital will be taken into account, and all sectors except those prohibited by relevant acts related to state aid will be encouraged. Since the integration of environmental protection or green business into all sectors, such as tourism, industry, transport, etc., is very important, no sector demarcation is planned, but all applicants investing in digitisation and green business would have a higher interest rate than other applicants/investments[12]. For loans for working assets, this demarcation will not be monitored, but the interest rate, as it has been so far, will be slightly higher in relation to investment loans. Programs created in this way proved extremely successful because of their simplicity, so HAMAG-BICRO plans to retain them during the new programming[13] process.

11 Within OPCC, through part of priority axis 3 “business Competitiveness” and part of priority axis 1 “Strengthening the economy by applying research and innovation”, entrepreneurs were made available, through ten calls, 3.3 billion kuna of grants directly supporting investment in R & D and encouraging innovation in enterprises, including encouraging innovative start-ups, introducing information and communication technologies, improving interaction with clients and suppliers, accelerating the business-production cycle and improving the quality of products or services and reducing business costs, introducing spin-off-business technologies and cooperation with other businesses.

12 Given this wide range of activities and specificities of each particular activity, different criteria would be defined, such as encouraging energy efficiency and the use of renewable energy sources in SMEs' business operations, purchasing machines and devices that consume less energy for work, reducing emissions of harmful gases in production processes, digitizing business in the form of investments in different software, etc. Please note that R & D cannot be financed through loans since the outcome of the research cannot be predicted and therefore the repayment potential of the applicant is questionable.

13 So far, 2,500 companies have been stimulated through ESIF loans, with HRK 630 million disbursed, while in the current year alone, over 3,000 enterprises have been provided with LIQUIDITY through A CIVIL-19 loan in the amount of HRK 900 million.

Private investment in the financial instrument loan is optional and depends on the investment amount. In practice, the investment in a large number of cases has been shown to be higher than the loan amount, therefore the undertaking must prove that it has its own participation in order for the financial structure to be closed down. It is important to ensure that the investment can be completed to the level at which it can start generating revenue, which is the basis for repayment of the granted loan.
Credit programmes will BE approved directly by HAMAG-BICRO in the amount of up to 100,000 euros.
Planned projections for THE RDF are based on the use of funds by 2023, after which the funds from OPCC 2021-2027 are planned to be used.

Implementation holder	HAMAG-BICRO
Target Group	The programmes are aimed at micro, small and medium-sized enterprises, in accordance with the rules on granting state or low value aid.
Estimated cost	HRK 4,000,000,000 for loans (of which the plan for HRK 3 billion is to refer to the recoverable part of loans, and HRK 1 billion to loans that will be converted into grants if the set conditions are met).
Implementation period	2021. -2026.

C1 .1. R1-I3 Mezzanine financial instrument loan for small business entities for economic recovery and fostering digital and green transition

Challenge

The domestic financial market is known to be characterised by a higher level of corporate debt caused by poor diversification of sources of financing. Although part of the commercial financing has seen a shift in a part of a lower level of interest rates, the availability of commercial sources of financing is conditioned by the existence of adequate collateralisation and a relatively high level of own participation. The current pandemic has caused an additional reduction of the risk propensity of commercial financial institutions, making commercial sources of financing even more difficult to access, which is exacerbated by increasingly stricter legislation.
When financing an investment, a business bank, in order to reduce the risk, most often conditions its own participation in the investment (approx. 20%-30% of the total value of the investment). Investors often cannot finance the same, especially in the current situation of the pandemic when accumulation has been spent to cover current liquidity, forcing them to abandon the investment.
While in the part of reducing the need for insurance instruments as an adequate instrument on the market there are guarantees (individual and portfolio) issued by HAMAG-BICRO, there is currently no adequate instrument in the part of the answer to increased demands for own participation.

Objective

The objective of the financial instrument is to enable micro, small and medium-sized small business entities to finance their own participation in investors, since the available funds for investment investments are spent on maintaining liquid liquidity as a result of a reduction in business activity caused by the coronavirus pandemic.

Description

HAMAG-BICRO from this fund plans to introduce a mezzanine financing instrument in the form of a loan of up to 200,000 euros, which would cover the needs of applicants who provide investment financing in a commercial bank, with a lack of their own participation in relation to the percentage required by the bank.

The financial instrument of loans financed by OPCC 2014-2020 has been fully used even after increasing allocations on several occasions, demonstrating that financial instruments have been created according to market needs.

Through the mezzanine loan, the hybrid financial instrument in question is intended to provide financing for part of the undertaking's own participation in the investment. It is a loan that has a higher interest rate than the commercial one and is in a subordinated position in terms of repayment in relation to the commercial loan.

Implementation

The target group are companies of the SME segment that operate in a stable manner and have a developed business strategy, in which a positive cash flow is expected in the future, but which have difficulties in obtaining loans from the bank due to lack of their own participation. Mezzanine is the so-called cash flow based finance, which practically means that the approval of mezzanine is related to the future financial performance of the company (net profit and cash flows), unlike the loan which is a “asset based finance”, i.e. the approval of the loan depends on the existence of adequate collateral on the assets of the enterprise.

This would be a subordinated debt with a slightly higher financing cost than a commercial loan, which would cover its own participation in the investment, thus ensuring the preconditions for the implementation of investments that would otherwise not be able to provide a closed financial structure.

This financial instrument has not been implemented on the Croatian market so far. Market analysis and data obtained from business banks and target groups (SMEs) confirmed the need for this aspect of financing that HAMAG-BICRO WOULD cover through the implementation of the mezzanine loan.

Implementation holder	HAMAG-BICRO
Target Group	The programme is aimed at micro, small and medium-sized enterprises, in accordance with the rules on granting state or low value aid.
Estimated cost	HRK 700,000,000 (expenses refer to loans to be disbursed to final recipients)
Implementation period	2021. -2026.

C1 .1. R1-I4	**Liquidity support and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies**

Challenge

The practice so far shows that individual entrepreneurs, due to the lack of collateral, did not want to provide loans to finance the projects for which the grant was received, and were therefore forced to cancel the grant agreement and finance the entire investment from the loan.

The role of HAMAG-BICRO is to monitor the SME of entrepreneurs from the establishment of the company to its growth and development. Given the inputs received by commercial banks, i.e. the exceptional vigilance thereof in further financing in view of the consequences of the pandemic that will be felt in the coming years, commercial banks consider the State guarantees, which are a first-class guarantee instrument certified by the regulator, a mandatory collateral when granting new credit placements, since it is a first-call guarantee. The attractiveness and necessity of this financial instrument is confirmed by the data we receive from the entrepreneurs themselves and from various interest associations (e.g. HGK, Croatian Chamber of trades and Crafts, Association of businessmen, etc.).

Objective

The objective of the financial instrument is to encourage financial institutions' activities, i.e. to facilitate access to finance for micro, small and medium-sized small business entities

through: greater availability of loans and other forms of financing, reduction of interest rates, reduction of collateral requirements, increase in employment, increase in private investment, increase in the number of supported small business entities including newly established entities.

Description

In order to enable faster recovery of the domestic economy, but also in order to ensure a higher level of investment in RDI, green and digital technologies and greater resilience of the economy of the Republic of Croatia to possible future economic and financial disturbances in the long run, it is proposed to implement new financial instruments financed by the RDF, which would enable the combination of guarantees with subsidy on investment loans for which the undertaking was previously granted a grant.

Implementation

For the above reasons, it is envisaged to implement new guarantee financial instruments in which it is possible to combine the guarantee with or without interest rate subsidies as well as to combine the guarantee for projects in which part of the investment would be covered by a grant, in accordance with the State aid rules. Implementation is based on the development of guarantee schemes for securing loans in cooperation with commercial banks, loans for handicrafts and investments with the aim of adapting to new changes in the market, preserving jobs and transition towards a green and digital economy.

The costs relate to guarantees for commercial bank loans. The average value of the guarantee in ESIF individual guarantees is 70% of the principal of the loan, and half of the final recipients are Strat-up companies that are by definition extremely risky for financing in commercial banks. Also, companies that have operated for many years have used “solid collateral” for existing debts, which is why they lack adequate collateral to finance further development.

Investment loans and loans for working assets will be provided through guarantees, however, loans to be secured through these guarantees, which have an impact on the digitisation and green operations of applicants will have more favourable conditions (higher % of guarantees, lower fees, etc.). Also, interest rate subsidies would be granted only for investment credits aimed at investing in digitisation and green transition. The interest rate subsidy would amount to a maximum of 50% of the accrued loan interest according to the Bank's repayment plan.

The guarantee programmes will be implemented directly and in cooperation with commercial banks by HAMAG-BICRO in the work of activities related to issuing guarantees for SMEs to entrepreneurs in the amount of up to 4.000.000 EUR.

Implementation holder	HAMAG-BICRO
Target Group	The programmes are intended for micro, small and medium-sized enterprises.
Estimated cost	HRK 1,200,000,000 (HRK 1,000,000,000 for guarantees, HRK 200,000,000 for interest rate subsidies)
Implementation period	2021. -2026.

C1 .1. R1-I5 Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects

Challenge

Although small and medium-sized enterprises account for the largest share in the number of economic operators (over 99%), large companies above 250 employees represent an extremely important segment of the economy of the Republic of Croatia. Companies above 250 employees employ more than a quarter of total employees and represent almost 50% of total exports of the Republic of Croatia, and also have a significant contribution in investments in RDI, as well as the overall level of investments in the economy of the

Republic of Croatia. What is more, the activities of a large number of small and medium-sized enterprises are closely related to the activities of large companies, which is why possible restrictions on the development and competitiveness of SMEs can also have a strong impact on the future development of small and medium-sized enterprises. Large companies have a high influence in value chains. It is also important to note that despite the fact that they belong to a group of large companies, the largest number of large companies in the Republic of Croatia belong to the group of mid-capitalised enterprises (mid-cap[14] companies), i.e. companies employing up to 3,000 employees, which makes their position on global markets still relatively modest.

The "market gap" analysis carried out by PwC within THE SRSP project to draft a new medium-term business strategy for HBOR, points out that the Croatian industry is mainly based on lower value-added products characterised by lower productivity levels and lower industrial maturity. Industrial production is mainly oriented towards activities with low technology, outdated machinery and equipment, which is particularly pronounced in the metal, textile, food and wood processing industries. The total investment gap in the 'mid-cap' segment was estimated at 169.79 m euros per year, by solving which will contribute to the digitalisation of business operations and transition to industry 4.0. Given the need for investment investments, PwC proposed that HBOR focus its activities on digitisation loans and industry 4.0 lower interest rates and lower collateral requirements.

It is also important to note that the *market gap analysis* underlined the need for significant support for digital and green transformation of the economy of the Republic of Croatia, regardless of the size of the subjects, which is why these objectives have been accepted as strategic objectives of the business of the Croatian Bank for Reconstruction and Development in the next five-year period.

In addition to digital transition, energy efficiency and renewable energy sources are strategic elements of national, EU and global energy policies. Although the Republic of Croatia, due to its large share of electricity production from hydro power plants and recent measures to stimulate investments in other forms of renewable energy sources, has achieved almost all of its objectives set for the period until 2020, the announcements of future EU targets put additional challenges and the need for further investment before the Republic of Croatia. Unlike in the field of renewable energy sources, in terms of energy efficiency, the Republic of Croatia faces significant challenges, especially in the transport and consumption of energy in buildings. In order to improve biodiversity, green infrastructure in urban environments and reduce pollution, further strengthening of environmental and biodiversity protection measures is necessary. In view of all the above, PwC has estimated the annual investment gap (*investment gap*) in energy efficiency and renewable energy sources in the framework of the project for the development of the medium-term HBOR Strategy in the amount of 658 million EUR.

Objective

Faster and stronger transition of enterprises (target Group) to green and digital technologies. Development and implementation of green and digital technologies in business processes of enterprises with the aim of reducing negative impacts on climate and environment, fostering sustainable development and strengthening local, regional and global competitiveness.

Description

Taking into account the above mentioned importance of large companies in the economy of the Republic of Croatia in the coming periods, it is necessary to encourage their stronger transition towards green and digital technologies.

In order to encourage the strengthening of the process of transition of mid-capitalised and large enterprises towards green and digital technologies, it is proposed to develop two measures of financial instruments aimed exclusively at: (i) green projects - projects aimed at environmental protection, energy efficiency and renewable energy sources independently of business activities, but with a view to focusing a significant part of

14 Mid cap enterprises – enterprises employing 250-3000 employees

investments on investments in industry, as well as (ii) projects of digital transformation of enterprises.
The proposed financial instruments are envisaged in the form of credit instruments with grant elements (*grants*), while in other sectors (e.g. tourism sector) they would stimulate the transition to a circular economy, renewable energy sources and strengthening energy efficiency, by awarding grants.
The proposed financial instruments would provide more favourable conditions for crediting the investments of economic operators, with the possibility of converting the works of loans into grants (*grants*) if the objectives related to the implementation of green technologies or the digital transformation of enterprises are met. The instruments would be implemented along the lines of HBOR products developed under ESIF funds (MFF 2014-2020). Namely, in the case of existing ESIF financial instruments, the available ESIF funds are used as a source of principal credit. The proposed measure also envisages the conversion of loan works into grants in case of realisation of planned green and "digital" objectives, which is not the case with existing ESIF financial instruments. The measure proposes a total volume of funds amounting to HRK 1.5 billion. The volume in question represents the total planned amount of loans that would be placed on end-users of loans (economic operators) for the realisation of investments aimed at achieving green and digital goals. Given the grant component (grant funding) is planned to be realised through the conversion of works of approved loans into grants, no additional funds are required for the implementation of measures regarding the grant component. This approach would allow stronger support to larger operators in green and digital transformation processes, as well as a more efficient grant management system, given that it would be approved only after the achievement of the programme (green and digital) objectives. The model in question also enables better control of the dedicated use of grants.
The "hybrid" instrument of credit and grants in question is a new financial instrument that is currently not available on the Croatian market. The model is modelled after the models seen in development banks in individual EU member States.

Implementation

According to the currently available information, the implementation of the measures would be based on the application of the existing HBOR State aid schemes. Namely, the HBOR already has experience in lending projects that are beneficiaries of various forms of EU grants.

Implementation holder	The measure would be sponsored by the HBOR, which as a state development and export bank has many years of experience in lending to small, medium and large entities, with emphasis on lending long-term investments aimed at strengthening the competitiveness of the Croatian economy. The HBOR gained additional experience through the implementation of several financial instruments from the perspective 2014-2020, as well as in the implementation of financial products developed in cooperation with the EIB Group (ELENA and NCFF projects aimed at energy efficiency and protection of bio-diversity). Also, as noted in the Reform description, during 2020 HBOR reported a DG reform under the TSI programme project to improve the management system for the Bank's environmental and social performance indicators. Although the HBOR already has a specialised organizational unit (DTAZO[15]), methodologies and procedures related to the evaluation of investment projects in relation to environmental impact as well as environmental protection, the possible implementation of the aforementioned project TSI would

15DTAZO - Directorate of Technical analyses and Environmental Protection - the organisational unit inside the Croatian Bank for Reconstruction and Development (HBOR) in charge of technical analysis of the impact of investment projects of economic operators on environmental protection. An organizational unit composed of engineers of construction and mechanical engineering.

	enable further strengthening of the institutional capacity of the HBOR and an even better quality and efficiency in the implementation of regular activities of the HBOR as well as the activities provided for in this measure. The grant measure for large enterprises in the tourism sector would be sponsored by the Ministry of Tourism and Sports (MINTS), which is sector responsible for the implementation of public policies and reforms in the tourism sector.
Target Group	Mid-cap and large enterprises and enterprises whose projects exceed the amounts covered by C1.1.R1-I2 to C1.1.R1-I5
Estimated cost	HRK 2,3000,000,000 (grants)
Implementation period	4Q/2021.-2Q/2026.

C1 .1. R1-I6	**RRF "Umbrella" guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.**

Challenge

As pointed out in the introductory chapter, the economy of the Republic of Croatia, even without the influence OF CHID-19, has on average achieved a lower level of investment compared to some other member States, as well as the EU average. The same was particularly emphasized in the field of investments in high technologies and higher value-added products.

Apart from the aforementioned lower level of investment, one of the structural characteristics of the economy of the Republic of Croatia is a high dependence on traditional (banking) sources of financing that have a dominant role in the financial market of the Republic of Croatia. According to the HANFA 2020 data, banks account for almost 70% (68.1%) of the total financial sector of the Republic of Croatia, followed by pension funds and insurance companies, and only then by other forms of financial services (*leasing* and *factoring* services, VC and PE funds, etc.). Even before the phenomenon of THE CIVIL-19 pandemic, one of the key obstacles in the availability of bank loans on the Croatian market was an obstacle related to the availability of banks with acceptable instruments of credit insurance, which PwC stated in its "market gap" analysis conducted within the framework of the project for the development of the CBRD's mid-term strategy. PwC also cites as one of the possible measures for solving this problem the establishment of first-class and first call portfolio guarantee schemes. The issue of adequacy of collateral is particularly highlighted in cases of investments in RDI and high-tech machines and equipment which are not usually an acceptable instrument of collateral for bank loans due to weaker marketability.

The phenomenon of THE CIVIL-19 pandemic caused a number of additional market disturbances at the global, regional and national levels which resulted in an increase in business risks of economic operators, resulting in a decline in business banks' activities on the Croatian market. The decline in bank activities negatively affects the availability of funding (*Access to finance*) both in terms of the short-term liquidity needs of economic operators, but also in terms of investment investments that have a key impact on future economic recovery, competitiveness and the successful transition of the Croatian economy to green and digital technologies.

Objective

Encouraging and recovery of economic and investment activities on the Croatian market, strengthening competitiveness and the green and digital transition of economic operators through strengthening the activities of commercial banks (and other financial intermediaries) as a key precondition for short - and medium-term growth of investment.

Description

In order to mitigate existing market failures and to ensure long-term strengthening of

business banks' activities, it is necessary to establish mechanisms (financial instruments) aimed at reducing the risk of lending to economic operators through the establishment of new guarantee models.
Guarantee programmes financed from ESIF funds 2014-2020 are currently primarily available on the Croatian market. The guarantee schemes concerned are (i) aimed exclusively at investments by SMEs and do not support activities of mid-capitalised and large entities; (ii) limited by a guarantee amount which cannot exceed EUR 4 million.
Although the need for higher amounts of guarantees, as well as guarantees for medium sized and large enterprises already existed before the civil-19 pandemic, the phenomenon of THE civil-19 pandemic was additionally emphasized even for economic operators active in sectors that were considered as the most propulsive sectors of the Croatian economy until the pandemic emerged. Recognising the need to strengthen the activities of commercial banks, especially under the conditions of the Covida 19 pandemic, during 2020 HBOR independently and in cooperation with the relevant ministries, the CNB and others held a large number of meetings with commercial banks, where commercial banks stressed the need to insist on horizontal guarantee schemes aimed at crediting liquidity and investments. The need for further development of guarantee schemes is also expressed in the analysis of the Croatian Banking Association, published in October 2020 and focused on current needs related to THE civil-19 pandemic.
In order to encourage the strengthening of business banks' activities as a precondition for strengthening the investment cycle in the economy of the Republic of Croatia and to ensure support to medium-sized and large entities, as well as small and medium-sized enterprises whose project amounts require guarantees of more than 4 million euros, and whose needs are not met by currently available guarantee programmes, it is proposed to establish a new 'Umbrella' guarantee fund. It is a new financial instrument that is currently not available on the Croatian market. As pointed out in the introduction, the existing guarantee schemes are aimed exclusively at investment and craft loans of SMEs of entrepreneurs with the highest guarantee amount of up to EUR 4 million.
"*Umbrella*" guarantee fund is conceived as a horizontal financial instrument aimed at: (i) issuance of guarantees for placements (loans, guarantees and similar transactions) of commercial banks and other financial intermediaries; (ii) issuance of guarantees for investments but also liquidity (crafts), with emphasis on green projects as well as projects aimed at digital transition of economic entities, but not excluding other projects aimed at enhancing the competitiveness of the economy of the Republic of Croatia; (iii) all sectors and emphasis on existing industries;

Implementation

Operative implementation of the "*Umbrella*" guarantee fund is envisaged in the form of issuing individual or portfolio guarantees. The guarantees would be issued on the basis of the requirements of commercial banks and other financial intermediaries.
The key risk in implementing the model is related to the possible lower willingness of economic operators to enter new investments, especially if further disturbances occur on the global and EU markets.
The implementation of the model would be based on the application of all valid national and EU acts related to state aid. Namely, the HBOR has been actively applying all applicable EU regulations in the field of state aid since 2006 and has an exceptionally significant *know-how* in the field of state aid regulations. The implementation of the measure would be based on the existing HBOR support schemes, described in the introductory part of the description of the implementation of the reform.
Monitoring the implementation of the measure would be based on periodic reports prepared by the activity holder i.e. HBOR.
In addition to cooperation with domestic financial intermediaries, the HBOR has many years of successful cooperation with the EIB Group (EIB and EIF). With the exception of the Ministry of Finance, HBOR is the largest beneficiary of EIB funds in the Republic of Croatia with the contracted and implemented more than 2 billion euro transactions. Taking

into account this cooperation, the HBOR is currently negotiating with the EIB and the EIF the possibility of using the EGF Guarantee instruments (*European Guarantee Fund*). Despite the aforementioned 'Umbrella', the guarantee fund has a clear demarcation in relation to the EIB Group's initiative in question. Namely, the EGF is envisaged as an instrument of direct response to THE CIVIL-19 crisis and is primarily aimed at financing liquidity, and implementation of the crisis is planned by the end of 2021. Implementation of the "*Umbrella*" guarantee fund envisaged from the second half of 2021 to 2026, and funds will primarily be directed towards the recovery of the Croatian economy (*Aftermath Covid*) and transition towards green and digital technologies, and less towards liquidity.

Implementation holder	The HBOR would be the bearer of the activities. The HBOR has the appropriate experience and model of cooperation with commercial banks, taking into account the fact that the HBOR is not only a development bank but also an export credit agency with many years of experience in performing export insurance activities as well as issuing guarantees for export credits. The HBOR already has existing experience, knowledge and agreements on business cooperation with almost all commercial banks in the Republic of Croatia, which would enable the implementation of the 'Umbrella' guarantee fund very soon after approval of the measure. At the same time, given the revolving character of financial instruments, it would be possible to use the funds in periods after the initial implementation of the model.
Target Group	SMEs, mid-capitalised (so-called Mid-cap) and large entrepreneurs not covered by the existing guarantee schemes available on the Croatian market, including entrepreneurs engaged in primary agricultural production and fisheries.
Estimated cost	HRK 1,500,000,000 (grants)
Implementation period	3Q/2021.-2Q/2026.

C1 .1. R1-I7	**RRF favorable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of HBOR financing + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes**

Challenge

Following the previous explanation related to a lower level of investment in the economy of the Republic of Croatia compared to the EU average, in addition to the issue of availability of available sources of financing (activities of commercial banks), an additional question is related to financing costs. Although interest rates have declined on the Croatian market in the last few years, they are still higher than interest rates in eurozone member States.

The "market gap" analysis, conducted by PwC as part of a project to draft a medium-term HBOR strategy, highlights one of the market failures of a high interest rate compared to other eurozone members. The total investment gap in the ICJ and mid-cap segment was estimated from 511 m euros to 609 m euros annually.

The crisis caused by the LENID-19 pandemic strongly affected the fall in corporate income (even the total lack of revenue in certain periods), but also the deterioration of the conditions for collection of receivables. The available cash flows for both current liquidity and long-term investments of enterprises have been significantly reduced. Although the Republic of Croatia, with the support of the EU, is making great efforts to secure additional budgetary resources for crisis resolution and job preservation, a number of companies are facing the problem of reduced activity and liquidity. Uncertainty of economic developments further influenced the abandonment of planned investments and generally reduced the willingness of economic operators to invest in the long term. In particular, declining investments have been recorded in service sectors, which have been key generators of new investments in the economy of the Republic of Croatia over the past ten years.

These effects have a negative multiplicative effect, because they spill over to both suppliers and creditors. Namely, broken value chains affect difficult production and timely delivery of goods, which is reflected in higher production costs. The negative consequences of the COVID-19 pandemic will also affect the quality of banks' credit portfolios, which makes it possible to expect further negative impacts on bank profitability, as well as the ability to provide more favourable sources of financing. Development banks play a key role in the implementation of countercyclical measures precisely during periods of decline in economic activities. In the last 15 years, the Croatian Bank for Reconstruction and Development (HBOR) has made significant efforts to strengthen cooperation with EU financial institutions, primarily the EIB and the CEB, all with the aim of securing more favourable sources of financing for the Croatian economy. Despite the aforementioned, due to limitations related to EIB and CEB funding volumes, the HBOR continues to provide part of the necessary funds through activities in the money and capital markets. Due to a somewhat lower rating of the Republic of Croatia, HBOR debt conditions are significantly worse than development banks in eurozone member States. Higher financing costs are also spilling over to the possibilities of financing the Croatian economy, as well as the conditions for cooperation with commercial banks.

Objective

Encouraging and recovery of economic and investment activities on the Croatian market, strengthening competitiveness and green and digital transition of economic operators through securing more favourable (stimulating) conditions for financing working capital and investment projects.

Description

Taking into account the above stated in order to increase the willingness of ECONOMIC operators for new investments in the phase of economic recovery from the Commodity-19 pandemic, the objective of the RDF measure is to provide funds for the granting of favourable loans for handicrafts and investments both in terms of overall strengthening of enterprise competitiveness, but also in terms of investments in digital and “green” transition. Favourable loans will reduce the costs of financing the private and public sectors, thereby increasing companies' available cash flows. The same will contribute to the improvement of the business environment and growth of investment activities in the economy and the preservation of jobs. The proposed horizontal measure to secure more favourable sources of HBOR financing would focus on all sectors (except activities normally excluded in development banking such as casinos, arms trade, etc.), including agriculture and fisheries, but with the application of the relevant framework of state aid in agriculture and fisheries.

The measure may also have a positive impact on the activity of commercial banks as they represent a key channel for the distribution of HBOR credit resources.

Implementation

The implementation of the measure of more favourable lending to business entities is envisaged through the realisation of two key components: (i) through the provision of favourable sources of HBOR financing from THE RRF loan allocation and (ii) through the establishment of a fund of subsidies for interest subsidies on approved loans and fees/premiums per issued guarantees from the RRF grant.

The implementation of the measure is based on the existing model of implementation of individual HBOR credit programmes. The proposed volume of funds for the implementation of the measure amounts to 4.5 billion kuna, out of which 3.75 billion kuna refers to the necessary amount of principal loan from the RRF loan allocation and 750 million kuna interest subsidy from the RRF 'Grant' allocation.

The measure is envisaged as a separate financial instrument, independent of the existing financial instrument under the OPCC. Namely, the existing financial instrument from OPCC focuses exclusively on liquidity, namely micro loans up to EUR 100,000. The proposed measure would primarily target loan amounts above 100,000 euros and, in addition to liquidity financing, focus on long-term investments necessary to strengthen

competitiveness, digital transition processes and investments in green technologies. It would enable the strengthening of existing capacities in the manufacturing and service sectors through the procurement of machinery and equipment, IT technology, construction of business facilities, etc.
In addition to positive effects on the strengthening of investments in the economy of the Republic of Croatia, the proposed measure also has a positive impact on the business of the Croatian Bank for Reconstruction and Development (HBOR) and the state budget of the Republic of Croatia. Namely, favourable sources of HBOR financing will reduce the cost of HBOR borrowing, as well as reduce the need for HBOR borrowing on financial markets, which will have a positive impact on the Croatian State budget, since HBOR borrowing is consolidated with the central government debt.
Favourable sources of financing will be used for the placement of favourable funds to final beneficiaries through commercial banks, according to the risk-sharing model, including syndicated loans, as well as through direct loans from HBOR.
The interest subsidy fund on granted loans and fees/premiums on issued guarantees will serve as an additional lever to reduce the cost of customer financing.
As early as the beginning of 2020, in the framework OF THE CIVIL-19 measures, the HBOR started a programme for the granting of favourable loans and interest rate subsidies for loans for working grants granted to end beneficiaries who were affected by the crisis caused by the civil-19 pandemic, all in accordance with the temporary framework for state aid measures in order to support the economy in the current pandemic and -19 EC. The maximum amount of aid in the form of an interest rate subsidy per undertaking shall be EUR 800,000, with the exception of aid to undertakings active in the primary agricultural production sector and the fisheries and aquaculture sector (up to EUR 120,000 per undertaking active in the fisheries and aquaculture sector or EUR 100,000 per undertaking active in the primary production of agricultural products). The EC also allowed subsidies on investment loans to which this measure would also apply. All activities within the framework of this measure, as well as all previous activities of the Croatian Bank for Reconstruction and Development (HBOR) which have already been and will be in future harmonised with the state aid rules. HBOR has notified State aid schemes both in the area of GBER and also in the area of the current temporary framework of state aid. In the implementation of this measure, it is planned to use the HBOR's existing support programmes.
The funds allocated from the RDF for favourable HBOR loans are complementary with all current sources of HBOR financing. Bearing in mind that the EIB is the HBOR's biggest creditor (more than 70%), this funding will enable the diversification of the sources of financing of the HBOR. Other similar EU sources are currently not available to HBOR for this purpose.
The assumptions of successful implementation of this measure relate to the definition of interest rates on loans at levels sufficiently attractive to end users in order to be interested in entering new investments. Interest rate/fee subsidies per guarantee issued must enable, on the one hand, a sufficiently low interest rate for final beneficiaries, but also a sufficient interest rate/compensation for a commercial banker/HBOR in order for the bank to cover an increased credit risk.
As the bearer of all activities under this measure, the HBOR has years of experience in the implementation of various financial instruments, lending and lending with interest rate subsidies. All activities carried out by HBOR are in line with state aid and only reporting on granted aid is regulated. All activities carried out by HBOR in cooperation with commercial banks are regulated by the existing agreements on business cooperation, which is why the implementation of the measure is possible immediately after the adoption thereof. Also, as mentioned in the introductory part of the description of the implementation of the reform, HBOR is in the final phase of the IMPLEMENTATION of SRSS project aimed at modelling a new credit rating system for borrowers. Completion of the project is planned by the end of 2020, and implementation of the project will enable further improvement of activities as well as increasing the effectiveness of the CBRD in the implementation of regular activities

of the Bank, but also of activities proposed by this measure.	
Implementation holder	HBOR
Target Group	The measure supports the liquidity and investments of undertakings in all sectors, including undertakings engaged in primary agricultural production and fisheries, and public sector entities, irrespective of their size (SMEs, MidCap, large entities) for loans above EUR 100,000.
Estimated cost	Estimated cost of HRK 4,500,000,000 (from THE RDF grant allocation (interest and benefit subsidy fund))
Implementation period	3Q/2021.-2Q/2026.

C1 .1. R1-I8	**Encouraging the internationalization of the Croatian economy by strengthening the guarantee fund for export insurance and export credit financing activities**

Challenge

The Croatian economy has been characterised by a deficit in foreign trade in goods for many years. According to available data on 30.6.2020. the coverage of imports with exports is 63,90%. Domestic exports are often characterised by exports of goods with lower added value (raw materials, semi-finished products), which further deepens the problem. Moreover, most export activities focus on a narrow circle of regional markets or markets where domestic producers have been present for many years.

In order to strengthen the resilience of the Croatian economy in the long term, it is necessary to strengthen its international competitiveness, ensure a greater presence of economic operators on the regional and global market and reduce the deficit in trade in goods in the long run.

Objective

The short-term objective is to facilitate access to external financing for exporting companies at a time when normal functioning of the market is severely disturbed due to a civil-19 pandemic through strengthening the warranty capacity of THE CBRD and increasing its guarantee activity, as well as through ADDITIONAL measures to co-finance the costs of INSURANCE premiums. Taking into account the significant reduction in the credit activity of commercial banks, guarantee schemes in the form of insurance policies will encourage banks to make stronger lending. The availability of financial resources will contribute to the recovery of the economy, job preservation, growth of investment activities and stronger investments by exporters in RDI.

The long-term goal is to strengthen financial support for exporters and internationalize the Croatian economy. The implementation of the measure to strengthen the guarantee fund of export insurance will enable stronger support to exporters even after the end of the crisis caused by the pandemic through continued regular activities of the CBRD and the introduction of new products in the part of export credit insurance. The realization of presented short - and long-term objectives of the measure is based on existing models of implementation of tasks supporting export and internationalization of the domestic economy, which is why the measure can be implemented in the shortest time period.

Strengthening financial capacities of the export insurance fund will reduce possible negative effects on the budget of the Republic of Croatia due to possible losses expected under implemented HUMAN-19 measures aimed at exporters.

Description

Following the outbreak of Pandemic COVID-19, the HBOR, in cooperation with the competent ministries in April 2020, partially adjusted export insurance products and directed a significant part of the guaranteed export insurance fund funds to guarantee (insurance policy) on loans for the handicrafts of exporters affected by the COMID-19

pandemic. The crisis measure in question initially provided coverage of 50% of the principal of the loan, and the last amendment initiated by the market allows for insurance (loan guarantee) of up to 90% of the principal amount (for cover of less than 90% of the insurance cover also includes regular interest) COVID-19 loans granted by commercial banks and HBOR to the private liquidity sector.
The above-MENTIONED CIVIL-19 measure, as well as the last amendment, was also approved by the EC within the framework of the temporary trigger for state aid measures in order to support the economy in the current Covida-19 pandemic. HBOR has so far signed agreements with 15 banks. The interest of banks stems from the current market gap in part of available guarantee schemes for loans above EUR 2 million.
HBOR charges insurance premium for issued guarantees (loan insurance policies), depending on the level of coverage of insurance policy, in accordance with the provisional framework. For insurance policies covering 90%, for which the highest demand is expected, the premium rate depends on the loan duration and size of the undertaking (the premium is calculated as the sum of premium rates for each loan year).
Costs of premiums per insurance policy represent a significant expenditures for business entities, whose cash flows have already been significantly damaged by the crisis caused by the civil-19 virus pandemic, which is why the amendment of the state aid scheme (the amendment adopted by the EC) enabled additional co-financing of insurance premiums under the HUMAN-19 measure in question.
Given the significant demand of commercial banks for this instrument, the funds of the guaranteed export insurance fund will be largely directed towards the implementation of the above described COVID-19 guarantee measures (insurance policy), which raises the question of the need to strengthen the financial capacity of the guaranteed export insurance fund for the implementation of regular activities within the scope of the export-credit agency. The fact that at THE end of THE CIVIL-19 crisis it will be necessary to channel much more significant funds in support of exporters indicates the need to find additional sources of financing for the guarantee fund. Also, due to the higher level of expected losses (losses caused by THE CIVIL-19 pandemic), it is necessary to reduce potential negative consequences on the state budget by additional sources of financing of the guarantee fund. Namely, since the HBOR implements the activities in question on behalf of and on behalf of the Republic of Croatia, in the event that there is not enough funds in the guarantee fund for export insurance to pay compensation, the Republic of Croatia would have to receive the funds necessary for the payment of compensation directly from the state budget to HBOR.

Implementation

As the bearer of all activities under this measure, the HBOR has 16 years of experience in the implementation of insurance of loans granted to exporters. All activities carried out by HBOR are in accordance with the State aid rules. All activities carried out by HBOR in cooperation with commercial banks are regulated by cooperation agreements with commercial banks which define how commercial banks are obliged to report to HBOR on all granted loans quarterly, and in accordance with this dynamics, HBOR may also report to interested parties.
As pointed out in the introduction description of the reform, in the area of credit operations, HBOR is in the final phase of the project of modelling a new credit rating system, implementation which provides a basis for significant improvement of credit risk management systems in credit operations. In order to further strengthen institutional capacities in the field of export insurance activities, during 2020, HBOR submitted a DG reform project to improve products and risk management systems in export insurance activities, which HBOR implements on behalf and on behalf of the Republic of Croatia within the framework of the Programme TSI. If accepted, the implementation of the project is planned by the end of 2021, and its results will have a positive contribution to the existing activities of the Croatian Bank for Reconstruction and Development (HBOR) in the field of export insurance, as well as to the implementation of this measure. It is important to

note that even without the implementation of the TSI, the HBOR already has sufficient operational, process and methodological capacities to implement this measure. The project TSI would only enable further strengthening of efficiency and quality in existing processes and methodologies.	
Implementation holder	HBOR
Target Group	The measure supports exporting activities in all sectors, regardless of size (SMEs, MidCap, large entities).
Estimated cost	HRK 1,200,000,000 (HRK 900,000,000 - RDF grants to increase the amount of the guaranteed export insurance fund (expected amount of compensation to be paid from the guarantee fund based on risks assumed during the implementation of the measure; HRK 300,000,000 - RDF grants to establish a premium subsidy fund per export insurance business)
Implementation period	3Q/2021.-2Q/2026.

C1 .1. R1-I9 Investment in equity and quasi-equity financing instruments (PE)

Challenge

As pointed out in the introduction, the Republic of Croatia still has a poorly developed market for risk equity and quasi-equity capital, so the financial market is dominated by traditional (bank) sources of financing. The same has affected the fact that the domestic market is characterised by a higher level of corporate debt caused by poor diversification of sources of financing.

Although the financial conditions of traditional sources of financing have significantly improved over the past few years (interest rates have declined significantly), their availability still depends heavily on the available instruments for securing placements. Taking into account increasingly stringent legislation, traditional financial institutions (commercial banks, leasing companies, etc.) have and will have very limited capacities to take on higher levels of risk. The emergence of A CIVIL-19 virus pandemic caused an economic crisis in which traditional financial institutions further reduced their credit activities on the market, therefore the availability of funding to vulnerable groups (e.g. innovative undertakings with a higher degree of risk or those operating in sectors with lower rates of return) is even more difficult. The 2017 analysis of market failures by the EIF estimated that private equity investment needs were 86 million euro per year over the next 5 years. Initiatives are currently being developed in cooperation with the EIF on the Croatian market to cover investments in venture capital funds (two funds: FRC2 and Feelsgood SIF) and private equity funds (currently licensed by two funds: ASEF and Prosperus).

Objective

Encouraging the development of the equity and quasi-equity capital market in the Republic of Croatia as a key precondition for diversifying funding sources on the Croatian market, strengthening equity capital in the sources of fiancation of domestic economic subjects and the overall strengthening of the resilience of the financial and economic system of the Republic of Croatia to future market disturbances.

Description

In order to stimulate a faster recovery of the economy and to ensure liquidity for firms that cannot obtain financial resources from traditional financial institutions, it is necessary to invest in increasing the size of risk capital funds that are active and require additional investor funding or are in the process of setting up. Private equity investment primarily diversifies the funding sources of the start-up and business growth stages of innovative and emerging SMEs in line with the general objectives of the Capital markets Union. Equity investments by venture capital funds also help other Union objectives in terms of SMEs'

preparation for future fundraising in regulated capital markets (stock exchanges). In the last ten years, the volume of transactions on the domestic regulated capital market (the Zagreb Stock Exchange) has been significantly reduced.
The development of VC and PE forms of financing will enable the long-term development of stock exchange trading since listing is one of the models for the investment of PE investments. Equity investment by venture capital funds also helps to stimulate equity investment by private and institutional investors, foster more ambitious business operations and expand SMEs' business to new markets, and foster the improvement of the legislative and regulatory framework dealing with new, practical market experiences. The initiative contributes to the improvement of the business environment in the economy of the Republic of Croatia through fostering the development of the equity market.
Also, the initiative encourages innovation and digitalisation of society, since the HBOR invests in funds under its strategy that emphasise: (i) the development of start-up entrepreneurs; (ii) the development of ICT activities; (iii) digital transformation of the economy; (iv) technology transfer, research and development; (v) energy efficiency and renewable energy sources; (vi) sustainable transport and transport infrastructure, etc.

Implementation

Taking into account the fact that this is already an active measure, the HBOR will make investment in increasing the fund size conditional on the inclusion of sustainable business goals and digital and green transition in the fund investment strategy as much as possible.
As an implementing body, the HBOR will manage the RDF grant allocation and invest in risk capital funds for growth and development under the management of the financial intermediary.
Investments are possible within the framework of the existing cooperation with the European Investment Fund with which the establishment of three funds for investments in SMEs is under way in the growth and development phase of the total target size of EUR 205 million and investment in other funds operating in the Republic of Croatia, whose investors are EIB Group or EBRD. The EIF is the main investor in most risk capital funds in the Republic of Croatia with an appropriate maturity and manages its own funds (and HBOR funds) invested in the funds. Therefore, increases in these funds are also subject to their approval.
Some of the criteria for determining the list of eligible funds may be e.g. the participation of the EIF in the structure of investors in individual funds, satisfying the level of investment of fund funds so far, the interest of private investors in additional rounds of closing down the fund.
Risk capital funds are typically established with the participation of private (non-public) investments in a minimum share of 30% in relation to the targeted size of a particular fund, with the aim of remaining outside the state aid regime. In order to increase the size of risk capital funds in each additional round of fund raising (closing), private investors should also participate in the funds. If private investors do not show interest in additional investment in funds active on the market in the Republic of Croatia, there is a possibility of failure to meet the objectives of this activity, which represents the greatest risk of this measure. However, preliminary market research and contacts with active fund managers indicate that there is a possibility to increase the amount of public funds investment, which would accompany private investment in an appropriate amount.
In addition to investment in funds, within this year's project TSI cycle, HBOR has also submitted a project which, among other things, aims to educate key stakeholders in the equity market in the Republic of Croatia, as well as to promote equity investment. The implementation of this project would further contribute to the long-term development of the equity market in the Republic of Croatia, and indirectly to the implementation of this measure. All of the above points to coordinated and organized HBOR activities aimed at strengthening equity investment in the Republic of Croatia, as well as strengthening of own institutional capacities.

Implementation	HBOR

holder	
Target Group	The target group are SMEs and mid-capitalised and large enterprises (up to 3,000 employees) in the growth and development phase.
Estimated cost	The total target investment amounts to HRK 475,000,000 from the grant allocation of the RDF, and was calculated on the basis of the preliminary assessment of the HBOR on active funds on the market and possibilities to increase their size. Approximately 80% of the total fund size will reach final beneficiaries and 20% is earmarked for fees and management costs.
Implementation period	Investment period of funds (investment period in the direction of fund-end beneficiaries) for RDF funds is planned until the end of August 2026 with possible possibility of extension. Risk capital funds require investment in management fees and settlement of fund costs even after the investment period.

C1 .1. R1-I10 Strengthening of equity activities in RDI - investment in regional technology transfer fund

Challenge

Technology transfer funds do not exist in the Republic of Croatia.

The 2018 analysis of market failures by the EIF estimated that the needs for equity investments for early stage entrepreneurs (venture capital) are EUR 43 million per year over the next 5 years, of which EUR 10-15 million relate to the earliest stages of development — seed capital (*pre-seed* and *seed*).

Objective

Encouraging the development of technology transfer systems and stronger cooperation between the business and scientific sectors. The establishment of a technology transfer fund in cooperation with the EIF enables greater availability of funds to transfer the results of the work of universities and research organisations to the market, thus achieving many benefits both for universities and research organisations themselves, as well as for the economy as a whole.

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Description

Technology transfer can be defined as a process in which research results and technological solutions are transformed or transferred into goods or services that have a certain market value. On the one hand, there are researchers and higher education institutions that have sectorial knowledge and experience and have developed solutions to certain problems, and on the other hand there are business entities that know the market and how to market new products and are interested in solving certain problems in a way that will give them a competitive advantage.

Technology transfer offices (UTT) aim to support researchers in public scientific organizations at all stages of technology implementation - from idea, identification of market potential, process of protection and commercialisation of intellectual property with licensing or establishment of knowledge-based enterprises (spin-off, spin-out).

Research and development in the initial stages usually have state support in the form of funds from national budgets. However, as research develops and advances, the state's interest in further investment in it is reduced, while at the same time the research is still too risky for private investors and/or VC funds. Therefore, there is a need to cover market failures in funding between research and market through the establishment of technology transfer funds.

Technology transfer funds (hereinafter: TT funds) invest in projects or start-ups at the earliest stages (*proof of concept, pre-seed, seed, post-seed*) until stages when enterprises can be further financed through normal *venture capital/private equity* investors. Investments of TT funds are carried out in close cooperation with academic and research organisations.

The benefits for academic and research organisations through cooperation with TT funds are reflected through: (i) association with industry, partnership development and encouragement of contractual research; (ii) becoming an active participant in long-term TT funds (or other forms for investment in TT); (iii) the use of external qualified and experienced partners ready to cooperate closely; (iv) creation of new spin-offs; (v) generation of results (patents do not remain on policies); (vi) generation of revenue through participation in compensation schemes. Carried interest) with companies for the management of TT funds; (VII) negotiating the right to co-investment with TT fund.

Implementation

As part of the existing cooperation with the European Investment Fund, a fund for investing in technology transfer (commercialisation of university research and transfer to the economy) with a total target size of 40 m euros is under way. The plan is to create a regional fund in which SID Bank (the Slovenian Development Bank) will invest, given the size and needs of our markets. As an implementing body, HBOR will manage the RDF grant allocation and invest in a venture capital fund for the transfer of technologies under the management of the EIF and the selected financial intermediary. HBOR accounts for up to 10 m euros.

The HBOR and SID Bank, together with the EIF (as initiators of initiatives and investors in the fund), will define the main parameters of the future fund (including the fund strategy) and the conditions to be met by the fund management company. Although negotiations on the structure and strategy of the fund are still under way, it is planned that HBOR's investment in the fund be invested in Croatian projects with a minimum multiplier of 1.5 (the same multiplier will also have SID Bank). The multiplier was calculated on the assumption that the fund would be 40 m euros in size, i.e. that the investors were only EIF, SID Bank and HBOR.

Upon agreeing on the terms and conditions with HBOR and SID Bank, the EIF will call for a public invitation to collect interest in setting up a technology transfer fund and will implement its standard evaluation process of selecting a fund management company based on the received applications. There is currently no technology transfer experienced management company, but individuals with specific experience who are willing to work closely with the academic and scientific community, but the initiative aims to encourage the establishment of new management societies and thus stimulate market development. With the selected fund management company, the EIF will sign an investment contract and the fund will be set up (the expected establishment of the fund is the end of 2021 ./po brush 2022). HBOR and SID Bank will follow the selection process of the management company to be implemented by the EIF and the Fund since its establishment.

The selected fund management company will make investment decisions (selection of projects in which the fund will invest funds), as well as determine whether the project meets other criteria/preconditions (one of them will be to check whether the project comes from the university or research centre and whether the investment meets the geographical investment criteria) defined by the fund strategy.

The fund management company will work closely with the academic and research community to identify adequate projects. It is possible and expected that researchers and scientific institutions (project owners) will be partners in the enterprise in which the fund is invested, but all conditions, including the ownership structure, will be the subject of negotiations with the Fund.

As pointed out in the introduction, the active participation of the academic and research community in cooperation with the Fund brings them many advantages, and they have already expressed their interest through previous talks with the Croatian Bank for

Reconstruction and Development (HBOR). Also, the EC DISC Initiative (European Commission, Directorate-General for Communications networks, Content and Technology, Unit F3, Digital information and Blockchain) is considering the possibility of providing some form of technical assistance to universities to prepare for the fund's arrival. HBOR already has good cooperation with individual transfer offices. We expect that through cooperation with the Fund, the Technology transfer Office will improve its knowledge of *equity* financing and finding new forms of financing and gain new experiences that it will be able to transfer to its users in the future. This initiative strengthens the domestic economy by linking the academic and research community with industry through financing the commercialisation of research and establishing long-term contacts with the market. The Fund's work and investments are expected to encourage public interest and students and researchers from the university to launch new projects. With the education that HBOR has planned, knowledge and experiences from other countries in this field will be disseminated. This enables further cooperation on other projects, encourages those universities that still do not have offices for technology transfer to establish them, and the creation of new research. Although the objective of the initiative is not exclusively green and digital projects, according to the nature of the targeted investments (most often STEM) and data from universities, the green and digital transition is partly or totally in the focus of research activities, contributing to both the green and digital transition of the economy. In the fund's strategy itself, green and digital projects will be listed as strategic investment guidelines. The remaining research activities focus on other aspects of improving existing technologies, thus stimulating investment in research and development. Risk capital funds are typically established with the participation of private (non-public) investments in a minimum share of 30% in relation to the targeted fund size. Since it is a regional fund, private investors from both countries are expected to be interested in investing. It is up to the management company to collect private investors and the choice of management company will be prioritised by those companies that prove that they can attract more private investors. Also, the participation of private investors is possible at the level of individual projects (co-investment), which can also reach the target level of 30% of private investors in fund investments. In the event that it is still not possible to achieve the target share of private investors, EIF, SID Bank and HBOR as partners in the project may request 100% public funding from the EC due to the nature of the project (pilot project), the immaturity of the market and the unwillingness of private investors to participate in the fund. In addition, HBOR is able to combine RDF funds with its own funds if necessary. In the event that private investors are not interested in investing in the fund, HBOR will not be able to obtain a multiplier greater than 1,5 on its own invested funds. The EIF has not so far expressed its unwillingness and/or inability to use RDF funds by partners for investing in the fund. Due to the emphasis on the need to finance the domestic economy, the use OF RRF funds is complementary to the objective of the EIF and partners in the project to place a fund of this kind on the market with lower exposure of partners. For now there is an ESIF product active for start-up companies that currently do not target university projects.	
Implementation holder	HBOR
Target Group	The target group is SMEs in the “seed, start-up or later stage” development phase, which originated from Croatian (or Slovenian) universities or research institutes engaged in research. The initiative also plans to implement investments in the form *of proof of concept* projects, based on investments before the establishment of legal entities. HBOR and SID Bank expect the support (know how) of the EIF in this part.
Estimated cost	The total target investment amounts to HRK 75,000,000 (EUR

	10,000,000) from the grant allocation of the RDF. Approximately 80% of the total fund size will reach final beneficiaries and 20% will be earmarked for fees and management costs.
Implementation period	The investment period of the fund (investment period in the direction of the fund-end beneficiaries) is envisaged by August 2026. Risk capital funds require investment in management fees and settlement of fund costs even after the investment period.

C1 .1. R2-I1 Fostering investments in research, development and innovation

Challenge

See C1.1.R2

Objective

The basic idea of this programme is to develop a support package for innovation development from the concept stage to the market.

Description

The economy of the Republic of Croatia is characterised by a lower level of investment in the part relating to RDI and advanced technologies as one of the preconditions for increasing the added value of the economy. Grants are envisaged for the implementation of this measure to enterprises investing in research and development, strengthening their own research and development capacities, cooperating with scientific research institutions, with the aim of diversifying and modernising business and development, improving business processes and successful commercialisation of innovative new products. Special emphasis will be placed on supporting the introduction of technologies necessary for the digital and green transition of the economy, the acquisition of new skills and the mastering of new tools for human resources. These investments are intended to improve the competitiveness of supported companies, in order to contribute to the introduction of structural changes in the Croatian economy.

In 2018, when the first projects from the IRI 1 call were realized, the Republic of Croatia invested 1.11% of GDP in research and development, which is an increase of 40% compared to the reference year 2012 prior to the use of ESI funds. In absolute figures according to Eurostat, in 2012 the total investments in R & D in the Republic of Croatia amounted to about EUR 330 million, while in 2018 this figure amounted to EUR 501.8 million. The positive trend continues in 2019, when these investments exceeded EUR 600 million. What is very important, and what IRI 1 and IRI 2 calls directly contribute to, is the fact that with 2018 private investments represent almost half of all R & D investments (the largest share in 15 years).

The largest share of grants awarded so far on the basis of the call for increased development of new products and services resulting from research and development activities refers to areas of environmentally friendly transport solutions (14.09%), production of high value added parts and systems for road and rail vehicles (13.12%) and energy technologies, followed by areas of environmentally friendly technologies, equipment and advanced materials (10.23%) and cyber safety (9.42). Out of the total projects contracted so far in the IRI call, 80% of projects as a horizontal theme have ICT, which supports the fact that companies have started digital transformation within their business. Also, 31% of IRI Phase 1 and 2 and POC projects belong to the “Energy and Sustainable Environment” area. Also, 31% of IRI Phase 1 and 2 projects and 38% of POC projects belong to the “Energy and Sustainable Environment” area. It is evident from the above that such investments can significantly contribute to the realisation of the Green Plan as well as to digital transformation of society and increase the added value of the economy.

In addition, the analysis of data from 2 IRI calls (implemented under OPCC) showed that 79% of beneficiaries supported by SMEs, while 21% of the aid granted concerns large undertakings.

The measure will contribute to the achievement of the objectives of the Europe 2020 2.1.1.

Strengthening the national innovation system and innovation potential of the economy, closely linked to the main objective, E.G. 2020: 1. Sustainable economic growth and development, or sub-objective 1.1. Improving the business environment.

Implementation

This measure will finance investments in new products and services in the areas of smart specialisation and the NRR by encouraging digital transition of business and development and application of new technologies, which will contribute not only to the diversification of existing products or services, but also to the creation of higher value added products and services and contribute to the strengthening of human resources. This approach will allow the transition from low value added goods or services to higher value added products or services that will increase the resilience of the economy to market shocks.

Through research, development and innovation projects, the grant will encourage further progress within the five thematic priority areas defined through the smart Specialisation Strategy 2016-2020. A special focus will be on effective cooperation between the economic and scientific research sector within the thematic areas in which the Republic of Croatia has the greatest potential for smart, inclusive and sustainable growth such as pharmaceuticals, health services, energy technologies, environmentally friendly technologies, intelligent transport systems and logistics, defence technologies, cyber security, sustainable food production and processing, wood production and processing, etc. All entrepreneurs who will have effective cooperation with SMEs and/or scientific research institutions will receive additional points under this programme. It is important to emphasize that the smart Specialisation process should be considered as a permanent process that encourages policy makers to support continuous entrepreneurial discovery and communication between all relevant stakeholders in Croatian development, and priorities that are currently recognized will not be permanently set. Currently, research, development and innovation projects are implemented within the framework of the smart Specialization Strategy of the Republic of Croatia (S3) for the period 2016-2020, with the projects finalized by the end of 2023 at the latest. At the same time, preparations for S3 for the future programming period (2021-2027) are under way and an Interdepartmental working Group has been established which will, based on the existing data on project implementation, harmonize how the current and future programming period will be connected.

Smart specialisation management is the responsibility of the National Innovation Council (NIV) established in November 2018, which at the highest national level monitors the implementation of S3 instruments, on the basis of which it directs further measures. It is important that the NIV is co-chaired by the minister responsible for the economy and the minister responsible for science and education, so that communication between the public science and research and the business sector on innovation is fully achieved. In addition, as equal members, the NIV is represented by the presidents of thematic Innovation Councils (IPS), established within the Innovation Council for Industries of the Republic of Croatia (IPs) as one of the NIV advisory bodies (EACH CTIVE represents one of the five thematic priority areas S3 (TPP): HEALTH and quality of life; TIV Energy and Sustainable Environment; TIV transport and mobility; TIV Safety; TIV Food and bioeconomy). Targeted calls and investment areas will be adjusted based on existing experiences, data, discussions and conclusions within the framework of the S3 and National Innovation Council.

Apart from investments in new products and services, important complementary operational support programmes for innovation clusters are proposed which will enable mentors, education, information exchange as well as specialized business support services and promotion and internationalisation for companies, including start-ups. In this way, specialised targeted support will be provided to all companies that develop their innovation capacities in order to create joint research, development and innovation (IRI) projects as drivers of transformation of the entire economy, in particular by cooperating with each other and with scientific institutions. Furthermore, start-up companies as a

specific group of companies in the Croatian economy important for stimulating innovation will be awarded grants for commercialisation in a special public call.
The following activities are foreseen for the implementation of the measure:
(i) Research and Development
Public call for verification of the innovative concept for the business sector (POC)
This activity will enable support to innovation at an early stage of research, in order to ensure pre-commercial capital through technical and commercial verification of the innovative concept and to reduce the risk of investment and support for further stages of development and commercialisation. The POC Programme also contributes to strengthening the capacity and capacity of the private sector for research, development and innovation. POC refers to projects after the preliminary research, and before development and market entry. Since it encourages the initial phase of the research and development cycle, the measure is important for the creation of stocks of research and innovation projects for which the PoC call demonstrates the potential for commercialisation, in order to reduce the risk of investment at a later stage of development. It is also possible to create a basis for the establishment of start-up companies through the phase of verification of innovative concept. Eligible activities are those corresponding to the technological readiness level TRL 3-4 (TRL 3: experimental proof of the concept, TRL 4: Laboratory validation of the technological concept). The PoC programme thus contributes to an increase in the number of innovative products, services and technological processes and enables the creation of new knowledge-based enterprises with potential and capacity for growth and development.
Through the implementation of the POC programme, integration of economy and academic community is achieved and the higher education system is included in the transformation of innovative entrepreneurial ideas into real products of high added value. The POC programme encourages cooperation between SMEs as a user and research sector as a provider of research commercialisation services through prototyping, demonstration of technical feasibility, verification and protection of intellectual property, as well as additional activities - market analysis or drafting a feasibility study and drafting a commercialisation plan. The POC programme is implemented in cooperation with business support organisations (“identified centres”) whose role is to support applicants through the process of application and implementation of projects, dominated by the Technology transfer offices of higher universities. Since natural persons can apply for the POC program with the intention of establishing a company, the establishment of start-up companies is encouraged through applications for POC: a total of 18 companies have been established within the call PoC7 and PoC8 based on successful application for POC.
Grants pursuant to Article 25 of Regulation 651/2014 for activities corresponding to TRL3 - 4 are foreseen FOR the implementation OF ACTIVITIES.
Target group: SMEs, natural persons intending to establish a company
Estimated value of the activity: HRK 76,000,000 (2 public calls per HRK 38,000,000 per call). The cost is calculated on the basis of the planned average support amount of HRK 315.000 per project.
Public call for grants to entrepreneurs for research and development activities and strengthening research and development capacities (R & D)
Research, development and innovation projects through grants will stimulate the development for the market of new products (goods and services) and further progress within five thematic priority areas defined through smart specialisation strategy for the period 2016-2020. A particular focus will be on effective cooperation between the economic and scientific research sector within the thematic areas where Croatia has the greatest potential for smart, inclusive and sustainable growth: pharmaceuticals, health services, energy technologies, environmentally friendly technologies, intelligent transport systems and logistics, defence technologies, cybersecurity, sustainable food production and processing, wood production and processing. Investments in clean energy projects, projects aimed at smart mobility development, biodiversity conservation, sustainable industry models and the development of new green technologies and materials, while

reducing CO2 emissions and encouraging intelligent and innovative solutions (e.g. use of existing and new alternative energy sources, new materials, etc.) will be encouraged. In addition, co-operation between large and small enterprises and cooperation with scientific research institutions will be stimulated in the process of allocating funds. In order to contribute to the realisation of reform measures, criteria will be developed through this programme to further score or prioritise projects contributing to the realisation of the Green Plan as well as projects contributing to the digital transformation of society, which is in line with the NRR.

Grants pursuant to Articles 14 and 25 of Regulation 651/2014 for activities corresponding to TRL 2 - 8 are foreseen for the implementation of activities.

Target group: SMEs, large entrepreneurs

Estimated value of the activities: HRK 1.674 billion

(ii) Commercialisation

Public call for grants to undertakings for the commercialisation of innovation

On the basis of this activity, grants will be awarded with the aim of encouraging innovative SMEs which are focused in their business activities on the production and placement of innovative products/services on the market, and which will contribute to the increase of exports and thus the competitiveness of the Croatian economy on the global market.

Eligible activities are activities aimed at investing in tangible and intangible assets (including the acquisition of patents and other forms of intellectual property), for the purpose of introducing innovations in processes or business organisation necessary for the production and commercialisation of innovative products/services. Supported investments will also include staff costs necessary for business innovation, with special emphasis on actions to strengthen competencies and improve employees.

Grants pursuant to Articles 14, 29 and 31 of Regulation 651/2014 and de minimis aid are envisaged for the implementation of the activities.

Target group: SMEs

Estimated value of the activity: HRK 1 billion

(iii) Start-up

Public call for support of start-ups

Specific conditions will be provided for the initial financing of companies exposed to high risks. It will enable the launch of ideas on the market and increase start-up bases in order to stimulate the transformation of the economy of the Republic of Croatia. The aim of this activity is the development of start-ups and the transfer of innovative ideas of start-ups into market successful business deals and the creation of new innovative companies with the potential for growth and export, with emphasis on the commercialisation of products and services. The call aims to contribute to addressing the problem of insufficient investment funds for innovative enterprises in the initial stages of development, due to the difficulty of access to capital and credit facilities under commercial conditions due to the high risk of doing business at this stage of company development.

Eligible activities are aimed at developing innovations that should result in the development of new products, processes and/or services that are new to the enterprise's offer and/or novelties on the market. This includes investments to support process and business organisation innovations.

Grants pursuant to Articles 25, 28 and 29 of Regulation 651/2014, low value aid and training aid for employees are envisaged for the implementation of the activities in order to facilitate continuous adjustment to changing business models and new trends pursuant to Article 31 of the

Target group: SMEs

Estimated value of the activity: HRK 200 million

Public call for the establishment of innovation clusters

The activity will encourage the strengthening of the innovation ecosystem for entrepreneurs and the establishment of innovation clusters in improving the position of the economy in global value chains. The aim is to connect entrepreneurs in R & D & I activities and strengthen capacities for the preparation and implementation of R & D & I projects

through joint investments in research infrastructure and its use for the implementation of R & D projects. The purpose is to improve co-operation in the R & D & I and networking is expected to contribute to the consolidation of innovation infrastructure and to a significant impact on the transformation of the entire economy.
Support will be directed to the legal entity managing the innovation cluster solely for the operation of the innovation cluster through operational support and support for the preparation of joint research, development and innovation projects to be financed from the next financial perspective (2021-2027). Support for internationalisation (e.g. cluster participation at fairs) will also be provided, but only for clusters who plan or implement financing of joint R & D & I projects that will result in value-added products intended for export or increase of product export. Support for innovation clusters was achieved in the existing financial perspective (2014-2020) through support to competence centres.
This activity is complementary to the activities implemented within the OPCC, which exchange experiences and good practices, knowledge and skills more quickly and efficiently through the Enterprise support institutions Network (PPI). Through THE BOND network, standards are being developed for the provision of services (certification of services) offered by PPIs and a mentoring system is being developed with the aim of providing assistance to entrepreneurs in accordance with the development stage, market position, sector of activities etc., with emphasis on the availability of equal conditions throughout Croatia at the same level of quality. Through the BOND network it is planned to establish five different mentoring bases that will be published on the Network's electronic platform and will be available to potential (start-up) and existing entrepreneurs. In order to strengthen the competencies of mentors, specialist education, workshops and similar events will be organized and implemented in order to strengthen the human resources of entrepreneurs.
Grant support under Article 27 shall be provided for the implementation of the activities. Of Regulation 651/2014, exclusively for operating aid.
Target group: SMEs and large entrepreneurs (leading innovation cluster)
Estimated value of the activity: HRK 50 million
The approach described above to invest in key national and emerging industries through four programmes (with an additional “support” programme to support innovation clusters in order to foster networking, education, etc.) should result in an increase in company revenues (especially income from sales abroad) and will contribute to the development of new products and services, new production processes and training and improvement of personnel as well as job preservation. This investment measure in the field of smart specialisation within the NRR will cover segments in which the Republic of Croatia lags significantly behind the EU level in the field of innovation. By encouraging the digital transition of business, through the development of digital skills and training of Croatian companies and through the development of criteria for the realisation of the Green Plan of measures HAMAG-BICRO will directly contribute to the EU digital Agenda and the European Green Plan for the upcoming programming period 2021-2027.

Implementation holder	HAMAG-BICRO
Target Group	Natural persons only for the earliest phase of proof of the innovative concept, intended to establish a company, micro, small, medium-sized enterprises and large undertakings exclusively for IRI public call and managers of the innovation cluster.
Estimated cost	HRK 3,000,000,000
Implementation period	2021. -2026.

C1 .1. R2-I2	Increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation

Challenge

See C1.1.R2

Objective

Maintaining the quantity and quality of project stocks for further stages of the research and development cycle in the national innovation system and strengthening the capacity and capacity of the private sector for research, development and innovation, with an emphasis on green and digital transition.

Description

Changes and additional investments in the Programme verification of innovative concept for business sector (POC Private) will enable support to innovation in the early phase of research in order to ensure, through technical and commercial verification of innovative concept, pre-commercial capital reduction of investment risk and support for further stages of development and commercialisation. Since it encourages the initial phase of the research and development cycle, the measure is important for the creation of stocks of research and innovation projects that have proven potential for commercialisation, in order to reduce the risk of investment at a later stage of development. POC Private refers to projects after the preliminary research, and before development and market entry. Eligible activities are those corresponding to the technological readiness level TRL 3-4 (TRL 3: experimental proof of the concept, TRL 4: Laboratory validation of the technological concept). The PoC programme thus contributes to an increase in the number of innovative products, services and technological processes and enables the creation of new knowledge-based enterprises with potential and capacity for growth and development.

Through the implementation of POC Private Programme, integration of economy and academic community is achieved, and the higher education system is included in the transformation of innovative entrepreneurial ideas into real products of high added value.

The novelty in the POC Private programme represents an additional thematic direction of the programme in such a way that 37% of the projects contribute to the achievement of the objectives of the European Green Plan and 20% of the projects to the realisation of the Digital Agenda. Encouraging the research and development of green solutions will address, inter alia, the environmental objectives of Regulation (EU) No 2020/852 of the European Parliament and of the Council of 18 June 2020 establishing a framework for facilitating sustainable investment and amending Regulation (EU) 2019/2088.

The investment from the RDF plans to achieve continuity in the implementation of the measure, so that the measure is available to beneficiaries on a regular (annual) basis.

Implementation

Public calls will be published in 2021, 2022, 2023 and 2024. The continuity of publication of POC Private calls is a key factor for maintaining a quality supply of projects for further stages of the research and development cycle in the national innovation system, and thus one of the key preconditions for the success of innovation programmes at the national level. POC Private Programme encourages cooperation between SMEs as a user and research sector as a provider of research commercialisation services through prototyping, demonstration of technical feasibility, verification and protection of intellectual property, as well as additional activities - market analysis or drafting a feasibility study and drafting a commercialisation plan. The programme is implemented in cooperation with business support organisations (“identified centres”), whose role is to support candidates through the process of application and implementation of projects, dominated by the Technology transfer offices of higher universities.

Implementation holder	MINGOR
Target Group	Micro, small and medium-sized enterprises and natural persons

	having a serious intention to establish a company.
Estimated cost	HRK 76,000,000 (HRK 19,000,000 per public call) for 4 years. The cost is calculated on the basis of the planned average support amount of HRK 315.000 per project.
Implementation period	7/2021-8/2026.

C1 .1. R2-I3 Establishment and implementation of activities of national digital innovation centres (DIH and EDIH)

Challenge

see C1.1.R2

Objective

The objective of the measure is to develop a framework for the establishment, financing and monitoring of digital innovation centres in Croatia and to provide support for preparatory activities of the stalled organizational structure and pilot implementation of digital innovation centres for the digitisation of enterprises and other users. This will focus the activities of digital innovation centres for the development of key digital technologies, particularly in the field of artificial intelligence, high performance computing and cyber security, with application in sectors important for the development of the economy at local level or in certain sectors of the national economy.

Description

Implementation of this investment will support the preparation of the establishment of European Digital Innovation centres (EDIH) and Digital Innovation centres (DHS) in the Republic of Croatia, in accordance with recognized capacities and needs for digital transformation of economy at national, regional and local level. This includes support for the development of the capacity of digital innovation centres, which are essential for the provision of services to enterprises, scientific organisations, state and public administration bodies and other users in specific technological areas. 14 DIHs have been registered in Croatia on the EC smart Specialization Portal, and so far no support programmes have been implemented for their establishment and operation at the national level. This measure aims to enable the establishment of an efficient network of key centres (digital innovation centres) for the uniform development of the digital economy throughout the Republic of Croatia, with application in areas such as health care, blue and green bioeconomy, energy and other sectors identified as strategic priorities. The aim is to connect and strengthen existing resources in scientific organisations, entrepreneurial support institutions, local government units, enterprises and other organisations that can become carriers of EDIS and DIH activities. The establishment and strengthening of digital innovation centres' activities thus contributes to the realisation of the objectives of the Digital Agenda for Europe, the European digitisation Strategy, the NPR (measures to achieve the objectives of the Europe 2020 Strategy - recommendations 3a), the NRR (the Digital Society thematic area, the objective of a competitive and innovative Croatia) and other relevant strategic documents and objectives.

Implementation

It is necessary to develop a national framework at the level of the MINGO and the Implementing body (HAMAG-BICRO), in order to ensure the definition of the conditions for the establishment, financing and trailing community, entrepreneurial support organisations, businesses and other organisations in the European Digital Innovation centres (EDIH) as a central point in key regional centres for the digital support of the economy. IN ADDITION TO EDIH's, digital innovation centres (DIH) should cover the needs for digital transformation at local level or for specialisation in specific technologies.

The programme for financing the preparatory activities of the DPIs, in particular EDIH during 2021 and 2022, which will precede the investment from the Digital Europe programme 2021-2027 and the Operational Programme for Competitiveness and

Cohesion 2021-2007, is also envisaged. Funding for the activities of EDIH and DIH is envisaged, which may include activities to strengthen the organisational structure of the centres, skills development and training of their experts, pilot implementation of services for companies, promotion of digitisation activities and their regional and international networking.

Implementation holder	MINGOR in cooperation with HAMAG-BICRO as an implementing body.
Target Group	The investment covers organisations or consortia that can meet the conditions for digital innovation centres (DIH) and European digital innovation centres (EDIH) in the Republic of Croatia.
Estimated cost	HRK 40,000,000 This cost is based on the data on 14 registered Croatian DIHs in the European Commission base (JRC, December 2020).
Implementation period	2Q/2021.-4Q/2022.

C1 .1. R3-I1 Implementation of administrative and para-fiscal relief measures for the economy

Challenge

It is necessary to take advantage of the existing macroeconomic stability and fiscal responsibility situation in order to ensure lasting and sustainable economic growth, which is a key challenge for the Republic of Croatia in the next five years. Administrative and para-fiscal burdens directly influence the development of entrepreneurship, attracting foreign direct investments and the economy as a whole. Further implementation of reform activities in terms of eliminating and simplifying administrative procedures, digitization of processes, reduction of costs and deregulation of professions will ultimately result in increased legal certainty and a more favourable investment and business climate.

Objective

Further administrative relief through the implementation of the Action Plan containing 65 activities that will optimise and digitize administrative procedures with the aim of improving the business and investment environment. The aim is to improve the business environment by making doing business in the Republic of Croatia simpler, cheaper and more stimulating for investments. It is necessary to establish it system for monitoring, monitoring and simulation relating to data and activities within the Action Plan and non-tax levies.

Description

Implementation of the Action Plan with ten groups of administrative procedures is planned, aimed at reducing the economic burden of an estimated HRK 686 million. The estimated cost for business entities (ex-post) of the selected 10 administrative procedures is HRK 944 million and the implementation of the Action Plan will result in a reduction of 72% of the estimated cost.

Action Plan concerned contains 65 activities that will optimise and digitize administrative procedures identified as the most burdensome for the private sector in the process of consultation with the business community: (i) optimisation and digitalisation of the exercise of rights under active labour market policy measures; (ii) Digitalisation of the pension data record process; (IX) electronic submission of pension claims; (iv) Digitalisation of the process of recovery of paid benefits during temporary inability/probability to work; (v) establishment; Digitalisation of applications for easy connection to the power grid, (x) introduction of digitised construction books e-Construction Diary.

The example referred to in (i) concerns applications submitted by employers in the process of exercising their rights under active labour market policy measures. The application is now submitted in paper form, and according to a positive assessment a contract on granting state aid between the employer and CES is concluded. During the contract period, the employer is obliged to regularly report to the Croatian Employment Service on the

presence of workers. The administrative procedure will be optimized by submitting applications electronically and the documentation to be submitted will be reduced to its extent. The total cost for employers, calculated using *the Standard cost model* methodology, amounts to more than 22 million kuna, while the digitization of the procedure will reduce the burden of 13.9 million kuna. Similarly, measures under other headings will be implemented.

The planned deadline for the implementation of these measures is March 2022, and their implementation will lead to simplification and cheapening of obligations that the business sector has in mind the fulfilment of administrative requirements. The expected load relief effect, measured by the SCM methodology, amounts to HRK 686 million. Digital transition of the public administration system is implemented through the envisaged measures in such a way that the system is faster and more efficient as a service to the economy and citizens.

Furthermore, it is planned to conduct in-depth analysis of non-tax levies and supplement data from the existing Register and digitize the Register of non-tax levies, in order to effectively and continuously implement and monitor regulatory and fiscal relief.

IN 2019, the MINGOR launched the project "Measurement and reduction of Administrative burdens of business procedures, optimization of registers of non-tax levies and administrative fees", which represents a continuation of the systematic regulatory reform implemented through previous projects of administrative relief of the economy and within which the Register of non-tax levies is being updated. For the purpose of the analysis, a methodology was established identifying 448 benefits, of which as much as 273 (61%) are compensations which are revenues of budgetary and extra-budgetary users - non-tax levies in the strict sense. The remaining 175 benefits (39%) are compensations which are the income of bodies other than budgetary or extra-budgetary users - para-fiscal benefits and amount to only 6% of the total amount of the benefits. The financial burden of non-tax levies per employee in 2019 amounted to 6,700 kuna, if we take into account the limited number of employees in the private sector, which according to publicly available sources amounts to approximately 1,300.000. The share collected from the undertaking or for economic purposes amounts to 61% of the total charges.

Action Plan for reducing non-tax and para-fiscal levies encompassing 50 relief measures will be implemented by the end of 2021. The total reduction is estimated at 531,995,772 HRK (the reduction refers to: reduction of non-tax and para-fiscal fees by 522,275,844 HRK (of which administrative fees are reduced by 97,863,191 HRK), and fees for expert examinations are reduced by 9,719,928 HRK).

The implementation of measures leads to a total reduction of 6.11% of the economic burden compared to the amount collected in 2018. 19 measures were implemented with a reduction of HRK 302,087,586, which represents 56.78% of the planned relief, i.e. the total load from 2018 was reduced by 3.47%. With the implementation of the remaining 31 measures, the economy will be relieved by another 229,908,185 kn.

Implementation

Implementation will be coordinated by THE MINGOR, and measures will be implemented by line ministries and other bodies in accordance with their competence.

Previous analyses have been carried out in cooperation with competent ministries by the ministry in charge of the economy and, in accordance with available data and current economic possibilities, proposed measures of relief. What is missing is the supplement of data from the existing registry and it system that would enable continuity of monitoring, monitoring and enabling analytical reports and simulations. Currently, all data are collected, processed and prepared manually and there is no single place or methodology for processing, reporting and monitoring non-tax levies.

Establishing an it system would enable an updated control of activities financed from dedicated funds and ensure transparent linking and monitoring with strategic plans. Through the establishment of an it system with a portal on which it will be possible to publicly and promptly publish data, a constant and timely communication with the business

sector will be ensured.	
Implementation holder	MINGOR in cooperation with other SABs
Target Group	The beneficiaries of this project are state and public bodies, that is, all entrepreneurs concerned by administrative procedures and obligations to pay parafiscal levies.
Estimated cost	HRK 40,000,000 (implementation of analysis and establishment of it platform for the Register of non-tax levies)
Implementation period	2021. -2024.

C1 .1. R3-I2 Improving the system of economic impact assessment

Challenge

The economic impact assessment system is currently based on a traditional (paper) model characterised by the absence of modern digital tools and communication platforms. Such a model presents a challenge in performing tasks, monitoring and analysing data and communication with other public authorities participating in processes.

Objective

Establishing a modern digital platform for conducting an impact assessment test on SMEs that will enable adequate data processing and analysis and establish a communication platform between stakeholders.

Description

THE MINGOR, in cooperation with the German Federal Ministry of Economic Affairs and Energy and the Gesellschaft fur Internationalle Zusammenarbeit, is implementing the project “Strengthening the operational capacity of the public administration in terms of regulatory methodologies and processes and developing a model supporting innovation and new business models”, financed by the Structural Reform support Programme, which is in its final phase.

In accordance with the recommendations made within the framework of this project, in order to improve the procedures for the assessment of the impact on the economy, primarily SMEs, the following shall be implemented through this measure in the process of adopting acts and subordinate legislation:

(i) Development of the regulatory Policy Strategy and Action Plan for the organisation, planning, coordination and monitoring of the implementation of relevant tools and methodologies.

(iv) Digitisation of the impact assessment test for SMEs, i.e. development of a digital platform for co-ordinators' cooperation, online education and mutual communication. Within the framework of continuous education of civil servants for individual areas, it is necessary to ensure continuity of training and education in cooperation with the scientific and professional community, i.e. attending additional professional education and training so that the level of knowledge and competences can follow trends and development of the economy. Establishing a link with the future Register of non-tax levies (C1.1.R3-I1) will enable systematic control of all obligations based on non-tax levies as well as enable effective supervision of the implementation of measures to reduce non-tax levies, and enable the source of quality data for making efficient impact assessments.

(v) Implementation of the concept known as regulatory safe testing environment (“*regulatory Sandbox*”), which enables controlled testing of new business models. This integral process of building a “regulatory” environment for innovative and technological areas not covered by the existing legislative framework has yet to be tested by many States using only the most advanced EU administrations. The system in question would represent a natural upgrade to the activities of the MANEC in the field of fostering innovation and business development, and would ensure continuity of support

for innovation through such an instrument, rather than limiting it due to administration, i.e. ensure an integrated system that will enable the smooth development of innovative companies.

Implementation

Implementation will be coordinated by THE MINGOR, and measures will be implemented by line ministries and other bodies in accordance with their competence.
The better Regulation Strategy and the Action Plan for regulatory tools and methodologies will be adopted at government level as umbrella documents with binding recommendations for the implementation of regulatory policy and reform efforts aimed at achieving social and macroeconomic objectives. Documents will be prepared using the advisory services of relevant international experts in order to ensure the preparation of a comprehensive document implementing modern operational practices, methodologies and organisational and working processes.
The use of advisory services will prepare documentation for implementation of public procurement for it services of development and establishment of digital platform. The platform will consist of an it database of performed MSP tests, a database of standardised values used in the calculation of impact assessment, and will enable systematic monitoring and monitoring of calculated effects, analytical reports and creation of impact simulations. The integral part of the platform, in addition to the database, will consist of a portal intended for mutual communication and exchange of experiences of national experts who make up the network for better Regulation. The portal will also enable the public publication of regulatory impact assessments so that the business community can participate already at an early stage of impact analysis and preparation of regulatory amendments.
The implementation of the concept known as the regulatory safe test Environment ("regulatory Sandbox") will be coordinated by a MINGOR which will be a contact point for entrepreneurs who encounter administrative and regulatory problems in implementing their innovative projects or new business models. The experts of the NGO will, in cooperation with the experts who make up the better Regulation network competent for individual regulatory areas, carry out an analysis of the problem and propose possible solutions, or initiate amendments to the Regulation if necessary, or propose a way to adapt the entrepreneurial idea. The establishment of a regulatory safe test environment will adopt protocols and use a network of better Regulation experts to ensure swift and systematic procedures and coordination of state administration at operational level. The system will enable quick identification of both new business models and market disruptions and rapid preparation of proposals for comprehensive and synchronised regulatory adjustments in all related areas where the effects of innovation or a new business model are observed.
Adoption of the strategy and action plan for the implementation of regulatory policy will harmonize procedures and standards for adopting regulations in all ministries and local community that adopts regulations. The establishment of a network of coordinators and the use of digital platforms will ensure standardisation of the quality of regulations and speed up decision-making. The establishment of an it database will ensure the sustainability of the entire system through the retention of institutional knowledge that is currently often lost by the departure of individual officials, since the entire process takes place paper, manually and through e-mail or personal communication between individual employees who do not have clearly defined competences and protocols, especially when it comes to regulations that can have significantly different impacts on the economy through their iterations.

Implementation holder	MINGOR
Target Group	Key beneficiaries of this project are ministries and regulators, through capacity building to provide improved regulatory impact assessment services, which will lead to reduced administrative burden and improved quality of new regulations. The final

	beneficiaries are the Croatian “start-up” companies, entrepreneurs and companies, as well as foreign investors in the Republic of Croatia whose modern regulations will be a good framework and support for business operations.
Estimated cost	HRK 30,000,000
Implementation period	2021. -2023.

C1 .1. R3-I3	**Creation of a support system for investments and internationalization of business Croatia**

Challenge

The unfavourable structure of foreign direct investment and the deficit of trade in goods adversely affect the development of the economy and it is necessary to make additional efforts in attracting investments that create greater added value, contribute to sustainable development in line with the UN SDG and export growth. In order to strengthen the economy, it is also necessary to encourage Croatian companies to expand their operations abroad in the long run.

Objective

The *business Croatia project plans* to create a support system for investments and internationalization of the economy, digitization of the system and attracting new investments. Project is compliant with 2020 (4.1.2 Future-oriented investment policy) and EC recommendations to the Council on CROATIA for 2020 (23) to encourage private investment and EC recommendations to Member States to encourage investment as a powerful tool for implementing EU industrial policy. It is consistent with the NRR 2030 (strategic objective 4. Global recognition and strengthening of the international position and role of HR) and CSR recommendation 2020/1a. Digital platforms for attracting and supporting investments and supporting the internationalisation of companies are planned.

Description

The *business Croatia* project plans to create a support system for investments and internationalization of the economy, digitization of the system and attracting new investments. The development of digital platforms to support internationalisation of companies is envisaged.

Implementation

The project envisages the development of THE digital platform mvep-mingor and upgrading of the existing digital platform HGK (Digital Chamber), which differ in content and target group. The digital platform MVEP-MINGOR FOCUSES on attracting investment, while the HGK digital platform is export oriented and thus expands its functionality. Providing support to Croatian companies for expansion of business abroad and promotion of the Republic of Croatia as attractive business and investment destinations with the aim of attracting new direct foreign investments are basic implementation activities of the project by the Ministry of Foreign Affairs and Municipality. Furthermore, the project will develop an ecosystem for internationalization of MSA operations. This will be achieved through the establishment of systematic support based on the established maturity of SMEs for internationalisation by providing concrete and specific “service packages” necessary for a particular SMEs in order to enter foreign markets. The degree of maturity of the enterprise will be determined using a methodology to be developed for this purpose. The methodology may contain already existing self-assessment tools but in order to avoid subjectivity of self-assessment a final assessment of maturity will be made by qualified evaluators. The services that SMEs will be able to choose into a “package of services” will be developed based on the research of the needs of SMEs in internationalization (focus groups, questionnaires) and based on the analysis of the existing situation and good practice in the field of internationalization (HR and abroad). The service package can thus include existing services already offered on the market, as well as new services such as:

adjusted and targeted education (based on the assessment of the degree of maturity of SMEs) on business internationalization, participation in specialised fairs, mentor support, use of IT platform. The methodology will be tested on a number of SMEs. The project will create a curriculum for different categories of SMEs and curriculum for support institutions employees. Education of SMEs will consist of theoretical and practical part, where the holders of practical part of the education will be mentors selected from among successful Croatian exporters and HGK employees with experience in internationalization. The practical part will include fairs, participation in export delegations and B2B meetings. Education will also be possible through e-learning.
On the model of EEN (*Enterprise Europe Network*) a network that is the largest network of support to entrepreneurs in internationalization will develop HR entrepreneurial network as IT and B2B platform and a kind of "training ground" for internationalization. It is also planned to adjust the premises used by THE MVEP/HGK in third countries in order to adequately equip the premises to provide systematic support for internationalisation of enterprises.
The project plans to introduce SMEs to the numerous services and information related to internationalisation already at their disposal through different institutions and services.
Realization of the project will enable further targeted assistance in internationalization of SMEs through grants and/or financial instruments to be secured from the ESIF, based on evaluation of maturity of SMEs and selected set of measures (specific "service package") to be developed by HGK/partners on the project. The costs are estimated on the basis of comparable costs of activities carried out by the partners in the project, unit costs of employees and market research on the Internet.
The project holder is THE MVEP, and the partners are THE MIGOR and the Croatian Chamber of Commerce (HGK). The investment encompasses the diplomatic and consular offices of THE MVEP, MUNIOR, HGK and companies. The implementation of the investment is planned at the national and international level.

Implementation holder	MVEP, MINGOR, HGK
Target Group	Domestic and international companies
Estimated cost	HRK 56,250,000 from the RDF grant allocation
Implementation period	1./2022.-12./2025.

C1 .1. R4-I1	**Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epide19**

Challenge

Cultural and creative industries consist mainly of micro, small and medium-sized enterprises, non-profit organisations and creative professionals, which often work on the margins of financial sustainability and the dynamics of negative impact vary among sub-sectors. A sudden drop in revenues threatens their financial sustainability, resulting in reduced incomes and necessary redundancies for "survival", which in turn has consequences on the value chain of their suppliers, which also extends beyond the cultural and creative sectors.
The effects of the crisis on the decline in investment in the sector will affect the reduced creation of cultural goods and services and their diversity for months, if not years. In the medium term, the expected lower levels of international and domestic tourism, a decline in purchasing power and a decrease in public and private financing for art and culture, especially at the local level, could further boost these negative trends. Unless effective measures are found to help the recovery of the cultural and creative sector, without support and strategy, the reduction of cultural and creative sectors will have a negative impact on cities and regions in terms of jobs and revenues, the level of innovation, the

welfare of citizens and the lives and diversity of communities.

Objective

The aim of the reform is to increase the competitiveness and efficiency of the operation of cultural and creative industries and to overcome harmful economic effects on entrepreneurs, individual artists and other natural and legal persons created during the outbreak of the human-19 disease. Strengthening the resilience and flexibility of cultural and creative industries will contribute to the opening of new jobs, increasing employment, increasing productivity and increasing revenues, and strengthening other segments of the Croatian economy.

Description

Investments in cultural and creative industries will strengthen capacities, improve business organisation and business processes, enable the application of innovative and new technologies, encourage artistic cooperation with research and other sectors and ensure much needed liquidity which will result in the development of new innovative products and services, improve their overall business operations and improve market competitiveness. Creative industries contribute significantly to economic growth, employment, innovation and skills development, positively affecting other segments of the economy. Creativity embedded in all segments of cultural and creative industries is a generator of growth and gives a strong incentive to innovate all sectors, primarily industry, tourism, entrepreneurship and digital technologies.

Implementation

The measure will be managed in such a way as to carry out calls for proposals to improve business operations, develop innovative products and services and strengthen the competitiveness of cultural and creative industries as well as develop financial instruments to ensure liquidity and develop cultural and creative industries.

Implementation holder	MKM
Target Group	Micro, small, medium and large enterprises, civil society organisations in the field of culture and art, independent artists.
Estimated cost	HRK 200,000,000
Implementation period	3/2021.-12/2025.

C1 .1. R4-I2	**Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and developing modernised production capacities for new content**

Challenge

The creation, operation and consumption of cultural content at the time of the pandemic has largely been transferred from the physical environment to the virtual environment. Adapting to the digital context in a short period of time requires the entire cultural and creative industry to change current business models and practices, and legislative adjustments from Member States providing a fair framework for the realisation of revenues and copyright protection in the digital environment.

Internet platforms at the time of crisis have become a central place of action, sharing and consuming cultural content, and adapting to new models has become a precondition not only for survival, but also for the possibility of creation and action. In accordance with the changes to the legal framework of the European Union and the needs of the digital society and more effective protection of creators of creative, cultural and media content on the Internet, the Republic of Croatia adopts a new legislative framework regulating and modernising electronic media and protection of copyright and related rights. According to EAU data, on average only 14% of European films are available via digital platforms, and in the Republic of Croatia this share is actually negligible.

Objective

The improved legislative framework will facilitate access to and use of copyrighted works in the digital and cross-border environment, address previous limitations on the use of heritage materials, ensure the visibility and presence of audiovisual national works in online platform catalogues, their financial and production contribution to the national audiovisual sector, and ensure fair compensation to authors for the use of works.
In moments of limited and almost impossible production of new audiovisual content due to the impact of the pandemic and related restrictive measures, but also an exceptional increase in the demand for content globally, the aim is to make available and circulation of national audiovisual works on the global market, thereby ensuring the revenue, survival and further resilience of the sector to the new challenges of the future.
In addition to the availability of previously produced audiovisual content at a time of suspended and reduced production, the aim is at the same time to ensure conditions and prepare the audiovisual and media industry for the period of reopening the market and starting production.

Description

For further development and sustainability and strengthening resilience to future challenges, it is essential to ensure a more favourable position for the cultural, creative and media industries than for online platforms.
The basic precondition for achieving the goal of accessibility and presence of national works on platforms and through all available distribution channels is digitization of Croatian cinematographic and other audiovisual materials from the holdings of Croatian Radio-Television and Croatian State Archives. Also, with the aim of more efficient and quality implementation of planned activities, the necessary digital infrastructure will be established.
It is also necessary to ensure adequate infrastructure in order to optimise the production of high-quality content in accordance with the needs and demand of the global market by applying new and innovative technologies.

Implementation

The measure includes preparation and implementation of calls for proposals for the restoration and digitisation of audiovisual materials and investment implementation of projects for the construction of infrastructure of cultural and creative industries.

Implementation holder	MKM
Target Group	Micro, small, medium and large enterprises, legal entities and natural persons possess archival audiovisual materials.
Estimated cost	350,000,000 HRK
Implementation period	3/2021.-12/2025.

C1 .1. R4-I3 Programmes for stimulating media literacy, investing in quality journalism and strengthening independent media

Challenge

Strengthening society's resilience to disinformation and the smooth and secure use of digital content are among the important social challenges of today. The media are crucial for independent public reporting, impartial and reliable journalism, forming a public change and encouraging participation in democratic social processes. The crisis caused by the CHAIN19 pandemic further jeopardised the sustainability of the media industry due to the sharp decline in advertising revenues as well as the spillover of revenue towards global online platforms to the detriment of both national and local and regional media.
Media literacy and our ability to understand the media critically and to interact responsibly with them have never been more important than in today's world affected by the HUMAN-19 pandemic, not only to protect public health but also to ensure the resilience of democratic societies and strengthen democratic participation. During the Koronavirus

pandemic, citizens were exposed to large quantities of disinformation and manipulation, which additionally underlined the importance of a systematic approach to the development of media literacy as one of the main elements in strengthening society's resistance to disinformation. The EC points out the need for systematic dealing with the problem of disinformation and strengthening the resilience of society with conclusions and guidelines.

Objective

The objective of this reform is to develop new support models in accordance with European state aid rules, strengthen the capacity of the media sector to operate on the digital common market by developing new business models and new services, and develop media literacy.

Description

It is planned to develop media literacy and establish objective fact-checking systems and adjust media services to the digital environment. Drafting and adopting the Media Policy Guidelines in line with the objectives of the EC Communication, with an emphasis on the double transition of media adaptation to climate neutrality and digitalisation objectives.

Implementation

Implementation of calls for proposals for the development of media literacy, development of a system for checking media facts and adaptation of media services to the digital environment.

Implementation holder	MKM
Target Group	Media service providers, electronic publishing providers, micro, small, medium and large enterprises, public institutions in education and culture, civil society organisations, media professionals
Estimated cost	HRK 100,000,000
Implementation period	1/2021.-12/2025.

C1 .2. Energy transition for a sustainable economy

Link with the European Semester and/or strategic documents and the context of the reform

Investments in renewable energy sources and energy will be implemented through the energy sector decarbonisation reform, which is in line with the Strategy for Energy Development of the Republic of Croatia until 2030 with a view to 2050, with the CSR on directing investments in the green and digital transition, the European Green Plan, the NPRR (climate change and energy sustainability), the NRR draft, the Government Programme and the National Energy and Climate Plan from 2021 to 2030 (which contains three key objectives: reducing CO2 emissions, increasing the national share of RES in direct energy consumption).

The accelerated transition of the energy sector is supported by a number of horizontal policies and implementation of measures in sectors such as transport, agriculture, buildings, tourism and services. Support for the use of renewable energy technologies for heating and cooling must also be further intensified, especially in industrial processes and agriculture. It is also necessary to continue strengthening the use of competitive renewable sources by establishing clear and transparent procedures for the use of state land, while for projects in rural and isolated environments, especially islands, consideration should be given to the possibility of connecting renewable energy facilities to the grid within the framework of the “clean Energy for the EU islands” initiative.

Increased use of renewable energy is an important part of the package of measures to reduce greenhouse gas emissions and meet the 2030 renewable energy commitment target (policy elements include increasing the use of heating and cooling from renewable sources and the use of renewable energy in the transport sector). In this sense, the National Action Plan for renewable Energy sources is being implemented until 2020 and the implementation of the Strategy for Energy Development of the Republic of Croatia until 2030 starts with a view to 2050 and the National Energy and Climate Plan, which represents the implementation act of the Strategy, and is also an obligation to the EC pursuant to Regulation (EU) 2018/1999.

The decarbonisation of the energy sector is related to the construction of modern and digitally manageable infrastructure for electricity and heat, further investments in renewable energy sources, the development of new technologies, the development of infrastructure for the production and use of green hydrogen, and the implementation of energy efficiency measures, particularly in energy, transport and industry.

The reform will remove barriers for the reception and distribution of larger amounts of renewable energy, reduce losses and remove bottlenecks in the system, introduce active customers and actively manage their consumption, and provide citizens with the opportunity to pool in energy communities, all a precondition for full implementation of Directive (EU) 2018/2001 and Directive (EU) 2019/944.

In order to achieve the 2030 CO2 reduction targets, increase the share of RES in total energy consumption and increase energy efficiency committed in the National Energy and Climate Plan, it is necessary to establish a better and stronger power infrastructure (at the transmission and distribution level) by 2026 that will enable the reception of a new amount of energy from renewable energy sources (545 MW by 2023 and around 2500 MW by 2030) and enable system stability. It is currently impossible to accept more energy because the system is on the verge of its capacity. As a result, energy reception and transmission has become a bottleneck for securing new projects (mainly from private investments). If this problem is not solved, the Republic of Croatia will not achieve the objectives set in the NECP until 2030.

Furthermore, further investment is needed in energy efficiency and heating system which will ensure adequate infrastructure by 2026 which will ensure cumulative achievement of savings by 2030 both in the energy efficiency segment of industry and in the heating and cooling segment.

Finally, the reform must ensure a sufficient amount of biofuels in the market and hydrogen

transport to ensure the achievement of the transport target, which is also not possible without adequate infrastructure. Therefore, a strategic document is planned to be prepared by the end of 2021, which will show the potential and objectives for providing infrastructure for the production of green hydrogen and infratsructure for the use of hydrogen in traffic. This strategic document will define how many electro-lisers the Republic of Croatia plans to install by 2024 and by 2030 for the production of green hydrogen, as well as how much initially the bottling plant must be built in order to enable more intensive use of hydrogen vehicles in the segment of passenger cars, but also in the segment of heavy traffic, especially urban buses.
Therefore, the proposed reform will enable energy and resource savings which will contribute to accelerated development of sustainable economy and reduction of energy poverty through energy efficiency measures in the conditions of digitised systems. The realization of other projects related to the green transition of the energy sector will also be accelerated. The reform will reduce energy imports into the EU and make better use of internal energy potentials.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C1 .2. R1 Decarbonisation of the energy sector

Challenge

The Republic of Croatia is an electricity importer which is affordable but environmentally unacceptable because it comes from fossil fuels, while the decarbonisation of the energy sector which should lead to the decarbonised Republic of Croatia by 2050 means the release of fossil fuels and the change of paradigm in the energy sector. This means reforming the system of production and transmission of electricity, and increasing energy efficiency and substitution of fossil fuels in other sectors (such as transport, buildings, agriculture, etc.). Therefore, a major step forward must be made in the development of the domestic market in parallel with the strengthening of the green European energy market. Accordingly, the reform of the energy sector should seek to increase the production of energy from renewable sources, strengthen infrastructure related to the reception and distribution of renewable energy sources, invest in energy efficiency and develop new technologies.
For this to succeed, the shortcomings of today's energy market must be addressed and renewable energy must reach the final consumer. Production of energy from renewable sources is a market activity and is largely financed by private capital. The introduction of the premium model plans to further encourage the private sector for investments in RES, but development projects are necessary that will enable full reception and secure delivery of renewable energy to final customers, which includes development and revitalisation of physical infrastructure for transmission of electricity together with enabling storage of energy and digital management of systems. There is already a prominent investor interest in joining new power plants to renewable energy sources with a power of over 6,500 MW. It is also planned to complete more than 500 MW projects by 2023 which will have to be connected to the power system and enable their distribution throughout the Republic of Croatia. Finally, in accordance with the Energy Strategy, the construction of more than 2,500 MW renewable energy sources is planned in the Republic of Croatia, and the current power system is a bottleneck that slows down and inhibits the issuing of access permits and thus the development of new projects.
Therefore, as a precondition for the green transition and decarbonisation of energy it is necessary to raise investments in the revitalisation, strengthening and digitisation of the power system to absorb more energy from renewable sources without new pressure on consumers (citizens and the economy), and increase investments in heating and energy efficiency (especially investments in measures of energy efficiency and use of renewable sources in the sectors of buildings, industry, transport, agriculture, tourism, etc.). It is also

necessary to ensure the application of new technologies in transport, increase the use of biofuels and reduce dependence on fossil fuels, in particular the construction of hydrogen infrastructure. It is precisely the increase in the use of advanced biofuels and hydrogen that will contribute to the accelerated decarbonisation of the transport sector.
Furthermore, the decarbonisation of the energy sector must also contribute to the development of a number of new technologies (in particular hydrogen and CCS technologies) that will enable CO2 emissions to be reduced.
In addition, only the reform in question can enable the realisation of the goals from RES and energy efficiency that we have committed ourselves to towards the EU in accordance with the National Energy and Climate Plan, and all proposed investments that are planned to improve the power system, increase energy efficiency and decarbonise transport will enable the complete realisation of the reform.

Objective

Implementation of this measure will remove barriers for the reception and distribution of larger amounts of renewable energy, reduce losses and bottlenecks and increase the production of renewable energy. Also, since the production of renewable energy sources is planned mainly in southern Croatia, it is necessary to develop a transmission network towards the rest of the Republic of Croatia which will ensure the possibility of accepting new connections and the smooth reception of new quantities of energy from renewable sources and their further distribution to places of consumption throughout the Republic of Croatia. This will further accelerate the implementation of projects related to new power plants producing energy from renewable sources, whose implementation largely depends on transmission network capacities.
Furthermore, the implementation of the said reform will achieve the objectives related to the share of renewable energy to which the Republic of Croatia has committed itself to contribute to the common EU goal, and it can also reduce energy imports in a sustainable manner and increase the potential of the Republic of Croatia through the inclusion of advanced biofuels and green hydrogen in the transport sector. In this regard, it is important to introduce large quantities of hydrogen and advanced biofuels into the market as soon as possible. Accordingly, the conversion of existing spaces, such as oil refineries, into biofuel production areas can make a difference on the timeline and speed up the transition process.
Opportunities are also in the heating sector where there are currently a large number of boilers that can move towards more efficient use of primary energy in highly efficient cogeneration and RES. Without the introduction of small and micro cogeneration, heat pumps or connections to high-efficiency heating systems during the renovation of buildings, no targeted reduction of building emissions or zero energy consumption standards for new buildings will be achieved.
Decarbonisation of the energy sector will only happen with a strong European orientation of the energy market towards renewable energy sources, energy efficiency and new technologies. Therefore, in order to achieve all of these CO2 reduction objectives, the share of RES and the increase in energy efficiency set by the national energy and climate plan and achieved by 2030, it is necessary to ensure infrastructure preconditions enabling them to be achieved by 2026. Accordingly, the main objective of the proposed reform within the NAPA is to create the necessary infrastructure preconditions that will enable the achievement of the decarbonisation objectives by 2030.

Description

The Republic of Croatia already encourages the production of electricity from renewable sources, and the fees used to finance the produced electricity are collected from all consumers. Significant funds are collected for measures to increase energy savings (to which energy entities are obliged), and for failing to fulfil the obligation to place the prescribed amount of biofuels on the market. In order to decarbonise the energy sector and strengthen the production and use of green energy, it is planned to invest in projects related to the development and revitalisation of electricity infrastructure, renewable energy

sources, energy efficiency and development and use of new technologies (especially in transport).
This is set out in the new energy strategy, but also in the national energy and climate plan as the most important strategic document in the energy sector. At the same time, in order to facilitate the implementation of this reform, a legislative framework has already been partially provided, while amendments to energy laws are under way: the Energy efficiency Act, the renewable Energy sources Act and highly efficient cogeneration Act, the electricity market Act, the Transport Biofuels Act and the Health Energy market Act. By amending the aforementioned acts, the legislation of the Republic of Croatia in 2021 will be fully harmonised with the energy directives. However, it is certain that the Green Plan for Europe and the raising of the 2030 target for reducing greenhouse gas emissions will require further adaptation of the legislative framework, so that the need for reforms and particularly development projects of the energy sector is already being considered through this prism.
This is why a premium system for producers of electricity from renewable sources has been launched, which will further increase private investments in electricity production, but at the same time opens the need for its distribution and use in a number of sectors both in the Republic of Croatia and on the EU market. The projects under this reform fully meet this task and ensure the safe functioning of the single European energy market.

Implementation

Some of the activities are already being implemented, especially in connection with strengthening the production of electricity from renewable sources. In terms of share of RES, the Republic of Croatia has achieved the 20% target set for 2020, and the national energy and climate plan, prepared in accordance with Regulation (EU) 2018/1999, has set a new target for 2030 of 36.4%. This is why a premium model has already been launched for the purchase of electricity from renewable sources, which is expecting its full application in the coming years. At the moment, there are 1030 MW power plants in the system of stimulating renewable sources and high-efficiency cogeneration, which represents over 19% of the total installed production capacities in the Republic of Croatia. However, considering the new objective, in the next 10 years it is necessary to increase the installed capacities of renewable energy sources to 2,500 MW, which in the next few years will create insurmountable pressure on the power grid if it is not adequately modernised and further developed.
In addition, the last ten years have been intensively invested in increasing energy efficiency and decarbonising the transport sector, both by encouraging the electrification of transport and by introducing alternative fuels and biofuels. However, all of these activities need to be accelerated in order to achieve the objectives set in these sectors. Therefore, a series of programmes and projects are planned to decarbonise the energy sector and launch new economic activities. Special attention will be paid to increasing the availability of advanced biofuels on the Croatian market and the establishment of hydrogen infrastructure which will ensure that the 2030 targets for transport are reached.
In addition, the programme will cover the needs at the level of local self-government in the part of the electricity and other energy infrastructure planned to raise the economy and contribute to the creation of new jobs such as new connections to the electricity system.
A body for monitoring the implementation of the programme for revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector will be established to monitor individual investments. The body will be operationally led by the Ministry of economy and Sustainable Development (MINGOR), and its main function is intensive monitoring of results and indicators at programme level, as well as project monitoring and acceleration of their implementation. The implementation of planned activities will enable the fulfilment of the CSR for 2020 related to sustainable transport and clean and efficient energy production, and it will directly cover a number of companies (especially energy), private investors, state administration, HERA, citizens, small and medium-sized enterprises, as well as local and regional self-government units

(LC (R)SGUs).
The reform is based on a strong investment cycle (public funds, private sector and energy companies) and will include state administration bodies (SABs), LC (R)SGUs and private investors and energy companies.
Investments in the amount of HRK 11,505,162,500 are expected. Out of that, 7,738,287,500 HRK of grants are planned within THE FRAMEWORK of THE NPA, and 3,766,875,000 HRK will be provided from other funds. As part of investment C1 .2. R1-I1 is planned to use a grant amounting to 100% of the investment value, since it is legal monopolists engaged in regulated activities. For other investments, it is planned to provide grants up to 50% of the investment value.

Implementation holder	MINGOR
Target Group	Private investors, companies (especially energy companies), LC (R)SGUs, farmers and the general population.
Estimated cost	HRK 11,505,162,500 (investment: HRK 7,738,287,500 from the RDF)
Implementation period	1/2021.-6/2026.

(b) Investments

C1 .2. R1-I1 Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector

Challenge

In order for the Republic of Croatia to meet the 2030 target regarding the share of RES in gross direct consumption of 36.4%, the new Energy Strategy foresees that approximately 2,500 MW of renewable energy sources will be built on the territory of the Republic of Croatia by 2030. The current power system is ready to accept the new 545 MW that are planned to join by 2023, but there are still 6,000 MW requests for accession over the next ten years. The current power system is unable to accept or distribute these requirements to the consumption sites. Therefore, the electricity system (in the transmission segment, but also in the distribution segment) has become a bottleneck and only by investing in its further development will it be possible to achieve the objective set by 2030 and fulfil the CSR 2020 for clean and efficient energy production.

Objective

The objective of the investment in question is to upgrade and revitalise existing networks by 2026 (due to an increase in transmission capacity) and digitalise the electricity transmission and distribution system, which will ensure a smooth take-over of electricity into the system, which is the basic precondition for reaching the 2030 targets regarding the share of RES in gross direct consumption of 36,4%.

Description

The investment plans to modernize and digitize the power system, which will in the most efficient and stable way accept the increasing amount of electricity from renewable sources at the level of the Republic of Croatia, which, in accordance with the National Energy and Climate Plan, has committed itself to a share of renewable energy sources in gross direct consumption of 36.4%. The largest contribution is expected from electricity, and in 2030 there should be more than 65% of renewable electricity in the final consumption of electricity in the Republic of Croatia. To meet this, it is necessary to increase the number of large and small production facilities (mainly wind farms and solar power plants) which must ensure adequate access to the electricity grid so that projects can be realized under reasonable economic conditions. Also, increasing renewable sources increases pressure on the stability of the power system. Due to the aforementioned, and especially to ensure the basic preconditions for the development of renewable energy production and the achievement of the set goal, it is necessary to accelerate the development of the electricity

system which will enable a stronger implementation of renewable energy sources projects necessary for decarbonisation of the energy sector and the use of green energy, but also to achieve the goal of the Republic of Croatia by 2030, the EU target by 2030 and ultimately full decarbonisation of Europe by 2050.
The transmission power grid in the Republic of Croatia is managed exclusively by the Croatian transmission system operator (HOPS), and the distribution power grid in the Republic of Croatia is managed exclusively BY HEP-ODS as the operator of the distribution system in the Republic of Croatia. Both the Croatian transmission system operator and HEP-ODS are regulated activities, and their operation is regulated by the Croatian regulatory Agency (HERA). Both operators demonstrate their needs through ten-year development plans (approved by HERA), and the projects listed in the ten-year development plans of HOPS and HEP-ODS are the backbone of this investment.

Implementation

The investment plans to invest in the construction of new power lines and segments of the medium and low voltage network, construction of energy reservoirs, digitisation of transmission systems, development of advanced (smart) grid at the distribution level and modernisation of the power grid (especially for Natura 2000 areas and connecting the islands with the mainland).
These investments include HRK 2.2 billion for the improvement of the high and medium voltage network (400/220/110 kV) which includes capacity building in the south of the Republic of Croatia and connecting the islands with the mainland as the main precondition for the stabilization of the system and the opening of the island's potential for renewable energy production. The ten-year plan shows that this is only a part of the planned 6.6 billion kuna of planned HOPS investments by 2028, but it is the most necessary investments in the high stage of preparation, through which the planned development of the OIE by 2030 will be enabled.
Moreover, HRK 2.3 billion will be invested in the modernization of the distribution system, of which HRK 1.4 billion will be invested in the modernization and development of the advanced network (including smart meters and the development of the smart grid), almost half a billion will be invested in the modernization of the network in Natura 2000 areas, HRK 187.5 million will be invested in the energy reservoir (20MW) and HRK 200 million in the submarine cables. The ten-year HEP-ODS plan shows that this is part of the planned 11.5 billion kuna investment over the next ten years, but these are investments that are in a high stage of preparation, which are necessary for an adequate stabilization of the system and for the smooth growth of renewable energy sources in the system.
The cost assessment was done on the basis of collected potential projects related to the strengthening of the energy system in the Republic of Croatia which are part of ten-year development plans of the transmission system operator, while the VAT was added at the planned investment cost, which includes the development and implementation of individual projects (equipment prices and necessary works).

Implementation holder	MINGOR
Target Group	Investments cover the economy, especially energy companies, HEP-ODS and HOPS as transport and distribution system operators.
Estimated cost	HRK 4,471,412,500
Implementation period	1/2021.-6/2026.

C1 .2. R1-I2	**Encouraging energy efficiency, heating and renewable energy sources for decarbonisation of the energy sector**

Challenge

Decarbonisation of the energy sector implies an increase in electricity production from renewable sources and high-efficiency cogeneration, and, on the other hand, an increase

in energy efficiency in all sectors, but especially in the heating and cooling sectors and the transport sector.
Both mentioned sectors are part of the objective of increasing the share of renewable energy sources in gross direct consumption set by the Republic of Croatia in the National Energy and Climate Plan as a contribution to the general goal of the EU for 2030. In addition, another goal in the National Energy and Climate Action Plan is to increase energy efficiency, and by doing so the Republic of Croatia directly contributes to achieving the goal at the EU level. Both objectives are important to adequately decarbonise the energy sector and achieve the main EU objective of 2050 – a decarbonised Europe.
Therefore, the investment plans to boost energy efficiency in the heating sector and strengthen energy efficiency measures in industry. Increasing energy efficiency is particularly important in view of the EC's recommendation regarding the objective set by the Republic of Croatia until 2030, because it has been assessed as insufficiently ambitious and it is recommended that the target be further increased.

Objective

The realized investment will ensure better use of the produced energy and greater competitiveness of the economy and commercialization of the use of heat from renewable sources. This will directly contribute to the decarbonisation of the energy sector, because without major investments in energy efficient production processes, energy efficient industry, small and micro cogeneration, heat pumps and the strengthening and modernisation of central heating systems, decarbonisation cannot be achieved in full extent. Also, greenhouse gas emissions will be reduced.
Planned activities will ensure the creation of preconditions for the fulfilment of the goal of decarbonisation of energy and economy by 2030, will enable fulfilment of specific EC recommendations for 2020 related to clean and efficient production of energy and ensure harmonisation of Croatian energy policy with the green plan. To achieve these goals, it is necessary to modernise and improve large heating systems, such as those in Osijek, Zagreb and its surroundings, by 2026. Also, it is necessary to ensure the application of new technologies in industry by 2026 that will enable achievement of cumulative energy savings by 2030.

Description

The investment plans to encourage energy efficiency and use of renewable energy sources in industry and modernise the heating system as a measure that will decarbonise large energy consumers, decarbonise individual energy consumption and reduce pressure on the energy system.
However, in order to achieve savings completely, it is necessary to link investments in large infrastructure programs for heating to the energy efficiency measure in buildings (initiative: building renovation), because none of the segments of production, transmission, distribution and direct energy consumption can be considered separately anymore, but the integration of policies, measures and implementation activities is necessary in order to achieve the desired objectives in an optimal manner.
The significance of energy efficiency is expressed in the basic principle “Energy efficiency first”, meaning that it is necessary to use first all available potentials to reduce energy consumption, i.e. its rationalisation and reduction of losses, and then it is necessary to choose optimal options for energy supply, predominantly from renewable energy sources, and only exceptionally from highly efficient systems that use fossil fuels. It is ideal to apply these two principles – efficiency and decarbonisation – simultaneously, i.e. integrated, in order to avoid the “locking” of available potentials, as such investments are usually carried out once every 30 to 50 years.
In this context, an integrated approach to energy renovation of buildings is necessary in the coming period. In fact, buildings in the Republic of Croatia are responsible for over 40% of direct energy consumption and without their energy recovery and decarbonisation, it will not be possible to achieve the desired targets by 2030 and 2050, which is clearly demonstrated in all strategic and planning documents of the Republic of Croatia (Energy

Development Strategy of the Republic of Croatia until 2030, National Energy and Climate Plan for the Republic of Croatia 2021-2030, draft long-term Strategy for the restoration of National building Fund by 2050, as well as in scenarios for achieving higher emission reductions by 2030 and climate neutrality in the Republic of Croatia by 2050). It is therefore necessary to continue implementing the energy renovation programmes for buildings, but they need to be improved in part in the mandatory measures on the side of heating and cooling systems and self-supply of electricity from renewable energy sources.

The energy renovation of buildings is undoubtedly a key measure of the energy transition to achieve climate neutrality. That is why it is still necessary to insist on reducing the energy needed for heating and cooling by at least 50%, which will ensure sufficient thermal insulation of the building envelope. However, in order to exploit the entire potential offered by the energy renovation of buildings, especially with a view to decarbonising but also developing markets, it is necessary to include an obligatory analysis of the use of highly efficient alternative systems in incentive schemes and to apply these systems whenever feasible as proposed here.

Namely, in the period from 2014 to 2020, the Republic of Croatia intensively implemented energy renovation programmes for buildings (family houses, residential buildings, public and commercial brackets). For this purpose, both funds from the Environmental Protection and Energy efficiency Fund (2014-2016 period) were used dominantly from the sale of emission allowances through auctions and ESI funds (2016-2020 period) for multi-dwelling and public buildings. Only from ESI funds under OPCC, 311 million euros and 211 million euros for public sector buildings and 100 million euros for multi-dwelling buildings were available for energy renovation of buildings until 2020. All these funds have been contracted. It also needs to add 40 m euros for energy renovation of buildings in the commercial service sector (tourism and commerce).

According to data from the savings Measurement and verification system (SMIV), cumulative savings from the energy renovation programme of buildings are lower than foreseen in 4. National Action Plan for Energy efficiency. This points to two facts: (i) the achievement of the 2030 and 2050 targets, which are much more ambitious than those set for 2020, will be even more financially intensive and sufficient funding must be provided for their implementation (as foreseen by the draft long-term strategy for the restoration of the National building Fund by 2050; (ii) the energy renovation programmes for buildings should be reinforced by additional mandatory elements than those applied in the previous period, in order to maximise energy savings, but also other benefits and the fulfilment of decarbonisation targets.

Namely, through energy renovation programs for residential and public buildings, renewal has been encouraged, achieving savings of at least 50% of the energy needed for heating and cooling. This condition means that buildings were obliged to implement thermal insulation measures of the building envelope in order to meet it, but the measures to improve technical systems in the building, although eligible, validated and co-financed, were not mandatory. This led to a situation where most renovated residential buildings did not consider technical systems in the building. In the domain of non-residential buildings, the situation is slightly better, because the beneficiaries of funds have also made greater decisions on measures related to technical systems in the building and self-supply of electricity, but in this segment significant potential for improving the efficiency of the system and the transition to renewable energy sources and highly efficient systems has remained unused. Accordingly, improvement of the building's technical systems and the introduction of RES should become mandatory measures, just as has been the measure to increase the thermal protection of the building envelope so far.

Furthermore, and based on all projections prepared for previously mentioned strategic and planning documents, it is necessary to direct energy reconstruction towards the NZEB standard in the next period. Accordingly, as part of such restoration it is necessary to meet the requirements related to RES, which include highly efficient centralised heating systems, which is also in accordance with Article 15 of the ct. 4 of Directive 2018/2001 on promoting the use of energy from renewable sources. This means that an integral part of

all future energy renovation programmes of buildings, as well as the co-financing programmes resulting therefrom, must be required to analyse the application of highly efficient alternative systems and the application of measures on technical systems in buildings in accordance with the results of this analysis.

In doing so, alternative systems according to the Typical solutions Catalogue for the application of alternative systems for buildings with a surface area of 50 to 1000 m^2 published by the Ministry of physical planning, Construction and State property (MPGI) include: (i) hot water biomass boilers (pellets); (ii) solar heating systems; (iii) photovoltaic systems; (iv) heat pumps; (v) cogeneration; (vi) remote heating.

In particular, attention should be paid to the issue of cogeneration and district heating (CTS). Fostering further development of CTS based on highly efficient cogeneration and use of RES is at the heart of EU energy efficiency policy, which is clearly stated in Art .14 Of Directive 2018/2002 on energy efficiency. For buildings already connected to existing CTS that undergo energy renovation with co-financing, it is necessary to ensure that buildings remain connected to the CTS (exclusion ban from CTS), as CTS are one of the most efficient heating systems. In doing so, it is necessary to include in co-financing all interventions that will enable the tenants of disgust to feel the benefits of energy rehabilitation. Such interventions include the reconstruction of thermal substations, the introduction of control and measurement equipment at the level of thermal substations, and it is necessary to require the mandatory introduction of an individual measurement of the consumption of heat energy at the level of each utility unit, all in accordance with the provisions of Article 9, 9a, 9b and 9C of Directive 2018/2002 on energy efficiency as well as balancing the system to ensure its proper operation. In cases where several buildings are connected to a single thermal substation, it is necessary to ensure that all buildings are restored energy simultaneously (by additional stimulation), in order to maximise impacts on the reduction of energy consumption. For buildings not connected to existing CTS, an analysis of the application of highly efficient alternative systems must be mandatory in co-financing programmes. In areas where CTS exist, such analysis must also include an analysis of the possibility of joining the existing CTS. Also, for buildings that are not connected to existing CTS and located in areas where there are no existing CTS but have individual heating per residential unit, it is necessary to analyse the realistically applicable alternative systems and to apply an optimal system. In addition, for such buildings it is also necessary to analyse the possibility of introducing an independent thermal system that uses highly efficient cogeneration (usually micro-cogeneration) and/or renewable energy sources. It is also necessary to co-finance projects for energy renovation of several buildings (settlements), which will include the construction of new closed thermal systems that use high-efficiency cogeneration and/or renewable energy sources.

It should be stressed that the energy renovation programs should also elaborate financing models for such projects, which will enable private capital to enter such complex projects, especially in parts related to the construction of a new independent or closed thermal system. ESCO companies and suppliers are expected to participate in such projects (parties to the energy efficiency obligation system bonds, in accordance with the Energy efficiency Act).

Photovoltaic systems should be singled out as a special category of alternative systems. The co-financing programmes for energy renovation of buildings should require the installation of these systems, which will produce electricity for own consumption on site, wherever feasible. This commitment, which will be supported by co-financing, will significantly contribute to the achievement of RES targets for electricity in line with the NECP and Directive 2018/2001 on promoting the use of energy from renewable sources, but will also contribute to the achievement of energy efficiency targets, in part reducing the consumption of additional primary energy in line with the NECP and Directive 2018/2002 on energy efficiency, as production at the point of consumption will reduce the use of energy from the grid and thereby the loss in the transmission and distribution networks as well as the need for generation capacity. A combined financing and implementation model could also be developed for the installation of photovoltaic systems during energy

renovation of buildings, which would significantly involve ESCO companies and bond parties in the co-financing of these systems. The strong encouragement of self-supply of electricity is fully in line with Directive 2018/2001 on promoting the use of energy from renewable sources, the Act on renewable Energy sources and highly efficient cogeneration[16], and the objective of an overall EU energy policy that strongly promotes the active role of energy consumers and their active participation in the electricity market (so-called prosumerI).
Therefore, it is necessary to connect investments in large energy systems with the reconstruction of residential buildings, thus achieving better overall energy efficiency results through integrated investment.

Implementation

Within the framework of this investment in the heating sector, we plan to invest 1.6 billion kuna in modernization and improvement of large central heating systems, while the investments are related to modernization of the heating energy production system (CO2 emission reduction and transition to renewable energy). This will provide preconditions for a more intensive use of the heating system in the reconstruction of buildings. It also plans to invest 800 m kuna in energy efficiency and the use of renewable energy sources in industry.
Cost estimation was done on the basis of collected potential projects related to the development of heating and energy efficiency and use of renewable energy sources in industry and it includes preparation and implementation of prepared projects that reduce energy consumption and exclude fossil fuels from production achieve higher energy efficiency, but also reduce CO2 emissions. VAT was added to the declared values of projects. Without this measure, the efforts to achieve savings in construction and the reconstruction of the national building stock will not be sufficient to achieve the savings objectives in accordance with Directive 2018/2002 on energy efficiency, which for the Republic of Croatia amount to 125,339 PJ.

Implementation holder	MINGOR
Target Group	Investments cover the economy, especially energy companies.
Estimated cost	HRK 2,475,625,000 (investment: HRK 1,237,812,500 from the RDF)
Implementation period	1/2021.-6/2026.

C1 .2. R1-I3 Use of hydrogen and new technologies

Challenge

The transport sector is particularly problematic in terms of decarbonisation. Traffic emissions are increasing and stronger implementation of measures is needed to ensure the transition to clean transport. In addition, the development of new technologies is needed to ensure the reduction of CO2 emissions and other greenhouse gases, especially for those segments of the industry for which a substitute for the use of fossil fuels cannot be found.

Objective

The National Energy and Climate Plan has set the target of the Republic of Croatia to increase the share of renewable energy sources in the direct consumption of energy in transport to 13.2% by 2030, but the EC recommendation is that this target be increased to 14%. This will further ensure decarbonisation of the energy sector, in particular considering that the share of liquid fuels in total energy consumption is almost 33% in 2019. Therefore, it is necessary to increase the share of renewable energy sources in traffic to 14% by 2030, because without increasing the target in the traffic of the Republic of Croatia it will not be able to adequately decarbonise the energy sector.

16OG 100/15, 123/16, 131/17 and 111/18

Description
Part of the decarbonisation in the transport sector has already been ensured through the development of electric bottling networks and the development of e-mobility. These activities will continue through measures related to C1 .4 developing a competitive, energy-sustainable and efficient transport system. Also, a part of decarbonisation will be implemented through the use of biofuels in traffic, for which it is necessary to ensure a sufficient quantity of second generation biofuels, but achieving the planned goal is possible only through a more intensive development of infrastructure for the use of hydrogen in traffic. Hydrogen is extremely important because there is no CO2 emissions and it is adequate for heavy road traffic, making it an ideal fuel for the modernisation and decarbonisation of public urban transport. This is why the EU recognised its potential and underlined the importance of green hydrogen production and its use in traffic, but also in other sectors. In July, the EU hydrogen strategy was published, setting the goal of building a minimum of 6 GW of electrolysers for green hydrogen production in the EU by 2024 and 40 GW of electrolysers by 2030. The Republic of Croatia has included hydrogen in the National Energy and Climate Plan, and it is planned to prepare a national strategic document for hydrogen development and utilisation by the end of 2Q/2021. Accordingly, it is necessary to ensure the capacity to produce green hydrogen and to build at least 30 MW of electrolysers by 2026 and to establish infrastructure for the use of hydrogen as an alternative fuel, including the development of hydrogen filling plants, its production, storage and transport. Accordingly, the aim is to establish by 2026 at least 6 hydrogen bottlers regionally distributed throughout the Republic of Croatia. Also, decarbonisation of the energy sector will be ensured by adequate application of new technologies that are not yet economically viable, but are important for CO2 reduction. One of these technologies is the geological storage of CO2 (CO2) *Carbon capture and storage (CCS*) that can reduce emissions in industry and energy and provide room for technological advancement of certain industrial processes. The Republic of Croatia has the knowledge and potential to establish a CO2 storage facility in geological structures and is in communication with DG CLIMA regarding the establishment of a regulatory framework which will ensure adequate use of CCS technology and its combination with production processes related to increasing oil consumption. This will enable better development of this technology, but for its commercialisation it is necessary to ensure further development, which will be assisted by pilot projects which are already in a high stage of preparation but which need financial support for their implementation. The objective is to achieve at least 1 pilot project that will improve this technology by 2026.
Implementation
The investment worth 1.25 billion kuna covers the production of green hydrogen (construction of at least 30 MW of electrolysers) and the establishment of infrastructure for renewable energy in transport (construction of at least 6 hydrogen filling plants and infrastructure for storage and transportation of hydrogen). Also, the investment plans to invest HRK 300 million in reducing emissions in the process of producing fuels and alternative fuels by developing and commercialising the CO2 capture and storage process. The investment is in the preparatory phase, and its realization will ensure the development of new economic activities in the Republic of Croatia in addition to decarbonising the energy sector and achieving the goal of reducing traffic emissions. Also, this investment will harmonise the energy policy of the Republic of Croatia with the green plan and the goal of decarbonised Europe by 2050.

Implementation holder	MINGOR
Target Group	The investment includes energy companies, transport companies, state administration bodies (SABs), LC (R)SGUs, and the investments are estimated on the basis of the collected potential projects.

Estimated cost	HRK 1,558,125.000 (investment: HRK 779,062.500 from the RDF)
Implementation period	1/2022.-6/2026.

C1 .2. R1-I4 Biofuels for advanced biofuels production Sisak

Challenge

Its importance for energy transition and transition to sustainable fuels in transport highlights the innovative project of the Biofuel Refinery for the production of advanced biofuels in Sisak as a model example of the circular economy in the Republic of Croatia in the production of advanced biofuels at the industrial level. Achieving the goals of reducing emissions and increasing the share of renewable energy sources in transport, which are a precondition for complete decarbonisation of the energy sector, will not be possible without the use of advanced biofuels in the coming decades. Advanced biofuel production technologies are new and require a holistic approach from sustainability of biomass or raw material production to CO2 neutral production. Also, advanced biofuels are key to the transition of transport from fossil to alternative fuels, because in synergy with agriculture and land use that does not have sufficient quality to produce food, it represents an additional use of internal resources.

Therefore, the production of advanced biofuels in order to achieve the circular characteristics of the process must cover a number of other products such as biogas, the use of by-products and the storage of excess CO2. The Sisak biofuel project is the first of its kind to commercialise new technology for the production of advanced bioethanol fully developed in the EU.

Objective

The expected results of the Sisak Bifinery project anticipate the creation of up to 500 direct and over 500 indirect new jobs, especially in rural areas, with an unemployment rate of 30% in Sisak-Moslavina County, based in Sisak. The biofuel itself plans to employ 100-120 employees with a human resources structure that corresponds to modern production in an industry of this type. This includes positions from operators at the facility, through engineers to management and administration. In addition to the factory itself, it is also planned to establish a separate company which will be responsible for the biomass supply chain, with 300 - 350 direct jobs planned for activities related to planting and collecting biomass and storage and transport. Given the seonality of such jobs, part-time jobs may include the creation of additional jobs, according to rough estimates of up to 100 jobs. Indirect jobs would include continuous jobs in agriculture and jobs in activities leaning on agriculture. Finally, 400-600 people would be employed in the construction of a bio-refinery.

The project is important for the fulfilment of the objectives of the National Energy and Climate Action Plan for 2030 (related to the share of RES in traffic of 14%), and in order to achieve the decarbonisation of the transport sector, it is necessary to ensure a sufficient amount of advanced biofuels on the market. The investment is planned within the framework of the existing infrastructure through the transformation of one of the oldest oil refineries in the EU (Sisak) into a modern bio-refinery that will be the core of the further development of an industrial centre focused on the development of advanced and green technologies. Apart from the production of advanced bioethanol, the complex also includes the largest biogas plant in the Republic of Croatia and a highly efficient cogeneration plant which would serve to cover most of its own green energy needs. Furthermore, the investment ensures the creation of new jobs in the biotechnology sector through work in the plant itself as well as in the agriculture sector through the production and supply of biomass in the high unemployment area.

Description

The investment plans to build an energy self-sustaining bio-industrial complex intended for the production of advanced 2G bioethanol (55,000 t/yr), green electricity and steam. The project has been developing since 2015 and is currently in the phase of drafting the base

design, and the investment ensures reduction of traffic emissions and decarbonisation of energy, and achievement of the objectives set by the Republic of Croatia in the National Energy and Climate Plan (related to CO2 reduction and increasing the share of renewable energy sources in gross domestic consumption). This is particularly important because the transport sector is the least decarbonised (the Republic of Croatia is far below the 2020 target), and without the factory of advanced bioethanol, decarbonisation of traffic will not be adequately ensured even until 2030. This investment eliminates market failures that are not yet in the required quantities of advanced biofuels and therefore it is necessary to build a factory by 2026 in order to ensure an adequate amount of advanced biofuels by 2030, which will enable a faster transition of product-based transport that does not threaten agricultural production and is based on the sustainability of agriculture and the energy system.

Implementation

The investment is based on planned costs of development and implementation of the project increased by VAT, and is planned to be financed from private funds, potentially from the innovation fund and NPOO. In accordance with Regulation (EU) No 651/2014, this type of project can be considered eligible in terms of state aid, and based on this investment and with wider application of renewable electricity and hydrogen of the Republic of Croatia, it considers that it will realistically be able to achieve EU objectives of minimum 14% and it will be harmonised in the NECP.

Implementation holder	MINGOR, INA
Target Group	The investment includes INA and the general population, SABs, LC (R)SGUs and farmers of Sisak-Moslavina County.
Estimated cost	HRK 3,000.000.000 (investment: HRK 1,250,000,000 from the RDF)
Implementation period	6/2022.-3/2025.

C1 .3. Improving water management and waste management

Link with the European Semester and/or strategic documents and the context of the reform

The need for investments in improving the water management (public drainage and water supply systems and disaster risk reduction in the water management sector) has been recognised by the Government Programme through identified need for continued implementation of the water utility sector reform, modernisation and construction of water utility infrastructure and continuation of investments in protection against harmful effects of water, which is in line with the CSR, in terms of improving the quality of public water supply and public drainage. The priority of these investments has also been recognised in the NPR, the draft NRR and in the EC report for Croatia 2019 and 2020.

The Government Programme defines the strengthening of the circular economy as one of the objectives of waste management and, in accordance with this goal, defines continuous co-financing of infrastructure for treatment of the rest of waste, as well as other plants that will enable achieving high goals of classification, treatment and re-use of waste. Planned measures are in line with the EC report for Croatia 2019 and 2020, i.e. the CSR, where it is clear for the waste management area that the continuation of investments is necessary for the transition to a circular economy, in the part of separate waste collection and recycling as an alternative to waste landfills. One of the objectives of the future NRR is also specified.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C1 .3. R1 Implementation of water management programmes

Challenge

The use of water from public water supply systems is available for 94% of the population, while the actual connection is 86%. Water losses from water supply systems amount to about 50% of the total amount of water that affects public water supply, and only 53% of the population is connected to public drainage systems. The current fragmented water services sector does not have the capacity to effectively implement necessary investments both in personnel and in terms of affordability of necessary investments in the existing areas of provision of water services. Particular attention should also be paid to climate change adaptation, risk prevention and disaster resilience. The current level of functionality of the flood protection system is 77%, and it has been established that over 40% of the agricultural areas of the lower Neretva valley have been covered. In the lower Neretva area, according to the 2011 population Census. there are 35,672 inhabitants, with an average of 4 members in one household. Half of these are agricultural households, with 40% of the land on which these households are engaged in agricultural production of medium salinisation, which means that about 7,300 inhabitants are directly related to the problem of soil salinisation. If the process of soil salinisation is not stopped, due to climate changes and reduced inflow of fresh water from the Neretva basin, the land in the Neretva valley could become permanently salted and unusable for agricultural production. In this case, according to the risk assessment for the Republic of Croatia (Ref. 70), a minimum of 7,300 inhabitants (more than 20% of the total population of the area under consideration) would be left without income and at risk of emigration due to permanent loss of agricultural land.

Objective

In the water services sector, the reform is being carried out to make public water services available to all consumers and to make the price of these services more affordable to consumers after the investment has been made. The aim is to ensure the availability of drinking water through public water supply systems for 95% of inhabitants and to ensure wastewater treatment for all agglomerations exceeding 2000 equivalents of inhabitants by

2030. From the aspect of water losses from public water supply systems, the aim is to reduce them to an acceptable level along the lines of developed European countries, which amounts to up to 25%. In order to reduce the negative consequences of climate change, it is necessary to raise the level of functionality of the flood protection system to about 87% by the end of 2023 and up to 100% by the end of 2038. It is also necessary to ensure improvement of the status of surface and groundwater and soil and to reduce the degree of salinity of agricultural soils which will reduce the risk of permanent loss of agricultural land and important natural habitats and contribute to the stay of the population in rural areas.

Description

Improvement of the water management will be achieved through the implementation of three key water management programmes: the Programme for Development of public waste water drainage with the aim of improving water quality by reducing pollution and reducing the share of untreated waste waters, the Programme for Development of public water supply with the aim of ensuring access to safe and affordable drinking water and the disaster risk reduction Programme in the water management sector. Investments foreseen under these three programmes will contribute to ensuring the availability of drinking water to all citizens, reducing environmental pollution and water resources by wastewater and reducing losses in water supply systems, as well as reducing the risks of floods and water and soil pollution.

Implementation

In order to strengthen implementation capacity and investment capacity and financial and technical self-sustainability of public water service providers, a comprehensive reform has been launched in the water services sector. The water services Act, which entered into force in July 2019, represents the first step in the implementation of a comprehensive reform of the water utility sector in the Republic of Croatia, which is still fragmented, inefficient and without a thorough restructuring, cannot respond to the requirements set by the undertaking of obligations under the relevant EU Directives. Therefore, the adoption of this Act created legal preconditions for integrating key holders of the development of water services and the implementation of investments - public suppliers of water services with the aim of achieving their efficient and cost-effective operation. It is necessary to strengthen the implementation capacity and investment capacity and ensure the financial and technical self-sustainability of public suppliers of water services in order to successfully implement demanding investments of development in the water services sector, while at the same time the price of water remains a social benefit to all consumers even after the implementation of these investments. Pursuant to the water services Act, all local self-government units will be allowed access to the basic capital of a single public water service supplier, including 73, who have not been the founders of any existing water service supplier so far. The objective of the reform is to strengthen public suppliers in order to be able to permanently improve the systems they manage, especially in terms of reducing excessive losses from the public water supply system, which now amounts to an average of 50% for the entire Republic of Croatia. Another step in the implementation of the comprehensive reform is to enable the operational implementation of integration in the water services sector on the basis of implementing subordinate legislation (Regulation), namely: services Regulation, Regulation on valuation of performance of business of water service providers, Regulation on methodology for determining the price of water services and Regulation on special conditions for conducting water services activities. The services Regulation will establish a territorial organisation of the areas of provision of water services (service areas) and identify the receiving companies that will be the backbone of future integration in the service area. Service areas are established in order to enable the establishment of a single public supplier capable of sustainable development and maintenance of municipal water structures, rational use of water for human consumption, efficient implementation of water utility infrastructure development projects while achieving a socially affordable price of water for users and after the implementation of planned

investments, raising of water service standards, consumer protection and final takeover to the management of all local water supply systems.
It is planned to establish around 40 service areas, which will reduce the existing number of public suppliers from nearly 200 to 40. The Regulation on the evaluation of business efficiency of water service providers will prescribe criteria and indicators of business efficiency of public water service suppliers, with the aim of progressively and permanently improving the business of water service providers and with the aim of achieving the quality and standards of delivery of water services along the lines of EU countries.
The Regulation on the methodology for determining the price of water services will prescribe the structure of the price of water services and the costs to be covered by that price, the minimum amount of water necessary for the basic needs of the household recognised in the calculation of water services at the social price, the possibility of mutual subsidies between different categories of users of water services and other rules relating to the price of water services. The purpose of the adoption of this Regulation is to harmonise the conduct of public providers of water services when adopting the prices of water services, which should normally be unique in the service area. The Regulation on Special conditions for the conduct of water services activities will prescribe general and specific conditions for the efficient operation of public water service suppliers, in particular as regards the number and qualifications of key employees, the ability to manage water losses, the ability to respond to crisis situations (interruption and shortages of water and water pollution), the management of wastewater treatment devices and devices for conditioning water for human consumption and general criteria for the good and successful operation of public water service suppliers.
The aim is to establish a functional system after the implementation of investments and to maintain it in order to be in a permanent functional state. All mentioned implementing regulations aim to regulate and improve the water services sector in order to become efficient, efficient in the implementation of national investments, financially stable and self-sustainable, while ensuring affordable prices of water services even after the implementation of investments for the population and the economy.
The reform implies a mutually harmonised process of adopting a legislative framework and implementing investments combined in two programmes for the development of public sewerage and the development of public water supply. Since rational use of water resources and reduction of water pollution are caused by waste water discharges in order to achieve good water status, basic planning measures for good water management in accordance with the water management plan, the reform in the water services sector is primarily focused on enabling the implementation of these measures, while by reducing the risk of disasters we increase the efficiency of water management and flood risks which directly protect the lives, health and assets of the population of the Republic of Croatia.
The implementation of the programme for improving the water management will produce other indirect developmental advantages, such as increasing the quality of life of the population, attracting new development investments and creating new jobs, which will certainly positively affect the demographic picture.

Implementation holder	MINGOR
Target Group	Public water suppliers, consumers, population, Croatian waters
Estimated cost	HRK 9.77.201.892 (investment)
Implementation period	1/2020.-6/2026.

C1 .3. R2 Implementation of projects for sustainable waste management

Challenge

The recycling rate of municipal waste in the Republic of Croatia in 2019 was 30%. which remains significantly below the EU average, however, represents significant progress compared to recycling rates in the period d 2016-2019. The municipal waste disposal rate

was 53% and represents one of the highest in the EU. Based on an analysis of existing waste management policies, there is a risk that Croatia will not meet the 50% target set for 2020 as regards preparation for re-use and recycling of municipal waste.
Increasing the efficiency of separate collection of recyclable waste, including bio-waste, introducing economic incentives for citizens and local self-government units, and additional investments in projects that take more simply in the waste management hierarchy are key reforms in establishing an efficient waste management system and achieving EU targets.
Since the investments so far have been aimed except at the infrastructure for separate collection and processing of residual waste in order to fulfil the obligations and objectives of the Treaty of Accession to the EU in connection with reducing the amount of biodegradable municipal waste that ends up at the landfill, funds from OPCC are not sufficient for the implementation of all measures planned by the waste Management Plan of the Republic of Croatia for the period 2017-2022.
Progress in the implementation of sustainable waste management infrastructure projects is limited and further efficient and targeted investments in generation prevention infrastructure, separate collection and recycling of waste are needed in order to reduce landfill. Thus far, investments in infrastructure for separate collection of municipal waste have resulted in a significant increase in the separation rate in the period from 2017 to 2019. this clearly confirms the collection of investments concerned and the achievement of EU targets.

Objective

The implementation of this measure aims to achieve the transition to a circular economy and the achievement of European targets in reducing landfilling or increasing recycling.

Description

Implementation of the establishment of a sustainable and efficient waste management system is based on the new legislative framework under adoption. The new waste Management Act plans to incorporate new and more ambitious management objectives into national legislation, which will implement guidelines and plans that contribute to the achievement of the objectives of the European Green Plan to separate waste generation from economic growth.

Implementation

The priority in the waste management sector is to reduce and re-use materials. The emphasis is on designing waste-free solutions, keeping products and materials in use, which will enable the restoration of natural systems.

Implementation holder	MINGOR
Target Group	Utility companies, private investors, consumers.
Estimated cost	HRK 1,650,000,000 (investment)
Implementation period	1/2020.-6/2026.

(b) Investments

C1 .3. R1-I1 Programme for Development of public waste water drainage

Challenge

Investments in the water sector follow identified needs within strategic water management documents, and the investment order, regardless of the source of financing, depends on the availability of funds, investment priority and the readiness to realise. Identified needs significantly go beyond the available funds and therefore all available funding instruments are used for investments in water management (explained in more detail within the chapter complementarity of financing).

Objective

see C1 .3. R1

Description

The programme for the development of public sewerage water with the aim of improving water quality by reducing pollution and reducing the share of untreated waste water includes investments in 18 agglomerations (15 projects) which are initially prepared for OPCC funding, however, due to limited resources it will not be possible to implement the investments concerned by OPCC funds; investments in 14 agglomerations (9 projects) which are in high degree of preparedness for the start-up of implementation but are not yet subject to funding through existing programmes; investments in small segments of the agglomeration systems; and investments in smaller segmentation systems which need to be prioritised with the water management Directive.

Implementation

The programme will be implemented through 2 programme components:
(i) improvement of water-utility infrastructure agglomeration of estimated value net of VAT 7.275.008.447 HRK out of which the RDF 5.070.313.545 HRK will be financed by the same model of financing OPCC projects based on the results of studies in the section 70% of the RDF and 30% of the national component consisting of the BENEFICIARY's funds, MINE risk and Croatian waters and implementation of investment projects related to smaller parts of the drainage system, excluding VAT 1.560.000.000 HRK out of which is financed by RF. Implementation of this programme will result in an increase in the number of inhabitants who have access to improved water supply by 127,397 inhabitants and an increase in the number of inhabitants using an improved waste water treatment system by 476,846 equivalents of inhabitants.
Investments proposed for financing through NPOO have prepared project study documentation, prepared tender documentation, obtained building permits, therefore their value is known and it is estimated that they can be completed by mid-2026. The remaining part of the necessary priority investments in the water sector will be proposed for implementation through cohesion policy and other available instruments depending on the availability of funds.
(ii) in addition to the complete agglomeration projects for RDF funding, it is also proposed to implement investment projects relating to small segments of the public sewerage system in order to contribute to achieving a comprehensive solution to agglomerations and to achieve compliance with the Urban waste water treatment Directive. Since the problem of an integrated area of agglomeration is not addressed, these minor interventions cannot be financed through EU funds from the programming period 2021-2027.

Implementation holder	MINGOR
Target Group	Public water service suppliers, consumers
Estimated cost	HRK 6,318,313,545 from the RDF (total amount is HRK 8,835,008,447 without VAT)
Implementation period	1/2020.-6/2026.

C1 .3. R1-I2 Programme for Development of public water supply

Challenge

Sustainable use of water, especially in quantitative aspects, is one of the most important issues facing many countries given the climate changes that have already taken place. This is at the same time one of the most important water management issues the EC insists on. Since water losses from water supply systems in the Republic of Croatia represent a long-standing unresolved problem and amount to an average of about 50%, it was necessary to adopt an appropriate Regulation which would stimulate the taking of measures to reduce losses. Therefore, the Regulation on Amendments to the Regulation on the amount of water use compensation was adopted in March 2019, laying down models for calculating the water use charge (compensation for covering the costs of

resources and environmental protection). The adoption of this Regulation will enable the operative application of the criteria from the water Management financing Act from 1.1.2023 that the basis for calculating fees for the use of water paid to Croatian waters by public suppliers of water services is in public water supply, the amount of water affected by public water supply interventions. Since the prescribed calculation models for water use compensation include the level of losses from the public water supply system and enable reduction of the amount of compensation for those suppliers who reduce losses to less than 25%, it is expected that by 1.1.2023 all suppliers of water services will take measures to reduce those losses.

Objective

Water policy in the Republic of Croatia is aware of the need for a shift in quantitative management of water reserves, especially water reserves for human consumption, and that it is necessary to fully implement measures leading to the establishment of the principle of rational use of water. This primarily refers to the reduction of losses from the public water supply system.

Description

The programme for the development of public water supply with the aim of ensuring access to safe and affordable drinking water includes investments in measuring devices on water intakes, investments in the development of water supply in the territory of the Republic of Croatia and particularly directed investments in quality and safe water supply in rural, hilly and demographically vulnerable areas. The programme will be implemented through 3 programme components: measuring devices on water projects estimated value without VAT 80.000.000 HRK, out of which RDF 64.000.000 HRK, ensuring quality and safe water supply in rural, mountainous and demographically vulnerable areas estimated value excluding VAT 384.000.000 HRK, out of which the RDF 307.200.000 HRK and development of water supply in the territory of the Republic of Croatia estimated value without VAT 1.800.000.000HRK, out of which RF 4000.000.000 HRK. All 3 programme components will be financed according to the model of financing national investments, i.e. 80% through RDF and in 20% amount co-financed by beneficiaries and Hrvatske vode (10% beneficiary and 10% Croatian water). Implementation of this programme will result in an increase in the number of inhabitants who have access to improved water supply for 49,000 inhabitants and the necessary equipment will be installed on 500 water plants to record the affected amounts of water which will contribute to the principle of rational use of water.

Implementation

In order to be able to switch to the calculation of fees for water use to the affected quantities of water, it is necessary to establish a measurement of the affected quantities of water at all public water supply interventions. For this reason, the Regulation stipulates the obligation for Hrvatske vode to install water meters to be used by water service providers on all groundwater sources and surface water interventions by 30 September 2022. In this regard, Hrvatske vode has prepared an Action Plan for the installation, management and maintenance of measuring devices on water supply interventions and recording, collecting, processing and control of data on affected quantities of water. According to this plan, by September 2022, new measuring equipment will be installed or upgraded and improved in 526 public water supply sources/interventions, so that digital means can collect, register, process and control data on the quantities of water affected for public water supply purposes.

Taking into consideration the need to ensure access of inhabitants and economy of sparsely populated and mostly underdeveloped areas of the Republic of Croatia to water for human consumption through the programme component ensuring quality and safe water supply in rural, hilly and demographically vulnerable areas, financing of construction/ reconstruction of the public water supply system will be ensured. Through the programme component, the development of water supply in the territory of the Republic of Croatia will finance priority smaller investments in the construction/reconstruction of the public water

supply system throughout the Republic of Croatia. Since the issue of a comprehensive water supply area is not addressed, these minor interventions cannot be financed through EU funds from the programming period 2021-2027. Both components will contribute to the objectives of the programme, i.e. improved public water supply service, and in rural and mountainous areas the necessary demographic and economic revitalization will be ensured, one of the basic conditions for this is, among other things, the existence of public water supply. Investments proposed for financing through NPOO are ready and have prepared tender documentation, the obtained building permits are therefore known and their value is estimated to be complete by mid-2026.

Implementation holder	MINGOR
Target Group	Public water service suppliers, consumers
Estimated cost	HRK 1,811,200,000 from the RDF (total HRK 2,264,000,000 without VAT)
Implementation period	1/2020.-6/2026.

C1 .3. R1-I3 Disaster risk reduction Programme in the water management sector

Challenge

The lower Neretva Valley is a rural area that, although located near the sea, has no alternative in other coastal areas to tourism development. Due to an increase in the degree of salinity of surface and groundwater and soil, the risk of eviction from these border areas will also increase.

Objective

Through the implementation of this programme 25,000 inhabitants will benefit from measures to protect against harmful effects of water and the degree of salinity of water in the Neretva watercourse will be reduced and the degree of soil salinity in the rizosphere in the vegetation period will be reduced.

Description

The disaster risk reduction programme in the water management sector covers flood risks and risks of water and soil pollution in the lower Neretva area. The programme will be implemented through two components: reducing the risk of harmful effects of waters on the territory of the Republic of Croatia estimated values with the value of 1.337.025.000HRK out of which RDF 1.136.471.250 HRK and protection against soil and water salting in the lower Neretva area estimated value with the value of VAT 519.078.938 HRK, of which the RDF 441.217.097 HRK. Both programme components will be financed in the same way that would be the case if they were financed from EU funds, i.e. 85% through RDF and 15% from national funds. Projects for protection against harmful effects of waters include dot facilities throughout the Republic of Croatia and as such are not eligible for funding from the Cohesion Fund. The proposed investments influence the revitalization of watercourses, stabilization of embankment mowing and embankment itself, and provision of infrastructure that will enable access to locations in terms of implementation of flood protection measures.

Implementation

The programme includes implementation of the project for protection against soil and water salinisation in the lower Neretva area, whose implementation will reduce the level of water salinity in the Neretva watercourse and the degree of soil salinity in the rizosphere during the vegetation period. Through the reduction of salinity in the Neretva delta, a natural balance between soil and water will be established, the level of salinity and permanent loss of approximately 4,000 ha of arable agricultural land in the Neretva valley will be reduced and thus the sustainability of traditional agricultural production in the area will be ensured. In the lower Neretva valley, the economy relies on traditional agricultural production on about 4,000 ha of agricultural land, and the dominant role is the cultivation of mandarin and

vegetables. The value of agricultural production is estimated at over 200 million kuna per year. During the dry period, farmers irrigate their cultures with salt water from the melioration channels, which on one hand partially reduces the damage caused by drought, but on the other hand, from year to year, cumulatively increases soil salinity, resulting in permanent soil loss. Monitoring and research conducted by the University of Zagreb Faculty of Agriculture shows that already today about 100 ha of agricultural land has been excessively salted and permanently lost for agricultural production and over 40% of agricultural land has been covered. According to expert analyses based on projections of trends of change in precipitation, temperature and sea level, the increase in salinity of 0.15% per year was estimated, all at the level of consideration for the next 35 years. The reduced inflow of fresh water from the Neretva River basin during the vegetation period (due to the construction of hydropower facilities upstream, in neighbouring Bosnia and Herzegovina) further worsens the degree of salinity of surface and groundwater and soil. Only the construction of a mobile partition on the Neretva River, which will physically prevent the penetration of the sea upstream from the partition, can stop negative salting processes and ensure irrigation of crops with “sweet” unsalted water. Bringing fresh water to agricultural areas will not only ensure water for full growth and yield of agricultural crops, but will also start the process of washing salts from the rizosphere, so today “poorly or moderately salted soil” will soon fall into the category of “unsalted soil”. The construction of a mobile partition on the Neretva River will stop the penetration of salt from the sea and into neighboring Bosnia-Herzegovina and has negative effects on traditional agriculture (fruit, vineyards). Aid for the construction of public irrigation infrastructure envisaged under measure 4.3.1. Rural Development Programme of the Republic of Croatia for the period 2014-2020 up to 15 million EUR per project, but through this measure a mobile partition with a ship translation cannot be financed because the beneficiaries of the measure are regional self-government units. Through measure 4.3.1 The Rural Development Programme Dubrovnik-Neretva County intends to report the construction of a public irrigation system in the Kosevo-Vrbovci field (600 ha), but only after the construction of a mobile partition when it will be possible to reach unsalted water suitable for irrigation from the Neretva River. The implementation of the project, apart from ensuring conditions for better use of the entire area of Donji Neretva, improving the status of surface and groundwater, maintaining the local population, especially in rural areas, also ensures improvement of conditions for endangered species of flora and fauna, and preservation of nature and environment or biodiversity of the entire area of Donji Neretva.
Investments proposed for financing through NPOO have major projects prepared and construction permits obtained, therefore their value is known and it is estimated that they can be completed by mid-2026.

Implementation holder	MINGOR
Target Group	Population, Croatian waters
Estimated cost	1.577.688.347 HRK from the RDF (total 1.856.103.938 HRK with VAT)
Implementation period	1/2020.-6/2026.

C1 .3. R2-I1 Waste disposal reduction Programme

Challenge

see C1 .3. R2

Objective

More efficient separate collection of municipal waste with the aim of reducing waste generation which must be finally disposed of at the landfill.

Description

The disposal reduction programme includes measures and infrastructure needed to reduce

the landfill of waste, including the establishment of reuse centres, the construction of a plant for sorting separately collected municipal waste, the construction of a biological treatment plant for separately collected biowaste, the construction and equipping of recycling yards and recycling yards for construction waste, the purchase of equipment for separate collection of useful fractions of municipal waste. The necessary preconditions for more efficient separate collection of municipal waste are specified with the aim of reducing waste generation which must be finally disposed of at the landfill. All these are preconditions for Croatia to be able to participate equally in European plans for the establishment of a highly functional internal raw materials market.

Implementation

At the moment, there are prepared projects (level of location permit) for the construction of a plant for sorting separately collected waste for 9 local self-government units like after the City of Zagreb (currently obtaining a location permit), 6 plants for processing separately collected biowaste. Furthermore, due to lack of funds in OPCC, the public call for LSGU to build recycling yards did not meet all the needs for the construction of these simple buildings which contribute to an increase in the separate waste rate at the level of local units.

Implementation holder	MINGOR
Target Group	LSGU, utility companies
Estimated cost	HRK 1,500,000,000
Implementation period	1/2020.-6/2026.

C1 .3. R2-I2	**Programme for remediation of closed landfills and locations contaminated by hazardous waste**

Challenge

see C1 .3. R2

Objective

see C1 .3. R2

Description

The waste Management Plan of the Republic of Croatia 2017-2022 determines the dynamics of closure of landfills of non-hazardous waste in the Republic of Croatia which determines the dynamics of closing of active landfills. From 2005 to 2017, a total of 305 locations where waste was officially disposed of were monitored. The restoration programme includes the remediation of closed landfills which must be rehabilitated in such a way that those sites comply with the criteria of Directive 1999/31/EC, as well as the remediation of sites contaminated by hazardous waste which includes, inter alia, activities for the removal and treatment of waste and soil remediation.

Implementation

The waste Management Plan of the Republic of Croatia for the period 2017-2022 defines the measure of drafting a plan for the closure of landfills of non-hazardous waste, and on the basis of this document a Decision on the order and dynamics[17] of closure of landfills ordering the closure of 26 landfills which do not meet the criteria of the Ordinance on waste disposal methods and conditions, categories and working conditions for landfills. The above-mentioned landfills are closed and the rehabilitation process follows.

Implementation holder	MINGOR
Target Group	Local self-government units, utility companies, FEEZs
Estimated cost	HRK 150,000,000

17 NN 17/19

Implementation period	1/2020.-6/2026.

C1 .4. Development of a competitive, energy-sustainable and efficient transport sector

Link with the European Semester and/or strategic documents and the context of the reform

The CSR results in the need to invest in the green and digital transition, especially in sustainable urban and railway transport, as the transport network is uneven, with very underdeveloped railway infrastructure and has no adequate infrastructure for public transport, resulting in poor quality services and obstacles to worker mobility. The transport sector, meanwhile, has been hit hard by the crisis caused by the VIRUS RCOC-19 and it is necessary to further focus efforts on ensuring a resilient and strong transport system.

The Government Programme plans to continue to invest significant funds in the modernization of transport infrastructure, which is also covered by the NPRK in the part of encouraging investments in safety, environmental sustainability, efficiency and competitiveness of all aspects of transport.

In the draft NRR, the Republic of Croatia defined priorities for the implementation of transport policy aimed at developing sustainable transport and fostering the development of smart solutions in the transport system. Transport policies and strategic objectives defined in the draft NRR are also equivalent to the UN 2030 Agenda for Sustainable Development and the European Green Plan. The aforementioned programme aims, inter alia, to develop a quality, sustainable and adaptable infrastructure, with the adoption of clean and environmentally sound technologies, significantly increase access to information and communication technologies, improve road safety, primarily by expanding the scope of public transport, and prevent and significantly reduce marine resource pollution of all species, including waste released into the sea. In this respect, the transport sector reform is a comprehensive reform aimed at developing such infrastructure in all aspects of transport, thus covering reforms in the railway, road and air sectors, as well as maritime and inland waterway reforms.

The reform of maritime affairs and inland waterways has started and is based on the adopted acts of strategic planning, the National Plan for the Development of ports open to public transport of county and local importance, the National Plan for the Development of ports of Special (International) Economic interest for the Republic of Croatia, the National Plan for the Development of coastal line Maritime Transport and the Strategy for the Development of River Transport in the Republic of Croatia for the period of 10 years, which is in the final phase of drafting. A letter of sectoral policy is also being prepared. The main legislative acts planned for the reform in question are the law on Navigation and Inland waterways and a new law regulating the coastal line Maritime Transport to be adopted in 2021 and the new law on Maritime goods and seaports, which will be adopted in 2022.

The sectoral policy letter for the railway sector is about to be adopted by the government. The sectoral policy letter represents further steps in key areas of reform and modernisation of the railway sector and establishes implementation plans for the government and railway companies in the sector and defines specific and detailed activities in key areas: (i) sector management; (ii) management and operation of railway undertakings; (iii) planning of sectoral investments, financing and implementation; and (iv) overall government policy in relation to industrial and knowledge policy in the sector.

Measures stemming from the reform of the entire transport sector with the aim of sustainable development are partly contained in the NPRR and through this reform we plan to continue implementing the same and new measures until August 2026. Through the implementation of reforms by 2026, amendments to the Road Act and the new law on Maritime goods and seaports, the law on Navigation and Inland waterways and the law on coastal line Transport will be adopted, which will create the conditions for interoperability of electronic road toll collection systems and increase of road safety, ensure uniformity in the implementation of legal obligations for public ports management and rationalize management costs, establish a sustainable waste management system in ports, simplify administrative procedures and regulate the concession of state lines of coastal line

transport. Furthermore, implementation of reforms will establish the conclusion of PSO contracts in public road transport, adopt a letter of sectoral assistance and inland waterways policy as well as a letter of sectoral policy for the railway sector and enter into a first multi-year contract on railway infrastructure management. Also, one of the most important expected results of the implemented reforms is the establishment of a new electronic toll collection system.
Investments contributing to the implementation of the reforms will construct/reconstruct 229 km of railway infrastructure, build 94.7 km of state roads, modernise/reconstructed 5 seaports, built/reconstructed 4000 public utility berths, purchase of 19 commissioned search and rescue vessels and 4 ro-ro passenger ships, purchase/reconstructed 30 navigational facilities of inland waterway fleet, purchase of 30 trams and 120 buses and 500 alternative-powered vehicles, as well as build 500 pumps for alternative vehicles.
In line with the CSR and the objectives of the government and NRR programme, it is planned to develop a uniform transport network with developed railway infrastructure and public transport infrastructure and intermodality, which will result in a reduction of the share of passenger cars powered by fossil fuels and in general the reduction of greenhouse gas emissions in the transport sector, as well as eliminate obstacles to the mobility of people and goods.
The reform and its measures cover all transport sectors, transport infrastructure managers and enterprises and LC (R)SGUs that will carry certain investments.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C1 .4. R1 Road sector reform

Challenge

The road network in the Republic of Croatia consists of 1.419.50 km of motorways, 7.097.70 km of state roads, 9.498.50 km of county roads and 8.937,30 km of local roads. Further development of the road network should be based on the concept of functional regions (FR).
Although the number of road fatalities has decreased, the Republic of Croatia is still at the bottom of the EU road safety scale. According to Eurostat data for 2016, the Republic of Croatia records one of the higher road fatalities and ranks 6 th out of 28 member States (including UK) with 73 registered fatalities per million inhabitants.
The main problems of the road sector of the Republic of Croatia are over-indebtedness of the road sector, excessive number of employees in companies compared to EU countries and generally unsatisfactory state of road safety, in accordance with the Directive 2008/96/ EC-inspection of RSI (Road safety inspection) on the TEN-T network.
The quality of road infrastructure is generally good, but there are still bottlenecks that often deteriorate further at the peak of the tourist season.
State-owned road companies face significant difficulties primarily related to the inability to service credit obligations, in terms of high interest rates and short repayment periods. In these circumstances, in addition to low liquidity, financial stability was also affected by relatively high operating costs.
The sectoral policy letter for the road sector was adopted in 2017 and plans in detail activities in three key areas: road sector management, improvement of operational efficiency within road sector companies and financial restructuring of road sector companies. The reform, presented by the Sectoral Policy Pipeline, is implemented with the support of the World Bank through the Road sector modernisation and Restructuring Project. Most activities in these areas have been realized or are in progress. The number of companies in the road sector has been reduced by government decisions from 4 (HC, HAC, HAC-ONC, ARZ) to 2 (HC, HAC) by the merger of HAC-ONC with HAC 2017, and ARZ with HAC 2020.
By merging companies administrative business processes have been optimized and

further optimised by the end of the project. Economies of scale will be ensured and the total operating costs of administrative operations reduced.
Financial restructuring was done in three rounds and savings of about 60 m euros per year were achieved at sector level.
Both road sector companies are simultaneously reorganised, key business processes have been modernised, new road maintenance standards have been prepared, which will be applied since the end of 2021 for motorways, and since 2022 for other roads, environmental management practices, personnel management, IT security, information have been modernised. In the period from the end of 2017 to the end of 2020, the number of HAC employees decreased by 480.
Comprehensive analyses and preparations for the procurement and implementation of the Road asset Management system (HC) and the new toll collection system (HAC) are in progress. Both of these components represent the development of smart and modern solutions in the road system.
These reform activities, especially those aimed at restructuring HAC and HC's operations, are financed from the World Bank loan, while the new toll collection system is planned to be financed through the RDF.

Objective

Reducing the number of accidents and reducing greenhouse gas emissions in road transport by improving the quality and completion of key road infrastructure in accordance with the Strategy for Transport Development of the Republic of Croatia and completing the restructuring of the road sector.

Description

A proposal for redefining key performance indicators of companies has been drafted. Also, changes in accounting standards in companies will be implemented by changing the legislative framework. Since the studies for increasing the efficiency of operations of Hrvatske autoceste d.o.o. and Hrvatske ceste d.o.o. have been completed, preconditions have been created for the implementation of measures for reducing operational costs of companies during 2020, which will continue in 2021. The reduction of operating costs of companies contributed to the financial restructuring of state-owned road companies, which was carried out in the previous period, with the aim of extending the repayment period and reducing the interest rates of part of the remaining debt of companies, thus achieving significant savings on the same. Financial restructuring established financial stability of road tolling companies while maintaining current liquidity and servicing annual credit obligations.

Implementation

Measures for raising the level of road traffic safety will be defined in the National Road Safety Programme, which is currently being drafted and adopted by the Ministry of Interior, in cooperation with THE MINISTRY of Interior and other departments and will be implemented through inter-departmental cooperation.
Reform measures in the road sector will also be implemented through amendments to the Road Act and this Act will be aligned with Directive (EU) 2019/520 of the European Parliament and of the Council of 19 March 2019 on the interoperability of electronic toll collection systems and facilitating the cross-border exchange of information on non-payment of tolls in the Union (Text relevant to the EEA) and Directive (EU) 2019/1936 of the European Parliament and of the Council of 23 October 2019 amending Directive 2008/96/EC on road infrastructure safety management.

Implementation holder	MMPI
Target Group	State-owned road companies
Estimated cost	HRK 2,110,000,000 (investment)
Implementation period	1Q/2021.-4Q/2025.

C1 .4. R2 Railway sector reform

Challenge

Traffic data show that there is a market potential for revitalising the railway sector in the Republic of Croatia, but only if the quality of services, integrated transport and competitiveness improve significantly. This requires a combination of investment, institutional measures and greater efficiency.

Rehabilitation, rehabilitation and improvement of the railway network and fleet are neglected. For example, the World Economic Forum's Global Competitiveness Report ranks Croatia 70 th in terms of railway infrastructure quality.

Low speeds and unreliability are the result of outdated railway infrastructure because the legacy property has failed so much that for safety reasons it is necessary to significantly reduce train speed. Approximately 58% of the km of the railway were reconstructed before Croatia's independence in 1991. Approximately 30% of the km of railway in the Republic of Croatia was built before 1980. Since joining the EU, about 10% of the network in the Republic of Croatia has been restored. Croatian Railways include extremely complex and costly infrastructure configurations that no longer contribute to business efficiency.

Obsolescence is also the cause of two major challenges in the railway sector.

Firstly, it leads to a low utilization of assets due to low train speeds. Only on about 11% of the infrastructure network possible speeds exceed 120 km/h. Speeds exceeding 140 km/h are allowed only at about 5% of the infrastructure network. The result of low train speeds can be lower competitiveness and less efficient use of operational assets compared to other modes of transport.

Second, the cost structure of the railway companies in HR is under a heavy burden on outdated assets characterised by strong labour needs and weak financial performance. For example, an outdated traffic signalling and management system requires more than 2,500 additional workers to handle (i.e. manually operate) HZI infrastructure at an additional cost of 45-50 million euro per year, which is more than 1/3 of the operating subsidies received by the HZI from the State.

It is necessary to accelerate the deployment of the European Railway Transport Management system (ERTMS) in order to increase the interoperability of freight and passenger transport with other EU railways. ERTMS technologies could also increase the operational efficiency of infrastructure management in Croatia, as the existing network relies on an outdated mechanical signalling system. Currently, Croatia does not have a railway mobile communication system that can support level 2 or 3 of the ETCS. Since it does not include a mobile rail communication system, the Croatian modernisation programme uses ETCS level 1 solutions. ETCS 1 does not achieve much in increasing the overall operational efficiency of HZI as it is used only on the routes being rehabilitated, leading to a non-systematic improvement.

IN 2016, the CEA adopted the National ERTMS Development Programme, which in the first phase of implementation envisions the introduction of ERTMS in two key directions, RH1 and RH2. However, due to the change and introduction of new 5G technologies (FRMCS-Future Rail Communication system), MMPI and CEA will agree to further implement ERTMS in cooperation with the European Railway Agency in order not to implement inadequate system.

Demand for rail sector services in the Republic of Croatia has increased significantly since its accession to the EU. In particular, the demand for rail freight transport to neighbouring countries in the European Union and to JI Europe is highlighted, indicating great potential in meeting demand for freight services on the core corridors. At 52% (1.351 km) of the railway network there is 95% of the total demand for freight traffic in Croatia. The existing demand for freight transport is particularly concentrated on the Mediterranean Corridor (RH2) and the former Pan-European Corridor X (RH1), which are together in 2017. accounted for 75% of gross tonne/km. On these corridors there are also the greatest opportunities for the growth of rail freight traffic because they serve the primary border crossings in Croatia with neighbouring countries. The Mediterranean corridor serves the

port of Rijeka. Railway lines that serve areas close to the port of Rijeka and are connected to the Mediterranean corridor have recorded the greatest increase in freight traffic (almost 300%) since Croatia joined the EU. The further development of these core corridors is essential for the increasing shift of freight transport to environmentally sustainable rail transport.
In addition, in order to prepare and realise large investment projects, it is necessary to amend the current legislation by 2023.
One of the significant regional railways in the Republic of Croatia is the so-called The Lika railroad, including Dalmatian railways, consists of sections of Osstarija-Knin, Knin-Zadar, Knin-Perkovic-Sibenik and Perkovic-Split.
On the Zagreb-Split section, the travel time is 6 h and 20 min with speed limits of 60 km/h, which represents one of the worst sections of the railway in the Republic of Croatia, especially in the section from Stari to Split.
The Knin-Zadar section is an unelectrified single-track railway for the international traffic of the total construction line of 95.39 km. There are 5 stations and 13 positions on the track and it passes through many populated areas with its length. On certain sections of the railway, the speed is limited to 25 km/h. Since the further development of the port of Zadar is limited by the current state of railway infrastructure, it is necessary to modernise this section.
The railway line R201 and R202, Cakovec-Varazdin-Koprivnica-Pitomaca, is very important for regional traffic between Central and North-western Croatia. The railway is a mixed traffic and is also operated by international passenger trains. The railroad connects corridors RH2 and RH3 and both are non-electrified. The current maximum traffic speed is 80 km/h with many limits of up to 40 km/h.
Only 980 km out of the total 2617 km of railway in the Republic of Croatia is electrified. There is currently only one operator in the railway passenger transport in the Republic of Croatia, HZP. In accordance with the operative concept that will result from the HPAI Development Plan (1Q/2021), the purchase of alternative-powered vehicles will be considered.

Objective

The Government's long-term objectives regarding the development of the railway sector in the Republic of Croatia are as follows:

(iv) strengthening integration with railway networks in the EU and neighbouring Western Balkan countries in order to strengthen Croatia's role as a transit country along the Mediterranean corridor and the Alpe-West Balkan freight corridor on the TEN-T network. This includes an improved connection between the port of Rijeka as the main sea exit of Central European countries and neighboring countries of Croatia in the Western Balkans

(v) permanent and sustainable improvement of safety and reliability of rail transport services on a modern network that will be fully interoperable with the European Union rail network

(vi) modernization of regional railway lines in the Republic of Croatia with the aim of ensuring greater adjustment to the mobility needs of the Croatian population and providing better quality services for passengers;

(vii) greater use of railways as a means to achieve reduction of emissions of harmful gases in the transport sector.

Description

A sectoral policy letter (letter) is being prepared to outline further steps in key areas of reform and modernisation of the railway sector. The letter contains an implementation plan for measures to be implemented by the Government and Croatian Railways companies. Croatian legislation, which is harmonised with the directives of the European Union, provides the entire framework for the reform and modernisation of the railway sector in the long term. Therefore, the purpose of the letter is to focus on specific short - and medium-term improvements in order to address identified challenges in the railway sector. Adoption

of the sectoral policy letter is planned for the first half of 2021.

Implementation

Specific reform measures:

(i) Croatia will mobilise the national ERTMS preparation programme in order to increase interoperability and efficiency.

THE CEA will mobilise the national ERTMS preparation programme in order to prepare for the improvement of interoperability with other railways in the EU. Full implementation of the ERTMS could lead to a fundamental change in terms of interoperability, cost structure and operational efficiency of the rail sector. This is the most strategic reform for improving competitiveness. The upcoming gradual shutdown of the GSM-R system is a key challenge for THE CEA due to the risk of outdated equipment that could jeopardise return on investment. Due to the complexity of the problem, careful analysis and preparation are required. First, the ERTMS National Preparation Programme will focus on enabling investments that are justified (no Regret) to ensure compatibility in the future. The initial phases of this programme, mobilised under the NPOO, will focus on justified investments in the modernisation of switches, railway-road crossings and the power system along the lines, while Croatia is preparing for the later introduction of a mobile communication system and levels 2 or 3. ETCS. This will improve security in the short term, but will also allow for speeding up the deployment of ERTMS in the future. The aim is to prepare for full centralisation of the signal system and traffic management at the later stages of the deployment of the ERTMS after the mobile communication system is identified and deployed.

(vi) Croatia will introduce the first multi-year contract on railway infrastructure management in order to reform infrastructure investment management.

By 2022, THE MMPI will introduce a new Multi-Annual Railway infrastructure Management contract to be developed and implemented in line with the requirements of EU directives. THE MMPI intends to use the Multi-Annual contract as an instrument for achieving transport policy objectives with a clear allocation of responsibilities between (i) the state that will define objectives and measures and allocate funds; and (ii) the railway infrastructure manager in the Republic of Croatia (CEI) in charge of making decisions that will achieve the defined objectives. This approach must create conditions for achieving financial stability of HZI while at the same time transparency of financial transactions from the State and greater cost effectiveness. The development of multi-annual investment plans under the multi-annual railway infrastructure management contract will contribute to additional efficiency due to the predictability of financing and longer-term planning periods. Based on the agreed National Plan for the Development of Railway infrastructure, THE MMPI will identify the actual annual needs for financing regular operations and regular maintenance of railway infrastructure in Croatia, as well as three other major activities related to the sustainability of infrastructure assets, namely: modernisation, reconstruction and capital maintenance.

(vii) The government will define the criteria and the necessary level of demand-dependent service to define investment categories on the railway network and will leave those parts of the network that are unable to provide long-term benefits.

THE MMPI will assess traffic and traffic potential of most of the railway network, and the Strategy will include criteria for adjusting the level of service to traffic. Many routes have very limited or no traffic at all, which requires significant amounts of operating subsidies for infrastructure needs and in some cases passenger transport. In order to harmonise the allocation of funds in a way that corresponds to demand, MMPI will gradually restructure the railway network, taking into account local and social needs, provided that (i) in the case of passenger transport services, the communities in which the service will be suspended receive a better quality of service compared to the current situation by taking advantage of “public transport on demand” or other multimodal solutions; and (ii) the transfer of funds from one part of the network to another allows an increase in the rate of renovation of the core rail network.

(viii) THE CEA shall reform asset maintenance and management functions that will be based on the infrastructure rationalisation programme, in accordance with the operational concept. This will include lower cost solutions for routes where demand is weak.

Croatian railway infrastructure is too complex and too expensive in relation to needs. Rail configuration, switches, stations, etc. is designed for the intensity of railway traffic that no longer exists. Rationalisation is necessary for reducing operating costs. Accordingly, any new rehabilitation and periodic maintenance will involve rationalisation of infrastructure where possible. Another method of rationalization of investments in infrastructure will be used, i.e. observation of commercial and technical characteristics of necessary services in order to determine the infrastructure necessary for this. Basically, infrastructure requirements will be designed to meet the minimum necessary for efficient timetable management resulting from market needs. Rationalisation will be carried out both systematically and according to the circumstances. All new rehabilitation and major maintenance projects for railway lines will include removal of excess infrastructure such as unused switches, sidings, roundtracks, surplus platforms, etc. Excess space at the stations will be left or converted for a different purpose, such as commercial or public function such as police, firefighters, local government offices, etc. All with the aim of transferring Croatian railway infrastructure to more cost-effective and utilized basic assets with increased potential for financial sustainability.

THE CEA will also reorganize its maintenance approach currently mainly implemented by its subsidiary, the trackside. The reform will focus on the separation of HZI companies and trackside structures with the aim of increasing independence and improving corporate governance. The objective will be the complete independence of the trackside building company so that it can make independent commercial decisions and be eligible for contracts financed from all sources. To achieve this, THE CEA would no longer have a majority stake in the society of the trackside structure and would no longer have the same directors as the management of the railway building company.

The process of separating the company Hz holding into three companies Hz infrastructure, Hz passenger Transport and Hz cargo started in 2010. This process has not been fully implemented and legal issues remain, especially in terms of ownership and property. With regard to the liberalisation of freight transport, in the course of 2021, and in accordance with the letter of sectoral policy, it is expected to find a strategic partner for the Croatian cargo.

Implementation holder	MMPI
Target Group	Croatian Railways companies
Estimated cost	HRK 3,524,000,000 (investment)
Implementation period	1Q/2021.-4Q/2025.

C1 .4. R3 Reform of maritime affairs and inland navigation

Challenge

The Republic of Croatia has 435 seaports open to public transport, of which six ports are of special (international) economic interest to the Republic of Croatia, 67 ports of county importance and 362 ports of local (municipal) importance. A total of 22 county port administrations have been established for the management of ports open to public traffic of county and local importance.

Public transport in the coastal line maritime transport is considered an important factor in the segment of maritime navigation, since it ensures permanent and regular connection of islands with the mainland and islands to each other without which there would be no sustainable development of inhabited islands in the internal sea waters and territorial sea of the Republic of Croatia. The regular maritime traffic takes place between the islands (82 island ports or ports) and the coastal part (19 ports in the coastal area) according to the

established navigation order as a regulated service.
The public seawater line transport system in 2020 covers 51 state lines (12 ships' classical lines, 24 ro-ro and 15 high-speed passenger lines), which include 14 shipping ships with a fleet of 81 ships, 20 of which are classical passenger ships, 40 ro-ro passenger ships and 21 very high-speed passenger ships.
The average age of ships engaged in public seawater transport in 2020 for conventional passenger ships is 41 years, for ro-ro passenger ships it is more than 21 years, while for very fast passenger ships it is on average over 25 years.
The biggest shipping company is Jadrolinija, a fully state-owned Rijeka. The Jadrolinija fleet currently has 54 ships, of which 10 high-speed passenger ships, 4 classical passenger ships and 40 ro-ro passenger ships, three for international navigation. Jadrolinija accounts for 86.1% of the total traffic of passengers, while 89.4% share in the total traffic of vehicles. In 2019, a total of 13,808,890 passengers were transported in the coastal line traffic, i.e. 3,539,942 vehicles.
Due to the size and age of the vessel, the Croatian fleet has a low capacity. Given the tradition and existing expertise and experience as preconditions for success, it is necessary to encourage the renewal of the fleet.
The coastal area of the Republic of Croatia is exposed to strong wind blows. Outdated port infrastructure and the age of the liner coastal transport fleet cannot guarantee reliable access to the islands for strong winds.
At the moment, 100 000 boats have been registered in the Croatian Register of ships, which is the basic condition for getting a permanent berth, while the total number of public utility berths is 41 000. This disproportion has a negative impact on environmental and nature protection, illegal construction and devastation of the coast. The insufficient number of public utility berths is also confirmed by the fact that today in the Republic of Croatia about 9,000 citizens are on waiting lists in the port authorities for the acquisition of utility connections, and these are the population living in the coastal area and on the islands.
Over 160,000 ships, boats and yachts sail in the Adriatic in the summer. In Croatian ports we annually have more than 700,000 ships arriving/sailing. In the Croatian part of the Adriatic we have the largest world fleet of medium sized charter vessels. The area of responsibility of the Croatian search and rescue services is 55.000 km 2. With such traffic, the number of marine accidents is increasing, as well as the number of search and rescue actions. During 2019, a total of 612 search and rescue actions at sea were undertaken in which a total of 1155 people were saved. In order to carry out these tasks, the Service currently has a total of 38 vessels, i.e. 4 ships and 34 ships that are mostly outdated, various technical and technological characteristics and uneven rescue devices. The average age of a lifeboat is 20 years. The existing SAR fleet has a diverse level of equipment. In general, equipment deficiencies are the following: lack of dedicated night search equipment (present condition of SAR action can be effectively implemented only during daylight), lack of equipment for easier removal of persons from the sea (dedicated networks, platforms or cranes with baskets and similar solutions), which is usually done manually to date, lack of electronic equipment adjusted to SAR actions, primarily electronic maps system capable of receiving, identifying and plotting areas and marine search and rescue patterns based on the position of a missing person or vessel. Considering the number of marine accidents and accidents, as well as search and rescue actions at sea which increase with the increase of maritime and nautical traffic in the Croatian part of the Adriatic, it is necessary to approach comprehensive modernization and improvement of search and rescue services at sea.
The basic characteristic of maritime traffic in the Adriatic is that it completely passes along the length of the Adriatic basin, from Otranto the northern Adriatic ports and the inland ports, where the possibility of sudden sea pollution is recognized as one of the most significant threats, which can occur at any time. On average, 4,500 tankers sail the Adriatic annually, carrying approximately 60 million tons of oil and oil products, of which 10 million end up in Croatian ports. In addition, approximately 4 million tons of dangerous cargo are transported annually to the Croatian part of the Adriatic.

Inadequate port infrastructure in the port of Ploče due to limiting parameters has already caused difficulties and incidents during port operations and poses a threat to both safety of navigation and the environment. In order to ensure the resilience and independence of the energy sector in the territory of the Republic of Croatia, Bosnia-Herzegovina and in general Central Europe, it is necessary to ensure adequate storage and transhipment capacities in order to ensure continuous supply of energy. This has proved particularly important in times of crisis caused by the human-19 pandemic, which can lead to a break in the energy supply chain.
The safety of navigation is also undermined by limitations in navigation in certain maritime passages that are inadequately marked by maritime signalling facilities.
Except in the port of Rijeka, there is no adequate infrastructure in any of the ports open to public transport for the supply of ships with alternative fuels. Only eight ports are equipped with appropriate port reception devices for the collection and disposal of solid and liquid waste, and maritime facilities are poorly equipped with adequate equipment for the collection and disposal of solid and liquid waste.
The Republic of Croatia has 4 ports on inland waterways: in Vukovar on the Danube River, in Osijek on the Drava River and in Slavonski Brod and Sisak on the Sava River. The port of Vukovar and the port of Slavonski Brod are classified as the main ports of TEN-T. The port of Osijek and the port of Sisak are classified as ports on the comprehensive network of TEN-T. Reliability and safety of navigation on waterways are key factors affecting the attractiveness of ports. The Danube waterway class vic and the Drava waterway, class IV waterways from the mouth into the Danube to the Osijek port of Nemetin, comply with the requirements of international navigation standards. On the other hand, two sections of the Sava waterway (Slavonski Samac – Oprisavci and Slavonski Brod – Sisak Galdovo) are class III waterways.
Out of the total 539.7 km of existing waterways included in the European waterways network, only 287.4 km meet the requirements of the classification for international navigation. The largest section is the Sava River, which in the Republic of Croatia does not meet the requirements of international navigation.
An environmentally friendly fleet of vessels and the use of modern technologies in inland navigation are one of the preconditions for achieving the goal of sustainable development and sustainable mobility. The average age of the inland waterway fleet is 39 years, which is a very important data in the context of environmental protection, since the inland waterway fleet has older-generation engines. River shipowners are required, in accordance with the existing EU directives (ES-TRIN 2021 — European standard laying down technical rules for inland waterway vessels; ADN 2019 — European Agreement on the International Transport of dangerous goods in Inland waterways; Directive (EU) 2016/1629 of the European Parliament and of the Council of 14 September 2016 laying down technical rules for inland waterway vessels, amending Directive 2009/100/EC and repealing Directive 2006/87/EC) to modernise the fleet according to the new technical standards.

Objective

Development of sustainable and efficient maritime and inland waterway transport which will increase the safety of navigation, ensure the revitalisation of inland waterways, improve the transport connections of islands and improve port infrastructure in order to reduce the negative impact of the transport sector on the environment.

Description

see under implementation

Implementation

The new law on Maritime goods and seaports will reorganize the establishment of a port system of ports open to public transport, which aims to ensure uniformity in the implementation of legal obligations for public port management and rationalize management costs.
Furthermore, the Act will prescribe the criteria which the port must establish a sustainable

waste management system, in accordance with the provisions of Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for ship waste delivery, amending Directive 2010/65/EU and repealing Directive 2000/59/EC.
Furthermore, the Act will provide a basis for more efficient management of public utilities in order to preserve life on islands and demographic restoration of islands, which is also supported by the construction of infrastructure for receiving vessels in coastal line maritime transport.
We are also currently in the phase of adoption of the new law on coastal line Transport, simplifying current administrative procedures and creating better preconditions for more efficient performance of public coastal maritime transport activities, by regulating the provisions related to the activities of the Agency for coastal line Maritime Transport, especially in the part relating to the concessioning of state lines, as well as better use and monitoring of the public transport it system (SEOP system).
The tasks of search and rescue of persons in death at sea are carried out pursuant to the 1979 International Convention on the Search and Rescue at Sea, the 1974 International Convention on the Protection of life at Sea, the 1944 Convention on International Civil Aviation, as well as other international treaties to which the Republic of Croatia is a party. The new national plan for search and rescue of persons in death at sea establishes more detailed conditions for conducting search and rescue activities of persons in death at sea, operational, vocational training and training of persons conducting search and rescue services at sea, a list of search and rescue units at sea, regulating the rights and obligations of the work of volunteers in search and rescue services.
In order to integrate the waterway system of the Republic of Croatia into the unified traffic area of the Republic of Croatia as soon as possible, and to become functional at the prescribed level, a reform measure of the legal basis for the Regulation of waterways and their rehabilitation is envisaged. In this regard, a new Act on Navigation and Inland waterway ports will be drafted, within which a provision will be prepared which will enable the establishment of sectors (sections) of inland waterways with special risks on waterways in the Republic of Croatia, when necessary in order to ensure safety of navigation.
An inland waterway vessel fleet modernisation programme has been adopted identifying the main elements of vessel modernisation to be met in order to adapt the fleet to future EU standards and to guide the development of the transport system towards sustainable mobility.

Implementation holder	MMPI
Target Group	Stakeholders in the port system, shippers; general population.
Estimated cost	HRK 2,185,037.500 (investment)
Implementation period	1Q/2021.-4Q/2022.

C1 .4. R4 Improving the public transport system

Challenge

The adoption of the Strategy for Transport Development of the Republic of Croatia for the period 2017-2030 established functional regions and started drafting master plans of functional regions defining certain measures and interventions necessary at the same level, while Sustainable Urban Mobility plans (SUMPs) started. Sustainable urban mobility plan (SUMP) the next step in planning urban mobility.
In the Strategy for Transport Development, population movement is observed in the context of the implementation of public transport (railways, trams, buses, waterways, etc.), as well as at the level of mobility of individuals (transport by car, bicycle or walking). For the purpose of daily migrations, emphasis is placed on public passenger traffic and forms with zero emission of harmful gases. In the urban and suburban public transport, which

includes buses and trams, the largest number of passengers carried was recorded in 2007 and amounted to about 426 million passengers. In the period from 2008 to 2012, the number of users decreased to around 363 million passengers per year, while in the period from 2012 to 2015 there was again an increase to around 398 million passengers in 2015 and this trend of passenger numbers remained until 2019.

At the same time, a large number of registered passenger vehicles, the number of kilometres travelled in passenger cars, as well as the general use of passenger cars were recorded. The predominant representation of private, that is, personal transport is reflected in greater traffic jams on access roads to urban centres, which favours increasing pollution and higher noise levels, lack of parking spaces and increasing costs for citizens. Public transport in the Republic of Croatia is currently not integrated because there are no harmonized timetables and systems for selling single tickets for transport with various forms of public transport. Intermodal terminals, which enable the transition from one type of transport to another, do not exist, i.e. they are extremely rare. On certain lines, bus and rail transport operates on parallel routes. The small representation of railway in the total public urban transport is influenced by the state of the railway fleet which, due to the high average age of the vehicle, does not meet the contemporary requirements of public urban passenger transport, while buses for the transport of passengers in road transport are about 15 years old on average. Public transportation systems exist in larger cities such as Zagreb, Rijeka, Osijek, Split and their agglomerations, as well as in Varazdin, Karlovac, Zadar and Pula.

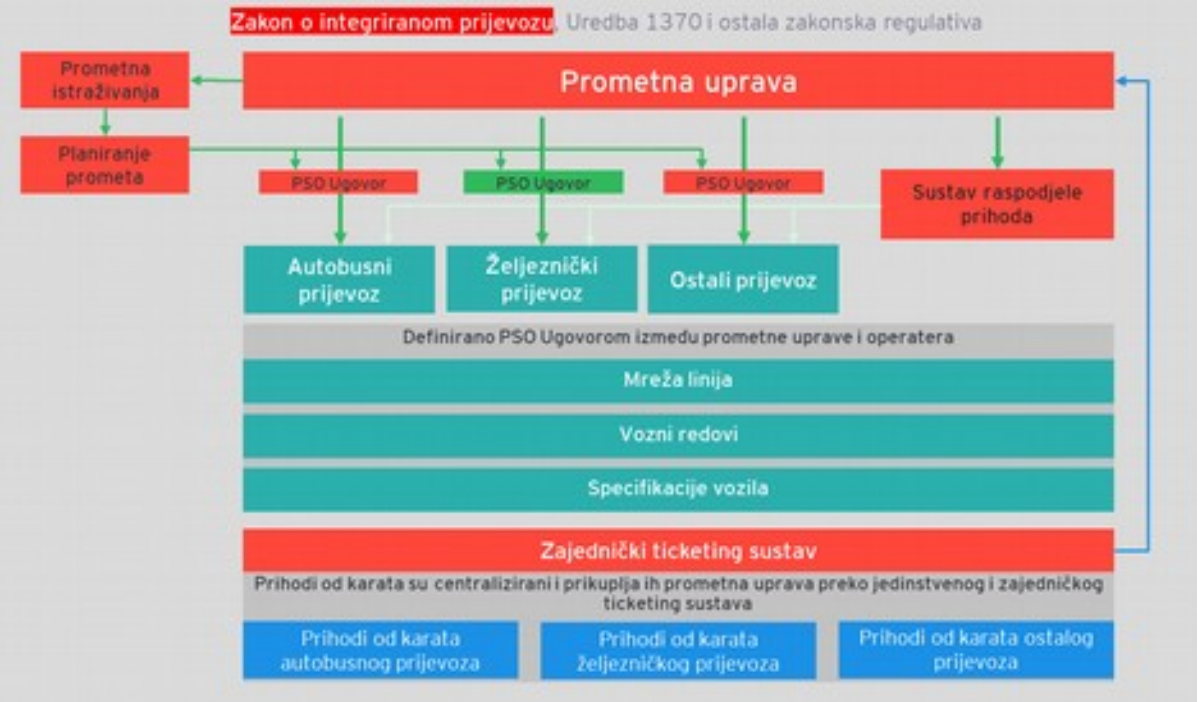
The tram public transport exists in Zagreb and Osijek, and railway transport as a function of public transportation exists only in Zagreb and Split. Particularly bad is the situation in Osijek, which has the oldest fleet in use in urban transport systems. In 2014, the Osijek HMA fleet consisted of 64 vehicles, 26 trams and 38 buses. The average age of nine tram vehicles was 52.1 years and 17 trams 44.4 years. Some trams have been renovated, but not renovated, and most of them have only a refreshed color. In addition, the Osijek tram infrastructure still uses some outdated technologies and needs to be restored to reduce the number of malfunctions caused by poor infrastructure.

The availability of public transport within agglomerations and along major traffic corridors is sufficient, but lags behind in less populated areas. The road network outside of agglomerations offers a solid basis for the development of public transport. The problem of the road network outside the populated areas is the lack of equipment for the establishment of high-quality public transport, which can be seen in the insufficient number of bus stops, inadequately equipped bus stops (unmarked views, lack of backstops, overpasses, schedules, etc.), bottlenecks on the roads.

Furthermore, there is currently no uniform system of signing and monitoring of the public services contract for passenger transport in the Republic of Croatia. Public Service obligation Contract (PSO) of the contract. So far, the only PSO contracts have been signed with the Croatian passenger Transport and with 9 public urban transport operators owned by LC (R)SGUs.

Also, there is no integrated ticketing system in the Republic of Croatia at any level. The purpose of the common aforementioned system is the Tariff Union and simple collection of revenues from sold tickets. This gives part of the data on the use of the public transport system in a transparent, fast and reliable manner. Currently, traffic research in the Republic of Croatia is conducted in most cases in an uncoordinated manner, i.e. everyone does research for themselves, where they often do not comply with other surveys. The transport administration aims to analyse all systems and coordinate the development of all systems together so that the entire public transport system is harmonised and optimised.

The figure below shows the parts of the operation of the public transport system that are missing in the RC (bus transport is also marked in red, although in a limited number of cases PSO contracts have been concluded, however, transport in these LC (R)SGUs is not yet integrated).



The analysis found that there are several problems in the PSO contract management system. The introduction of PSO agreements in accordance with the Regulation 1370/2007 in the Republic of Croatia is still not in the mature phase. In December 2019, the Ordinance on public line transport of passengers in road transport was adopted[18], which did not fully clarify what, how and when to adopt in order to implement PSO agreements. Carriers fear that their business volume will be reduced due to fears of a reduction in the number of bus lines. In this context, carriers are trying to communicate how they should obtain PSO contracts for the routes on which they have concessions, which is not necessarily the correct approach. Namely, pursuant to Regulation 1370/2007 on public passenger transport services by rail and road and repealing Council Regulation (EEC) No 1191/69 and (EEC) No 1107/70 It is not possible to sign a PSO contract directly with carriers other than the internal operator of the LSGU/IAS. The internal operator means that the LC/IAS is the owner of the carrier. In order to implement PSO contracts, LSGU/MRS should know which lines they wish to award through PSO contracts and award them through a public tender. For the same purpose (preparation of tenders), prior LSGU/LSGU should prepare studies and operational concepts of the public transport network (preferably as soon as possible), which is a problem for most LC (R)SGUs, considering that they do not have the knowledge/experience to prepare the necessary documentation.
According to available statistics, Croatia currently has e-fillers at 272 locations with 693 connections. Since the trend of purchasing electric vehicles is in high swing, it is necessary to further build bottlers for electric vehicles in cities, especially on the main roads.

Objective

Cleaner, safer and more sustainable public line transport of passengers in the Republic of Croatia. A sustainable public transport system developed and the integrated transport of passengers with rail as the main backbone of the network are the main objectives of this measure.

Description

Public transport reform started in 2019 by signing the first 10 public service contracts (PSOs). *Public Service Contract*), in accordance with Directive 1370/2013, which was a precondition for co-financing the procurement of buses in cities and trains for CORPS. Furthermore, a new Ordinance on public scheduled passenger transport in road transport has been adopted [1] encouraging LC (R)SGUs to reorganise the public transport system

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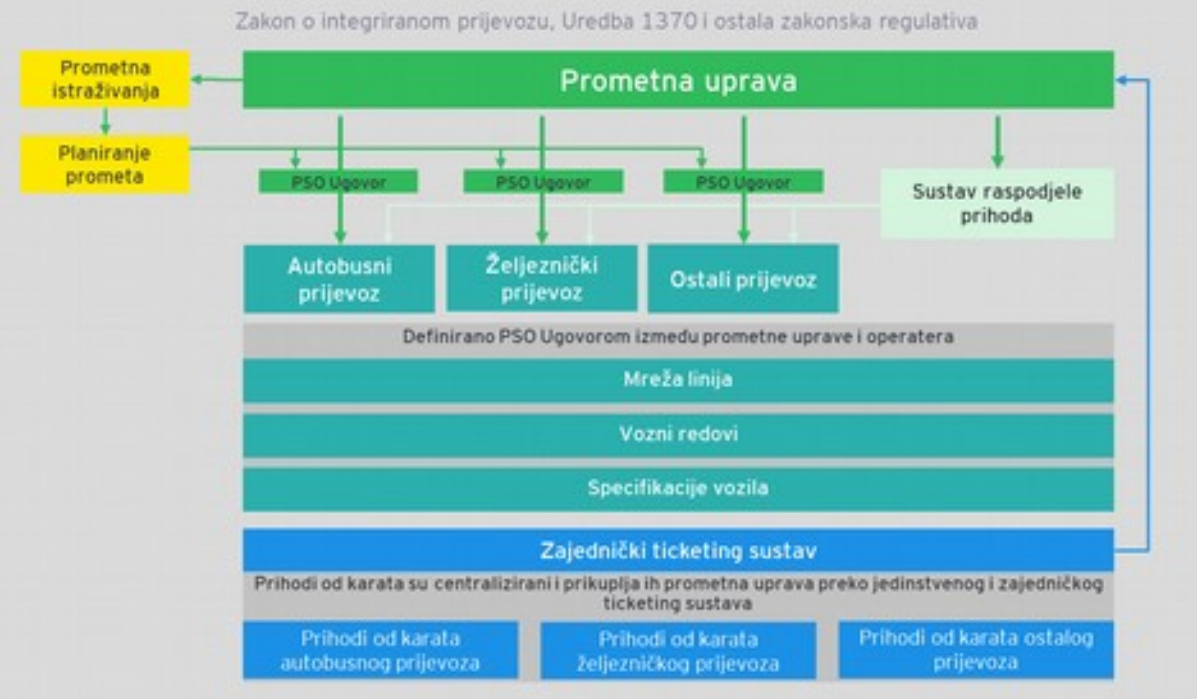
while respecting the provisions of Directive 1370/2013 and all counties and cities that have not had a public service contract so far will reorganise the lines in line with the conclusions of master plans of individual functional regions, taking into account the main backbone network of railway.
There is currently only one traffic administration in the Republic of Croatia (IPZP d.o.o.) which is still not in the function of the real traffic administration. The aim of the Transport Administration is to manage public transport in its territory and cooperate with neighbouring transport administrations in creating a single and harmonised public transport network throughout the Republic of Croatia.
The transport administration is important because it harmonizes all traffic systems, develops research and plans traffic which is later contracted with public transport operators. In addition, the transport administration monitors the implementation of public service contracts and collects ticket revenue which it later allocates to carriers.

Implementation

The following shows what the public transport system should look like according to the model in other countries.



Continuation of the reform which will enable the implementation of the PSO contract in the Republic of Croatia includes the following activities:
(i) drawing up a precise and detailed plan for the implementation of the PSC Treaty, which should include a financial analysis. The plan should provide clear guidelines for each participant participating in the implementation of the PSO Agreement (LSGU/MRS, operators, MMPI, MINISTRY of Finance, Government of the Republic of Croatia). The plan should include both a clear timetable and a KPI (Key performance indicators) to enable monitoring of the implementation of the plan.
(ii) developing an Action Plan for communication and promotion of PSO contracts in order to inform and sensitise all stakeholders. All stakeholders, including citizens, should receive information about the new system, which are advantages of the system for each stakeholder and what is the implementation plan for the PSO agreement. It is proposed to consider the implementation of workshops, lectures, web site development, information centre, promotional materials and everything else necessary to provide stakeholders with information on PSO contracts. The Action Plan will facilitate the introduction of PSO contracts and increase transparency.

Implementation	MMPI

holder	
Target Group	JL (R)SGUs, public transport operators
Estimated cost	HRK 1,550,000,000 (investment)
Implementation period	1Q/2021.-2Q/2026.

C1 .4. R5 Greening of transport

Challenge

Traffic in total energy consumption has a share of 30%, while in EU greenhouse gas emissions it accounts for about 25%. Out of that, as much as 71.3% of emissions generate road traffic. In the European Green Plan, the EC called for a 90% reduction in greenhouse gas emissions in transport, all to make the EU a climate neutral economy by 2050.

In line with the EU goals of reducing greenhouse gas emissions and taking into account increasing air pollution, it is necessary to emphasise the importance of energy efficiency and sustainability in transport and encourage projects to increase energy efficiency of transport systems and use vehicles that use renewable energy sources to a greater extent and have reduced CO2 emissions. According to data supplied by the Hrvoje Pozar Energy Institute, CO2 emissions in the total domestic traffic amount to about 5.6 million tonnes, out of which almost 3 million tonnes are generated by road traffic. More than 2 million road vehicles have been registered in the Republic of Croatia today, of which almost 1.5 million are passenger cars. The average age of passenger cars is more than 12 years and the average personal vehicle in the Republic of Croatia annually emits about 3 tons of CO2.

According to data provided by the Centre for vehicles of Croatia, an increase in electric and hybrid vehicles has been evident in the last few years. However, this increase is slow and needs to be driven by targeted public policies. Thus, in 2012 there were only 13 electric cars in the Republic of Croatia, and in 2014 there were 74, 2017. 277 and 2019 730. For illustration, a hybrid vehicle emits 1 tonne of CO2 annually, while electric vehicles have no emissions at all or pollute the environment with noise.

Furthermore, the aviation sector has proven to be particularly sensitive to periods of crisis. Airports play an important role in connecting remote areas, therefore it is essential to ensure their smooth functioning.

There are nine airports in the Republic of Croatia, two of which are in the continental Republic of Croatia, while seven are located all over the coast. The air transport sector itself is directly linked to tourism and the largest influx of passengers and air transport takes place in the summer months from May to September. Every year, airports in the Republic of Croatia are recording an increasing number of passengers, and almost 85% of all passenger traffic at airports takes place at three major airports: Franjo Tudjman Airport (Zagreb), Split Airport and Dubrovnik Airport. It should be noted that the Zadar Airport achieves better results every year, while the airports of Rijeka and Pula operate well during the summer months, while during the winter they experience greater falls.

According to the State Bureau of Statistics, the monthly distribution of passengers at all Croatian airports shows that the number of passengers is starting to grow in March, peaks in July and August, then falls in September, and the lowest number is in February. This is particularly pronounced on international flights because the air transport sector is directly linked to the summer season in the Republic of Croatia. As a result of the pandemic, the number of passengers declined sharply, 80% in the first half of 2020 compared to the same period in 2019.

Objective

Developing an energy efficient and sustainable transport sector by stimulating the growth of registered alternatively powered vehicles, developing infrastructure for charging alternatively powered vehicles and investing in energy efficiency and sustainability of airport infrastructure.

Description

One of the key measures to foster energy efficiency in transport is to encourage the use of energy efficient vehicles. In order to continue the current trend of growth of registered alternative-powered vehicles it is necessary to encourage their purchase by public co-financing. THROUGH State aid schemes, MMPI will allocate funds to legal entities in the transport and logistics sectors for the purchase of alternative-drive vehicles to encourage the transition to this type of propulsion technology.
The air sector is particularly affected by the consequences of the pandemic and in order to ensure sustainable operation and normal functioning of airports, funds must be invested in order to create conditions for their self-sustainability. Digitalisation and self-sustainability are imperative to the continuous development of the air sector. Investments encouraging the self-sustainability of airports are essential to ensure continuity in the provision of services.

Implementation

Since the air sector was severely affected BY THE CIVIL-19 pandemic and since additional investments are needed in it, all in order to adapt the sector to new market conditions, the Republic of Croatia plans to invest in the development of environmentally independent airports through the modernisation and construction of energy-independent infrastructure of the same. THE MMPI plans to conclude agreements with three airports in the territory of the Republic of Croatia, which will, through the construction of photovoltaic cells, the purchase of electric vehicles and the reconstruction of aprons and terminals, create new, modern and more resilient airports that will lead the air sector as energy independent and self-sustaining.

Implementation holder	MMPI
Target Group	Airports in the Republic of Croatia, legal entities from the transport and logistics sectors engaged in road transport of goods and passengers.
Estimated cost	HRK 1,687,000,000 (investment)
Implementation period	2Q/2021.-2Q/2026.

(b) Investments

C1 .4. R1-I1 Electronic toll collection system

Challenge

see C1 .4. R1

Objective

The introduction of a new electronic toll collection system will improve the road toll collection system. Users will be allowed to drive without the need to stop at toll stations, which will positively affect environmental protection and road safety, and all technical problems arising from the outdated toll collection system of today will be solved. In this way, large congestion at toll stations in the summer period will be solved due to increased influx of tourists, and users will be able to use telematics registration methods that will be available to them in advance. By removing waiting at toll stations, the project directly contributes to the reduction of pollutant gas emissions.

Description

The introduction of a new electronic toll collection system is one of the activities carried out within the framework of the project to modernise and restructure the road sector. For the state highway manager, it will enable further reduction of operating costs, which is one of the objectives of the project.

Implementation

The study of the new toll collection system was conducted by the Spanish company IDA, which was selected in 2018 in the international tender MMPI. The selection of a new

collection system is one of the key steps in the reform of the road sector of the Republic of Croatia, which the IMPI is implementing with the support of the World Bank.
The project complies with the provisions of the acts of the Mobility Package 1, 2 and 3. The new system will be interoperable with existing electronic charging systems in the EU, which implies the possibility of transport and single tolling within the network of European highway operators (EU development project). The new collection system is based on a combination of two modern and verified technologies, collection by means of an improved version of the device installed in the vehicle (ENC) and an automatic system for recording license plates. It is estimated that the new system will function effectively (without the need for major upgrades) for at least the next 15 years, while the cost of implementing the system includes the acquisition of new technology, the construction of an automatic toll collection portal, adaptation of existing paths and the dismantling of charging stations. Initial implementations are planned on HAC sections and then the introduction of other concessionaires in the Republic of Croatia is expected. Given technological challenges, Croatia will not apply satellite tracking technology (GNSS) that requires much greater investments, especially for users, and this technology has not been introduced in any European country for the first group of vehicles due to doubts about user privacy issues.
A strategy based on multicriteria analysis was developed, which compares simulations made for different scenarios of the future toll collection system. This multicriteria analysis includes, inter alia, issues such as: investment in implementation (CAPEX), operating costs (OPEX), expected revenues and co-existence with the existing system. Based on the strategy, the document “Advanced Design Project” was prepared which defines working packages and lot for procurement of new collection system, timetable and project budget. The project is ready for the procurement process, i.e. the initiation of the implementation process.
Implementation of this project includes performance of tasks of a different nature (e.g. procurement/delivery of BOTH devices, procurement/delivery, installation, start-up and testing of road systems (toll points), construction works necessary for construction of new portals, improvement of sales and customer support services and user interfaces, removal of existing toll stations and landscape design) which, although complemented and necessary for successful operation of the new system, will be performed by various stakeholders or contractors in accordance with their specificities and expertise.

Implementation holder	MMPI
Target Group	State manager/and highways (HAC)
Estimated cost	HRK 1,000,000,000
Implementation period	1/2021.-6/2025.

C1 .4. R1-I2	**Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)**

Challenge

According to the National Transport model, the road in question is categorised as a national road code 12 at the upper limit of permeability and has a large proportion of mixed road traffic, which represents a major safety risk. Due to the above, a large number of traffic accidents and a high level of greenhouse gas emissions were recorded on the above-mentioned road. As part of the preparation of the who, greenhouse gas emissions were calculated on the basis of which the impact of the planned project on climate characteristics was estimated. It has been established that the planned project will raise the level of traffic services and traffic safety and relieve existing state roads, so that a better traffic system will be achieved in this sense. This contributes to the reduction of greenhouse gas emissions in the area concerned, especially on existing national roads, so the project will not have a significant impact on climate performance. Furthermore, according to the Feasibility study data prepared within the OPCC, the existing road

network will be discharged by approximately 4,000 vehicles per day, which significantly affects the increase in traffic safety. The nominal speed of the new road is set at 100 km/h.

Objective

The project will directly contribute to traffic connections between the areas along the road, which particularly refers to the development of Bjelovar and Virovitica and other areas along the Drava River, but will also increase traffic safety. This is manifested through projection of savings in travel time (32.67%), reduction of accidents caused by construction of new road (19.4%), noise reduction (18.63%), savings in operational costs of vehicles (11.03%), and reduction of emissions of harmful gases (1.79%) in the period after completion of project implementation.

Description

The project envisages the construction of roads that are missing along the state road D12, 86.5 km long and pass through the area of 3 counties: Zagrebačka, Bjelovar-Bilogora and Virovitica-Podravina.

Implementation

Feasibility study 2018 was drafted for the project. The new highway Vrbovec 2 – Farkasevac – Bjelovar – Virovitica – Terezino polje is planned for strategic and planning documentation at the national and regional level, and is categorised as the state road DC 12. The first section of this highway line Vrbovec 2 – Farkasevac has already been built with funds from the state budget and the shares of Farkasevac-Bjelovar are under construction, while through the Rehabilitation and Resistance Mechanism it is planned to finance the unbuilt part: Farkasevac – Bjelovar – Virovitica – Terezino polje. The planned road ends at the border with R. Hungary, i.e. at the Terezino polje/Barcs road border crossing.

The planned start of the public procurement procedure was ./po at the end of 2021 at the beginning of 2022.

Implementation holder	MMPI
Target Group	Croatian roads Ltd.
Estimated cost	HRK 260,000,000
Implementation period	1/2021.-6/2025.

C1 .4. R1-I3 Fast road from Kasttel Kambelovac node to Vučevica

Challenge

see C1 .4. R1

Objective

The objectives of the project are the traffic relief of existing roads that are vague and inadequate, better connectivity and easier daily migration of inhabitants, and the creation of preconditions for significant economic development. According to the completed traffic simulations, the existing road network will stretch by approximately 6,000 vehicles per day, also according to the data within the feasibility study by building the entire project, the average travel time in the season from/to Split to the highway, castles and to the airport will decrease between 12 and 17 minutes.

Description

The project envisions the construction of a 8.2 km long state road from the existing Vučevica hub on the A1 to Kasttel Kambelovac highway (western entrance to the city of Split). Also, the project will encompass the construction of a 2.5 km-long Kozjak tunnel, several viaducts and a Kasttel Kambelovac node on the state road D8.

Implementation

An concept solution has been prepared for the project (2019) and an environmental impact assessment procedure has been carried out and a study on environmental impact has

been prepared (Revision 01 in 2020). The construction of this section is envisaged in physical planning documents. The preparation of conceptual and main projects is currently under way and the public procurement procedure for works is expected to start in early 2022.

Implementation holder	MMPI
Target Group	Croatian roads Ltd.
Estimated cost	850.000.000 HRK
Implementation period	6/2022.-5/2026.

C1 .4. R2-I1 Reconstruction of the existing and construction of the second track on the long Selo-Novska section, subsection Kutina-Novska (Phase D)

Challenge

The long Selo-Novska railway is part of the RH1 railway corridor AND does not currently meet the technical specifications for interoperability of the trans-European conventional rail system (the maximum speed allowed on the track is currently 80 km/s at) and is not two-track throughout its length. In line with the Railway Network Development Strategy, all railway lines on the core arm of the RH1 corridor SHOULD ultimately be two-track.

Objective

The project aims to improve and rehabilitate the existing and build a second track, a new two-track railway on sections of the long Selo-Novska railway, all with the goal of building a two-track electrified railway along the entire former Pan-European Corridor X (RH1), which is also located on the TEN-T Core Network and the Alpe-West Balkans Railway Corridor.

Description

The project is located on the former Pan-European Corridor X (RH1), the TEN-T Core Network and the Alpe-West Balkan Railway Corridor connecting southern Germany with southeast Europe. With the realization of this project, the entire section of the RH1 corridor passing through the Republic of Croatia will be double-track, electrified, in accordance with technical standards for interoperability of the railway system.
The total length of the section is 84 km and the project foresees the reconstruction of the existing track and the construction of the second track on the total length.
The project consists of 37 building permits and the project documentation is currently in the drafting phase.

Implementation

Preparation of project documentation is financed through OPCC and it is in progress. Part of the 22 km project on the Kutina-Novska subsection is planned to be financed from the RDF, while the rest of the project, 62 km long with signalling devices, is intended to be financed from the new operational programme for the period 2021-2027. It is planned to launch a procurement procedure for operations in 2022. Phase D, which is intended to be financed by the RDF, has clearly separated cost items and building permits, ensuring that double financing of project costs is avoided.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)
Estimated cost	HRK 1,060,000,000
Implementation period	9/2022.-6/2026.

C1 .4. R2-I2 Modernisation of the M604 Stari-Knin-Split railway

Challenge

The Ostarija-Knin-Split railroad represents the only railway connection between Dalmatia

and the rest of Croatia and the European Railway Network. During the Homeland War, most of the railroad was occupied, with partial or complete devastation of railroad and railroad installations. Because of all the above, there is a need for railway modernisation.

Objective

After the reconstruction, there will be a marked increase in timetable indicators, an increase in throughput capacity and an increase in traffic elasticity. After the modernisation, the expected travel time from Zagreb to Split will be at most 4 h and 30 min, which represents a reduction in travel time of 35%. Also, this investment will reduce the number of traffic managers by more than 250 employees, which directly increases the operational ratio of the CEA.

Description

The plan for the modernization of the section of the Ostarija-Knin-Split railway provides for the reconstruction of the station and certain sections of the railway and a device so-called between the station dependence and the possibilities of central traffic management.

Implementation

A study on the justification of the reconstruction and modernisation of the railway Ostarija – Knin – Split/Zadar/Sibenik has been prepared, where three variants of reconstruction and modernisation have been elaborated. Works on all planned reconstructions of the station have been carried out so far on the Stari-Knin section: Plaski, Rudopolje, Lika Lescice, Perusic, Gospic, Lovinac, Gračac, Malovan and Plavno. There is still work to be done at the completion of the installation of the new ESSA in the stations and logs on the section of the Osctaria-Knin railway. The Knin-Split section includes a “traffic technology project for the reconstruction of the Ostarija-Knin-Split suburbs railway (the section Knin (exclusively) – Split suburbs (including)”, revalued the reconstruction needs of individual stations and other official posts, as foreseen by the aforementioned justification study.
Completion of operations and commissioning of all ESSA is planned from 2022 to 2024. Some of the installation equipment (safety signalling devices) have already been purchased and delivered and a tender for works is expected in 2021.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)
Estimated cost	HRK 412,000,000
Implementation period	6/2021.-12/2025.

C1 .4. R2-I3 Project for the restoration of railway infrastructure on railway lines R201 and R202 on the section Čakovec-Varazdin-Koprivnica-Pitomaca

Challenge

Railway line R201 is very important for regional traffic between central and north-western Croatia. The railway is a mixed traffic and is also operated by international passenger trains. Railway line R202 is of great importance for both passenger and freight traffic and connects corridors RH2 and RH3. Both tracks are unelectrified. Currently, the maximum train running speeds range from 80 to 100 km/h with local speed limits due to the poor state of the upper structure, poor state of the switches and the state of the railway road crossings (restrictions even to max. 40 km/h). The permissible mass is 22,5 t/axle and 8,0 t/m. The railroad passes through the plains and is located mainly in the embankment.
The subsections in question have high maintenance costs, constant delays, efforts are being made to meet the minimum safety requirements necessary for traffic to run even, which could be avoided through the realisation of this project. Data on the last rehabilitation and reconstruction carried out (bearing in mind the fact that the lifespan of railways and structures is approximately 25 years) are also sufficient: Čakovec - Varazdin 1988, Varazdin - Koprivnica 1984/1985, Koprivnica - Pitomaca 198/1982, Pitomaca - Virovitica 1978/1980.

Objective

After the completion of the work, the aim is for trains to run at speeds of 100 km/h, which in comparison to the current maximum allowed speed of 80 km/h (with limitations of up to 40 km/h due to the operational condition) will shorten the journey and make railway traffic safer, reduce negative impacts on the environment, facilitate access to persons with reduced mobility by train, etc. Also, the capacity of the railway will be increased, which is, under the current conditions, a limiting factor for the introduction of a better quality connection between Osijek and Varazdin and Zagreb.

Description

The total length of the section to be reconstructed within the framework of the project is 96.54 km and includes substitution of material with a bearing structure, track grids, design of drainage systems, signalling and telecommunications devices, railway-road crossings, bridges, omissions and positions and stations. The construction of the station envisages the rationalization of the number of tracks, the construction of platforms, the replacement of switches with the aim of meeting safety and interoperability requirements.

Implementation

There is currently the 1 st Subsection Virovitica (incl.) — Pitomaca (incl.) (21.06 km). The works include the restoration of the railway section (the upper and lower structure of the railroad, railways), the arrangement of attitudes and the construction of side platforms Virovitica grad and Vukosavljevica, the reconstruction of the Spisic Bukovica and Pitomaca stations, the restoration of 22 railway crossings. Public procurement procedure for works is expected to start in 2021.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)
Estimated cost	HRK 782,000,000
6/2021.-12/2025.	6/2021.-12/2025.

C1 .4. R2-I4 Reconstruction of the existing Zadar-Knin railway

Challenge

The existing Zadar-Knin railway is a single-track, unelectrified, 94 km long highway. The railroad was built more than 50 years ago, i.e. in 1967, and the renewal of the railroad is necessary.

Objective

The objectives of the project are removing so-called bottlenecks, improving the quality of rail service for passenger and freight transport, shortening travel time, increasing the speed of travel from the current restrictions from 25 km/h to 100 km/h and improving the competitiveness of railway transport.

Description

The total length of the section to be reconstructed within the framework of the project is 94 km and includes the replacement of material of the load-bearing structure, track grids, the design of drainage systems, railway-road crossings, bridges, omissions, and standpoints and stations. The maintenance of the station envisages the rationalization of the number of tracks, the construction of platforms, the replacement of switches with the aim of meeting safety and interoperability requirements.

Implementation

Preparation of public procurement documentation for the design of the execution project is in the preparation phase and it is expected to be announced in the first half of 2021. Public procurement procedure for works is planned for the end of 2022.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)

Estimated cost	HRK 300,000,000
Implementation period	6/2021.-12/2025.

C1 .4. R2-I5 Removal of "bottlenecks" on railway infrastructure

Challenge

Investments in transport infrastructure and the promotion of sustainable transport and the removal of bottlenecks in key network infrastructures are among the most concrete objectives of cohesion policy, which contribute to bridging gaps arising from differences within the EU and the creation of a solid single market for a competitive Europe. One of the objectives of creating a single transport network is to remove bottlenecks on European transport routes. As stated in the challenges above, significant speed limits below 60 km/h are especially on parts of bridges, omissions and incisions on the railway network in the Republic of Croatia.

Objective

Resolving bottlenecks on the railway network of the Republic of Croatia will significantly increase traffic speeds, increase railway safety and improve railway networks in accordance with EU directives and TSIs.

Description

Construction of new bridges and omissions is necessary, since the buildings are 50-77 years old and make up bottlenecks on railway infrastructure.

Implementation

Bottlenecks planned to be removed: (i) viaduct of Drzic-Harambasic (current speed 50 km/h, planned 100 km/h); (ii) Bridge Sava-Jacuzsevac (current speed 20 km/h, planned 80 km/h); (iii) section Sisak-Grede, reconstruction of 4 bridges (current speed 60 km/h, planned 140 km/h); (iv) construction of the Brdovec fault (current speed 60 km/h, planned 120 km/h); (R)Reconstruction) Documentation for public procurement implementation is ready and the start of procurement for works on the facilities is expected in 2021.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)
Estimated cost	HRK 120,000,000
Implementation period	6/2021.-12/2025.

C1 .4. R2-I6 Modernization of the Zagreb node

Challenge

The railway hub Zagreb is the intersection of corridors RH1 and RH2, and its important component is urban and suburban transport in the area of Zagreb and its surroundings. Freight transport is mainly organized in such a way that in the narrow, central part of the hub it bypasses Zagreb main station so that it flows through the existing railway station, but it is in significant interaction with all levels of passenger transport in other parts of the hub. The organisation of traffic in the node is organized in such a way that all transit trains pass through the main station, which is both the starting and final station for local trains. The section Vb of the passenger traffic corridor passes through the node by a route from Rijeka and Karlovac through the main station to Dugi Selo and further towards its destination. Cargo traffic from Rijeka and Karlovac runs through the railway station and Zitnjak towards a long village.

Objective

The objectives of the projects for modernization and development of the railway node Zagreb are improving local and regional railway passenger transport, better integration of railways into the public transport system of the City of Zagreb, improvement of availability of railway and local public transport and increasing the share of railway and local public

transport in the total transport in the wider area of Zagreb. The barrier between the part of the city situated on the two sides of the railway will be solved.

Description

The project includes a signalling and safety subsystem, whose implementation significantly increases traffic speed and safety. Also, implementation of this subsystem reduces the number of necessary employees who currently switch switches manually.

Implementation

Modernisation of the Zagreb node includes the following parts planned to be financed from the recovery and resistance mechanism: (i) Modernisation of the M101 Zagreb-Zapresic-Dobova railway (planned speed after reconstruction of 120 km/h); (ii) Modernisation of SS terminals in the Zagreb node area on THE RH1 corridor; (III) Reconstruction of the Zagreb Kustoshi-ZG West-Zagreb GK section.

The Modernisation of the M101 Zagreb-Zapresic-Dobova railway is currently under construction under a contract signed with the World Bank and is intended to be financed through a recovery and resilience mechanism.

The tender documentation for design and works for the Project Modernisation of SS devices in the Zagreb node area on THE RH1 corridor is currently under WAY. The building permit for the works in question is not necessary. Public procurement procedure for works is expected in 2022.

The reconstruction of the Zagreb Kustoshija-ZG section of the West station-Zagreb GK mostly refers to the replacement of the upper and lower structure of the railroad, and all necessary project documentation for the works has been prepared, and no construction permit has been required for the works.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)
Estimated cost	750,000,000 HRK
Implementation period	6/2021.-12/2025.

C1 .4. R2-I7 Reconstruction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border

Challenge

The Croatian part of the Mediterranean corridor stretches from the state border with Hungary through Zagreb to Rijeka, and the realization of this project, apart from the modernization of European-level railway infrastructure, will contribute to the further development of the port of Rijeka, as well as to the growth of the Croatian economy as a whole. The existing single-track railway M 201 (Gyekenyes) - State border – Botovo – Koprivnica – Duga Selo is a railway of importance for international traffic and is an integral part of THE RH2 Mediterranean corridor DG – Botovo – Koprivnica – Duga Selo – Zagreb – Karlovac – Rijeka – Sapjane - DG.

Comprehensive works should be carried out with a view to increasing transport capacity, shortening travel time and aligning the situation and characteristics of railway infrastructure with the requirements of existing European rail legislation (Railway Safety Directive, Trans-European conventional Railway system interoperability Directive, technical specifications on interoperability of the trans-European rail system).

Objective

The aim of the project is to continue modernizing the Mediterranean corridor connecting the Piraeus Peninsula with the Hungarian-Ukrainian border through the ports of Rijeka, Zagreb and Budapest. It is part of the project to establish a two-track high performance railway for mixed transport from the Hungarian border to the Port of Rijeka.

Description

Hz infrastructure has contracted the execution of works on the Krizevac-Koprivnica section

- state border in 2020. The project consists of reconstruction of the existing and construction of the second track on the entire 42.6 km stretch. This section is an integral part of the TEN-T Mediterranean corridor. The project is financed by the Connecting Europe Facility (CEF), which includes eligible costs related to the upper and lower structure of the railway. The project also includes costs that are not eligible for CEF funding regarding Park & ride systems, stations and ETCS level 1 and they are planned to be financed through the recovery and resilience mechanism. These ineligible costs are unequivocally separated by cost items and would not constitute double financing.

Implementation

The contract with the selected contractor Cengiz İnşaat Sanayi ve Ticaret A. Ş. was signed on 12 March 2020 and the contract is worth 2.418.073.115 HRK (no VAT). The contractor was officially introduced into the work, but due to the civil-19 pandemic THE contractor was prevented from commencing operations in due time (the journey of workers and the transport of machines was disabled). The contracted works contract with contractor contracted the entire reconstruction of the existing and construction of the second railway track on the Krizevac-Koprivnica section - state border and cost items are separate costs ineligible for CEF financing, as described in the description. For the non-eligible costs concerned, it is planned to conclude a grant contract from the recovery and resilience mechanism with the Croatian Railways infrastructure, which is the contracting entity of the works. All construction permits have been obtained for the project and the entire works on the Krizevci-Koprivnica section - the state border will be carried out by the contracted contracted contractor, therefore it is not necessary to restart the public procurement procedure.

Implementation holder	MMPI
Target Group	Railway infrastructure manager (CEI)
Estimated cost	HRK 100,000,000
Implementation period	4/2021.-12/2025.

C1 .4. R3-I1 Programme for the modernisation of ports open to public transport

Challenge

Outdated, insufficient and environmentally unacceptable port infrastructure on the coast and islands that does not meet the needs of the island population.

Objective

Modernised port infrastructure that will increase the quality of public maritime transport, capacity to accommodate ships in coastal line maritime transport, strengthen passenger safety, influence increased mobility, improve overall quality of life and ensure sustainable mobility

Description

In accordance with the drafted national plans for the development and modernisation of county and state ports, AS well as the plan for the coastal line transport of passengers, through OPCC the MMPI successfully initiated a wave of investments in the modernization and construction of port infrastructure in the amount of over HRK 1,000,000,000. As mentioned above, there is a need in the Republic of Croatia for further modernisation of port infrastructure and the RDF plans to continue investing in improving the infrastructure in ports. THE MMPI will draft a state aid programme and publish an invitation to finance at least 5 port infrastructure modernisation projects that contribute to connecting the island, increasing security and protecting the environment.

Implementation

List of projects for the modernisation of port infrastructure: (i) Reconstruction and restoration of the coast in the port of Rab with the addition of piers; (ii) Construction of the ferry port of Perna; (iii) upgrading of the port of Bol - Brač (Phase I and II); (iv) New

passenger terminal (swimming pool of the City port of Split); (v) Batahovina II (Dubrovnik).
(i) Reconstruction and restoration of the coast in the port of Rab with the addition of piers
The aim of the project is reconstruction and rehabilitation in the port of Rab with the addition of piers with the aim of protecting against winds and waves with the purpose of securing boat berths in the port. Due to the impact of weather conditions, port traffic is often interrupted which negatively affects the island's traffic connections and creates obstacles to the island's development. An additional problem is the flooding of the waterfront, which is also a pedestrian link between the dock of the ship and the centre of the town of Rab. The project project project will enable safe docking of the ship under all conditions and resolving the flooding of the waterfront and consequently better sustainability of the line, which will positively affect the living standard of the islanders. The project envisions the construction of a pier with a total length of 44 meters and a width of about 8 meters, which will serve for the reception of line passenger ships and the protection of the port's waters, as well as the arrangement of the land area of the port with a length of about 365 meters, which is a narrow coastal zone, in nature a pedestrian connection with the city centre. Improving the quality of infrastructure in the port of Rab will improve the quality of public maritime transport, increase the capacity to accommodate ships in coastal line maritime transport, increase passenger safety, ensure long-term sustainability, increase passenger mobility and improve the overall quality of life.
Project preparedness: documentation for public procurement is ready.
Value: HRK 38,594,396
Call for tenders: 2021
(ii) Construction of the ferry port of Perna
The project plans to move the ferry harbour from the port of Orebic, which would reduce traffic jams and increase passenger traffic. A new operational coastline of ferry harbour will be built at the planned location and accompanying coastal areas will be arranged as a function of ferry traffic, people and vehicles. The basis of construction is the central pier of ferry pier with the possibility of mutual berth and ferry ramps to which the vessel can be accepted. The new ferry port will include 11,700 m^2 land areas, with 16 loading lanes with a total capacity of 154 vehicles and 148 parking spaces. The total estimated construction cost is planned at HRK 90 million (excluding VAT).
Project preparedness: obtaining building permit for this project is planned by the end of 2021, beginning of operations in September 2022 and completion in February 2024.
Value: HRK 65,000,000
Call for tenders: 2021
(iii) addition of Bol - Brač port (Phase I and II)
Phase 1 work includes construction of main and secondary breakwater with plateau and associated berths, construction of floors of pontoon modular units, removal of a part of the existing concrete pier, reconstruction of the existing coast and increasing the depth of the aquatorium. Operations of the 2 nd phase include the restoration and upgrading of the main breakwater of the port of Bol, the refurbishment and upgrading of the petrol station pier (secondary breakwater) and the restoration of the coastline from the pier, the gas station to the existing central pier with the reconstruction of the existing vertical gravitational coastal wall from the beach to the central pier and the arrangement of the coastline from the root of the main breakwater to the new promenade. The implementation of the entire external water supply and hydrant network, rainwater drainage, outdoor lighting, electrical and TK installations and the installation of fuel installations and prominent fuel devices for the supply of vessels at the petrol station pier are also planned. The amount of submarine (port) excavations of about 3.200 m3 will be used for the construction of embankments of marine structures.
Project preparedness: tender for the selection of service providers for the development of project documentation for the port upgrading open for public traffic Bol - phase 2 of construction was published on 29.11.2019. The contract with the selected economic operator was signed on 18.2.2020. The preparation of project documentation is under way. Expected obtaining construction permit for Phase I 12/2020

Value: HRK 93,750,000
Call for tenders: 2022.
(iv) New passenger terminal (swimming pool City port Split)
The reconstruction of existing facilities in the Gradska Luka swimming pool in the port of Split is planned in order to carry out a new building of the International passenger terminal, which will be divided into three parts. Part A will be a public space under the management of the Port of Split Authority, which foresees the accommodation of facilities that would function as passengers, office spaces of the Port of Split Authority and a new Schengen border crossing point. Part B will be a commercial space in which commercial facilities are to be located (offices, tourist activities, shops, etc.). Part C will be a cultural-educational multifunctional congress centre managed by a private partner. Concessionaire/private partner will be required to provide space for activities related to islands connected to the mainland via the port of Split ("island business centre" – minimum 100 m ^{2}).
Value: HRK 58,750,000
Project preparedness: the tender for selecting the project documentation provider for the construction of a new international passenger terminal in the Gradska Luka Basin was published on 14.1.2020. The contract with the selected economic operator was signed on 18.3.20.
Call for tenders: 2022.
(v) Batahovina II (Dubrovnik)
Construction of a new operative coastline, berths 15 and 16 in Batahovina area, ferry port Gruz open for international traffic-state importance. The port upgrade is planned in 5 phases and the subject of this project is two phases of the project: Phase 1 - construction of berths 15 (old marking 19) 182 m long with 1 ferry ramp 21 m long for ferries berthed on the coast of berths 14 and 2 phases - construction of berths 16 (old marking 19) 202.3 m long with one ferry ramp 25 m long for ferries berthed on the coast of berths 15. The project also envisages the removal of the existing 8 facilities located on the concreted coast.
Value: HRK 93,750,000
Project preparedness: the location permit is valid. The beneficiary has a FS drawn up from the OP according to which the estimate of project value without VAT is 137.750.000 HRK. Main project is being prepared. The cost sheets need to be updated.
Call for tenders: 2021

Implementation holder	MMPI
Target Group	State/county port authorities
Estimated cost	HRK 340,000,000
Implementation period	4/2021.-12/2025.

C1 .4. R3-I2 Construction of specialized energy links in the port of Ploče

Challenge

Inadequate port infrastructure in the port of Ploče for receiving ships above 40.000 DWT represents a challenge from the aspect of environmental protection, safety of navigation and business economy.

Objective

In order to ensure the resilience and independence of the energy sector in the territory of the Republic of Croatia, Bosnia-Herzegovina and in general Central Europe, it is necessary to build appropriate transshipment and storage capacities in order to ensure continuous supply of energy. This has proved particularly important in times of crisis caused by the human-19 pandemic, which can lead to a break in the energy supply chain.

Description

Given the numerous limiting parameters in carrying out port operations during the

shipment of large ships in the port of Ploče and the growth of traffic in recent years, it is planned to build connections for the transhipment of energy products transported by vessels with a carrying capacity of up to 88 000 tonnes. The construction of a new dock is one of the necessary preconditions that will enable the realization of all initiated, as well as planned investments in storage capacities for current cargo and lead to a significant increase in traffic and thus the revenues of the Port of Ploče Authority, and will contribute to all capacity users due to the reduction of transport costs per unit of freight and a significant increase in the efficiency of transhipment.

Implementation

A new bias will be built that will be equipped with three loading arms for the transhipment of energy products with a capacity of 1,500-2,000 m3/h and two loading arms for the transhipment of energy products with a capacity of 1000 m3/h. Berth can accommodate vessels with a maximum capacity of 88 000DWT at 15,5 m draught. The tender for works will be launched in 2021.

Implementation holder	MMPI
Target Group	Port Authority of Ploče
Estimated cost	HRK 187,500,000
Implementation period	12/2021.-12/2024.

C1 .4. R3-I3 Construction and reconstruction of municipal berths

Challenge

Utility berth is a berth used for accommodation of boats and ships of local owners and businessmen located in the communal part of the port open for public traffic. For utilization of the utility connection, a permanent liaison agreement with the competent port authority is concluded. The demand for utility berths has been increasing in recent years, with about 9,000 citizens on the waiting lists of the port authorities for utility connections. Considering the existing state of the port infrastructure, it is clear that there is not enough public utility connections, therefore this project will encourage county port authorities to increase the number of constructed and reconstructed utility berths by 10% in 2025 (compared to the situation in 2020).

Objective

The construction of public utilities by the port administration contributes to environmental and nature protection, illegal construction is reduced, coastline destruction is prevented and contributes to the preservation of island population.

Description

The Port Authority was established as public institutions with the aim of meeting the need to connect the mainland with the islands and islands through the construction and reconstruction of the infrastructure for docking ships in the coastal line maritime traffic, but also for the needs of the local population that it has for utility berths.

Implementation

4,000 public utility berths will be built or reconstructed. Currently the port authorities have obtained building permits for berths in the value of more than HRK 200 million. A tender for the construction of 1,000 berths per year is planned, starting in 2021, which will build 9,000 m of coastline.

Implementation holder	MMPI
Target Group	County Port Authority
Estimated cost	HRK 400,000,000
Implementation period	6/2021.-12/2025.

C1 .4. R3-I4 Project of expansion and deepening of the waterway attractive gaz

Challenge

The attractive draught is a shallow maritime passage between the attractive Zaton and the Nin Bay between the shores of the mainland and the island of Vir. During the summer months, this aquatic area is extremely burdened with domestic and nautical traffic. The navigational route around the island of Vir is dangerous and open to winds from NOWHERE. Shortening the time of sailing in that part of the aquatorium would have a significant positive effect on the safety of navigation.

Objective

The implementation of the extension and deepening of the navigational channel of the attractive draught, the shallow maritime passage situated between the shores of the mainland and the island of Vir, will increase the level of safety of navigation and enable two-way canal navigation for all vessels gravitating to it, with the prior marking of the canal with new maritime signalling facilities and the restriction of the speed of navigation through the canal. The additional benefit that will be achieved by the realization of this project is that the excavated stone material will be used in the construction sites of harbors and harbors in the municipalities of Vir and Privlaka, while the excavated sand will be used to supplement the coasts, primarily in the areas of Vir and Privlaka municipalities, and alternatively in the area of the town of Nin and the municipality it is exercised.
The realization of the extension and deepening of the navigation channel of the attractive gaz will increase the level of safety of navigation, enable two-way canal navigation for all vessels gravitating to it, reduce the length of 12 NM sailing from Zadar to the Velebit channel for nautical and domestic traffic by almost 2 hours.

Description

The gabarites of the new channel are an attractive draught that will be achieved by excavating sand, and by mine and excavation of stone material are as follows: channel length: 1740 m; channel width: 40,00 m (except in passage between bearing columns of the bridge where it is 38,00 m); minimum channel depth: 3,00 m, counting from the hydrographic zeros; minimum bridge height above the canal: 9,0 m from the SRM.
Furthermore, it is envisaged that the channel's navigational corridor be marked by light marks that would be placed in pairs (left and right sides) at a longitudinal distance of ~ 150,00 m, with a total of 26 (13 x 2), of which 2 Sv. Oz. at the entrance to the channel from the south side on the main pillars of the bridge between which the entrance to the canal is envisaged, while canal navigation would be two-way. It also envisions the installation of two plates/marks of the middle and free height of passage to the fence of the bridge from the south and north sides. The additional benefit that will be achieved by the realization of this project is that the excavated stone material will be used in the construction sites of harbors and harbors in the municipalities of Vir and Privlaka, while the excavated sand will be used to supplement the coasts, primarily in the areas of Vir and Privlaka municipalities, and alternatively in the area of the town of Nin and the municipality it is exercised.

Implementation

A tender for the conduct of maritime-construction works on the expansion and deepening of the navigational canal and the designation of canals with new maritime signalling facilities will be announced in 2021.

Implementation holder	MMPI
Target Group	Plovput d.o.o. Split
Estimated cost	HRK 17,000,000
Implementation period	3/2021.-12/2023.

C1 .4. R3-I5 Reconstruction of search and rescue fleet

Challenge

The number of marine accidents and accidents, as well as search and rescue actions at sea, is increasing with the increase of maritime and nautical traffic in the Croatian part of the Adriatic. In 2019, 1005 marine accidents and accidents were registered in the marine area of the Republic of Croatia, while in the last 15 years this number varies mostly from 1,100 to 1,250. The area of responsibility of 55.000 km ^{2} covers 34 rescue vessels, which amounts to one vessel at more than 1,600 km ^{2} aquatoriums each. The existing lifeboats are 20 years old on average, and most are not suitable for operations in all weather and daily conditions.

Objective

Enable assistance to be provided in all parts of the territory under the jurisdiction of the Republic of Croatia within 1 hour (golden clock) from the moment of receiving the request for assistance.

Description

The reconstruction of the rescue fleet with 19 new vessels will significantly improve the navigation safety service. With the introduction of new vessels and the write-off of some old vessels, we will own a fleet of much better maritime capabilities, the average age of the fleet will be reduced to under 10 years, and the area covered by one vessel will be reduced to below 1000 km ^{2}.

Implementation

The purchase of 19 navigable units of different characteristics in accordance with the drafted vessel procurement plan for the purpose of modernising the search and rescue service.
Initiation of the procurement procedure:
Launch of the procurement procedure in 2021 for 10 TYPE D vessels (SAR 8.5), 3 Type C vessels (SAR 10) and 5 Type B vessels (SAR 15), and launch of the procurement procedure in 2022 for 1 Type A vessel (SAR 25).
Delivery of the vessel:

- Delivery of 5 Type D vessels (SAR 8.5) in 2021
- Delivery of 3 Type C vessels (SAR 10) in 2022
- Delivery of 1 Type B vessel (SAR 15) in 2022
- Delivery of 3 Type B vessels (SAR 15) in 2023
- Delivery of 1 Type B vessel (SAR 15) in 2024
- Delivery of 5 Type D vessels (SAR 8.5) in 2024
- Delivery of 1 Type A VESSEL (SAR 25). in 2025.

Implementation holder	MMPI
Target Group	Locals/tourists/300,000 - 500,000 people
Estimated cost	HRK 107,000,000
Implementation period	3/2021.-12/2025.

C1 .4. R3-I6 Purchase/construction of passenger ships for the coastal line transport

Challenge

Public transport in the coastal line maritime transport is considered an important factor in the segment of maritime navigation, since it ensures permanent and regular connection of islands with the mainland and islands to each other without which there would be no sustainable development of inhabited islands in the internal sea waters and territorial sea of the Republic of Croatia. The regular maritime traffic takes place between the islands (82 island ports or ports) and the coastal part (19 ports in the coastal area) according to the established navigation order as a regulated service. The average age of ships engaged in public seawater transport in 2020 for conventional passenger ships is 41 years, for ro-ro passenger ships it is more than 21 years, while for very fast passenger ships it is on

average over 25 years.

Objective

Investment in the purchase/construction of passenger ships and alternatively fuelled ferries, as well as related port infrastructure for the reception and refilling of such vessels, ensures the full quality of public transport services, sustainable transport and improvement of availability of inhabited islands for their inhabitants.

Description

The investment plans to acquire or build 2 ro-ro passenger ships, two-way ferries, a maximum capacity of 120 cars and 2 ro-ro passenger ships, two-way ferries, a maximum capacity of 80 cars. It is planned that the ships operate on the Split-Supetar, Brestova-Porozina, Zadar-Brbinj and Zadar-Preko routes.

Implementation

Adoption of the National Plan for the Development of coastal line Maritime Transport is under way. The plan is a strategic document in the area of coastal line transport of passengers providing a model for managing the future coastal line maritime transport system in the period until 2030. In accordance with the drafted plan, the need for renewal of the fleet of ships for passenger transport was noticed. THE MMPI, in cooperation with the Agency for coastal line Maritime Transport, is preparing a feasibility study that will define the technical characteristics of the required ships. Based on the technical specifications from the mentioned study, a tender for the procurement of ships is to be prepared, which is to be carried out according to the principle of the so-called yellow FIG - Design & built. The estimated time for inviting tenders is 2021.

Implementation holder	MMPI
Target Group	Shippers in the coastal line maritime traffic
Estimated cost	HRK 1,000,000,000
Implementation period	12/2021.-6/2026.

C1 .4. R3-I7 Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increasing the safety of navigation

Challenge

The analysis of the inland waterway fleet included a total of 207 passenger, cargo and technical (working) vessels, of which 90 cargo and technical (working) vessels need to be significantly modernised. Vessels are owned by micro, small and medium-sized enterprises, which have expressed interest in further retention of vessels owned and invested in the fleet of vessels. The average age of the analysed fleet is 39 years, which is a very important data in the context of environmental protection, since the inland waterway fleet has older-generation engines. In addition to the fleet of freight and technical (working) vessels, a fleet of public line transport of freight and passengers (scaffolding) has been analysed, which is essential for the functioning and further development of the regions where such fleet operates. Public line transport in inland navigation in the territory of the Republic of Croatia performs 17 scaffolding which are mostly owned by local self-government units. The requirements for modernisation and investments mainly relate to the safety of navigation, and to a lesser extent to the reduction of pollution, while vessels with an average age of 23 are mentioned.

By analysing data through the Programme, the modernization of the inland waterway fleet is envisaged by June 2026. It covers almost all interventions on vessels, except for the replacement of internal combustion engines whose replacement is not conditioned, but for environmental reasons they need to be replaced as soon as possible. The only Croatian river shipyard that would take over the modernization of the fleet is located in Sisak and currently has sufficient capacity to reconstruct the vessel for the existing environment.

Objective

Encouraging investment in the purchase of new vessels would ensure the preservation of the natural biodiversity of the river basin in in the long run and open the opportunity to increase cargo transport activities in inland waterways.

Description

In the context of the modernisation of vessels, it is necessary to enable investments in completely new and modern vessels that can significantly contribute to the competitiveness of inland navigation and the protection of the environment.

Implementation

Vessels to be invested in are vessels with zero or very low emissions of harmful gases, i.e. vessels driven by the latest diesel, hybrid, electric, LNG, hydrogen, etc. systems in accordance with the analysis from the aid scheme for the modernisation of inland waterway vessels and the greening study of the fleet. The tender will be called in 2021.

Implementation holder	MMPI
Target Group	Shippers/JL (R)SGUs
Estimated cost	88,000,000 HRK
Implementation period	3/2021.-6/2026.

C1 .4. R3-I8 Arranging the sections from the special risk of the Sava River waterway (from Račinovac to Sisak)

Challenge

In the AGN contract, Sava was declared as a Class IV waterway from Račinovac to Sisak, km 210.8 to km 594. Studies and analyses of the state of the waterway have shown that the morphology of the existing Sava bed does not exist on the entire length of the IV class, but has the potential to reach it, because according to the radius of the bandage it does not meet only 10 percent of the river length, and according to the navigational gabarite about 30% of the river length. It is necessary to reconstruct 46 existing water structures (fields and feathers), and to build 137 new water structures (fields, feathers and thresholds) to reach the Class IV waterway. In addition to the construction of hydrotechnical structures, it is necessary to take a step forward in intensifying the cleaning and maintenance of the waterway, as well as its revitalization as a whole. For these purposes, it is necessary to include it in the strategic objectives of the Republic of Croatia, in order to intensify, accelerate and further financially support activities on the establishment of the required waterway class. Safe navigation in the sectors of special risks will enable the transport sustainability of ports in such a way that operators can enter ports unhindered and thereby ensure their transport sustainability.

Objective

The development of study and project documentation aims to improve the navigational path of the Sava River to the CLASS of navigability under THE AGN Treaty (European contract on main inland waterways of international importance) and the Decision of the Sava Commission.

Description

It is planned to prepare study and project documentation which includes: preparation of environmental impact studies, conceptual solutions, concept projects and main projects, all necessary field recordings (geodetic, hydromorphological and geomechanical), field research works with final study, and preparation of environmental impact studies.

Implementation

The preparation of study and project documentation will enable the revitalization of 383.2 m km of the waterway of the Sava River: deepening of the bed and construction of hydrotechnical control structures, longitudinal and transverse type. The tender for the preparation of study and project documentation will be announced in 2021.

Implementation holder	MMPI
Target Group	Industry – shipping
Estimated cost	HRK 34,312,500
Implementation period	3/2021.-6/2026.

C1 .4. R3-I9 Arranging the sections of the special risk of the river Drava waterway from rkm 0 to rkm 12

Challenge

Under the European Agreement on the main inland waterways of international importance, the Danube and the Danube are part of the TEN-T corridor of the Rhine-Danube. As a Danube tributary, Drava is also considered an international waterway to Osijek. It is therefore important to ensure the navigability of these international rivers in accordance with the required levels of navigability according to the joke for Danube and IV for Drava to the port of Osijek. Drava is an international waterway with free navigation for all flags, where commercial traffic takes place to the international port of Osijek. From 70.0 km to 198,6 km (the mouth of Zdalica) Drava is an interstate waterway between R. Croatia and R. Hungary. Less intense sailing takes place on this section. The waterway has been marked and there is an interstate obligation of the Republic of Croatia to maintain it.

Objective

Safe navigation in the sectors of special risks will enable traffic sustainability of the port of Osijek in such a way that shippers can enter ports unhindered and thereby ensure traffic sustainability of the harbour.

Description

The project for the revitalization of the Drava River from its mouth to the Danube River up to 12 km is a prerequisite for the smooth delivery and delivery of goods and cargo to the port of Osijek, in which the infrastructure is now being significantly invested.
The preparation of study and project documentation is envisaged, which includes: preparation of environmental impact studies, conceptual solutions, concept projects and main projects, all necessary field recordings (geodetic, hydromorphological and geomechanical), field research works with final study, and preparation of environmental impact studies. Drafting the above-mentioned study and project documentation aims to improve the waterway of the Drava River to IV – minimum international class of navigability according to THE AGN Treaty (European contract on main inland waterways of international importance), which the Republic of Croatia signed, and by which it committed itself to the same.

Implementation

The development of study and project documentation will enable the revitalization of 12 km of the waterway of the Drava River, deepening of the bed and the construction of hydrotechnical control structures, longitudinal and transverse type. The tender for the preparation of study and project documentation will be announced in 2021.

Implementation holder	MMPI
Target Group	Industry - shipping
Estimated cost	HRK 11,225.000
Implementation period	3/2021.-6/2026.

C1 .4. R4-I1 Purchase of alternative-powered vehicles

Challenge

The EC has proposed to increase the EU's climate ambitions by 2030, a more specific

target of 55% of emissions reductions by 2030, which is largely related to both the transport sector and road transport. In road traffic, the challenge will be to replace the fleet (passenger transport buses and passenger cars) for which significant funds will have to be provided and infrastructure built.

Objective

The aim is to modernise the public urban, suburban and interurban line bus transport of passengers through the procurement of new electric vehicles and the installation of the necessary infrastructure to promote the use of zero emission factor vehicles and reduce CO2 emissions of existing motor parks.

Description

The investment includes the urban, suburban and interurban passenger line traffic, which relates to an environmentally friendly motor pool (buses) and the related modernised infrastructure, which are the basis for fast and accessible public (urban, suburban, interurban) transport. The investment envisions the purchase of an alternative fuel-powered bus and the construction of related infrastructure.

Implementation

MMPI will conclude grant contracts for the purchase of alternative-drive vehicles with LC (R)SGUs and public (bus) transport operators. In 2021, it is planned to prepare and call calls on which eligible beneficiaries would be LC (R)SGUs and public (bus) transport operators owned by LC (R)SGUs. a feasibility study will be prepared with a cost-benefit analysis of the call for grants. The study will define the lines (especially in narrow city centres) where vehicles will run on an alternative tuna and define the necessary infrastructure for charging. The start of the studies is expected by mid-2021, and the call for grants is planned for the end of 2021. In 2022, paradise will begin to prepare the bottling plant, and bus delivery is planned for 2023/2024.

Implementation holder	MMPI
Target Group	The main beneficiaries will be public (bus) transport operators
Estimated cost	HRK 700,000,000
Implementation period	3/2021.-12/2025.

C1 .4. R4-I2 Modernisation of tram infrastructure

Challenge

The cities of Osijek and Zagreb are the only ones in the Republic of Croatia with a tram public transportation. As mentioned earlier (see C1 .4. R4), the fleet and the tram infrastructure are obsolete. The construction of a new tram and bus depot with the capacity of 30 trams and 40 buses is necessary in Osijek, since the current storage facility is located in a protected area and there is no possibility of further expansion and modernisation. Today, the tram network in Zagreb consists of 116.3 km of railway, and traffic is organized in fifteen daily and four night lines. Since the reconstruction of the tram infrastructure in Zagreb was partly financed by the OPCC, further reconstruction of the fleet is necessary.

Objective

The aim is to modernize the tram infrastructure in Osijek and Zagreb, in order to provide a better and faster public transport service and increase the number of passengers using public urban transport, which will ultimately result in a reduction of CO2 emissions in traffic.

Description

The investment includes the modernisation of the tram system by expanding the tram line by 1.2 km and building a new remize for accommodation and maintenance of trams and buses in Osijek. The second part of the investment relates to the purchase of a minimum of 30 modern low floor trams in the City of Zagreb.

Implementation

THE MMPI will conclude grant agreements with public transport operators (trams), HMA Osijek and ZET.

HMA Osijek has a feasibility study prepared and an ideal project for the construction of a new tram and bus depot. Completion of the main project and public procurement procedure for works is planned by the end of 2021.

ZET, in cooperation with THE MMPI in June 2020, initiated the development of the document "Urban traffic Development Plan in the City of Zagreb" which defines specific objectives and measures for achieving them. The SON-IN-law also performed an analysis of the upper and lower rise of the tram network and the correction stations. Based on the conducted analyses, a feasibility study is currently being prepared which will define the necessary investments in the modernisation of the existing tram network, extension of the tram network and the necessary number of trams. The deadline for drafting the study is April 2021. On the basis of the study, a public procurement procedure will be launched for the procurement of new trams.

Since the investment clearly determines who the potential beneficiaries are, and since the tram transport infrastructure exists only in Zagreb and Osijek, direct conclusion of contracts with these users is envisaged.

Implementation holder	MMPI
Target Group	The main beneficiaries will be public (tram) transport operators in Osijek (HMA Osijek) and Zagreb (ZET), which already have long-term public service contracts concluded.
Estimated cost	HRK 700,000,000
Implementation period	3/2021.-12/2025.

C1 .4. R4-I3 Modernisation and construction of bus stations

Challenge

Unsatisfactory maintenance of infrastructure imposes traffic restrictions and combined with a low level of safety at the stations, especially in rural areas, discourages passengers from using the bus traffic system. The development of the station must primarily focus on improving passenger access, in particular for persons with reduced mobility capability, ensuring the safety of passenger movements and the introduction of a system to provide all necessary information and information.

Objective

The objective of this investment is the modernization and construction of public transport bus stations owned by local/regional self-government, which would provide better quality public transport services and increase the number of passengers using public urban transport, which will ultimately result in a reduction of CO2 emissions in transport.

Description

The investment encompasses the construction of 2 new and modernisation of the existing 7 bus stations with the aim of increasing the energy efficiency of the terminals, digitising existing services and increasing the accessibility of infrastructure for persons with reduced mobility. The investment will include investments in the modernization of the following bus stations: AK Benkovac, AK Ploče, AK Biograd na moru, AK Zadar, AK Sibenik, AK Vinkovci, AK Sisak, while two new constructed stations will include AK Pazin and AK Virovitica.

Implementation

MMPI will conclude individual grant agreements for the modernisation of bus stations with LC (R)SGUs.

IN June 2020, the MMPI started the analysis of bus stations in the Republic of Croatia and according to the analysis of the 9 stations concerned were defined as priority for

construction and modernisation. Individual Feasibility study will be prepared for each station which will define the necessary investments, in accordance with the estimated traffic volume in the stations. THE MMPI foresees the launch of calls for proposals by the end of 2021, while the implementation of tenders for works would start in 2022.
The entire investment is planned to be implemented within the period 2021-2025.

Implementation holder	MMPI
Target Group	The main beneficiaries will be LC (R)SGU
Estimated cost	HRK 150,000,000
Implementation period	9/2021.-12/2025.

C1 .4. R5-I1 Modernisation and greening of Zadar Airport infrastructure

Challenge

Zadar Airport is the only airport in the Republic of Croatia that has two runways at its disposal, bringing it into airports with undisturbed takeoff and landing operations and making it the ideal airport for commercial traffic, business and general aviation and pilot education. According to the ICAO Classification, C category aeroplanes (65% in 2019) operate the most at Zadar airport, followed by ICAO category a aeroplanes with 24% and B category with 11%. The importance of this transport structure is important for defining the aircraft handling and handling equipment present at the airport's ramp, which should be replaced or technologically upgraded in order to achieve the concept of an environmentally sustainable system (C02 free) of aircraft handling and handling. According to the analysis of the existing condition, most of the equipment is powered by diesel, whereby it generates with high fuel consumption and considerable cost and large quantities of exhaust gases.

Objective

By investing in infrastructure modernization and installing photovoltaics, Zadar Airport plans to become the first energy independent airport in the Republic of Croatia.

Description

The modernization of the infrastructure of Zadar Airport includes the reconstruction and expansion of the main apron and the provision of apron elements for new aircraft positions in accordance with the current regulations of the taxiway. In order to reduce greenhouse gas emissions on an apron, it is proposed to install buried electricity supply units that would be obtained directly from the passenger terminal's power supply and air supply, which would also be connected to aggregates that are an integral part of the airport's infrastructure. The project plans to invest in the construction of a 610 kW photovoltaic power plant with the aim of producing energy from renewable sources.
This is a pilot project for the creation of the first energy independent airport, aimed at ensuring the entire consumption of electricity necessary to maintain the airport from entirely renewable energy sources.

Implementation

THE MMPI will sign an agreement with ZL Zadar on the allocation of funds for the purchase of equipment and the construction of infrastructure aimed at reducing greenhouse gas emissions and positioning ZL Zadar as an energetically independent airport. With this investment ZL Zadar would create long-term environmentally sustainable system of aircraft handling and handling as well as further possibility of improvement in ACI ACA certification – level 3 and 3 +.

Implementation holder	MMPI
Target Group	The main user is Zadar Airport.
Estimated cost	HRK 70,000,000
Implementation	6/2021.-12/2024.

period	

C1 .4. R5-I2 Greening and digitization of Pula Airport

Challenge

Pula Airport is an international airport with year-round connections connecting the North Adriatic area with the rest of Europe. Over the past five years, Pula Airport has recorded a steady increase in the number of airlines and passenger traffic. The comparison works in 2014. ZL Pula had 382,992 passengers, while in 2019 it decreased to 777,568. Currently, ZL Pula is connected with 67 destinations and for further development of the airport has justified needs for infrastructure upgrades and creation of additional safety and environmentally friendly conditions.

Objective

Creation of new, modern and ecological infrastructure of the airport, which aims to meet all safety and spatial conditions. The modernisation of the airport is expected to further increase the airlines and increase the number of passengers.

Description

The project envisages the completion of works on asphalting an apron for aircraft, the purchase of 3 solar electric pumps for electric vehicles and the purchase of 4 electric vehicles. The project will contribute to raising awareness of information security, digitalisation and sustainability and efficiency of operations at the airport.

Implementation

MMPI will sign an agreement with ZL Pula on allocation of funds for the procurement of solar panels and four electric vehicles, which will be directly related to the greening of the airport and reduction of greenhouse gases in air traffic.

Implementation holder	MMPI
Target Group	The main user is Pula Airport
Estimated cost	HRK 7,000,000
Implementation period	4/2021.-12/2023.

C1 .4. R5-I3 Reconstruction of passenger building at Osijek Airport

Challenge

Osijek Airport is one of two continental airports in the Republic of Croatia. The current airport infrastructure, namely passenger buildings, enables the flow of 150 to 200 thousand passengers per year. Considering the number of passengers and airlines operating at coastal airports, it can be said that ZL Osijek is falling behind in development and that it needs additional infrastructural and environmental investments in order to position the aforementioned strategic as an airport connecting East Croatia with the rest of Europe.

Objective

In accordance with EU environmental and energy standards, the aim is to reduce costs by changing heating energy sources, so that heating oil is replaced by electricity produced from renewable sources, as well as on cooling and eliminating losses by substituting worn-out and permeable water supply and drainage installations, with the construction of wastewater purifiers and installation of savings lighting bodies and consumes.
The reconstruction, and thus the modernisation of the passenger building, ensuring the safe and rapid flow of passengers using modern equipment for the protection of civil aviation, will increase competition on the regional airport market, which will contribute to the growth of passenger traffic in ZL Osijek

Description

The project envisions the construction of two new gates, a room for the Ministry of Interior and Customs, a room for the Operational Centre and Protection Service, changes to the external envelope of the building, installation changes, installation of heating and cooling systems, connections to the water supply and drainage network, computerization, video surveillance and X-ray devices. It is planned to install panels with photovoltaic cells on the roof of the building, with the aim of greening ZL Osijek. The solar power plant on the roof will produce electricity for heating and cooling systems and for heating sanitary water.
A final building permit was obtained for the project.

Implementation

THE MMPI will sign an agreement with ZL Osijek on the allocation of funds for the construction of a new passenger building, which will meet all energy certificates.

Implementation holder	MMPI
Target Group	Beneficiary is ZL Osijek
Estimated cost	HRK 30,000,000
Implementation period	12/2021.-6/2026.

C1 .4. R5-I4 Co-financing programme for the purchase of new alternative fuels vehicles and the development of alternative fuels infrastructure in road transport

Challenge

The dependence of traffic on fossil fuels has negative effects on human nature and health. In order to reduce emissions of pollutants into the air, it is necessary to continue implementing measures that will directly affect the reduction of the dependence of road traffic on fossil fuels and contribute to the modernisation of the road fleet.
According to the publication of the Ministry of Environmental and Energy Protection, the environment on the palm of I-2020, the main pollutants causing acidification and eutrophication are sulphur dioxide (SO_2), nitrogen oxides (no_x) and ammonia (NH_3). Fuel combustion in energy, especially in road transport, is said to be the dominant source of nitrogen oxides (NO_x). In addition to residential heating and industry, traffic is also the most important source of emissions of suspended particulate matter (PM_{10}) that are dangerous for human health. Air pollution with floating particles is expressed in the populated areas of continental Croatia. Thus, the exceeding of daily PM_{10} concentration limits in the air, in accordance with the Regulation on Air pollutant levels, was recorded in the agglomerations of Zagreb and Osijek and in the major cities of the industrial zone of Sisak, Kutina and Slavonski Brod in all years in the period from 2013 to 2018. Dependence on fossil fuels in traffic, especially roads, also has an adverse effect on climate change. In 2018, traffic participated in total greenhouse gas emissions in the Republic of Croatia with a share of as much as 27% (source: Ministry of Environment and Energy, Environment on the palm and -2020).
Due to its strong dependence on fossil fuels, the globalisation of the economy and the increasing mobility of people, transport is a sector in which the achievement of pollutant emission reduction targets must be accompanied by strong public financial and regulatory support. The existing capacity of the 272-site e-refill network with 693 connections needs to be further developed to ensure infrastructure for mass use of electric-powered vehicles. The network should be constructed in such a way that it does not represent a limiting factor to end-users when deciding on the choice of vehicle propulsion technology. At the same time, the network needs to be sufficiently developed not to constitute an obstacle to the development of the alternative fuel vehicle market. In order to encourage the conversion of end-users to use vehicles with reduced emissions of hydrocarbons, it is necessary to implement stimulating measures in parallel. They will include co-financing the purchase of

alternative fuel vehicles and the construction of charging infrastructure.

Objective

The programme aims to increase the energy efficiency of road transport by reducing dependence on fossil fuels. The focus of the activities will be to increase the number of vehicles using alternative fuels registered in the Republic of Croatia and to build a network of bottlers for alternative-powered vehicles. These activities will contribute to reduction of total emissions of CO_2 and other harmful gases, creation of new jobs in production and installation of infrastructure for alternative fuels and increase development and competitiveness of Croatian and European economy.

Description

The National Policy Framework for the establishment of alternative fuel infrastructure of the Republic of Croatia (NOP) States that the growth of transport systems based on the use of non-renewable sources (space and energy) has led to problems of congestion and environmental pollution, and dependence on the use of oil and petroleum products. In order to reduce the negative effect of traffic on the environment, MMPI initiated activities to create preconditions for the use of alternative energy sources in traffic. Thus, pursuant to the IMPI proposal, the Act on the establishment of alternative fuel infrastructure was adopted[19], laying down minimum requirements for the construction of alternative fuel infrastructure, including charging points, laying down common technical specifications for charging and refuelling points, user information requirements, and the manner in which reporting obligations on the implementation of alternative fuel infrastructure deployment measures are complied with. The adoption of the said Act transposed the provisions of the Directive of the European Parliament and of the Council of 22 October 2014 establishing alternative fuels infrastructure 2014/94/EU into national law. The DECISION of THE GOVERNMENT of the REPUBLIC of CROATIA of 6 April 2017 also adopted the NOP[20] which prescribes measures that will achieve the fulfilment of national objectives in this area. In this context, the Programme constitutes an incentive measure and includes co-financing the procurement of alternative fuel means of transport and co-financing the construction of alternative fuel infrastructure. Co-financing the purchase of new vehicles for road transport will enable support beneficiaries to increase the level of environmental protection resulting from their activities, while co-financing the construction of reservoirs for alternative-drive vehicles will develop preconditions for mass use of vehicles with a reduced co_2 emission in road traffic. The programme is complementary and represents a continuation of the activities of the project We drive economically, through which citizens and companies are awarded grants for the purchase of more energy efficient vehicles. Within the framework of this project, the FEEF co-financed the procurement of 3,681 energy-efficient vehicles (electric, hybrid and plug in hybrid vehicles) with HRK 109.5 million from 2014 to 2019, while HRK 44 million was allocated for the same purpose in 2020. Also, the Programme continues the activities of co-financing the construction of reservoirs for electric and hydrogen vehicles for which the EPEEF launched calls worth 16.8 million kuna during 2019 and 2020.

Implementation

The measure consists of two components: (i) co-financing the purchase of new alternative-fuelled vehicles and (ii) the development of alternative fuel infrastructure.

Under Component I, MMPI will develop a State aid scheme and implement a grant procedure to co-finance the purchase of new electric and hybrid vehicles, namely the following categories: L1, M1, M2, M3, N1, N2 and N3. The procedure will co-finance the purchase of vehicles with the following types of propulsion technology: electric, plug-in hybrid, compressed natural gas propulsion, liquefied natural gas and hydrogen propulsion. The documentation of the award procedure will further define technical conditions for vehicles, eligibility criteria for applicants and maximum allowable aid intensity. It is planned

19 NN 120/16

20 NN, 34/17

to co-finance the purchase of at least 500 alternative-powered vehicles through this component. Special focus of activities will be on users from industry sector given the time transport vehicles from this sector spend in traffic. Under the second component (ii), MMPI will implement the allocation procedure for the construction of bottlers for alternative-driven vehicles. Documentation of the award procedure will further define eligibility criteria for applicants and maximum allowable support intensity. It is planned to co-finance the construction of 500 bottlers for alternative vehicles throughout the Republic of Croatia within the framework of the allocation procedure. This component is complementary to measure C1 .2. R1-I3 use of hydrogen and new technologies, within which at least 6 hydrogen bottlers regionally distributed throughout the Republic of Croatia will be established by 2026.	
Implementation holder	MMPI
Target Group	Legal and natural persons for component (i) and LC (R)SGUs, SABs, other budgetary and extra-budgetary users, companies, natural persons and non-profit organisations for component (ii).
Estimated cost	HRK 1,580,000,000 (of which HRK 1,200,000,000 for component (i) and HRK 380,000,000 for component (ii)))
Implementation period	10/2021.-6/2026.

C1 .5. Improving the use of natural resources and strengthening the food supply chain

Link with the European Semester and/or strategic documents and the context of the reform

The reform is being initiated with the aim of increasing food safety and competitiveness of the Croatian agri-food sector.

The reform is in line with CSR 2020/1a, according to which the Republic of Croatia needs to take all necessary measures and respond effectively to the pandemic, maintain the economy and support recovery. These measures contribute to the selected reform measures by supporting the development of business infrastructure, improving business processes.

When determining key reforms and investments, the aim was to increase food safety and low-carbon energy transition from the Government programme, which includes activities aimed at improving and increasing production in agriculture and more efficient use of production resources in these sectors. It is necessary to stop and reverse unfavourable trends in agricultural production, which are reflected in low labour productivity, low GDP level, decline in production, and consequently lead to a reduction in food safety and depopulation of rural areas.

Activities that will contribute to the achievement of these objectives are elaborated in more detail by the draft National Agricultural Strategy for the period 2020-2030, as well as by the Strategic Plan for the implementation of the EU Common Agricultural Policy. The current Rural Development Programme (RDP) and future strategic plan (and related investments) implement reforms in accordance with the EU Common Agricultural Policy, and national strategies and plans ensure implementation of reforms that it does not regulate (agricultural land disposal issue or food donation system).

The proposed reform of improving the use of natural resources and strengthening the food supply chain covers various activities grouped into four measures, as follows: (i) establishment of a logistical infrastructure network to strengthen the production chain in the fruit and vegetables sector; (ii) establishment of a system for restructuring agricultural land and land consolidation; (iii) digital transformation of agriculture; (iv) improvement of the food donation system.

Most of the reform activities implemented so far have been implemented and financed through the RDP and from the State budget funds.

In addition to activities of digitisation of public services and establishment of e-Agriculture system that started during 2020, other activities contained in the above mentioned measures have not begun to be implemented. All activities that have not started will start to be implemented by June 2022 and will be completed by July 2026.

The Ministry of Agriculture (MINISTRY of Agriculture), the agencies under its jurisdiction, but also regional and local self-government bodies will be involved in the implementation of the reform. Secured capacities and established system for the implementation of RDP will be additionally strengthened, i.e. upgraded with coordination components and activities, according to needs.

These measures include complementary activities and investments which encompass the adoption of new regulations, efficient management and use of natural resources supported by new digital technologies, infrastructure building, digitisation of the system of providing and using public services in the agricultural sector and other related activities which jointly contribute to the realisation of the reform. Some projects are already ready for implementation and directly contribute to the green and digital transition. As an example, activities related to the use of land resources and a digitisation project in the field of agriculture can be cited. The project to improve the food donation system contributes to the green transition due to the food waste prevention component, as well as to the digital transition due to the digitalisation of the food donation system. The project represents direct implementation of the plan for prevention and reduction of food waste generation in the Republic of Croatia 2019-2022.

Through the selected measures, the reform will cover different groups of users of public authorities, farmers and other producers in the agricultural sectors, the rural population, the scientific community and civil society.
The planned reform measures and investments are complementary with the corresponding strategic objective set out in the NRR draft (strategic objective 8. Self-sufficiency in food and the development of the bio-economy), which covered the following priorities: increasing productivity and resilience to climate change in agriculture and aquaculture in an environmentally friendly and sustainable way and enhancing competitiveness and innovation in agriculture and aquaculture. The strategic and legal framework that elaborates these priorities is presented in Part III of this document, in the chapter on consistency with other initiatives.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C1 .5. R1 Establishment of a network of logistical infrastructure to strengthen the production chain in the fruit and vegetables sector

Challenge

The Republic of Croatia has desirable climatic, pedologic and hydrological potential for production. Nevertheless, production is not developing in the desired way towards meeting the needs of the population, tourism, food industry and export. Agricultural production in Croatia is characterized by a large number of small agricultural holdings that have small areas of parcelled agricultural land (almost 70% of agricultural holdings have less than 5 hectares of land). The degree of association is extremely low, even with support for establishing and financing the work of producer organizations, only 17 are registered. Almost two thirds of production consists of arable crops, mostly of low added value (mostly maize and cereals), while livestock farming accounts for about one third of production. Investments in resources and production are limited, and mostly dependent on support, and investments in research, development and innovation are almost marginal. All of these contribute to low productivity or incompetitiveness of production.
Fragmented value chains prevent micro, small and medium-sized producers from adding value and exploiting new market opportunities. Low productivity, hampered by insufficient quality management and weak market connections, affects the ability of producers - especially SMEs - to compete with imports and make use of new export opportunities created by the EU market. In 2019, imports of fruit and vegetables generated a deficit of EUR 301 million, which increased by 20.6% compared to the previous year.
Smaller producers, which dominate the production structure in the Republic of Croatia, mostly participate in short value chains that usually end up on local green or wholesale markets. Meanwhile, lack of access to sufficiently large and reliable quantities of quality inputs further limits the competitiveness of producers. Further factors of less competitiveness of production in the fruit and vegetables sector lie in the absence of a cooling space for storing and distribution and non-compliance with demand requirements, which is evident for example in a sortiment that does not follow market trends and lack of capacity for quality storage and preparation of fruit and vegetables for the market.
Interconnection between producers would enable most of the newly created additional value of the product to remain a producer, rather than spill over through the supply chain, through a large number of actors in the distribution process, outside the local economy.

Objective

The objective of this measure is to stimulate association, cooperation, exchange of experience and knowledge, which will improve the position of farmers in supply chains and contribute to the development of products of higher added value. In the fruit and vegetables sector, the measure will create the necessary preconditions for producers to

manage their own market position. It is expected that the implementation will contribute to improving the position of producers of fruit and vegetables in the supply chain, organizing producers in producer organisations, improving the income of producers of fruit and vegetables and especially of micro and small agricultural holdings, stabilising the markets of fruit and vegetables, regional economic development and recognizability of domestic fruits and vegetables on shelves of shopping centres, thus providing the consumer with information on the origin of the products and freedom to choose from purchase.

Disposal of storage capacities would certainly contribute to the change of position of producers because, unlike the independent appearance on the market from the position of an agricultural holding which is not adequately able to store production quantities, they would not be under sales pressure due to the lack of the possibility of temporary storage of products until better market conditions are created. It would cost-optimize the supply and sales logistics of fruit growers and vegetables, reduce the general costs of individual construction, standardise the technology and quality of product storage, enable a group strategic market research, control from one place, introduction of e-commerce of fruit and vegetables, finishing and processing of fruit and vegetables as an alternative channel of fruit and vegetable placement at a high alternative maturity, as well as other service operations on behalf and for the account of fruit and vegetable producers connected to a common refrigerator.

In addition, such storage and processing capacities become a platform of interest gathering producers which stimulates the creation and/or strengthening of producer organizations that carry out joint activities on behalf of and for the interest of producers channelled through these capacities. Namely, these capacities should be available for use by producer organisations because the infrastructure is the backbone of organising producers in producer organisations, which is a European and national strategic interest recognized through rural development and CAP measures.

Furthermore, in order to strengthen market recognition, it is necessary to ensure material preconditions for successful market communication that can contribute to better visibility and value perception of fruits and vegetables. For the consumer, it is important to have information about the origin of the product up to the level of information from which the holding comes. However, it is no less important for the manufacturer to know that information is available to the consumer about the origin of the product he has supplied. In addition to this information, the product becomes more recognizable and valuable. This is also why it is necessary to build consumer confidence in a quality system of traceability and labelling of fruit and vegetables from production to consumer. This can be achieved through digitalisation and a special labelling system within the storage/distribution centres as the central point for the exchange of all fruit and vegetable data delivered here as a fresh product and dispatched as a final product.

Description

The measure is part of the overall structural reform of the agri-food sector envisaged by the draft Agriculture Strategy for the period up to 2030, which is heading towards promoting more competitive Croatian agriculture. The reform is in line with the principles and objectives of the future Common Agricultural Policy (CAP), which will be implemented to a greater extent through the Strategic Plan for CAP implementation, and includes a number of activities, including the development of diversified markets in agri-food products, fostering partnerships in short supply chains, improving business capacities in the agri-food sector, further development of the agricultural knowledge and innovation system.

Implementation

Within the framework of this measure, investments will be made in the construction of logistical and distribution infrastructure. The lack of adequate logistics and distribution infrastructure, including adequate refrigeration chambers, makes farmers vulnerable in the context of the timing and price of placing their products on the market (seasonality). In the COMID-19 pandemic, the lack of such capacities proved to be one of the key factors preventing the distribution of agricultural products in the interruption of established product

placement channels, since most farmers do not have the capacity to pack and declare products which prevents them from placing products on the market. In addition to the infrastructure itself, the aim of the projects is to develop cooperation between farmers and other stakeholders in rural areas, in terms of joint management of facilities and business planning, the key role of which would be played by producer organisations and local self-government.
The analysis of the situation by counties indicates a significant lack of storage capacities for fruits and vegetables in relation to production (62.2 thousand tonnes for fruits and 78.7 thousand tonnes for vegetables), which will be bridged by investments in appropriate facilities in each county using standardized project documentation.
The measure covers the following activity groups: (i) drawing up of a type project documentation for logistically distribution centres for fruits and vegetables; (ii) building and equipping infrastructure for storage of fruits and vegetables using renewable energy sources; (iii) digitisation of storage/distribution centres; (iv) education and support to producer organisations in the field of management and finance; (v) establishment of a system for marking of fruits and vegetables and creation of a recognisable label.

Implementation holder	MPOLJ
Target Group	The measure is intended for LC (R)SGU, but also for producers organized in producer organisations, other entrepreneurs and to some extent agricultural institutions.
Estimated cost	HRK 650,000,000 (investments: HRK 640,000,000)
Implementation period	3/2021.-6/2026.

C1 .5. R2 Improving the system for restructuring agricultural land and land consolidation

Challenge

Low agricultural productivity in the Republic of Croatia has historically been conditioned by low capital investments for development, with an additional aggravating circumstance of the problems of land consolidation and management. Similarly, low agricultural productivity is affected by a limited scope of irrigation systems, fragmentation and scattering of agricultural parcels as well as insufficient application of best production practices.
Despite significant areas of agricultural land, the Republic of Croatia is below the EU average in terms of productivity of natural resources, i.e. efficiency used by agricultural holdings. The efficiency of use of agricultural land is currently limited due to the fragmentation of arable land into a large number of plots, which makes further development of agricultural production more difficult. According to data recorded by the paying Agency for Agriculture in 2020, the average size of the agricultural holding amounted to 6,7 ha and it is necessary to create conditions for increasing the average size of the agricultural holding, including through land consolidation procedures.
The land consolidation Act from 2015 finally recognized the need for land consolidation in those areas of the Republic of Croatia where, due to the fragmentation of holdings, a purposeful agricultural production cannot be organized. Small plots of agricultural land, unresolved property legal relations on land, are fertile ground for the use of land consolidation procedures. However, after the adoption of the law and the implementation of five pilot land consolidation projects, there was a need to amend the legislative framework due to complicated and unenforceable provisions. The draft NRR recognizes the benefiti of land consolidation procedures and plans for legislative activities of the Government to adopt a new Act on Land consolidation which will lead to the initiation of solving the problem of land fragmentation and thus the Regulation and development of rural areas.

Objective

Agricultural land is defined by law as being of special interest to the Republic of Croatia.

Measures aimed at the management of agricultural land are therefore a priority of national agricultural policy. The draft Agricultural Strategy for the period up to 2030 recognizes the key need to achieve greater harmonisation between the agricultural production system and agri-ecological characteristics of the production environment through better land use planning. For this purpose it is necessary to develop information tools for collecting data on land covered by land consolidation, all so that the experience gained through individual land consolidation processes can be used in subsequent land consolidation.

The aim of developing a programme for permanent monitoring of the state of agricultural land is to ensure the continuous availability of data necessary for assessing the state of the soil and the implementation of sustainable management and soil protection policies. Monitoring the state of agricultural land will ensure monitoring and comparability of data on soil status for reporting to the Republic of Croatia and according to international commitments undertaken.

It is estimated that the cost of land consolidation (geodetic surveys, construction works, project documentation, pedological mapping, land monitoring, road and canal network construction) would be between 10,000 and 25,000 kuna per hectare depending on the location of implementation and the complexity of the land consolidation project implementation. This estimates that over 20,000 hectares of agricultural land will be allocated to the Republic of Croatia in the forthcoming period.

Investments in complementary projects within the framework of this measure will contribute to the achievement of the objective of improved use of agricultural land and other resources in agriculture, which will indirectly lead to greater productivity and sustainability of agricultural production.

Description

The measure includes investment projects in the system of consolidation of agricultural land, monitoring the state of agricultural land, pedological mapping.

Implementation

Land consolidation is an extremely demanding project, which affects the change of structure of agricultural holdings, the Regulation and development of rural areas and the preconditions for a more efficient irrigation and drainage system on agricultural areas are fulfilled.

The implementation of the project will be preceded by the adoption of the necessary legislative framework, i.e. the new consolidation Act, in order to define principles, conditions and procedures in the process of consolidation, as well as competent authorities. In parallel with the adoption of the Land consolidation Act, it will be necessary to amend the inheritance Act all in order to prevent a single land parsed from being fragmented again, as foreseen by the Government Programme.

By implementing land consolidation procedures, areas that are currently less suitable for agriculture due to bad conditions become more attractive since in the land consolidation procedures network of access routes as well as irrigation and melioration drainage systems are planned. This opens the opportunity for the production of higher income crops and the orientation of farmers to vegetable and fruit production.

In parallel, for the purpose of efficient management and management of agricultural land, a programme for permanent monitoring of the state of agricultural land will be developed which will ensure continuous availability of data necessary for assessing the state of the soil and implementation of the policy of sustainable management and soil protection. The data collection system will include information on the reduction of organic matter and biodiversity, soil erosion, soil pollution, soil compaction, soil salinisation, landslides. This project will ensure, through field research and application of geographic information systems (GIS), availability of data necessary for soil status assessment and implementation of sustainable management and soil protection policy. Also, the project results will enable identification of crisis areas where soils are exposed to threats defined in the EC document “Thematic Strategy for soil Protection” and provide more effective soil protection policy as well as sustainable agriculture and rural development policy. The

programme will register and monitor natural factors and anthropogenic influence on the soil and ultimately objectively evaluate the effectiveness of soil protection interventions and applied agrotechnics.	
Implementation holder	MPOLJ
Target Group	The measure is intended for local and regional self-government units, farmers and research and scientific institutions in agriculture.
Estimated cost	HRK 288,000,000 (investment)
Implementation period	6/2021.-6/2026.

C1 .5. R3 Digital transformation of agriculture

Challenge

Agricultural producers in the Republic of Croatia are facing market pressures from consumers and the food industry that require high quality agricultural products while ensuring traceability in agricultural production. In addition, in line with EU policies and the Green Plan, both consumers and the food industry insist on agricultural production in line with production practices that are sustainable for the climate and the environment.

According to EC data, the labour productivity of Croatian agriculture is approximately 31% of the EU average (data for 2018). At the same time, indicators of agricultural production indicate a triple loss faced by agricultural producers. For the first time farmers lose when planning production, because without precise data on soil quality and actual crop needs it is not possible to optimally calculate all necessary input resources for production. The smart Agriculture Platform, which would include agri-data decision-making services, can reduce planning losses by up to 30%. The second loss occurs in the production phase, and is primarily caused by misjudgements of the moment and extent of application of certain agro-technical measures, with losses due only to late protection from diseases and pests between 20 and 40% of yield each year. The smart Agriculture Platform offers real-time producers all necessary information to make timely decisions and significantly reduces those losses. The third loss is recorded by the average agricultural producer at the price of the product. The loss is due to the impossibility of transparent and detailed presentation of traceability at the stages of production and inadequate quality of the final product, whereby the product does not consequently achieve the first class price or is not realised through added value such as an organic product.

Faced with all of these challenges, Croatian agricultural producers need digital smart tools and expertise to quickly make timely and agro-technically correct decisions. Without available tools and knowledge, a large number of agricultural producers will not be able to maintain their agricultural production and in the future there is a threat of a decline in agricultural production and the number of producers.

Objective

The digitalisation of agriculture has a strong impact on accelerating access to information and knowledge. This measure plans to build a national platform for smart management and improvement of agricultural production, which enables agricultural producers to access digital tools for timely planning of activities in agricultural production, avoiding risks with the aim of maximising yields, using sustainable agro-technical practices and ensuring traceability and quality of agricultural products in order to increase revenue. Up-to-date, structured and timely information directly from fields and farms, which together with adequate professional support enable proper decision making in order to achieve efficient, profitable, sustainable and self-sufficient agricultural production. Expected results of the measure are increasing agricultural production, ensuring quality and traceability of agricultural products, and ensuring the application of agronomic practices in the long term sustainable for the climate and the environment.

Description

The measure includes digital transformation of public services, establishment of smart agriculture system and modernisation of professional support as a basis for smart agriculture and precise management of resources and production.

Implementation

The first activity includes designing digital transformation of public administrative services MPOLJ. Each registered service in the catalogue of public services of the agricultural administration must undergo the process of digital transformation. The processes of establishing digital services have partially started, but they are carried out individually by applying the principle of "from paper form to digital". The consequence of this approach will be segmented and non-economic digital services that do not offer simplification and added value to farmers. Therefore, it is planned that this activity offers the Action Plan as a result. The Action Plan would contain a realistic overview of the current state and content of public services and a detailed elaboration of project activities whose realisation would achieve the goal of digital transformation of public services of agricultural administration.
The modernisation of existing systems will go towards their integration by sectoral vertical and integration into national services, based on the principle of simplifying user interaction and one-off entry of documents and user data.
The measure also includes the establishment of a smart Agriculture system modelled on commercially available and globally proven software solutions for management and improvement of agricultural production that can be implemented, adapted and integrated in the short term with existing MPOLJ systems and made available to agricultural producers in the Republic of Croatia in Croatian.
Implementation of the project for establishment of the smart Agriculture system is planned phase and phases are envisaged through an incremental approach which ensures quick adoption of first functionalities to agricultural producers in order to have benefite as soon as possible through improvement of production, and incremental addition of functionality in phases to reach the full scope of the project.
In the first phase of establishment of the smart Agriculture system, an analysis of necessary adjustments and configuration of the agricultural production management system is envisaged, as well as integration with ARKOD system for agricultural land records in order to automatically download basic data on agricultural areas and crops of agricultural producers.
In other phases, the smart Agriculture system will be expanded by data from other sectors, integration with other systems that will provide necessary information on plant development in fields and possible risks of diseases and pests based on current weather conditions and satellite images from agricultural areas. Also, from data on available resources, application of agro-technical measures and agricultural production, the creation of reports on traceability, product quality and climate footprint will be automatized. In addition, for THE purpose OF THE MPOLJ, aggregate reports on national production by culture, climate footprint of national agriculture and food safety will be created based on actual data on applied production practices and maximum levels of residues of protective agents.
The platform will enable expert agricultural advisors from THE MINISTRY OF AGRICULTURE to provide advice to agricultural producers digitally through a platform based on information on the actual state of crops/plantations in fields and analysis of best production practices.
All investment activities under this measure are aimed at establishing digital frameworks and tools and adequate professional support for smart management of agricultural resources and production, with the universal aim of increasing productivity of agricultural production.

Implementation holder	MPOLJ
Target Group	Farmers, SMES and agencies under their jurisdiction.
Estimated cost	HRK 98,000,000 (investment)

Implementation period	2/2020.-12/2025.

C1 .5. R4 Improving the food donation system

Challenge

It is estimated that 400,000 tonnes of food waste are generated annually in the Republic of Croatia, and on the other hand about 23% of the population lives at risk of poverty and social exclusion.

Prevention of food waste generation has been recognised at EU level as a priority in the context of the circular economy, which should also contribute to the achievement of the UN 2030 Agenda for Sustainable Development, namely the objective of sustainable development 12.3 on reducing food waste and food losses in production, retail and consumption. Improving the food donation system is one of the key measures for food waste prevention and has been recognized as such in the Plan for the Prevention and reduction of Food waste generation of the Republic of Croatia 2019-2022, adopted by the Decision of the Government[21]. So far, the Plan in part of the measure to improve the food donation system has only been partially implemented through amendments to the legislative framework, development of guides for food donation and implementation of educational workshops for stakeholders in the food donation chain.

Data on the quantities of food donated in 2019 show that about 1,517 tonnes of food were donated and that there is certainly room for improvement. The MPD report on the results of the 2017 research on food donation in the Republic of Croatia determined that one of the incentives for operators to donate more food would be to ensure reliable partners in the food donation chain (non-profit organisations that are qualified and qualified for food business and equipped with the necessary infrastructure). Namely, poor infrastructural equipment of the intervener (lack of vehicles, inadequate warehouses, inability to properly store and distribute food) proved in this research to be one of the main obstacles to food donation. This was confirmed by the results of the Food Bank's feasibility study in the Republic of Croatia, in which it was established by analysing the infrastructural equipment of the intermediaries in the food donation chain that the current level of equipment of the intermediaries in the food donation chain does not guarantee the necessary capacities for the reception, storage and further distribution of food to persons in need. Currently, the food donation system consists of 114 registered intermediaries in food donation, with different levels of infrastructure equipment, number of employees, volunteers, etc. These are humanitarian organizations mediating between donors and persons in need. On the other hand, the Republic of Croatia does not have a food bank which has proven to be successful models worldwide for improving the efficiency of food donation systems. Namely, food banks are non-profit organisations that act as “non-profit wholesale companies”, connecting donors and intermediaries in the food donation chain. The feasibility study on the establishment of a Food Bank in the Republic of Croatia confirmed the multiple benefits of the establishment of a Food Bank in the Republic of Croatia, which include donating larger amounts of food, preventing food waste generation, contributing to resolving poverty problems and that a functional and simple information and communication system is crucial for the successful establishment of a food bank system.

THE MINISTRY of AGRICULTURE has already established the basics of IT systems for food donation. It is a communication platform for faster and easier connections between donors and intermediaries in the food donation chain. Advantages of using the it system include lower burden of donors, easier and more efficient communication between donors and intermediaries in the food donation chain, central management, harmonization of supply and needs and coverage of peripheral parts of the state.

The application of the IT e-donation system resulted in improved communication between donors and intermediaries in the food donation chain and should be further upgraded through more advanced functionalities (enabling the printing of shipments and tax forms

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from the system, enabling the division of one large donation into multiple users, enabling the generation of statistical data, etc.), in order to include as many users as possible and increase the amount of donated food. For the purpose of better visibility of the it e-donation system, it is necessary to enable user access through a single internet platform for prevention and reduction of food waste generation. The launch of this platform would provide a single website where the latest news and interesting developments in food waste prevention and food donation will be published. Also, the platform will be a place of exchange of experience and examples of best practices, advice and recommendations for food business operators, the scientific community and consumers.
The CD-19 pandemic changes the supply-demand relationship in certain parts of the food chain. Namely, limited work and movement in certain branches of the food chain changes the distribution of food products and increases the risk of food waste. At the same time, the risk of poverty increases as well as the risk of reducing food sources for the most socially vulnerable groups.
The measure will contribute to the implementation of the transition measure to smart, circular and low-carbon society through food waste reduction. At the same time, the measure contributes to the implementation of measures from the NPR in part of the objectives of the Europe 2020 strategy relating to climate change and energy sustainability (reduction of greenhouse gas emissions) and reduction of poverty and social exclusion (provision of humanitarian aid in kind and other support programmes for the most deprived). The implementation of the measure is in line with the specific objectives of the NRR draft (ecological and energy transition for climate neutrality and self-sufficiency in food and development of the bioeconomy) as well as with the Government Programme (self-sufficiency in food and low-carbon energy transition) and directly represents the implementation of the Food waste Prevention and reduction Plan 2019-2022.

Objective

It is planned to improve the food donation system as an important component of the circular economy in the agri-food sector, which simultaneously contributes to waste reduction on the one hand and to increasing food safety of poorer groups of population on the other.

Description

The measure will improve the food donation system in the Republic of Croatia through the establishment of a food bank, strengthening the capacities of intermediaries in the food donation chain, launching an internet platform for food waste prevention, upgrading the IT system for food donation and implementing an informative and educational campaign on food waste prevention and food donation.

Implementation

The measure consists of 3 components: (i) infrastructural equipping of food banks and intermediaries in the food donation chain; (ii) launching an online platform for food waste prevention and upgrading the technical solution of the food donation it system; (iii) implementing an informative and educational campaign on food throwing and food donation.
The feasibility study on the establishment of the Food Bank in the Republic of Croatia proposed possible solutions related to ownership of the food bank system, organisation method, financing of the Food Bank and organisational and logistical flows. In the next phase, the establishment of a food bank is to come, i.e. investment in solutions for the storage and distribution of donated food. At the same time, the investment will be carried out in order to strengthen infrastructure capacities (purchase of storage space or adaptation of existing, purchase of vehicles, storage equipment, food storage equipment, it infrastructure, etc.) of intermediaries in the food donation chain as a complementary measure similar to those financed by the Fund for European aid for the Most deprived.
The measure will be implemented BY the Ministry of Agriculture by drawing up a support programme for infrastructural equipping of food banks and intermediaries in the food donation chain on the basis of which a public tender will be announced by the end of 2021.

The draft Act on Amendments to the Agriculture Act, which foresees this programme, is in the phase of submitting it to the Government procedure and is expected to be published in early 2021.
Also, by mid-2022, it solution for food donation system will be upgraded in order to use the platform more functionally, attract more users and increase the amount of donated food. Also, by mid-2022 an Internet platform for food waste prevention and reduction will be launched in order to spread examples of best practices, raise awareness and educate about food waste and food donation. The food donation it system will be an integral part of this platform.
Namely, AT the end of 2018 MPOLJ started a project to establish an IT food donation system called e-donation. During the implementation, there were opportunities for improvement of functionality and further upgrades with the aim of better efficiency of the entire system.
At the same time, promotional activities of the food donation system and prevention of food waste generation will be carried out in order to raise public awareness about the problem of food throwing and food donation. In this context, THE MINISTRY of Culture will conduct an informative educational campaign through modern and digital media communication channels aimed at raising consumer awareness since, according to estimates, about 53% of food waste is generated in households.

Implementation holder	MPOLJ
Target Group	MINISTRY of AGRICULTURE, mediators in food donation and civil society organizations.
Estimated cost	HRK 40,000,000 (investments: HRK 38,000,000)
Implementation period	3/2021.-12/2024.

(b) Investments

C1 .5. R1-I1	Construction and equipping of logistically distributed fruit and vegetables centres

Challenge

Based on the analyses of surfaces and production of fruit and vegetables, as well as existing cooling capacities prepared by the Croatian Agricultural and Food Agency, there is a lack of modern cooling capacities in Croatia for fruits and vegetables, and the needs vary around 62.2 thousand tonnes for vegetables and 78.7 thousand tonnes for fruits. However, in addition to the storage area, a specific logistical space for reception, finishing (cleaning, sorting, packaging) is necessary, therefore it is necessary to build storage distribution centres in main production regions which, in addition to the cooling space for fruits and vegetables, also have the necessary infrastructure for the complete preparation of products for the market (sorting, packing, distribution, etc.). The price of construction of the described storage capacities for fruits and vegetables ranges from 0,95 EUR/kg – 1 EUR/kg. Since the construction of energy efficient refrigerators with solar panels is planned, the total construction price is about 1.20 EUR/kg of storage capacity.

Objective

The investment will provide a logistical precondition for stronger market competitiveness of the sector by ensuring continuity of product supply of appropriate quality and quantity.

Description

The investment includes the construction and equipping of logistically distributive and storage infrastructure for fruits and vegetables.

Implementation

The planned logistics infrastructure will include the working part intended for receiving the product, cleaning, washing, sorting and packaging, as well as the storage part of the appropriate reception and storage capacity in the cooling regime and in the long-term

storage regime with the complete necessary it upgrading related to meeting the traceability requirements and marking of the final product.	
Implementation holder	MPOLJ
Target Group	LC (R)SGU, producers organised in producer organisations, other undertakings, to a certain extent institutions in agriculture.
Estimated cost	HRK 640,000,000
Implementation period	3/2021.-6/2026.

C1 .5. R2-I1 Consolidation of agricultural land

Challenge

see C1 .5. R2

Objective

see C1 .5. R2

Description

After the entry into force of the new land consolidation Act, the implementation of land consolidation projects would take place.

Implementation

During the process of land consolidation, basic costs would relate to the development of preliminary solutions for the land consolidation project, main land consolidation projects, costs of creating a new cadastral survey, resolving property legal relations on land covered by land consolidation, construction works on the construction of a network of paths and canals and the construction of water structures for melioration. From the estimated amount, it is planned to finance these basic costs and other real costs incurred in the implementation of the consolidation.

Implementation holder	MPOLJ
Target Group	see C1 .5. R2
Estimated cost	HRK 270,000,000
Implementation period	12/2021.-3/2026.

C1 .5. R2-I2 Permanent monitoring programme for agricultural land

Challenge

When some natural resources are consumed in such a way that this exceeds the rate of renewal, their long-term sustainability is compromised. Land is one of these resources, which must, for the sake of national significance, have a plan and long-term sustainable. Without adequate scientifically based monitoring methods and systems that will store data observed from several scientific dimensions, land management planning is not possible.

Objective

This investment plans to establish a permanent monitoring programme for the state of agricultural land, as a basis for systematic and planned management of this resource of national importance, but also a basis for obtaining real and comparable parameters that will enable a data-based determination of the market value of individual agricultural land.

Description

A permanent monitoring programme for agricultural land status would contain the following components: (i) establishment of a spatial data management system (GIS); (ii) connection to national spatial data registries (cadastre, ARKOD,...); (iii) attribution of agricultural land to field data of professional disciplines (pedology, geology, morphology, hydrogeology,...); (iv) establishment of a laboratory for conducting sampling and monitoring of soil quality; (v) establishment of a laboratory for conducting testing and testing.

Aggregation of all this data within a single system for planning management and analysis would enable predicting the occurrence of negative processes in the soil, determining the extent of damage and contamination of these processes and planning reactions to prevent or mitigate them, and defining and identifying the crisis areas in which the soil is exposed to threat and finally determining the zones affected by adverse climatic and natural processes. All these processes would weigh the total status values for individual agricultural land and serve jointly as a system defining its market value.

Implementation

For the implementation of the investment it will be necessary to establish appropriate laboratories and ensure the procurement of laboratory equipment for the analysis of samples, reagents for testing, construction and equipping of 90 stations for permanent monitoring of condition of agricultural land.
Only a system of planning management and permanent monitoring of agricultural land, based on expert basis and field analysis data, can be a quality basis for disposal of state agricultural land and implementation of land consolidation process that will be transparent, fair and based on measurable and comparable indicators of value of individual agricultural land.

Implementation holder	MPOLJ
Target Group	see C1 .5. R2
Estimated cost	HRK 18,000,000
Implementation period	6/2021.-12/2025.

C1 .5. R3-I1 Digital transformation of public services in agriculture

Challenge

The European Commission has defined the *Digital Single market* Strategy as an essential component of the Digital Agenda for Europe. The Digital Single market Strategy is based on three pillars, the most important being the component of providing better access to digital products and services across Europe for consumers and businesses.
According to *the Report on the Digital economy and Society Index (DESI) 2020*, in the category of digital public services, the Republic of Croatia ranks only 25 th among the EU member States.
THE MINISTRY of CULTURE has recorded as many as 97 public services under its jurisdiction. Unfortunately, recorded services are not digitally available or included in national e-services systems (e-citizens, e-business, e-tax).
Unavailability of services in digital form makes it difficult for farmers to operate, especially in conditions of reducing mobility of citizens and availability of public services due to the coronavirus constraints, to burden them administratively and adversely affect their productivity.
Agricultural administration must necessarily approach the process of digital transformation of public services from its domain in order to relieve farmers administratively and thereby contribute to greater productivity of agricultural production and resilience of farmers to external disturbances.

Objective

The aim of this activity is digital transformation of public services in agriculture. Project components: (i) designing digital transformation and drafting an Action Plan; (ii) establishing an e-Agriculture system; (iii) digitally available public services.

Description

The main role of the public administration is to serve citizens and entrepreneurs through efficient performance of their tasks defined by law. The digitisation of public services for farmers creates a user-oriented electronic public administration, in accordance with the e-Croatia Strategy, and achieves the effect that services are available to farmers “always”

and “everywhere”. Benefit such a principle is a heavy administrative burden, creating excess free time for farmers that can be used in the work or planning of resources and production through the smart farming system in order to increase productivity.

Implementation

In the first phase of the project, all administrative services that the MINISTRY OF AGRICULTURE implements, in accordance with legal basis, will be recorded and catalogued. The services will be analysed in order to define the workflow of current business procesa processes (*business process model*) and to design the basis for transformation, simplification and improvement and automation of digitisation services. Each service recorded in the catalogue through this phase of the project will be contained in the Action Plan, will have defined transformation steps whose completion must be digitally publicly available. The contents of the Action Plan will offer a clear scope and a timely assessment of the implementation of digital transformation of public services of agricultural administration.

The second component of this investment, an information system component that would enable digital public access to services, is technically already defined at an early stage of implementation. It includes the e-Agriculture system, which will in the future represent a central platform for all online services in agriculture, i.e. a unique place for reviewing all agricultural information systems, digital public services and communication with agricultural administration and professional support. The principle of establishing e-agriculture services will be governed by the general rule, “once only”, which implies the submission of user data only once, in accordance with *the Regulation on the* establishment of a Digital Single gateway, and centralized overview of the information systems of agriculture and a wide range of communication channels with professional support will enable easier adjustment of users to the new way of doing business - digital business, increase the use and efficiency of public services and user satisfaction.

The complexity and expected large scope of the project will require expert project coordination and implementation capacities, therefore the project includes the component of creating adequate internal capacities for the implementation and management of digitisation projects and educational activities for employees of the Ministry of CULTURE, which would be implemented in coordination with SDURDD, focusing on digital transformation leading to simplification and cost-effectiveness of digital public services, but also on the exchange of digital transition experiences with other Member States because all digital public services must be spatially unlimited and accessible to all EU citizens.

Project dynamics: 6/2021 — establishment of the e-Agriculture Platform; 9/2021 — established Action Plan; 6/2022 — 15% of the Action Plan realised; 6/2023 — 40% of the Action Plan realised; 6/2024 — 75% of the Action Plan realised; 6/2025 — all MPOL services digitally available.

Implementation holder	MPOLJ
Target Group	see C1 .5. R3
Estimated cost	HRK 21,000,000
Implementation period	2/2020.-9/2025.

C1 .5. R3-I2 Smart agriculture

Challenge

The objective of the EC proposal for the future CAP is to achieve that EU agricultural policy can respond better to current and future challenges while continuing to meet the needs of European farmers. The digital revolution and the introduction of new technologies are the focus of the European Commission (DG CONNECT and DG AGRI) which aims at encouraging and achieving synergy among farmers, institutions, scientific research and technological possibilities with the aim of creating a sustainable agricultural production framework.

Objective

Implementation of the project plans to transform and move Croatian agriculture and farmers into a world of digital services. Smart agriculture system for precise management of resources and production in real time, in addition to digital public services, will enable easier and more resilient business operations of users, increase accessibility, visibility and transparency of programmes and projects implemented by THE MINISTRY of Culture and the quality of public services and professional support provided by THE MINISTRY of Agriculture.

Description

Smart agriculture, offering up-to-date, structured and timely information directly from fields and farms, with adequate professional support and application of the principle of sustainable production, is a tool for achieving the goals set by the future CAP, while setting stable foundations for long-term effective, profitable, sustainable and self-sufficient Croatian agriculture.

With this project, THE MINISTRY of AGRICULTURE plans to establish a system for managing agricultural production - a platform for smart agriculture.

Implementation

Project components: (i) infrastructure; (ii) smart farming systems and services; (iii) professional support.

In accordance with the Act on State information infrastructure, the integration of infrastructure resources of the bodies of agricultural administration would approach with the aim of rationalizing these expenditures. Instead of individual infrastructure sites, integration of information infrastructure would centrally locate, thus reducing costs, and consolidation of equipment would enable resources and tools to be jointly procured and wisely shared, depending on the seasonal burdens of individual systems.

The availability of data from public registers to all public sector bodies, citizens and other users is one of the principles of the Act on State information infrastructure. The precondition for public availability of data is consolidation and integration of information systems.

Farmers are obliged, in accordance with the legal framework, to report their data to official records and registers, primarily with the interest of exercising the right to aid. However, this information is not available on a daily basis to farmers as a basis for planning and managing their own resources and production. Only a small proportion of large agricultural producers recognised the need and had financial capabilities to put data into their own systems for resource management and production.

An unfavourable indicator of the current situation is the fact that THE MIP currently manages more than 140 individual information systems (records and registers) in which user data is collected and administered. Systems are mostly technologically obsolete, with a low degree of integration into national services (e.g. OIB service, Court Register, craft Register) to ensure accuracy and timeliness of user data, which are prerequisites for integration of information systems into national digital services (e-citizens, e-business, e-fees).

The project plans to consolidate information systems, which would be merged and integrated according to the main sectoral vertical (e.g. farming, livestock farming, fruit growing, fisheries, veterina, forestry …), and then integrated with each other through the SSP (Agricultural Service collection). The SAA would serve as a basis for including data of all sectoral vertical information systems in the smart Agriculture Platform, which would provide a central overview of all data on resources and production of individual farmers, would be available online (via e-agriculture and m-agriculture systems) and would serve farmers for production planning, application of best professional practices, direct communication with professional support of SMES and management of resources and revenues. A farmer would have one solution offering all field and farm data as a basis for management, and the platform would include specialized services that are the basis for planning and precise production management, such as NDVI (Normalized vegetation

Index) or agrometeorological services.
In order to ensure adequate professional support to farmers, a communication management system will be established, which relies on the smart agriculture platform, through which users' requests will be received and internal coordination of professional support to farmers will be carried out. New technological channels will be integrated into the central system for managing communication with users, offering the possibility of communication in real time, with the aim of widespread, timely and clear distribution of information to the public and users. This system will result in an increase in availability of sources of information, quality of professional services for farmers and transparency in communication on projects and programmes of THE Ministry of AGRICULTURE and Government.
In order to expand the available materials to increase knowledge, distribute innovation and transfer new technologies, in line with the principles of the European Commission smart - *AKIS project: the European Agricultural Knowledge and Innovation systems (AKIS) Towards innovation-driven Research in smart Farming Technology*, a National Catalogue of Agricultural Education would be established through which farmers would acquire additional knowledge, compare and apply best manufacturing practices and overcome obstacles to the application of new ways of doing business in the world of digital services.
Project dynamics: 9/2021 — e-Advisor (first phase smart Agriculture); 1/2022 — Central system for communication with professional support; 1/2022 — National Catalogue of Agricultural Education; 6/2022 — smart Agriculture (second phase); 6/2023 — application of data entry principle “once only”; 1/2024 — completed integration of information systems and available e-services; 1/2024 — smart Agriculture (whole system); 1/2025 — comparison.
The above mentioned results and benefits of this project are harmonised with the objectives of development direction 2. Strengthening resilience to crises and 3. Green and digital transition, NRR drafts.

Implementation holder	MPOLJ
Target Group	see C1 .5. R3
Estimated cost	HRK 58,000,000
Implementation period	2/2020.-12/2025.

C1 .5. R3-I3 Traceability system

Challenge

More recently, accurate and timely traceability of products and activities in the supply chain has become a new factor in food and agrobizing in general. Increasingly, consumers around the world are looking for verifiable evidence of traceability, as an important criterion for the quality and safety of the food product, and to these knowledge shape awareness of the reasonableness of the price of the product.
Food safety and traceability are currently the main topic of discussion both governments and industries around the world. Traceability is actually the possibility of monitoring a product through certain stages of production, processing and distribution. Traceability or product monitoring tool helps identify the product at every stage of the supply chain (from production to distribution), where the food came from and where the food has gone, in accordance with the objectives of food supervision and system certification. Traceability plays an important role in facilitating competitiveness of agricultural producers and food companies on the domestic and global markets. The ability to monitor products through all stages of production on the farm, processing, distribution, transport and retail to the end point or consumers becomes a standard business practice for all those involved in today's food supply chain. The advantages of traceability are widely recognised. However, for small farmers in developing countries, especially farmers producing horticultural and other fresh food products, traceability requirements may pose an obstacle to trade. The market

for safe and traceable food can thus exclude small agricultural producers who do not have the means to comply with increasingly stringent standards, in particular requirements for monitoring and monitoring environmental and supply chain variables using sophisticated technology.
Traceability is a valuable business tool for farmers, precisely because of the ability to monitor the product through all stages of its production and distribution, and for the market it is a tool to meet the expectations of customers and end users because it serves as a confirmation that the farmer really fulfils their requirements.
Consumers today want to know what happens to food products at every step – from production to sales. They are increasingly concerned about food safety, while a certain part of the population is becoming more concerned, for example, about how the food was produced, whether it is organic or how much the chemical was used. Accepting traceability is not optional. The only question is how will we do it in the best possible way, and how will we take advantage of the opportunities that are still in progress?

Objective

With this investment, THE MINISTRY of Agriculture plans to establish a system for the traceability of agricultural products.

Description

The proposed investment is in line with the Strategy for more than 2020-2030, Strategic target J II. Strengthening the competitiveness of the agri-food sector, which aims to ensure self-sufficiency of agricultural production, but will also be a tool for faster reaction of institutions in case of unforeseeable situations of withdrawal of food products from the market and will influence raising the level of responsibility of all food business operators. All of the above-mentioned at the end results in transparent offer of better quality, nutritionally richer and healthier food for securing domestic needs or opening new export opportunities.

Implementation

Principles to be fulfilled by the traceability system:

(i) Traceability must be established at all stages of production, processing and distribution of food, feed, food producing animals and any other substance intended for installation or may be expected to be incorporated into food or feed.
(ii) Food and feed business operators shall be able to identify any legal or natural person who supplied them with food, feed, food producing animals or any other substance intended for installation or may be expected to be incorporated into food or feed. To this end, operators shall implement digitised systems and procedures that enable such information to be made available to the competent authority or the user at its request and in real time.
(iii) Feed and food business operators shall establish systems and procedures to identify other operators to whom they have supplied their products. This information shall be made available to the competent authorities within the established system.

Implementation holder	MPOLJ
Target Group	see C1 .5. R3
Estimated cost	HRK 19,000,000
Implementation period	2/2020.-1/2025.

C1 .5. R4-I1	**Infrastructural equipping of food banks and intermediaries in the food donation chain**

Challenge

see C1 .5. R4

Objective

see C1 .5. R4

Description
see C1 .5. R4
Implementation
Infrastructural equipping of food banks and intermediaries in the food donation chain will be carried out by implementing a support programme that will finance eligible costs including construction and adaptation of storage facilities, storage equipment and furniture, refrigerating and food storage equipment, forklift trucks, refrigerated vehicles, vehicles and it equipment. An estimate of the cost of implementation of the support programme was made on the basis of the expressed needs of the intermediaries in the FOOD donation chain who, at the request of the Ministry of Agriculture, submitted an estimate of the costs and specification of the procurement subject. Therefore, the financing is planned to be implemented according to the model of partial and/or complete response to the beneficiaries' actual individual requests, within acceptable costs.

Implementation holder	MPOLJ
Target Group	see C1 .5. R4
Estimated cost	HRK 38,000,000
Implementation period	6/2021.-6/2024.

C1 .6. Development of sustainable, innovative and resilient tourism

Link with the European Semester and/or strategic documents and the context of the reform

The CID-19 pandemic had a very negative impact on the tourism sector, which the government in response implemented a package of measures aimed primarily at ensuring the liquidity of the tourism sector and preserving jobs. In its recommendations, the Council of the EU underlined the importance of continuing the aforementioned measures, which need to be implemented through the institutes of public support, credit and guarantees under undertaken credit obligations, especially to small and medium-sized enterprises in tourism, since the sector is expected to cope with the negative consequences of the pandemic in 2021.

In this respect, MINTS proposes a reform of the tourism sector and, consequently, three investments that are fully in line with all four CSRs for 2020.

In accordance with CRS 2020/1a, the EC orders measures to respond effectively to the civil-19 pandemic, maintain economic activity and support recovery. The EC also States that the socio-economic consequences of the pandemic will be felt unevenly in Croatian regions, particularly by pointing out coastal regions and islands as critical points, since these regions and islands mainly rely on tourism. Since the tourism sector is one of the sectors in the Republic of Croatia most affected by the pandemic, and considering its large share of GDP, which means a large share in future economic recovery and future GDP growth, it should be pointed out as one of the sectors in which it is necessary to invest in order to implement the CSR. MINTS has already implemented the aforementioned measures for maintaining liquidity, but at the same time has identified one reform and three investments aimed at supporting the sector's recovery and, consequently, returning tourism indicators to the 2019 level, with a reform that will enable the extension of the coastal tourist season by investing in strengthening the quality and special forms of tourism, as well as the development of continental (*non-coastal*) tourism. Namely, the negative effects of the pandemic can be established by comparing the number of overnight stays and revenues from 2019 and 2020, from which it can be concluded that there has been a significant decrease in the tourism sector in the Republic of Croatia, which is evident in 50% less overnight stays (52,436,473 in the first 3Q/2020 compared to 102,963,461 in 2019) and a decrease in income of over 60%. With the implementation of reforms and initiatives identified in the NPOO, the tourism sector will contribute to GDP growth in 2021 and the following years, which is of exceptional importance for the Republic of Croatia and must by no means be neglected. At the same time, tourism in the Republic of Croatia is characterized by extraordinary seasonality, which is evident from the comparison of data on the number of overnight stays and income per quarter, with the third quarter arguably the largest share in overnight stays, especially when compared to the first and fourth (the number of overnight stays in 3Q/2019 is more than 76 million, while the number of overnight stays is 1Q/2019. 2.3 and 4Q/2019.5, 7 million). The implementation of the tourism sector reform aims to reduce seasonality through the implementation of investments proposed by NPOO.

In line with the CSR 2020/2c, which recommends, among other things, strengthening skills, it is extremely important for the tourism sector to point out that it is necessary to strengthen the skills and competences of all stakeholders within the sector in order to improve the quality of the tourist product and service and to positively influence the prolongation of the tourist season. MINTS encompassed the strengthening of skills through all 3 investments.

Under the CSR 2020/3a, 3c and 3D EC recommends continued implementation of measures providing liquidity to SMEs and self-employed persons. It is also recommended to prioritise already elaborated public investment projects and promote private investments to support the recovery of the economy, with the consequent direction of investment in the green and digital transition. MINTS very seriously approached the fulfilment of this recommendation and, in communication with interested stakeholders in the sector, created its own database of project ideas of nearly 2,000 potential projects. Within the project ideas

base, public and private investments in the tourism sector were identified, which are in high level of preparation, those which can be prepared in the short term and those where there is no risk of long-term preparation and implementation of public procurement procedures. In doing so, priority was given to projects supporting the green and digital transition. According to these parameters, MINTS has identified three investments aimed at diversifying the tourist offer, developing special forms of tourism, strengthening the quality which will consequently lead to an extension of the tourist season, as well as the development of continental tourism.

MINTS also foresaw aid to maintain the liquidity of the tourism sector, which are particularly important now that the EU is undergoing a second wave of pandemics, and which have been horizontally proposed under the economic component.

The proposed reform and investments contribute to the achievement of goals set out in the Strategy for Development of Tourism of the Republic of Croatia for the period 2014-2020, as well as to the new Strategy for Development of Sustainable Tourism for the period 2030 currently under preparation, the National Programme for Development of Sports 2019-2026, the NPRR, as well as the draft NRR which will represent a key strategic document of the Republic of Croatia until 2030, thus giving the Republic of Croatia a response to the negative effects caused by the pandemic.

Incentives to the recovery and resilience of tourism will be achieved through the continuation of measures aimed at ensuring the encouragement of private and public investments which will contribute to the improvement of accommodation structure and quality, the extension of the tourist season, the increase of the number of employees in the tourism sector and the strengthening of their competencies, as well as related activities. In addition, the measures aim to increase the quality of the tourist offer, strengthen the sustainability and competitiveness of tourism, develop special forms of tourism, all of which should lead to an extension of the tourist season and the development of continental tourism, as already proposed in the NRR draft (Strategic goal 1). “A competitive and innovative economy”, a priority area for the development of sustainable, innovative and resilient tourism. At the same time, the measures will positively affect the EU climate and environmental objectives for the forthcoming period referred to in Article 2. European Climate Regulation as all investments include horizontal activities contributing to the green transition, i.e. contributing to the fulfilment of EU climate and environmental objectives.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C1 .6. R1 Investments in increasing the resilience and competitiveness of the tourism economy

Challenge

The vulnerability of the tourism sector poses a serious threat to the stability of the Croatian economy, which is particularly evident in the current situation of the global health crisis, due to the high share of tourism in GDP (almost 17%), highly developed tourism during the summer months, poorly developed tourism outside that period and poorly developed continental tourism whose capacity does not depend on the sea and age of the year. The Republic of Croatia has to make great efforts to assist the tourist eco-system in recovery from the crisis, since it faces considerable insolvency and its continued operations are at risk, which also endangers related activities. Namely, the Republic of Croatia receives up to five times more tourists per year in relation to the number of inhabitants, which leads to a significant increase in demand for all goods and services (so-called invisible exports), which is why it is recognized that in this segment there are great challenges to which a clear answer is needed in order to make the system more resilient. As mentioned, the share of tourism in Croatia's GDP is almost 17%, which makes the economic recovery of the Republic of Croatia impossible without the recovery of tourism in the next few years impossible. This has been identified by the EC on several occasions, recognizing this

sector as one of the most endangered precisely because of the above challenges.
At the same time, the tourism sector faces considerable resistance to threats stemming from the uncompetitiveness of destinations, as well as the high seasonality of tourism across the country. Although the Republic of Croatia implemented a reform of the legislative framework in this regard, it was not possible to fully implement it in 2020 precisely because of the pandemic, which is why the objective of extending the tourist season and the development of continental tourism, which is not so seasonal, has not been achieved.

Objective

Strengthen the competitiveness of Croatian tourism and improve the quality of existing and complementary tourist facilities on the coast outside the tourist season, but also on the continent with the aim of diversifying the tourist offer and reducing seasonality, which will positively affect the economic recovery of the Republic of Croatia from the crisis caused by the CID-19 pandemic.

Description

Part of the planned reform is already covered by the NPR-2020 measure “raising the level of competitiveness of tourist destinations and tourist community systems”. The new reform of the tourism sector, much wider coverage, is in the middle stage of preparation and ensures a significant transformation of the tourism sector from the concept favouring the “sun and sea” tourist product and contributes to the exceptional seasonality of tourism to the concept that includes other tourism products (special forms of tourism – health, sports, etc.) which will ensure that the tourist season is extended, as well as the development of continental tourism. Within the framework of the reform, the Republic of Croatia has passed a package of laws which represent a new concept in the tourism sector, particularly because it has ensured a reduction of administrative and financial barriers, reorganization and increasing the efficiency of the work of the tourist community system, as well as the introduction of special forms of tourism, which is necessary for the prolongation of the tourist season, as well as the development of underdeveloped areas and continental tourism. The amendments cover several key laws such as the law on Tourism services, the Hospitality activity Act, the Act on unutilized Construction Land, the law on Tourist Unions and promotion of Croatian Tourism, the law on Tourist Association membership fees and the law on Tourist duties. Finally, with the intention of further encouraging and accelerating the development of health tourism, the Health care Act has been somewhat amended. All mentioned legislative amendments were aimed primarily at developing a more stimulating investment environment and/or facilitating the business of stakeholders in the tourism sector, but also at creating preconditions for extending the tourist season, developing new tourist products and strengthening tourism in the continental part of the Republic of Croatia. The most important of the mentioned legislative amendments was the reform of the Croatian Television system, whose objective was to modernize and increase its efficiency.
As regards the laws related to health tourism through legislative reform, it is clearly defined what is considered as services in health tourism, which legal entities can be providers of such services (health institutions, companies for performing health care activities, private health care professionals, etc.). It also prescribes types of tourist services of health tourism (transport of tourist transfer and accommodation, organised travel). The legislative reform also gave the possibility of catering to special hospitals and health resorts, other health institutions and companies for performing health activities.
The most dominant part of the accommodation structure (private renters) is encouraged to raise the quality of the accommodation structure with the legal obligation of new categorization (new reclassification). At the same time, their transformation into small family hotels is encouraged (it is estimated that there are about 20,000 such renters).
After the adoption of this legislative framework, the reform had to be implemented, but this reform could not be fully implemented due to the pandemic and the resulting economic crisis.

Implementation

In order to strengthen the competitiveness of the tourism sector, prolong the tourist season, implement tourism products with a pronounced growth perspective and introduce special forms of tourism (health, congress, sports, etc.), it is necessary to provide support for private investments in the transition towards niches of higher added value, with emphasis on increasing the quality of tourist offer, digitalisation, innovation and increasing the quality and structure of tourist capacities, development of nautical, sports, health, agro and other specific forms of tourism and promotion of tourism in key emitating markets. Due to the above, the reform will support and encourage identified investments that foresee private and public investments.

The proposed investments, at the moment, foresee five calls for grants and three direct awards under which co-financing at rates ranging from 40% to 100% of eligible expenditures is envisaged, all in accordance with GBER and de minimis aid.

The reform to be implemented in this segment will contribute to increasing the total revenue of the tourism sector in the target 2026 compared to the base 2019, extending the tourist season and developing continental tourism.

The proposed investments will contribute to the strengthening of a competitive and innovative economy which will also affect the economic independence of young people, raising the level of their education and employment, as well as the availability of social, sports and other facilities, especially in rural areas, islands and other areas with a pronounced or potential tourist activity. In addition, all of these activities should create preconditions for demographic revitalisation of rural areas.

Implementation holder	Implementation of the reform will be ensured by MINTS that will be managed by both investment programmes and projects.
Target Group	Small, medium and large enterprises in the tourism sector and related activities, legal entities in the sports, health resorts, special hospitals and other institutions and organisations registered for the provision of health services, health and sports rehabilitation, HTZ, MINTS, LC (R)SGUs, LAG, LAGUR, stakeholders in the tourism education sector (providers and recipients of education services), etc.
Estimated cost	HRK 4,200,000,000 (investment)
Implementation period	1/2021.-8/2026.

(b) Investments

C1 .6. R1-I1 Diversification and specialization of Croatian tourism through investments in the development of health and sports tourism

Challenge

Without the implementation of investments in specific and thematic oriented dominant and prospective tourism products, tourism will continue to hit the problem of poor overall utilization of existing infrastructure due to insufficient occupancy of facilities at year level and high seasonality.

Namely, Croatian tourism is characterised by excessive dependence on the product “sun and sea”, which results in a high seasonality of the tourist industry (e.g. the number of overnight stays in 3Q/2019 is more than 76 million, while the number of overnight stays is 1Q/2019. 2,3 million and 4Q/2019 5.7 million), marked pressure of tourist demand on the narrow coastal zone, growing crowds in tourist destinations, a growing lack of (quality) labour force during the summer months, overload of public utility infrastructure (in the summer months), a gradual decline in the quality of tourist experience, and the possibility of a gradual decline in the interest of tourist demand.

Objective

The intention is to reduce the high seasonality of Croatian tourism through investments

that will ensure diversification of the tourist offer and consequently increase the utilization of existing infrastructure. The result of the implementation will be the completion of investments in specific and thematic oriented content in the segment of health and sports tourism.

Description

Activities refer to projects of investment in construction, reconstruction, upgrading and equipping of public and private sector infrastructure providing health and related services, including development of services in the field of health and sports tourism and providing support for the recovery of the tourism economy through specialisation. The principles of investment in RES, energy efficiency and transition to a circular economy will be applied as a horizontal measure. This ensures a reform of the tourist offer from the existing concept of "sun and sea", which means that tourism in the Republic of Croatia mainly relies on coastal tourism and a large number of sunny days during the summer months, according to the concept that ensures the prolongation of the tourist season and achievement of other goals of the reform. The investment is based on legislative reform in the tourism sector, especially amendments to package of tourism laws which introduce the possibility of investing in thematic forms of tourism and create preconditions for significant development of prospective tourist products.

Implementation

Within the framework of this investment, at this moment two calls are foreseen:

(i) Call for grants for public infrastructure in the field of health and sports tourism, worth a total of HRK 1,800,000,000.

Applicants: LC (R)SGU, companies owned by LC (R)SGUs, health resorts, special hospitals and other institutions, organisations and legal entities registered for the provision of health services, health and sports rehabilitation and legal persons in the sports system.
Partners: tourist boards, associations in the health and sports system, etc.
Number of projects/indicator: 24
Average individual value of the project under the call: HRK 50,000,000
Value of aid in individual project: HRK 50,000,000
Eligible activities: Construction, equipping, reconstruction and reconstruction of public infrastructure in the health and sports tourism sector; development of accompanying services and programmes; equipping of infrastructure, other related expenditures.

(ix) Call for grants for the development of health tourism, worth 1.200.000.000 HRK.

Applicants: SMEs registered for tourism services are organisations and legal entities registered for the provision of health services, health and sports rehabilitation, other participants in the tourism and sports sectors, etc.
Partners: SMEs, travel agencies, food producers, etc.
Number of projects/indicator: 26
Average individual value of the project under the call: HRK 96,000,000
Value of support in individual project: HRK 38,400,000
Eligible activities: Construction, equipping, reconstruction and reconstruction of private infrastructure in the health tourism sector; development of accompanying services and programmes; equipping of infrastructure, other related expenditures.

Implementation holder	Implementation of allocation of necessary funds shall be ensured through MINTS bodies, implementation of individual projects shall be carried out under the control of individual MINTS organisational units.
Target Group	Health resorts, special hospitals and other institutions, organizations and societies (SMEs and large entrepreneurs) in the tourism sector registered for the provision of health services, health and sports rehabilitation and legal entities in the sports system.
Estimated cost	HRK 3,000,000,000

Implementation period	2/2020.-8/2026.

C1 .6. R1-I2 Transforming the quality of tourism supply by strengthening the competitiveness of SMEs

Challenge

Lack of specific and thematic oriented content and insufficient vertical connections between stakeholders in the sector in value chains makes it impossible to increase the quality and availability of services and products, as well as the interests of target groups for the Republic of Croatia outside the tourist season (e.g. lack of services in health, nautical, sports, congress and other thematic and sectoral forms of tourism). Also, a large part of the accommodation capacity is made up of small renters, where the quality of their accommodation and services is significantly lower than that provided by other stakeholders, which adversely affects the structure and quality of the accommodation and services. At the same time, there is an insufficient level of computerization of the SME sector in tourism, as well as a low level of transformation towards a green economy.

Objective

It is planned to improve the quality of tourism and catering services of SMEs and small renters, while switching to a circular economy, raising energy efficiency levels and digital transformation of SMEs.

Description

Activities include support for vertical connecting SMEs, including craftsmen and OPGs, into tourist value chains at all destination levels. Measures for the introduction of digital technologies aimed at improving the business operations of SMEs, support for raising the quality of accommodation capacities of small renters and their merging into family and other types of small hotels offering a higher level of quality of accommodation are also planned. The so-called Green charter fleet by investing in the use of renewable energy sources. The investment is based on the legislative reform in the tourism sector which created the preconditions for the implementation of investments in thematic forms of tourism and the development of tourism products with the aim of diversifying the tourist offer and consequently extending the tourist season on the coast and the development of continental tourism which is not so seasonal and does not depend on the concept of “sun and sea”.

Implementation

Within the framework of this investment, the following calls are foreseen at this moment:

(i) Call for transformation of private renters into small family hotels, worth 300.000.000 HRK.

Applicants: Private renters registered in accordance with the Ordinance on providing domestic services, OPGs, companies acting as small renters, other participants in the tourism sector, etc.

Partners: micro, small and medium-sized enterprises in related activities in the tourism value chain, ICT companies, travel agencies, but renters registered in accordance with the Ordinance on providing domestic services, OPGs.

Number of projects/indicator: 100

Average individual value of the project under the call: HRK 7,500,000

Value of aid in individual project: HRK 3,000,000

Eligible activities: Construction, equipping, reconstruction and reconstruction of the infrastructure of small renters, development of accompanying services and programmes; equipping of infrastructure, other related expenditures.

(x) Call for digital transformation of SMEs into tourism, worth 300.000.000 kn.

Applicants: All accommodation service providers in accordance with the Hospitality services Act, all legal entities registered for catering services, all legal entities providing tourist services in accordance with the Tourism services Act, other participants in the tourism sector, etc.

Partners: micro, small and medium-sized enterprises in related activities in the tourism value chain, ICT companies, travel agencies, but renters registered in accordance with the Ordinance on providing domestic services, OPGs.
Number of projects/indicator: 800
Average individual value of the project under call: 500,000 HRK
Value of aid in individual project: HRK 500,000
Eligible activities: purchase of hardware, software and related services, other related expenditures.
(iii) invitation for transformation of charter fleet and cruise ships in national navigation with the aim of using renewable energy sources, with a total value of HRK 100,000,000
Applicants: SMEs providing nautical tourism services
Partners: n/p
Number of projects/indicator: 100
Average individual value of the project under call: HRK 1,500,000
Value of aid in individual projects: HRK 1,000,000
Eligible activities: purchase and installation of equipment, other related expenditure.

Implementation holder	Implementation of allocation of necessary funds shall be ensured through MINTS bodies, implementation of individual projects shall be carried out under the control of individual MINTS organisational units.
Target Group	SMEs (including craftsmen and OPGs) and other stakeholders in value chains.
Estimated cost	HRK 800,000,000
Implementation period	2/2020.-8/2026.

C1 .6. R1-I3 Strengthening the capacity of the system for resilient and sustainable tourism

Challenge

Low level of qualifications of human capacities and high seasonality in employment lead to a decrease in the quality of the tourist service, and hence the tourist offer itself.
The 2019 employers Survey found numerous difficulties in finding workers, mostly expressed by employers from the activity of providing accommodation and preparing and serving food (the tourism and catering sector). According to employers' perception, the most prevalent difficulties in recruitment were “disinterest or lack of motivation of candidates” (said 51% of surveyed employers, “lack of candidates with the required work experience” (said 46% of surveyed employers), and the next two difficulties were equally represented in 38% of surveyed employers (“lack of candidates with the required education” and “lack of candidates willing to work for the offered salary”). The share of employers seeking workers increased from 73% in 2016 to 79% of surveyed employers in 2019.
Also, 3999 pupils were enrolled in the school year 2020/2021. in the tourism and catering professions, which amounts to 10.24% in relation to the total number of enrolled pupils. Looking at the period from 2013/2014 to 2020/2021., there is a trend of decline in the number of students enrolled in tourism and hospitality professions of 20.42%, which in the last 2 years has nevertheless been halted by numerous measures and incentives at the national level, but this is still not nearly enough quality labour force, which decides for retraining from other sectors or additional education in the sector itself.
The level of involvement of employees in lifelong learning programmes in the Republic of Croatia is only 2% and is among the lowest in Europe. Since it has generally been shown in Europe that the participation rate in lifelong learning is inversely proportional to the level of formal education, and that in the HR in tourism and catering, employees are mostly those with medium (55%) or lower qualifications (33%), it is assumed that participation in lifelong education of employees in tourism and catering is below the already low national

average.

Objective

It is necessary to increase the quality of tourist offer by strengthening the capacity in tourism and increasing the number of established value chains. The result will be the improvement of the educational qualification of human capacities in tourism by investing in the development and implementation of educational programs at all levels and the preconditions for establishing value chains have been created.

Description

Activities include the development and implementation of professional training, skills building and the development of professional potential in tertiary education, scholarships, support to entrepreneurs and other education sectors, etc. specifically aimed at raising the quality of tourism products and services. Activities aimed at increasing competitiveness and production specialization of tourist destinations, tourist community systems, promotion of key tourist products in the most important tourist markets, as well as activities in the segment of institutionalization of destination management concept, which is the basis for establishing destination value chains with a focus on raising the quality of tourist products of tourist destinations at all levels, where the participation of entrepreneurs, TZs and other stakeholders in tourist value chains will be facilitated by digital technologies. In addition, a grant scheme for the involvement of stakeholders in tourist value chains will be elaborated.

Implementation

Within the framework of this investment, three calls are currently foreseen:

(i) Direct allocation to MINTS for activities to strengthen human resources in tourism, worth a total of HRK 112,500,000.

Applicants: MINTS

Partners: CES, HTZ

Number of projects/indicator: 1500 participants in adult education programmes, 1000 scholarships.

Average individual value of the call project:

The value of the aid in the individual project:

Eligible activities: activities of strengthening human resources in tourism with the aim of encouraging resilience in tourism business, with the aim of encouraging sustainable and green business (development and implementation of educational programs/allocation of vouchers, scholarships), etc.

(xi) Direct allocation for strengthening the institutionalization of the concept of destination management with the aim of establishing destination value chains, worth a total of HRK 62,500,000.

Applicants: MINTS

Partners: HTZ, the system of tourist boards (RMO and DMO).

Number of projects/indicators: 1 developed ICT system, 1 prepared document with recommendations for strengthening institutionalization of destination management concept, 1000 students of education for DMO (employees from TZ system).

Eligible activities: Strengthening the institutionalization of the concept of destination management; developing an application solution to support destination management; developing and implementing educational programmes for destination management.

(xii) Direct allocation for raising the quality of tourist products and promotion in the most important broadcasters, worth 225.000.000 HRK

Applicants: HTZ.

Partners: system of tourist boards (RMO and DMO).

Number of projects/indicator: 3 promotional campaigns.

Eligible activities: development of marketing plan; development of creative solution; production of promotional videos and ads; rental of media space.

Implementation holder	Implementation of allocation of necessary funds shall be ensured through MINTS bodies, implementation of individual projects shall be carried out under the control of individual MINTS organisational

	units.
Target Group	Citizens, pupils, students, teachers, employees in enterprises in the tourism sector, sports and tourism community workers and civil servants, SMEs, large companies and other stakeholders.
Estimated cost	HRK 400,000,000
Implementation period	1/2021.-12/2023.

4. Green and digital dimension of the component

C1 .1. Enhancing competitiveness and green transition of the economy

(a) contribution to the green transition

In order to achieve the green transition and climate neutrality of the economy, it is necessary to provide sources of financing for economic operators that will comply with the principle of “not causing substantial harm” of Regulation (EU) 2019/2088 and to enable and encourage the faster adoption of technologies and business processes necessary to adapt to climate change and decarbonise industry.

Encouraging the research and development of green solutions will address, inter alia, the environmental objectives of Regulation (EU) No 2020/852 of the European Parliament and of the Council of 18 June 2020 establishing a framework for facilitating sustainable investment and amending Regulation (EU) 2019/2088.

Through the implementation of the concept known as regulatory safe testing environment (“regulatory Sandbox”), the possibility of easier testing of new innovative technologies related to environmental protection services will be ensured.

(b) contribution to digital transition

Through productive investments in entrepreneurs, including start-ups, economic diversification and shift towards knowledge to intensive sectors will be encouraged.

In order to stimulate and accelerate the integration of digital technology into enterprises, which is currently weaker than the EU average, further and accelerated digitalisation of business and development of digital competences will be encouraged.

By introducing new and improving existing infrastructure, it will contribute to the development of digital solutions and new production processes and job creation.

The continuation of work on removing administrative barriers will identify and address potential administrative barriers that slow down/hamper innovation in order to accelerate the implementation of innovative solutions.

C1 .2. Energy transition for a sustainable economy

(a) contribution to the green transition

The Republic of Croatia has been working intensively over the past ten years on decarbonization and greening of the energy sector. Accordingly, the new Energy Development Strategy of the Republic of Croatia until 2030 was adopted in February 2020 with a view to 2050, which intensifies precisely green energy with a special emphasis on the growth of energy from renewable sources. Furthermore, the Strategy promotes the growth of renewable energy sources in other sectors as well as the improvement of energy efficiency. In order to achieve this, it is necessary to further develop, revitalise and digitize the power system which will be able to receive a large amount of energy from renewable sources, thus ensuring the production and use of green energy throughout the Republic of Croatia. Green transition will also be achieved by encouraging alternative transport in terms of infrastructure building and renewable energy placement and by increasing efficient use of energy, especially in buildings and industry. The aim is especially to develop the use of renewable sources in the heating sector as an energy efficiency measure. This will ensure a green transition that will, on the one hand, enable reduced energy consumption, and on the other hand ensure that the required energy is renewable and without CO2 footprints.

(b) contribution to digital transition

The energy sector also expects digitalisation, in particular of transmission networks, as this will ensure a better balancing of the electricity transmission system from generation point to consumption place.

C1 .3. Improving water management and waste management

(a) contribution to the green transition

In the field of water management, the Programme for Development of public waste water drainage and the Programme for Development of public water supply contribute to the green transition in the amount of 100%, which is evident through improvement of water protection and rational use of water resources, and will be achieved through implementation of water utility projects and implementation of water utility sector reform. The disaster risk reduction programme in the water management sector contributes to a green transition of 40%.

(b) contribution to digital transition

In the field of water management, the Programme for the Development of public waste water drainage and the Programme for the Development of public water supply contribute to the digital transition in the amount of 40%, which will be achieved by implementing water utility projects which include digitisation measures in terms of introduction of supervisory and management systems, establishing accurate records of data by acquiring measuring devices on water projects, loss management, etc.

C1 .4. Development of a competitive, energy-sustainable and efficient transport system

(a) contribution to the green transition

Transport sector reforms and investments significantly contribute to the green transition and 3 out of 4 proposed measures 100% contribute to the green transition, while the remaining measure contributes 40% to the green transition, which fulfils the set objective of contribution of 37% of allocated funds for the green transition.

The EC's new proposal is to reduce greenhouse gas emissions by 50% by 2030, which has so far been the target for 2050 and will be further discussed. Transport, energy, building and agriculture will play a key role in achieving this goal and the objective can be achieved with great efforts, for example given the available technology and the state of the fleet.

Thus, in the road sector, the set objective cannot be achieved without at least 50% of non-emission vehicles in the total fleet, which is problematic considering that the average age of a passenger car in the RC is 13 years, while electric cars are still tens of times more expensive than used conventional cars. An additional problem is the negative impact of the CIVIL-19 pandemic on passenger transport. Consequently, the measures for modernising a sustainable public transport system and establishing new traffic processes in all aspects of transport and autonomous mobility systems, as well as investments resulting from them, will greatly contribute to the necessary reduction of emissions.

(b) contribution to digital transition

The proposed Regulation establishing the RDF COM (2020) 408 sets binding targets for contribution to the digital transition at a minimum of 20% of the total allocated allocations. In addition to contributing greatly to the green transition, reforms and investments in the transport sector contribute to the digital transition. The digitisation of all aspects of transport is defined by the coefficient of 100% in Annex III. Proposal for a Regulation. The establishment of new transport processes in all aspects of transport and the development of electrical mobility contributes 100% to digital targets and thus contributes significantly to a minimum of 20% of the total allocated allocation for digital targets.

With the development of electrical mobility, as well as with the introduction of a new electronic toll collection system, digital component systems are developed and, for example, through the collection of data on traffic flows, they directly contribute to the development of intelligent transport systems, the improvement of traffic and mobility management, which has positive effects on co $_2$ emissions and contribute to the green

transition.

C1 .5. Improving the use of natural resources and strengthening the food supply chain

(a) contribution to the green transition

The contribution of the reform “improving the use of natural resources and strengthening the food supply chain” to the green transition will be achieved by investing more sustainable and efficient technological processes in agriculture. The focus on short supply chains through investments in logistics centres will result in the reduction of long-distance transport, and hence the reduction of greenhouse gas emissions in the sector. Improving the food donation system will provide important preconditions for redistributing excess food in the food chain, i.e. preventing food waste generation, which annually generates about 8% of global greenhouse gas emissions. Aside from pressure on the environment, food waste is a waste of natural resources.

(b) contribution to digital transition

Direct contribution of the reform “improving the use of natural resources and strengthening the food supply chain” to the digital transition will be achieved through targeted projects to connect existing databases, facilitate access to information and on-line services for users, develop new digital public services of agricultural administration, and quickly implement and transparency in procedures. Digitisation of the food donation system will enable faster and more efficient communication between all stakeholders in the system, better matching supply and needs and increasing the amount of food donated.

C1 .6. Development of sustainable, innovative and resilient tourism

(a) contribution to the green transition

The contribution of measures related to the green transition concept is included in the reform “Development of Sustainable, innovative and resilient Tourism” to achieving the green transition target is 40%. Investments provide for a combination of infrastructure and soft measures within projects which stipulate the obligation of beneficiaries to comply with the green transition objectives by applying the principles of energy efficiency, using renewable energy sources and ensuring the transition to a circular economy. Detailed commitments of beneficiaries will be precisely identified within the call for funds indicating that the total contribution to this objective will be 40%.

(b) contribution to digital transition

Digital transition represents an important segment of the reform “Development of Sustainable, innovative and resilient Tourism” and has been added as a horizontal activity in all planned investments, contributing 40% to this goal. Within each investment, digital transformation is envisaged which includes introduction of ICT solutions which will ensure capacity building and increased efficiency of all stakeholders in the sector. Especially highlighted are SMEs' projects that will be specifically related to the introduction of ICT technologies, as well as public sector projects that include strengthening the capacity of the sector through digital transformation of the system of tourist boards, MINTS and other stakeholders with the aim of increasing the efficiency and competitiveness of the sector.

5. Milestones for the implementation of reforms and investments

C1 .1. Enhancing competitiveness and green transition of the economy	
(a) qualitative indicators	
- by the end of 3Q/2021, a support programme from THE RRF source has been developed and published; at the level of the call for Funds, 50% of the investments of entrepreneurs will be directed towards activities that do not harm the environment and increased private sector investments towards green and digital technologies	C1.1.R1-I1
- by the end of 2Q/2022, creation, adoption and implementation of financial instruments — loans	C1.1.R1-I2
- by the end of 2Q/2022, creation, adoption and implementation of the financial instrument — mezzanine loans	C1.1.R1-I3
- by the end of 2Q/2022, creation, adoption and implementation of financial instruments — guarantees	C1.1.R1-I4
- by the end of 2021, a programme of financial instrument from THE RDF source has been developed and published	C1.1.R1-I5
- by the end of 2021, a call for grants for large enterprises in the tourism sector has been developed and published	C1.1.R1-I5
- by 3Q/2021, a “Umbrella” guarantee fund from THE RRF source has been developed and published.	C1.1.R1-I6
- by 3Q/2021, credit programmes from RDF sources have been developed and published	C1.1.R1-I7
- by 3Q/2021, a RDF fund of interest rate and fee subsidies was established	C1.1.R1-I7
- by the end of 3Q/2021, a premium subsidy fund per export insurance business was established	C1.1.R1-I8
- by the end of 3Q/2022, a budget was established to increase risk capital funds to be used to increase or reach the maximum size of risk capital funds active on the Croatian market	C1.1.R1-I9
- by the end of 3Q/2021, a technology transfer fund was established in cooperation with the EIF and the SID Bank. HBOR will participate in the fund with a total investment commitment of 10 million EUR (75 million HRK), and minimum target fund size is 40 million EUR	C1.1.R1-I10
- by the end of 2023, prepared programmes and launched calls for grants through the innovation development support package	C1.1.R2-I1
- increased expenditures of the business sector for research, development and innovation	C1.1.R2-I1
- new annual tenders announced by the end of 3Q/2021, 2022, 2023 and 2024	C1.1.R2-I2
- by the end of 2Q/2021, a public call has been published to support the establishment and preparatory activities of EDIH and DIH in the period 2021-2022.	C1.1.R2-I3
- by the end of 4Q/2024, for administrative relief, upgrading and development of it systems; developed new e-services; electronic services related to e-business system; implemented education on the use of new functionalities	C1.1.R3-I1
- by the end of 4Q/2022, the regulatory Policy Strategy and Action Plan for the organisation, planning, coordination and monitoring of the implementation of relevant tools and methodologies have been adopted	C1.1.R3-I2
- by the end of 4Q/2023, a digital platform for the ICJ test was created	C1.1.R3-I2

- by the end of 1Q/2022, a new digital platform for support of internationalisation (HGK) was established	C1 .1. R3-I3
- by the end of 4Q/2025, a digitised holdings of audio-visual capital works	C1.1.R4-I2
- by the end of 4Q/2023, a media verification system was established	C1.1.R4-I3
(b) quantitative indicators	
- by the end of 2024, 250 projects were contracted	C1.1.R1-I1
- by the end of 2Q/2026, 7,000 loans (4 billion kuna)	C1.1.R1-I2
- by the end of 2Q/2026, 700 loans (HRK 700 million)	C1.1.R1-I3
- by the end of 2Q/2026, 500 guarantees	C1.1.R1-I4
- by the end of 2Q/2026, HRK 1.5 billion were newly approved	C1.1.R1-I5
- by the end of 2Q/2026, 90 projects of large companies in the environmental, energy efficiency and RES segment were financed	C1.1.R1-I5
- by the end of 2Q/2026, HRK 1.5 billion were newly approved	C1.1.R1-I6
- by the end of 2Q/2026, HRK 3.7 billion in loans for investments and working assets had been newly granted	C1.1.R1-I7
- by the end of 2Q/2026, the volume of interest rate subsidies in the amount of HRK 750 million	C1.1.R1-I7
- by the end of 4Q/2021, an increase of HRK 900 million in the amount of the export guarantee fund (EUR 120 million)	C1.1.R1-I8
- by the end of 4Q/2021, payment of HRK 300 million to the premium subsidy fund per products of export insurance was made	C1.1.R1-I8
- by the end of 2Q/2026, 3 billion kuna of new transactions within the guarantee fund of export insurance were approved	C1.1.R1-I8
- by the end of 2Q/2026, investment in venture capital funds up to HRK 475 million	C1.1.R1-I9
- by the end of 8/2026, an investment of a minimum amount of EUR 15 million in projects for technology transfer/commercialisation of scientific research by the established fund in the territory of the Republic of Croatia	C1.1.R1-I10
- by 2024, 5 public calls for grants published through the innovation development support package	C1.1.R2-I1
- Private investment in research, development and innovation corresponding to public support, at least HRK 1.5 billion	C1.1.R2-I1
- Number of supported enterprises	C1.1.R2-I1
- by the end of 8/2026, 60 contracted projects per public call (240 for 4 public calls)	C1.1.R2-I2
- number of EDIH and DIH supported minimum 10.	C1.1.R2-I3
- by the end of 1Q/2022, for administrative relief: 65 implemented activities; 10 digitised procedures	C1.1.R3-I1
- by the end of 4Q/2025, 100 enterprises active in the field of cultural and creative industries will receive support to strengthen resilience, competitiveness and innovation	C1.1.R4-I1
- by the end of 4Q/2025, 150 audiovisual works were restored and digitised	C1.1.R4-I2
- by the end of 4Q/2025, 100 projects were implemented aimed at increasing media literacy, supporting quality journalism and adapting media services to the digital environment	C1.1.R4-I3
C1 .2. Energy transition for a sustainable economy	
(a) qualitative indicators	
- by the end of 1Q/2021, a body was established to supervise the implementation of the programme of revitalisation, construction and digitisation of the energy system and the accompanying infrastructure for decarbonisation of the energy sector	C1.2.R1

- by the end of 3Q/2021, harmonised EU legislation with the legislation of the Republic of Croatia which will enable full implementation of the “winter package” and decarbonisation of energy in all sectors	C1.2.R1
- by the end of 2Q/2026, a programme for the revitalisation, construction and digitisation of the energy system and the accompanying infrastructure for the decarbonisation of the energy sector was implemented	C1.2.R1-I1
- by the end of 2Q/2026, the Energy efficiency and heating promotion Programme for the decarbonisation of the energy sector was implemented	C1.2.R1-I2

(b) quantitative indicators

- by the end of 2Q/2026, at least 6 hydrogen filling plants were built for passenger cars, buses and heavy transport	C1.2.R1-I3
- by the end of 2Q/2026, a bio-refinery was built	C1.2.R1-I4

C1 .3. Improving water management and waste management

(a) qualitative indicators

- by the end of 4Q/2022, subordinate legislation was adopted: the Regulation on services areas, the Regulation on valuation of performance of business of water service providers, the Regulation on methodology for determining the prices of water services and the Regulation on special conditions for performing the activities of water services, which will carry out the reform of public water service providers	C1.3.R1
- by the end of 4Q/2022, works contracts were concluded for water utility sector projects (303)	C1.3.R1-I1
- by the end of 4Q/2022, works contracts were concluded for projects of the water protection sector (25)	C1.3.R1-I3
- by the end of 4Q/2022, works contracts for spaying protection projects have been concluded (2)	C1.3.R1-I3
- by the end of 1Q/2021, a new waste Management Act was adopted aimed at waste prevention, preparation for reuse and recycling in line with the circular economy concept and the European Green Plan.	C1.3.R2
- by the end of 2Q/2021, the revised waste Management Plan of the Republic of Croatia for the period 2017-2022 in accordance with the new Action Plan for Circular economy	C1.3.R2

(b) quantitative indicators

- by the end of 2Q/2026, 476,846 equivalents of inhabitants use an improved waste water treatment system	C1.3.R1-I1
- by the end of 2Q/2026, 176.397 inhabitants have access to improved water supply	C1.3.R1-I1, C1.3.R1-I2
- by the end of 2Q/2026, 526 water pumps were installed with necessary equipment to record the quantities of water affected	C1.3.R1-I2
- by the end of 2Q/2026, 25,000 inhabitants benefit from flood protection measures	C1.3.R1-I3
- by the end of 2Q/2026, the degree of salinity of water in the water course in the small water regime was reduced to less than 0.75 DS/m	C1.3.R1-I3
- by the end of 2Q/2026, the degree of soil salinity in the rizosphere in the vegetation period was reduced to less than 2 DS/m	C1.3.R1-I3
- by the end of 2Q/2026, the share of municipal waste sent for disposal to 30% was reduced	C1.3.R2
- by the end of 2Q/2026, the rate of recycling of municipal waste increased to 40%	C1.3.R2

C1 .4. Development of a competitive, energy-sustainable and efficient transport system

(a) qualitative indicators

-	by the end of 2Q/2021, amendments to the Road Act were adopted	C1.4.R1
-	by the end of 2Q/2025, a new electronic toll collection system has been established (1)	C1.4.R1-I1
	by the end of 2Q/2021, a sectoral policy letter for the railway sector was adopted	C1.4.R2
-	by the end of 4Q/2025, a Signalling and Security system was installed and commissioned on the Stari-Knin-Split section	C1.4.R2-I2
-	by the end of 3Q/2021, a new coastal line Transport Act was adopted	C1.4.R3
-	by the end of 4Q/2022, a new law on Maritime Good and seaports was adopted	C1.4.R3
-	by the end of 4Q/2023, two-way navigation is enabled for boats and yachts in the waterway attractive gaz	C1.4.R3-I4
-	by the end of 2Q/2026, study and project documentation was prepared for sections of the special risk of the Sava waterway (from Račinovac to Sisak)	C1.4.R3-I8
-	by the end of 2Q/2026, study and project documentation was prepared for sections of the special risk of the river Drava waterway from rkm 0 to rkm 12	C1.4.R3-I9
-	by the end of 2Q/2026, public service contracts (PSC) were concluded (30)	C1.4.R4

(b) quantitative indicators

-	by the end of 2Q/2025, 86.5 km of state road D12 was built	C1.4.R1-I2
-	by the end of 2Q/2026, 8.2 km of state road D8 was built	C1.4.R1-I3
-	by the end of 2Q/2026, 22 km of two-track unelectrified railway on the Kutina-Novska subsection was constructed and reconstructed	C1.4.R2-I1
-	by the end of 4Q/2025, 96.54 km of railway was reconstructed on the Cakovec-Varazdin-Koprivnica-Pitomaca section	C1.4.R2-I3
-	by the end of 4Q/2025, 94 km of railway track on Zadar-Knin section was reconstructed	C1.4.R2-I4
-	by the end of 4Q/2025, 5 bottlenecks were removed on sections with an immediate speed limit of 60 km/h	C1.4.R2-I5
-	by the end of 4Q/2025, the reconstructed and modernised two-track railway on the Zagreb-Zapresic-Dobova section, 17 km long	C1.4.R2-I6
-	by the end of 4Q/2025, the existing and constructed second track on the entire Krizevac-Koprivnica railway section - state border 42.6 km long	C1.4.R2-I7
-	by the end of 4Q/2025, 5 ports open to public transport were modernised/ reconstructed	C1.4.R3-I1
-	by the end of 4Q/2024, 1 berth was built for the transhipment of energy in the port of Ploče	C1.4.R3-I2
-	by the end of 4Q/2025, 4000 public utility berths were constructed and/or reconstructed	C1.4.R3-I3
-	by the end of 4Q/2025, 19 designated search and rescue vessels were procured	C1.4.R3-I5
-	by the end of 2Q/2026, 4 ro-ro passenger ships were procured	C1.4.R3-I6
-	by the end of 2Q/2026, the purchased/renovated inland waterway fleet-30 craft	C1.4.R3-I7
	by the end of 4Q/2025, 120 alternative-powered buses were purchased	C1.4.R4-I1
-	by the end of 4Q/2025, 30 trams were purchased	C1.4.R4-I2

-	by the end of 4Q/2025, 9 bus stations were constructed/modernised	C1.4.R4-I3
-	by the end of 4Q/2024, 1 photovoltaic power plant with a capacity of 610 kW was built at Zadar Airport	C1.4.R5-I1
-	by the end of 4Q/2023, 3 electric filling plants were built	C1.4.R5-I2
-	by the end of 2Q/2026, a reconstructed passenger building at Osijek Airport	C1.4.R5-I3
-	by the end of 2Q/2026, the purchase of at least 500 new alternative-powered vehicles has been co-financed	C1.4.R5-I4
-	by the end of 2Q/2026, 500 bottlers were built for alternative-driven vehicles	C1.4.R5-I4
-	by the end of 2Q/2026, 4 ro-ro passenger ships were procured	C1.4.R5-I4
-	by the end of 2Q/2026, the purchased/renovated inland waterway fleet-30 craft	C1.4.R5-I4

C1 .5. Improving the use of natural resources and strengthening the food supply chain

(a) qualitative indicators

-	type projects of logistics and distribution infrastructure elaborated by the end of 4Q/2021	C1.5.R1-I1
-	by the end of 4Q/2025, education in the field of management and finance was carried out and support was provided for the work of producer organisations connected to the logistics distribution centre	C1.5.R1-I1
-	by the end of 1Q/2025 a system for the identification of fruits and vegetables with a recognizable mark was established	C1.5.R1-I1
-	by the end of 4Q/2021, a new land consolidation Act was adopted	C1.5.R2
-	by the end of 4Q/2022, laboratory equipment for monitoring the state of agricultural land was procured and programming solution (application) was contracted for land monitoring purposes	C1.5.R2-I2
-	by the end of 2Q/2023, a permanent monitoring (monitoring) programme for the state of agricultural land has been developed	C1.5.R2-I2
-	by the end of 4Q/2021, an organisational unit was established for the implementation and management of digital transformation projects MPOL	C1.5.R3
-	by the end of 3Q/2021, the Action Plan for the Digital transformation of public services of the Agricultural Administration was adopted	C1.5.R3-I1
-	by the end of 4Q/2025, a traceability system for agricultural products has been established	C.1.5.R3-I3
-	by the end of 4Q/2021, 2022 and 2023, an informative and educational campaign on excessive food waste lasting one month each year has been carried out.	C1.5.R4
-	by the end of 2Q/2022, technical solution for IT e-donation system was upgraded and internet platform for food waste prevention started	C1.5.R4
-	by the end of 4Q/2023, the support Programme for infrastructural equipping of intermediaries in the food donation chain was implemented (Programme published and financial resources paid out)	C1.5.R4-I1
-	by the end of 2Q/2024, a food bank was established and infractively equipped	C1.5.R4-I1

(b) quantitative indicators

-	by the end of 4Q/2023, a minimum of 1 logistics and distribution infrastructure facility was constructed and equipped	C1.5.R1-I1
-	by the end of 2Q/2026, 5 logistics and distribution infrastructure facilities were constructed and equipped	C1.5.R1-I1
-	by the end of 1Q/2026, land surface land consolidation was carried out on	C1.5.R2-I1

	20,000 hectares	
-	by the end of 4Q/2025, 90 permanent monitoring stations were established for the condition of agricultural land	C1.5.R2-I3
-	by the end of 3Q/2025, all public services recorded in the Action Plan are digitally publicly available	C1.5.R3-I1
C1 .6. Development of sustainable, innovative and resilient tourism		
(a) qualitative indicators		
-	by the end of 1Q/2023, a functional ICT solution for value chains in tourism was established (1)	C1.6.R1-I3
-	by the end of 4Q/2023, promotional campaigns were carried out to raise the level of competitiveness of the destination (3)	C1.6.R1-I3
(b) quantitative indicators		
-	by the end of 2Q/2026, the number of financed investment projects in the development of health and sports tourism in the public and private sectors (50)	C1.6.R1-I1
	by the end of 2Q/2026, the number of SME and lessee projects realized in the quality-raising segment (100), the number of digital technology deployment projects (800), the number of charter fleet greening projects (100) and the number of enterprises involved in value chains (100)	C1.6.R1-I2
-	by the end of 4Q/2023, the number of participants in educational programmes (500)	C1.6.R1-I3
-	by the end of 4Q/2023, the number of occupational standards adopted (1), qualifications standards (1) and the number of study programmes in the field of gastronomy (1)	C1.6.R1-I3
-	by the end of 4Q/2023, 1,000 financial incentives were granted for pupils and students enrolled in tourism programmes	C1.6.R1-I3
-	by the end of 4Q/2023, the number of employees (with employers) who attended a lifelong learning programme for green, smart, sustainable and resilient tourism (500)	C1.6.R1-I3

6. Financing and costs

C1. Economy	
Total estimated investment value for the component (HRK)	**61.269.776.892**
C1 .1. Enhancing competitiveness and green transition of the economy	
Total estimated investment value for the subcomponent (HRK)	**25.842.250.000**

Reforms and investments that imply certain costs		Implementation period	Estimated cost
C1 .1. R1-I1	Grant investments in the production and technological capacities of enterprises	2021. 2024.	6.000.000.000
C1 .1. R1-I2	Liquidity support and investment investments of micro, small and medium-sized enterprises in the form of economic recovery loans and fostering digital and green transition	2021. 2026.	4.000.000.000
C1 .1. R1-I3	Mezzanine financial instrument loan for small business entities for economic recovery and fostering digital and green transition	2021. 2026.	700.000.000
C1 .1. R1-I4	Liquidity support and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies	2021. 2026.	1.200.000.000
C1 .1. R1-I5	Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects	4Q/021. 1Q/2026.	2.300.000.000
C1 .1. R1-I6	RRF “Umbrella” guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.	3Q/2021. 1Q/2026.	1.500.000.000
C1 .1. R1-I7	RRF favorable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of HBOR financing + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes	3Q/2021. 2Q/2026.	4.500.000.000
C1 .1. R1-I8	Encouraging the internationalization of the Croatian economy by strengthening the guarantee fund for export insurance and export credit financing activities	3Q/2021. 2Q/2026.	1.200.000.000
C1 .1. R1-I9	Investment in equity and quasi-equity financing instruments (PE)	by the end of 2026.	up to 475,000,000
C1 .1. R1-I10	Strengthening of equity activities in RDI - investment in regional technology transfer fund	by the end of 2026.	75.000.000
C1 .1. R2-I1	Fostering investments in research, development and innovation	2021. 2026.	3.000.000.000

C1 .1. R2-I2	Increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation	7/2021 8/2026.	76.000.000
C1 .1. R2-I3	Establishment and implementation of activities of national digital innovation centres (DIH and EDIH)	7/2021. 8/2026.	40.000.000
C1 .1. R3-I1	Implementation of administrative and para-fiscal relief measures for the economy	2021. 2024.	40.000.000
C1 .1. R3-I2	Improving the system of economic impact assessment	2021. 2023.	30.000.000
C1 .1. R3-I3	Creation of a support system for investments and internationalization of business Croatia	1/2022. 12/2025.	56.250.000
C1 .1. R4-I1	Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epide19	3/2021. 12/2025.	200.000.000
C1 .1. R4-I2	Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and developing modernised production capacities for new content	3/2021. 12/2025.	350.000.000
C1 .1. R4-I3	Programmes for stimulating media literacy, investing in quality journalism and strengthening independent media	1/2021. 12/2025.	100.000.000

C1 .2. Energy transition for a sustainable economy			
Total estimated investment value for the subcomponent (HRK)			**7.738.287.500**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C1 .2. R1-I1	Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector	1/2021. 6/2026.	4.471.412.500
C1 .5. R1-I2	Encouraging energy efficiency, heating and renewable energy sources for decarbonisation of the energy sector	1/2021. 6/2026.	1.237.812.500
C1 .2. R1-I3	Use of hydrogen and new technologies	1/2022. 6/2026.	779.062.500
C1 .2. R1-I4	Biofuels for advanced biofuels production Sisak	6/2022. 3/2025.	1.250.000.000

C1 .3. Improving water management and waste management			
Total estimated investment value for the subcomponent (HRK)			**11.357.201.892**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**

C1 .3. R1-I1	Programme for Development of public waste water drainage	1/2020. 6/2026.	6.318.313.545
C1 .3. R1-I2	Programme for Development of public water supply	1/2020. 6/2026.	1.811.200.000
C1 .3. R1-I3	Disaster risk reduction Programme in the water management sector	1/2020. 6/2026.	1.577.688.347
C1 .3. R2-I1	Waste disposal reduction Programme	1/2020. 6/2026.	1.500.000.000
C1 .3. R2-I2	Programme for remediation of closed landfills and locations contaminated by hazardous waste	1/2020. 6/2026.	150.000.000
C1 .4. Development of a competitive, energy-sustainable and efficient transport system			
Total estimated investment value for the subcomponent (HRK)			**11.056.037.500**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C1 .4. R1-I1	Electronic toll collection system	1/2021. 6/2025.	1.000.000.000
C1 .4. R1-I2	Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)	1/2021. 6/2025.	260.000.000
C1 .4. R1-I3	Fast road from Kasttel Kambelovac node to Vučevica	6/2022. 5/2026.	850.000.000
C1 .4. R2-I1	Reconstruction of the existing and construction of the second track on the long Selo-Novska section, subsection Kutina-Novska (Phase D)	9/2022. 6/2026.	1.060.000.000
C1 .4. R2-I2	Modernisation of the M604 Stari-Knin-Split railway	6/2021. 12/2025.	412.000.000
C1 .4. R2-I3	Project for the restoration of railway infrastructure on railway lines R201 and R202 on the section Čakovec-Varazdin-Koprivnica-Pitomaca	6/2021. 12/2025.	782.000.000
C1 .4. R2-I4	Reconstruction of the existing Zadar-Knin railway	6/2021. 12/2025.	300.000.000
C1 .4. R2-I5	Removal of “bottlenecks” on railway infrastructure	6/2021. 12/2025.	120.000.000
C1 .4. R2-I6	Modernization of the Zagreb node	6/2021. 12/2025.	750.000.000
C1 .4. R2-I7	Reconstruction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border	4/2021. 12/2025.	100.000.000
C1 .4. R3-I1	Programme for the modernisation of ports open to public transport	4/2021. 12/2025.	340.000.000
C1 .4.	Construction of specialized energy links in	12/2021.	187.500.000

R3-I2	the port of Ploče	12/2024.	
C1 .4. R3-I3	Construction and reconstruction of municipal berths	6/2021. 12/2025.	400.000.000
C1 .4. R3-I4	Project of expansion and deepening of the waterway attractive gaz	3/2021. 12/2023.	17.000.000
C1 .4. R3-I5	Reconstruction of search and rescue fleet	3/2021. 12/2025.	107.000.000
C1 .4. R3-I6	Purchase/construction of passenger ships for the coastal line transport	12/2021. 6/2026.	1.000.000.000
C1 .4. R3-I7	Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increasing the safety of navigation	3/2021. 6/2026.	88.000.000
C1 .4. R3-I8	Arranging the sections from the special risk of the Sava River waterway (from Račinovac to Sisak)	3/2021. 6/2026.	34.312.500
C1 .4. R3-I9	Arranging the sections of the special risk of the river Drava waterway from rkm 0 to rkm 12	3/2021. 6/2026.	11.225.000
C1 .4. R4-I1	Purchase of alternative-powered vehicles	3/2021. 12/2025.	700.000.000
C1 .4. R4-I2	Modernisation of tram infrastructure	3/2021. 12/2025.	700.000.000
C1 .4. R4-I3	Modernisation of bus stations	9/2021. 12/2025.	150.000.000
C1 .4. R5-I1	Modernisation and greening of Zadar Airport infrastructure	6/2021. 12/2024.	70.000.000
C1 .4. R5-I2	Greening and digitization of Pula Airport	4/2020. 12/2023.	7.000.000
C1 .4. R5-I3	Reconstruction of passenger building at Osijek Airport	12/2021. 6/2026.	30.000.000
C1 .4. R5-I4	Co-financing programme for the purchase of new alternative fuels vehicles and the development of alternative fuels infrastructure in road transport	10/2021. 6/2026.	1.580.000.000
C1 .5. Improving the use of natural resources and strengthening the food supply chain			
Total estimated investment value for the subcomponent (HRK)			**1.076.000.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C1 .5. R1	Establishment of a network of logistical infrastructure to strengthen the production chain in the fruit and vegetables sector	3/2021. 6/2026.	10.000.000
C1 .5. R4	Improving the food donation system	3/2021. 12/2024.	2.000.000

C1 .5. R1-I1	Construction and equipping of logistically distributed fruit and vegetables centres	3/2021. 6/2026..	640.000.000
C1 .5. R2-I1	Consolidation of agricultural land	12/2021 3/2026.	270.000.000
C1 .5. R2-I2	Permanent monitoring programme for agricultural land	6/2021. 12/2025.	18.000.000
C1 .5. R3-I1	Digital transformation of public services in agriculture	2/2020. 9/2025.	21.000.000
C1 .5. R3-I2	Smart agriculture	2/2020. 1/2025.	58.000.000
C1 .5. R3-I3	Traceability system	2/2020. 12/2025.	19.000.000
C1 .5. R4-I1	Infrastructural equipping of food banks and intermediaries in the food donation chain	6/2021. 6/2024.	38.000.000
C1 .6. Development of sustainable, innovative and resilient tourism			
Total estimated investment value for the subcomponent (HRK)			**4.200.000.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C1 .6. R1-I1	Diversification and specialization of Croatian tourism through investments in the development of health and sports tourism	2/2020. 8/2026.	3.000.000.000
C1 .6. R1-I2	Transforming the quality of tourism supply by strengthening the competitiveness of SMEs	2/2020. 8/2026.	800.000.000
C1 .6. R1-I3	Strengthening the capacity of the system for resilient and sustainable tourism	1/2021. 12/2023.	400.000.000

4. COMPONENT
PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY

1. Component Description

Policy area		
Public policies Management of EU projects Human resources management Development of skills Digitalisation of public services Management of state property	Decentralisation e-services of local self-government	Judiciary Fight against corruption Prevention of money laundering

General objective

Improving public administration and justice, including digitalisation and good governance practices, in order to unlock the potential of economic growth, development of society and respond to citizens' expectations of building a fair society based on the rule of law, efficiency, efficiency and focus on the needs of every citizen.

Reforms and investments covered by the component

C2 .1. Strengthening the capacity to develop and implement public policies and projects	
Reforms	
C2 .1. R1	Effective and efficient coordination and management of strategic planning system
C2 .1. R2	Strengthening capacities for preparation and implementation of EU projects
Investments	
C2 .1. R1-I1	Strengthening the capacity of the network of coordinators for strategic planning at national and regional level to formulate and implement public policies and projects
C2 .1. R1-I2	Introduction of evidence-based public policy preparation and communication instruments for public policies
C2 .1. R2-I1	Ensuring assistance to beneficiaries in the preparation of tender project and technical documentation
C2 .2. Further improvement of the efficiency of the public administration	
Reforms	
C2 .2. R1	Strengthening and strengthening human resources
C2 .2. R2	Organizational models in public administration
C2 .2. R3	Smart PA – further optimization and digitization of processes
C2 .2. R4	Functional and sustainable local self-government

Investments	
C2 .2. R1-I1	Centralised selection system
C2 .2. R1-I2	Development of digital competences of officials and officials
C2 .2. R1-I3	e-State Experts exam
C2 .2. R2-I1	Development of the HRM system for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services
C2 .2. R2-I2	Introduction of a model for hybrid access to the workplace – smartworking
C2 .2. R3-I1	Digitalisation of public administration procedures
C2 .2. R3-I2	Establishment of single administrative posts — YUM (Phase 1 and 2)
C2 .2. R3-I3	Establishment of digital infrastructure and public administration services by developing a conservation base system
C2 .2. R3-I4	Improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archives network
C2 .2. R4-I1	Further optimisation and decentralisation of LC (R)SGU through support for functional mergers
C2 .2. R4-I2	Further optimisation and decentralisation through e-services of local self-government and further digitalisation of public services
C2 .3. Digital transition of society and economy	
Reforms	
C2 .3. R1	Digital Croatia Strategy and strengthening inter-institutional cooperation and coordination for a successful digital transition of society and economy
C2 .3. R2	Improving interoperability of information systems
C2 .3. R3	Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies
C2 .3. R4	Strengthening connectivity as a basis for digital transition of society and economy
Investments	
C2 .3. R2-I1	Establishment of a central interoperability system
C2 .3. R2-I2	Establishment of an IoT platform at the state and local level
C2 .3. R2-I3	Establishment of data warehouses and business analysis systems
C2 .3. R3-I1	Upgrading of the Shared services Centre
C2 .3. R3-I2	Construction of data centre for public administration and LC (R)SGU of the Republic of Croatia
C2 .3. R3-I3	Strengthening the capacity of police to combat cybercrime
C2 .3. R3-	Establishment of a single contact centre for all e-public services for providing

I4	user support
C2 .3. R3-I5	Consolidation of the health information infrastructure SYSTEM
C2 .3. R3-I6	Digital ID card implementation Project
C2 .3. R3-I7	Investments in national information infrastructure networks
C2 .3. R3-I8	Improving the system of physical planning, construction and state property through digitisation
C2 .3. R3-I9	Outsourcing OF NIAS services for the economy
C2 .3. R3-I10	Development of digital mobile platform
C2 .3. R4-I1	Implementation of projects under the National Framework Programme for the Development of Broadband infrastructure in areas where there is insufficient commercial interest in investment
C2 .3. R4-I2	Preparation and implementation of individual private sector investment projects
C2 .3. R4-I3	Preparation and implementation of the project “Strengthening GSM/TETRA-LTE signal for PPDR services”
C2 .4. Strengthening the framework for the management of state assets	
Reforms	
C2 .4. R1	Improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD corporate governance guidelines in state-owned enterprises
C2 .4. R2	Strengthening infrastructure and human capacity to implement monitoring of corporate governance in state enterprises and projects
C2 .4. R3	Continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of portfolios of companies not of special interest to the Republic of Croatia
C2 .4. R4	Optimisation of real estate management in state ownership
Investments	
/	
C2 .5. Improving the efficiency of the judicial system	
Reforms	
C2 .5. R1	Encouraging the digitisation of the judiciary through process optimization and digital transition
C2 .5. R2	The transition to an agile system of planning investments in judicial infrastructure
Investments	
C2 .5. R1-I1	Strengthening IT infrastructure in the justice sector
C2 .5. R1-I2	Improving the cadastre and land registry system
C2 .5. R1-	Implementation of the e-enforcement system in the judicial sector

I3	
C2 .5. R1-I4	Implementation of the digital e-archive system in the judicial sector
C2 .5. R1-I5	Improving the bankruptcy framework
C2 .5. R2-I1	Implementation of the Guidelines for Design in accordance with the functional reorganisation of the Court Network
C2 .5. R2-I2	Design and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions
C2 .5. R2-I3	Implementation of energy efficiency measures for the reconstruction of outdated judicial facilities
C2 .6. Strengthening the framework for prevention of corruption	
Reforms	
C2 .6. R1	Drafting a new national strategic framework in the field of anti-corruption
Investments	
C2 .6. R1-I1	Supporting the achievement of the objectives of the Strategy for the Prevention of corruption for the period 2021-2030
C2 .6. R1-I2	Support for efficiency in the suppression of corruption and organised crime
C2 .7. Strengthening the fiscal framework	
Reforms	
C2 .7. R1	Improving fiscal planning and reporting
Investments	
/	
C2 .8. Strengthening the anti-money laundering framework	
Reforms	
C2 .8. R1	Raising awareness of the need to prevent money laundering
C2 .8. R2	Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities
C2 .8. R3	Implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing
Investments	
/	

Contribution	**A green transition**	**The digital transition**
	40%	100%
Total estimated investment value for the component		**HRK 11,802,947,478**
Share of the total plan		10%
Estimated investments per year and sources of financing		see Annex 3.
Impact assessment		Annexes 4a, 4b and 5 (to be developed)
Response to CSR		see Annex 1.
Contribution to other parts of NPOO		see Annex 1.

7. Main challenges and objectives addressed under the component

Impartial, independent and efficient judiciary, as well as modern and efficient public administration are the foundation of the rule of law that takes care of every citizen.
Building the capacity and framework for the implementation of public policies and projects, as well as investing in a competent and reliable administration that focuses on the needs of citizens and the economy and on a predictable and fair judiciary is a priority that will have to be done in order to round off the construction of state functions in line with modern European state, the needs of modern economy and the expectations of citizens especially in times of great challenges to the negative consequences of the civil-19 pandemic.
The digitisation of public administration so far has shown that efficient and transparent public services directly affect the quality of life of citizens and the business of business entities. Digitisation is one of the six priorities of the current EU strategy and the implementation of digitalisation in the public administration is one of the important segments of improving public administration. The application of digital technology has a great number of benefits in the public administration: it speeds up administrative processes and increases the efficiency of the public sector, integrates the public administration and its users, enables the development of efficient customer-oriented services and consequently improves the quality of services through flexible and personalised interactions. Consequently, further efforts are necessary in the application of digital technologies and in the modernisation of public administration in the acceleration of further development of digital infrastructure, digital solutions, processes and further transition of public services into the digital domain.
In order for the state to have all its effective components in its functioning, it is necessary to further strengthen the fiscal and money laundering framework, but also to systematically fight and sanction corruption as an essential part of public policies that cross-ply through various departments and negatively affect the growth and development of the Republic of Croatia as a modern European country.
The proposed reforms and investments under this component contribute to addressing several challenges contained in the CSRs and are aimed at increasing the efficiency and capacity of the public administration to draft and implement public policies and projects at central and local level, strengthening the fiscal framework and the anti-money laundering framework, and introducing international good governance practices in the public sector, which also implies reform in the field of state property management. Good governance in the public sector requires strengthening institutional capacity in the relevant parts of the state administration, adapting the national regulatory framework in line with best international practices.
Furthermore, challenges and pipes are directed towards the efficiency of the judiciary, improving procedures in court proceedings and strengthening electronic communication in courts, as well as improving the system of prevention and sanctioning of corruption and creating preconditions for optimising the LC (R)SGU system through functional merging of certain business processes and their digitisation.
With regard to digital public services, Croatia ranks 25 th in the EU as one of the categories of the Index of Economic and Social digitisation (DESI), achieving a score of 55.8. This is below the EU average (72). Therefore, the objective of the Republic of Croatia in this category is to achieve a result that is higher than the average at the EU level. Modernization of the activities of judicial bodies and public administration will be achieved through physical and functional reorganization of judicial facilities, investment in physical and ICT infrastructure and optimisation and standardization of business processes accompanied by digitization of them with the aim of better working conditions, improvement of treatment and better service towards citizens and entrepreneurs.

(a) main challenges

1. Unstable and short-term public policies lead to low competitiveness and slow development of the Republic of Croatia.

17. The current supply of projects in the area of green and digital transition is insufficient for funding from the RDF and Cohesion Policy 2021-2027, which largely overlap in implementation. One of the key reasons is the lack of capacities of the beneficiary, which can be seen in the insufficient number of ready projects (in the part of project-technical documentation).
18. The administrative capacity to formulate public policies effectively and to implement complex projects and structural reforms is still insufficient
19. Inability to attract and retain quality and talented employees in the public administration.
20. Unsatisfactory level of quality of service provision in LC (R)SGU due to weak administrative and fiscal capacity and lack of transparency.
21. Significant progress has not yet been made in the planned privatisation of state-owned enterprises and a low level of development goals has been achieved aimed at achieving market returns and the full use (activation) of state-owned assets.
22. Insufficient efficient, active and responsible management of state-owned legal entities due to non-compliance of corporate governance in accordance with internationally accepted standards and good practice.
23. Insufficient level of quality and efficiency of the judicial system.
24. Perception of corruption remains high.
25. The lack of a strategic allocation of budgetary resources in line with development priorities leads to macroeconomic instability.
26. The risk of money laundering and terrorist financing remains.

(b) objectives

AD1. Through the new legislative framework and increased use of digital technologies, it is easier to design and implement public policies and projects at central and local level.
Ad2. Assistance to beneficiaries in the preparation of project and technical documentation for projects in the field of green and digital transition, common to the RDF and Cohesion Policy 2021-2027, which will also contribute to the requirements of the ERDF thematic concentration 2021-2027.
A3. Mechanisms for coordination and management of public policies will be strengthened. The implementation of the reform of the strategic planning and development management system started in 2016 will continue. A strong link will be established between the National Development Strategy, the Government Programme, the National Reform Programme and other strategic planning acts that articulate and implement public policies, with an appropriate link to the budget.
AD4. A standardised system of human resources management including a system of salaries and modern working methods.
AD5. Functionally connected LC (R)SGU and digitised process of providing services to citizens.
Ad6 .1. Corporate governance in state-owned legal entities in line with OECD guidelines;
Ad6 .2. Increased institutional capacity of the State Administration for adoption and implementation of public policy of state property management.
AD7. Harmonised regulatory framework and implemented corporate governance recommendations in accordance with OECD standards/guidelines.
A8. Further strengthening of public policies in the judiciary with increased digital transition, investments in human resources and physical infrastructure.
AD9. A long-term strategic framework, in coordination with all stakeholders, further fighting corruption through a preventive approach and reducing the level of perception of corruption.
A10. Harmonised budgetary-fiscal public policies in accordance with EU best practice and the new strategic framework of the Republic of Croatia.
AD11. Strengthening coordination and cooperation of supervisory authorities in the

Republic of Croatia and further raising awareness of all involved stakeholders.

8. Description of reforms and investments by subcomponents

C2 .1. Strengthening the capacity to develop and implement public policies and projects

Link with the European Semester and/or strategic documents and the context of the reform

The report for Croatia 2019 and 2020 States that the efficiency of the Croatian public administration is below the EU average. Among other things, it said the limited capacity to draft and implement policies and inefficient co-ordination among ministries make it difficult to implement policies, including in the area of cohesion. This problem was addressed also through Annex D of the 2019 Report, which outlines the factors for effective implementation of cohesion policy, as well as recommendations for elimination of all shortcomings in order to utilize EU funds.

Therefore, increasing the efficiency of public policies, in particular improving administrative capacities for better design, implementation and evaluation of policies and projects with the aim of increasing the efficiency and effectiveness of the use of EU funds is directly linked to the implementation of CSR 2019/3b and CSR 2020/4a, which, among other things, recommends that the Republic of Croatia take action in 2020 and 2021 aimed at increasing the efficiency and capacity of public administration to design and implement public projects and policies at central and local level.

The reform is also covered by the NDP, and it is implemented in the part of establishment and implementation of an efficient system of strategic planning and strengthening of capacities for the preparation and implementation of public policies and projects. The aforementioned provides support to civil and public servants in acquiring knowledge and skills which enable them to formulate and implement more qualitative acts of strategic planning and public policies, and which are closely connected with public finances. The legal basis for the implementation of the reform is the Act on the system of Strategic planning and Development Management of the Republic of Croatia[22] and related subordinate legislation.

This will ensure an efficient use of EU funds, through the adoption of a special law, which will, in addition to establishing an institutional framework for the implementation of EU funds, address capacity building as well as provide assistance to beneficiaries in the preparation of tender documentation for projects that will contribute to the green and digital transition. This will directly address the CSR by increasing the capacity of competent authorities to draft and implement public (EU) projects, which is directly related to increasing the efficiency of the use of EU funds in the new period.

Namely, the Republic of Croatia is continuously working on quantitative and qualitative capacity building. In relation to quantitative strengthening, 2166 persons were employed in the management and control systems of the (operational) programmes of the financial period 2014-2020 on 31 October 2020, or 59 more than at the end of 2019 and 1130 more than at the end of 2016, when the number of employees was systematically monitored.

With regard to qualitative strengthening of administrative capacities, MRDEUF continuously implements special specialist training programmes related to management and use of ESI Funds for state and public administration bodies, local and regional self-government, ESIF applicants and beneficiaries and legal entities with public authorities, and from 2014 until today more than 10,000 people have passed education.

One of the key preconditions for successful implementation of EU projects is the absorption capacity of the Republic of Croatia, starting from the very absorption capacity of the beneficiary, i.e. the preparation of the projects for implementation, especially large infrastructure projects, for which specific knowledge is needed, as well as authorizations necessary for the creation of project and technical documentation, which cannot be ensured in the state administration (market category, is performed by authorized experts).

Therefore, in addition to qualitative capacity building measures already being implemented, it is necessary to further strengthen capacities and provide assistance in the form of co-

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financing the development of project and technical documentation to beneficiaries, which would increase their absorption capacity and ultimately the absorption capacity of the Republic of Croatia.

In addition, by entering the new EU financial period, the Republic of Croatia will be able to use EU funds in accordance with the EU regulatory framework, which is currently in the negotiation phase. For cohesion policy 2021-2027, the thematic concentration requirements are also linked, which under the current regulatory framework amount to at least 25% of the ERDF allocation for policy objective 1 (including the digital transition) and at least 30% for policy objective 2 (including the green transition).

Taking into account that RRF as well as Cohesion Policy ensure the possibility of financing projects related to the green and digital transition and that the timeline for project implementation largely overlaps, it is necessary to ensure a sufficient supply of projects ready for implementation in the next financial perspective relating to key areas such as green and digital.

In order to ensure the easiest possible transition from one financial period to another, as well as to ensure a stock of ready-made projects common to the RF and cohesion policy, it is necessary to continuously work on preparing them, especially in the context of green and digital transition (predominantly infrastructure).

In view of all the above, the Republic of Croatia is preparing a new Act on institutional Framework for EU Funds. In addition to establishing a stable institutional framework for EU funds and defining the umbrella bodies in the same, principles/activities for capacity building are envisaged, whose further operationalization is expected through subordinate legislation based on the Act itself. In addition to continuous undertaking of activities for the purpose of establishing a system of planned, targeted and comprehensive education of all employees in management and control systems for implementation of EU funds, at the national, regional and local level, it is necessary to strengthen the capacities of beneficiaries for preparation, implementation, monitoring, reporting and evaluation of projects implemented under (operational) programmes financed by EU funds.

The task force for drafting the Proposal of the Act has been established and appointments are being collected, while the adoption of the Act to the Government is expected by the end of 1Q/2021. It is precisely through the work of the working Group that the details of the implementation, i.e. the operationalization of measures should be defined, which will be simultaneously reported to the Office of the Prime Minister.

The intention is to strengthen the capacity of beneficiaries to ensure sufficient stocks of ready projects in the field of green and digital transition and to ensure easier transition from one financial period to another, and from the RDF to the cohesion policy 2021-2027. This will be ensured by inviting tenders for financing the preparation of project-technical documentation for the preparation of project applications. In this way, through the involvement of experts who possess specific knowledge and necessary authorisations for drafting project and technical documentation, and which cannot be ensured in the civil service, a sufficient stock of ready projects in the field of green and digital transition will be created, common to the RDF and Cohesion Policy 2021-2027, which will simultaneously contribute to the requirements of the ERDF thematic concentration 2021-2027.

Finally, the Act ensures continuity of coordination among ministries through the National Coordination Committee for European Structural and Investment Funds and EU instruments in the Republic of Croatia (NEK), the body responsible for ensuring overall coordination of use and monitoring of implementation of European Structural and Investment Funds, EU instruments and programmes in the Republic of Croatia, and ensuring coherence between different sources of financing and investments financed by ESIF, national sources and other EU instruments and programmes, as well as international financial institutions.

In the context of the new financial period, and following the Act which should establish an institutional framework and main guidelines for the implementation of individual

(operational) programmes, special emphasis is placed on the issues of the management and control system (which should be established through subordinate legislation deriving from the Act itself), i.e. the formation of a system aimed at focusing relevant processes, and the rapid and efficient performance of all activities (which was experienced in the financial period 2014-2020, taking into account the complexity of the system from the very beginning of implementation). In this regard, the aim is to ensure simplification primarily through the appearance of the system, and then through procedures, as far as possible, respecting the reference and mandatory EU regulatory framework.
At the same time, the objective is to ensure relief in the operation of the management and control system, and in this context, when it comes to procedures, and consequently further development of the eFund system in the new financial period 2021-2027. Also, there will be intensive work on possibilities for implementation of e-signatures.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .1. R1 Effective and efficient coordination and management of strategic planning system

Challenge

The administrative capacity to formulate public policies effectively and to implement complex projects and structural reforms is still insufficient. In light of the recovery from the global crisis caused by the coronavirus pandemic and the attempt to absorb multiple increases in EU funding, it is particularly important to increase the capacity for strategic planning and management, and to achieve the social consensus needed to accelerate reforms. Capacities for strategic planning and coordination of public policies depend on coordination mechanisms and on clear and coherent processes and procedures that are adequately prescribed and implemented in all bodies and structures that are institutionalized to the level of officials in all bodies, with appropriate competences for performing strategic planning tasks.
The framework for the implementation and monitoring of public policy implementation needs to be strengthened. A very large number of strategic planning acts that were drafted and adopted by 2020 are difficult to implement and monitor because they lack data to be implemented and until when, and who is responsible for their implementation. The same problems are present at the regional level, and this part of the system needs to be continuously strengthened. In addition, attention needs to be redirected from strengthening the legal framework to implementation, for which capacity needs to be strengthened.

Objective

The aim is to increase the quality of formulation of public policies, harmonise sectoral priorities, strengthen cross-departmental related effects, achieve as high a level of harmonisation as possible in implementation, and thus lead to positive changes and better direction of investments from EU funds.

Description

Mechanisms for coordination and management of public policies will be strengthened. The implementation of the reform of the strategic planning and development management system started in 2016 will continue. A strong link will be established between the National Development Strategy, the Government Programme, the NPR and other strategic planning acts that articulate and implement public policies, with an appropriate link to the budget. All acts of strategic planning will insist on defining an adequate framework for implementation and monitoring. Institutional framework and administrative capacities for formulating public policies on the basis of data and evidence, and especially implementation capacities, will be strengthened. In the context of implementation, the communication of important structural reforms and projects and reaching a social consensus will be taken into account.

Implementation

The Republic of Croatia has introduced a new legal and institutional framework for strategic planning and the transition to its full implementation is under way. Standardized procedures for drafting, monitoring and evaluation of strategic planning acts are also prescribed. They have been introduced into the application of the new methodology and tools for strategic planning, supported by the EC through the Directorate-General of the European Commission for Structural Reform support (DG REFORM). A Network of Coordinators for Strategic planning was established for better inter-departmental coordination, capacity building and exchange of experience in the implementation of the new Strategic planning Framework. In particular, during 2020, efforts were made to strengthen strategic planning capacity by carrying out training involving over 1200 civil and public servants from different levels of management. Based on the results OF SRSP project "framework for monitoring the performance of public policies in Croatia", subordinate legislation regulating the procedures for monitoring and evaluation of strategic planning acts will be revised. Developed procedures and methodology for assessing the effects of public policies (ex ante and ex post) will facilitate evidence-based decision-making. In addition to the national level, the application will be extended to regional and local levels. The new SRSP project "improving the cost assessment of implementation of government policies in strategic planning processes" will complement the methodological framework for assessing the costs of structural policies and investment measures, as well as for financing them, and a positive impact on the medium-term fiscal framework is expected. In addition, the position of the central coordinating body for strategic planning and development management system of the Republic of Croatia strategic planning units in state administration bodies and at regional level will be strengthened.

Implementation holder	Implementation of the reform measure will be ensured by MRDEUF.
Target Group	State and public officials and officials at national, regional and local level.
Estimated cost	HRK 6,000,000 (investment)
Implementation period	2021. -2024.

C2 .1. R2 Strengthening capacities for preparation and implementation of EU projects

Challenge

One of the key preconditions for successful implementation of EU projects is preparedness of the projects themselves for implementation. Taking into account that RRF as well as Cohesion Policy ensure that projects related to the green and digital transition can be financed and that the timeline for project implementation largely overlaps, it is necessary to ensure a sufficient supply of projects ready for implementation in the next financial perspective relating to key areas such as green and digital. In addition, in addition to cohesion policy 2021-2027, the thematic concentration requirements in policy objectives 1 and 2 are linked, the fulfilment of which is verified already during the programming process itself.

Objective

Strengthening the capacity to prepare and implement EU projects, by providing support to beneficiaries in the preparation of project-technical documentation, will create a sufficient stock of ready projects in the field of green and digital transition, common RCF and cohesion policy 2021-2027, which will simultaneously contribute to the requirements of thematic concentration of the ERDF 2021-2027. At the time of recovery from the current economic crisis caused by the civil-19 pandemic, efficiency and efficiency of the use of EU funds will be increased.

Description

This reform measure directly contributes to the CSR for the Republic of Croatia, in terms of preparation of stocks of mature projects that will contribute to EU objectives in terms of green and digital transition. At the same time, implementation of one of the activities of the future Act on institutional Framework for EU Funds, i.e. strengthening the capacities of beneficiaries for preparation, application and implementation of projects, will be ensured (it should be submitted to the procedure at the end of 1Q/2021). This principle applies not only to education, training, etc., which are already financed and/or will be financed through technical assistance of operational programmes of this and future financial period, but also to capacity building by providing assistance to beneficiaries, among other things, in the preparation of project and technical documentation whose preparation is necessary in order to contribute to the objectives of green and digital transition. By financing this measure from the cohesion policy funds 2021-2027, it would not be possible to ensure a sufficient supply of projects in a timely manner.

Implementation

The Republic of Croatia is preparing a new Act on institutional Framework for EU Funds and its implementation is expected from the period 2021-2027. In addition to establishing the institutional framework and determining the umbrella bodies in the same area, the Act also foresees activities for capacity building, whose further elaboration is expected through subordinate legislation based on the Act itself. The Act will recognise the need to further strengthen the capacities of beneficiaries for preparation, application and implementation of projects, implemented within the framework of (operational) programmes financed by EU funds. Announcing tenders for financing the preparation of project-technical documentation for the preparation of project applications for funding from the (operational) programmes 2021-2027, through which expert engagement with specific knowledge will be ensured, future beneficiaries of EU projects will ensure timely and complete preparation of project-technical documentation. At the same time, implementation of this measure will ensure the creation of sufficient stocks of ready projects in the field of green and digital transition.

The tender (s) will be announced by the competent Managing Authority 2014-2020 in cooperation with the sectoral competent authorities. The tender for financing the preparation of project and technical documentation should be held in the first 6 months of 2021, while implementation is expected by the end of 2024.

Implementation holder	Implementation of the reform measure will be coordinated by MRDEUF.
Target Group	Beneficiaries of EU projects, in the field of green and digital transition.
Estimated cost	HRK 160,000,000 (investment)
Implementation period	2021. -2024.

(b) Investments

C2 .1. R1-I1	**Strengthening the capacity of the network of coordinators for strategic planning at national and regional level to formulate and implement public policies and projects**

Challenge

The administrative capacity to formulate public policies and structural reforms effectively and to monitor implementation is still insufficient.

Objective

The emphasis will be on the application of new methodologies and tools for strategic planning developed independently or in cooperation with the EC and international

organisations (e.g. OECD).

Description

Training for strategic planning is ongoing in 2020 and capacity building will continue through targeted trainings that will be realised through the network of strategic planning coordinators at national, regional and local level.

Implementation

Capacity building is crucial for the successful implementation of public policies. The capacities of officials of state administration bodies deployed in strategic planning units of state administration bodies and officials involved in strategic planning process at regional level will primarily be strengthened. Establishing cooperation between bodies and policy coordination through coordination for the European Semester of Government will ensure coherence of strategic documents at all levels and their coherence with priorities defined through national and European documents.

This investment will be realised through activities related to capacity development of all involved in the strategic planning system at the national, regional and local level. The estimated cost of HRK 4 million for the period 2021-2023 was defined on the basis of the estimate of the necessary engagement to finance the activities of the network of coordinators in the amount of HRK 1 million per year (a total of HRK 4 million). The amount of HRK 1 million will finance the costs of capacity development included in the network of coordinators and support the implementation of methodologies developed through SRSP projects in cooperation with the EC. The cost assessment was done on the basis of the Coordination body's experience in carrying out capacity building activities in the previous period.

Implementation holder	Implementation activities are within the competence of MRDEUF, as the coordinating body for the system of strategic planning and management of the development of the Republic of Croatia.
Target Group	Coordinators for strategic planning at national and regional level.
Estimated cost	HRK 4,000,000
Implementation period	2021. -2024.

C2 .1. R1-I2	**Introduction of evidence-based public policy preparation and communication instruments for public policies**

Challenge

The culture of evaluating public policies and managing the impact has not yet been sufficiently developed.

Objective

Through the existing projects, a framework for the implementation of policies has been defined and in the following period the aim of the prepared tools and methodology is to be applied at all levels of decision making and definition of public policies.

Description

Following the projects already implemented by the Republic of Croatia with EC support in the field of evaluation of the performance of public policies, implementation of instruments for preparation of public policies based on evidence, preparation and implementation of public policies based on evidence and analysis of value for money will continue. This includes establishment of a culture of evaluation of public policies (ex ante and ex post) and performance management, but also communication of results of public policies (operationalization of results of joint projects implemented in cooperation with the Directorate-General for Structural Reform support (DG REFORM)).

Implementation

This investment will be realised through implementation of mechanisms for monitoring and

evaluation of strategic planning acts in the forthcoming period. Through the working board "Dashboard" whose concept was developed within the SRSP project, it will be possible to monitor the implementation of acts of strategic planning and their impact in a transparent manner. The planning and implementation of evaluation of strategic planning acts will provide data that will enable the implementation of policies based on these analyses of the "evidence based policy making". The amount of HRK 2 million will finance activities that will support the implementation of analysis-based policies and the development of tools for communication of the effects of public policies with the public. The amount is based on the costs of similar activities in the previous period.

Implementation holder	Implementation activities are within the competence of MRDEUF, as the coordinating body for the system of strategic planning and management of the development of the Republic of Croatia.
Target Group	Obliged to implement the Strategic planning and Development Management Act of the Republic of Croatia.
Estimated cost	HRK 2,000,000
Implementation period	2021. -2024.

C2 .1. R2-I1	**Ensuring assistance to beneficiaries in the preparation of tender project and technical documentation**

Challenge

It is necessary to work continuously on the preparation of mature projects, especially in the context of green and digital transition, for which a thematic concentration is also related in cohesion policy. Under the current regulatory framework, it amounts to at least 25% of the ERDF allocation for PO1 (including digital transition) and at least 30% for PO2 (including green transition).

A little over 5 billion euros will be allocated to the Republic of Croatia through the ERDF. At the same time, the thematic concentration from the ERDF AT 1 and 2 each amounts to 55% of the above amount, i.e. the amount exceeds 2 billion euros, i.e. approximately 16 billion kuna.

Objective

Through the involvement of experts, who possess specific knowledge and necessary authorizations for drafting project and technical documentation, which cannot be ensured in the state administration[23], a sufficient stock of ready projects in the field of green and digital transition will be created, common to the RDF and Cohesion Policy 2021-2027, which will simultaneously contribute to the requirements of the ERDF thematic concentration 2021-2027.

Description

The investment implies providing assistance to beneficiaries in timely and complete preparation of all necessary documentation for the application for the tender (call for tenders for financing the preparation of project-technical documentation for the preparation of project applications).

Implementation

According to experience so far, assuming that the preparation of project-technical documentation (depending on project size) amounts to between 3 and 5% of the total project value, which in this case is fixed at 160 million kuna, the expected value of the prepared projects through project-technical documentation would be between 3 billion kuna (assuming the value of preparation of project-technical documentation at 5%, 160 million kuna/0.05 = 3.2 billion kuna) and 5 billion kuna (if the value of preparation of project technical documentation is assumed to be 3%, 160 million kuna/0.3).

Implementation	MRDEUF

23Preparation of project and technical documentation is a market category and is performed by authorized experts.

holder	
Target Group	Beneficiaries of EU projects, in the field of green and digital transition.
Estimated cost	HRK 160,000,000 (investment)
Implementation period	6/2021.-12/2024.

C2 .2. Further improvement of the efficiency of the public administration

Link with the European Semester and/or strategic documents and the context of the reform

The public administration of the Republic of Croatia, as well as all public administrations of the EU, face the same challenges, especially in the part of reducing the share of public spending in GDP and the need for user-oriented public administration, but also in the context of the challenges of globalisation, privatization, deregulation, it development, transition, value change, etc.

Improving the efficiency of public administration is a precondition for economic growth and increasing competitiveness, but also for increasing citizens' satisfaction with the services provided, increasing trust and a fairer society based on the rule of law. Public administration in the context of reform consists of central state bodies (ministries and state administration organisations), bodies of LC (R)SGUs and legal entities with public authorities.

The Strategy for Development of public Administration 2015-2020 represents a comprehensive framework for Development of public Administration and aims to improve administrative capacities and better organise public administration. In early 2021, it is planned to adopt a new National Plan for the Development of public Administration for the period 2021-2027 with the aim of assessing the results achieved so far in the reform and planning of new initiatives for the building of an efficient public administration.

The Government Programme also establishes priorities and measures aimed at further improving efficiency, i.e. further functional decentralisation and functional linking of local self-government units and modernisation of public administration (digitalisation, interoperability, reduction of the number of local officials, Regulation of the salary system and human resources management). NRR draft (Strategic objective 3. “Effective and effective judiciary, public administration and management of state property”) also underlines the importance of further development of public administration as a prerequisite for stimulating economic development and quality of life.

Within the framework of the European Semester (CSR), weaknesses were observed in the efficiency of public administration below the EU average and in the provision and low quality of services in smaller local self-government units. In its recommendations, the EC stressed that the Republic of Croatia is below the EU average in terms of public administration efficiency. The CSR also stresses the need to increase the efficiency and capacity of the public administration to design and implement public projects and policies at central and local level. In addition to the identified weaknesses, improvements in the part of modernisation and increased use of e-government services, e.g. via the e-citizens system, were also highlighted. By investing in the development of new technologies and online services, digitised procedures, acceleration of appeal procedures (often causing lengths in obtaining permits or other acts in the administration), online payment of fees and measures for depoliticisation and professionalisation of the public administration, it is planned to address the challenges posed before the Republic of Croatia. As part of strengthening the administrative capacity of public administration, it is necessary to develop and enhance the digital infrastructure of the public sector in the fields of archives and cultural heritage. This will contribute to the optimisation and digitalisation of public administration services and processes in the cultural sector, which is one of the priorities of the future NRR.

The National Plan for the Development of public Administration for the period 2021-2027 will include the main objectives underlying the public administration of the Republic of Croatia, namely: (i) professional and competent public administration; (ii) public services available to all citizens; (iii) functional and sustainable local self-government.

The realisation of the set goals will be achieved through strengthening and strengthening human resources, through further optimization and digitization of processes and through functional decentralisation and functional linking of local self-government units.

The Strategy for Development of public Administration for the period 2015-2020 is

currently being implemented through several projects from ESIF and other sources of financing, but given the later start of implementation of projects/investments many projects are more prepared (further digitalisation of administrative procedures, system for Human resources Management, system for taking the State expert examination, establishment of system and physical network of single administrative posts, development of shared e-services of local and regional self-government, introduction of models for hybrid access to the workplace - smartworking) and are ready for contracting and implementation and represent great potential for further reform.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .2. R1 Strengthening and strengthening human resources

Challenge

Strengthening and strengthening human resources will create preconditions for meeting the main goal of public administration reform, which is a professional and competent public administration. The construction of stable and resilient institutions implies an efficient and digitised public administration, therefore it is necessary to analyse, optimize and digitize human resources management and development processes, which will ensure the transparency of employment procedures and take state exams, as well as preconditions for efficient functioning of the public administration.

In public services, the employment system is not standardized. Prescribed procedures for planning and implementation of employment in state bodies and bodies of LC (R)SGUs are not based on performed analyses of workload and are long-term and complex in such a way that they do not enable timely provision of the necessary number of employees of appropriate competencies for performing tasks in those bodies. The procedure for recruitment in public services is not regulated by a single Regulation, but by the Civil Servants Act, the Labour Act, the Civil Service and employees Act in LC (R)SGU and the accompanying subordinate legislation, as well as by the legal protection of candidates participating in that procedure, which makes it difficult to respect the constitutional principle of participation in the performance of all public affairs and the availability of every job and duty to citizens under equal conditions. Therefore, the standardised recruitment procedure should be carried out on the basis of previously established admission plans based on analysis of workload in order to select new employees on the basis of objective criteria and predefined competencies and prevent the possibility of employment benefits. A standardised procedure for selecting candidates through test and interview procedures should be carried out by an expert body, which will contribute to transparency and enable entry into the public service of the best candidates. The new recruitment procedure should be fundamentally different from the existing one, where the test phase usually favours candidates who have better memorized regulations, without sufficient attention being paid to testing the main competencies required of them.

Lifelong learning and professional training of employees represent the basis for continuous development of competencies of all employees in the public administration. The concept of lifelong learning, which implies the possibility of acquiring and renewing knowledge, skills and potentials in different periods of life, is currently not sufficiently addressed in the public administration, but rather the training of employees after gaining formal education and employment, i.e. the initiative for further training is mainly a result of the interests of the employees themselves. The lack of digital competencies is particularly pronounced during THE crisis caused BY THE CYID-19 virus. The need for additional training in digital skills also stems from the results of the DESINI Index.

Objective

In order to achieve a professional and competent public administration, it is necessary to further strengthen and strengthen human resources through the following investments: centralised selection system, development of digital competencies of officials and officials, e-state expert exam.

Description

Digitalisation of all processes from application, organization of taking state exam, testing procedure and development of test materials, in order to simplify rules and accelerate the work of administration in relation to the organisation and procedure of taking exams. A fundamental assessment of general and specific knowledge is essential for achieving the effects and results related to the performance of certain functions and jobs. It is planned to digitalise the process of taking the State Experts exam with the aim of making it more transparent, accessible (at several locations throughout the country) and efficient system of taking exams. The exposure of officials to work in the service and further promotion through vocations and advancement - licensing for special authorisations will foster excellence in the civil service.

Implementation

Therefore, it is a matter of establishing a system of central testing and selection of candidates (according to the EPSO model), as well as an internal labour market in order to increase the mobility of officials and attract and retain talent. Also, a platform for taking the state expert distance examination will be developed. Furthermore, training of civil servants and state officials is envisaged in order to improve digital skills.

Implementation holder	RAMP
Target Group	Civil and public servants, officials and employees.
Estimated cost	HRK 55,700,000 (investment)
Implementation period	1/2021.-6/2024.

C2 .2. R2 Organizational models in public administration

Challenge

The existing system of human resources development and management in the public administration includes planning employment, employment and introduction to the service, analysing and drafting job descriptions, continuous training, evaluation of work and efficiency, remuneration and promotion of employees. Monitoring the implementation of the human resources development and management system has shown that the system is too complex, insufficiently optimized and burdened by unnecessary processes and, in certain cases, even inapplicable. The functions of the human resources development and management system are not standardized, and only partially digitised (employment, introduction to the service, training, evaluation of performance and efficiency, promotion, rewarding, termination of service) and do not apply throughout the public administration. In the public administration, employment is not standardised and therefore not digitised. Prescribed procedures for planning and implementation of employment (from the labour market and within the system) in the public administration are not based on performed analyses of workload and are long-term and complex in such a way that they do not enable timely provision of the necessary number of employees of appropriate competencies for performing tasks in these bodies. So far, a systematic model for solving human resources management has not been introduced, but there are isolated examples where some bodies have introduced IT solutions (e.g. MINISTRY OF INTERIOR). As a special segment, the need to improve the salary system in the civil and public services needs to be emphasised. Namely, until now (ad hoc) interventions in salary systems have resulted in complex systems lacking transparency, clearer rules in setting coefficients and addenda to

job complexity, and therefore, systems as such and potentially unfair. Furthermore, the context of fiscal sustainability should also be taken into account in such a complex system. In addition, during THE CIVIL-19 crisis, it has proved challenging to organise work from home for civil servants of public administration and judiciary, while maintaining the level of performance of work tasks and functioning of bodies in the system under the aforementioned conditions. Accordingly, finding the best model presents a challenge in the current fight against the pandemic, but also a challenge with regard to distance work, which has been imposed in recent years as a more efficient and modern solution than traditional work. This reform would further increase the labour market for people with disabilities and address the problem of inaccessibility (possibility of remote work).

Objective

It is necessary to establish a standardised comprehensive human resources management system that includes all civil servants and employees, which includes the implementation of a new regulatory framework for salary systems in state administration and public services, and a systematic approach to modern work organisation, particularly in the conditions of the pandemic (and similar situations).

Description

Organizational models in the public administration plan to create preconditions for the fulfilment of the main goal of public administration reform, which is a professional and competent public administration.

Implementation

The development of models, changes and implementation of necessary regulations in employee relations and development and establishment of IT system will be implemented. Accordingly, an analysis will be made and the normative framework regarding the salary system in state administration and public services will be amended. Also, a new organisation of long-distance work for employees will be implemented.

Implementation holder	RAMP
Target Group	Civil and public servants, officials and employees
Estimated cost	HRK 236,000,000 (investment)
Implementation period	10/2020.-6/2024.

C2 .2. R3 Smart PA – further optimization and digitization of processes

Challenge

The challenge we currently face is to harmonise and standardise ICT functions with the business requirements of all interested parties. The use of available services at the national level, i.e. state information infrastructure, such as the CDU in cooperation with the competent authority (SDURDD) ensures safe delivery of applications and services in a price efficient manner.

Putting interoperability as one of the most important elements of application design reduces technological diversity in a consistent way. By using and supporting the development of services within available services at the national level, active design of our own IT environment is ensured, thus reducing the influence of suppliers and dependence on public procurement, etc.

By reducing technological fragmentation, waiting time for realization is reduced, i.e. the time of implementation of desired services is accelerated, which proved to be one of the major challenges in the implementation of key structural projects in the system. Furthermore, in such an environment, safety levels and recovery capacity increase significantly, which has proved to be a weakness of the current system.

The Ministry of Justice and Administration should, by its example, show direction for other

institutions in order to promote/encourage the use of the state information infrastructure (e.g. in the CDU).

Objective

Implementing all new IT systems (and potential migration of existing IT systems) to services available at the national level in cooperation with competent authorities. Reliable and resilient infrastructure of the entire ministry will be achieved, and efficient interoperability and exchange of data will be enabled: (i) at the level of the ministry and (ii) at the level of the entire state administration, and especially with those institutions that will migrate/build their applications and services on available national services.
Continuous upgrading of infrastructure at national services provides preconditions for efficient performance of all foreseen functions while reducing the total cost of procurement, reducing TOC, increasing interoperability and creating preconditions for using business intelligence over a unified dataset.
Improving the business environment by facilitating the obtaining of permits related to the Cultural goods Protection Act, establishing digital infrastructure and public administration services by creating a system of conservation bases, which are basically an upgrade of the cadastre digitisation system. Developed national archive information system in line with the minimum requirements of the INSPIRE Directive; improved management of documentary and archive materials by public authorities and other creators, which will positively influence availability of materials, transparency of operations, efficiency and quality provision of services; new e-services established; increased availability of archives and data on them and their creators; developed national infrastructure capacities for digitisation and storage of digitised resources; increased network capacities

Description

Increasing the efficiency of public administration is intended to be implemented through the development of e-services in the fields of archives and cultural heritage. It is necessary to focus on solving the problem of access to cultural services and content, and to create new e-services that will remove existing administrative barriers, make transparent and accelerate administrative processes of obtaining different permits in accordance with legislation in the culture and construction sectors. By investing in the archive network, especially in digitisation capacities, it is necessary to create the preconditions for digitisation of archival materials of public and private archival holders, which will significantly reduce the operating costs of companies and entrepreneurs and contribute to the efficiency of public administration, judiciary and other public services.

Implementation

Communication infrastructure for the development of e-services should be built and adapted in cooperation with the competent authorities. This applies to the public administration and judiciary. In this way, the entire public administration and judiciary system will be able to use the centralised communication system without exception for services such as: eCommunication, remote access, videoconferencing, etc.
In order to enable local and regional self-government to perform their decentralised functions, it is necessary to cooperate with the competent authority for the national information infrastructure and to adapt the system in such a way that all LC (R)SGUs have access to the functionality and data to be used for the performance of their tasks, and that their applications have access to the national information infrastructure (including the Central interoperability system) in order to unify data, comparability and readiness for automatic aggregation/reporting.
Implementation of the “digital assistant” in the field of public administration (digital assistant for justice) is planned, which will be able to provide a similar level of support to users in different areas. The aim is to facilitate and accelerate the exchange of information and communication of the system with different users who will be able to use digital assistant

services through a single access point in specific specialist areas.
As part of the implementation of digital registers, it should be possible: (i) the management of the Register and the data in the Register by the institution whose jurisdiction the Register is under; (ii) the use of data in the Register (reading rights) by all institutions authorised to do so through the State information infrastructure.
In this way, duplication of registry keeping will be avoided and the sharing of registry data within the Ministry will be enabled, but also among all other institutions that use (or will use) the existing state information infrastructure (e.g. CDU).
Furthermore, it is planned to develop and establish e-services that will enable access to digital conservation surfaces developed for cultural and historical units. The project will develop a series of digital conservation bases that will be publicly available and thus speed up the process of obtaining licenses. This system will be an upgrade of the cultural heritage information system and will be compatible with the digital systems of other public-legal bodies requiring data in the field of cultural heritage or whose activities are related to spatial management. Within the framework of the implementation of the measure, it is planned to strengthen capacities by educating experts to work on conservation surfaces, and to develop the necessary standards and criteria. The measure includes preparation and implementation of open calls for proposals for digitisation of analog material on paper with creators and owners (owners) of materials. It also includes development of a national archive information system, strengthening of infrastructure and human capacities in state archives; strengthening of the capacity for digitisation of analog material on paper by creators and owners (owners) of materials, digitisation of analog materials.

Implementation holder	The reform will lead THE RAMP in close co-operation and dialogue with SDURDD (CDU).
Target Group	Citizens and business entities. LC (R)SGU, public and private investors, the general public, public legal bodies in the field of cultural heritage, construction, physical planning, etc., experts in the field of cultural heritage, construction and physical planning, legal entities creating documentary and archival materials, especially administration and judiciary, public and private archives.
Estimated cost	HRK 656,250,000 (investment)
Implementation period	1/2021.-12/2025.

C2 .2. R4 Functional and sustainable local self-government

Challenge

The local and regional self-government system faces the challenge of insufficient administrative and fiscal capacity to provide quality services to the citizens in charge, as well as a lack of transparency in budget spending. This leads to the fact that in many units of LC (R)SGU certain public needs are not adequately covered, and citizens are not satisfied with the functioning of individual units either. In a comparative analysis of other Member States (EU Member States and others: e.g. Slovakia, Italy) of similar size and development is not a clear correlation between the number of low-level units and development and efficiency issues. It follows that the efficiency of the system does not depend on the number of units, but on the way the system is organised in terms of delivering quality and standardised services and it is necessary to find the best solution in terms of achieving efficiency. Digitalisation and ecologically responsible sustainable development are also inevitable trends in future development of all units of local and regional self-government, that is, their connection.

Objective

Within the framework of this measure it is planned to ensure a quality and efficient system

of local and regional self-government through functional linking in order to provide services to citizens more efficiently and transparently.

Description

It includes the optimization of local and regional self-government systems.

Implementation

In order to respond to these challenges, reform has started through regulatory changes in the Act on local and Regional self-Government concerning the reduction of the number of officials and representatives in representative bodies and greater transparency of the budget. Furthermore, in order to respond to the aforementioned reforms, the ESF project "Optimation of local and regional self-government systems" is implemented with the aim of developing mechanisms and tools for optimization of local and regional self-government system which will enable more efficient performance of activities within their scope and ultimately result in increased quality of public services. This project will develop a central database on capacities of units of LC (R)SGU which will include a dataset for the assessment and monitoring of their capacities on the basis of which a unique IT system will be developed in support of the LC (R)SGU with regard to the capacities and activities performed therein. Accordingly, lists of recommendations for amendments (legal solutions) to the existing system of organization of activities within the scope of LC (R)SGUs will be prepared, which will oblige the units to accept these changes and encourage them to perform better and more qualitative tasks within their scope.

In addition, ESF project "introduction of quality management system in the public administration of the Republic of Croatia" introduces a quality management system within a smaller number (10%) of local and regional self-government, as well as optimisation and standardization of a part of business processes that represent the most frequent living situations of citizens and business entities both at the state and local level.

In order to address the challenges related to functional linking of local self-government units and standardized manner of providing services to citizens and entrepreneurs, it is planned to prepare, develop and implement local self-government e-services accompanied by optimisation and digitization of internal procedures of local self-government units and increase transparency of budget spending by using available key elements of the national IT infrastructure.

By establishing a business, organizational and information-communication environment of a single administrative place, public legal bodies, recognizing the advantages of a single administrative place, will be motivated to make additional efforts to improve their processes and computerise services. These services would be compatible with the users' actual needs and would not constitute an unnecessary administration that burdens financial and human administrative capacities without added value.

Implementation holder	RAMP
Target Group	LC (R)SGU, final beneficiaries - citizens and business entities.
Estimated cost	HRK 361,250,000 (investment)
Implementation period	1/2021.-10-2026.

(b) Investments

C2 .2. R1-I1	**Centralised selection system**

Challenge

see C2 .2. R1

Objective

see C2 .2. R1

Description

The digital planning and employment system implies the implementation of certain activities, including the development of a methodology for the digital planning and employment system, the organisation and development of online applications and online testing, the organisation and development of the planning system (online planning of admittance to state bodies), the legislative adjustment, the development of the digital platform, the digital management of transfers (through THE CIRCUS system OR similar), the implementation of the digital planning and employment system, etc.

Implementation

As a precondition for the project, it is necessary to implement modelling activities that would be applicable to the system of state administration in the first phase, with the possibility of extension to other public services, as well as to develop standards and procedures that would be applied in accordance with the amended and adjusted legislative framework.
The investment cost is based on analyses and recommendations developed during the preparatory phase of the SRSP project, and included, among other things, a recruitment process that would be improved by creating a central web portal within the framework of the project that would serve as a single place for advertising and job selection and have the possibility to conduct the central selection process in accordance with the model used by European institutions (EPSO model).

Implementation holder	RAMP and SDURDD
Target Group	see C2 .2. R1
Estimated cost	HRK 50,000,000
Implementation period	2/2021.-6/2024.

C2 .2. R1-I2	**Development of digital competences of officials and officials**

Challenge

As part of improving digital skills, the EC has developed a European Framework for Digital competences for citizens (DigComp), divided into five areas: information and data literacy; communication and co-operation; creation of digital content; security; and problem solving. There are 21 competencies in total.

Objective

see C2 .2. R1

Description

A digital skills training project (Digitalskills) is envisaged within the framework of the investment of the competence development of officials and employees.

Implementation

The need for this training is based on an objective assessment of areas where employees can and need to improve their competences, in line with the digital transformation of society. The investment will carry out an analysis of needs that will clearly demonstrate different levels of development and needs in the area of acquiring digital skills. Also, this investment will develop a training programme, training materials and methodology for the implementation of the training itself.
State school for public Administration is responsible for training civil servants, officials in bodies of local and regional self-government units and employees in legal persons with public authorities, while the Central State Office for the Development of the Digital Society

is responsible for popularising the development of digital skills and inclusiveness.	
Implementation holder	RAMP
Target Group	see C2 .2. R1
Estimated cost	HRK 3,000,000
Implementation period	2/2021.-6/2024.

C2 .2. R1-I3 e-State Experts exam

Challenge

The Act on Amendments to the Civil Servants[24] Act, which entered into force on 1 August 2019, amended the provisions relating to the obligation to pass the state exam, the level of the state exam and the procedure for taking the state exam. The provisions of Article 11 of the aforementioned Act stipulate in Article 58 that the central state administration body is responsible for official relations responsible for the development and implementation of the state exam. It is also stipulated that the procedure and manner of taking the state exam, development and production of test materials, issuing of the certificate of taking the state exam and keeping the electronic register of taking the state exam shall be laid down in an ordinance issued by the head of the central state administration body responsible for official relations. The amended provisions therefore introduce a new way of taking the state exam through written examination, and this change will ensure a more objective way of assessing candidates' knowledge. The main change is therefore the introduction of a written exam containing closed-type (multiple selection) tasks that enable objective assessment of knowledge (the exam is done according to predetermined methodology and criteria).

Objective

By changing the form of the test, a written examination of knowledge through closed-type tasks will lead to the objectification of the test. In the new system of taking state exams, there will no longer be oral questioning by examiners.

Description

The Ordinance on taking the state exam[25] was published on 19.6.2020. the transitional and final provisions stipulate that it shall enter into force on 1 April 2021. The Ordinance regulates the conducting of the state exam in writing and this change will enable, among other things, the establishment of the state exam by electronic means and at the regional level. This will increase transparency, consistency and optimisation of testing procedures and enable statistical processing and analysis of data for permanent updating and adjustment of test specifications and test materials.

Amendments to the Civil Servants Act and the adoption of the Ordinance lay the legal basis for establishing a new system for taking state exams. In addition, new types of data relating to the obligation to pass the state exam, the level of the state exam, the deadline for taking the state exam, the date of taking the state exam and the assessment of the state exam are prescribed. The proposed amendment will enable the keeping of records of data related to the passing of the state exam.

Implementation

In order to ensure the establishment of a new way of taking the state exam, it is necessary to prepare test materials for testing in writing, and it is necessary to provide a computer system that will support the development and implementation of the new state exam. The production of test material started in October 2018 and the materials need to be updated.

Application for State examination (ADI system) is an information system that ensures connection to external systems and data sources from the Register of public sector

24 NN 70/19

25 NN 70/20

employees, and enables application, organization and implementation of testing electronically, as well as development of test materials, and issuance and delivery of documents. ADI system is managed by MA and administration that determines the way it is established, maintained and upgraded.
Prepared test materials will be introduced into the ADI system, e-state exams will be conducted and the test materials will be continuously produced/updated/upgraded. Through ADI system all procedures of application, organization and implementation of state exam will be carried out, concluding with issuing of the certificate of passing exams. Through the system a database of tasks will be created, a database of candidates will be created and reports related to the implementation and results of testing will be created. The right to enter, change and delete data in the ADI system, as well as the right of access to data for the purpose of drawing up and creating reports, shall be enjoyed by persons authorised by THE RAMP with technical and software support.
In order to ensure the establishment and implementation of the new national examination, the computerised system developed through the RDF should include the following modules or databases: (i) the applicative module for the development of test materials; (ii) the application module for the application to the test and the organisation of the test; (iii) the applicative module for the conduct of the test; (iv) the test logbook; (v) the database and the reporting module; (iv) external systems and data sources.
Based on the developed technical specifications, it will be possible to elaborate software architecture of ADI system, technical architecture of ADI system, functional specification of ADI system and other documents that represent the basis for software development.
This investment is in a high stage of preparation. The cost of investment is based on previous experiences in the development of electronic services and processes started in the preparation of the electronic service itself.

Implementation holder	RAMP
Target Group	see C2 .2. R1
Estimated cost	HRK 2,700,000
Implementation period	1/2021.-5/2021.

C2 .2. R2-I1	**Development of the HRM system for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services**

Challenge

see C2 .2. R2

Objective

see C2 .2. R2

Description

This implies the development of a human resources management system for civil servants and employees (possibly civil servants) and employees in regional and local self-government. The system will be interoperable with existing solutions such as the Register of public sector employees and the Central payroll account (which would improve new functionalities, which implies: (i) keeping personal files or registers in digital form, (ii) printing of job Schedule solutions and other solutions automatically from the Register of public sector employees, (iii) encrypting jobs in accordance with current job titles Regulations and linking jobs to specific sectors, etc.) and (iv) the possibility of connecting existing HRM systems to work. Furthermore, the system will serve to introduce a transparent process of employment, career development, reform of the salary system and performance management in order to optimise the number and competences of employees in the medium term according to the challenges and needs of the agile public administration.

The improvement of the salary system will be carried out on the principle of equal pay for equal work or work of equal value.

Implementation

In order to achieve the above, it is necessary to conduct in-depth comparative analyses of the salary system in the public administration in relation to the EU member States. It is planned that the analysis deliver results, picture and evaluation of the current situation, proposals for changes (new model, regulatory framework, reward and promotion system/promotion system), as well as implementation strategy and change management. The analysis is expected to be completed by mid-2022, after which an additional 12 or 18 months should be planned for the preparation and adoption of new regulations, as well as links to the future Human resources Management system (HRM) and the Central salary calculation. Instead of a number of general and special regulations regulating the area of salaries in the state administration and public services, a single Regulation will be adopted which will regulate these systems. Activities will be carried out in partnership with the Ministry of Labour, pension system, family and Social Policy (MUMSOSP), which will be in charge of improving the salary system in public services, while THE Puma will be in charge of the part related to improving the salary system in the state administration and the introduction of the HRM system.

The system for improving the functionality of the HRM implies the implementation of certain activities, of which the development of a methodology for improving the HRM system, the organisation and development of a system for the digital management of files, logbooks and other acts (e.g. solutions), the development of online platforms (software solutions), the implementation of a system for the digital management of files, logbooks and other acts, as well as a legislative adjustment.

The investment cost is based on analyses and recommendations developed during the preparatory phase of the SRSP funding project, which would include: developing a modern harmonised system for managing basic data with two-way communication, improving the employment process, developing a performance management and evaluation system, developing a salary and reward system, developing a career management system, learning and planning inheritance and other functionalities of which interoperability with other systems. As a precondition for the project, it is necessary to implement modelling activities that would be applicable to the system of state administration in the first phase, with the possibility of extension to other public services, as well as to develop standards and procedures that would be applied in accordance with the amended and adjusted legislative framework.

Implementation holder	RAMP
Target Group	see C2 .2. R2
Estimated cost	HRK 60,000,000
Implementation period	2/2021.-6/2024.

C2 .2. R2-I2	**Introduction of a model for hybrid access to the workplace – smartworking**

Challenge

The flexible mode of work requires particular attention from employers in order to demonstrate a set of techniques to achieve tangible improvements in performance in the short, medium and long term. Flexible working methods arise as the need of the public sector to use innovative techniques to achieve its goals. During the civil-19 pandemic, this mode of work demonstrated its contribution to the efficiency of the public administration and to the achievement of the continuity of work in times of crisis and inability to do business in a traditional way. It was this moment that demonstrated the readiness on the one hand (taking on remote business obligations, strengthening the digital competencies of officials, willingness to change the working environment, etc.) and unwillingness on the

other (insufficient quantity of tools for performing distance jobs, data networking) and thus opened the possibility to lay the groundwork for a new and innovative model of work of distance workers.

Objective

see C2 .2. R2

Description

Within the framework of the investment it is necessary to prepare an analysis of the situation and needs for distance work and to prepare an analysis of the necessity of changes in the legislative framework relating to official and labour relations for the introduction of a hybrid model of work in the public administration and judiciary.

Implementation

In order to realize this kind of work, changes are needed in both the organizational and digital, cultural and competency sense. Above all, additional efforts should be made to raise awareness of the management staff about efficiency and better results for employees using the hybrid labour system. It is also necessary to educate the management staff in order to acquire competencies on the method of issuing the work order and the performance of tasks and the realization of activities of employees who perform their regular work remotely, based on the realization of results.
The system would include technologies (laptops, tablets and smartphones and necessary software, software for cloud, ensuring preconditions for digital signing, increasing the body's network capacity, etc.) necessary for civil servants/officials to perform tasks in the public administration and judiciary, whereby software, wherever applicable, would also use available national information infrastructure in coordination with the competent authority (SDURDD). The project would also provide a number of laptops for employees.
The project is in a high stage of preparation. The investment cost is based on similar public procurement procedures performed for equipment procurement and a framework assessment of the procurement of potential new tools, as well as experience in the implementation of similar projects.

Implementation holder	RAMP
Target Group	see C2 .2. R2
Estimated cost	HRK 176,000,000
Implementation period	10/2020.-5/2023.

C2 .2. R3-I1	**Digitalisation of public administration procedures**

Challenge

Public administration and judiciary have proven inefficient in communication with users and parties.

Objective

see C2 .2. R3

Description

At this moment, there are certain e-services in the field of voter registry, state nuts and registers of non-profit legal entities. However, in order to establish interoperability and enable data exchange through a newly established central interoperability system (which will enable further development of complex electronic services), it is necessary to upgrade existing web services on registers of state nuts and non-profit legal entities, to migrate to the Shared services Centre where necessary and to merge registers into the Central interoperability system. Then we will create preconditions for creating new online services and facilitate the creation of additional functionalities on services.

Implementation

This investment plans to create and upgrade online services related to herd books that will enable users to create new functionalities. The priority is to enable citizens to apply for registration in state registries of the fact of birth, marriage and death that took place abroad in electronic form, accompanied by electronic foreign public documents – which will significantly relieve citizens and the diplomatic and consular network of the Republic of Croatia. Upgrades to the existing systems related to breeding books with new functionalities are also planned - online death reports, issuing a certificate of free marital status, establishing an electronic application service for the intention of concluding a life partnership). Also, in the field of non-profit legal entities it is necessary to enable online registration of associations in the Register.
As far as the Register of voters is concerned, a complete analysis of the status of the Register of voters will be carried out during 2021 in order to support the conduct of several elections in the coming electoral years at the same time because the current method does not support this, and in addition, the system was made in outdated technology. After the analysis it is necessary to undertake the upgrading and modernization of the system based on the obtained proposal.
Users will receive digitised online services that they will be able to do without coming to the counter. This can lead to a uniform quality of public services in the country (in particular due to the fact that there will be a possibility of a full digital service) and a drop in administrative costs (due to the automation of the process itself).
Since it is necessary to strengthen communication with users and parties, it is also necessary to implement a digital assistant in the field of administration which will be able to provide support to users in different areas and can be implemented within individual electronic services. The digital assistant infrastructure covering the public administration area requires the following upgrades: (i) data Warehouse which will enable manual or automated clustering of data resulting from documents from multiple areas; (ii) the establishment of an ETL (Extract, transter and log procedures for regular transmission of data from existing applications and systems (e.g. from the Supranova application, from the Land Registry and Cadastre databases, etc.) to the Data Repository; (iii) machine learning) using data from grouped documents and data transferred through the ETL procedure in which they are stored in the Data Repository; (iv) business Intelligence, which will propose the creation of various types of reports, steps, (iv) business intelligence based on the results of machine learning on data from data sheets and data from data storages.
Administrative and judicial procedures are clearly prescribed and foreseeable in most situations and therefore the development of a digital assistant platform that can be used in certain electronic services is very possible and useful.

Implementation holder	RAMP
Target Group	see C2 .2. R3
Estimated cost	HRK 11,250,000
Implementation period	6/2021.-6/2024

C2 .2. R3-I2	**Establishment of single administrative posts — YUM (Phase 1 and 2)**

Challenge

see C2 .2. R3

Objective

see C2 .2. R3

Description

In order to enable citizens to exercise some right, for which several administrative or other proceedings have to be conducted, citizens will be allowed to submit all applications in a single administrative place in a public legal body.

Implementation

Through the investment, an IT platform will be established to upgrade the e-citizens system (an integral part of the state information infrastructure) in order to provide information and services of public administration bodies to citizens and entrepreneurs in one place (Phase 1) and to establish and expand the network of physical YUM sites (Phase 2).

Phase 1 is related to the development of IT solutions of the Single Administrative point (USO) system which is part of the state information infrastructure. It is a business-technological interface for the acceptance and distribution of requests by parties in proceedings before public authorities, regardless of how the requests were received (electronically or physically), and it consists of building components that form an integral part of the state information infrastructure. Citizens and entrepreneurs have access to the place through the e-citizens and e-business platform, and those citizens who do not use digital technologies exercise their rights by coming to the established centre of a single administrative place.

The activities necessary for the construction of a central information system of a single administrative site will be implemented. A single public administration platform for providing services to citizens and businesses will be built. At the national level, the structure, mode of operation, jurisdiction and functioning of a single administrative place should be regulated through a single legal framework (the UMM Act).

The central information system of a single administrative site consists of the construction and connection of the following components: (i) UM component for entry and submission of applications (JUM FrontEnd); (ii) JUM component for processing applications (JUM Backend); (iii) JUM Register of applications; (iv) UM connectivity system; (v) Central registration system.

After the establishment of the central information system, electronic services that use the acceptance and dissemination of requests by the Parties may be developed on the basis of its components.

The physical network of UMM would be intended for users who are not able to use electronic UMM services.

The investment is in a high level of preparedness and is implemented within the jurisdiction OF PUMA and SDURDD. The investment cost is based on the information obtained on the market for the purchase of certain equipment, i.e. execution of adjustments and execution of works during the project planning itself.

Implementation holder	RAMP and SDURDD
Target Group	see C2 .2. R3
Estimated cost	HRK 195,000,000
Implementation period	6/2021.-6/2024.

C2 .2. R3-I3	**Establishment of digital infrastructure and public administration services by developing a conservation base system**

Challenge

see C2 .2. R3

Objective

Established e-Conservation foundation service linked to existing e-services (e-citizens. ISPU) will remove administrative obstacles in the process of obtaining permits in accordance with the law on the Protection and Conservation of Cultural property, accelerate the process of issuing building permits, ensure transparency, ensure a uniform process of obtaining documents for the entire country, enable employees to process cases more quickly and more efficient administrative processes, and investors would be informed in advance about the requirements related to cultural heritage. In the

long run, protection and revitalization of cultural and historical units will be improved, space management improved, more legal certainty related to conservation procedures will be achieved, and the general public will be given permanent insight into the established conservation bases.

Description

Improving the business environment by facilitating the obtaining of permits related to the law on the Protection of Cultural assets through the establishment of digital infrastructure and public administration services by developing a system of conservation bases.

Implementation

The preparation of the conservation base is an obligation according to the law on the Protection and Preservation of Cultural assets, but there is no legal obligation of the investor or the developer of the physical planning document to finance the development of the same, and a greater number of conservation bases for the most complex cultural and historical units, including those on UNESCO's World Heritage List, would be made within this investment.

Implementation holder	MK
Target Group	see C2 .2. R3
Estimated cost	HRK 150,000,000
Implementation period	1/2021.-12/2025.

C2 .2. R3-I4	**Improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archives network**

Challenge

see C2 .2. R3

Objective

Improving documentation management with public authorities, the judicial system and other creators of documentary and archival materials would ensure responsible and transparent business operations and providing services of public administration bodies and all other creators of materials regardless of their work and ultimately ensure greater availability of resources and protection of citizens' rights.

Description

The priority area of intervention of this investment is digitization of archival materials of courts and public administration.

Implementation

Developing the capacities of the national archive system which would contribute to better linking of the creators and owners (owners) of the resources with the archive service in the Republic of Croatia whose support for the management of resources outside the archives is an important segment of the business; establishing a new e-Archive service within the state information infrastructure and connecting it to the e-citizens system which would enable the online availability of data on the resources and the resources they hold, would increase the overall availability of archives.

Implementation holder	MK
Target Group	see C2 .2. R3
Estimated cost	HRK 300,000,000
Implementation period	1/2021.-12/2025.

C2 .2. R4-	**Further optimisation and decentralisation of LC (R)SGU through**

I1	support for functional mergers
Challenge	
see C2 .2. R4	
Objective	
see C2 .2. R4	
Description	
Further optimization and decentralisation of LC (R)SGUs through support for functional integration rely on the entire processes that started within the framework of the ESF project “optimization of local and regional self-government system” which defines models of optimization of the functional integration system of LC (R)SGUs.	
Implementation	
Through this investment it is planned to support further process of functional optimization of activities within the scope of local units (e.g. utilities, pre-school education, public transport, etc.) in such a way that joint performance of individual tasks within the scope of self-government activities (joint administrative department or service, joint company) will be encouraged. This investment will be implemented through the following activities: analysis of situation and mapping of differences in providing services of local self-government units, analysis of connection costs, development of guidelines for functional linking of local self-government units, development of IT solutions (connectivity models), education (vocational training of officers of units for joint performance of activities). These investments are in the preparation phase. The cost of investment is based on previous experiences in the implementation of similar projects through the ESF.	
Implementation holder	RAMP
Target Group	see C2 .2. R4
Estimated cost	HRK 100,000,000
Implementation period	10/2021.-10/2024.

C2 .2. R4-I2	Further optimisation and decentralisation through e-services of local self-government and further digitalisation of public services
Challenge	
see C2 .2. R4	
Objective	
see C2 .2. R4	
Description	
The purpose of this investment is to connect several joint processes of local self-government units in order to optimize them and jointly provide e-services to citizens and entrepreneurs.	
Implementation	
The project is closely related to optimisation and standardization of the process implemented through the project “introduction of quality management system in the public administration of the Republic of Croatia”, i.e. technical specifications for future e-services of local and regional self-government will be drawn up using the state information infrastructure, wherever applicable. In other words, a part of the intervention will focus (in the form of calls) on the development and implementation of local self-government e-services accompanied by optimisation and digitisation of internal behaviour of local self-government units, increasing transparency of budget spending using the key elements of the national IT infrastructure available (e-citizens, e-fees, e-signature/stamp, CDU, GSB, ETC.). An example of this is the development of a local portal for electronic services that can	

use LC (R)SGUs that includes certain functionalities and services offered by local self-government units, according to analysed processes and situations of life ("*life events"*) of citizens and business entities. Furthermore, in order to increase transparency in budget spending, along with legislative changes, it is planned to develop a common system (as shared applications/services) for the public disclosure of all payments from the LC (R)SGU budget with all necessary information (supplier, amount and date of payment, description and link to budget classifications). The investment is in the preparation phase. The investment cost is based on experiences in previous projects in the development of electronic services using the state information infrastructure and experience in the implementation of projects with local and regional self-government units.	
Implementation holder	RAMP
Target Group	see C2 .2. R4
Estimated cost	HRK 261,250,000
Implementation period	10/2021.-10/2026.

C2 .3. Digital transition of society and economy

Link with the European Semester and/or strategic documents and the context of the reform

Digitalisation has almost become synonymous with public and private sector reform. The introduction and application of digital technologies in business operations fundamentally change and affect business processes, business models, organisation of work, current way of thinking and business. The boundaries between physical and digital are being erased, the way citizens, businesses and governments communicate with each other is changing.

The digital transition is key to strengthening the social and economic resilience of the EU and the Member States and their potential for sustainable growth and job creation. In an analysis conducted for the EC*'s "Shaping the Digital transformation in Europe"* McKinsey Global Institute estimates that the GDP growth potential of EU member States in 2030 could reach up to 17.4% if a trend of systematic and targeted investment in digital technologies is established.

Measures to limit physical contacts due to the phenomenon OF THE CYID-19 pandemic have further signalled the importance of modern digital infrastructure, which guarantees broad internet access and the availability of digital services necessary for day-to-day activities. Long-standing restrictions on movement have prompted increased use of public e-services and e-commerce, a trend that will certainly continue and further efforts are needed to improve and optimise them.

Investments in the digitisation of enterprises and the public sector and the development of digital data services in the public and private sectors enable distance work, virtual learning and instruction from home – needs that have become an obligation rather than an option, with the emergence of a CIVIL-19 pandemic. Digital technology is therefore key to a stronger recovery of EU societies, economies and public administration following the civil-19 pandemic. In addition to increasing resilience and productivity, the digital transition contributes to the green transformation of economies and the inclusion of vulnerable groups in the economy.

In national acts of strategic planning of the Republic of Croatia for the period until 2020 (the e-Croatia 2020 Strategy and the accompanying Action Plan), in line with the priorities of the previous EU Digital *Agenda for Europe,* highlighted the importance of digitalisation – building broadband infrastructure, developing public e-services and establishing a national infrastructure for providing cloud computing, establishing a central interoperability system as key prerequisites for secure data exchange and connecting public administration bodies' services for the development of complex e-services tailored to users. However, although progress is visible, full fulfilment of the objectives of this strategy has not been achieved.

Namely, as pointed out by the European Commission in its last report for Croatia for 2020, the digitalisation of farms and societies still does not take place at the desired pace.

The Report for Croatia and the CSR 2020 defined several areas and recommendations for improvements in the digitisation segment.

The reports for Croatia point to the need to strengthen coordination of public administration bodies in the preparation and implementation of public policies. Lack of focused and coordinated action has a negative impact on policy efficiency and hampers economic growth and development. The lack of coordination is particularly challenging when it comes to the preparation and implementation of horizontal, complex public policies, as is the case with digital development policy, as pointed out by the analytical basis "Modernisation of public Administration" developed for the NRR.

Furthermore, in the report on the digital progress of the Member States through monitoring of the economic and social digitalisation index (DEI) for 2020, the EC also assessed that the progress of the Republic of Croatia is below the EU average and thus the Republic of Croatia ranks 20 th with a total score of 47.6 compared to the EU average of 52.6. Although the Republic of Croatia, given its overall score, made progress compared to

2019, it was not sufficient to move up the 20 th position. A significant shift was not achieved due to below-average results in two of the total five dimensions of the DESI. In three dimensions (human capital, use of internet services and integration of digital technology), the Republic of Croatia is at or close to the EU average (12-15 th place), while in two dimensions (connectivity and digital public services) it lags behind the EU average and ranks 25 th.

The Republic of Croatia lags behind the EU average in the quality of digital public services. Despite the high level of interaction between public administration bodies and the public on the internet (e-government services actively use 65% of internet users), indicators of "pre-filled forms" and "completeness of services available online" used by the EC in assessing the quality of digital public services place the Republic of Croatia at the back of the EU. According to the EC assessment, in the category of capacity of public administration bodies to reuse already available data on citizens and business entities contained in public registers when providing *online* services, the Republic of Croatia ranked 26 th, while in order to achieve full/complete service *online* without additional *offline* steps the Republic of Croatia ranked 28 th.

Despite steady progress in connectivity, in the new generation fixed broadband coverage category, the Republic of Croatia has been equalled with the EU average of 86%, very high capacity network coverage has improved significantly, from 23% in 2018 to 43% in 2019 and due to a higher FTTP coverage and an important upgrading of cable networks to the DOCSIS 3.1 standard. more subscriptions to mobile broadband services have remained significantly higher than the EU average of 100 Mbps or more, with a result of 50 G and 6%.

In addition, in the post-2020 period, an additional challenge to the monitoring and coordination of the digitalisation process is the absence of a strategic framework for the digital transformation of society and the economy. The Strategic planning system Act is being slowed down and a key long-term strategic act of the Digital Croatia 2030 Strategy has not yet been adopted with clearly defined priorities and implementation deadlines consistent with the European Digital Strategy (*shing Europe's Digital* future).

The transition to a sustainable and inclusive economic model based on wider acceptance and use of digital and clean technologies has been defined as a priority of public policies in the draft National Development Strategy aimed at achieving strategic goal 11. "Digital transition of society and economy." This strategic goal underlines the importance of strengthening and building strategic digital capacities through monitoring the development of digital services and digital transformation, further development of the national information infrastructure, increasing the availability of interoperable digital public services to citizens and economic operators, developing and building broadband infrastructure and high-capacity electronic communications networks that enable gigabit connectivity and strengthening the capacity and development of digital competences of employees in public administration and judiciary. The aim of the implementation of the digital transition of society and economy of the Republic of Croatia is to increase the efficiency and transparency of the work of public sector bodies, to establish a management and coordination structure for planning and implementation of digital transformation of society and public administration, and to ensure that public administration bodies have access to tools and technologies necessary for the development of more cost-effective and quality digital services harmonised with the needs of their users. Consequently, it is expected that the proposed measures will stimulate faster recovery and strengthen the resilience of the Republic of Croatia to the challenges ahead. Further digitalisation and automation of processes and services will create a more flexible business environment and increase the

efficiency of the public sector as a prerequisite for growth of factor productivity and faster convergence of the economy of the Republic of Croatia on the EU average.
One of the EC recommendations for the Republic of Croatia in CSR 2020 focuses on increasing the efficiency and capacity of the public administration to draft and implement public projects and policies at the central and local level, as well as improving the efficiency of the judiciary. Although the previous digital strategy (2015-2020) has focused on the transformation of public administration and interoperability, and significant steps have been made, the digitalisation of public administration has not been completed and further transformation of public administration is needed, as well as the digitalisation of the judiciary with the application of new generations of digital tools, which will result in improvements in administrative procedures and facilitation of interactions with citizens and businesses via the internet. Therefore, a strategic framework for the digitisation of the Republic of Croatia is necessary, as well as strong coordination of all bodies, which is expected to be achieved through the implementation of the initiative “Digital Croatia Strategy and strengthening interinstitutional cooperation and coordination for a successful digital transition of society and economy”.
The European Data Strategy aims to make the EU a leader in a data-driven society. Further development of public services and national it infrastructure and the establishment of a central interoperability system (the initiative “improving interoperability of information systems”) will contribute to the achievement of the EU data strategy objective “Creating a single data market” and will enable smooth flow within the EU and through various sectors for the benefit of businesses, researchers and public administration. People, companies and organisations will be empowered to make better decisions based on insights from non-personal data that should be accessible to everyone.
Furthermore, in line with the Strategic Initiative “5. The modernisation of the EU Digital Strategy will implement a series of activities to modernise and digitise key public services that will be accessible to all citizens and businesses (the initiative “Development of State information infrastructure and further development of e-services”). The described digitalisation of public services will increase the efficiency of public administration and services, including justice and health, and will enable the use of European digital identity (e-ID), and public administrations will provide interoperable and personalised digital public services tailored to users' needs. In line with the set-ups of the strategic initiative “6. Expansion” and the fact that digital transition depends on increasing the capacity of industrial data clouds will invest in cloud computing services and encourage public authorities and enterprises to use advanced cloud computing services through the modernisation and further development of the national information infrastructure.
The EU Digital Strategy defines connectivity as a basic block of digital transformation and a driving force for a sustainable future, because fixed and wireless networks significantly contribute to the provision of affordable services and to bridging digital divides. The widespread connection is the decisive factor in eliminating economic, social and territorial divisions. Investments in very high capacity networks, including the 5G network, are a precondition for digital transition. In the digitisation segment, this primarily refers to the further establishment of broadband high-speed Internet infrastructure. The Fourth Initiative Connectivity of the Digital Strategy of the EU defines that all European households should have access to links of 100 Mbps by 2025, as well as all major socio-economic drivers – such as schools, universities, research centres, transport nodes, hospitals, public administrations and companies relying on digital technologies and the possibility of upgrading these networks to achieve much higher speeds. As already pointed out, the reliability of internet connectivity in the Republic of Croatia is not satisfactory. Households

in the Republic of Croatia mostly do not have high-speed internet connection. About 70% of households have fixed broadband access, and only 6% have a speed connection of at least 100 Mbps. This could, in particular, be an obstacle to work and distance learning and especially among vulnerable groups, such as disadvantaged or disabled children. In order to avoid these groups being excluded from the sudden transition to a digitised society, the Republic of Croatia will promote investments in modern and reliable digital infrastructure, crucial for the digital transformation of the Republic of Croatia.

Since under this priority Member States should focus on reforms and investments improving connectivity, the Republic of Croatia has realised that investments in broadband infrastructure are important for bridging the digital divide and preventing crowding out private investments when there are no market failures. Therefore, one of the reform priorities ("Strengthening connectivity as a basis for digital transition of society and economy") is the rapid roll-out of very high capacity networks, including 5G and optical networks. The focus will be on investments in broadband infrastructure, which will support faster and more reliable connections and will enable citizens to access more efficient digital services, consumers to choose more and make information available, and businesses will be able to explore new opportunities through innovative business models, remote collaboration and digital tools. This includes ensuring an appropriate bandwidth and coverage for sectors essential for recovery and resilience, such as agriculture, transport, health and education. Supporting the introduction of the infrastructure necessary for future applications and processes will also help strengthen Europe's open strategic autonomy and take advantage of an open economy.

In addition to the core priorities of digitalisation, a series of digitalisation initiatives will be implemented in all sectors in the coming period, taking into account the resilience to cyber threats, through horizontal synergy of digital technology application in all industries and sectors with a focus on those that will have the most lasting impact and increase their growth potential, boost job creation and strengthen economic and social resilience and regional cohesion.

The proposed reform implementation measures are based on three main priorities of the EU Digital Strategy, which should ensure that Europe seize the opportunity and give its citizens, businesses and governments control over digital transformation: (i) a technology that works for people (initiatives C.2.3. R2, C.2.3. R3, C.2.3. R4, as well as horizontal initiatives); (ii) a fair and competitive digital economy (initiative C.2.3. R2 as well as horizontal initiatives); (iii) an open, democratic and sustainable society (initiative C.2.3. R1 as well as horizontal initiatives).

These priorities will directly contribute to the objectives of the EU Digital Strategy: (i) use technology to help Europe become climate-neutral by 2050; (ii) reduce CO2 emissions in the digital sector; (iii) give citizens greater control and protect their data; (iv) create a "European space of health data" to stimulate targeted research, diagnosis and treatment.

SDURDD will be the holder of the implementation of measures C.2.3. R1 - R3 with the involvement of public administration bodies responsible for the implementation of digital transformation of economy, judiciary and administration, bodies involved in the allocation procedure for the implementation of EU cohesion policy and other relevant stakeholders. Holder of measure C.2.4. R1 bit MMPI in cooperation with local and regional self-government units and MPGI.

The planned activities will cover: SABs, LC (R)SGUs, operators — service providers, service users — citizens and business entities (final beneficiaries).

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .3. R1 Digital Croatia Strategy and strengthening inter-institutional cooperation and coordination for a successful digital transition of society and economy

Challenge

One of the key recommendations for 2020 for HR in CSR is to increase the efficiency and capacity of public administration to draft and implement public projects and policies at central and local level, as well as improve the efficiency of the judiciary. According to the efficiency of public administration, the Republic of Croatia is below the EU average.

The implementation of digitisation in the Republic of Croatia is also characterized by only a partially efficient and successful system of management, coordination, monitoring and evaluation of the implementation of the digital transition and unclear criteria for priority of investments in digitisation. Although digital transition is a topic everyone is dealing with, some international mismatches of the public sector have been noted. Most often, digitisation in public administration comes down to silent solutions developed for narrow functional areas of public administration, without looking at the entire process and ensuring interoperability of the system or integration of processes of different public administration bodies into the "end-to-end" process. Digitisation addresses all departments and administrative areas and strong coordination, clear vision and direction is evidently required to ensure that digitisation activities, all public authorities and institutions are carried out in the same direction.

Objective

Accelerating administrative processes and increasing the efficiency of the public sector through further integration of public administration at national and local level and its users, and strengthening the competitiveness of enterprises (large and SMEs) on domestic and world markets by encouraging investment investments in the economy of the Republic of Croatia, with special emphasis on green and digital technologies for the purpose of developing new competences, increasing production, increasing exports (internationalisation) and preserving existing ones and encouraging the creation of new jobs.

Description

Strategic document Digital Croatia 2030 will clearly define the vision and strategic objectives, priorities and measures, which will directly contribute to the realisation of the strategic objectives of the EU Digital Strategy as well as the NRR through priority areas: (i) the digital transition of the economy; (ii) the digitalisation of public administration and the judiciary; (iii) the development of broadband electronic communications networks; (iv) the development of digital competences and digital jobs.

In addition to the strategic framework for the digitisation of the Republic of Croatia, strong coordination of all bodies is also crucial, which is expected to be achieved through revision and improvement of the existing system of coordination and legislative framework and development of a corresponding system for the management of initiatives and digitisation projects at national and local level.

Implementation

The described measure includes the implementation of the procurement procedure of external experts to support the internal capacities OF SDURDD in the preparation of the Digital Croatia 2030 Strategy.

Furthermore, the measure includes the revision of the existing system and the establishment of a new mechanism of coordination, monitoring, reporting and evaluation with the elaboration *of priority criteria is planned through the implementation of the project Development of the Coordination Mechanism to support e-Governance Policy Coherence*, applied for funding under Technical support Instrument (TSI). The measure envisages the development and implementation of training programmes for management officials involved in the preparation and implementation of digitisation activities, initiatives and projects in public administration bodies according to the training principle of trainers, in

order to ensure knowledge transfer on the initiation process and management of digitisation initiatives and projects and to establish the sustainability of investments. The measure implementation holder is SDURDD.	
Implementation holder	SDURDD
Target Group	Public administration bodies involved in the preparation, planning, monitoring and implementation of the digital development policy of society and economy and bodies involved in grant award procedures for the implementation of EU cohesion policy objectives.
Estimated cost	HRK 7,500,000
Implementation period	4/2021.-4/2022.

C2 .3. R2 Improving interoperability of information systems

Challenge

It is estimated that in the Republic of Croatia public administration bodies have more than one hundred different registers and databases, of which ten to fifteen are basic registers. Despite the legal obligation to ensure availability of collected authentic data from the based registers to all public sector bodies, all legal barriers to their integration and integration into the Central interoperability system have not yet been removed. No national interoperability framework has been established, nor has an organisational and management structure been established for the central interoperability system. Establishment of business analytics facilitates the review of data, business processes and work of the body. The aim of analytical tools is to quickly, easily, rationally and objectively obtain information that state bodies need in everyday decision-making. Also, there is currently no developed segment of the IoT (*Internet of things*) industry in the Republic of Croatia, both in the public and private sectors. A great obstacle to the development of IOT in the Republic of Croatia is the initial investment in the IoT integration platform which would enable the accelerated development of services on available data. The introduction of a centralised IoT integration platform would enable the central collection and sharing of large amounts of data from different sensors and establish a platform with all necessary tools available to the public and private sectors. The platform would be equipped with the possibility of hosting applications whose function is to process and share available data in real time.

Objective

The aim is to establish interoperability of public registers and information systems, implementation of central data storage, and platforms for exchange of IoT data.

Description

The reform implies the establishment, upgrade, integration of basic registers and the establishment of a central interoperability system in accordance with the European interoperability Framework (EIF), full application of the Once-only principle by 2023 in accordance with the Regulation establishing a single digital gateway to access information, procedures, support and problem-solving services (SDGR) and the establishment of cross-border data exchange between EU Member States. It is proposed to build a central data warehouse (DWH) with the entire system for data processing, analysis, presentation and sharing, which will introduce data analysis into the state administration as a new way of working at all levels of decision making. Establishment of business analytics facilitates the review of data, business processes and work of the body. Also, the project envisages

building a part of the data storage facility that will be available to the public and private sectors in order to build additional value services on the basis of them. Data analytics enable more efficient improved data-based decision-making in order to increase operational efficiency. In this area, management still has untapped potentials of digital way of doing business, so it is proposed to introduce horizontal service within the CDU platform.

Currently, a data visualization tool has been procured and installed within the CDU platform during 2019. The tool is used as an upgrade of the iaas service and is not sufficient for a targeted analytical platform and does not have the ability to extract, load and transform (ETL process), and to store data. The tool would continue to be used in a limited manner within the CDU platform until full DWH platform functionality is established.

Information systems in the state generate a large amount of diverse data that are currently limited and sporadically used in analytics exclusively within the data-owners' bodies. There is no central data storage facility that would perform extraction, filling and transformation of data and data storage in a form that would enable the use of analytical, visualization and artificial intelligence tools.

Also, the introduction of a centralised IoT integration platform would enable the central collection and sharing of large amounts of data from different sensors and would establish a platform with all necessary tools that would be available to the public and private sectors. Users are all those who have signed contracts for the use of the IoT platform either in the capacity of data transmission, data processing or data use. Beneficiaries can be public or local government, state administration bodies or the private sector. Croatian IoT market is poorly developed and it is necessary to educate users in order to start developing services based on IoT technologies in order to start installing sensors that will enable collecting data from a large number of sources, which will form a quality basis for using IoT integration platform. Data is an important resource for economic growth, competitiveness, innovation, job creation and overall social progress.

Data-driven applications will benefit citizens and businesses in many ways. They can: (i) improve health care; (ii) create safer and cleaner transport systems; (iii) generate new products and services; (iv) reduce public service costs; (v) improve sustainability and energy efficiency.

Implementation

The measure consists of the following investments: establishment of a Central interoperability system; establishment of a National IoT Platform; establishment of a data warehouse and a business analytics system.

The measure contributes to the European initiative Modernisation of the Annual Strategy for Sustainable growth in 2021 and is linked to 2.2.2. Increasing the efficiency of local and regional self-government systems through investments: 2.2.2.2 further optimisation and decentralisation through shared e-services of local self-government and further digitisation of public services and 2.2.3. The establishment of physical single administrative posts (Phase 1), because the establishment of a central interoperability system will provide preconditions for the development of better, more complete and complex public e-services and administrative relief of citizens and business entities in interaction with public administration bodies.

Implementation holder	SDURDD is the holder of the measure. The investment will be carried out in partnership with the competent authorities of the registers and for the purpose of successful implementation, certain activities, such as analysis of the situation of the registers, analysis of the legal framework and proposals for its improvement,

	defining the catalogue of services and services will be used by external experts contracted in public procurement procedures.
Target Group	Public administration bodies, citizens and business entities (final beneficiaries).
Estimated cost	HRK 493,300,000 (investment)
Implementation period	1/2021.-6/2026.

C2 .3. R3 Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies

Challenge

The establishment of the Centre for shared services (CDU) is one of the key SDURDD projects that will virtually connect state information infrastructure enabling the sharing of information and communication technologies, thus achieving significant rationalization. All public sector bodies will be able to use common, reliable and scalable ICT infrastructure according to the cloud paradigm (Clouda). Grants from the European Regional Development Fund (EPFRD), OPCC, have been provided for the project. The existing project establishes central management and consolidation of the State information infrastructure (DII), data, requirements, operations and horizontal public administration processes in order to improve the transparency and efficiency of public administration, applying the highest standards of cyber security prescribed by the Act on Cyber Security of operators of essential services and digital service providers. The project's performance indicator is the integration of 300 institutions into the State Cloud by 2023.

Since the CDU platform was put into operation on 1.12.2019, 50% of the total planned capacity was procured for this purpose. The platform upgrade was carried out in 6 months 2020 and 85% of the total planned capacity was achieved. The project plans to upgrade mid-2021. thus, the platform should have full capacity to achieve the aforementioned performance indicator of 300 institutions.

Furthermore, the establishment of a state cloud is also part of a common approach to building a European competitive, green and secure infrastructure and cloud services with the intention of strengthening European digital sovereignty and increasing the competitiveness of European business and industry. Since cybersecurity is an indispensable component of such a system, certification through guarantee levels of cybersecurity is also necessary as added value of quality of service, data protection and data portability.

The measure of modernization and further development of the state information infrastructure in the Republic of Croatia includes modernization of the existing concept of management of the state information infrastructure, i.e. construction of a data centre in 100% of the ownership of the Republic of Croatia. This modernisation and further development of the state information infrastructure will enable the necessary precondition for the smooth, secure and sustainable use of information telecommunication resources of state and public administration bodies, with the aim of further digitization of society and economy. As an important segment of digitisation, especially in the part of consolidation, but also in providing essential health services to citizens is the Central Health system (COMMON). COMMON, as the central system for storing health data and information for their standardized processing at the primary, secondary and tertiary levels of health care, is a part of the health information infrastructure of the Republic of Croatia. The Croatian Health information infrastructure is a system of harmonised processes and services for

managing health data, information, registers and other records in the Croatian health care system, it is part of the state information infrastructure. The necessary capacities for consolidating the health information system WERE therefore not covered by the CDU, and since these are important needs for ICT resources, which cannot be met from the foreseen infrastructure stocks established by the project, it is necessary TO consolidate the more FREQUENT system through the extension of the CDU. The basis for communication among components of the state information infrastructure consists of two Hitronet and CARNET networks. There is a high level of heterogeneity in the way of use, contracting and spending of budget funds for the purpose of connecting TDU to network infrastructure.
In addition, it is necessary to increase the resilience of DII networks to cyber-threats, which can range from attacks to limit network availability (DDoS) to classical network hacks or computer viruses attacks. Also, the investment includes the establishment of platforms and digital infrastructure services that will improve the provision of electronic public services and reduce the burden on citizens, businesses and investors. Up-to-date spatial data have become the basis of modern e-society and play a key role in almost all areas of human activity, and as such they are essential for nature and environmental protection, sustainable development and efficient planning of renewable energy sources, and their implementation and distribution through network services will enable citizens, public and private sectors to make data available in real time, but also contribute to the development of entrepreneurship and it services based on these data.
Geospatial data of the State Geodetic Administration (SGA) are the basis of digital transformation in order to manage the space, because only high quality, up-to-date and accurate geospatial data can visualize the space, which is a precondition for the implementation of space management policy as one of the most important resources for the development of the Republic of Croatia. While progress has been made by the DGU in the area of digital transformation over the past period, which has resulted in improved transparency, interoperability and new e-services for citizens and entrepreneurs, a major challenge remains the collection, management, maintenance and sharing of spatial data and information to a wide range of users, as well as full functionality in the provision of public e-services. Citizens' interaction with the public administration relates to providing information, access to services and resolving living situations through a web application, a palm or a mobile device.
The need for faster, cheaper and more affordable service of public service providers has led to the development of numerous independent software solutions that provide citizens of the Republic of Croatia and other EU citizens, i.e. the European Economic area (EEA) and business entities with fast and efficient service from anywhere and at any time. The previous period was marked by the eConstruction Platform, through which citizens access electronic services provided by public administration bodies. Thanks to the widely available internet infrastructure, the spread of the 5G network, the availability of the IOP network, as well as other channels of data availability, citizens have been enabled to interact electronically with public service providers. In this context, it is necessary to build a platform that represents a standardised and uniform way to implement and display services of public administration bodies on mobile platforms, using the latest technologies and standards, all with the aim of providing quick and easy access to the service itself, anytime and anywhere - both to citizens and entrepreneurs of the Republic of Croatia and other citizens and entrepreneurs of the EU/EEA. The aim of creating a mobile platform is to enable citizens to do the tasks they provide in a simple and fast manner. The aim is also to create preconditions for integration of existing and future services of public administration bodies (EUsluge) in a simple and standardised way that will make them more accessible to

citizens.
It is important to emphasize that the state information infrastructure, including THE National Identification and authentication system (NIAS), cannot be used to provide electronic identification according to the private sector, because NIAS is dimensioned with regard to its ICT capacities in such a way that it can meet the needs of the development of public administration services, for which the necessary funds from the State budget of the Republic of Croatia are regularly secured. In order to respond to the challenges described, as regards the provision of these services to the private sector, it is necessary to amend and adapt legislation to enable the use of individual services and by the private sector, to make the necessary technical and legal adjustments regarding inclusion, to expand the necessary ICT capacities of existing NIAS systems and other related systems such as e-authorizations and the eIDAS node, and to establish appropriate systems for managing and monitoring relationships with involved business entities. Almost two million electronic ID cards were issued in Croatia by the end of 2020, which began issuing on 08/06/2015. The Croatian electronic ID card (EoI) has all the functionalities of the citizens' European card, which makes it interoperable and suitable for use both in electronic business at national and European level. All citizens in Croatia can use e-OI to access a range of public services available via the e-citizens portal, while the authorisation holders of business entities and other entities can use e-OI to access public services available to business entities and other entities through the e-business system, which is the goal that is intended to be achieved by this reform measure.

Objective

Consolidation and upgrade of state information infrastructure and services, cost reduction and optimisation of public processes, establishment of more efficient communication with citizens and improvement of existing systems.

Description

Consolidation of the system on CDU cloud significantly reduces electricity consumption and consequently environmental pollution and impacts on climate change. The service is significantly improving technologically and eliminating overlapping systems resulting in lower cost of final service with significant improvement of service quality. Every service adopted on the CDU infrastructure is subject to uniform security standards and thus significantly improves protection against cybercrime. Cloud services through a “security by design” approach to cyber security are a prerequisite for cost minimisation and maximum risk minimisation, but also for ensuring the application of European standards in terms of security, data protection and protection of end users. This approach provides the citizens of the Republic of Croatia with a safe environment for access and use of services, i.e. enables smooth and continuous provision of services without compromising the confidentiality, integrity and availability of services and data. The measure is a necessary precondition for the long-term realisation of the proposed measures, especially the Digital Croatia Strategy and strengthening among institutional cooperation and coordination for a successful digital transition of society and economy and measures for the establishment of a central interoperability system as a precondition for the development of quality, complex and users of adjusted public e-services at national, regional and local level. This approach provides the citizens of the Republic of Croatia with a safe environment for access and use of services, i.e. enables smooth and continuous provision of services without compromising the confidentiality, integrity and availability of services and data.
Accessibility of electronic services is a prerequisite for equal participation of all citizens in an active role in society and contributing to smart, sustainable and inclusive development of the digital society and society as a whole. The strategic goal States in particular the

strengthening and construction of strategic digital capacities, ensuring availability of data owned by public authorities and encouraging “open data” initiatives with the highest level of protection of citizens' personal data will encourage the development of new services and data-driven business initiatives. It also States that modern information infrastructure will ensure the availability of digital public services to Croatian entrepreneurs. However, the existing infrastructure capacities of the CDU are primarily intended to meet the indicators of this project. In order to make the realization of information infrastructure investments faster, more efficient and transparent, it is necessary to transform spatial plans from the current generation into new generation spatial plans (investments within this measure), and for which it is necessary to develop new and upgrade existing applications that will digitize the procedures necessary for realization of information infrastructure in the Republic of Croatia by accommodating the CDU. It is therefore necessary to continue the digital transformation process in order to complete the development and integration of existing information systems, and to develop new systems that rely on spatial data under the jurisdiction of the SGA. Finally, the level of use of e-public services in the Republic of Croatia via the Internet will increase as well as communication with public administration bodies using digital applications.
Protection and resistance to cyber attacks that may cause major disturbances in the physical or digital spheres should be ensured.

Implementation

This measure plans to:

- Upgrading of the Shared services Centre
- Construction of data centre for public administration and LGAP of the Republic of Croatia
- Strengthening the capacity of police to combat cybercrime
- Establishment of a single contact centre for all e-public services for providing user support
- Consolidation of the health information infrastructure SYSTEM
- Digital ID card implementation Project
- Investments in national information infrastructure networks
- Improvement of the system of physical planning, construction and state property through digitisation
- Outsourcing OF NIAS services for the economy
- Development of digital mobile platform
- Improving geospatial data within the competence of the State Geodetic Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia
- Reform of the electronic public procurement system - EOJN 2.0
- Establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers

Implementation holder	SDURDD, TDU and other participants in the projects
Target Group	Citizens, TDU
Estimated cost	HRK 3,260,710,478 (investment)
Implementation period	1/2021. - 6/2026.

C2 .3. R4	**Strengthening connectivity as a basis for digital transition of society and economy**

Challenge

Ensuring the equal availability of electronic communications networks and very high capacity infrastructure enabling gigabite connectivity for households and socio-economic

drivers, as a basic precondition for the transition towards a digital society and economy based on digital technologies. Ensuring the availability of gigabit networks will provide an opportunity to achieve a large number of social and economic benefits for citizens and households, economic operators and public administration. The construction of networks that enable gigabite connectivity (optical and 5G networks) will reduce the digital gap between urban and rural areas of Croatia and will create preconditions for further development of digital services which require very high speeds, capacities and reliability of transmission, achievable only through gigabit networks, which directly contributes to the uniform regional development of the Republic of Croatia. This directly contributes to the achievement of the objectives of the Communication from the European Commission "Connecting to a competitive Digital Single market — towards a European gigabit Society" and the "5G for Europe" Action Plan, which encourage the development of broadband access and very high capacity networks, enabling gigabit connectivity to transform the Digital Single market towards a gigabit society and develop 5G networks.

Digital broadband connectivity will be achieved complementary through high-capacity broadband connections (VHCN) and broadband connections in advanced wireless networks, including via 5G networks in line with the objectives of the European gigabit Society. In order to plan the necessary measures with the aim of encouraging investments in optical networks and 5G networks, administrative and regulatory barriers in the area of construction and physical planning have been observed, which also restrict the development of electronic communications networks in certain areas. This primarily refers to obstacles related to the scope and duration of licensing procedures for the construction of electronic communications infrastructure and spatial plans containing provisions which significantly complicate the construction of mobile electronic communications networks. The investment gap in the total estimated amount of HRK 7 billion, which has to be bridged in order to achieve the objectives of the European gigabit Society, has been identified.

The investment gap is particularly pronounced in rural and remote areas of the Republic of Croatia and there is a great discrepancy between availability of very large capacity networks (VHCN) in urban and rural areas, where high construction costs pose a special challenge to encouraging investment. Also, the use of broadband access to very high-capacity networks in general is insufficient, as a result of insufficient digital literacy of the population and insufficient level of disposable income in the population, as well as insufficient use by major socio-economic factors. In relation to the deployment of 5G networks, the challenge is to conduct the licensing procedure for the use of radio frequency spectrum in frequency bands for 5G networks as soon as possible. Also, insufficient education and distorted public picture of the electromagnetic fields of mobile network operators' base stations, with increasing demands for removal of existing ones and inability to build new base stations represent a serious challenge to plans to install 5G networks.

Objective

The objective of the Republic of Croatia is to enable the availability of very high capacity networks to broadband households with speeds of at least 100 Mbit/s per *beneficiary* (download); (ii) to enable very high capacity services to be available in urban and rural areas and along major inland transport routes (5G) involving at least 1 Gbit/s; (iii) to encourage investments in the deployment of 5G networks in the Republic of Croatia.

Description

The measure is in line with the CSR 2020 for the Republic of Croatia, which highlights the marked digital gap between rural and urban areas and the need for investments in very high capacity networks, including the introduction of 5G networks, as a basic precondition for the digital transition of society and economy. As many as two out of four recommendations of the European Commission for 2020 direct point to the implementation of measures and the necessity of further action towards a more efficient digital transition, both through increased access to digital infrastructure and services (CSR 2) and through further investments in broadband internet (CSR 3).

Implementation

In order to achieve the set objectives, it is necessary to carry out reform activities which include:

(i) Timely and comprehensive implementation of the regulatory framework through the adoption of the electronic Communications Act which will take over the provisions of Directive (EU) 2018/1972 on the European Code of electronic Communications and the National Plan for Broadband Development in the Republic of Croatia in the period from 2021 to 2027. Priority policies of the National Plan include ensuring the necessary preconditions for the introduction of very high capacity networks throughout the entire territory of the Republic of Croatia, ensuring the necessary prerequisites for the introduction of 5G networks in the Republic of Croatia, encouraging the deployment of very large capacity networks in parts of the Republic of Croatia where under normal market conditions it is not possible to ensure availability of very high capacity networks.

Reform activity is carried out by THE IMPI in cooperation with the Croatian regulatory Authority for Network Industries.

(ii) Analysis and identification of administrative burdens and regulatory barriers to investments in the deployment of very high capacity networks, including 5G networks, with the adoption of the *Common Union Connectivity Toolbox "and* the development of a proposal to optimise the process of issuing building permits, with a view to simplifying licensing and compliance with the deadlines and other conditions set out in the Act on measures to reduce the cost of deploying high-speed electronic communications networks[26] and the European Code of electronic Communications Directive. The most important obstacles to the deployment of very high capacity networks are the following:

a. Despite the fact that there is a good regulatory framework in the field of electronic communications, which make up the electronic Communications Act, the Ordinance on the manner and conditions of access and sharing of electronic communications infrastructure and other related equipment and the Standard offer of SMP, which allows access within 15 to 30 days, other regulations, such as the Construction Act and the Ordinance on simple and other buildings and works, which extend this deadline to 3 months, apply. For this reason it is necessary to harmonise the requirements prescribed by the Construction Act with the legislative and regulatory framework in the field of electronic communications.
b. Non-compliance with deadlines for issuing construction permits for construction of electronic communications infrastructure
c. Since local and regional spatial plans are not in line with the Regulation on standards for the development of electronic communications infrastructure and other related equipment[27], which makes the deployment of electronic communications infrastructure much more difficult, it is of paramount importance to align them with that Regulation.

The reform activity, along with the analysis and identification of administrative burdens and regulatory barriers to investments in the installation of very high capacity networks, including 5G networks, includes the drafting of proposals for amendments to regulations and the optimisation of the licensing process in the amount of HRK 500,000. The reform activity is carried out by the Ministry of physical planning, Construction and State property in cooperation with the Ministry of the Sea, Transport and infrastructure, the Croatian regulatory Agency for Network Industries and

26 NN 121/16

27 OG 131/12 and 92/15

electronic communications network and service operators.

(iii) Implementation of licensing procedures for the use of radio spectrum in frequency bands for 5G networks. Procurement of advisory services for 5G spectrum auctioning (700 MHz, 3.6 GHz and 26 GHz) is currently under way. One of the tasks of the selected consulting firm will be to propose an appropriate price to encourage the operator's investment. Accordingly, the NPOO will finance a consultation to select the best modality of preparing, implementing and evaluating the electronic auction procedure for the allocation of radio spectrum in frequency bands for 5G networks that encourage investments in the amount of HRK 2,000,000.

The reform activity is being implemented by the Croatian regulatory Authority for Network Industries.

(iv) Informing and educating the public about the impact of electromagnetic fields, especially regarding the deployment of 5G networks. Public education and transparent publishing of all relevant information about 5G and the impact of electromagnetic fields are key elements for building public trust in institutions and reducing resistance to setting up 5G networks. Part of the public in Croatia is quite concerned about the effects that 5G could have on human health. Therefore, HAKOM and the Croatian Association of Employers (HUP) initiated some activities aimed at educating the public about electromagnetic fields and 5G. These activities are mutually independent but have the same goal – to facilitate the implementation of 5G networks. HAKOM has published on its website a special section dedicated exclusively to 5G technology (https://www.hakom.hr/default.aspx?id=10530). The site provides simple explanations on what 5G is, its technical characteristics, possible cases of use, etc. Data on test permits and posted 5G websites are also published and regularly updated. HUP ICT, which gathers Croatian ICT companies, is conducting a “connected and safe” campaign (web site available only in Croatian: http://povezanismosigurni.hr), trying to explain 5G technology, including frequency bands used, when the network will be operational and what advantages it will bring. In addition to the existing aforementioned activities, this activity should be continuously implemented, and the financing of educational and informative campaigns in the amount of HRK 200,000 will be planned within the NPA.

The reform activity is carried out by the MIC in cooperation with THE CROATIAN INSTITUTE for Health INSURANCE and the Institute for public Health “Dr. A. Stampar”, the MMPI and the Croatian regulatory Authority for Network Industries in the part of the explanation of the application of new technologies

(v) Successful confrontation with all forms of organised and cross-border crime, including smuggling of people and goods and economic and financial crime, except that it is an important prerequisite for strengthening the quality and efficiency of the criminal-legal system, more efficient fight against, or improvement of the investment climate, also contributes to raising the level of internal security of the Republic of Croatia and better monitoring of security and the internal market of the EU. Since technological sovereignty plays an important role in the fight against security challenges on national, European and global, one of the challenges, i.e. it requires the integrity of data infrastructures, networks, communications and information systems, for which the establishment of relevant capacities on the entire territory of the Republic of Croatia is essential, especially in the area of borders, which, besides directly contributing to the strengthening and better protection of its security, is also in the direct service of strengthening its territorial integrity.

Implementation holder	MMPI with other bodies
Target Group	
Estimated cost	HRK 3,432,700,000 (Investments: 3,430,000,000)
Implementation period	1/2021.-06/2026.

(b) Investments

C2 .3. R2-I1 Establishment of a central interoperability system

Challenge

The lack of integration and connectivity of public registers negatively affects the efficiency of public service provision and the quality and completeness of e-services provided and developed by public administration bodies. It lags behind in the implementation of measures related to the establishment of a single digital gateway (SDGR) and application of the Once-ONLY principle (OOP) for which the deadline for implementation is 2023.

Objective

The measure implies the establishment, upgrade, integration of basic registers and the establishment of a central interoperability system in accordance with the European interoperability Framework (EIF), full application of the Once-only principle by 2023 in accordance with the Regulation establishing a single digital gateway to access information, procedures, support and problem-solving services (SDGR) and the establishment of cross-border data exchange between EU Member States.

Description

The measure is complementary to the project of the Central State Office for Development of the Digital Society “establishment of the Centre for shared services” co-financed by the European Regional Development Fund within the OPCC through which state information infrastructure will be merged and information and communication technologies and the same applicative solutions will be shared with public administration bodies. Within the framework of this project, the Central Data Exchange collection (GSB) was implemented, which represents one part of the Central interoperability system, i.e. data exchange between registers, records and different systems within the state information infrastructure. In addition, the measure is complementary to the project co-financed by the European Social Fund “process computerization and establishment of a complete electronic service of enrolment in educational institutions” within which the process of integration of registers into the GSB started to a lesser extent in order to develop a complex electronic registration and enrolment service in educational institutions, state graduate register and national information system for adult education.

Implementation

The project envisages the integration of 8 registers (e.g. register of defenders, queen bears, register of residence...) through the central collection, but not the establishment and implementation of all components of the Central interoperability system in accordance with the principles of the European interoperability Framework. It is important to emphasize that the project is ongoing, and that in this segment it is necessary to co-finance the connection of registers to THE GSB, so that the services can be retrieved through the collection and within the mentioned project.

The measure includes activities: creation, integration and upgrading of basic registers and other authentic sources of information (at national regional and local level) and integration with the central interoperability system, including cleaning and optimising registers, and the development of interfaces with basic registers and authoritative sources of information with the publication of semantic and technical means and documentation necessary for others to connect and reuse available information.

Furthermore, a Catalogue of services services connected to the *National Service* bus (GSB) and systems of other important services for citizens and business entities will be

established, migration and integration of existing services will be carried out, implementation of the Central National interoperability Portal and connection of the Central interoperability system with THE EC OP Technical system and establishment and integration of all services set by THE Sdgr. - Single gateway.	
Implementation holder	SDURDD
Target Group	Public administration bodies; citizens and business entities (final beneficiaries)
Estimated cost	HRK 128,500,000
Implementation period	1/2021. - 6/2026.

C2 .3. R2-I2 Establishment of an IoT platform at the state and local level

Challenge

Establishing interoperability at local and regional level, especially in the Internet of things (IoT) sharing segment, and added values that can result in such a project, including implementation based on the European principles for smart cities (EIF4SCC). The proposal describes the IoT project for smart cities that foresees the use of IoT technology, mass data and cloud computing for the digitisation of cities and communities. It is proposed to establish a standard IoT integration platform for digital Croatia and thus systematically introduce IoT sensor networks into cities. On the other hand, installation and development of sensors and IoT gateway is not an integral part of this investment. There are several projects made in the Republic of Croatia such as the City of Dubrovnik[28], the City of Rijeka[29], the City of Zagreb[30], but they represent isolated projects and do not enable the central aggregation of data with the possibility of additional analysis and development of new services.

Objective

Based on the generated mass open public data innovative services for different areas of social engagement at the local level will be developed. The goal of using Internet of things in cities and communities is to develop an integrated intelligent system that will contribute to economic activities, improve citizens' satisfaction with public services, contribute to public safety, sustainable environmental management, more efficient urban area management and other challenges oriented towards cities and communities. IOP integration Platform will enable linking collected data on field devices with business applications and analysis with activated artificial intelligence elements (AI) using reliable and open protocols. The platform will be built in such a way that it can at the same time support various sectors such as health care, industry, transport, energy and agriculture etc. The IOP integration platform integrates interconnected external devices such as sensors, actuators, PLCs and IoT gateway and provides infrastructure for the establishment of IoT business applications.

Description

As regards the establishment of interoperability at local level with the aim of using IoT data, a standard IoT integration platform for digital Croatia will be established which will, based on its openness and integrity, enable data collection in standardised formats, easy access to data sources, advanced analysis and visualisation of collected mass data and facilitate the development of innovative services. Local communities will be able to use the cloud computing services offered by the state within the framework of: the shared services centre where the platform will be installed, and where a development environment for the development of services will be available based on data from public records and tools for

28 https://dura.hr/get/projekti/65205/smart_city_dubrovnik_2020.html

29 https://smart-ri.hr/

30 https://eko.zagreb.hr/zagreb-smart-City/4348

the analysis and visualisation of mass data from collected IoT data.

Implementation

Investments will include: development of architecture of the whole system, including division of functionalities between local and central functions within the CDU framework, definition of standard data formats and interoperability rules, establishment of a sensor platform for monitoring urban parameters such as air quality sensors, light radiation sensors, noise pollution, environmental events monitoring (fires, video surveillance with analysis of traffic signals, transport signals, etc.) and other technologies that can monitor events and environmental quality in cities.

The IOP integration platform will be equipped with hardware and software that will enable:

(i) Open and secure communication with external devices based on open standard interfaces and MQTT protocol

(ii) Remote access to devices and remote control of devices based on an open standard protocol optimized for communication in the IoT world.

(iii) real-time data management: collecting, storing, sharing and analysing data from field sensors and devices to allow real-time analysis with the upgrading of artificial intelligence

(iv) Installation of an AI tool that will be available to users of the IoT Data analysis Platform

(v) space for installation of business applications that upgrade the IoT platform

(vi) High level of security upon access. Sharing and processing of data.

(VII) High scalability of platforms and easy addition of capacity to demand that will increase over time as the platform is charged.

(VIII) interoperability of the platform that will enable the integration of the platform into the European Common Data Spaces.

In addition to the procurement and installation of the central IoT platform, it is necessary to obtain a smaller quantity of test equipment in the form of sensors and IoT gateway that would be used for testing and development of new services, as well as tools for user education with the aim of raising the level of knowledge and better utilization of available equipment, and thus digital skills of users, citizens and wider population, costs of user education, project visibility costs, labour costs. The increase in the number of users and the number of sensors from which they are collected will result in necessary platform upgrades. Sensors are all IoT devices that send data to the IoT integration platform, while data storage space is calculated based on the total amount of data that sensors send unprocessed, processed, and as part of business applications (services) that are built inside the platform.

Necessary amount of resources depending on platform growth:

Year	2021.	2022.	2023.	2024.	2025.	2026.
Number of sensors	0	10.000	30.000	100.000	300.000	500.000
Number of users	0	10	30	50	70	90
Storage space [PB]	1	1	2	5	10	20

The establishment of the IoT integration platform implies the following activities: (i) development of technical specifications for procurement; (ii) implementation of public procurement; (iii) establishment of platform; (iv) construction of interoperability and integration of platforms in *European Common Data packages*; (v) Education of beneficiaries for use of IoT platform; (vi) implementation of project visibility; (v) upgrading of platform capacity depending on demand.

As part of the costs planned for the development of technical documentation for procurement and the cost of implementation of public procurement of the platform, the cost

of user education aimed at achieving as many users of the platform as possible, the cost of integration of the platform into the European *Common Data Spaces* which will enable the exchange of data with other members, regular upgrading of the platform's capacity in order to be able to accommodate more users and data sources, estimirana means for project visibility, and estimate of data space cost of 20 FTE for the smooth operation of the CDU platform.

Cost assessment:

Activities	2021.	2022.	2023.	2024.	2025.	2026.
Establishment of IoT platform	75.000.000	0	0	0	0	0
Integration of platform into *European Common Data Spaces*		6.000.000	0	0	0	0
Platform upgrade	0	0	10.000.000	10.000.000	10.000.000	5.000.000
Cost of user education	1.000.000	1.000.000	1.000.000	1.000.000	1.000.000	500.000
Project visibility		1.000.000	0	0	0	0
Labour cost	2.000.000	4.000.000	4.000.000	4.000.000	4.000.000	2.000.000
Cost of documentation and public procurement	400.000					
Cost of renting toilets and electricity	1.200.000	2.400.000	2.400.000	2.400.000	2.400.000	1.200.000
Total	79.600.000	14.400.000	17.400.000	17.400.000	17.400.000	8.700.000

Implementation holder	SDURDD
Target Group	Public administration bodies, citizens and business entities (final beneficiaries).
Estimated cost	HRK 154,900,000
Implementation period	1/2021.-6/2026.

C2 .3. R2-I3 Establishment of data warehouses and business analysis systems

Challenge

The challenge is the existing legislation that is not harmonised for the sharing of data between state administration bodies, local government units, public authorities, public and private sectors. It will be necessary to establish processes and procedures enabling system users to access certain datasets in accordance with legal regulations. Also, the challenge is to establish a partnership process between SDURDD as a service provider (and infrastructure) and data resource administrator, together with specific user requirements, analytical queries and interpretation of the content of individual data with DWH system owners and users. By building a business analytics system, it will be necessary to gradually build confidence in presented data in the state administration, whereby data source owners and proper preparation of requests for analytical models will play a crucial role.

Objective

The aim is to introduce a data storage system as an ecosystem that will enable extraction, filling, transformation, storage, analysis, visualization and analysis, and to introduce an analytical organizational culture as a source of reliable summary data necessary for the decision-making process. Within the framework of the project, a number of business indicators (dashboards, pre-prepared reports) would be prepared in advance, reflecting daily the status of data for all user groups, from decision-makers to advanced analysts and end users.

The platform will enable real-time data analysis, which can significantly improve data-

based decision-making. This will also simplify business operations and enable employees to get involved in the actual analysis of data, and not just in preparing them. The DWH platform will enable access to data and tools for the public and private sectors in accordance with regulations. This will enable data sources not only to be state administration bodies, public authorities and local governments, but also to the private sector that will be able to build additional value services on the common dataset. By establishing data warehouses and business analytics systems in the state administration, the primary goal is to improve and optimally organize the data management system, the reporting system and decision-making process at all levels and to enable the private sector to build value added services on available data and tools.

Description

A central DWH platform for digital Croatia will be established which will, based on its openness and integrity, enable data collection in standardised formats (structured and unstructured data), easy access to data sources, advanced analysis and visualisation of collected mass data. The platform would be divided into two segments: (i) a data storage dedicated to state administration bodies where advanced analysis would be carried out with a view to making decisions more efficient; (ii) an open data storage with implemented analytical tools and artificial intelligence elements available to the private and public sector for the development of new innovative services.

Data storage intended for state administration bodies will, through supervisory boards, pre-prepared reports and real-time analysis, have available tools for quick and effective decision-making at all levels.

The Open Data Warehouse with installed analytical tools will enable public and private users to build new innovative services. The platform will provide a development environment for the development of services based on the collected public data and tools for analysing and visualising mass data.

Implementation

The investment will include: developing the architecture of the entire system, including the division of functionalities between the owners of source data and central functions within THE DWH framework, defining standard formats of collected data and interoperability rules, establishing a platform for extraction, charging and transformation of data, establishing a central warehouse for structured and unstructured data and processing, establishing analytical tools, visualisation tools and elements of artificial intelligence and a presentation layer. In addition, it is necessary to prepare a certain set of pre-defined reports and dashboards which will enable users to make effective decisions based on data.

A very important segment is the establishment of interoperability and implementation of standard AIPs for Open Data Access (Open Data Portal in the Republic of Croatia), as well as standard AIPs that will enable the collection of other data from state administration bodies, cities and communities and other public services, public enterprises and the private sector.

THE DWH platform will be equipped with hardware and software that will enable:
(i) data collection: extraction, charging and transformation (ETL) of structured and unstructured data; collection of data through streaming processing software from real-time data feeds; collection of data based on monitoring changes (CDC software).
(ii) Data storage depending on functionality: storage of structured data; storage of unstructured data; in memory storage enabling quick real-time processing; transformation functions of stored data.

(iii) analysis, processing and visualization tools: a certain predefined set of reports and dashboards.
(iv) interoperability through an open set of APIs.

In addition to the acquisition and installation of the central DWH platform, it is necessary to plan the costs of user education, project visibility costs, labour costs that will maintain and further develop the platform and the costs of renting the data centre and electricity consumption. By increasing the number of users and the number of data sources from which data are collected, it is necessary to plan to upgrade the capacity of the platform.

The data source can be any system that, by means of one of the data collection mechanisms, sends its structured or unstructured data to the central DWH platform. Data storage space is calculated on the basis of the total amount of data collected periodically or in real time, data generated by their processing, and data as part of business applications (services) that are built within the platform.
Necessary amount of resources depending on platform growth:

Year	2021.	2022.	2023.	2024.	2025.	2026.
Number of Data Source	0	50	100	150	200	250
Number of users	0	10	30	50	70	90
Storage space [PB]	2	2	4	6	8	10

Establishment of the central DWH platform implies the following activities: (i) development of technical specifications for procurement; (ii) implementation of public procurement; (iii) establishment of platform; (iv) establishment of interoperability; (v) Education of users for use OF DWH platform; (vi) implementation of project visibility; (VII) capacity building of platforms depending on demand.

As part of the costs planned for the preparation of technical documentation for procurement and the cost of implementation of public procurement of the platform, the cost of user education, which aims to achieve as many users of the platform as possible, expense
Cost assessment:

Activities	2021.	2022.	2023.	2024.	2025.	2026.
Establishment of DWH platform	75.000.000	0	0	0	0	0
Integration of platform into interoperability system		2.000.000	0	0	0	0
Platform upgrade	0	0	10.000.000	10.000.000	10.000.000	5.000.000
Cost of user education	1.000.000	1.000.000	1.000.000	1.000.000	1.000.000	500.000
Project visibility		1.000.000	0	0	0	0
Labour cost	2.500.000	5.000.000	5.000.000	5.000.000	5.000.000	2.500.000
Cost of documentation and public procurement	400.000					
Cost of renting toilets and electricity	1.200.000	2.400.000	2.400.000	2.400.000	2.400.000	1.200.000
Total	80.100.000	11.400.000	18.400.000	18.400.000	18.400.000	9.200.000

Implementation holder	SDURDD
Target Group	Public administration bodies, citizens and business entities (final beneficiaries).
Estimated cost	HRK 155,900,000

Implementation period	1/2021.-6/2026.

C2 .3. R3-I1 Upgrading of the Shared services Centre

Challenge

The CDU platform is designed and implemented as a scalable, highly secure and energy efficient platform that monitors demand and offer for the capacities of foster systems thus achieving significant savings, while on the other hand ensuring high quality service with fast response to new demands. The capacities are sufficient for the adoption of 300 planned institutions (i.e. 13.82% of the total detected). It is necessary to plan the procurement of additional capacities in the forthcoming period and take into account that the fulfilment of the goal of 300 institutions will be done faster than planned 31/12/2023. The plan is to additionally expand the number of users of state clouds for new institutions in the period from 2024 to 2026, provide sufficient capacity to adopt new projects with national or EU funding that do not have the contracted cost of infrastructure that is planned to be resolved through the CDU platform, and enable the establishment of new cloud services that have not been established and are prescribed by the Regulation on organizational and technical standards for connection to state information infrastructure.

Objective

The project aims to expand capacity and maintain the existing state clouds and establish new functionalities that will be elaborated in further investment description.

Description

Project beneficiaries are state administration bodies (SABs), public services and other users defined by the Act on State information infrastructure. The results of *the feasibility study "establishment of the Shared services Centre"* established a total of 2170 institutions that have a total of 78,471 employees who will potentially use shared services in institutions as direct users of shared CDU services. In addition to public services and state administration bodies and other state bodies, shared services provided by the CDU shall also be available to LC (R)SGU for the purpose of their operation and the provision of public services. In addition to capacity upgrades, it is necessary to plan the upgrading of services and functionalities. There is a need to foster customer services in the Pasas model *(Platform as a service or application platform as a service or platform-based service is a category of cloud computing services this provides and platform allowing it develop, run, and manage)*. The implementation of the paas functionality will enable the adaptation of the CDU platform DevOps methodology, which will ultimately reduce the time of implementation of new services and the costs of maintenance and upgrading of the adopted services. With this implementation, CDU will offer users the most modern development environment and all necessary resources for development teams for all future applications that will be developed for SABs. This type of service is not planned through the existing project for the establishment of the CDU platform, and its financing is proposed in this project. As part of the future project it is necessary to integrate the platform into the "European Common Data Spaces" in order to enable safe adoption, access and exchange of data and services at the EU level, after the framework (framework) and collection for data exchange in this segment are implemented.

Implementation

Project beneficiaries are SABs, public services and other users defined by the Act on State information infrastructure. The results of the feasibility study "establishment of the Centre for shared services" co-financed by the European Union from the European Regional Development Fund established a total number of 2170 institutions that have a total of 78.471 employees who will potentially use shared services in institutions as direct users of shared services of the CDU. Apart from public services and state administration bodies

and other state bodies, the shared services provided by the CDU must also be available to local and regional self-government units for the purpose of their operation and the provision of public services. In addition to upgrading capacity, it is necessary to plan upgrading of services and functionalities (see below). There is a need to foster customer services in the Pasas model (Platform as a service or application platform as a service or platform-based service is a category of cloud computing services this provides and platform allowing it develop, run, and manage). The implementation of the paas functionality will enable adjustment of the CDU platform to the DevOps methodology, which will ultimately reduce the time of implementation of new services and the costs of maintenance and upgrading of the adopted services. With this implementation, CDU will offer users the most modern development environment and all necessary resources for development teams for all future applications that will be developed for SABs. This type of service is not planned through the existing project for the establishment of the CDU platform, and its financing is proposed in this project. As part of the future project it is necessary to integrate the platform into the “European Common Data Spaces” in order to enable safe adoption, access and exchange of data and services at the EU level, after the framework (framework) and collection for data exchange in this segment are implemented.

Capacity extension and maintenance of the state clouds: capacity extension is planned before the expiry of the existing project 31/12/2023, as extension to more users than initially planned is planned. Accordingly, capacity expansion should be planned during 2023. Capacity expansion would be accompanied by an increase in demand planned with new users on the system. It is also necessary to calibrate the organic growth of the adopted systems within the existing project based on 15% per year, as well as the capacity to be spent to launch new CDU services, as well as all future business to Government (B2G) and Customer to Governement (C2G) services in the country. The Act on State information infrastructure defines clearly the connection of services as well as the use of horizontal components within the CDU.

Maintenance of the system implies maintenance of software and hardware components as recommended by the manufacturer, i.e. repair of failures or right to new versions and correction of errors. Maintenance does not imply the cost of the labour force under special items within the project and are included in the financial analysis according to the existing costs (shown below). Labour costs are currently covered through the CDU establishment project by the end of the project 31.12.2023. After the expiry of the existing project, it is necessary to contract labour costs for the full functioning of the CDU through all components in which it consists. As stated above, the first capacities implemented with 1.10.2019 with an extended guarantee of 36 months, meaning that it is necessary to plan the extension of the regular maintenance of the system with 1.10.2022.

Assessment of necessary capacities and new functionalities:

Objectives	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Number of users	150	300	500	700	900	1100
Planned capacity [%]	0,85	1	1,5	2	2,5	3

The methodology for the calculation of necessary capacities is based on historical data as well as assumptions, which take into account future projects proposed within the proposed projects of different institutions of this NPOO, namely:

(i) in the near future (3-5 years) it will be necessary to replace approximately all servers located in institutions with new servers.

(ii) significant space for further development and implementation of cloud solutions in institutions because the current level of use of cloud solutions for it services and IT solutions in institutions is very low

(iii) the difference in digital development (DECES) will be reduced between EU countries where Croatia lags behind, and therefore plans a large number of new ICT investments that all need ICT infrastructure support and adoption in the national information cloud.

(iv) other CDU services planned by the Regulation on organisational and Technical

standards for connection to State information infrastructure and new services will be implemented in accordance with the emergence of new technologies in the IT market
(v) Since planned new ICT projects would create an even greater need for institutions to share CDU services, the total expected investment in the future is the basis for the future demand of institutions for shared services.
(vi) taking into account the size of planned investments in e-services and ICT, as well as the fact that, in accordance with the policy of the Government of that investment, it is expected that the total demand will probably be significantly higher than the total budget available for the establishment of the CDU and the consolidation of the DI allocated within the framework of the existing project
(VII) the generic growth of the existing infrastructure requires the necessary capacity increase
Assessment of necessary capacities:

Necessary capacities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Processor	15232	17920	26880	35840	44800	53760
Workmemory	45696	53760	80640	107520	134400	161280
Disk space [PB]	8,5	10	15	20	25	30

New functionalities/services: the expansion of the platform with new functionalities/services is planned before the end of the CDU establishment project due to technological progress and trends in the IT industry. These services are important for the rationalization of the entire ICT infrastructure of the Republic of Croatia, increasing the efficiency of use and security of CDU infrastructure, faster and safer access of citizens to new e-services TDU, TJV and LS. New functionalities/services include:
(i) a Platform for the establishment of a developmental and implementation environment in an information cloud supporting the development and implementation environment supporting the development of applications, the implementation and execution of applications in an information cloud which will support the rapid development of applications for the needs of TDU, TJV and LS.
The service provides the opportunity to use technology that provides users with a platform for the development, launching and management of business applications. This service provides users with environments necessary for design, development, testing and implementation of applications in the information cloud. The use of this service will enable manufacturers of new applications for TDU, TJV and LS to use exclusively cloud aware techniques and technologies which will result in increased efficiency of use of the existing CDU infrastructure.
Estimated value: HRK 6,000,000
(iii) Platform for Contact Centre and problem reporting ICT support and its solution establishing the service of using the Platform for Contact Centre and for reporting and problem solving ICT support for it support employees and all employees using it systems in TDU, TJV and LS.
Service of using the contact center platform and problem reporting ICT support and its solution is a solution that enables it support in public administration to manage all types of contacts with ICT system users – TDU, TJV and LS employees (telephone, MAIL, fax, chat, social networks, etc.). The service of using the contact center platform and problem reporting ICT support and its solution should be given to all public administration bodies that wish to pay greater attention to providing quality and timely information, increase the satisfaction of ICT system users quickly and effectively, reduce costs, increase the efficiency and productivity of their employees. The platform enables support for solving ICT problems to it administrators of state administration bodies, so that ICT applications reported by state administration bodies' administrators or users - employees working on the systems are recorded, monitored and resolved.
Estimated value: HRK 10,000,000
(ii) a central information security control system establishing a central system for

monitoring, monitoring and managing security events on the information and communication infrastructure TDU, TJV and LS.
The service provides the possibility to use a platform for collecting, normalising and automated analysis of security events and logs from different real-time devices. Logs from all network devices, servers, applications for managing identities and access to resources, databases and other services in the system are collected in one place for processing and generating reports, archiving and responding to security threats. The system analyses the collected logs and events, taking into account their correlation, and automatically generates warnings and reports in real time, where alerts from the entire network are displayed on one interface, information presented and interconnected, reports generated and for long-term storage of safety information.
Estimated value: 10.000.000
(iii) biometric authentication Platform for citizens and employees of TDU, TJV and LS establishing a biometric identification service integrated with the existing central system for managing user rights and identities
The service provides the possibility to use a platform that enables management of access rights, identity and security by using fingerprint recognition technology, facial recognition and other biometric technologies. These technologies can continue to be used to improve existing processes and enable easy and rapid use of electronic services. The use of biometric technologies further reinforces the security of transactions between the state and citizens by preventing fraud, duplicates and errors.
Estimated value: HRK 10,000,000
(iv) Platform for managing the content of TDU, TJV and LS portals establishing a service for creating and managing the content of web sites for the needs of TDU, TJV and LS.
The service provides the possibility to use the platform for creating and managing digital content of web pages through possibilities for user creation, modification and deletion of content from the web and Backend content management on the web. The use of functions and features for intuitive indexing, searching and retrieval of content, format, auditing, publishing, SEO-adjusted URLs, discussion forums, template, admin panel with multilingual support gives users the opportunity to quickly publish new web pages.
Estimated value: HRK 4,000,000
Cost assessment:
The cost estimation is based on the objectives defined in this investment and the existing empirical cost data of the already existing state clouds. The cost of capacity extension is based on the overall needs listed above and is based on the known cost of implementation of the existing platform and on the estimated growth of the number of users that correlate with the need for additional capacities. Organic growth of the platform load of 15% per year is also included. The cost of new functionalities is estimated in relation to the price trends of products and services necessary for the implementation of the same.
The implementation of paas functionality implies the purchase of upgrades to licenses and software that will enable the same and does not plan to upgrade the hardware capacity. The cost of integration into the European Common Data Spaces implies the purchase of software and services that will enable integration. The cost of maintenance at annual level is estimated on the basis of 25% of the initial price of system procurement. It is estimated that 80 FTE is required for the smooth functioning of the CDU platform and the annual cost is accordingly estimiran. Furthermore, the cost of renting a data centre and the cost of electricity consumption was specified, calculated on the basis of existing prices and planned upgrades, which increases the cost of renting and electricity in the future.
Estimated costs (in HRK):

Activities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Capacity extension		-	70.000.000	70.000.000	70.000.000	33.000.000
New functionalities		20.000.000	20.000.000			
Maintenance	-	3.000.000	25.000.000	25.000.000	25.000.000	17.000.000
Cost of electricity and leasing			3.600.000	4.200.000	4.800.000	5.400.000
Labour cost	-	-	-	15.000.000	15.000.000	7.000.000
Total		**23.000.000**	**118.600.000**	**114.200.000**	**114.800.000**	**62.400.000**

Implementation holder	SDURDD

Target Group	Public administration bodies; citizens and business entities (final beneficiaries).
Estimated cost	HRK 433,000,000
Implementation period	1/2022.-6/2026.

C2 .3. R3-I2	**Construction of data centre for public administration and LGAP of the Republic of Croatia**

Challenge

The analysis of CODD has shown that the Republic of Croatia does not possess adequate data centres in the territory of the Republic of Croatia for the storage of its public registers and data systems. Furthermore, certain state bodies use publicly available clouds on and outside the territory of the Republic of Croatia and the EU to store their public registers and data systems and do not manage the place of storing information. Thus, information or assets of the Republic of Croatia are endangered and in case of compromise, there would be invaluable damage to the Republic of Croatia. The DII Act stipulates that public registers must be stored in data centres on the territory of the Republic of Croatia.

It is also defined by the Regulation on organisational and Technical standards for connection to the State information infrastructure that provision of shared public services in accordance with TIER 3 data centre standard will be ensured. Public registers are the property of the Republic of Croatia and it is obligated to take care of its property. At the same time, all registers are part of the current and future e-services that the Republic of Croatia will or will already offer to its citizens. Within the EU project “establishment of the Shared services Centre” that lasts until 2022 and will include 300 institutions in the state cloud the existing procured infrastructure is located in companies in majority state ownership (APIS IT) which also does not have adequate space in accordance with TIER 3 data centre standard.

Objective

Construction and establishment of data centre for public administration and LGAP of the Republic of Croatia, and migration of data and systems

Description

The construction of a data centre would migrate the existing infrastructure procured within the framework of the EU project “establishment of a Shared services Centre” to the newly built primary data centre of the Republic of Croatia. For the purpose of analysing data centers and needs of the Republic of Croatia, SDURDD has prepared an elaboration (analysis) on long-term accommodation of DII, which has also been developed by the Faculty of Electrical Engineering and Computing. This Elaboratu foresees current needs as well as an assessment of future needs for DII accommodation. The analysis has shown the need to ensure additional capacities for accommodation of services and secure storage of data on the territory of the Republic of Croatia. Also, the analysis shows that no state-owned data centre currently meets TIER 3 standards. The study determined the need for the construction of 6 data centres in the territory of the Republic of Croatia that have to ensure the level OF TIER 3 standards.

The construction of this first data centre will ensure only 1/6 of the necessary capacities of the Republic of Croatia for safe accommodation of services and data. This will consolidate e-services, faster and reliable to the satisfaction of all citizens of the Republic of Croatia and the EU. Consolidated registers (data) and e-services will enable the creation of reports in real time, contributing to more efficient management of them in the most efficient way. This will present the complex national information system as a whole as a unique system in a secure environment. Challenges in the project that the Republic of Croatia will meet are primarily coordination with all state and public bodies and LC (R)SGUs in order to

move all data systems and registers and services to the new data centre. Primarily, there are pressing challenges in terms of the financial aspect of the transition to a new data centre, security aspects and adaptation of existing applications within the new environment. An important aspect is also finding adequate space and drafting necessary documentation and conducting procurement for the selection of construction works. The challenges are the development of procedures, instructions, regulations and policies regarding the management of the data centre both logically and physically, especially from the aspect of non-unification of existing systems of public administration bodies that need to be adopted.

Implementation

As part of the CDU upgrade project, all services and services will be adopted within this data centre as well as the upgraded central interoperability system. Data centre infrastructure will provide all the necessary requirements of the modern data centre, including dual ups, each of which is a redundant, adequate cooling system, independent high permeability telecommunications lines, and physical and technical protection systems according to the highest safety standards. The data centre will also serve as a backup location for the continuation of operations. *Disaster recovery site*) for systems that must be primarily adopted on systems that require the application of internationally recognized standards in the field of information security, business continuity preservation, data system protection and other areas of protection. The Data Centre shall ensure at least the following standards: ANSI TIA/942 TIER 3 standard, ISO 27001: 2013, ISO 9001: 2015 for quality management for the provision of data centre services, ISO 14001: 2015 covering a wide range of environmental aspects and its protection, NATO and the EU business Safety certificate. Construction would be based on the guidelines given by Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and in accordance with the Development of the EU Green public Procurement (GPP) criteria for Data centres, Server rooms and cloud services. The size of the data centre would be 1300 m ^{2} with a total of 250-300 communication cabinets with the possibility of upgrading. Procurement of unified network and communication hardware is required in the form of cabinets and other necessary hardware necessary for operation (servers, security equipment, communication equipment, etc.). It is also necessary to provide physical and logical measures necessary for monitoring the environment and the data centre itself. The other need to build additional data centres would be ensured through other funding mechanisms (EU funds, state budget,..). Accordingly, the Reserve site for continuation of operations (hereinafter: Data center's *disaster recovery* will be ensured by the construction of additional data/data centres in the forthcoming period. In the meantime, the location for ensuring the continued operation of the data centre will be secured by the existing capacities of the body or data centres that are currently in operation.
Cost estimation: cost-time assessment is based on the projection method. In Croatia there is currently only one TIER 3 data centre in private ownership (data centre Kriz near Jastrebarsko). Currently, in the project the Centre for shared services and as part of the upgrading a total of ca. 40 communication cabinets are planned. Other capacities will be available to other public administration bodies and LC (R)SGUs.
Implementation of this project will require the EC's decision to approve state aid.

Implementation holder	SDURDD
Target Group	Public administration bodies; citizens and business entities (final beneficiaries).
Estimated cost	HRK 150,000,000
Implementation period	1/2021.-6/2024.

C2 .3. R3-I3	Strengthening the capacity of police to combat cybercrime

Challenge

The digital transformation of society as a whole also increases the exposure of all types of data in the digital form to malicious activities of different interest groups or individuals. In the EU countries, the number of cybercrime criminal offences reaches today an average of 20% in the total number of criminal offences, and it can be expected that in the near future cybercrime will be the dominant area of criminality and at the present level of development of the virtual dimension of society will represent a continuous and growing threat to the development and economic prosperity of every modern state. We are also talking about attacks which, with the application of psychological manipulation, provide disinformation, false news and rumors aimed at undermining citizens' trust in state institutions, so it is important to systematically and systematically act the public and private sectors in their suppression. A systematic and coordinated engagement of all stakeholders in capacity building and capacity building in the field of cybersecurity is key to building a modern society in cyberspace.

Objective

The aim is to increase cyber security in the territory of the Republic of Croatia and the EU by developing and improving the system of collecting, using and analysing digital evidence and education for police officers on methods of investigating criminal offences against computer systems, programmes and data.

Description

In view of the above, in order to achieve the objectives set out in the EU Strategy for Security Union of 24 July 2020, as well as the Council conclusions on shaping Europe's digital future of 9 June 2020, which identified cybersecurity as one of the main priorities for protecting and enhancing EU sovereignty, through software procurement, education and procurement of forensic equipment (Portable forensic set for field work, investigative analytical sets, stationary equipment for forensic laboratories and PORTABLE PCs) of the Ministry of Internal Affairs.

Implementation

Modern forensic equipment and software include the forensics of data storage media, network forensics, memory forensics, digital document forensics, techniques of collecting, analysing and managing digital traces. The necessary equipment and computer programs will enable efficient execution of court orders to search the holder of electronic evidence such as computers, tablets, hard discs and mobile phones (logical and physical extraction of data, logging analysis, decoding, analysis and data reports). The aim of education is raising the competencies of police officers for the successful suppression of cybercrime criminal offences.

Furthermore, in order to combat cybercrime, permanent development of cooperation with the economic sector and two-way exchange of data on all new recorded computers - security incidents will be encouraged, so that the economic sector can identify incidents and timely update its own security system. Furthermore, through quality cooperation with the economic sector, education of end users of certain services will be encouraged in order to directly contribute to the prevention of occurrence of concrete forms of cybercrime and the strengthening of resilience.

Implementation holder	MINISTRY OF INTERIOR
Target Group	National and regional crime police units.
Estimated cost	HRK 22,500,000
Implementation	4/2021.-6/2024.

period	

C2 .3. R3-I4	**Establishment of a single contact centre for all e-public services for providing user support**

Challenge

The Croatian Single Contact Centre (JKC) creates a new, unique service for communication with citizens and business entities (users) using Big Data technology and artificial Intelligence principles (AI). JEKC enables users to quickly and easily access the information requested, ask a question, or conduct a conversation using a virtual assistant. The establishment of the PPC will transform the way employees communicate with users. Preliminary analysis has proven the existence of different user support systems within service providers at the level of RC. According to the Act on State information infrastructure, there are different service providers, and each of them has its own customer support system. JKC as a central system should have a link to all service providers – APIS IT, Fina, CARNet and AKD. Communication must be carried out through CDU, i.e. GSB as the central state collection. THE IKC system will connect with all state administration bodies, but also local and regional self-government. If the bodies have their own existing user support system, they will connect with the JKC and the JKC will be the central and only platform for communication between state administration bodies, local and regional self-government and users. The establishment of THE PES is related to the Proposal of the National Plan for Broadband Access Development in the Republic of Croatia from 2021 to 2026 where digital connectivity through broadband will be achieved complementary through broadband connections in fixed network and via broadband connections in advanced wireless networks, including via 5G networks. Due to the application of new concepts and applications in economy and public administration (industry 4.0, Big Data, artificial Intelligence, IoT, smart cities), the amount of data that will be transmitted through electronic communication networks will increase. Accordingly, further digitisation of the public administration (e-administration), education (e-education) and health (e-health) systems, with the application of telemedicine, is also not possible without ensuring high-quality and reliable broadband access at all locations where public users are located. All of these requirements may be fulfilled by introducing very high capacity networks, based on fibre fibres placed near the end users; and on 5G networks, whose characteristics are significantly better compared to previous generations of mobile networks.

In particular, following the strategic objectives of the Digital Agenda for Europe 2020. the 2010 European Commission adopted a new strategic framework called the European Gigabit Society, which also includes new broadband targets to be achieved by Member States by 2025 and encourages activities aimed at introducing 5G networks as a new generation of mobile communications. However, the implementation of 5G networks also poses new challenges to cybersecurity, so the strategic and tactical measures set out in the EU toolbox for migration of risks associated with the implementation of 5G networks will be implemented with the aim of migration of risks. JKC should respond to challenges from the report on the degree of digitalisation, where the system should have mechanisms for receiving feedback and evaluation by users, also allowing for the receipt of suggestions, comments, inquiries by service users.

Based on the report on the degree of digitisation of public administrations and availability of digital services of EU member States (eGovernment benchmark), Croatia has no good results in transparency, in the chapter of Online usage, and the JKC system of Bosnia-Herzegovina should respond to the challenges that are currently unresolved in this segment.

Objective

The aim of the system is to provide information and user support to citizens and businesses in a single centralised location. JEKC will offer transparent communication with customers, enable them to assess the interactions they have had and express their satisfaction, i.e. dissatisfaction with the service. According to the information received, the state has direct information which services should be improved.

Description

The JKC establishment measure is complementary with the CDU. Grants amounting to HRK 306,644,668 from the European Regional Development Fund (ERDF), OPCC, were provided for the CDU project. The CDU plans to implement user support systems for it support employees and all employees who use it systems in TDU, TJV and LS. The implemented system will connect to THE PES in the part of exploiting the module for managing user inquiries. Planned investment reduces the arrival of citizens on the counter and other information contact points, which enables better and faster obtaining of information on certain topics. The platform will include integration of Big Data metric, artificial intelligence and machine learning, which will enable predictive results. JKC artificial intelligence with machine learning must be optimized to read, learn and create new values from collected data. Machine learning is a subset of artificial intelligence. It relies on the use of statistical measures to build intelligent computer systems in order to learn from databases, but also from other datasets available to it. Based on the data obtained, their processing, THE JKC must perform predictions of problems when interacting with the user, learn from his previous inquiries, and provide a better analysis of mood and intentions, recommendations and problem solving. A quality data platform for a large amount of data and artificial intelligence must meet the user's challenging needs. Such platform significantly speeds up the response time for users' queries, and also creates added value. Virtual assistant as a basis for fast, short interaction with users must rely on artificial intelligence methods.

Implementation

Activities of the measure include: (i) implementation of public procurement procedures for analysis, system design, education; (ii) development and implementation of the system; (iii) education; (iv) coordinators; (v) testing of system productions; (v) maintenance of the system.

The system will also implement the management of customer relations (CRM) and user experience (CEM) as a strategic determinant for strengthening the satisfaction of state administration users. Customer relationship management defines a key business strategy that integrates internal processes and functions with information from the external environment in order to create and deliver a certain value to defined target groups. Such a strategy must be based on high-value user data and supported by information technology. User experience management is a set of processes, actions and measurements used to handle and interact with customers in order to meet and exceed their expectations.

Using these two methods to collect data from state administration users and analyse them (their needs, system difficulties) as such would serve to input further development and improvement of e-services as well as e-citizens with components that make it (NIAS, OP-PKP, eBusiness). The platform will be located within the CDU environment, ensuring system reliability, a high level of security of communication (network) systems, management of certificates and standards, and maintaining a security policy for managing the entire system, based on the Act on Cyber Security of operators of essential services and digital service providers and Regulation (EU) 2019/881 (“the Cyber Security Act”). Consistent implementation of security standards, frameworks and information security guidelines will further strengthen resistance to cyber attacks.

Cost estimate (HRK):

Activities	**2021.**	**2022.**	**2023.**	**2024.**
Legal regulations	604.000	0	0	0
Analysis	1.132.500	6.000.000	0	0
Establishment of the Platform	877.500	7.950.000	9.600.000	8.800.000
Cost of user education	0	0	0	528.500

Project visibility		0	0	800.000
Labour cost	2.000.000	2.000.000	2.000.000	2.000.000
Cost of documentation and public procurement	300.000			
Call Center	0	0	0	4.530.000
Total	4.914.000	15.950.000	11.600.000	16.658.500
Total				**49.122.500**

Implementation holder	SDURDD
Target Group	SABs, LC (R)SGUs, citizens and business entities (beneficiaries)
Estimated cost	HRK 49,122,500
Implementation period	1/2021.-2/2024.

C2 .3. R3-I5 Consolidation of the health information infrastructure SYSTEM

Challenge

ICT equipment that I AM CURRENTLY working on is 7 + years old, and is physically distributed to two locations of Croatian Institute for Health Insurance in Zagreb, Klovic 1 and Rijeka, Slogin-kula bb. No location has a certificate established according to a standardised methodology for determining the availability of a data centre (TIER 3 or similar). Currently, the location in Rijeka is not the recovery location of THE COMMON SYSTEM. Additional risk is posed by facilities where the equipment is located, because in case of a repeat of recent events - earthquake in Zagreb - there is a possibility of disabling the equipment and in that case it would take several months to restart the system. For some components of the system support points out and in case of failure, there will be a threat and possible unavailability of FREQUENT systems. The functionalities of CEZIH are available 24 hours a day, 7 days a week, therefore a failure on a particular piece of equipment may result in a failure of the complete system or a part of it.

The COMMON SYSTEM has recently had an increased number of cases of complete dysfunction, which rightfully causes dissatisfaction among USERS of THE COMMON system (hospital and primary health care systems, medical staff, patients, …). Also, a part of the outburst is caused by insufficient ICT capacities and performance, which includes a SYSTEM OF COMMON equipment, which is more than 7 years old, and does not enable the extension or introduction of new functionalities.

This points to the need for significant additional investments in ICT infrastructure, which would, among other activities, require the migration of the central part of the system to a new environment and the establishment of much needed *Disaster recovery* solution, in order to ensure business continuity and thus high availability of the system which represents the backbone of the health care system in the Republic of Croatia.

Objective

The implementation of this project will ensure the smooth operation and further development of the information system of health care, which contains all health data that are produced in the Republic of Croatia, which is particularly important in the conditions of the declared outbreak of the infectious disease, COVID-19. All other stakeholders in THE health care system, such as: hospital, general family medicine (medical application and sister application), pediatrics, gynecology, dentistry, school medicine, CBS, public health institutions (HZJZ), health ministry, health insurance society (HZO), pharmacies, laboratories, are connected to the system of common components of the Croatian health information system.

Description

The project of consolidation of THE COMMON system, as part of health information infrastructure, should be carried out through consolidation of the COMMON system on a

new hardware basis and acquisition of licenses of medium-layer software and databases with associated maintenance in order to achieve the following objectives: (i) enabling continuous, correct, reliable and safe operation of the system; (ii) establishment of primary and secondary location with compliance with TIER 3 reliability and availability standards; (iii) provision of data (backup) and monitoring of system operation.

Implementation

Investments will include: (i) Upgrading the information and communication infrastructure needed to accommodate the application system of COMMON within the CDU; (ii) acquiring appropriate licenses of programme products for THE operation of the application system of COMMON; (iii) adjustment and migration of the application system of COMMON and related data from the old machine and software base to the CDU; (iv) testing and parallel operation of existing and new system; (v) modification of project results.
The planned implementation time of the entire investment is 48 months through which the following activities will be implemented:
(i) Preparation of the public procurement procedure
(xiii) Public procurement of the necessary equipment (network equipment, virtualization servers, cabinets, …)
(xiv) Delivery of machine equipment (to two locations); public procurement of maintenance servers in 3 years
(xv) Delivery of servers (to two locations); (v) public procurement of licenses in 3 years
(xvi) Public procurement of licences for programme products for 3 years
(xvii) Installation of machine equipment in the data centre and delivery of performance documentation
(xviii) Migration of the COMMON system to the enlarged CDU by system suppliers and delivery of performance documentation
(xix) Support for the migration of the system OF LONGING by the CDU
(xx) Support for the operation of COMMON system in extended CDU
(xxi) Strengthening and ensuring the state infrastructure in the cloud.

Implementation holder	MIZ and HZZO
Target Group	Citizens of the Republic of Croatia
Estimated cost	HRK 135,500,000
Implementation period	1/2021. - 6/2026.

C2 .3. R3-I6 Digital ID card implementation Project

Challenge

Electronic submission of applications for documents and other requests to the public administration using e-OI would greatly facilitate and accelerate the process of issuing documents and acts, and would also enable people with special needs and other vulnerable groups to submit their application more easily and thus reach a certain document. Electronic requests for documents and acts have a number of advantages in relation to the classic “paper” way. The broader application of the digital ID card as one of the factors for the digitisation of public administration and the economy is also in line with the Digital Agenda for Europe (DAE), one of the key initiatives provided for in the Europe 2020 Agenda. The initiative was launched in May 2010 and its goal was to enable the economy and EU citizens to maximise welfare by using digital technologies. The focus of the Digital Agenda for Europe is to create a digital single market, improve the interoperability framework between ICT products and services, foster trust and Internet security, fast and ultra-fast Internet access, research and innovation, improve digital literacy, skills and inclusion, and the benefits of the EU society from ICT. Therefore, the Digital Agenda for Europe is a list of objectives that should, with the application of technology, bring real changes to the lives of people, to which the application of AKD's EoI digital certificates and mobile application ID will contribute in Croatia.

Objective

The aim is to reduce the need of natural persons to come to the public administration bodies by using electronic component e-OI, which increases the efficiency of public administration bodies, reduces the circulation of people and risks of infection from COVID 19 and releases resources of public administration bodies for allocation to other activities and projects.

Description

The project to introduce a digital identity card will: (i) enable its users to use electronic functionalities of the identity card also on electronic devices other than computers (mobile phones and tablets), (ii) contribute to the full digitalisation of public administration bodies' services provided to citizens, (iii) increase the number of users of electronic functionalities of the identity card, especially those favouring mobile platforms, and better user experience. The project will also contribute to the increase in the use of services of public administration bodies by citizens, as well as authorised business and other entities, including primary services available through already established channels for the use of state information infrastructure services, e-citizens and e-business systems, in order to enable the use of these services on mobile platforms.

Introduction of digital ID cards and establishment of ID applications for users (natural persons and business and other entity authorized persons): (i) will enable proper electronic signing of PDF documents through mobile devices or devices where electronic ID cards cannot be read and proper electronic signature of documents in motion, outside the home or user office, (ii) take a step towards complete digitalisation of public administration bodies' services provided to citizens.

Implementation

For full implementation of the functionality of the Digital ID card (EoI) and its introduction are key amendments to the Act and to the personal cards Act which will create preconditions for the downloading and use of ID mobile application which will enable simple application to the system of e-citizens with the highest level of security, as well as valid electronic signature via mobile phones or via devices where electronic ID cards cannot be read (e.g. tablets). In these cases, the appropriate software solution for mobile devices, i.e. the application ID replaces the signature certificate on the ID card.

In accordance with the project plan, the project will be realized by implementing the following activities and at the following intervals:

(i) Activity Group 1: Design and implementation of the Digital identity Management system (IDP) — implementation deadline January-December 2020

- *1.1. Development of the IDP design document — implementation deadline May 2020 — June 2020*
  - Defining the preconditions and resources necessary for implementation, development and maintenance of the IDP:
    - Definition of technical preconditions (development of analysis and selection of technical solutions for managing digital identities, analysis of needs for consulting services)
      - Deadline for the implementation of activities — May 2020
    - Defining the necessary infrastructure resources (drafting a

project plan for the procurement of IT equipment necessary for the establishment of the IDP)
- Deadline for the implementation of activities — May 2020
- Identification of the need for human resources deployment — May 2020

- Definition of project needs and assessment for issuing certificates for remote qualified electronic signature and stamp
  - Deadline for the implementation of activities — June 2020

- *1.2. Implementation of IP - implementation deadline July 2020 - April 2021*
  - Development of the implementation Plan with established implementation activities and deadlines for their implementation
    - Deadline for the implementation of activities — July 2020
  - Concluding contracts with consultants specialising in the provision of consultancy services for the establishment, modification and maintenance of digital identity management systems
    - Deadline for the implementation of activities:
      - August 2020-October 2020 implementation of procurement and contracting procedures
      - November 2020 - April 2021 implementation of the contract
  - Realization of the project plan for the procurement of IT equipment (server locker, server and network equipment) necessary for the establishment of the IDP
    - Action implementation deadline – August 2020 – October 2020
  - Tendering and hiring an older development engineer to work on establishing, developing and maintaining the selected technical solution for managing digital identities
    - Deadline for the implementation of activities:
      - December 2020 – January 2021 implementation of employment tenders
      - February 2021-April 2021 engagement on the project
  - Development of IDP:
    - Deadline for the implementation of activities — August 2020 — February 2021
  - Development of the test Plan and conducting testing of IDP
    - Deadline for the implementation of activities — March 2021
  - Preparation of documentation of performance status and production of IDP:
    - Deadline for the implementation of activities - April 2021

(ii) **Group 2: design and implementation of the mobile signature and sealing system and application — February 2020** implementation deadline — May 2021
- Development of the system and application Design Document (application ID) for mobile signing and stamping — February 2020 implementation

deadline — March 2020

- Defining the preconditions and resources necessary for implementation, development and maintenance of mobile signature and sealing systems and applications:
  - Identification of the need for human resources engagement
    - Deadline for the implementation of the activities — February 2021
  - Defining the necessary infrastructure resources (development of a project plan for procurement of IT equipment necessary for establishing a system and application for mobile signing and sealing)
    - Deadline for the implementation of the activities — February 2021
- Defining the functionality that mobile applications must have and how mobile applications should support OS-Android and iOS
  - Deadline for the implementation of activities — February — March *2020*

o Implementation of the mobile signature and stamping system and application — implementation deadline April 2020 — May 2021

- Development of the implementation Plan with established implementation activities and deadlines for their implementation
  - Deadline for the implementation of activities - April 2020
- Recruitment of engineers for the development of mobile technologies:
  - Deadline for the implementation of activities - April 2020
- Realization of project plan for procurement of IT equipment (servers and network equipment) necessary for establishment of system and application for mobile signing and sealing:
  - Action implementation deadline – August 2020 – October 2020
- Development of a mobile signature and stamping system and application:
  - Deadline for the implementation of activities - April 2020 - January 2021
- Developing a test plan and conducting testing of the mobile signature and stamping system and application:
  - Deadline for the implementation of activities — February 2021-April 2021
- Drafting the documentation of performance status and production of the system and application for mobile signing and stamping:
  - Deadline for the implementation of activities — May 2021

Estimated cost excluding VAT (HRK):

Activities	2020.	2021.
Design and design of the system	525.000	0
Establishment of HSA, IT, communication, network and IT cryptographic (HSM) and other equipment)	1.287.993	551.997
Hours of engaging specialised consultants and/or auditors	60000	60.000
Hours of engagement of development architects and engineers to work on establishing, developing and maintaining the selected technical solution for managing digital identities	369.998	369.997

Hours of engineer engagement to develop mobile technologies	209.997	139.998
Project management	285000	285.000
Hours of engagement of other project team members	270000	270.000
Costs of producing and broadcasting video commercials on TV, promotion and visibility	0	849.998
Total	**3.007.988**	**2.526.990**

Implementation holder	AKD
Target Group	Citizens of the Republic of Croatia who possess an ID card, regulators and holders of the service of issuing and controlling ID cards and keeping records
Estimated cost	HRK 5,534,978
Implementation period	1/2020.- 5/2021.

C2 .3. R3-I7 Investments in national information infrastructure networks

Challenge

The basis for communication among components of the state information infrastructure consists of two networks, in accordance with the provisions of the Act on State information infrastructure, Hitronet and CARNET. Based on the Government's Decision on cooperation in encouraging the use of information and communication technology for the needs of the Croatian health care system, CARNET has established the HEALTHNet network, A network to which institutions in the health sector are connected. Other public sector bodies (e.g. HZMO, social welfare centres, etc.) are also networked according to a similar model. HEALTHNet network is, in the organizational sense, a subnet of CARNET network, where, in addition to CARNET employees engaged in the construction and maintenance of the network, administrative issues are performed by employees of the Croatian Institute of Emergency medicine (HZHM). It is their responsibility to logically separate HEALTHNet network users and to enable the use of services available to users within the network (e.g. telemedicine services).

Hitronet is a computer-communication network established on the basis of a government decision, to which public law bodies are connected. The main purpose of the Hitronet network is to integrate state information resources through secure private broadband infrastructure, which includes connecting central and remote locations of public legal bodies to the common data network for more efficient and cheaper work of state administration bodies and the exchange of electronic data. Hitronet also enables users to have secure and strictly controlled access and connect networks to the Internet and establish standard network services. The network design itself was created in 2006 and no longer meets the body's needs, network management is difficult and possibilities for upgrades and extensions are reduced.

This network also provides bodies with access to the Internet and safe use of services published by the institutions involved. It is also possible to connect Croatian institutions to common services at EU level provided through the latest generation of TESTAng network as a common network of EU member States. Through the Hitronet network, Croatian authorities use 17 different services provided by the EC to Member States. The CDU uses this network to access the information resources contained in it, providing a very high level, at a speed of 40 Gbps to the central part of the network.

Objective

Implementation of planned investments will facilitate the work of employees of public legal bodies by providing one, shortening time and costs, and simplifying the process of providing services.

Description

In order to improve the work of the DII network used by public law bodies in the Republic of Croatia, it is necessary to design a new network architecture that will correspond to the

needs of the body in the following period, upgrade the existing assembly base and increase the capacities of telecommunications links between network nodes. In this way, all bodies will be provided with high capacity broadband access (10Gbps). a change in the network management model should also be made to ensure centralised funding and care for all services offered by the network. Users and all their locations will be connected to a unique network, and a monitoring centre and support system for users of the network of state information infrastructure will be established. This system, given the specificities that may lead to a disruption in the operation of the network (which is the basis for the operation of all state administration information systems), should ensure the availability of assistance to its users in working hours 24 hours a day 7 days a week (working hours 24/7).

Implementation

Investments will include:

(i) Development study of the network of state information infrastructure - this activity includes a recording of the existing state and needs of all SABs, elaboration of proposals for solutions of new network architecture (both wired and wireless approaches), creation of a model for interconnection of all networks used in public legal bodies, coverage of additional locations of new users, and technical specification for procurement of complete assembly equipment necessary for establishment of new network design.

(ii) The establishment of the core part of the network - in accordance with the proposal of the new architecture, hardware and corresponding licenses of software needed to establish a new core of the network of state information infrastructure will be acquired and installed

(iii) Increasing network connection capacity to all existing TDU locations will ensure broadband network access speed of at least 500 Mbps for all locations. The range of access speed will vary depending on the location being connected and access speeds 500 Mbit/s, 1 Gbit/s and 10 Gbit/s are possible.

(iv) The rental of network connections to existing and new locations that will be connected to the DII network will increase the number of locations where access to the DII network is enabled in order to increase the security of communication between institutions in the country. Access to the network will be enabled by LC (R)SGU to the level defined by the document of architecture.

(v) Renting Internet access via two independent operators – Internet access is one of the important services provided by the DII network. Since the authorities are now contracting this service on their own, there is an inefficient use of budgetary funds. Ensuring secure supervised single Internet access through 2 independent providers of telecommunications services with a speed of at least 40 Gbit/s ensure smooth communication of the body towards the Internet.

(vi) Modernisation of the network control centre and user support centre with working hours 24/7 — the existing network control centres are segmented by separate networks and resources of external suppliers are often used. This investment will modernise the operations of the network monitoring centre, as well as the customer support system, which will operate 24/7 due to the specific dependence of other information systems on the availability of the network of state information infrastructure.

(vii) Consolidation of existing Hitronet users into a newly established core part of the network – all existing users need to migrate their network links in the access section to a newly established core part of the state information infrastructure network. In this

way the effect of investments will be quickly achieved, because more than 500 locations will use the new network and access will be provided to employees in the public administration working at these locations.

(viii) Migration of new users to the new network – in accordance with the analysis that will be an integral part of the document of architecture of the new network, access links will be established to all new users, including the rental of telecommunications capacities and the purchase of terminal equipment for new locations.

(ix) Education of officials in public legal bodies for administration and use of the system – education of employees working on network connection of bodies will be ensured through workshops in live and/or online meetings in order to help them adapt their needs for network communication to possibilities offered by the new network of state information infrastructure.

Estimated costs (HRK):

Activities	2021.	2022.	2023.	2024.	2025.	2026.
Preparation of the study	2.000.000	-	-	-	-	-
Establishment of the core network		30.000.000	-	-	-	-
Establishment of NIGHT and KC	-	5.000.000	2.000.000	2.000.000	2.000.000	1.000.000
Connect users	-	5.000.000	17.500.000	12.00.000	12.500.000	6.000.000
Education	-	-	1.000.000-	1.000.000	500.000	500.000
Total	**2.000.000**	**40.000.000**	**20.500.000**	**15.000.000**	**15.000.000**	**7.500.000**

Implementation holder	SDURDD
Target Group	Employees of public law bodies as service providers
Estimated cost	HRK 100,000,000
Implementation period	1/2021. - 6/2024.

C2 .3. R3-I8 Improvement of the system of physical planning, construction and state property through digitisation

Challenge

The physical planning Act regulates that for the purpose of drawing up, adopting, implementing and supervising spatial plans, permanent monitoring of the situation in the space and area of physical planning, and compiling a report on the situation in the space, establishing and managing an information system of physical planning. The information system shall be established and maintained as an interoperable and multiplatform system which connects information systems of individual public legal bodies to create and/or maintain spatial data and other data relevant for physical planning.

Also, the Regulation on the information system of physical planning prescribes the structure, content, mode of operation, form and electronic standard of the information system of physical planning, powers and obligations in the management and management of that system, and public legal bodies that are obliged to make spatial and other data available through the information system of physical planning and the manner in which they are obliged to do so.

The Construction Act defines ePermit, module within the Spatial planning information system, as a basic tool in which the Managing Authority, Ministry, other public legal body and project engineer communicate with each other electronically in procedures for determining specific conditions and conditions of connection and issuing certificates of the main project using the electronic ePermit program available at the internet address: “https://dozvola.mgipu.hr”. It is also defined by this Act that counties, large cities and cities whose administrative bodies perform administrative tasks of physical planning and

construction are obliged to ensure technical conditions for the accession of the administrative body and other public law bodies participating in the procedures for determining special conditions and conditions of accession and the certification of the main project to the ePermit programme, including access to the electronic advertising board.
The investment in question is in line with the Government Programme, priority 4. Strengthened statehood - an efficient, resilient and digital Croatia.
Investment is linked to the NPR-2020, objective 1. Sustainable economic growth and development, reform priorities improving the business environment, future-oriented investment policy and improving public administration. It is also linked to the NPRR 2019., objective 1. Strengthening the competitiveness of the economy, reform priorities improving the business environment, increasing investments and improving public administration.
Furthermore, the investment is also related to the Strategy for Spatial Development of the Republic of Croatia. the proposal is to develop and implement new generation spatial plans (digitization of spatial plans) which will positively influence the investment climate and business environment. Physical planning provides conditions for the use, protection and management of the territory of the Republic of Croatia as a particularly valuable and limited national asset, thus fulfilling the preconditions for social and economic development, environmental and nature protection, quality of construction and rational use of natural and cultural assets while construction implies the design, construction, use and maintenance and removal of buildings without endangering the life and health of people, the environment, nature, other buildings and things, or soil stability on the surrounding land. In this segment, a relatively small number of legal procedures have been successfully and thoroughly digitised. With the establishment of ePermit 2015, a module within the Spatial planning information system, a certain part of the procedures was digitised which meant unification of the permit issuing process throughout the Republic of Croatia, faster and more transparent issuing of construction acts, and ultimately faster and cheaper realization of investments, continuous fight against corruption, constant supervision over the licensing process throughout the Republic of Croatia. However, this is only one segment of the physical planning, construction and state property system.
Spatial plans precede the issuing of construction acts. The spatial plan is the basic document of physical planning of each local self-government unit. After the public debate, the plan is adopted by the representative body of the local self-government unit, i.e. the municipal or city Council. The spatial plan for the arrangement of a large city, city or municipality determines the directions for the development of activities and the purpose of the areas, as well as the conditions for sustainable and balanced development in the area of a large city, city or municipality. Differences in the description of a certain content of a spatial plan, unavailability or poor quality of data necessary for the creation and non-unification of the development of spatial plans are currently the biggest problems of the physical planning system, as well as construction, state property and in a certain segment of realization all investments in the Republic of Croatia. Complex access to accurate and up-to-date data on conditions for use, protection and management of space in the area for which the physical Plan is drawn up are key to a more transparent and easier interpretation of certain purposes of the space and building conditions for potential investors, which ultimately means faster issuing of construction acts and faster and cheaper realization of potential investments.

Objective

Implementation of investments will improve the system of physical planning, simplify the entire system of construction and state property, which results in increased use of information communication technologies in communication between investors and public administration, strengthening of state administration capacities in the administrative field of state property management, better understanding of the entire investment process by all its participants, better inter-departmental cooperation between competent institutions participating in realization of investment project and positive developments in legislation and removal of barriers for investments. Investment contributes to the digital

transformation of economy and encourages investments and improves the business environment in the Republic of Croatia, with the aim of strengthening the framework for investment policy oriented towards the digital future.

Description

The investment includes analyses of administrative burdens and amendments to regulations in the field of physical planning, construction and state property, for the purpose of creating a proposal for the optimization of the process of issuing construction acts, development of new generation spatial plans and better, more efficient and transparent management of state property.

It includes digitisation of procedures for faster, more efficient and in accordance with regulations prescribed for the development of new generation spatial plans, digitization of documents on the course of construction, continuous monitoring of the territory of the Republic of Croatia using satellite images, with the aim of protecting the area from devastation (illegal landfills of waste, devastation of the coast, etc.), illegal construction, etc. It also includes digitisation of data from public law bodies, which are necessary for determining special and connection conditions when issuing location or construction permits.

The investment also includes defining the initial status of green infrastructure and monitoring and evaluation of the impact of the development of green infrastructure in urban areas for the purpose of drawing up strategic and planning documents at the local and regional level with the aim of using green infrastructure as a tool for mitigating the impact of climate change. It also includes digitisation of the internal real estate register owned by the Republic of Croatia and digitalisation of public tender and reporting procedures with the aim of more efficient management of state property. It also enables it processing and verification of legal procedures or all necessary procedures for preparation and implementation of individual investment projects, from determining the suitability of the location for development of individual investment projects to obtaining all necessary permits. It also includes integration of processes in construction with the aim of creating and reusing consistent digital information in the construction process throughout the life cycle of the building. It includes digital transformation of business processes and reengineering of information system with the aim of modernising, increasing the efficiency and quality of administrative services and ensuring responsible and transparent business operations and providing services of public administration bodies.

A prerequisite for successful promotion of investments on both domestic and foreign markets and the stimulation of the economy are investments in digital transformation and the inclusion of individual national and local stakeholders in the process of digitisation.

Through the investment, thematic analyses and valorisation of the territory of the Republic of Croatia will be carried out and digital data collected and processed for the creation of appropriate spatial layers. The results will be used in the development of spatial plans of the state level and development of guidelines for planning at other levels, and in focus: energy transition (RES), physical planning of the marine area, landscape valorisation and planning in protected nature areas. Furthermore, it is planned to implement the grant procedure for JLDS to initiate actions and develop new generation spatial plans. These are over 1200 spatial plans of state, county and local level.

The investment also includes the acquisition of satellite images of the territory of the Republic of Croatia with high resolution, which are the basis for more efficient supervision of the territory of the Republic of Croatia in terms of devastation, illegal construction, etc.

The current legislative framework of strategic planning and development management in the Republic of Croatia sets out requirements for mandatory participation of officials in specialized training programmes in the field of strategic management, for the purpose of performing activities of preparation, monitoring, evaluation and reporting on strategic planning acts as well as other strategic planning and development management tasks of the Republic of Croatia based on positive regulations and internationally recognised practice and international requirements, and therefore, through this investment it is

planned to develop and implement closely specialized training programmes in the development of quality management systems in the public administration of the Republic of the Republic of Croatia.
The cost estimation is based on market research and analysis, supply and procurement prices of similar systems. Furthermore, the Ministry of physical planning, Construction and State property has experience in the planning, development and implementation of digitisation of procedures stemming from the legislative framework and based on this experience cost estimates have been made.

Implementation

The investment includes two segments:

(i) Digital transformation of spatial plans

After the completion of amendments to the legal regulations and the completion of the development of modules (ePlans) which enable digitised processes for the development of spatial plans according to legal procedures, as well as tools for the development of spatial plans (editor), it is possible to draw up plans of the so-called new generation. This ultimately means that all procedures for the development of spatial plans in the Republic of Croatia that are monitored through the system will be unified, and the possibility of accidental or deliberate errors is reduced to a minimum. In order to initiate the process of transferring the so-called old generation physical plans to the so-called new generation spatial plans, it is necessary to provide funds for the transformation itself. It is also necessary to provide funds for the continuous acquisition of licenses for special tools used for the development of spatial plans. The project contributes to the digital transformation of the economy and encourages investments and improves the business environment in the Republic of Croatia, with the aim of strengthening the framework for investment policy oriented towards the digital future.
A prerequisite for successful promotion of investments on both domestic and foreign markets and the stimulation of the economy are investments in digital transformation and the inclusion of individual national and local stakeholders in the process of digitisation.
Furthermore, the investment introduces procedures that are completely digitised, sets up platforms and digital infrastructure services that will improve the provision of electronic public services and reduce the burden on citizens, business entities and investors.
Finally, the level of use of e-public services in the Republic of Croatia via the Internet will increase as well as communication with public administration bodies using digital applications. This also strengthens the accountability, efficiency and transparency of the public administration, creates new value and indirectly affects the development of the data economy.
The project will carry out thematic analyses and evaluation of the territory of the Republic of Croatia and collect and process digital data for the creation of appropriate spatial layers.
Implementation period: beginning: March 2021 - completion: June 2026
Estimated cost: 250,000,000 HRK
Transformation of spatial plans: 243,000,000 kn
Development of analytical bases for digitisation purposes: HRK 7,000,000

(ii) Upgrading of the information system of physical planning and state property

- This project digitizes legally prescribed procedures i.e. plans to upgrade the Spatial planning information system (ISPU) with modules.
- Editor (ePlans) is an application whose task is to enable faster, more efficient and regulatory development of new generation spatial plans. This project enables the development and topological processing or verification of all entered metadata of new

generation spatial plans so that they are properly and appropriately loaded into the ePlants application. Since this is a new way of drafting spatial plans, it is necessary to continuously educate all users of this module and to purchase equipment for all departments for physical planning in the Republic of Croatia.

- the Econstruction Diary is an application that will digitize the document on the course of construction proving compliance of conditions and methods of construction, that is, execution of individual works with the assumptions and requirements from the main project, type project, execution project, building Act, special regulations and rules of the profession. eConstruction Diary is kept during construction for the entire building from the date of commencement of preparatory work to the day of completion of construction.
- eSpatial inspection is an application of the Spatial planning information system whose task is continuous monitoring of the territory of the Republic of Croatia using satellite images in order to protect the area from devastation (illegal landfills, devastation of the coast, etc.), illegal construction, etc. It is necessary to upgrade the application in order to enable communication of all local self-government units (municipal police officers) with the Ministry. It is necessary to purchase new and adequate equipment as well as adequate and continuous education of all participants in the space monitoring process.
- public legal bodies' eregimes are designed as an application in which public legal bodies' data will be kept, which are necessary for determining special and connection conditions when issuing location or construction permits. Public legal bodies are state administration bodies, other state bodies, administrative departments, that is, services of major cities, the City of Zagreb and counties competent for performing activities from certain administrative areas and legal entities that have public authority, determined by special laws, which, by establishing special conditions and/or conditions of association, or by confirming the project, participate in building structures. The records of the “eDozvola” licensing system registered 1950 public law bodies in the Republic of Croatia which have established building regimes according to special laws.
- The register of green infrastructure in urban areas with a digital project base will serve to identify the initial status of green infrastructure and to monitor the development of the KICs in urban areas and will enable the evaluation of the impact of the KIC development.
- The digital database of KIC projects will be used when developing strategic and planning documents at local and regional level with the aim of using KICs as a tool for mitigating the impact of climate change.
- Internal real estate Register - will be modernized and harmonised with the land registers of the internal real estate register owned by the Republic of Croatia
- ePrice is part of the eInvestments project, which exists within the framework of the project “Spatial planning information system (ISPU) and its modules. The eProcedure application enables it processing and verification of legal procedures or all necessary procedures for preparation and implementation of individual investment projects, from determining the suitability of the location for development of individual investment projects, obtaining all necessary permits, which procedures will be published in the eInvestments application. This will invest in the development of new e-services in the field of physical planning and construction which will result in increased use of information communication technologies in communication between investors and public administration, better consideration of the entire investment process by all its

participants, better inter-departmental cooperation between competent institutions participating in realization of investment project, positive developments in legislation and removal of barriers for investments.

- The introduction of BIM aims to define concepts aimed at integrating processes in construction with the aim of creating and reusing consistent digital information in the construction process through the life cycle of the building. Using BIM technology we provide a link between graphic annexes and the eConsumer module as a complete control over design, construction and maintenance costs in order to fully digital transition available as a public service.
- An e-public call for real estate and movable property system which will establish an e-public tender system for the purpose of more efficient, up-to-date and transparent disposal of state-owned real estate and movables.
- THE system of monitoring the operations of state-owned legal entities would be aimed at faster and more efficient reporting and making necessary analyses on all relevant data and monitoring the operations of state-owned legal entities.
- It is planned to acquire satellite images of the territory of the Republic of Croatia with a high resolution, which are the basis for even better and more efficient operation of the module space inspection, and which supervises the territory of the Republic of Croatia in terms of devastation, illegal construction, etc.
- Implementation period: beginning: May 2020 - completion: June 2026

Estimated cost: HRK 150,000,000

- Digitisation of legally prescribed procedures with modules:
  - Editor (eMaps): HRK 7,968,000
  - construction Diary: 15,618,000 kn
  - eSpatial inspection: 25,334.000 kn
  - eregimes: HRK 20,834.000
  - Green infrastructure Register and digital database of green infrastructure projects: 9,834.000 HRK
  - Internal real estate Register: HRK 3,000,000
  - Integration of the BIM construction process: HRK 23,260,000
  - eprocedures: 19,234,000 kn
  - public tenders: 750.000 kn
- Implementation of BI reporting and planning system: HRK 1,834.000
- Implementation of satellite images of the territory of the Republic of Croatia: HRK 20,834.000
- Transfer of knowledge and education of system users: HRK 1,500,000

The measure holder is the Ministry of physical planning, Construction and State property. The measure will be implemented in co-operation with state and public administration bodies and local and regional self-government units. External experts will be engaged for the purpose of conducting the status analysis, spatial analyses and education of all users.
Target group: state and public administration bodies, LC (R)SGUs, service users — citizens, scientific community and business entities
Implementation period: 3/2021.-6/2026.
Estimated cost: HRK 400,000,000

Implementation holder	The measure holder is MPGI. The measure will be implemented in cooperation with state and public administration bodies and LC

	(R)SGUs. External experts will be engaged for the purpose of conducting the analysis of the situation, spatial analyses and education of all users.
Target Group	Government and public administration bodies, LC (R)SGUs, service users — citizens, scientific community and business entities
Estimated cost	HRK 400,000,000
Implementation period	3/2021.-6/2026.

C2 .3. R3-I9 Outsourcing OF NIAS services for the economy

Challenge

In the field of electronic business, each economic operator, when providing its services online, needs to adequately address the issue of electronic identification of users to whom it wishes to provide personalised and secure access to such services, taking into account the protection, use and storage of personal data in accordance with the provisions OF THE GDPR. Consequently, on the side of each individual business entity, this requires the establishment of appropriate organisational and ICT solutions based on the so-called IAM systems, the purpose of which is to reliably identify remote users and manage access rights. Such systems and related organisational-technical rules and procedures can be quite demanding and complex, while their establishment and implementation may require significant costs, which is why certain companies in the category of micro and small and medium-sized enterprises do not sufficiently approach the implementation of digital transition of their way of doing business, in relations with customers and in general in the application of reliable electronic communication.

In the context of the modernisation of the public administration through the e-Croatia 2020 strategy and the development strategy, the Government has recognized a similar problem in the distribution and facilitation of personalised and authorised access to public e-services by a number of public legal bodies, which is why the e-citizens project was launched in 2014. Among other things, the NIAS Central system has been established through this project – the National Identification and authentication system, to which more than 30 public law bodies with more than 70 e-services have been connected so far. Over the past 6.5 years, over 45 million online user applications have been made through this system, with 25 million SSO electronic authentication (Single sign-on) from more than 1.15 million unique users (citizens). More than 20 different credentials have been integrated into the NIAS system so far, i.e. means for electronic identification of users by numerous issuers of credentials from the public and private sectors, all complying with the requirements defined within the EU of the eIDAS Regulation regarding ensuring the level of security of electronic identification means, so that public e-services providers have at their disposal all three levels of security (Loa): low, significant and high.

NIAS is also connected to the ESTABLISHED national HR eIDAS node, which is linked to other such nodes established by individual Member States, thus enabling a reliable, secure and secure two-way exchange of data on users' electronic identities in their online access and use of cross-border public services.

In accordance with the Act on State information infrastructure and the Regulation on organisational and Technical standards for connection to State information infrastructure, which regulates systems, components and individual digital information services, from their establishment, through management and use in the development of electronic public administration, so far the services of unique and reliable electronic identification of users in accessing public services through the National Identification and authentication system NIAS within the e-citizens system can be used exclusively by public legal bodies providing public services to citizens and business entities. Also, the NIAS system is dimensioned with regard to its ICT capacities in such a way that it can meet the needs of developing public administration services and interaction between citizens of S.

Therefore, the national information infrastructure, including THE NIAS system, cannot be used to provide electronic identification to the private sector.

Objective

In order to respond to the challenges described, it is necessary to amend and adapt the legislation in order to enable the use of certain services and by the private sector, to make the necessary technical and legal adjustments regarding inclusion, to expand the necessary ICT capacities of existing NIAS systems and other related systems such as e-ratings and eIDAS node, and to establish appropriate systems for managing and monitoring relations with involved business entities.

Description

The project to outsource the NIAS electronic identification services would enable economic and other private and NGO sector entities to use the NIAS National Identification and authentication system and the HR eIDAS node connected to it for the cross-border exchange of electronic identities, for the purpose of electronic identification of users accessing their online services. The project is directly aimed at helping the economy during THE period of the civil-2019 pandemic and at a faster justification of the economy after the end of the pandemic, but also at encouraging the development of the digital society in terms of encouraging faster and easier development and promoting different commercial and other online services, when it comes to services requiring reliable electronic identity of users in accessing and using such services; relieving and reducing the share of costs that business entities must invest on their side in the development and implementation of the IAM system and services for the establishment and management of electronic identification and authentication of their citizens only;

Implementation

Main activities in the implementation of this measure include:

- Development and adoption of an appropriate regulatory framework enabling the use of THE NIAS system and other components of the State information infrastructure (DII) for private sector purposes
- Analysis of needs and definition of appropriate models for inclusion and use of electronic identification services, analysis and definition of necessary adaptations and capacities and preparation of business and technical documentation
- Expanding the existing capacities of THE NIAS and HR eIDAS systems according to the estimated needs (organizational, personnel, technical and technological) and adapting them to new business and functional needs
- Preparation of appropriate agreements with the conditions on the manner of inclusion and use of electronic identification services and their signature with interested business entities/private sector organisations
- Inclusion of individual e-services from the private sector in the NIAS and HR eIDAS systems
- Providing technical and user support when including individual e-services on NIAS and HR eIDAS node
- Promotion and visibility of the project towards the interested business public.

Implementation holder	SDURDD
Target Group	Business entities and non-profit organisations (legal entities registered in the Court Register and in the registers of associations, foundations and other non-profit organisations, crafts and agricultural holdings). Citizens as users of online services provided by business entities and NGO organisations.
Estimated cost	HRK 18,750,000
Implementation period	9/2021.-12/2023.

C2 .3. R3-I10 Development of digital mobile platform

Challenge

The statistics on the use of mobile devices in the Republic of Croatia for access to certain websites, payment of services or other forms of use is about 70%. Although citizens are more satisfied with digitalisation than before, 85% of them expect better digital services in health care, 54% in public administration and 50% in education. 27% of digital services would be better in the courts.

It also showed that mobile phones are used almost five hours a day by citizens, that smart phones have more than 95% of citizens, laptops 83% and personal computers 55%. The growth in the use of smartphones and the development of interactive applications provides an opportunity to better connect with citizens, so that their interactions are faster, simpler and more efficient. Thanks to broadband internet infrastructure, fast expansion of 5G network, availability of IOT network, as well as other channels of data availability, citizens have been enabled to interact electronically with public service providers. This brings services closer to users/citizens, which resulted in raising the quality of life level, creating better and better connections between citizens and the public administration and ultimately creating a digital environment as a basis for the development of new eServices, and thus modern public administration. However, EUservis on the eCional platform have been developed primarily for personal computers. The change in habits in the use of information and communication technologies and the increasing share of the use of mobile devices increase the need for the development of new e-services adapted to the mobile world. Mobile applications give modern lifestyle additional value with emphasis on saving time, money, speed of business, accessibility, etc. In this context, it is necessary to build a platform that represents a standardized and uniform way to implement and exhibit services of public administration bodies on mobile platforms, using the latest technologies and standards, all with the aim of providing quick and easy access to the service itself, anytime and anyplace - both citizens and entrepreneurs of the Republic of Croatia and other citizens and entrepreneurs.

Objective

The aim of creating a mobile platform is to enable citizens to do the tasks they provide in a simple and fast manner. The aim is also to create preconditions for integration of existing and future services of public administration bodies (EUsluge) in a simple and standardised way accessible to citizens.

Description

The realisation of the proposed investment ensures the continuation of improving and modernising the functioning of the public administration with the application of the best world practices and technological solutions. The legal framework is based on the Act on State information infrastructure, the Strategy for Development of public Administration 2015-2020, the e-Croatia 2020 Strategy. The Government has developed a number of applications to facilitate and accelerate access to services such as issuing ID documents (ID card, passport, driving licence), eNovorooronovice, Social Welfare services, matic documents (home country, birth certificate, marriage certificate..), etax services, etc. The measure of establishing a mobile platform is complementary to the project of the Central State Office for Development of the Digital Society “establishment of the Centre for shared services” worth over HRK 360 million, co-financed by the European Regional Development Fund within the OPCC through which the state information infrastructure will be merged and information and communication technologies shared and the same applicative solutions will be provided to public administration bodies. The said project has implemented the Central Data Exchange collection (GSB), which represents one part of the Central interoperability system, i.e. data exchange between registers, records and different systems within the national information infrastructure, which is the basis for the

mobile platform to exchange data.

Implementation

The measure implies upgrading and adapting the existing services for mobile devices and connecting all registers, GSB databases. The measure allows upgrading the NIAS authentication system to be compatible with the latest authentication trends for mobile platforms.

An overview of mobile platform services must be aimed at users, to easily and intuitively access information, submit a request, submit a query, launch a procedure for a particular service offered by the eCiani platform.

Users most often use mobile applications that are relevant and make life easier, thus improving overall user experience. The mobile platform must therefore offer (i) a simple, intuitive and personalised overview of services; (i) provide the state with the potential to interact with its citizens in real time; (ii) use technology to send notices and inform citizens about services; (iii) allows citizens mobility to do the same things they would traditionally do at their tables, but on their mobile devices.

The mobile platform will use Big Data methods, as well as artificial intelligence metrics to process data that the platform will process.

The above mentioned indicators are in accordance with eGovernment benchmark criteria, reform values: (i) User centricity that are measurable through feedback that the user can travel after the service has been performed (validate the service, or send a complaint to the same); (ii) *Cross-border* mobility - citizens outside the borders of the Republic of Croatia can access and use the web services of the Republic of Croatia.

Implementation holder	SDURDD
Target Group	Citizens as users of online services, business entities
Estimated cost	HRK 41,958.000
Implementation period	1/2021.-12/2024.

C2 .3. R3-I11	**Improving geospatial data within the competence of the State Geodetic Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia**

Challenge

Lack of up-to-date records on real estate presents a great challenge for planning and spatial development, prevents or slows down the legal traffic in real estate as well as other transactions and thus causes additional costs to all participants in the real estate market, is an obstacle to legal certainty in real estate transport, planning and implementation of infrastructure projects and for agriculture and environmental protection and economic development as a whole. The challenge is also to provide reliable ground, official national maps, with the aim of increasing disaster prevention capabilities and security threats.

The NIPP aims to make spatial data transparent and easily accessible to all users. The ultimate goal is to identify and include in NIPP all spatial data from the national, regional and local levels, and make them available in one place for search, inspection, downloading, transformation and calling to end users public authorities and citizens through the NIPP geo - portal, which will contribute to further availability of spatial data which will result in strengthening of the domain industry, growth and export orientation and employment. Local and regional levels pose a particular challenge when establishing NIPP. The lack of capacity; human, financial and technical necessary to raise the level of interoperability of spatial data based on the requirements stemming from the INSPIRE Directive will certainly be pronounced. Lack of integrated data on physical infrastructure makes the efficiency of use of existing infrastructure very low, costs increase when performing new construction works, and there is no possibility of sharing information on infrastructure, and in this connection the challenge is the collection, conversion and entry of existing data on infrastructure into the infrastructure cadastre system developed by the

SGA.
Maintenance of the state coordination system ensures efficient, reliable and accurate positioning, and the challenge for the forthcoming period is its upgrading and development need to extend the network of reference GNSS cells CROPOS from 20 new locations in order to increase positioning accuracy in the altitude sense.
Challenges are the improvement and adaptation of the original STOKIS system data for the entire territory of the Republic of Croatia with the establishment of interoperability at the local and regional level. The establishment of the STOKIS system's operability will enable the implementation of spatial inquiries and the production of official state maps in SGA. The establishment of the system and its concept of multiple use of spatial information reduce costs in the part of physical planning, waste management, crisis management, tourist promotion, threat prevention, etc.
Challenges are also posed by a constant increase in the number of users and demands on systems. An additional challenge is the need for constant upgrades with additional network services and user demands for a refreshed user interface of the DGU geportal browser module.

Objective

The NIPP aims to make spatial data transparent and easily accessible to all users. The ultimate goal is to identify and include in NIPP all spatial data from the national, regional and local levels, and make them available in one place for search, inspection, downloading, transformation and calling to end users public authorities and citizens through the NIPP geo - portal, which will contribute to further availability of spatial data which will result in strengthening of the domain industry, growth and export orientation and employment.

Description

It is contained under the implementation.

Implementation

Implementation will be carried out through the following 10 components:

(i) Increasing interoperability of spatial data of NIPP

THE NIPP is a set of technologies, measures, standards, implementing rules, services, human capacity and other factors that enable the efficient integration, management and maintenance of spatial data sharing in order to meet national and European needs, and which is an integral part of the European spatial data infrastructure defined in the INSPIRE Directive. It provides the basis for discovering, reviewing and using spatial data in state bodies, economy, non-commercial and public sector, academic community and general citizens. The largest number, through THE NIPP of currently available spatial data sources, has identified the following shortcomings: there are no adequate network services for sharing, the data do not comply with the requirements of the INSPIRE Directive, network services do not comply with the requirements of the INSPIRE Directive, conditions and permissions to use spatial data do not exist or are not understandable.

In order to address these shortcomings, it is proposed to carry out the following activities:

- Implementation of education
- Technical support for development of NIPP network services which includes maintenance of software solutions for development of network services and maintenance and upgrading of existing systems for records of entities and spatial data sources of NIPP
- Maintenance and improvement of the existing central place for access to NIPP spatial data, the NIPP geportal, with the possibility of monitoring access to it in qualitative and qualitative terms

The project will result in the harmonisation of spatial data of NIPP entities and the

development of interoperable network services over them which will increase the availability of spatial data and facilitate their sharing. A system for monitoring work and access to network services will be implemented in order to raise the quality and level of their reliability. Also, a single system of recording NIPP entities and NIPP spatial data sources will be developed.

The implementation of the project will contribute to greater integration of spatial data into other spheres, creating preconditions for the development of existing and the creation of new industries which ultimately results in easier and better understanding and management of the space as well as everything contained therein, all with the aim of improving the quality of life both at the level of individual and society as a whole.

Target values of results:

Year	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**
Developed network services of spatial data	220	230	240	250	260
Conferences on raising awareness of NIPP held	1	1	1	1	1

Within the expenditures we plan to implement education in order to raise awareness about interoperability of spatial data, technical support for development of NIPP network services and maintenance and improvement of NIPP geportal.

Estimated costs (HRK):

Activities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**
Implementation of education aimed at raising awareness on the interoperability of spatial data	100.000	150.000	150.000	150.000	150.000
Technical support for the development of NIPP network services		300.000	100.000	100.000	100.000
Maintenance and improvement of the NIPP geportal		1.500.000	1.500.000	1.500.000	1.500.000
Total	100.000	1.950.000	1.750.000	1.750.000	1.750.000

Target group: civil servants of the State Geodetic Administration and other public legal bodies — NIPP entities and citizens and business entities (final beneficiaries)

Implementation period: 9/2021.-12/2025.

Estimated cost: HRK 7,300,000 without VAT

(xxii) Upgrading and expansion of the GeoPortal DGU system and the DGU Service collection system

GeoPortal DGU and SGA service collection are components that have been the backbone of DGU interoperability for many years. These systems enable disseminating official data within the jurisdiction of the SGA and support business operations for a number of public administration bodies, public enterprises and the economy. These are two discreet systems each with a specific role. Given the exceptionally large number of system users and requests, it is necessary to carry out system upgrades in order to maintain the high availability and correspondence of both systems, especially the publicly available browser and network services from the GeoPortal DGU system, which will result in timely provision of geospatial information to citizens and the economy and business support. Further development of the DGU geportal will contribute to the fulfilment of the OBLIGATION from THE INSPRA Directive and the development of NIPP in the Republic of Croatia.

Target values of the results of the activities under the programme:

Year	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Improvements implemented on server parts of the system	20%	100%	0	0	0	0
Modules implemented	35%	100%	0	0	0	0

Additional new network services implemented	25%	60%	80%	100%	0	0
Prepared documentation and implemented education	0	50%	100%	0	0	0
System maintenance performed	0	3,5%	37%	70%	100%	0

Upgrading and expansion of the GeoPortal DGU system and the SGA Service collection system will enable: new additional network spatial data services, modern browser and better user experience, new functionalities, increased system capacities, increased availability of spatial data, high scalability of the system. Interoperability of platforms that will enable connection with other systems.

Upgrading and expansion of the GeoPortal DGU system and the SGA Service collection system implies the following activities:

- Development of Technical specifications for Procurement
- Implementation of public procurement
- Redesign of user interface
- Establishment of individual modules
- Analysis of existing and development of new server architecture
- Drafting documentation and education for administrators
- Implementation of project visibility
- Maintenance of the system

Cost assessment:

As part of the costs planned for the elaboration of technical documentation for procurement and the cost of implementation of public procurement for system upgrade and expansion, the cost of preparation of detailed documentation and education for administrators, the cost of connecting with other systems which will enable greater exchange of data with other stakeholders, increasing the capacity of the system so that it can serve a larger number of connected systems and users, as well as enable more data sources and network services, estimated means for project visibility, and estimate of cost of maintenance in three years.

Estimated cost excluding VAT (HRK):

Activities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Cost of documentation and public procurement	310.000	0	0	0	0	0
Analysis and proposal for improvement with implementation	350.000	1.400.000	0	0	0	0
Drafting documentation, instructions and education	0	350.000	350.000	0	0	0
Redesign the user interface and design a new browser module	1.330.000	0	0	0	0	0
Implementation of additional new network services	350.000	500.000	250.000	250.000	0	0
Development of modules for advanced geo-coding and reverse geocoding	0	2.300.000	0	0	0	0
Project visibility	0	150.000	150.000	0	0	0
Maintenance of the system	0	100.000	1.000.000	1.000.000	900.000	0
Total	**2.340.000**	**4.800.000**	**1.750.000**	**1.250.000**	**900.000**	

Target group: public administration bodies, citizens and business entities (final beneficiaries)

Implementation period: 6/2021.-11/2025.

Estimated cost: HRK 11,040,000 without VAT

(xxiii) Restoration of land registers through cadastral surveys for all construction areas in the Republic of Croatia

The Act on State Survey and real estate Cadastre[31] institutionally improved the planning of doing business through a multi-year programme in the field of real estate Cadastre adopted by the Croatian Parliament, proposed by the SGA to the Government of the Republic of Croatia. The draft multiannual cadastral survey programme for all enlarged construction areas of all local self-government units in the Republic of Croatia (approx. 600,000 ha) for the period 2021-2030 was drawn up in accordance with the Programme of the Government of the Republic of Croatia for the period 2020-2024 and it was sent for opinions to state bodies. Implementation of activities under the Programme will improve and integrate information systems established for the purpose of managing and maintaining real estate data, which will improve interoperable and personalised digital services tailored to users' needs.

The realization of the program will restore cadastre and land registry for construction areas through the purpose of ensuring legal security of owners and investors in real estate transactions, implementation of capital and infrastructure projects, accelerating the investment process and improving the functioning of the real estate market, improving the dynamics and transparency of business processes in banks, enabling faster and more transparent investments, enabling better quality management of real estate (owned by the state, local self-government units and owned by legal and natural persons), increasing the possibilities to use EU funds, ensuring better quality of citizens' lives and developing the community as a whole.

Target values of the results of the activities under the programme:

Year	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Public information campaign, development of it solutions to support the Programme	100%					
Cadastral surveys and technical supervision carried out	0%	10%	15%	30%	40%	50%
Completion of started activities	50%	100%				
Implementation of geodetic cadastral services	50%	100%				
Maintenance and upgrading of programme support information systems	20%	30%	35%	40%	45%	50%

The implementation of the programme implies the following activities:

- Development of Technical specifications for Procurement
- Implementation of public procuresAdministrative and Financial Management,
- Conducting cadastral surveys,
- Carrying out technical supervision of cadastral surveys,
- Exposure to the public insight of cadastral records and the renewal of land registry,
- The official use of a new cadastral operative and a new land registry,
- Completion of started activities for reconstruction of cadastre and land registry,
- Conducting geodetic cadastral services,
- Maintenance and upgrading of information systems comprising computer equipment for data storage and processing and software for data processing and analysis (establishment of interoperability of new survey systems (SNI), digital geodetic elaboration systems (SDGE), JIS, digital archive systems (SDA) …),
- Education of officers of cadastral offices and land registry and authorised geodesy engineers
- Activities related to project visibility and publicity

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Cost assessment:

For costs planned to produce technical documentation for procurement and the cost of administrative and financial management of programme implementation, education of officers of cadastral offices and land registry, costs of promotion and visibility and costs for public awareness campaign on the importance of cadastre and land registry and obligations of rightholders within the framework of the programme, funds in the amount of HRK 38,000,000 in the state budget are provided.

The cost of conducting cadastral surveys and technical supervision over cadastral surveys, exhibiting to the public insight into cadastral data and restoration of land registry, putting the new cadastral operator and new land registry into service, implementing geodetic cadastral services and completing the initiated procedures for restoration of cadastre and land registry, maintenance and upgrading of information systems which includes computer equipment for data storage and processing and software for data processing and analysis is presented in the table below.

Estimated cost excluding VAT (HRK):

Activities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Conducted public information campaign, education.						
Defined tasks, prepared project documentation and initiated procurement for cadastral surveys and technical supervision, agreed administrative and financial management.				0	0	0
Cadastral surveys and technical supervision performed		183.736.000	225.264.000	341.880.000	432.432.000	263.888.000
Procedures for reconstruction of cadastre and land registry completed	8.400.000	3.600.000	0			
Harmonized areas and boundaries of cadastral municipalities	17.360.000	7.440.000	0			
Ensured functioning of integrated information systems as a function of the spatial management policy of the Republic of Croatia (SNA, SDGE, ZIS, SDA …)	23.120.000	23.120.000	23.120.000	23.120.000	23.120.000	20.400.000
Total	**48.880.000**	**217.896.000**	**248.384.000**	**365.000.000**	**455.552.000**	**284.288.000**

Target group: public administration bodies; citizens and business entities (final beneficiaries)

Implementation period: 1/2021.-6/2026.

Estimated cost: HRK 1,620,000,000 without VAT

(xxiv) Modernisation of the Joint information system of Land Registry and Cadastre through further digital transformation of competent institutions (ZIS)

The establishment of a common information system for land registries and cadastres created a unique register of cadastres and land registries in which the systems are interconnected and exchange real estate data. The challenge is the collection, management, maintenance and sharing of spatial data and information to a wide range of

users, as well as full functionality in the provision of public e-services in order to achieve a modern, precise, up-to-date, efficient and rational system of land administration. The key aspect, reliability and coherence of the state of the land registry and cadastre depends significantly on the new e-services to be provided through the ZIS/OSS, informed and motivated users, for whom it is a condition of easy availability of information and simplified procedure.

The purpose of the investment is to further accelerate and simplify procedures in the land administration system for citizens and economists on the basis of additional improvements and optimization of business processes and data systematization, by establishing new and improved technologies of the application of the JIS, all with the aim of establishing a single procedure in the land administration system for more than 50% of the total number of all cadastral plots in the Republic of Croatia, which will contribute to the realization of goal 3.2 Spatial Development and Tourism as a function of sustainable development of the government programme.

The modernisation of the Joint information system of Land Registry and Cadastre through further digital transformation of competent institutions implies the following activities:

- Additional optimisation of business land management processes
- Technological modernisation of the existing system in order to provide better quality customer service and reduce maintenance costs
    - Adjustment of the Migration system to the Shared services Centre and the Migration of the system to the Shared services Centre
    - Modernisation of the Document Management Platform DMS) and business process management platforms BPM)
    - Implementation of Apache Solr Open Source Server Advanced Search
    - Introduction of smart control panel and intelligent notifications based on the application of AI technology
    - Integration with scanning systems and advanced OCR
- Establishment of new e-services
- Further connection to the national information infrastructure
- Further improvement of data quality
- Further education and raising public awareness and providing better quality support to system users through application of new technologies (Digital assistant, Interactive context-Summer hodogram, Multichannel Communication Module)

Cost assessment:

The cost estimation was elaborated according to the activities described above. The cost related to the drafting of documentation for public procurement and the initiation of the public procurement procedure was additionally estimated.

Estimated costs (HRK):

Activities	2021	2022	2023	2024	2025	2026
1. Additional optimisation of business land management processes	1.600.000	4.000.000	4.800.000	0	0	
2. Technological modernisation of the existing system	1.600.000	4.800.000	6.800.000	6.800.000	0	
3. Establishment of new e-services		2.000.000	3.200.000	1.600.000	0	
4. Further connection to the national information infrastructure	800.000	800.000	400.000	400.000	0	
5. Further improvement of data quality and support for	0	2.400.000	1.600.000	1.600.000	0	

reconstruction of cadastre and land registries						
6. Further education and raising public awareness and providing better quality support to system users through the application of new technologies	800.000	2.200.000	2.200.000	3.200.000	0	
7. Cost of documentation and public procurement	400.000					
Total	**5.200.000**	**16.200.000**	**19.000.000**	**13.600.000**	**0**	

Target group: public administration bodies; citizens and business entities (final beneficiaries)

Implementation period: 1/2021.-12/2024.
Estimated cost: HRK 54,000,000 without VAT

(xxv) Modernisation of the digital geodetic abortion system (SDGE) through further digital transformation

The digital geodetic abortion system (SDGE) is a modern Web application solution that enables geodetic contractors to fully support the design of geodetic surveys digitally. With its scope of functionality as well as web services connected with other external systems, SDGE is a central digital place (“tool”) in the daily work of the geodetic community. The system enables the development of digital geodetic abortions and monitors the entire process from the acquisition of digital data, preparation and production of geodetic abortions to the submission of digital abortions for review and validation.

The modernization of the SDGE of the State Geodetic Administration applies additional digitalisation and optimisation of business processes, improvement of management and communication with users, improvement of service communication with external systems and implementation of new services.

With the introduction of THE SDGE, a significant step forward has been made towards accelerating procedures in the area of registration and real estate market by accelerating activities on the private sector side, in the preparation of geodetic abortions, as well as accelerating and standardising procedures on the side of cadastral offices, while confirming geodetic abortions.

The modernisation of the digital geodetic abortion (SDGE) system involves the following activities:

- Development of Technical specifications for Procurement
- Implementation of public procurement
- Implementation of upgrades and modernisation of digital geodetic (SDGE) systems:
    - Development of digital geodetic surveys of infrastructure cadastre
        - Integration OF SDGE with infrastructure cadastre system (SKI)
        - Upgrading of modules for digital geodetic abortions with new types of infrastructure cadastre abortions
    - Integration of SGR. system with Spatial planning information system (ISPU) following the processes of geodetic background and other documents
    - Integration OF SDGE with e-permit system following the processes of geodetic abortion and other documents
    - Support for geodetic contractors in the cadastral survey procedure
        - Integration OF SDGE with new survey system (SNI)
        - Development of module for support of geodetic contractors in cadastral survey process

        - Upgrading of the integration process with the CIS
    - Support to public legal bodies and public enterprises for inspection of geodetic elaborate and submission of approvals in the process of their preparation
        - E-Business SDGE system Integration - business User Box (PKP)
    - Improvement of the GIS SDGE module
        - Development and updating of new state of digital geodetic abortion graphics in GIS environment
        - Generation of draft survey in CAD form in accordance with technical specification for development of digital cadastral plan (DKP) and graphic part of digital geodetic survey
        - Insight into the data of the National infrastructure of Spatial Data and Integration with relevant services
        - Review and visualization of spatial data and services from the Spatial planning information system (ISPU)
    - Implementation of analytical-statistical module and dashboard
    - Implementation of modules for examination and process monitoring of the course of production of digital geodetic abortions (DGE) in responsive technologies
    - Module for communication between geodetic contractors and clients during the development of digital geodetic studies in modern and responsive technologies
    - Modernisation of the user interface of THE SDGE system
- Development of e-learning materials and user education (2024-2026)
- Implementation of project visibility
- Upgrade of ICT infrastructure within the CDU for SGR. upgrade

Estimated costs (HRK):

Activities	2021.	2022.	2023.	2024.	2025.	2026.
Implementation of upgrades and modernisation OF SDGE		6.000.000	12.000.000	12.000.000	10.000.000	
Cost of user education				1.500.000	1.500.000	500.000
Project visibility		300.000	300.000	300.000	300.000	
Cost of documentation and public procurement	100.000					
Cost of increasing resources in CDU				1.000.000	1.000.000	1.000.000
Total	**100.000**	**6.300.000**	**12.300.000**	**14.800.000**	**12.800.000**	**1.500.000**

Target group: business entities (geodetic contractors), public administration bodies and citizens

Implementation period: 1/2021.-6/2026.
Estimated cost: HRK 47,800,000 without VAT

(xxvi) Upgrade of the system of Register of Spatial units (RPJ)

The Register of Territorial units (RPJ) is a register of territorial units established and kept by the SGA. Data from the RPA are used as an official basis for recording, collecting, displaying, exchanging and linking different types of spatial data. This component will perform additional activities of upgrading the RPJ system, quality and updating of RPJ data, making the data transparent, interoperable and easily accessible. The RPJ system

manages one of the basic sets of national level geospatial data, spatial unit data, including the most detailed sets, addresses. Up-to-date data on spatial units, with an emphasis on addresses, are needed both for state administration institutions and the private sector on a daily basis. The aim of the component is to increase the efficiency of RPJ system operation and to enable easier access to RPJ data. The approach is based on upgrading the existing RPJ system, upgrading the web service and establishing public portals for data exchange between RPJ and external stakeholders through the following activities:

- Administrative and financial management of the project and preparation of documentation for public procurement
- Implementation of public procurement
- Activities:
    - Establishment of a module for communication and data exchange with local self-government units
    - Data synchronization module with Croatian Mail (HP)
    - Upgrading and extended integration with MUP services
    - RPJ Service Management and control MODULE
    - Connecting to the road data base of Hrvatske ceste
    - Collecting information about RPJ data through crowdsourcing and mobile application
    - Integration with state border system
    - Aligning the borders of the higher PJ with the official data OF THE DKP from the CIS
    - Improvement of visual design of interfaces between systems and modules available to external users
    - Modernisation of system architecture and interfaces
    - Development of mechanisms for the possibility of geo-coding and structuring addresses
    - Preparation of e-learning materials and implementation of education
    - Improving the quality of RPJ data
    - Analytical module, reports and statistics
    - Improvement and optimisation of system functionality and implementation of additional network services
    - Maintenance and upgrading of the system
    - Upgrading ICT infrastructure
- Implementation of visibility and promotion of the project

Estimated costs (HRK):

Activities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Establishment of a module for communication and data exchange with local self-government units	500.000	800.000	800.000			
Data synchronization module with Croatian Mail (HP)	200.000					
Upgrading and extended integration with MUP services	300.000	250.000				
RPJ Service Management and control MODULE		1.500.000	2.000.000			
Connecting to the road data base of Hrvatske ceste		300.000				

Collecting information about RPJ data through crowdsourcing and mobile application			300.000	500.000		
Integration with state border system	50.000					
Aligning the borders of the higher PJ with the official data OF THE DKP from the CIS	200.000	200.000				
Improvement of visual design of interfaces between systems and modules available to external users			300.000	200.000		
Modernisation of system architecture and interfaces			200.000	1.000.000	1.000.000	
Development of mechanisms for the possibility of geo-coding and structuring addresses	200.000	500.000	100.000	100.000	300.000	300.000
Preparation of e-learning materials and implementation of education				1.000.000	1.500.000	1.200.000
Improving the quality of RPJ data	500.000	1.000.000				
Analytical module, reports and statistics			400.000	800.000	500.000	
Improvement and optimisation of system functionality and implementation of additional network services		300.000	500.000	500.000	500.000	500.000
Maintenance and upgrading of the system			2.000.000	2.000.000	2.000.000	2.000.000
Upgrading ICT infrastructure			1.000.000	1.000.000		
Administrative and financial management of the project and preparation of documentation for public procurement	500.000	1.000.000	1.000.000	1.000.000	1.000.000	1.000.000
Visibility and promotion of the project			200.000	200.000	200.000	200.000
Total	**2.450.000**	**5.850.000**	**8.800.000**	**8.300.000**	**7.000.000**	**5.200.000**

Target group: DGU, public administration bodies; citizens and business entities (final beneficiaries)

Implementation period: 5/2021.-12/2026.
Estimated cost: HRK 37,600,000 without VAT

(xxvii) Upgrade of the infrastructure cadastre system (SKI) and single information points

The updating of infrastructure data in the infrastructure cadastre established, managed and maintained by the DGU will improve the availability of infrastructure cadastre data to other users (state administration bodies, local self-government units, public enterprises and owners, i.e. infrastructure managers), but also ensure that the notice on ongoing and planned construction works is made available to citizens and business people. In the period 2014-2020, the SGA has developed an application solution and information system of infrastructure Cadastre (SKI) and Unified information point (JIT) for the whole territory of the Republic of Croatia whose establishment, as well as implementation of this measure and ensuring availability of data on existing infrastructure and ongoing or planned construction works through a single information point (JIT) will increase the efficiency of utilisation of existing infrastructure, reduce costs and remove barriers to the realization of

new construction works, reduce costs and direct business costs. Integrating other information systems under the jurisdiction of the DGU, and in particular the digital geodetic abortion (SCOREBOARD) system, will provide a complete digital service for the end user.
The existing system of infrastructure cadastre needs to be improved through the implementation of additional functionalities, which includes the development of upgrades to the system for supporting the development of digital geodetic infrastructure abortions (GEI). It is necessary to ensure the translation of analogue data of the infrastructure cadastre into digital form (all types of lines and objects on them) and to educate all employees of cadastral offices for the use of the infrastructure cadastre system and authorised geodetic engineers for the development of digital geodetic infrastructure cadastre abortions.

Target values of the results of the activities under the programme:

Year	2021.	2022.	2023.	2024.	2025.	2026.
Additional functionalities implemented in SKI and JIT	5%	30%	40%	60%	80%	100 %
Translated analogue data of the infrastructure cadastre into digital form for individual cadastral offices	10	25	30	34		
Established SKI in cadastral offices for the entire territory of the Republic of Croatia	10	25	30	34		
Educated officers of cadastral offices and authorised geodetic engineers for the area of individual counties	3	5	5	5		

Implementation implies the following activities:

- Development of Technical specifications for Procurement
- Implementation of public procurement
- Administrative and financial management
- Migration of individual cadastral offices to SKI
- Translation of analog data into digital form for a particular cadastral office
- Maintenance and upgrade of SKI and JIT systems and ensuring integration with A SDGE comprising computer data storage and processing equipment and software for data processing and analysis
- Education of officers of cadastral offices and land registry and authorised geodesy engineers
- Activities related to the visibility and promotion of the project:
- Public awareness campaign

Estimated costs (HRK):
The costs of this component include the costs of developing technical documentation for procurement and the cost of administrative and financial management of programme implementation, education of employees of cadastral offices and authorised geodesy engineers, promotion and visibility costs, promotion and visibility costs and public awareness campaigns, cost of translation of analog data into digital form for individual cadastral offices, migration of individual cadastral offices into SKI, maintenance and upgrading of information systems, and ensuring integration with SDGE that includes computer equipment for data storage and PROCESSING and software.
Estimated costs (HRK):

Activities	2021.	2022.	2023.	2024.	2025.	2026.
Defined tasks, prepared	1.000.000			0	0	0

project documentation and launched procurement, contracted administrative and financial management.						
Individual cadastral offices migrated to SKI	500.000	1.000.000	1.000.000	2.000.000		
Translated data of analog studies into digital form for individual cadastral offices	3.000.000	4.000.000	4.000.000	4.000.000		
Promotional and visibility activities and public information campaigns have been carried out, education.	500.000	500.000	500.000			
Ensuring maintenance and upgrade of SKI and JIT systems and ensuring integration with A SDGE covering computer data storage and processing equipment and software for data processing and analysis	4.000.000	4.000.000	4.000.000	4.000.000	4.000.000	4.000.000
Education of cadastral and authorized geodetic engineers	500.000	500.000	500.000	500.000		
Total	**9.500.000**	**10.000.000**	**10.000.000**	**10.500.000**	**4.000.000**	**4.000.000**

Target group: public administration bodies; citizens and business entities (final beneficiaries)
Implementation period: 1/2021.-6/2026.
Estimated cost: HRK 48,000,000 without VAT

(xxviii) Upgrading of official topographic cartographic information system (STOKIS)
The project “establishment of an official topographic-cartographic information system (STOKIS) which will be used as a basis for geoinformation systems of state administration bodies and the public sector” co-financed by the European Regional Development Fund has been implemented from 2018-2020. This project provides preconditions for the availability of official state maps data to citizens, state administration bodies and local self-government bodies, rescue services, entrepreneurs, i.e. all those interested in using spatial data. Since spatial data are available in the system only for a part of the territory of the Republic of Croatia, it is necessary to provide original data for the whole territory of the Republic of Croatia. As a result of the processing and adjustment of the original STOKIS system data, it will be possible to conduct spatial inquiries and produce official national maps of all criteria 1: 25 000, 1: 50 000, 1: 100 000, 1: 250 000.
Quantitative result indicators per year:

Year	**2022.**	**2023.**	**2024.**
Topological processing of TTB data (km ^{2})	18.800	18.800	18.900
Homogenization and updating of WEAVING charts 25 (number of sheets)	38	38	38

The upgrading of STOKIS implies the following activities:

- Development of Technical specifications for Procurement
- Implementation of public procurement
- Topological adaptation of TTB data
- Homogenisation and updating of WEAVING charts 25
- Loading data into STOKIS system and building an integral applicative solution for integrating all business processes of STOKIS
- Implementation of project visibility

Cost assessment:

The costs of this component will include: topological finishing of the basic topographic base (TTB) for 56,500 km ^{2} and homogenization and updating of 114 topographic maps M 1:25 000 (TK25) as the originals of STOKIS system for all other official maps 1: 50 000, 1: 100 000, 1: 250 000, data loading into STOKIS system and building an integral applicative solution for integrating all business processes STOKIS and promotion and visibility.

Activities	2022.	2023.	2024.
Topological processing of TTB data	680.000	686.000	686.000
Homogenisation and updating of WEAVING charts 25	800.000	800.000	800.000
Loading data into STOKIS system and building an integral applicative solution for integrating all business processes of STOKIS	184.000	504.000	800.000
Promotion and visibility	0	60.000	0
Total	**1.664.000**	**2.050.000**	**2.286.000**

Target group: state administration and local self-government bodies; rescue services, citizens and business entities (final beneficiaries)

Implementation period: 1/2022.-12/2024.
Estimated cost: HRK 6,000,000 without VAT

(i) Expanding the network of reference GNSS stations of the Croatian Positioning system (CROPOS)

Since 2008, the SGA has established and since then maintains a satellite positioning system - CROPOS which enables obtaining of real-time positional data with an accuracy of 2 cm throughout the Republic of Croatia. The system is 24/7 available to state and public administration bodies and business entities and citizens from many sectors (buildings, agriculture - satellite navigation of agricultural machinery, identification of unmanned aircraft, energy, transport, education, telecommunications, autonomous vehicles, etc.). During 2018 and 2019, the 85% EU-funded project enabled CROPOS to connect with the European Galileo satellite system by enabling the use of signals from the European Galileo satellite system, which is in line with the EU's efforts to encourage its exploitation as a strategic element for the implementation of EU policies, industry and enterprises, as well as security, defence and strategic independence. In order to align the CROPOS system with EUREF standards and recommendations *(reference frame Sub-Commission for Europe*) on the density of the network necessary to achieve greater accuracy and efficiency in operation, with an emphasis on use in the construction and agriculture sectors, it is necessary to expand it by an additional 20 reference stations. Analyses have shown that the reduction of distance between reference stations significantly increases the accuracy of measurement. Suffocation of the network of reference stations will enable free

operation to users anywhere on the territory of the Republic of Croatia.
Upgrading CROPOS implies the following activities:

- Purchase of equipment:
- 20 GNSS reference receivers and antennas (with the accompanying equipment - antenna cable, adapters...) which support minimum signals from GPS, GLONASS and GALILEO satellites,
- licenses for the CROPOS extended network driver,
- modules for the update of the driver,
- communication (ICT) equipment,
- antenna girders,
- communication cabinets
- GNSS measuring devices and programmes for quality control of the system.
- 20 CROPOS reference stations will be established at selected locations. The establishment implies installation of antenna girders in the chosen place (most often roof), installation of antennas, and installation of communication cabinets with equipment within the selected building and their interconnection.
- The control program of THE CROPOS control centre will be adjusted to work with additional reference stations.
- Testing will be carried out in 5 defined regions in the Republic of Croatia in order to establish the proper functioning of the entire system.
- Quality control of the CROPOS system will be performed.

Estimated costs (HRK):

Activities	**2023.**	**2024.**
Procurement: - 20 GNSS reference receivers and antennas (with the accompanying equipment - antenna cable, adapters...) which support minimum signals from GPS, GLONASS and GALILEO satellites, - licenses for the CROPOS extended network driver, - modules for driver upgrade - communication (ICT) equipment, - antenna girders, - communication cabinets, - GNSS measuring devices and programmes for quality control of the system	7.768.000	0
Establishment of 20 CROPOS reference stations at selected locations	200.000	680.000
Integration of cells into control center driver and tuning	0	112.000
System testing	0	80.000
Promotion and visibility	0	160.000
Total	**7.968.000**	**1.032.000**

Target group: public administration bodies; citizens and business entities (final beneficiaries)

Implementation period: 1/2023.-12/2024.
Estimated cost: 9.000.000 excluding VAT

(ii) Improving the digital archive system

Since data under the jurisdiction of the State Geodetic Administration were originally created or historically created and stored due to their specificity in different media, the archival material covered by this project can be divided into two groups:

1. analogous material on paper

2. aerial photogrammetric images (aerial images) stored on films or other suitable carriers.

As regards the analogous material on paper, the project foresees the procurement of scanners and other necessary equipment, the recruitment of operators to convert analogous documents of archival materials under the jurisdiction of the DGU into digital form and the storage of data into the already established digital archive system with the aim of increasing the number of digital data, which would facilitate and accelerate access to necessary data, which will result in more efficient business processes.

Furthermore, the second group of analogue data are historical aerial images taken until 1990 using analogue aero-photogrammetric cameras. Scanning and gereferencing of the images is intended to include historical aerophotogrammetric material from 1968 to 1990 so that the photomaterial could be used as a basis for the development of network services and could overlap with other spatial data. After the scanning process is completed, documents will be loaded into the digital archive system through an already developed application, and the recordings will be loaded into the corresponding existing application.

Qualitative and quantitative indicators:

For analogous material on paper:

- number of scanned pages
    - the initial state of the 17 million pages
    - 32 million pages final status

For aerial recordings:

- number of scanned shots
    - initial state of 36 000 recordings
    - closing state of 86 000 recordings

Estimated costs (HRK):

The costs include the procurement of scanners and scanning programmes, workstations and monitors, as well as the cost of contracting and commissions of the Employment Mediation Agency that will perform tasks related to advertising, employment, engagement and management of contractually engaged operators for scanning documents of archival materials of the State Geodetic Administration and maintenance of the system including the uploading of scanned documents.

Also planned for aerial images is scanning and gereferencing of images and maintenance and upgrading of the application for historical aerial photogrammetric images, which implies loading of new scanned images into the application.

Cost assessment:

Activities	**2021.**	**2022.**	**2023.**	**2024.**	**2025.**	**2026.**
Procurement of scanners and IT equipment for document scanning	600.000	-	-	-	-	
Document scanning operator services	850.000	2.000.000	2.000.000	2.000.000	2.000.000	850.000
Maintenance and upgrading of the digital archive system	100.000	350.000	350.000	350.000	350.000	200.000
Scanning and geo-refurbishing of recordings	800.000	1.550.000	1.550.000	1.550.000	1.550.000	800.000
Maintenance and upgrading of the application for historical aerial photogrammetric images		140.000	140.000	140.000	140.000	120.000
Total	**2.350.000**	**4.040.000**	**4.040.000**	**4.040.000**	**4.040.000**	**1.970.000**

Target group: State Geodetic Administration employees, private geodetic sector as well as

citizens and business entities (final beneficiaries as parties)
Implementation period: 6/2021.-6/2026.
Estimated cost: HRK 20,480,000 without VAT

Implementation holder	DGU
Target Group	SGA employees, private geodetic sector as well as citizens and business entities (end users as parties)
Estimated cost	HRK 1,861,220,000
Implementation period	1/2021.-6/2026.

C2 .3. R3-I12 Reform of the electronic public procurement system

Challenge

The reform of the electronic public procurement system would be realised through the development of a new IT platform of the electronic public Procurement Classifieds of the Republic of Croatia with the aim of further digitisation and automation of the public procurement procedure and implementation of new standard forms for publication of notices in the field of public procurement set out in the Commission Implementing Regulation (EU) 2019/1780 (e-forms).

Due to the outdated technological base and system that has been continuously upgraded since the moment of commissioning, the current solution has reached a level in which it is necessary to consider possible advanced solutions and prevent bottlenecks at a moment when technology is more open than ever before, thus creating space for the application of new digital knowledge through the implementation of guidelines for interoperability of national systems and the best possible exchange of data.

The new IT platform envisions improvements in the appeal process, including the introduction of mandatory e-appeals and online payment of fees. Strengthening e-procurement systems and all related digital databases in order to increase the capacity to collect and analyse public procurement data will contribute to the development of tailored and effective policies in the field of public procurement and addressing integrity issues. Moreover, the system should create a framework for the application and measurement of certain minimum mandatory criteria and targets in the sector economy (strategic, green, innovative public procurement).

Since the electronic public Procurement Classifieds of the Republic of Croatia is the central and one platform through which public procurement procedures are conducted, the reform covers all stakeholders in the system: public and sector entities implementing procedures at central, regional and local level and economic operators submitting tenders, as well as the State Commission for the control of public procurement procedures that decides on appeals and the Ministry of economy and Sustainable Development as the central body competent for public procurement policy (which conducts supervision). It will actively work towards simplifying business processes, reducing administrative errors and accelerating public procurement procedures and decision-making. Digital interaction between contracting entities and economic operators will be facilitated, facilitating the involvement of economic operators in the public procurement market.

The platform will be electronically linked to the Annex of the Official Journal of the EU in which public procurement announcements at EU level are published. *Tenders electronic daily (TED*).

Objective

The aim is to increase the efficiency and capacity of public administration to implement public projects at the central and local level. The workload of public procurement staff will also be reduced by removing simple administrative steps in order to ensure adequate human resources in the future, which was noted as necessary and in the evaluation of the progress of the Republic of Croatia for 2020.

Description

Improvements in the institutional structure of public procurement are visible but slow. The reform of the electronic public procurement system will increase the efficiency and capacity of the public administration to implement public projects at central and local level, which partially addresses the challenges identified in the recommendations of the EU Council. The ultimate objective is to reduce the workload of public procurement staff by removing simple administrative steps in order to ensure adequate human resources in the future, which was noted as necessary and in the evaluation of the progress of the Republic of Croatia for 2020. Digitisation and automation of the process will facilitate the business environment for economic actors participating in public procurement procedures, which is also the objective of the Government Programme. Also, this reform will be a continuation of the project related to better measuring of the impact in public procurement within the framework of the Co-operation and support Plan for the Structural Reform support Programme 2017-2020 *("measuring performance* in public Procurement in Croatia"), because it will implement the recommendations from the Report on the analysis of the efficiency of the public procurement system in the Republic of Croatia and the proposed recommendations for strengthening the public procurement system in relation to it system into the new electronic public procurement advertisement system in the Republic of Croatia.

In order to implement the new rules, and in the form of building a more modular system, it is necessary to establish a modern architecture of the new solution and prepare a system for easier further integration with the mechanisms of the state infrastructure and create a platform that will significantly facilitate and accelerate the preparation and implementation of public procurement, all in accordance with the public Procurement Act. The public authority to establish, operate, maintain and improve the platform in accordance with legal, subordinate legislation and EU law is exercised by the Official Gazette d.d. The platform itself is in good part integrated with the electronic information systems of the State infrastructure (OIB Register, Criminal and tax records, enables application via THE NIAS/eIDAS node and integrates electronic complaint with the DKOM system) in order to enable users to implement the process electronically, through one point – the EOJN system.

The development of the public procurement system and even better connections with the Central interoperability system (SSI) will contribute to greater stability and bring many benefite to the users themselves. The use of distributed architecture of services and state platforms such as e-citizens and e-business will enable users one mechanism for the implementation of processes such as electronic authorization, possession of a single user box (COC), payment of fees electronically. By using the aforementioned mechanisms, it is essential to facilitate the management of services on various state portals – users have one unified way of handling which they are already familiar with and use in everyday business operations. In addition to Croatian companies, companies from foreign countries also access public procurement. Taking into account the problem of multilingualism already identified, the public Procurement Classifieds of the Republic of Croatia will introduce the possibility of using the system in English through eGovernment benchmark reports. Integration itself will significantly facilitate the submission of bids to foreign companies, increase competitiveness and improve the quality of the requested services. Development of the new system will contribute to transparency by defining a clear data model that will serve both for processing, analysis, presentation and sharing of data (which will improve decision-making power at all levels) and better overview of data, business processes and work of the bodies involved in public procurement processes.

Public Procurement datasets, which are already a part of THE EOJN portal, the development of a new system opens up the possibility of publishing on the Open Data Portal of the Republic of Croatia.

Implementation

THE EOJN RH platform supports various functions of system administration that supervise

the work of the platform, enable configuration of platform functions, provide access to platform functions in accordance with user roles and rights. THE EOJN of the Republic of Croatia supports registration and administration of different categories of users, from anonymous individual users with only reading rights, to different types of roles of economic operators and their users, client users, as well as special user roles for central public procurement, DESK users, MINGO users who download statistical data.

THE EOJN of the Republic of Croatia supports the dynamic configuration of various business processes. The platform has its own workflow management Configurator, through which processes are designed and configured, and access rights give certain roles assigned to processes, process steps or individual data. Procurement plans for all contracting authorities obliged by the public Procurement Act are published on the EOJN portal of the REPUBLIC of Croatia, including any changes in procurement plans. The plans are published in a separate module in the open data format and are accessible to all. Contracting entities shall, in accordance with THE PIU, publish the procurement documents before the start of the public procurement procedure, so that economic operators showing an interest may indicate any technical or other deficiencies. All proposals and requests for clarifications are submitted through the EOJN website of the Republic of Croatia. The contracting entity shall receive them and publish a final report on the prior consultation. Notices in accordance with the public Procurement Act and EU Directives (Standard forms for public Procurement) of high and low value (above and below the EU threshold) are published on the EOJN platform of the REPUBLIC of Croatia. All interested parties may access the published notifications. In addition to the procurement notices, complete tendering documents, bill of quantities and ESPD requirements shall also be published. When the procedure is published, economic operators may express an interest in the procedure and receive notifications by e-mail of any subsequent changes in the procedure. Economic operators can structured ask questions through the EOJN website of THE Republic of Croatia. The contracting entities also answer all questions through the EOJN portal of the Republic of Croatia. The minutes on the opening of tenders and the review and evaluation of tenders as well as the Decisions on Selection/Cancellation are also published at subsequent stages of the procedure. Procurement notices above EU thresholds shall be sent via a web service in the Annex to the Official Journal of the EU (TED). The EOJN RH platform is a qualified TED e-sender that communicates with TED via the TED Technical specifications Web Service (eSenders). Contracting entities may also send small value purchases for publication in TED.

According to the public Procurement Act, all tenders in public procurement procedures must be submitted electronically through the EOJN platform of the Republic of Croatia. Creation of ESPD responses and complete communication between contracting entities and tenderers (asking questions and clarifications and answering questions and clarifications) is carried out through the EOJN system of THE Republic of Croatia. This module also includes the opening of tenders received. A security mechanism has been established to prevent tenders from opening before the deadline for submitting tenders expires.

The EOJN portal of the Republic of Croatia supports specific functions for conducting procedures as a central purchasing body or in the case of joint procurement. The procedures for the conclusion of framework agreements by a central authority (or in the case of joint procurement) may be carried out in such a way that the central authority contracts Framework agreements and then grants rights to bodies (contracting entities)

participating in central procurement. The central authority shall also grant its “users” the right to publish individual contracts independently and to supervise the performance of those contracts.

In contracting procedures under a framework agreement or in a dynamic purchasing system it is possible to conduct so-called “mini-tendering” with qualified economic operators. Qualified economic operators (from the first stage) are invited to submit their bids through the EOJN system of THE Republic of Croatia. THE EOJN also supports the establishment of dynamic purchasing systems and the publication of procedures in accordance with the law on concessions. Contracts published through standard forms “contract award notices” for public procurement and simple procurement shall be automatically generated in the contract Register. The contract can be updated via the EOJN user interface. The Register of contracts was published in a separate category on the EOJN. The competent ministry (MINGOR) uses statistical data on publications and contracts in order to obtain up-to-date data on public procurement procedures. This module is used to monitor and analyse data for further improvement of the public procurement system.

Contracting entities may publish simple procurement procedures in accordance with the principles of public procurement. Simple procurement notices are published in a separate category on the EOJN of the Republic of Croatia. Electronic means of communication are used and tenders can be submitted electronically. Simple contracts are automatically generated in the Register of contracts. THE EOJN of the Republic of Croatia enables electronic appeals (e-appeals) to be filed via the portal. Electronic appeals shall be submitted to the State Commission for the control of public Procurement procedures (DCA), including any supporting documentation. DCD has access to complete documentation in public procurement procedures for which an e-appeal has been filed. Since DCD has its own separate system for resolving and publishing appeals, communication is done via web service (document exchange, customer notification). The system is connected to the OIB Register, criminal and tax records. Contracting entities shall, at the stage of review and evaluation of tenders, invite these registers through the EOJN RH platform and receive official documents. This service speeds up the process of reviewing and evaluating tenders in public procurement procedures. Use of national credentials and a single entry model for all services available via e-citizens (application via NIAS credentials for domestic users and via eIDAS node for foreign users) realised through a clearly defined access level.

The project is currently being submitted under the European Facility financing Connecting (CEF-TC-2018-4 - eProcurement), and it includes upgrading the contract Register, linking external platforms to THE EOJN (e-tendering) and upgrading the ESPD module.

In accordance with the EU Strategy and the Development Plan for public Procurement of the Republic of Croatia, it is necessary to continue with the integration and upgrades that would greatly help all stakeholders during the implementation of public procurement. Development of the new EOJN platform in the Republic of Croatia, and thus raising the quality of services, should enable the following: designing procurement documents from the public procurement process itself – automatic generation, automatic public procurement process, E-Catalogue, bidding evaluation Module, Integration with e-citizens and e-business system (as far as possible, in accordance with public procurement procedures: e-authorization, OKP, e-fees), supervision of public procurement procedures, linking all public procurement procedures (from the plan, provision of information to procedures)

The development activities shall cover the following activities:

- Project management
- Development of technical specification for charge
- Implementation of public procurement procedure
- Establishment of the platform — implementation per system components (CMS – Bilingual system, application via the NIAS/eIDAS system, Procurement Plan, prior consultation with economic operators, E-publication, E-documentation, TED Web Service, E-Procurement, procedure implementation Module as Central Procurement Authority, Mini-tenders, E-concessions, contract Register, Statistical Module, simple Procurement Module, E-Appeals, E-Procurement, obtaining of evidence from National registers/Integration of SSI), (vProvidence and Observations)

Estimated costs (HRK):

Activities	2021.	2022.	2023.	2024.	2021. – 2024.
Project Preparation/Development of Technical specifications for Procurement	700.000	-	-	-	
Development of the system	1.000.000	4.400.000	6.000.000	-	
Promotion and visibility of the project	-	-	200.000	-	
Training of users for use of the platform	-	-	100.000	100.000	
Total	**1.700.000**	**4.400.000**	**6.300.000**	**100.000**	**12.500.000**

Implementation holder	MINGOR and partners (Official Gazette)
Target Group	Public administration bodies; local and regional self-government, public enterprises and economic operators (including micro, small and medium-sized enterprises)
Estimated cost	HRK 12,500,000
Implementation period	1/2021.-6/2024.

C2 .3. R3-I13 Establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers

Challenge

The necessity of ensuring a favourable level of security for citizens and the economy can be achieved through better and more educated police personnel, through continuous and appropriate training and training of police officers and strengthening their digital competences and technological knowledge. At this moment, the Ministry of the Interior (Interior Ministry) has adequate facilities to provide practical training for police officers who would meet labour market needs and be in step with the technological and digital development of society as a whole. This is in line with the draft NRR (strategic objective 7. “Security for stable development”), the Strategic Plan of the Ministry of Interior and other institutions for maintaining and enhancing public security for the period 2020-2022 (objective 1.1 maintain a favourable public security situation and, in cooperation with other stakeholders, reduce punishable behaviour); the Strategic Plan of the Ministry of Interior and the Croatian fire Brigade for the period 2020-2022 (main strategic objective “to maintain and strengthen public security”); the Strategic Framework for European cooperation in the field of education and training - ET 2020 (main objectives “realisation of lifelong learning and mobility ideas”). Linking education with the labour market, developing

a system of digitally mature schools), as well as with the EU's conclusions on marking Europe's digital future.

Objective

Improving and strengthening a sustainable police system and internal security with the aim of effectively responding to traditional and contemporary security challenges and all forms of criminality by applying digital technologies by strengthening the digital competences of police officers so that they are ready to respond to security challenges in a timely and adequate manner. The introduction of new digital information systems into policing as well as the strengthening of competences for distance work, the use of digital tools and the use of information systems in the field of justice, freedom and security with the acquisition of specialised knowledge and skills will ensure a quality and efficient provision of services to citizens with the aim of creating sustainable public administration in the field of security, which is in line with the conclusions of the EU Council on shaping Europe's digital future of 9 June 2020.

Description

The project will establish a complex with modular facilities in Vrbovec (Centre of Excellence) and a modular building in Zagreb for practical teaching in real situations and strengthening the competencies of police officers for handling in real conditions supported by digital systems and technologies. The realization of this project would contribute to the development of digital content necessary for transformation of professional training by introducing new technologies and defining the digital infrastructure necessary for digital reproduction of the real environment. This is in line with the CRS “to increase access to digital infrastructure and services” and the intervention codes “information technology services and applications for digital skills, digital inclusion” and “ICT solutions for governance, e-services, applications”.

The project will build modular objects for conducting dye shooting in real-life situations (so called rubber house) using digital technology and equip multipurpose units with internal and external ammunition with digital reproduction of the real environment. The modular facilities will be fully equipped and adapted to the practical performance of exercises and training in the segment of firearms handling and shooting simulating the actual professional situations that police officers face in practice. These forms of training of police officers will ensure the sustainability of competencies as well as raise the level of readiness for everyday labour challenges for all genera of police officers.

(i) Component one - “establishment of a multi-purpose modular unit for practical instruction and training of police officers (so-called Simulation house) in Zagreb." The project will build and equip a modular unit that simulates real areas where police officers operate in everyday activities (bank, shop, post office, catering and apartment spaces). The entire space of the modular unit would be equipped with an access control system, a video surveillance system with the corresponding network recorder (NVR) which enables recording of police officers' behaviour during training, an audio system enabling the speaker/teacher to communicate with the trainee. In addition to these spaces, the modular unit would contain the space of a control/control centre equipped with a server, a disc storage server (storage) and network equipment. Furthermore, the modular unit would include a classroom equipped with a smart plate, a comparative interactive communication equipment (video wall), necessary information equipment with collaborative educational software for creating interactive curricula, network equipment, a projector supporting the connection to a series of audio and video sources, which can then be projected onto interactive panels or screens. In this way, the quality is significantly raised and the manner of conducting practical instruction and training of police officers is modernised, as well as the competence of police officers.

(ii) the second component - “establishment and equipping of a modular object for the implementation of dye shooting (so called rubber house) in Vrbovec and upgrading of an existing shooting range in the form of introduction of digital-electronic and falling targets at

a distance of 100 to 800 meters" and construction of a multi-purpose modular unit for real space simulation. The project will build and equip a modular unit for conducting warfare shooting, as well as obtain the necessary equipment for upgrading the existing shooting range (electronic and drop-down target system) with the construction of a multi-purpose modular unit with a digital system for simulating the real environment. So-called The "rubber house" will be equipped in accordance with the safety standards necessary for the implementation of coloured shooting with digital technology, access control system, video surveillance system with the corresponding network recorder (NVR) enabling recording of police officers' actions during training, audio system enabling the lecturer/teacher to communicate with the trainee and electronic meta system. It would also contain a control/control centre space to supervise training and operate an electronic meta system, equipped with a server, a digital content storage disc server (storage) and network equipment, as well as a classroom equipped with the necessary communication and information equipment to analyse the training carried out and monitor the training itself. The upgrading of the existing shooting range implies the acquisition and establishment of an electronic and drop-down target system, audio video system and the establishment of a modular control centre (container) for monitoring and surveillance of training and the management of the target system.

Implementation

Funds within the framework of this project will be used for the preparation of project documentation, procurement of necessary modular facilities (containers) for the establishment of modular units at locations in Zagreb and Vrbovec, construction works and finally the procurement and establishment of necessary equipment in order to achieve the objective of this project. After the completion of the project, the necessary equipment testing and necessary corrections will be carried out to meet all standards of effective training of police officers.

Implementation holder	MINISTRY OF INTERIOR
Target Group	Police officers
Estimated cost	HRK 31,125,000
Implementation period	1/2021.-12/2025.

C2 .3. R4-I1	**Implementation of projects under the National Framework Programme for the Development of Broadband infrastructure in areas where there is insufficient commercial interest in investment**

Challenge

OPCC has approved two state aid schemes aimed at building access (NFP) and aggregation (NP-BBI) broadband networks and infrastructure, namely State aid SA.38626 (2015/N) - National Plan for Broadband with a total allocation of 252 million EUR, of which 117.2 million EUR is provided from the European Regional Development Fund, while the remaining 134.8 million EUR is provided by the Republic of Croatia as national co-financing and State aid SA.41065 (2016/N) - National Programme for Broadband aggregation infrastructure.

The Ministry of Regional Development and EU Funds is the competent authority for the implementation of the ONP Programme, as the Managing Authority, and also the Intermediate body level 1 in the fund management system with the task of operational implementation of project realization procedures that can be co-financed by EU funds, while the HAKOM is the holder of the ONP programme and was responsible for coordination at the national level and providing expert and technical assistance to the holders of individual projects and MRDEUF. The implemented grant procedure was selected for co-financing 20 projects, whose realisation is planned by the end of 2023.

The NPOO foresees financing of the remaining portfolio of projects relating to 50 projects

of local self-government units (GS) which are ready and approved by the NOP within the framework of the NFP and which cannot be financed within the OPCC due to lack of funds, in the amount of HRK 2,500,000. The implementation of these projects will require an extension of the EC decision on granting state aid (SA.38626 (2015/N).

Objective

Increasing national broadband coverage in areas where there is insufficient commercial interest in investment.

Description

The National Framework Programme for Broadband Access infrastructure Development (NFP) represents a national state aid scheme aimed at building broadband access infrastructure in rural and suburban areas, that is, in areas where market failure has been demonstrated or where there is no commercial interest in building broadband infrastructure. NFP is a decentralised programme and the holders of individual projects are local self-government units, which have prepared broadband development plans and which have been approved by NOP.

Implementation

Implementation holder	MRDEUF
Target Group	JL (R)SGU
Estimated cost	2.500.000.000
Implementation period	1/2021-6/2026.

C2 .3. R4-I2	**Preparation and implementation of the project "Strengthening GSM/ TETRA-LTE signal for PPDR services"**

Challenge

The need to improve security level assurance as well as the safe operation of police officers, through the construction and upgrading of infrastructure capacities through innovative and interoperable digital systems to be used in border control, which is in line with the Strategic Plan of the Ministry of the Interior and other institutions for maintaining and enhancing public security for the period 2020-2022, the National Security Strategy of the Republic of[32] Croatia and the Strategy on Integrated border Management of 27 September 2019 and the Action Plan on the implementation of the Strategy ("OG", 91/2019).

Objective

Improving security level assurance as well as the safe operation of police officers, establishing stationary systems for supervision and protection of the state border, and strengthening GSM signal

Description

The project will strengthen the GSM signal on the entire territory of the Republic of Croatia, especially areas along the state border, since in this area the signal is not satisfactory, and police officers on extremely demanding field must use mobile systems during police procedures to perform checks, but also during emergency events. The establishment of stationary systems for supervision and protection of the state border and the establishment and strengthening of GSM signals throughout the territory of the Republic of Croatia will enable access to digital technologies relevant for digital transition of the police system, while contributing to territorial cohesion and protection of critical infrastructure. The procurement of 3,000 TETERS of LTE cells will take place.

Implementation

The renovation of the core of all three zones OF THE TETRA system built in the period

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2007-2015 will be done in such a way that, in addition to the renovation of the complete it and communication infrastructure, backup locations for certain zones will be additionally constructed during the neglect of zones, it is necessary to perform certain construction works and rehabilitate the infrastructure equipment and execute the purchase of specific server equipment and upgrade of software versions. Furthermore, for the construction of backup zones it is necessary to develop construction projects, perform construction works and deliver and install TETAR equipment at each location. After construction it is necessary to perform stress tests of system operation, test system failures and functionality of backup zones in order to determine that the system fully satisfies the required or defined project goals. 3,000 TETRA lt stations will be procured as well.
The funds will be used to build a core system for PPDR users (public Protection and disaster relief), and to set up MUP and operator base stations and user equipment per field, which would enable: (i) implementation of a priority obligation for PPDR (priority defined for PPDR users in all circumstances in relation to provision of services for commercial users); ii) coverage of signals on a geographical rather than demographic basis which will contribute to land and sea border coverage. The signal also needs to ensure coverage of certain facilities that are part of critical infrastructure; iii) availability must be ensured by multilayered redundant architecture of all components (RAN and core) and geographical redundancy; iv) end to end encryption must be implemented and will guarantee confidentiality, integrity and availability of information (CIA triangle: *confideality, Integrity*, Availability); V) National roaming for PPDR (public *Protection and disaster* relief). In addition to the equipment being procured, the project will include related construction works, assembly pillars, containers for equipment storage, hybrid power supply systems and operator equipment to cover the area with a signal.
The activities will be carried out through the following schedule:
2021 — Preparation of construction projects of the primary TETRA site for the purpose of neglecting the core of the system and development of construction projects for the construction of backup zones and locations along the border. Purchase of part of hardware equipment and services for both construction and renovation services
2022 - performing construction works at all locations, preparing, delivering and installing equipment with testing
2023 - system TETRA implementation, stress tests and start-up and monitoring system operation and correction of system operating parameters

Implementation holder	MINISTRY OF INTERIOR
Target Group	LC (R)SGU, operators — service providers, service users — citizens and business entities.
Estimated cost	HRK 930.000.000
Implementation period	1/2021.-6/2026.

C2 .4. Strengthening the framework for the management of state assets

Link with the European Semester and/or strategic documents and the context of the reform

In accordance with international good practice standards, each country is obliged to identify and take appropriate measures to improve the management of state property. In this context, the Republic of Croatia is making significant efforts in order to strengthen the assumptions for systematic, coordinated, clear, optimal and long-term sustainable asset management, which is the goal set out in the Strategy for State property Management 2019-2025.

The reform in question is in line with the Government Programme (objective 4.1. Efficient, transparent and resilient state) in which the issue of activation and better management of state property is considered, with special emphasis on a set of activities related to the improvement of management and supervisory functions in legal entities of special interest to the Republic of Croatia.

Furthermore, the reform in question represents a continuation of the activities listed in the NPR and is related to the report for Croatia[33].

The Reform priority "improving the management and management of state assets" and the reform measure "Action and better management of state property", with the aim of reducing the portfolio of inactive financial and non-financial assets, ensuring responsible management and more efficient operation of state-owned companies and optimising the management of real estate, with special emphasis on further improvement of relations with LC (R)SGUs in order to realise development projects and encourage investments, i.e. placing state property in the function of economic development. The implementation of this measure also contributes to the realisation of the SDG (goal 8. Promote continuous, inclusive and sustainable economic growth, full and productive employment and decent work for all). Also, the implementation of this measure is linked to the CSR, under which corporate governance of state-owned enterprises needs to be improved and the sale of enterprises and inactive assets intensified.

Continuation of privatization of companies owned by the Republic of Croatia through efficient reduction of portfolios of companies not of special interest to the Republic of Croatia is a measure that is continuously implemented by creating preconditions for sale, as well as by selling stocks and shares to all available sales methods defined by the valid legal and sub-legal framework, with the aim of exiting the state from the portfolio of companies not of special interest to the Republic of Croatia.

In its report for Croatia, which addresses the assessment of progress in the implementation of structural reforms and the prevention and elimination of macroeconomic imbalances, the EC stated that the framework for managing companies in majority state ownership has improved, but the sale of state-owned assets is slowly progressing. It also States that part of state ownership in enterprises is slowly decreasing. Furthermore, within the framework of its commitments to join the European Exchange rate Mechanism II (ERM II), the Republic of Croatia has announced the sale of stocks and shares in 90 companies, thus fulfilling the obligations from the Action Plan for entry into the European Exchange rate Mechanism. However, despite the intention to speed up the sale of stocks and shares in companies owned by the Republic of Croatia, sales in 2019 were weaker than in previous years.

Following the above, the proposed reform is in line with the Action Plan of the Republic of Croatia for participation in ERM II stating the obligations of the Republic of Croatia after accession to the euro area (*post-entry commitments*). Public sector governance is one of the areas of ERM II and it defines the policy area "Enhanced governance of state-owned enterprises" and the measure "improving corporate governance in state-owned enterprises through audit and harmonisation of regulations and practices in line with OECD guidelines

33EC (2020): Report for Croatia 2020, European Semester 2020: assessing progress in the implementation of structural reforms and the prevention and elimination of macroeconomic imbalances and the results of in-depth reviews under Regulation (EU) No 1176/2011

on corporate governance in state-owned enterprises".
The Republic of Croatia committed itself to take further steps with the aim of strengthening the framework for good governance in the public sector in accordance with OECD guidelines.
Strengthening the assumptions for systematic, coordinated, transparent, optimal and long-term sustainable asset management will encompass further strengthening and improvement of corporate governance in legal entities of special interest to the Republic of Croatia, which will result in an increase in the efficiency of business operations of companies, but also in the disposal of state property in the form of real estate and shares in non-strategic companies, i.e. the exit of the state from ownership of all other companies that are not of special interest to the Republic of Croatia, particularly those in which the state as it does not have control influence in order to recognize the ownership of state-owned companies.
With regard to the process of Croatia's accession to the OECD membership, the preparation of the adoption of the OECD Guidelines for Corporate governance in State enterprises has commenced. The principles of good governance are based primarily on the belief that good governance improves the company's performance. The OECD also recognises the importance and challenges of good corporate governance and provides guidance on how to increase the efficiency and competitiveness of state-owned companies and how to make business transparent. Since there are no internationally defined formal principles to help governments improve governance modes, the management modalities of state-owned corporations are considered to be the most comprehensive dealt with in OECD documents and applied in OECD member States.
The proposed reform in the context of corporate governance of state-owned enterprises is set as one of the most demanding and extremely important preconditions for the accession of the Republic of Croatia to full membership in the OECD, which is also included in the aforementioned Action Plan of the Republic of Croatia for participation in ERM II.
The objective is to strengthen corporate governance in state-owned enterprises through revision and harmonisation of regulations and practices in line with OECD guidelines on corporate governance in state-owned enterprises.
In accordance with the Act on the structure and scope of the state administration bodies, ministries participate with the ministry competent for managing state property in the management and disposal of shares and business shares of companies that make up state property owned by the Republic of Croatia and with regard to companies that are principally engaged in activities within the field of prescribed competence of individual ministries. With regard to the semi-decentralised model in corporate management of state-owned companies, the Ministry of Spatial planning, Construction and State assets (MPGI) will continue to participate in the above-mentioned processes with all other state administration bodies participating in the management and disposal of shares and business shares of companies that constitute state assets owned by the Republic of Croatia, as well as with state companies, but also with IT companies in support of the implementation of reform measures, for the purpose of effective implementation of OECD recommendations in this Administrative area.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .4. R1	**Improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD corporate governance guidelines in state-owned enterprises**

Challenge

Improving corporate governance in legal entities of special interest to the Republic of Croatia, which will result in increased efficiency of business operations of companies and

fulfilment of state and public interest is a priority objective in the forthcoming period.
The objective is for companies to operate rationally, efficiently, transparently and publicly. Legal entities of special interest to the Republic of Croatia realized a total of HRK 51 billion in revenues during 2019, managed assets in the amount of HRK 218 billion, made more than HRK 7.5 billion in investments, paid over a billion in profits into the budget of the Republic of Croatia, employed more than 46 thousand employees, which is why they represent an important segment of GDP, and have a major impact on the Croatian economy, accomplishment of public goals, revenues of the state budget, employment, etc.
It should be taken into account that these legal entities of special interest, in addition to economic activities, also deal with the achievement of various public policy objectives, in which profit is not primarily in focus and for which different state regulators set prices and therefore affect the final results of operations.
For this reason, responsible management of state property, as well as the implementation of further strengthening and improvement of corporate governance, as well as a more active role of the state as owner, is a priority objective in the forthcoming period.
After the successful implementation of a unified planning and reporting system in accordance with good practice in the field of corporate governance and OECD guidelines, and in line with the NPRK, which applies all legal entities of special interest, making the state an informed owner, other reform processes have been initiated with the aim of the state taking an active role as the owner based on its authority and creating a clear framework and system that will contribute to the improvement of corporate governance in an effort to result in more efficient operation of state-owned companies.
A number of projects financed by European funds have been launched within which new standards for the management of extremely valuable assets owned by state-owned companies will be set up, which refers not only to tangible assets but also to human capital.
In addition to projects related to the introduction of an early warning system for operational risks *Early Warning system*), an analysis of the legal framework for the selection and work of members of supervisory and audit boards, which are part of the NPR (reform priority 1.3 Improvement of management and disposal of state property, measure 1.3.1. Activation and better management of state assets), a project was initiated to harmonise the management system of state-owned companies in line with OECD guidelines, as the best internationally recognised corporate governance practices.
The realization of the same, at the same time, represents one of the most demanding and extremely important preconditions for the accession of the Republic of Croatia to full OECD membership.

Objective

Implementation of recommendations and adjustment of regulatory framework in accordance with best international practices will create preconditions for a more active role of ownership bodies in setting financial and operational objectives of state-owned enterprises, adoption of ownership policy that will define a clear role and enable more efficient coordination between competent national bodies responsible for performing functions of ownership power in relation to legal entities of special interest for the Republic of Croatia, implementation of separation of economic activities from activities of public policy objectives, etc.

Description

A review of corporate governance in Croatian state-owned companies will be prepared and an analysis of deviations of existing regulations and practices of corporate governance in state-owned enterprises will be carried out in relation to best practices. Furthermore, recommendations for the revision of the regulatory framework for corporate governance set out in the analysis will be implemented.

Implementation

In accordance with the Act on the structure and scope of the state administration bodies, ministries participate with the ministry competent for managing state property in the

management and disposal of shares and business shares of companies that make up state property owned by the Republic of Croatia and with regard to companies that are principally engaged in activities within the field of prescribed competence of individual ministries. With regard to the semi-decentralised model in the field of corporate governance of state-owned companies, MPGI will continue to participate in the above-mentioned processes with all other state administration bodies participating in the management and disposal of shares and business shares of companies that constitute state property owned by the Republic of Croatia, as well as with state companies, but also with IT companies in support of the implementation of reform measures, for the purpose of effective implementation of OECD recommendations in this Administrative area.
Funds for the implementation of the project are not necessary because it is implemented within the framework of the project financed through the Structural Reform support Programme (SRSP), but funds are needed for the implementation of recommendations or project results.

Implementation holder	MPGI
Target Group	MPGI, all other state administration bodies participating in the management and disposal of shares and business shares of companies constituting state property owned by the Republic of Croatia, and as regards companies principally engaged in activities within the area of regulated jurisdiction of state administration bodies, state-owned enterprises.
Estimated cost	HRK 10,000,000
Implementation period	2/2021.-12/2023.

C2 .4. R2 Strengthening infrastructure and human capacity to implement monitoring of corporate governance in state enterprises and projects

Challenge

Sectoral sub-specialisation in corporate governance of state-owned enterprises.
Companies, i.e. legal entities of special interest to the Republic of Croatia, belong to different activities or economic branches and thus to different areas of competence of several state administration bodies in accordance with the Act on the Organization and jurisdiction of State Administration bodies.
Therefore, implementation of the monitoring of corporate governance in state enterprises and related projects requires the possession of specific knowledge and skills (good business practices, established management standards and criteria, analysis of international trends and results related to individual activities in countries in the environment, analysis of integrated reports (financial and non-financial data), performance indicators, etc.), in view of infrastructure (transport), energy or other economic activity of special interest for the Republic of Croatia performed by the companies concerned.
Sectoral sub-specialisation of civil servants in the sphere of corporate governance of state-owned enterprises with adequate infrastructure equipment (equipment for transparent presentation of work and results) leads to improvement of corporate governance in subjects of public interest for the Republic of Croatia.

Objective

Implementing OECD recommendations and adapting the regulatory framework in line with best international practices will create preconditions for a more active role of ownership bodies in setting the financial and operational objectives of state-owned enterprises and better coordination between competent national authorities. With the implementation of appropriate recommendations, the state will work on strengthening institutional capacities in relevant parts of the state administration. Strengthening human resources is one of

seven specific objectives of the Strategy for State property Management 2019-2025, adopted by the Croatian Parliament on 2 October 2019, which operationalize the strategic objective of systematically, ordinated, evidently, optimal and long-term sustainable management of assets owned by the Republic of Croatia.

Description

In accordance with the OECD Guidelines, which indicate the necessity of strengthening institutional capacities in order for ownership bodies (which are in the case of the Croatian line ministries) to have specific competencies, i.e. experts with legal, financial, economic and wider management skills, the education of ownership bodies will be encouraged in order to strengthen the competencies of civil servants from both the domain of financial accounting area and other areas of sub-specialty, depending on the economic branches to which individual companies belong and activities that they perform, and thus various areas of competence of several state bodies in accordance with the Act. The education plan will therefore include education for the successful implementation of internationally recognised guidelines for corporate governance in state-owned enterprises on the line of professional sector sub-specialisations in the area of corporate governance of state-owned enterprises.

Implementation

In accordance with the Act on the structure and scope of the state administration bodies, ministries participate with the ministry competent for managing state property in the management and disposal of shares and business shares of companies that make up state property owned by the Republic of Croatia and with regard to companies that are principally engaged in activities within the field of prescribed competence of individual ministries. With regard to the semi-decentralised model in corporate governance of state-owned companies, MPGI will continue to participate in the above mentioned processes with all other state administration bodies participating in the management and disposal of shares and business shares of companies that make up state assets owned by the Republic of Croatia, as well as with state companies, but also with IT companies in support of the implementation of reform measures, for the purpose of effective implementation of OECD recommendations in this Administrative area.

As regards inter-departmental cooperation, it will be improved by the adoption of the Guidelines for the Preparation and implementation of Restructuring plans and PLANS FOPIP by the end of the current year. However, the need for better co-operation is caused by the evident large fragmentation of ownership functions to a large number of ownership bodies.

Implementation holder	MPGI
Target Group	MPGI, all other state administration bodies participating in the management and disposal of shares and business shares of companies constituting state property owned by the Republic of Croatia, and as regards companies principally engaged in activities within the area of regulated jurisdiction of state administration bodies, state-owned enterprises. As part of this reform, it will be necessary to encompass representatives of ownership bodies to a significant extent, and since there are currently four ministries responsible for 35 out of 39 legal entities of special interest in the Republic of Croatia, THE education should include employees of these four ministries (MMPI, MFIN, MINGOR AND MPGI). In addition, CERP officials would be added, therefore estimating the number of education officers up to 30.
Estimated cost	HRK 2,000,000
Implementation period	2/2021.-12/2023.

C2 .4. R3 Continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of portfolios of companies not of special interest to the Republic of Croatia

Challenge

Creation of preconditions for further privatization of companies owned by the Republic of Croatia that are not of special interest to the Republic of Croatia (portfolio managed by THE CERP).

Objective

The creation of preconditions for the privatisation of companies by resolving the issue of portfolios managed by CERP, which is currently not available for sale due to unresolved property rights, provides preconditions for increasing the number of companies available for sale. Participation and implementation of guidelines, as part of the project Restructuring of state-owned enterprises in the Republic of Croatia, will enable successful and efficient management of companies and restructuring of companies if necessary. The implementation of these procedures will strengthen companies and be more attractive for the sale or entry of strategic partners.

Description

see implementation

Implementation

After the creation of preconditions for sale through restructuring of companies in majority ownership, resolving property rights relations with companies where the same is an obstacle to sale, the value of majority companies will be assessed as the basis for the sale or publication of a public invitation to enter a strategic partner, estimating the value of minority portfolios, and advertising of sales through the public procurement of bids, tendering and stocks on a regulated capital market. Following the implementation of the aforementioned activities, the assumptions for increased advertising of sale of companies from the portfolio managed by THE CERP will be created, which will continue the privatization process of companies owned by the Republic of Croatia and meet the basic objective, i.e. reducing the portfolio of companies owned by the Republic of Croatia that are not of special interest to the Republic of Croatia.

Implementation holder	MPGI
Target Group	Companies that are not of special interest to the Republic of Croatia managed by THE CERP with a special focus on companies that could not have been advertised for sale or sold so far given their financial position or unresolved property rights.
Estimated cost	HRK 1,500,000
Implementation period	2/2021.-12/2023, noting that the activities concerned will be carried out continuously until the full privatisation of the portfolio

C2 .4. R4 Optimisation of real estate management in state ownership

Challenge

State assets are first-class capital and one of the most important resources to be managed and disposed of effectively in order to achieve economic, social and cultural growth and development and to preserve the potential for future generations. Since state ownership in the Republic of Croatia is significant, effective management of state property in the form of real estate directly affects public debt and fiscal sustainability.

The impact of successful management of state property is spilling over to many sectors and all areas of economic and social life, which can best be seen in the example of development of cooperation between the Republic of Croatia and LC (S)S. in the period 2016-2020, the Republic of Croatia donated LC (R)SGUs and utility companies owned by them with a total estimated market value of 822 million HRK for the purpose of building

entrepreneurial infrastructure, realization of projects of general public, social and cultural interest, demographic reconstruction, national minorities, waste management which directly increases the quality of life in the communities. Thus, unused and neglected state property in the form of land, apartments, business spaces and former military assets has become a great potential that enables the revitalisation of cities and municipalities by modernising social infrastructure, improving the investment climate and fostering competitiveness of economic development and employment, creating new jobs.
In addition, numerous activities have been carried out in the past period to improve the management of state property and reduce the real estate portfolio, and 73 public calls for the disposal of real estate were published, out of which 5 international public calls for the realisation of investment projects, 2480 contracts on the disposal of real estate were concluded and the state budget revenue from non-financial assets amounted to HRK 831 million.
The main problem is inactive (currently under-utilised or completely out of function) state property in the form of land, former military property, office buildings and apartments, thus causing cost and economic loss caused by a lack of investment in the public and private sectors. The efficiency of real estate portfolio management is low and unsatisfactory due to complicated disposal procedures, inadequate internal database, large number of active objects and lack of systematic data and programme management of the real estate portfolio.
A great challenge in the future is the implementation of the Act on unestimated Construction Land, since this Act bases the procedure which will determine the exact surfaces of tourist-purpose building land that has become state property during the process of transformation of social ownership and privatisation, but is still on the use of companies that have tourism and other economic facilities on that land that have been assessed in their equity. The Act also prescribes the manner of long-term arrangement of relations between the state as the owner of land and companies as the owner of buildings that constitute a functional unit with land, so that in addition to a significant increase in revenues of the state budget, additional investments in the tourism sector are expected.

Objective

Development of methodology for reducing the real estate portfolio and activation of unused assets aimed at priority development projects of the Republic of Croatia with realization of state budget revenues from non-financial assets in the amount of HRK 1 billion by 2024. The ultimate goal is to unlock the investment potential of state property through increased commercialisation and privatisation, supporting overall economic development, especially through further improvement of relations with local and regional self-government units in order to realise projects that are of particular importance for the development of regions, towns and municipalities, thus supporting better utilization of EU funds.
The implementation of these activities and the construction of an effective IT tool for real estate management and the adjustment of the regulatory framework in accordance with best international practices will create preconditions for systematic and efficient management of state property and a more active role of the state in the processes of disposal of state-owned real estate, and state property in the form of real estate will become a driving force for economic changes and development of the Republic of Croatia.

Description

It is therefore necessary to optimise the management and accelerate the activation of unused state property in the form of real estate for the purposes of economic, cultural, social, demographic and general development, accompanied by monitoring management activities but also the results and effects of state-owned real estate management, while reducing the portfolio of non-financial assets, and further improving relations with LC (R)SGUs with emphasis on the realisation of the project for the benefit of citizens and the wider community, encouraging investments and regional strengthening of rural communities and supported areas.

Implementation

Implementation will be coordinated by MPS and state property Ltd. in accordance with the Act on the structure and jurisdiction of state administration bodies and the Act on State property Management.
A detailed analysis of the existing property management model will be carried out with amendments to the legislative framework to allow for a more flexible and market-oriented management of state property.
A methodology for reducing the real estate portfolio and faster and efficient activation of unused state assets will be established. Key financial and non-financial impacts will be identified and a methodology developed to manage the effects from the management and disposal of state property for all emerging forms of assets in the MPGI management.
The publication of public tenders for the purchase, lease, lease or establishment of building rights on state property will intensify and a list of priority procedures for the dismantling of co-ownership communities will be established with the successful preparation of priority investment projects for the activation of unused state property through the establishment of building rights, service rights, donation, leasing and allocation of real estate for use.
In a wider scope and following this measure, a project proposal has been submitted under the TSI (*Technical support Instrument)* of the instrument entitled "*State property Management Optimization programme*".

Implementation holder	MPGI
Target Group	MPGI, state property d.o.o. and other state administration bodies participating in the real estate management and disposal procedures.
Estimated cost	HRK 2,500,000
Implementation period	2/2021.-12/2024.

C2 .5. Improving the efficiency of the judicial system

Link with the European Semester and/or strategic documents and the context of the reform

Achieving an effective and effective judiciary is one of the priority areas of public policy highlighted in the NRR. This strategy envisages further strengthening of the efficiency of the judiciary, which will contribute to the development of the economy and respond to expectations of citizens regarding the quality of public services and the construction of a society based on the rule of law.

As pointed out in the Judicial sector analysis (*Justice sector* Policy Note) prepared to draft the NRR, an efficient judiciary sector is a necessary condition for transforming and efficient functioning of the economy and promoting national competitiveness. An efficient judiciary contributes positively to Croatian economic growth by creating a favourable environment for business operations and encouraging job creation. In this context, courts indeed play a key role in implementing public policies aimed at strengthening the economy, ensuring the timely enforcement of court rulings, reducing transaction costs for businesses, verifying economic losses due to corruption and organised crime, and increasing security regarding the protection of property rights and access to justice by citizens.

The EU Rule of law Report for 2020 highlights the quality and efficiency challenges faced by the Croatian justice sector. In particular, limited progress has been noted in reducing backlog cases and the length of proceedings in civil and commercial courts. However, the report States that successive reforms so far in the context of rationalisation of the court network could lead to improvements in the efficiency of the system, as several judges could work in areas facing greater challenges (e.g. civil cases). Furthermore, in the EC report for Croatia 2020. the *EC country Report notes* some progress in reducing the length of court proceedings and improving electronic communication in courts due to the gradual expansion of the use of electronic communications and the reduction of backlog cases in commercial courts.

Citizens and businesses generally perceive the entire judicial system as slow, cumbersome and inconsistent. Trust in the system is relatively low, and perception of corruption is high. Judicial officials believe that frequent legislative changes, worn-out court buildings, insufficient use of technologies and other organisational shortcomings are reasons for poor institutional success.

The government seeks to address institutional shortcomings in the judiciary sector, particularly in courts, in order to achieve higher standards of providing services to citizens and businesses. The Croatian judiciary is expected to improve and take a place among the 15 best judicial systems in the European Union (EU), in line with EC indicators on judicial efficiency (CEPEJ). This vision of an effective judiciary by 2030 will require active participation and coordination with all stakeholders in the justice sector and smart deployment of adequate financial and investment resources.

The efficiency of the judicial sector in the Republic of Croatia has improved significantly in several dimensions through reforms implemented over the past 15 years. The judiciary sector has undergone a comprehensive reform of its structure, procedures, institutional roles and capacity to monitor efficiency. The existing public policy framework in the judiciary aims at: (I) increasing judicial efficiency; (ii) adapting the distribution of judicial “services” to actual demand; (iii) strengthening the independence, impartiality and professionalism of the judiciary; (iv) combating organised crime and corruption; and (v) exploiting the potential of modern technologies to improve access and communication for court users. The effectiveness of reforms monitored through annual reports and eSpis data shows unequal progress in various areas. The sectoral analytics highlight in particular four areas: (i) further reduction of backlog cases and time to resolve first instance civil, commercial and criminal cases; (ii) court independence; (iii) acceleration of plans to further expand ICT tools primarily to allow judges access to various databases and public access to case information; (iv) and improvement of anti-corruption programmes.

Reducing delays in first instance solutions remains Croatia's goal and is also highlighted

by the EU as a priority objective. This is, however, a complex area, because the total time until the case is resolved depends not only on the first instance decision, but also on the effects of unresolved cases on the performance of activities, as well as on all appeal procedures and execution itself. Delays may, and may not, occur at any stage of the procedure and may have different causes and ways of resolving them. Therefore, this topic is discussed in the following parts of the text: pending cases or backlogs; first instance decisions; appeals (and third degree audit); and enforcement of judgments and relevant titles. Most attention has been paid to civil and commercial cases, according to the current EU emphasis, although the EU has also expressed concern about delays in criminal cases, particularly at first instance. In any case, besides enforcement, similar problems also affect criminal cases. The implementation of court decisions has been dealt with by a proposed new enforcement law, which will require support for implementation.

A turning point for increased acceptance of e-communications services was recorded during the restricted movement ("lockdown") due to the CIVIL-19 pandemic and the earthquake that hit Zagreb on March 22, 2020, which damaged the main court buildings in the Croatian capital. Furthermore, as of 1 September 2020, all legal entities are obliged to submit their documents through the e-communication system, except natural persons who have the possibility to decide whether to use the said system or to use the traditional (paper) option of communication. All of the above had an impact on the increased use of ICT tools in the judiciary, including e-communication. Meanwhile, the PAM has begun phase 2 - electronic exchanges of documents between courts and attorneys. PUMA also recognized the need for stronger integration within the state information infrastructure, i.e. integration with other state IT systems and databases that will enable more complex queries and analyses.

In accordance with the e-Justice Strategy (2019-2023) and the Communication on digitisation in the Judiciary, the EU aims to better use digital technologies, in line with full respect for fundamental rights and the right to a fair trial. The development of electronic e-Justice tools was exponential, as they now allow digital court proceedings through secure electronic channels, secure communication between judicial authorities, easier informing of citizens about legal provisions and access to certain national registers under the responsibility of Member States or professional organisations include process optimisation and digital transition of the judicial system using ICT tools while implementing procedural reforms. Therefore, in order to address these challenges, the Croatian justice sector should need additional support to fully respond to EU requirements and objectives for digital transformation.

The digitalisation of the judicial sector has advanced and the use of e-communication in courts has increased. However, the e-file system (ICMS) should be upgraded to respond to certain inefficiencies identified in the application. Merging misdemeanour courts with municipal courts requires the development of a module that would enable unified monitoring of all cases in municipal courts and contribute to further reduction of the number of unresolved cases in courts.

Building an agile and modern judicial infrastructure is a key precondition for effective implementation of reforms. Croatia has rationalised the court network, but there is still a large number of court facilities of uneven quality throughout the country. This leads to inadequate conditions for judges and other actors to perform their duties in a more efficient and efficient manner. Most courts and public prosecutor's offices are located in damaged/outdated physical infrastructure. Consequently, recently adopted reforms (court reorganisation, reduction of backlog cases and acceleration of court proceedings) are affected in the long run by insufficient capital investments in physical structures in this sector, which negatively affects the efficiency of the work of judicial officials and officials.

The development and adherence to the Design Guidelines (the development of infrastructure) is in itself an international good practice and the government must endeavour to develop standards specific to Croatia, for all judicial institutions. Design guidelines, taking into account the size and nature of the court, should aim in particular at (i) the optimal performance of the building and the exploitation of the premises; (ii) a

positive user experience; (iii) both a secure and tailored/purposeful working environment.
Continuous and comprehensive support along the chain of judicial services includes further support for land registries. Among other it activities, numerous technological and functional upgrades have been made in the Joint Land Registry and Cadastre information system (JIS) and activities related to the digital land registry archives have started. The Croatian model of property registration and related rights is not institutionally unified, so that the connection of cadastral and land data was achieved through the implementation of the CIS. In this way, ZIS has become a unique solution for linking institutions at the level of data and business processes. Instead of the different practice of working in cadastral offices and land registry departments of courts, a centrally defined treatment in the ZIS has been established, which ensures a unique practice. Data acquisition was established through it technologies. A unique Land Database has been established for harmonised data of the Republic of Croatia which ensures that data from two systems are no longer diverging, and one place can see the entire ownership structure of the property and its accommodation in the space. Implementation of the one stop shop portal enables citizens and other users a unique service place for all land registry and cadastre data. An ERDF project is currently being implemented with the aim of upgrading the JIS and establishing an interoperable land data management system that will enable all bodies to exchange land registry data.
Numerous upgrades to the Court Register have been made, the most important being: the provision of electronic services for the establishment/establishment of the most frequent forms of the company; the establishment of e-extracts from the Court Register; it is possible to identify foreign nationals in procedures for establishing a distance company and the issuance of extracts from land registries. A report system was introduced into the prison and probation system, which stores all data and documents on persons deprived of liberty. A system for managing property cards of judicial officials has been implemented.
In the period from 2016 to 2020, security of the Prčinja information system was raised to a higher level by introducing components for detecting and fighting sophisticated threats. However, further improvement of the JIS, the e-enforcement system and the digital e-archives of justice and the extension of the use of videoconferencing technology in courts and public prosecutor's offices is needed. Taking into account the above and in order to achieve greater development and growth on the EU-level scale (*EU Justice Scoreboard 2020*), further investment in e-infrastructure in the judiciary is needed.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .5. R1 Encouraging the digitisation of the judiciary through process optimization and digital transition

Challenge

In recent years, the Croatian judicial system has undergone a series of structural reforms and continues to further develop the provision of judicial services. The latest reorganization of the court network has posed new challenges in THE ICMS integration process to all courts, especially for migrating data from misdemeanour cases. Implementing the digital agenda in all sectors, plans to expand the single system to administrative courts were considered necessary. Electronic communication between courts and parties includes the possibility of electronic submission of applications, so far introduced in all commercial, county and municipal courts. However, there is room for improvement, especially in county and municipal courts. Since it has been a long time since the establishment of certain

infrastructure components, the challenge is to strengthen communication infrastructure (especially support for migration to new platforms) and data security so that users do not have interruptions and/or delays. It is also necessary to provide users - judicial bodies, citizens and entrepreneurs with new functionalities in electronic services in accordance with new working conditions, as well as new electronic services that will accelerate the business processes of the judicial system. Furthermore, certain applications need to be integrated into European judicial systems. The RDF proposes financing part of planned investments related to further improvement of the IT system in the judiciary, with emphasis on analysis of their sustainability and proposals for their improvement, as well as on functional improvements of the system for document management in courts and its components, one of which is the most important e-Communication that enables complete digital communication with courts, the CTS (used by public prosecutor's offices) and the CIS. The current fragmentation of applications in the judiciary, outdated technologies, lack of interoperability and expensive upgrading services hamper and slow technological progress in the system. Implementation of the new judicial system (digitisation of proceedings) of case management with all relevant components on all judicial bodies is set as a key strategic investment. Within the new/upgraded information system, a system of ePermit, eSteac and digital e-Archive of the judiciary would be established and the use of videoconferencing technology in courts and public prosecutor's offices would be expanded to ensure distance work. New technologies would be developed (digital assistant, blockchain, etc.). Taking into account the above and in order to achieve greater development at EU level (*2020 EU Justice Scoreboard*), further investments are needed in e-infrastructure in the judiciary.

Objective

The aim is to digitize the judicial sector and raise the level of communication infrastructure that will enable safe and continuous operation of the entire communication system, which is one of the most important systems in the modern work of courts, state attorney's offices and ministries.

Description

On the basis of past experiences and strategic documents and existing plans, a comprehensive action plan for the implementation of the Digital Agenda will be developed in order to enable a systematic and targeted digitisation of the judicial sector in line with today's challenges and ensure the equal application of EU law by developing digital judicial services in accordance with the EU Digital Agenda. Plans for further upgrading of existing ICMS and related IT tools in the justice sector and development of digital court registers and archives would require good operational planning and monitoring of development. It will enable continuous upgrades and systematically identify the need for further investments.

Implementation

Analysis of existing ICT infrastructure and systems in the judicial sector, including shortcomings reported by beneficiaries. Analysis of development applications and tools and analysis of their complementarity with development tools at EU level. A series of measures and activities for digital transformation will be provided together with the monitoring and reporting framework. Process optimization and digital transition of the judicial system will be carried out through increased use of ICT tools and implementation of legal reforms in order to reduce unnecessary burden on the judicial system. This will be achieved in the period from January 2021 to December 2024. This will be achieved through: (i) centralisation of services using available solutions at the national level; (ii) establishment of new technologies in case management (new comprehensive information

system (digital process), expansion of functionality network, optimisation of architecture and upgrading of ICT tools (with emphasis on e-communication module and online discussions, and all to enable both business and physical entities to fully communicate with the courts); (iii) compliance with the JIS system; (iv) improvement of the court registry; (v) development of digital archives of courts and state attorneys;
For remote court hearings, part of the equipment is planned to be procured in 4Q/2020.

Implementation holder	RAMP
Target Group	Judicial authorities; end users: citizens, business entities.
Estimated cost	HRK 706,000,000 (investment)
Implementation period	10/2020.-12/2024.

C2 .5. R2 The transition to an agile system of planning investments in judicial infrastructure

Challenge

The lack of a reliable system for planning investments in judicial infrastructure impedes an adequate response to the needs of judicial bodies. Ongoing reforms rely on modern standards-based infrastructure, and the provision of equal quality services across the country requires the application of these standards to all judicial bodies in the country. Furthermore, the completion of a functional merger of misdemeanour courts with municipal courts (through the process of rationalisation of the network of courts) would require further improvements in physical infrastructure and respect for architectural standards.

Objective

Establish a reliable and modern system of planning investments in judicial infrastructure which would ensure timely and appropriate response to the needs of the judiciary sector for infrastructure investments. This system would also take into account standards for all facilities of judicial bodies in the Republic of Croatia based on international good practice. The proposed functional review will assist the government in carrying out an independent efficiency assessment in order to achieve these objectives. The functional review will cover the capacities of key institutions involved in the organisation and functioning of judicial institutions, the allocation of human resources and budgetary resources among judicial institutions, the contribution of information and communication systems to the provision of judicial services and strategic planning (including risk identification and mitigation). This will be a solid basis for further functional reorganisation of the judicial network, which will enable the automation and digitalisation of judicial services across the country. It will also enable linking the material and financial operations of judicial bodies that will be merged in the future Square of Justice.

Description

Guidelines for the design of all judicial sector facilities in the country will be developed under the World Bank Project *Justice for business* project, currently under implementation. A functional review and the Design Guidelines will form the basis for the development of a new Investment Plan in Judicial infrastructure that includes activities and measures aimed at creating and maintaining an environment in which the entire project and performance of the building contribute to the safe and efficient operation of courts.

Implementation

Development of a functional review to be incorporated into the Investment Plan for Judicial infrastructure.

Implementation holder	RAMP
Target Group	Citizens, companies, the judicial system and the legal profession.
Estimated cost	HRK 2,424,287.000 (investment)
Implementation period	2/2021-6/2026

(b) Investments

C2 .5. R1-I1 Strengthening IT infrastructure in the justice sector

Challenge

In order to provide citizens with better and faster services, we plan to further improve e-infrastructure in the judiciary by developing new ones and improving existing e-services, building new communication infrastructure and optimizing the system that will enable safe and continuous operation of the entire communication system which includes the most important links between the modern business of courts, state attorney's offices and ministries. It would also enable distance discussions to be held, which would speed up the work of the courts and their smooth work in memory conditions.

Objective

Further upgrading of existing and development of new IT tools in order to ensure full implementation of the Action Plan for the implementation of the Digital Agenda.

Description

Further digitalisation in the judiciary implies the development of new e-services based on new technologies (artificial intelligence) and improvement of existing, as well as the digitisation of the judicial registers themselves (improvement of communication infrastructure for the development of e-services, harmonisation of land registry and cadastre data, distance court hearings, information technology equipment for courts and public prosecutor's offices, functional improvement of e-file, integration of individual applications into European judicial systems, digitisation of the court registry document collection, registry of persons with parental support. All of these contribute to the digital transition and ensure the smooth functioning of judicial bodies in the conditions of the Covid-19 pandemic, and as a consequence will increase efficiency in the implementation of court proceedings.

Implementation

Most of the investments are on a high level of preparedness. Cost estimation is based on similar procurement procedures performed for equipment procurement and on previous experience in the development of electronic services in implemented projects or projects in implementation.

In order to ensure the credibility, transparency and professionalism of digital procedures, it is necessary to invest in the implementation of blockchains. It is necessary to enable the storage of encrypted data on all transactions in the General ledger in a manner that is considered an industrial standard, which will ensure the undeniability of transactions performed and the highest level of information security when reviewing data and entering new data into the bloc chain, i.e. *the blockchain*. The implementation of blockchains must enable copying the main book to external nodes, and must have flexible consensus mechanisms that can be applied to the master books.

The use of the implemented blockchaine will enable the development of new pilots of e-services and applications that will benefit from the technology of the block chain (especially the undeniability of data and the inability to modify data in the past). Pilots of new e-

services may include:
(i) a pilot project for the application of Blockchain technology in real estate transactions:
smart contracts, which are an integral part of blockchains, real estate transactions and payments in an appropriate account, can be simultaneously and automatically implemented. After the transaction, new ownership of real estate would, thanks to interoperability e.g. CDU platforms should be automatically recorded in the e-registers of land registers.
(ii) the pilot project for the use of blockchains in recording witness testimonies: witness testimonies, after processing the “speed to text” tools and after receiving the transcript of testimony, could be stored in the chain of blocks in order to guarantee their uniformity.
Future tender documentation for all planned applications and/or e-services will be defined provided that the implementation or implementation is done as much as possible on available state platforms. This will significantly reduce dependence on individual suppliers.
New e-services and applications to be developed include distance court hearings. Based on the existing and possibly upgraded infrastructure, it will be necessary to select and implement an appropriate technological solution (e.g. Microsoft teams, CISCO, JITSI, ETC.) which will be used as a video-conferencing platform for the entire system.
There is also a functional improvement of the case management system. eSpis and CTS systems have been upgraded several times so far and there is a need to introduce newer, modern and more flexible platforms. It is necessary to conduct an analysis and then a plan and projects for migrating existing e-services “eSpis” and “CTS” to available state infrastructure.
The development of a new judicial information system will respond to many challenges facing the judiciary today. Namely, the fragmentation of the system and outdated technology hinder the complete digitalisation of the judiciary. Paper files still play the main role and such administration of cases slows down the significant factual resolution of cases or drastically drags on.
Within the new information system it is necessary to include: digitisation of all judicial processes, new technologies in order to accelerate work but also transparency, random allocation according to criteria of complexity or duration of proceedings; connectivity and interoperability with all relevant registers, online discussion AV transfer, document management in the digital environment, connection and assignment of objects to experts, assessors, connection with land registers, distance access, further development of e-communication, etc.
Procurement of it equipment for courts and public prosecutor's offices:
Since the future platform of the new justice system will use more available state infrastructure, there is no need to replicate the server infrastructure already available. Discuss, in cooperation with the competent authority, the possible upgrading of the information and communication infrastructure to enable the performance of high performance e-services and applications and with as rapid response as possible.
Procurement of it equipment for courts and public prosecutor's offices should also be considered in the context of the strategy of the system oriented towards public infrastructure (CDU), i.e. it is necessary to acquire equipment for users (e.g. camera monitors, microphones, loudspeakers, main combinations (headphones and microphones), web cameras, laptops, table scanners, data archiving scanners, etc.) in order to enable them to use e-services and applications available for example in CDU. The benefits of using available services at the national level such as the CDU are numerous but primarily because these services will take place in the “state cloud” which significantly simplifies the end user's use and management.
The procurement plan for it equipment shall be planned in accordance with the above and

where necessary coordinated with the competent authority (SDURDD).
Most of the investment is on a high level of preparedness. Cost estimation is based on similar procurement procedures performed for equipment procurement and on previous experience in the development of electronic services in implemented projects or projects in implementation.
Digital assistant:
Public administration and judiciary have proven inefficient in communication with users and parties. Administrative and judicial procedures are clearly prescribed and foreseeable in most situations and therefore the development of a digital assistant platform is very possible and useful. In order to facilitate and accelerate the exchange of information and communication of the system with different users, it is planned to implement the digital assistant. Users will be able to use digital assistant services (through a single access point) in specific specialist areas, e.g.
(i) the Digital Court Assistant: will facilitate the examination and harmonisation of case-law by judges (i.e. from the existing Supranova application) and will offer case resolution proposals, i.e. the structure and working draft of knowledge-based decisions that judges may use
(ii) Digital JIS assistant: helping end users solve all issues and actions with land registries and cadastre
(iii) Digital assistant for court experts: providing assistance to court experts in retrieving data to be analysed, as well as offering business decisions based on conclusions made using business intelligence,
(iv) other specialised digital assistants: using the existing infrastructure in the CDU, a standardised and relatively simple way of developing and implementing digital assistants in other areas will be provided.
The project is in the preparation phase. The estimated cost is based on framework estimates including previous experience in the development of electronic services in implemented projects.

Implementation holder	RAMP
Target Group	Judicial authorities; end users: citizens, business entities
Estimated cost	HRK 240,000,000
Implementation period	10/2020.-12/2024.

C2 .5. R1-I2 Improving the cadastre and land registry system

Challenge

The existing support for the cadastre and land registry system ensures the continuous development of these services. The process of data digitalisation is ongoing, with a significant part of the elements still to be resolved in order to ensure the quality of migrated data. It will also contribute to a better quality of property monitoring and contribute to the effective implementation of anti-corruption policies.
Currently, the Land Database (BZP) contains 3.86% of the total land area in the Republic of Croatia, which almost all entered the BZP after the process of establishing, renewing or completing the land registry. The procedure of establishing, renewing and updating the land registry is a very long and costly procedure, which most often requires a previous new survey and joint work of cadastral and land registry officials.
In addition to this procedure, the Land Registry Act[34], and in accordance with the Act on State Survey and real estate Cadastre,[35] envisions two other procedures for the entry of cadastral plots into THE BZP: individual transformation (translation) into THE BZP and the

34 NN 63/19
35 NN 112/18

establishment of the BZP through an abortion. Both procedures are very fast procedures in which a smaller involvement of cadastral and land registry officials is necessary, and which procedures will eventually lead to a larger number of cadastral plots in THE SINP.

Objective

This is an investment aimed at increasing the quality of land registry and cadastre data and implementing a software module based on artificial intelligence, which will increase efficiency and provide conditions for resolving new cases.

Description

The procedure of individual transformation into BZP was successfully piloted at THE Municipal Court in Osijek and the Municipal Court in Pozega. During the pilot, it was concluded that for the maintenance of cadastral municipalities for which BZP was established IN part by this procedure, it is necessary to update the Common Cadastre and Land Registry information system (ZIS) so that the procedure can be applied more widely. Currently, the Ministry of Justice and Administration and the State Geodetic Administration, together with the contractor representatives (IGEA d.o.o. Varazdin and Ericsson Nikola Tesla d.d., Zagreb) coordinate the methods of maintaining these cadastral municipalities.
With regard to the establishment of BZP by means of studies, this is the development of new functionality in the ZIS, which has already been partially tested and can be completed and in this way established BZP.

Furthermore, based on the analysis of the compatibility of cadastre and land registry data, 40% of cadastral plots were found to be harmonized. For the aforementioned cadastral plots, the BZP could automatically be established or the BZP would be established with a smaller work of officials and in that part the ZIS should also be upgraded.

Consequently, the common register of BZP contains 3.86% of the land in the Republic of Croatia, but it harmonises 40% of the land for which no BZP was established, and through further development of the EIS and education of employees it would enable the establishment of BZP for 40% of the land.

Implementation

It is important to point out that a plan is currently being prepared to establish, automatically on the basis of the data provided by the cadastral operative, land registries for cadastral municipalities for which they were not established, that is, to supplement land registries in those cadastral municipalities in which the land register was destroyed, damaged or disappeared. In this procedure, data from the cadastral operative would automatically be transferred, the land registry official would compare them with the land registers or the documents he manages, and a land register would be established in a short time. All areas in which land registry is not founded are less economically developed (area of land registry division Gračac, Donji Lapac, Korenica, Vrgorac, Sinj, Benkovac, Obrovac, Drnis, Knin).
The next step is to harmonize the boundaries of cadastral municipalities, which functionality was piloted at the Municipal Court in Velika Gorica and the Municipal Court in Sisak, enabling the borders of cadastral municipalities to be harmonised with the administrative boundaries of local self-government units as well as the borders of counties. It is currently a situation that in some counties residents of peripheral areas have to go to land registry departments of municipal courts and cadastral offices in other counties, and sometimes the cadastral office is located in one county and the competent court in another.
The final step is to harmonize the number of all cadastral plots in the land registry and cadastral operative, which will make these cadastral plots suitable for the establishment of BZP, which would be developed as a combination of previously mentioned functionalities.
In the BZP as a common register of cadastre and land registry, first of all, there is no

double handling of land registry and cadastral officials, the party submits a proposal to change data only in one place and does not have to have two extracts (excerpt from the land register and property certificate, and sometimes identification), but only one (extract from the BZP). Expenditures for the party are reduced because they do not have to bear double fees, and expenditures for the State budget are manifold lower because a smaller number of employees are needed and smaller solutions are shipped (only one solution is shipped), and ultimately employees who will no longer be required for double implementation of the same changes will be able to be activated to harmonize THE remaining land in order to finally establish BZP for the entire Republic of Croatia.
The project is in preparation. Cost estimation is based on an indicative estimate based on previous experience in the development of electronic services in implemented projects.

In relation to the influence OF THE BZP on economic development, first of all, regulated land registries enable greater legal certainty.

Implementation holder	RAMP
Target Group	Judicial authorities; end users: citizens, business entities
Estimated cost	HRK 116,000,000
Implementation period	6/2021.-12/2024.

C2 .5. R1-I3 Implementation of the e-enforcement system in the judicial sector

Challenge

The new enforcement Act is currently being adopted by the Croatian Parliament. It improves enforcement processes by ensuring fairness and efficiency. It envisions the transfer of enforcement proceedings from public notaries to courts, which represents approximately 700 000 files per year. In this way, digitisation and smooth implementation of this Act would prevent overloading of courts with the inflow of new cases while ensuring transparency, fairness and high quality of proceedings. It also addresses issues raised by the economic community and allows the contract to be effectively enforced.

Objective

Implementation of the e-enforcement tool is planned in accordance with the future enforcement Act that will increase the efficiency of the judiciary and provide conditions for resolving new cases as well as ensure faster and cheaper enforcement procedures for citizens.

Description

Electronic communication and electronic forms are introduced in the enforcement procedure in order to make the enforcement procedure clearer, more accessible and transparent for all parties and participants in the enforcement proceedings by protecting the rights of the enforcement, as well as creditors.

Implementation

Enforcement proceedings based on a credible document will be initiated by submitting an electronic proposal on the prescribed form through an information system, and the proposals are awarded to notaries as court commissioners equally. Furthermore, a new law has been drafted which will include all actors in the enforcement proceedings. Investment includes preparation and implementation of the Decision for digitisation of the enforcement procedure in accordance with amendments to the Act, as well as adjustment and expansion of the functionality of the Decision in accordance with the new Act.
The project is in preparation. Cost estimation is based on previous experience of development of electronic services in already implemented projects.

Implementation holder	RAMP
Target Group	Judicial authorities; end users: citizens, business entities
Estimated cost	HRK 30,000,000
Implementation period	3/2021.-6/2022.

C2 .5. R1-I4 Implementation of the digital e-archive system in the judicial sector

Challenge

According to the current situation, judicial bodies keep the archives in paper form, which requires adequate relatively large spatial capacities. Due to lack of space, rental of space is often used, which represents a large financial cost. Also, the main concern is fire protection, especially in courts located in buildings of poor condition. Ensuring space in one place and digitizing the archives, i.e. converting archival material into digital form, will liberate the space that judicial bodies can use for other purposes and reduce costs.

Objective

Business processes will be significantly improved, management and use of archival materials in court proceedings will be facilitated, which will result in reduction of burden on employees of judicial bodies and thus contribute to faster resolution of individual cases.

Description

In order to digitize the archives of judicial bodies, it is necessary to design business processes of storing and storing the digital archives (transformation of paper material and digital form), to ensure physical storage in one place (digitised material) and to adapt the necessary legislative framework.

Implementation

The investment is in the preparation phase. The cost estimation is based on similar procedures for the procurement of equipment, i.e. an approximate estimate of the cost of purchasing potential new tools. The analysis, which will be carried out as part of the preparation of the Action Plan for the implementation of digitisation, will result in recommendations for the implementation of the digital e-archive system. This investment will describe each phase and finance implementation activities.

It is necessary to ensure the implementation of digital archives which will be able to accept a relatively large number of digitised (i.e. scanned) existing documents. All digitised documents entering the digital archive will have to be processed by the OCR (*Optical character Recognition*) procedure in order to become searchable and thus easily accessible. The digital archives must support and store original digital (*Born-digital*) documents that must be stored alongside digitised (i.e. scanned) documents,

It must also support swift and efficient search of archived data (using e.g. keywords or individual document characteristics such as “date of creation”, “authorised institution”, etc.) while respecting the principles of information security in order to enable access to data in the digital archive only to authorised persons.

In relation to the demanding project of digitisation of documents and archival materials, several key conditions are highlighted:

(i) it should be possible to implement the digital archives which will be able to accept a relatively large number of digitised (i.e. scanned) existing documents.

(ii) All digitised documents entering the digital archive will have to be processed by the OCR (*Optical character Recognition*) procedure in order to become searchable and thus easily accessible

(iii) the digital archives must also support the storage of original digital (Born-digital) documents which must be stored alongside digitised (i.e. scanned) documents.

(iv) the digital archives must support swift and efficient search of archived data (using e.g.

keywords or individual characteristics of documents such as “date of creation”, “authorised institution”, etc.) while respecting the principles of information security in order to enable access to data in the digital archives only to authorised persons.
The investment is complementary to the investment “improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archive network” because it covers the specificities of the judicial system.

Implementation holder	RAMP
Target Group	Judicial authorities; end users: citizens, business entities
Estimated cost	HRK 300,000,000
Implementation period	10/2021.-10/2024.

C2 .5. R1-I5 Improving the bankruptcy framework

Challenge

The length of bankruptcy proceedings, non-transparency and a low debt collection ratio require systematic intervention in such a way that bankruptcy proceedings are transparent and that the maximum balance of receivables is collected and that the duration of proceedings is as short as possible. The inefficiency of the bankruptcy framework is defined as an extremely high risk for the development of the economic climate in the Republic of Croatia. In accordance with Article 29 EU Directive 2019/1023 of the European Parliament and of the Council of 20 June 2019 The Republic of Croatia is obliged to collect and aggregate annual data on procedures related to restructuring, insolvency and debt repayment. The Ministry already collects and consolidates data on the decision to open pre-bankruptcy proceedings, the average length of proceedings from the filing of the application or from its opening, the number of requests for restructuring procedures declared unacceptable, which were rejected or withdrawn prior to the opening and the information on the decision to suspend the pre-bankruptcy proceedings and the decision to confirm the bankruptcy plan.

Objective

Improving the system by which the Republic of Croatia will, after defining the basic dataset prescribed by the Directive, develop a new eStecation module and implement the upgrading of the case management system, collect an additional set of statistical data on bankruptcy (e.g.: average costs of proceedings, after bankruptcy reopened the new company procedure and number of jobs related to bankruptcy and pre-bankruptcy proceedings).
The investment would also include the development of IT tools for the implementation of the data collection methodology for data in the fields of restructuring, insolvency and debt repayment, as well as the collection of more detailed and detailed data required by the Directive, which will enable monitoring of the efficiency and effectiveness of available tools.

Description

Through investments in modernisation of the procedure, i.e. investments in modern technologies, it is planned to reduce the duration of bankruptcy proceedings, acceleration and automation of proceedings, as well as maximal acceleration of information flow between the court and other parties to the proceedings. Here experts, assessors, lawyers and other parties in bankruptcy proceedings are primarily considered. The system should be able to predict the duration of proceedings (which may be extremely useful to the parties with information on the anticipation of costs of actions in the proceedings), but also enable payment of all fees electronically, which must be ensured throughout the system.
The need to revise the legislative framework is not the only challenge in the coming period, it is necessary to continue to develop more intensive efficient administrative and electronic/

digital solutions. The increasing needs of monitoring, analytics, reporting and binding strategic frameworks at national and EU level impose the introduction of a continuous, comprehensive and uniform system for managing bankruptcy proceedings in the digital environment. Furthermore, interoperability with other registers and systems will ensure effective verification of data available in public registers as well as the enforcement of court decisions in terms of securing the assets and other rights of the parties to the proceedings. The system should include obligations under the national and EU regulatory framework.

Implementation

As a first step, it is necessary to analyse the regulatory framework and existing ICT systems. In accordance with the conducted analysis, structure the new eSteac module and implement the upgrading of the case management system. The entire project will be conducted in coordination with the project of the new judicial information system.
Implementation will follow the recommendations and results of the new data collection methodology and will be based on the proposed amendments to the bankruptcy legal framework. Full harmonisation with the provisions of the Directive would be ensured. The measure includes the preparation of a manual for the use of new IT tools and training/training of stakeholders.
The investment is in the preparation phase. The estimated cost is based on similar public procurement procedures performed for equipment procurement, indicative assessment of the procurement of potential new tools.
Stakeholder involvement: commercial Court, financial institutions (FINA, HBOR, HAMAG-BICRO, HANFA), business community.

Implementation holder	RAMP
Target Group	Judicial authorities; end users: citizens, business entities
Estimated cost	HRK 20,000,000
Implementation period	10/2021.-10/2024.

C2 .5. R2-I1 Implementation of the Guidelines for Design in accordance with the functional reorganisation of the Court Network

Challenge

Access to the judiciary is one of the major challenges in organising a functioning justice system. Investments in judicial infrastructure in certain centralised local areas remain enormous steps towards an accessible and more efficient judicial sector. As identified in the World Bank analysis, there are several challenges related to court infrastructure: in some courts three or four judges share offices; archives of courts, land registries and company registers are flawed; there are not enough courtrooms to hold debates open to the public and other court proceedings; entries in facilities and internal spaces are not adapted to persons with disabilities; as there are no special rooms for children with adequate supervision, users/entrepreneurs with small children often need to be left out of hearings; and most courts need to upgrade to meet EU standards. Furthermore, insufficient capital investments have a significant negative effect on cities (in less developed parts of the Republic of Croatia) where courts with the highest number of cases are in operation, as is the case in Zagreb. In these places, courts are located in worn-out buildings that are not suitable for staff and parties and where congestion often occurs.
In the context of investments in penal bodies (prisons and penitentiaries), the conditions for the execution of imprisonment in the Republic of Croatia are further improved, in accordance with international recommendations, guidelines of the European Court of Human Rights, National preventive Mechanism. The excessive capacity of prison conditions is particularly evident in the midst of THE CIVIL-19 pandemic, which

demonstrates the need for a well-organised area and smaller prison rooms. Apart from contributing to better prison conditions in this way, infrastructure improvements also have a major impact on prison staff and create a working atmosphere conducive to better work. Infrastructure investments in criminal authorities are directly linked to the programme of execution of prison, but also to the security of society as a whole.

Objective

Complete the functional, reorganisation of the court network by applying design standards and ensure the implementation of the digital agenda throughout the country. It is necessary to provide adequate space for judicial officers and officials, which above all means a sufficient number of courtrooms of appropriate size and equipment. Holding hearings with a large number of participants, ensuring a cabinet for the work of judicial officers where they can freely prepare themselves for work, providing space and equipment for conducting probative actions for questioning suspects or accused persons or witnesses (in particular audio-video recording devices). Furthermore, the aim is to improve the experience, satisfaction and trust of citizens in the system through faster procedures and greater legal certainty with the new functionalities of courts. It is also necessary to ensure the smooth access and movement, stay and work of persons with disabilities and reduced mobility in accordance with special regulations. This investment will support the upgrade of courts affected by reorganisation (rationalisation of the court network) and the priority will be courts in regions that are lagging behind.

Description

Within the RDF, it is planned to restore/build/upgrade at least 16 judicial and penal facilities in different parts of the Republic of Croatia and to restore them energetically.

Implementation

Modernisation and improvement of the judicial system (judicial and penal bodies) will be achieved by investing in physical infrastructure and creating better working conditions will contribute to greater efficiency of the judicial and prison system. Such investments provide a unique opportunity to review the experience of stakeholders in interacting with a range of institutions covering the judicial system. Ideally, the judicial infrastructure should reflect an appropriate sense of dignity and accessibility, meet short-term and long-term spatial needs and contribute to the effective functioning of the judiciary by providing areas suitable for everyday work and adapting to changes in procedures, work and public policies.
Also, most buildings of the judicial and prison system need to be rehabilitated, adjusted, reconstructed and equipped to ensure adequate working conditions, additional workspace and greater efficiency.
Most investments are at a high level of preparedness. The estimated cost is based on previous experience in the implementation of similar projects under the ERDF.
Stakeholders: PUMA is in communication with the judicial and criminal authorities of the system, which are also the main stakeholders and users. Public administration bodies for issuing building permits (local and state administration bodies) are also important for the implementation of the investment.

Implementation holder	PUMA, MUP
Target Group	Judicial authorities; end users: citizens, business entities.
Estimated cost	HRK 245,160,000
Implementation period	6/2021.-12/2025.

C2 .5. R2-I2	**Design and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions**

Challenge

The future Justice Square project in Zagreb is certainly one of the most important projects for providing judicial services to citizens and entrepreneurs in the City of Zagreb. The majority of judicial bodies of the City of Zagreb will be located in one place. The riding house building will be reconstructed and upgraded for the purpose of accommodating the land registry department of the Municipal Civil Court in Zagreb. The unification of judicial bodies will enable greater utilization and more efficient management of material and human resources (establishment of joint services that would support the work of judicial bodies in the field of information communication technologies, financial-material operations, building maintenance, delivery, etc.) and also contribute to strengthening the reputation of the judiciary and strengthening citizens' trust in the judiciary. In other words, this investment is characterized by “smart infrastructure” i.e. the concrete advantages of this investment are that most of the courts in Zagreb will be in one place: the County Court in Zagreb, the Municipal Civil Court in Zagreb, the Municipal Criminal Court in Zagreb, the Municipal misdemeanour Court in Zagreb, the Zagreb Municipal Administrative Court, the Administrative Court in Zagreb, the County State Attorney's Office in Zagreb, USKOK, the District Prosecutor's Office in Zagreb, the District Court and the High Court in Zagreb. These institutions account for about 50% of all cases in the Republic of Croatia.

Objective

A unique place to provide justice services to citizens and entrepreneurs in the city of Zagreb. The application of spatial guidelines in accordance with standards will be ensured. This investment will supplement and update the feasibility study and prepare project documentation. The first phase (works) on new judicial buildings is planned from this investment.

Description

More comfortable office spaces will be organized which provide more appropriate working conditions for employees, courtrooms of appropriate size, offices and accompanying premises will be designed for the needs of court officials and court parties, which will influence more efficient performance of activities (quicker resolution of court cases, reduction of the number of pending cases). Furthermore, the problem of accessibility in the form of parking, accessibility for disabled people and the problem of stay during the day will be solved. Higher standards of energy savings will be ensured, but also the creation of a desirable job for court employees. It will also enable linking the material and financial operations of judicial bodies that will be merged in the future Square of Justice.

Implementation

Since the Feasibility study and the urban plan of architects were drawn up and obtained in 2011, it is necessary to update the Feasibility study and the entire project and tender documentation and obtain all necessary permits. The Justice Square project includes: demolition of buildings intended for demolition, construction of a garage and four buildings. Since this is a large investment, it could be divided into three phases. Phase I - would refer to the preparation of feasibility study, preparation of project documentation and technical documentation and permits, and preparation of tendering/procurement documentation for the first phase of construction. This phase will also include demolition of existing (old) buildings, construction of a garage and one building (out of four planned). Phase II -- includes the construction of another building, and the last phase II includes the construction of two other buildings.
Stakeholders: the Ministry of Justice and Administration is closely co-operating with all judicial institutions to be placed there.

Implementation holder	RAMP
Target Group	Citizens, companies, the judicial system and the legal profession.
Estimated cost	HRK 2,0802,000,000 (Phase I - 800,000,000 HRK; Phase II -

	800,000,000 HRK; Phase III - 482,000,000 HRK)
Implementation period	2/2021.-10/2025.

C2 .5. R2-I3 Implementation of energy efficiency measures for the reconstruction of outdated judicial facilities

Challenge

This investment is closely linked to 2.4.8. Investment related to the reorganisation of the court network by applying design standards and ensures the implementation of the digital agenda throughout the country. In the context of improving the efficiency of the judiciary, physical judicial infrastructure will be modernised and energy restored. The buildings concerned, 13 of which are municipal courts and 3 penitentiaries, do not comply with technical regulations on rational energy use and thermal protection in buildings[36]. Planned project activities will raise the energy level and save energy consumption and reduce CO2 emissions, which would significantly contribute to the green transition. These investments will contribute to a more efficient functioning of judicial bodies and better service for end-users.

Objective

Modernisation and increasing the efficiency of the work of judicial and criminal bodies on the territory of the Republic of Croatia by implementing energy efficiency measures, thus contributing to the green transition. These investments will contribute to a more efficient functioning of judicial bodies and better service for end-users.

Description

Modernisation and improvement of the judicial system (judicial and penal bodies) will be achieved by investing in physical infrastructure and thus providing better working conditions which will contribute to greater efficiency of the judicial system.

Implementation

MPU has already prepared the tender/procurement documentation for investing in energy efficiency for numerous institutions of the judicial system (judicial and criminal bodies). The buildings concerned, 13 of which are municipal courts and 3 penitentiaries, do not comply with technical regulations on rational energy use and thermal protection in buildings.[37]
This project would achieve significant savings in relation to specific annual heat demand for heating and savings in relation to specific annual primary energy. This would also significantly contribute to the reduction of CO2 emissions compared to emissions before energy recovery. This will ensure better working conditions, which will affect better services to end users (citizens and entrepreneurs).
The Justice and Administration Ministry has already prepared documentation for 16 planned locations.
Stakeholders: institutions of the judicial system, Ministry of economy and Sustainable Development.

Implementation holder	RAMP
Target Group	Citizens and entrepreneurs
Estimated cost	HRK 97,127,000
Implementation period	2/2021.-6/2026.

36 OG 128/15, 70/18 and 73/18
37 OG 128/15, 70/18 and 73/18

C2 .6. Strengthening the framework for prevention of corruption

Link with the European Semester and/or strategic documents and the context of the reform

Within the CSR, the fight against corruption underlines the further need to strengthen the framework for prevention and sanctioning of corruption in order to ensure lawful, transparent and efficient use of public funds. Furthermore, ensuring more effective instruments for preventing and sanctioning corruption is particularly important at local level, by improving mechanisms for monitoring local companies. It would also allow the Commission to prevent conflicts of interest to fulfil its primary preventive role and make further efforts to increase transparency.

Within the framework of the measure "improving the normative framework for the fight against corruption", the NPRK plans activities to improve the prevention and sanctioning of corruption, inter alia, aimed at the local level. The adoption of a national strategic document in the field of fighting corruption is currently under way, the adoption of an anti-corruption programme for companies owned by the LC (R)SGU, ensuring the online publication of reports on the assets of judicial officials (property cards of judges, state attorneys and deputy state attorneys) and the implementation of awareness-raising activities that will contribute to the effective and quality implementation of the law on the Protection of the Report on irregularities.

Based on the government program, in order to achieve the goal of "an efficient, transparent and resilient state," a further fight against corruption is planned, with an emphasis on its prevention. Among other things, by establishing a new national strategic framework in the fight against corruption, strengthening the repressive body in the fight against corruption (USKOK), aligning the law on the protection of applicants of irregularities with Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the protection of persons reporting infringements of Union law, improving the normative framework for the area of conflicts of interest and regulating the legal framework in the area of lobbying.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .6. R1 Drafting a new national strategic framework in the field of anti-corruption

Challenge

The current strategic framework defined in the Anti-corruption Strategy for the period 2015-2020[38] with the accompanying third in line with the Implementing Document, the Action Plan 2019 and 2020[39] enters its final phase. In order to continue to invest national strategic efforts in the management of corruption risks in identified priority sectors of action, a new national strategic framework in the fight against corruption is planned.

Objective

The strategic framework currently under development will define priority areas, strategic and specific objectives for strengthening the mechanism for prevention and suppression of corruption in the next ten-year period.

Description

Certain priorities have already been set in the government's anti-corruption programme and a decisive fight against corruption will continue and all bodies participating in these processes will be strengthened. Education of all segments of government and society will be encouraged in order to strengthen the rule of law and fight corruption. In addition to continuous implementation and upgrading of existing anti-corruption measures, the aim is

38 NN 26/15

39 NN 48/19

also to create new systemic solutions for the suppression of corruption at all levels, which should contribute to raising awareness about the harmfulness of corruption and make it socially unacceptable.

Implementation

A new Anti-corruption Strategy, the Anti-corruption Strategy for the period 2021-2030 and the accompanying Action Plan will be adopted, whose main objective will be to reduce the corruption risks of occurrence and prevent corruption.
The USKOK will be strengthened in order to increase efficiency in the suppression of corruption and organised crime (amendments to the USKOK Act) and strengthen its capacities in order to ensure the conditions for more effective work. Also, strengthening the National Police Office for the Suppression of corruption and organised crime (PN USKOK) will strengthen the anti-corruption and organised crime system. With regard to the protection of applicants of irregularities, amendments to the existing legal text will be made in order to harmonize the same with obligations stemming from EU legislation. The Act in question contributes to strengthening the legal protection of applicants of irregularities and affects raising public awareness of citizens about the necessity of submitting reports of irregularities in order to protect the public interest. Furthermore, improvement of the legislative framework in the field of conflicts of interest is planned. The aim is to adopt a legal framework that will enable further progress towards a more qualitative and efficient system for the prevention of conflicts of interest. Immunity of members of the government for corruptive criminal offences persecuted ex officio will be lifted. Following the Anti-corruption Programme, the legal framework in the field of lobbying will be regulated, which is currently unregulated and potentially carries corruption risks.

Implementation holder	MPI and MUP
Target Group	Officials, USKOK, PN USKOK, irregularity seekers.
Estimated cost	HRK 43,450,000 (investment)
Implementation period	6/2021.-12/2025.

(b) Investments

C2 .6. R1-I1 Supporting the achievement of the objectives of the Strategy for the Prevention of corruption for the period 2021-2030

Challenge

Anti-corruption policies based on awareness campaigns, vocational training, supervision and punitive mechanisms are generally not effective. Corruption is a moral issue, but it is also a complex system because it serves social, political and economic needs, both for “perpetrators” and for “victims” who need to survive in the context of institutions and uncertainty. In this context, it is necessary to analyse all policies well and to systematically address them in order for investments to be effective. Another challenge relates to the dominance of international models and interests over local approaches to anti-corruption. Sustainable coordinated action of all stakeholders within and across the state and in the private sector and civil society is also needed to implement real reform.

Objective

In addition to continuous implementation and upgrading of existing anti-corruption measures, the aim is to create new systemic solutions to fight corruption at all levels, which should raise awareness about the harmfulness of corruption and make it socially unacceptable.

Description

In order to modernise and efficiently public administration, it is planned to digitize certain elements of coordination of competent authorities in the implementation of national anti-corruption policies which will strengthen the institutional framework capacities in this area. It is also planned to conduct a national campaign to raise awareness among the general

public, officials and officials in the public administration about the harmfulness of corruption and the necessity and ways of reporting corruption.

Implementation

The estimated cost is based on previous experience in the implementation of similar projects.
Components in the project:
(i) raising public awareness - conducting a national anti-corruption campaign with the aim of raising public awareness of the harmfulness of corruption, the necessity of prevention and suppression and reporting of corruption (whistle-blowers), which would include:
- implementation of media campaign (TV spots, social media campaigns), organisation of round tables and conferences for civil servants, employees in local and regional self-government and representatives of civil society associations and media;
- education in the education system – (curriculum for upper secondary and elementary schools).
(i) formatting of IT tools
- IT solution for monitoring and drafting planning acts in the field of anti-corruption - centralised network application for networking of national bodies for drawing up, implementing and monitoring the implementation of national strategic and implementing documents, which will enable access to and exchange of information among all participants involved in the fight against corruption, primarily bodies participating in the work of the Anti-corruption Council, as well as education of final beneficiaries;
- IT solution - network application for improvement of the irregularity reporting system in accordance with the Act on Protection of irregularities Reporters.

Implementation holder	RAMP
Target Group	Bodies participating in the work of the Council for the Prevention of corruption; general population.
Estimated cost	HRK 5,700,000
Implementation period	9/2021.-12/2023.

C2 .6. R1-I2 Support for efficiency in the suppression of corruption and organised crime

Challenge

The need to improve the work of the public administration in the area of security by implementing the reform of the police system through the construction, upgrade and reconstruction of infrastructure capacities necessary for efficient and sustainable work, in order to be ready to respond to traditional and contemporary security challenges and all forms of criminality with special emphasis on the fight against corruption and organised crime. The need to create conditions for a more efficient fight against corruption and organised crime at the national and local level is increasing, and the strengthening of the USKOK PN as an organisational unit of the Ministry of Interior conducting investigations in cases of corruption and organised crime is a challenge addressed by the implementation of this project, in accordance with the Vade programme, objective 4.1. “Effective transparent and resilient state”, which calls for the continuation of the fight against corruption at all levels, as well as for strengthening the bodies involved in these processes.

Objective

Implementing the police system reform will strengthen efficiency in fighting corruption and organised crime by strengthening the human and infrastructural capacities of the National Police Office for the Suppression of corruption and organised crime (PNUSKOK). Capacity building will create working conditions for a more efficient fight against corruption and organised crime at national and local levels.

Description

With the reform of the police system in 2009, four USKOK regional centers were established in Zagreb, Split, Rijeka and Osijek, and its empowerment at all levels will continue through the ongoing reform of the police system. In this sense, and in accordance with the Government Programme, objective 4.1. “An efficient, transparent and resilient state,” the decisive fight against corruption at all levels continues and the bodies involved in these processes strengthen, the State Attorney's Office as an independent body issuing the grounds for the investigation and the USKOK PN as an organisational unit of the Interior Ministry conducting investigations in cases of 1 corruption and organised crime.
Implementation
It is planned to restore, digitize and equip smart technology spaces for the operation of USKOK at national and regional levels. The project covers the design and equipping with modern technology of interrogation and storage rooms for arrested persons, storage rooms for confiscated items, forensic laboratories and other supporting facilities necessary for the operation of the service, in order to enable independent, efficient and professional work, which will remove obstacles to investment in the economy, the functioning of the single Union market and strengthen business security and confidence in the work of public authorities in general.

Implementation holder	MINISTRY OF INTERIOR
Target Group	PN JUMP
Estimated cost	HRK 37,750,000
Implementation period	6/2021.-12/2025.

C2 .7. Strengthening the fiscal framework

Link with the European Semester and/or strategic documents and the context of the reform

Strengthening the fiscal framework is one of the basic elements of improving the sustainability of public finances, which in turn contributes to macroeconomic stability and creates preconditions for increasing potential growth rates, as well as economic recovery and resilience. This factor is therefore recognized in a number of strategic documents of the Republic of Croatia as well as the EU. The CSR, as well as FOR 2019 and 2020 and the Convergence Programme for the same period, underline the importance of strengthening the framework for public financial management and activities implemented or to be implemented in this regard. The Government Programme 2020-2024 and the draft National Development Strategy for the period until 2030 also stress the importance of the said reform in the long term.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .7. R1 Improving fiscal planning and reporting

Challenge

Croatia is gradually strengthening its fiscal framework and harmonizing it with European ones. Thus, the budget Act, as one of the key determinants of the fiscal framework in the Republic of Croatia, was amended in 2015, but a new law is being drafted which passed the public consultation process in April 2020. The current budget Act[40] has largely achieved the objectives initially set, such as the establishment of fiscal discipline. However, its practical application underlined the need to improve the institutional framework, which will, in addition to ensuring fiscal discipline, also focus on ensuring a strategic allocation of funds, control their implementation and more efficient provision of public services. At the same time, alignment with the acquis, namely Council Directive 2011/85 of the EU of 8 November 2011 on requirements for Member States' budgetary frameworks, should be carried out.

Furthermore, the State Audit Office in its report on the audit of the Annual Report on the execution of the State budget of the Republic of Croatia proposes to review certain provisions of the budget Act and improvements in the content of the General State budget and the Annual Report on the implementation of the budget. The previous few years significantly improved the quality of data in the financial statements, which are among other things used as one of the key bases for the preparation of statistical reports, particularly those submitted to Eurostat (the European Statistical Authority). New solutions have led to the separation of the budget planning and execution process from the accounting function and financial statements, which is common practice of other EU countries. In addition, the Act on Strategic planning and Development Management of the Republic of Croatia[41] regulates the strategic planning process of importance for state administration bodies and for LC (R)SGUs, so it is necessary to completely delete the provisions governing this area from the existing budget Act.

There is a lack of flexibility in the management of budgets in the part of the implementation of EU projects in the existing system, and since full membership of the Republic of Croatia in the EU has in addition to obligations brought the possibility of disposing of significant financial resources within the European Structural and Investment Funds, it is extremely important to encourage the preparation of quality projects that can be financed from EU funds and facilitate their implementation. Therefore, in order to prepare and later efficiently implement projects co-financed from EU funds, the new Act will enable greater flexibility in

40 OG 87/08, 136/12 and 15/15

41 NN 123/17

their implementation. Also, since the share of borrowing for co-financing projects from EU funds is significantly increasing in relation to the revenue of individual LC (R)SGUs, restrictions will be introduced in this part, but taking into account that new mechanisms do not slow down contracting and implementation of EU projects.

Objective

The objective of the new budget Act is to improve budget processes and related budget documents, thus ensuring the development of an efficient and sustainable public financial management system.

Description

The Act in question regulates the planning, drawing up, adoption and implementation of the budget, as well as obligations and deadlines arising from membership in the euro area, asset and debt management, public debt management, borrowing and guarantees of the Republic of Croatia and LC (R)SGU, accounting, budgetary supervision, as well as some other issues related to public financial management. In particular, this Act prescribes the process and key documents of drafting and adopting and implementing the state budget and the budget of LC (R)SGUs and their extra-budgetary users, the framework for borrowing LC (R)SGUs, monitoring the use of assigned and own revenues, predicting and controlling future spending including multiannual obligations. Greater flexibility in the implementation of EU projects is also provided, as well as harmonisation with Council Directive 2011/85 in order to establish a more efficient system of financial and statistical reporting.

The provisions of this Act refer to the State budget and budgets of LC (R)SGUs and budgetary users of the State budget and the budget of LC (R)SGUs. certain provisions of this Act also regulate budgetary relations and rules applicable to extra-budgetary users that are classified into the general government sector in accordance with the rules of the ESA 2010 statistical methodology, and are not budgetary users.

Implementation

The Croatian Parliament is expected to adopt the budget Act by the end of 2021.

Implementation holder	MFIN
Target Group	Budgetary and extra-budgetary users.
Estimated cost	For the implementation of this reform (i.e. adoption of the aforementioned Act) it is not necessary to provide additional funds in the state budget of the Republic of Croatia, as well as in the budgets of LC (R)SGU.
Implementation period	2020. -2021.

C2 .8. Strengthening the anti-money laundering framework

Link with the European Semester and/or strategic documents and the context of the reform

In accordance with international standards and the acquis communautaire[42], each country is obliged to identify and take appropriate measures related to the risk of money laundering and terrorist financing. In this context, the Republic of Croatia is making significant efforts to strengthen the framework for the prevention of money laundering and terrorist financing.
The said reform is in line with the Action Plan of the Republic of Croatia for participation in the European Exchange rate Mechanism II (ERM II) and with the Government Programme stating the obligations of the Republic of Croatia for the purpose of joining the eurozone.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C2 .8. Raising awareness of the need to prevent money laundering R1

Challenge

The Republic of Croatia committed itself to take further steps to strengthen the framework for the prevention of money laundering and terrorist financing, in accordance with Directive (EU) 2018/843 already fully transposed and to take measures to reduce identified risks and threats related to money laundering and terrorist financing. The risks of money laundering and terrorist financing are a serious threat to the EU financial system and the security of its citizens and citizens. Therefore, the EU continuously reinforces the fight against money laundering and terrorist financing and adapts rules to address the risks arising from technological innovations (e.g. virtual currencies), the increasing integration of financial flows in the internal market, the global character of terrorist organisations and the mercy of criminals exploiting the weaknesses and disadvantages of the system. Unfortunately, the CIVIL-19 pandemic, due to the increased use of various digital platforms throughout its duration, creates some new conditions and possibilities for illegal action. Therefore, continuous education and upgrading of existing systems is necessary in order to follow all challenges of the modern digital age in which misuses are increasingly innovative and harder to recognise.
For many years, the Republic of Croatia has recognized the importance of fighting money laundering and is committed to taking the necessary measures to combat identified risks in this regard. All relevant international organizations and institutions (Council of Europe, UN, EU, IMF, World Bank) assessed the Croatian model and preventive system as contemporary and largely harmonised with international standards, according to which the actual situation in the prevention of money laundering and terrorist financing in the Republic of Croatia can be assessed as positive and satisfactory. This confirms the fact that the Republic of Croatia has not been on any “blacklist” of non-cooperative jurisdictions according to the FATF so far. Also, according to reports issued in October 2018 and August 2017 by the *International Centre for asset recovery, which is part of the Basel Institute,* the Republic of Croatia entered the top 10 of the least risky countries for money laundering and terrorist financing from a total of 129 countries in 2018 and 146 countries in 2017, respectively.

Objective

The objective is to maintain the security and effectiveness of the financial system at

42 New recommendations of the Financial Action Group (FATF) and Directive (EU) 2018/843.

national and international level and to achieve a high level of sustainable economic convergence and successful participation in the euro area.

Description

It is planned to raise awareness among all responsible parties for the implementation of measures through regular education. Namely, the Annual Report on the work of the Office for the Prevention of money laundering for 2019, adopted by the Government at its session held on 9 July 2020, identified the latest typologies and trends of money laundering with the aim of raising awareness among all participants in the anti-money laundering system in the Republic of Croatia. Accordingly, supervisory authorities and the Office for the Prevention of money laundering continuously carry out appropriate training for employees of all obliged entities in the implementation of anti-money laundering and terrorist financing measures, including business compliance officers with the prevention of money laundering and the management of credit institutions. More specifically, on 3 November 2020, in cooperation with the Croatian Chamber of Commerce, a "seminar on the prevention of money laundering and terrorist financing for credit institutions, payment institutions and electronic money institutions" was held at which the lecturers were representatives of the Croatian National Bank, the Office for the Prevention of money laundering and the MVEP. A total of 112 representatives of credit institutions, payment institutions and electronic money institutions participated in the seminar. On 13 November 2020, in cooperation with the Croatian Chamber of Commerce, there was the Seminar on the Prevention of money laundering and terrorist financing held for Financial institutions (HANFA), where the lecturers were representatives of the Croatian Agency for supervision of Financial services, the Office for the Prevention of money laundering and the Ministry of Foreign Affairs. A total of 214 representatives of obliged entities whose implementation of measures to prevent money laundering and terrorist financing is supervised by HANF participated in THE seminar. The education is aimed at raising awareness about the implementation of due diligence measures based on the risk assessment of money laundering and terrorist financing, the obligation to report suspicious transactions, persons and funds, and informing obliged entities about the current typologies of money laundering and terrorist financing.

Implementation

The Croatian supervisory authorities (the Croatian National Bank, the Financial Inspectorate, the Croatian Financial services Supervisory Agency, the tax Administration) will continue to cooperate closely in the supervision and monitoring of obliged entities and in the exchange of information with the Office for the Prevention of money laundering (the Croatian Financial Intelligence Unit). Namely, the system of prevention of money laundering and terrorist financing in the Republic of Croatia is not the jurisdiction of only one institution, but it is a system in which the roles of each stakeholder and their interaction and cooperation are legally defined, which consists of: 1. Prevention bodies (obliged entities referred to in Article 9 Of the Act on the Prevention of money laundering and terrorist financing: banks, savings banks, credit Unions, authorised currency exchange offices, insurance companies, gambling operators, brokers, lawyers, notaries, external accountants, tax advisers, etc.), 2. Supervisory authorities, 3. Anti-money laundering Office, 4. Prosecution bodies (State Attorney's Office and Police) and 5. Judiciary (judiciary).
Establishment of a framework for continuous training of employees of reporting entities is expected by December 2020. Also, regular annual conference on the

prevention of money laundering and terrorist financing is planned. This year the Conference was held on November 25, organized by the Office for the Prevention of money laundering and the Croatian Chamber of COMMERCE, with a thematic focus on the 5 th round of evaluation of the Republic of Croatia in relation to the implementation of measures for the prevention of money laundering and terrorist financing by the Council of Europe Committee MONEYVAL, and it gathered 229 participants - representatives of all categories of obligated to implement measures in accordance with the Act on the Prevention of money laundering and terrorist financing (credit institutions, financial institutions and other) and representatives of competent state bodies.

Implementation holder	MFIN
Target Group	Croatian supervisory authorities (Croatian National Bank, Financial Inspectorate, Croatian Agency for supervision of Financial services, tax Administration) and Office for the Prevention of money laundering and legal entities (banks, etc.).
Estimated cost	/
Implementation period	

C2 .8. R2	**Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities**

Challenge

Described under C2 .8. R1

Objective

Described under C2 .8. R1

Description

It is planned to continue co-operation between the Office for the Prevention of money laundering and Supervisory authorities on the basis of updated signed Memoranda of Understanding and regular meetings. Namely, there is already an institutional framework in the Republic of Croatia for cooperation in the field of supervision and monitoring of reporting entities and supervisory authorities within this framework will continue to participate in the work of the Interinstitutional working Group on supervision. The latter was established in 2011 as a subgroup within the Interinstitutional working Group on the Prevention of money laundering and terrorist financing.

Implementation

An overview of the existing Memoranda of Understanding between the supervisory authorities and the Office for the Prevention of money laundering will be prepared. In addition to domestic cooperation, supervisory authorities will continue to cooperate internationally and exchange best practices in the fight against money laundering and terrorist financing. Drafting a draft review of the Agreement on Exchange of information and Cooperation in the field of supervision of the implementation of the Anti-money laundering and terrorist financing Act is currently under way, and implementation is expected by the end of 2020.

Implementation holder	MFIN

Target Group	Croatian Supervisory authorities (CNB, Financial Inspectorate, HANFA, IB) and Office for the Prevention of money laundering
Estimated cost	/
Implementation period	By the end of 2020

C2 .8. R3 Implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing

Challenge

Described under C2 .8. R1.

Objective

Described under C2 .8. R1.

Description

With the aim of identifying, understanding and determining measures to reduce the risk of money laundering and terrorist financing for the Republic of Croatia, it is planned to implement a new Action Plan for reducing identified risks of money laundering and terrorist financing based on an updated national risk assessment. After the implementation of the measures from the 2017 First Action Plan, a project for updating the national risk assessment within the mandate of the Interinstitutional working Group on the Prevention of money laundering and terrorist financing was launched in 2018[43], involving the academic community and representatives of the private sector (reporting entities). Subsequently, in mid-2020, the Government adopted a national assessment of the risk of money laundering and terrorist financing in the Republic of Croatia with an Action Plan for reducing identified risks to be implemented by the end of 2021.

Implementation

Action Plan for reducing identified risks of money laundering and terrorist financing in the Republic of Croatia

RB	Measure	Executor	Deadline for the implementation of the measure
1.	Organising training for officers of the Office for the Prevention of money laundering on Criminal acts and Criminal Justice	Anti-money laundering Office	Continuously during 2020 and 2021
2.	Organising training courses for officers of the Office for the Prevention of money laundering on tax fraud	Anti-money laundering Office	Continuously throughout 2020 and 2021.
3.	Recruitment of financial investigators at the State Attorney's Office in the Criminal gain Research Department	RAMP	By the end of 2021.
4.	Continue strengthening cooperation and information exchange through the Interinstitutional working Group on the control of money laundering and terrorist financing	Financial Inspectorate, HANFA, tax Administration, Office for the Prevention of money laundering	Continuously throughout 2020 and 2021.
5.	Revision of the Agreement on Exchange of	Financial Inspectorate,	By the end of 2020

43The Interinstitutional working Group on the Prevention of money laundering and terrorist financing (MIRS) consists of representatives of eleven institutions and agencies competent for the suppression of money laundering and terrorist financing in the Republic of Croatia: MFIN - Office for the Prevention of money laundering, MINISTRY of the Interior of the Republic of Croatia, STATE Attorney's Office of the Republic of Croatia, MPU, MFIN - Financial Inspectorate of the Republic of Croatia, MFIN - tax Administration of Croatia, MFIN - Customs Administration of the Republic of Croatia, HNB, HANFA, SECURITY and Intelligence Agency, MVEP.

	information and Cooperation in the area of supervision of the implementation of the Anti-money laundering and terrorist financing Act	CNB, Office for the Prevention of money laundering	
6.	Training on examples of good practice in the field of money laundering prevention and terrorist financing for obliged entities	Financial Inspectorate, HANFA, CNB, tax Administration, Office for the Prevention of money laundering	Continuously throughout 2020 and 2021.
7.	Strengthening the administrative capacity of the supervisory authority	CNB	By the end of 2021.
8.	Strengthening the administrative capacity of the Office for the Prevention of money laundering and the Financial Inspectorate	MFIN	By the end of 2021.
9.	Increasing the number of supervisory activities based on identified risks of money laundering and terrorist financing	HANFA!	Continuously throughout 2020 and 2021.
10.	Regular feedback to obliged entities regarding reporting suspicious transactions, funds and persons	Anti-money laundering Office	Continuously throughout 2020 and 2021.
11.	Collecting and analysing statistical data and other information for the non-financial sector of the obliged entity through the creation and transmission of questionnaires to obliged entities for the purpose of collecting necessary information for risk assessment purposes, and keeping databases that will be regularly updated	Financial Inspectorate, tax Administration	Continuously throughout 2020 and 2021.
12.	Strengthening the information infrastructure of the Ministry of Finance by acquiring new and maintaining existing applications	MFIN	By the end of 2021.
13.	Organising continuous education of supervisory employees	Financial Inspectorate, HANFA, CNB, tax Administration	Continuously throughout 2020 and 2021.

Source: National assessment of the risk of money laundering and terrorist financing in the Republic of Croatia with Action Plan for reducing identified risks, June 2020.

Implementation holder	MFIN
Target Group	Croatian Supervisory authorities (CNB, Financial Inspectorate, HANFA, PU), Office for the Prevention of money laundering and POPE.
Estimated cost	In order to implement this reform, it is not necessary to provide additional funds in the state budget of the Republic of Croatia.
Implementation period	2020. -2021.

9. Green and digital dimension of the component

C2 .1. Strengthening the capacity to develop and implement public policies and projects

(a) contribution to the green transition

Strengthening the capacity for preparation and implementation of EU projects, by providing financial support to beneficiaries in order to prepare project and technical documentation, will create a sufficient stock of ready projects for financing in the area of green transition, common to RCF and cohesion policy 2021-2027, which will at the same time contribute to the requirements of thematic concentration of ERDF 2021-2027.
Through the implementation mechanism of the proposed reform measure (tender for financing the preparation of project and technical documentation for the preparation of project applications), we will insist on projects to be financed in the new period within the framework of the smart and Green Europe policy goal and thereby ensure contribution to the green transition objectives.

(b) contribution to digital transition

Strengthening the capacity to prepare and implement EU projects, by providing assistance to beneficiaries in the preparation of project-technical documentation, will create a sufficient stock of ready-made projects in the field of digital transition, common RF and cohesion policy 2021-2027, which will simultaneously contribute to the requirements of the ERDF thematic concentration 2021-2027.
Through the implementation mechanism of the proposed reform measure (tender for financing the preparation of project-technical documentation for the preparation of project applications), we will insist on projects, which will be financed in the new period within the framework of the smart and Green Europe policy objective, thus ensuring a contribution to the Digital transition goals.

C2 .2. Further improvement of the efficiency of the public administration

(a) contribution to the green transition

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(b) contribution to digital transition

Continuous upgrading of infrastructure on state services in the public administration provides preconditions for efficient performance of all foreseen functions while reducing the total cost of procurement and increasing interoperability and creating preconditions for using business intelligence over a unified dataset.
Investments, tools and services aimed at digital transition and planned in the public administration are aimed at further ensuring fundamental rights and democratic values, participation of all stakeholders, development of digital competences, further linking and interoperability, and user-oriented and resilient IT systems. Investments are focused on internal business processes and business reorganization (human resources management and provision of hybrid jobs, archives, development of digital competencies) as well as on the processes for users (e-services of the state, local self-government and judiciary system, platform of single administrative place), which will ultimately enable digital transformation.

C2 .3. Digital transition of society and economy

(a) contribution to the green transition

The proposal for a Regulation establishing the recovery and resilience Mechanism provides for a minimum of 37% of the total allocation of national recovery and resilience plans for the implementation of measures contributing to the green transition. The reform of the digital transition of society and economy envisions investments in the modernisation of the state information infrastructure, including the transformation/construction of an energy efficient data centre. In addition, the measure of integration of basic registers as a

precondition for the development of complete *online* services and the measure of connectivity in all parts of the Republic of Croatia enables citizens and business entities access to digital public services without the need for physical arrival in public administration bodies which reduces greenhouse gas emissions.
Consolidation of the system on CDU cloud significantly reduces electricity consumption and consequently environmental pollution and impacts on climate change. The service is significantly improving technologically and eliminating overlapping systems resulting in lower cost of final service with significant improvement of service quality. Every service adopted on the CDU infrastructure is subject to uniform security standards and thus significantly improves protection against cybercrime. Cloud services through a "security by design" approach to cyber security are a prerequisite for cost minimisation and maximum risk minimisation, but also for ensuring the application of European standards in terms of security, data protection and protection of end users.
Digital technologies have been recognised as key to achieving the objectives of the European Green Plan in various sectors, therefore the Republic of Croatia will invest in the construction of very high capacity electronic communications networks and infrastructure and the development of 5G networks, which is a key precondition for digital transformation for the purpose of ecological transition and achievement of sustainable development goals and the objectives of the European Green Plan. To achieve the objectives of the European Green Plan, i.e. climate neutrality by 2050, joint action of all sectors of the economy is required. The electronic communications sector sees its responsibility in investing in environmentally friendly technologies and fostering innovation to reduce the carbon footprint until its full neutrality by 2030. The electronic communications industry, although not a major polluter, is a large electricity consumer. By investing in advanced cooling systems at base stations of mobile electronic communications, which reduce the consumption of air conditioning devices, in both solar and wind turbines for the power supply of base stations, a significant reduction of carbon footprint is achieved. The introduction of 5G technology will enable comprehensive new applications and business models, such as virtual reality, the development of artificial intelligence, cloud computing and the internet of things, which can accelerate and increase the impact of policies to tackle climate change and environmental protection.

(b) contribution to digital transition

The proposal for a Regulation establishing the recovery and resilience Mechanism provides that a minimum of 20% of the total allocation of national recovery and resilience plans should be directed towards measures and actions contributing to the digital transition. Reform, measures and investments proposed under the Digital transition of society and economy subcomponent aimed at providing preconditions for a more coherent, coordinated and cost-effective development of digital public services targeted at users and their needs, in line with the EU priorities of the Shaping Europe's digital future strategy. The measures support the development of complete and complex public services in line with the interoperability principles of the European interoperability Framework and the Once-OOP principle of the Tallinn Declaration. The total estimated value of the reform amounts to almost 27% of the total allocation for the Republic of Croatia.
Investments in very high capacity networks, in particular projects to introduce 5G networks and build fibre infrastructure, have significant spillover effects on competitiveness in all sectors of society and economy and public administration. The measures will respond to the new demanding objectives set out in the EC Communication "Connecting to a competitive Digital Single market – towards a European gigabit Society" and the "5G for Europe" Action Plan, which encourage the development of broadband access and very high capacity networks, enabling gigabit connectivity to transform the Digital Single market towards a gigabit society and develop 5G networks, which EU Member States need to achieve by 2025.

C2 .4. Strengthening the framework for the management of state assets

(a) contribution to the green transition

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(b) contribution to digital transition

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C2 .5. Improving the efficiency of the judicial system

(a) contribution to the green transition

Through investments related to physical infrastructure in the judicial system, 20 buildings are planned to be built, modernised and energy reconstructed. Planned investments, with an increase in economic and operational efficiency, will raise the energy level and achieve savings in energy consumption and reduce CO2 emissions, which would significantly contribute to the green transition. These investments will also contribute to a more efficient functioning of judicial bodies, greater availability of the judicial system and better service for end-users and entrepreneurs.

(b) contribution to digital transition

Continuous upgrading of the infrastructure on state services in the judicial system provides preconditions for efficient performance of all foreseen functions while reducing the total cost of procurement and increasing interoperability and creating preconditions for using business intelligence over a unified dataset.
Investments, tools and services aimed at digital transition and planned in the judiciary are aimed at further ensuring fundamental rights and democratic values, participation of all stakeholders, development of digital competences, further linking and interoperability, and user-oriented and resilient IT systems. Investments are directed towards internal business processes and business reorganization (human resources management and enabling hybrid jobs, archives, development of digital competencies) as well as processes for users (judicial system, digital assistant in judiciary and digitization of land registry and cadastral data), which will ultimately enable digital transformation.

C2 .6. Strengthening the framework for prevention of corruption

(a) contribution to the green transition

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(b) contribution to digital transition

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C2 .7. Strengthening the fiscal framework

(a) contribution to the green transition

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(b) contribution to digital transition

/

C2 .8. Strengthening the anti-money laundering framework

(a) contribution to the green transition

/

(b) contribution to digital transition

/

10. Milestones for the implementation of reforms and investments

C2 .1. Strengthening the capacity to develop and implement public policies and projects	
(a) qualitative indicators	
- by the end of 1Q/2023, a competence catalogue was adopted for performing strategic planning activities in state and public services	C2.1.R1-I1.
- by the end of 2Q/2023, educational modules for strategic planning for the national, regional and local level in application	C2.1.R1-I1.
- by the end of 2Q/2022, instructions for assessing public policy expenditures were published	C2.1.R1-I2
- by the end of 3Q/2022, a plan for the evaluation of acts has been adopted	C2.1.R1-I2
by the end of 1Q/2023, a report on the assessment of macroeconomic and fiscal effects of major structural measures was adopted	C2.1.R1-I2
- by the end of 1Q/2021, the draft Proposal of the Act on the institutional Framework for EU Funds in the Republic of Croatia on the Government was adopted and sent to the Croatian Parliament for the first reading	C2.1.R2
(b) quantitative indicators	
- by the end of 4Q/2023, there are 8 educational modules available for strategic planning for national, regional and local level and more than 950 employees trained	C2.1.R1-I2
- by the end of 4Q/2024, more than 95% of the contracted projects in the amount corresponding to the amount of RC allocated funds for 2021-2022.	C2.1.R2-I1.
C2 .2. Further improvement of the efficiency of the public administration	
(a) qualitative indicators	
- by the end of 2Q/2024, a web portal was established, i.e. centralized system for selection of human resources in the state administration	C2.2.R1-I1
- by the end of 2Q/2021, it is possible to pass the state expert distance examination	C2.2.R1-I3.
- by the end of 2Q/2022, a list of recommendations for amendments (legal solutions) to the existing system of organization of activities within the scope of LC (R)SGU has been drawn up, which will oblige the units for acceptance of said changes (Act on local and Regional self-Government; Act on financing of local and Regional self-Government units).	C2.2.R2
- by the end of 4Q/2023, a bill on salaries in state administration and public services was passed	C2.2.R2-I1
- by the end of 2Q/2024, an HRM system for compliance, standardization and automatization of business processes in the state administration was established	C2.2.R2-I1
- by the end of 2Q/2023, a model for hybrid access to the workplace was developed – smartworking	C2.2.R2-I2
- by the end of 2Q/2023, a new law on the Protection of Cultural property was adopted	C2.2.R3-I3
- by the end of 4Q/2024, a system of facilitated obtaining of permits related to the Cultural goods Protection Act was established	C2.2.R3-I3
- by the end of 4Q/2024, an educational programme was developed in the field of preparation and application of conservation bases	C2.2.R3-I3

(b) quantitative indicators	
- by the end of 4Q/2024, 1,000 employees in the field of digital competences were educated	C2.2.R1-I2
- by the end of 2Q/2023, a model developed for hybrid access to the workplace — smartworking uses 30% of officials	C2.2.R2-I2
- by the end of 2Q/2024, minimum 5 e-services were developed/upgraded	C2.2.R3-I1
- by the end of 2Q/2024, 1 IT platform for a single management post was established	C2.2.R3-I2
- by the end of 2Q/2024, 200 physical JUM places were established	C2.2.R3-I2
- by the end of 4Q/2025, 60 conservation bases have been developed that will be part of the physical planning documentation	C2.2.R3-I3
- by the end of 2025, there were 600 creators of materials using the national information system for managing and storing documentation	C2.2.R3-I3
- by the end of 4Q/2024, 50 LC (R)SGU were optimised	C2.2.R4-I1
- by the end of 2Q/2024, e-services in 150 LC (R)SGUs were provided	C2.2.R4-I2
C2 .3. Digital transition of society and economy	
(a) qualitative indicators	
- by the end of 2Q/2021, the Digital Croatia Strategy drafted	C2 .3. R1
- by the end of 2Q/2026, the integration of registry registers into THE GSB - all 60 registers was performed	C2.3.R2-I1
- by the end of 2Q/2026, integration was achieved through the Central interoperability system between 20 systems	C2.3.R2-I1
- by the end of 4Q/2021, a publicly available, central national interoperability portal was implemented	C2.3.R2-I1
- by the end of 4Q/2022, a central interoperability system related to the EU OP technical system	C2.3.R2-I1
- by the end of 4Q/2023, established and integrated SDG services	C2.3.R2-I1
- by the end of 1Q/2022, the establishment of the IoT platform	C2.3.R2-I2
- continuously annually, 2022-2026, user education for use of IoT platform	C2.3.R2-I2
- by the end of 4Q/2022, building interoperability and integrating the platform into the European Common Data Spaces	C2.3.R2-I2
- by the end of the fourth quarter of 2022, implementation of project visibility	C2.3.R2-I2
- continuous annual 2023-2026, capacity building of the platform depending on demand	C2.3.R2-I2
- by the end of 1Q/2022, the establishment of THE DWH platform platform	C2.3.R2-I3
- continuously annually 2022.-2026., user education for DWH platform usage	C2.3.R2-I3
- by the end of 4Q/2022, the integration of the platform into the interoperability system	C2.3.R2-I3
- by the end of 4Q/2022, implementation of project visibility	C2.3.R2-I3
- continuous annual 2023-2026, capacity upgrade of the platform depending on demand	C2.3.R2-I3
- by the end of 3Q/2022, a Platform was established to establish a developmental and implementation environment in the information cloud	C2.3.R3-I1
- by the end of 1Q/2023, Platform was established for Contact Centre	C2.3.R3-I1

	and for reporting and resolving ICT support problems	
-	by the end of 3Q/2022, a Platform for information Security Monitoring was established	C2.3.R3-I1
-	by the end of 2Q/2023, the Platform for Content Management of TDU, TJV and LS Portal was established	C2.3.R3-I1
-	by the end of 3Q/2022, the biometric authentication Platform for citizens and employees of TDU, TJV and LS was established	C2.3.R3-I1
-	continuous annual 2022-2026, annual maintenance of the system delivered	C2.3.R3-I1
-	continuous annual 2022-2026, capacity expansion	C2.3.R3-I1
-	by the end of 4Q/2023, the State Cloud connected to EDS	C2.3.R3-I1
-	by the end of 3Q/2022, a Platform was established to establish a developmental and implementation environment in the information cloud	C2.3.R3-I2
-	by the end of 2Q/2022, drafting documentation for the purchase or conversion of land for construction	C2.3.R3-I2
-	by the end of 3Q/2022, creation of technical documentation of the data centre	C2.3.R3-I2
-	by the end of 4Q/2022, obtaining the necessary documentation for construction	C2.3.R3-I2
-	by the end of 3Q/2024, completion of construction and installation of the system	C2.3.R3-I2
-	by the end of 1Q/2025, required work permits were obtained and required certificates obtained	C2.3.R3-I2
-	by the end of 1Q/2025, relocation of existing equipment from the CDU project	C2.3.R3-I2
-	by the end of 4Q/2025, resettlement of data systems and registers and TDU and JLPRS applications	C2.3.R3-I2
-	by the end of 3Q/2023, 25 organisational units of the Ministry of Interior at the national and regional level are equipped with the necessary software and hardware components to investigate cybercrime, search open sources online and digital forensics	C2.3.R3-I3
-	by the end of 3Q/2023. 25 organisational units of the Ministry of Interior at national and regional level equipped with research analytical computer sets for analysis of digital evidence	C2.3.R3-I3
-	by the end of 1Q/2024, education was carried out in the domain of digital forensics and cyber attack research, including open source training and commercial digital forensics tools for police officers from national and regional organisational units.	C2.3.R3-I3
-	by the end of 4Q/2021, adoption of the legislation	C2.3.R3-I4
-	by the end of 3Q/2021, ACS	C2.3.R3-I4
-	by the end of 2Q/2023, the design and implementation of the system	C2.3.R3-I4
-	by the end of 4Q/2024, beneficiary Education	C2.3.R3-I4
-	by the end of 1Q/2021, a specific agreement has been concluded with the primary provider of shared services	C2.3.R3-I5
-	by the end of 2Q/2021, Prepared public procurement procedures	C2.3.R3-I5
-	by the end of 4Q/2021, public procurement of the necessary equipment was carried out	C2.3.R3-I5
-	by the end of 1Q/2022, public procurement of licenses for software products, public procurement of Oracle servers and public procurement of Oracle licences was carried out	C2.3.R3-I5
-	by the end of 2Q/2022, machine equipment installed in the data centre	C2.3.R3-I5

- by the end of 4Q/2022, a reinforced system OF YEARNING	C2.3.R3-I5
– by the end of 2Q/2021, Development study of the National information infrastructure Network	C2.3.R3-I6
- by the end of 4Q/2022, the establishment of the core part of the DII network	C2.3.R3-I6
- by the end of 4Q/2022, the establishment of the core part of the DII network	C2.3.R3-I6
- by the end of the second quarter of 2024, user Consolidated to the DII network	C2.3.R3-I6
- by the end of 2Q/2024, implementation of education	C2.3.R3-I6
- by the end of 2Q/2021, a study on the development of the network of state information infrastructure was drafted	C2.3.R3-I7
- by the end of 4Q/2021, a network surveillance centre and a user support centre have been established	C2.3.R3-I7
- by the end of 4Q/2022, a core part of the DII network was established	C2.3.R3-I7
- by the end of 2Q/2024, consolidated users on the DII network	C2.3.R3-I7
- by the end of 2Q/2024, implementation of education	C2.3.R3-I7
- by the end of 1Q/2026, Digitalization of legally prescribed procedures with modules	C2.3.R3-I8
- by the end of 4Q/2023, the implementation would BE a reporting and planning system	C2.3.R3-I8
- by the end of 4Q/2021, implementation of satellite images of the territory of the Republic of Croatia	C2.3.R3-I8
- by the end of 2Q/2026, unification of procedures for drafting spatial plans of the Republic of Croatia in digital form	C2.3.R3-I8
- by the end of 4Q/2025, transfer of knowledge and education of system users	C2.3.R3-I8
– by the end of 2Q/2022, an appropriate regulatory framework enabling the use of certain DII services for economic purposes has been developed and adopted	C2.3.R3-I9
- by the end of 3Q/2022 – the end of the IV quarter of 2026., necessary expansion of existing capacities of THE NIAS and HR eIDAS systems is ensured for the purpose of including each group of business entities per year	C2.3.R3-I9
- by the end of 4Q/2022, a pilot inclusion of e-services of selected business entities was carried out, a plan for the inclusion of business entities by groups and years was prepared in the period from 2022 to 2026.	C2.3.R3-I9
– by the end of 4Q/2026, a total of 1,000 businesses were included through 5. Group of private sector business entities/e-services on NIAS and HR eIDAS node	C2.3.R3-I9
- by the end of 4Q/2026, promotion and visibility	C2.3.R3-I9
- by the end of 4Q/2021, market analysis and preparation of the technical specification	C2.3.R3-I10
- by the end of 2Q/2022, the creation of a mobile platform	C2.3.R3-I10
- by the end of 3Q/2023, creating a mobile application with UX/UI elements	C2.3.R3-I10
- by the end of 4Q/2024, the production of a mobile application	C2.3.R3-I10
- by the end of 4Q/2024, the technological modernisation of the existing JIS has been completed and the connection of the JIS to the national information infrastructure has been completed	C2.3.R3-I11
- by the end of 4Q/2025, the implementation of all upgrades and the	C2.3.R3-I11

	connection of the SGR. system with state information systems has been completed and the modernization of THE SGR. system completed	
-	by the end of 2Q/2026, all functional upgrades were completed and the data of the system Register of Spatial units (RPJ) were updated	C2.3.R3-I11
-	by the end of 2Q/2023, the creation of a new public Procurement Platform of the Republic of Croatia	C2.3.R3-I12
-	by the end of 2Q/2023, the integration of the SSI	C2.3.R3-I12
-	by the end of 3Q/2023, Visibility performance	C2.3.R3-I12
-	by the end of 3Q/2023, the establishment of a new public procurement platform	C2.3.R3-I12
-	by the end of 3Q/2023, establishing a mobile application	C2.3.R3-I12
-	by the end of 2Q/2024, beneficiary Education	C2.3.R3-I12
-	by the end of 1Q/2021, the National Plan for Broadband Development in the Republic of Croatia was adopted in the period from 2021 to 2027.	C2.3.R4
-	by the end of 2Q/2021, the electronic Communications Act was adopted	C2.3.R4
-	by the end of 2Q/2021, the selection of external experts for the analysis has been carried out	C2.3.R4
-	by the end of 1Q/2022, an analysis of administrative burdens and regulatory barriers to investments in setting UP VHCN networks, including 5G networks, has been made and a proposal for amendments to regulations and optimisation of the permit issuing process has been drafted	C2.3.R4
-	by the end of 2Q/2021, the licensing procedure for the use of radio spectrum in frequency bands for 5G networks has been completed	C2.3.R4
-	forming and educating the public in the influence of electromagnetic fields, especially regarding the setting up of 5G networks - continuous implementation is envisaged by organising educational and information campaigns and public panels to be implemented by the Ministry of Health with the support of competent authorities and operators of electronic communications networks and services	C2.3.R4
-	until the end of 4Q/2021, notification procedure was carried out for the extension of the EC decision on granting state aid (SA.38626 (2015/N)	C2.3.R4-I1
-	preparation of tenders	C2.3.R4-I1
-	implementation of LSGU projects	C2.3.R4-I1

(b) quantitative indicators

-	by the end of 4Q/2023, 135 research analytical computer sets were procured for the analysis of digital evidence	C2.3.R3-I3
-	by the end of 2Q/2024, 100 TDU employees were trained	C2.3.R3-I7
–	by the end of 1Q/2026, the establishment of 9 modules within the Spatial planning information system – Editor (ePlans) 2Q/2021.- 2Q/2026. – construction Diary 3Q/2021.- 2Q/2026 – eSpatial inspection 1Q/2022.- 2Q/2026 – eregimes 4Q/2021.- 2Q/2026 – Green infrastructure Register and digital database of green infrastructure PROJECTS 1Q/2021.-2Q/2026 – Internal real estate Register 3Q/2021.-3Q/2022 – Integration of construction process BIM 3Q/2021.-2Q/2026 – eprocedures 3Q/2021.-2Q/2026. – public tenders 2Q/2021.-1Q/2022	C2.3.R3-I8

- by the end of 2Q/2022, 100% of the procured machine equipment installed in the data centre and ready for migration	C2 .3. R3-I5
- by the end of 4Q/2022, 100% of migration of the Common SYSTEM WAS carried out	C2 .3. R3-I5
- by the end of 2Q/2026, the integration of the parent 60 registers into THE GSB was performed	C2.3.R2-I1
- by the end of 2Q/2026, integration was achieved through the Central interoperability system between 20 systems	C2.3.R2-I1
- by the end of 4Q/2023, 21 service (SDG) established and integrated	C2.3.R2-I1
- by the end of 4Q/2022, 10 beneficiaries integrated with the IoT platform	C2.3.R2-I2
- by the end of 4Q/2023, 20 users integrated with the IoT platform	C2.3.R2-I2
- by the end of 4Q/2024, 20 users integrated with the IoT platform	C2.3.R2-I2
- by the end of 4Q/2025, 20 users integrated with the IoT platform	C2.3.R2-I2
- by the end of 2Q/2026, 20 users integrated with DWH platform	C2.3.R2-I3
- by the end of 4Q/2022, 10 users integrated with DWH platform	C2.3.R2-I3
- by the end of 4Q/2023, 20 users integrated with DWH platform	C2.3.R2-I3
- by the end of 4Q/2024, 20 users integrated with DWH platform	C2.3.R2-I3
- by the end of 4Q/2025, 20 users integrated with DWH platform	C2.3.R2-I3
- by the end of 2Q/2026, an extension of the state clouds capacity by 300%	C2.3.R3-I1
- by the end of 2Q/2026, consolidation and expansion of the state information infrastructure, i.e. transfer of additional 700 users/institutions to the CDU	C2.3.R3-I1
- by the end of 2Q/2026, 100% of the system and equipment moved to the new Data Centre	C2.3.R3-I2
- by the end of 2Q/2024, 65 police officers in the field of cybercrime were trained	C2.3.R3-I3
- by the end of 4Q/2023, 65 sets and systems were procured to investigate cybercrime, search open online sources and digital computer forensics	C2.3.R3-I3
– by the end of the fourth quarter of 2025, average appraisal of the 3,58 application at mobile stores	C2.3.R3-I10
- by the end of 3Q/2025, 1000 mobile application downloads, 6 months after production	C2.3.R3-I10
- by the end of 3Q/2023, implementation of 93 ePermanent services to a mobile platform	C2.3.R3-I10
- by 4Q/2024, topologically processed data of the base topographic base for 56500 km2 and homogenised/updated 114 topographic maps M 1:25000	C2.3.R3-I11
- by the end of 2Q/2026, 15 million pages of analog documents of archival materials of the State Geodetic Administration were converted into digital form and 50000 aerial recordings were converted into digital form.	C2.3.R3-I11
- by the end of 2Q/2026, in the area 278 local self-government units, the Decision on putting land registers into official use was adopted	C2.3.R3-I11
- by the end of 2Q/2026, 112 cadastral offices were commissioned infrastructure Cadastre system (SKI) and through a single information point (JIT) provided access to infrastructure cadastre data	C2.3.R3-I11
- by the end of 3Q/2024, a total of 45 network services were provided within the framework of the upgrading and expansion of the GeoPortal DGU system and the DGU service collection system.	C2.3.R3-I11
- by the end of 4Q/2024, the number of NIPP conferences held increased	C2.3.R3-I11

	to 15	
-	by the end of 4Q/2024, the expansion of the network of reference GNSS stations of the CROPOS positioning system by 20 new reference stations has been completed	C2.3.R3-I11
-	by the end of 4Q/2025, the number of developed network spatial data services of the NIPP increased to 260	C2.3.R3-I11
-	by the end of 3Q/2023, proof of payment of fees for the administration of appeal proceedings shall be provided with an appeal. Number of untimely and messy appeals due to the failure to pay a fee for initiating an appeal procedure in the prescribed amount in 2019 it made up 139 appeals (11% of total appeals). Objective: 15 appeals	C2.3.R3-I12
-	by the end of 2Q/2024, conduct education throughout the Republic of Croatia in order to educate users (contracting entities and economic operators) how to use the new public procurement platform. Target: 500 users	C2.3.R3-I12
-	by the end of 3Q/2023, an e-appeal was made as an opportunity for economic operators. 537 e-appeals were filed out of the total number of appeals filed (969). Target: 100%	C2.3.R3-I12
-	implement by the end of 3Q/2023 the retrieval of certificates for both subcontractors and economic operators on which the tenderer relies	C2.3.R3-I12
-	until the end of 3Q/2023, using the IT platform more easily reduces the time of preparation of the publication form. The current duration is 35 minutes. Target: 10-15 min	C2.3.R3-I12
-	until the end of 3Q/2023, from publication to contract signing, the public procurement procedure lasts 76 days. Target: 60 days	C2.3.R3-I12
-	by the end of 3Q/2023, the average number of procedures per year is around 12 000 out of which 50% of procedures make changes to the procurement documents, which affects the duration of the procedure. Target: 30%	C2.3.R3-I12
-	by the end of 3Q/2023. The average decision-making time from the date of receipt of the appeal (34) as well as from the date of completion of the appeal file is 16. Objective: 28/13	C2.3.R3-I12
-	by the end of 3Q/2023, structuring procurement documents from the data from the public procurement procedure itself; aim: better supervision and management of public procurement processes	C2.3.R3-I12
-	by the end of 3Q/2023, improving the system for obtaining evidence for web service providers from national registers (OIB Register, Criminal and tax records)	C2.3.R3-I12
-	by the end of 4Q/2025 - 2 modular units in Vrbovec in full function	C2.3.R3-I13
-	by the end of 4Q/2025 - the modular unit in Zagreb in full function	C2.3.R3-I13
-	by the end of 4Q/2025, 10,000 citizens use THE KPC, one year after production	C2.3.R3-I4
-	by the end of 4Q/2025, the retention rate of the beneficiary is around 30%, one year after production	C2.3.R3-I4
-	by the end of 3Q/2025, response time up to 6 hours, 6 months after production	C2.3.R3-I4
-	marketing campaign carried out by the end of 2021	C2.3.R3-I6
-	by the end of 2Q/2020, a digital identity management system design document has been drafted	C2.3.R3-I6
-	by the end of 2Q/2021, a mobile signature and stamp system and application has been implemented	C2.3.R3-I6
-	by the end of 4Q/2020, the prepared system and application Design Document (application ID) for mobile signing and stamping	C2.3.R3-I6

- by the beginning of 2q/2021, a digital identity management system has been implemented	C2.3.R3-I6
- by the end of 2Q/2024, 100 users (TDU) were connected to the core part	C2.3.R3-I7
- by the end of 2Q/2021, 1 study document was accepted	C2.3.R3-I7
- by the end of 4Q/2021, 30 users (TDU) connected to the core part	C2.3.R3-I7
- by the end of 4Q/2022, 2 Network Monitoring and Customer Contact centres were established	C2.3.R3-I7
- by the end of 2Q/2026, transformation of 1,200 spatial plans	C2.3.R3-I8
- by the end of 4Q/2021, satellite images of the territory of the Republic of Croatia were implemented	C2.3.R3-I8
- by the end of 4Q/2023, A reporting and planning system would be implemented	C2.3.R3-I8
- by the end of 4Q/2024, 10 analytical bases were made	C2.3.R3-I8
- by the end of 4Q/2025, Education of 200 system users	C2.3.R3-I8
- by the end of 2022. Inclusion 1 Groups - 50 legal entities (e-services) - by the end of 2023. Inclusion 2. Groups - 100 legal entities (e-services) - by the end of 2024. Inclusion 3. Groups - 150 legal entities (e-services) - by the end of 2025. Inclusion 4. Groups - 200 legal entities (e-services) - by the end of 2026. Inclusion 5. Groups - 500 legal entities (e-services)	C2.3.R3-I9
- by the end of 1Q/2021, the National Plan for Broadband Development in the Republic of Croatia was adopted in the period from 2021 to 2027.	C2.3.R4
- by the end of 1Q/2022, an analysis of administrative burdens and regulatory barriers to investments in setting UP VHCN networks, including 5G networks, was made	C2.3.R4
- by the end of 2Q/2021, the electronic Communications Act was adopted	C2.3.R4
- by the end of 2Q/2021, the licensing procedure for the use of radio spectrum in frequency bands for 5G networks has been completed	C2.3.R4
- by the end of 2Q/2022, a proposal for amendments to regulations and optimization of the permit issuing process has been drafted	C2.3.R4
- Implementation of projects under the Framework National Programme for the Development of Broadband infrastructure in areas where there is insufficient commercial interest in investments Q3 2022-Q3 2026	C2.3.R4-I1
- by the end of 4Q/2024, 100% GSM/TETRA-LTE signal coverage for PPDR services	C2.3.R4-I2
- by the end of 4Q/2023, 3,000 TETERS of LTE station were procured	C2.3.R4-I2
C2 .4. Strengthening the framework for the management of state assets	
(a) qualitative indicators	
- by the end of 1Q/2022, drafting and publishing an overview of corporate governance in Croatian state-owned companies	C2.4.R1
- by the end of 1Q/2022, official decisions or official acts of the Government on the implementation of relevant OECD recommendations were adopted	C2.4.R1
- by the end of 4Q/2023, OECD recommendations and process upgrades were implemented	C2.4.R1
- by the end of 4Q/2023, an education plan has been implemented for the successful implementation of OECD corporate governance guidelines in state-owned enterprises	C2.4.R2

- by the end of 2Q/2022, a methodology has been developed for reducing the real estate portfolio and for faster and efficient activation of unused state assets	C2.4.R4
- by the end of 4Q/2024, an IT system was established according to the developed methodology for reducing the real estate portfolio and faster and efficient activation of unused state assets	(C2 .4. R4)

(b) quantitative indicators

- by the end of 4Q/2023, announcements are planned for the sale of 210 companies not of special interest to the Republic of Croatia and managed by THE CERP.	C2.4.R3
- by the end of 4Q/2023, 2000 contracts were concluded for remuneration	(C2 .4. R4)
- by the end of 4Q/2023, 250 donation contracts were concluded	(C2 .4. R4)
- by the end of 4Q/2023, 72 tenders for the disposal of real estate were announced	(C2 .4. R4)
- by the end of 4Q/2023, 6 international public calls for the realisation of investment projects were published	(C2 .4. R4)

C2 .5. Improving the efficiency of the judicial system

(a) Qualitative indicators

- by the end of 2Q/2021, the National Plan for the Development of Justice for the period from 2021 to 2027 was adopted.	C2 .5.
- by the end of 2Q/2022, enforcement procedures have been ensured in accordance with the new Regulation	C2.5.R1-I3
- by the end of 2022, a system established in accordance with the Directive	C2.5.R1-I5
- by the end of 4Q/2022, the use of digital assistant in e-services in the field of justice was enabled	C2.5.R2-I1
- by the end of 3Q/2022, the preliminary project, the execution project and the licenses for the Square of Justice in Zagreb were prepared	C2.5.R2-I2
- by the end of 8/2026, as a unique place to provide judicial services to citizens and entrepreneurs in the City of Zagreb - Trg Justice in Zagreb	C2.5.R2-I2

(b) quantitative indicators

- by the end of 4Q/2024, functional ICT infrastructure and equipment were installed at 75% of courts/state attorney's offices	C2.5.R1-I1
- by the end of 4Q/2024, 6 new e-services in the judiciary were established or upgraded	C2.5.R1-I1
- by the end of 4Q/2024, at least 40% of land registry and cadastral data were harmonized	C2.5.R1-I2
- by the end of 4Q/2024, a minimum of 45% of the judicial archives were digitised	C2.5.R1-I4
- by the end of 3Q/2025, construction, upgrading, reconstruction, equipping 16 buildings	C2.5.R2-I1
- by the end of 8/2026, 6 buildings were reconstructed, upgraded and built within the Justice Square in Zagreb	C2.5.R2-I2
- by the end of 1Q/2025, 16 buildings of energy renovated	C2.5.R2-I3

C2 .6. Strengthening the framework for prevention of corruption

(a) Qualitative indicators

- by the end of 1Q/2021, the Anti-corruption Strategy for the period 2021-2030 and the Action Plan have been adopted	C2.6.R

- by the end of 4Q/2021, a legal framework in the field of lobbying has been adopted	C2.6.R1
- by the end of 1Q/2022, an enhanced framework for the area of conflict of interest	C2.6.R1
- by the end of 4Q/2023, a systematic Anti-corruption solution was created	C2.6.R1
- by the end of 4Q/2025 there are two areas of USKOK in Zagreb and Split.	C2.6.R1-I2

(b) quantitative indicators

- by the end of 4Q/2023, 500 students from 15 high schools were educated on the topic of fighting corruption	C2.6.R1-I1

C2 .7. Strengthening the fiscal framework

(a) qualitative indicators

- by the end of 4Q/2021, the budget Act adopted by the Croatian Parliament	C2.7.R1

(b) quantitative indicators

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C2 .8. Strengthening the anti-money laundering framework

(a) qualitative indicators

- annual Conference on the Prevention of money laundering and terrorist financing is held annually	C2 .8. R1
- by the end of 4Q/2020, a framework for continuous training of employees of reporting entities on the prevention of money laundering and terrorist financing has been established	C2 .8. R1
- by the end of 4Q/2020, an updated cooperation agreement and working meetings were held within the Interinstitutional working Group on supervision	C2 .8. R2
- by the end of 4Q/2021, Action Plan for reducing identified risks of money laundering and terrorist financing has been implemented	C2 .8. R3

(b) quantitative indicators

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11. Financing and costs

C2. Public administration, judiciary and state property			
Total estimated investment value for the component (HRK)			**11.802.947.478**
C2 .1. Strengthening the capacity to develop and implement public policies and projects			
Total estimated investment value for the subcomponent (HRK)			**166.000.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C2 .1. R1-I1	Strengthening the capacity of the network of coordinators for strategic planning at national and regional level to formulate and implement public policies and projects	2021. 2024.	4.000.000
C2 .1. R1-I2	Introduction of evidence-based public policy preparation and communication instruments for public policies	2021. 2024.	2.000.000
C2 .1. R2-I1	Ensuring assistance to beneficiaries in the preparation of tender project and technical documentation	6/2021. 12/2024.	160.000.000
C2 .2. Further improvement of the efficiency of the public administration			
Total estimated investment value for the subcomponent (HRK)			**1.309.200.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C2 .2. R1-I1	Centralised selection system	2/2021. 6/2024.	50.000.000
C2 .2. R1-I2	Development of digital competences of officials and officials	2/2021. 6/2024.	3.000.000
C2 .2. R1-I3	e-State Experts exam	1/2021. 5/2021.	2.700.000
C2 .2. R2-I1	Development of the HRM system for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services	2/2021. 6/2024.	60.000.000
C2 .2. R2-I2	Introduction of a model for hybrid access to the workplace – smartworking	10/2020. 5/2023.	176.000.000
C2 .2. R3-I1	Digitalisation of public administration procedures	6/2021. 6/2024	11.250.000
C2 .2. R3-I2	Establishment of single administrative posts — YUM (Phase 1 and 2)	6/2021. 6/2024.	195.000.000
C2 .2. R3-I3	Establishment of digital infrastructure and public administration services by developing a conservation base system	1/2021. 12/2025.	150.000.000
C2 .2. R3-I4	Improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archives network	1/2021. 12/2025.	300.000.000

C2 .2. R4-I1	Further optimisation and decentralisation of LC (R)SGU through support for functional mergers	10/2021. 10/2024.	100.000.000
C2 .2. R4-I2	Further optimisation and decentralisation through e-services of local self-government and further digitalisation of public services	10/2021. 10/2026.	261.250.000
C2 .3. Digital transition of society and economy			
Total estimated investment value for the subcomponent (HRK)			**7.138.010.478**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C2 .3. R1	Digital Croatia Strategy and strengthening inter-institutional cooperation and coordination for a successful digital transition of society and economy	4/2021. 4/2022.	7.500.000
C2 .3. R2-I1	Establishment of a central interoperability system	1/2021. 6/2026.	128.500.000
C2 .3. R2-I2	Establishment of an IoT platform at the state and local level	1/2021. 6/2026.	154.900.000
C2 .3. R2-I3	Establishment of data warehouses and business analysis systems	1/2021. 6/2026.	155.900.000
C2 .3. R3-I1	Upgrading of the Shared services Centre	1/2022. 6/2026.	433.000.000
C2 .3. R3-I2	Construction of data centre for public administration and LGAP of the Republic of Croatia	1/2021. 6/2024.	150.000.000
C2 .3. R3-I3	Strengthening the capacity of police to combat cybercrime	4/2021. 6/2024.	22.500.000
C2 .3. R3-I4	Establishment of a single contact centre for all e-public services for providing user support	1/2021. 2/2024.	49.122.500
C2 .3. R3-I5	Consolidation of the health information infrastructure SYSTEM	1/2021. 6/2026.	135.500.000
C2 .3. R3-I6	Digital ID card implementation Project	1/2020. 5/2021.	5.534.978
C2 .3. R3-I7	Investments in national information infrastructure networks	1/2021. 6/2024.	100.000.000
C2 .3. R3-I8	Improvement of the system of physical planning, construction and state property through digitisation	3/2021 6/2026.	400.000.000
C2 .3. R3-I9	Outsourcing OF NIAS services for the economy	9/2021. 2/2023.	18.750.000
C2 .3. R3-I10	Development of digital mobile platform	1/2021. 12/2024.	41.958.000
C2 .3. R3-I11	Improving geospatial data within the competence of the State Geodetic Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia	1/2021. 6/2026.	1.861.220.000
C2 .3. R3-	Reform of the electronic public procurement system -	1/2021.	12.500.000

I12	EOJN 2.0	6/2024.	
C2 .3. R3-I13	Establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers	1/2021. 12/2025.	31.125.000
C2 .3. R4-I1	Implementation of projects under the National Framework Programme for the Development of Broadband infrastructure in areas where there is insufficient commercial interest in investment	1/2021 6/2026.	2.500.000.000
C2 .3. R4-I2	Preparation and implementation of the project "Strengthening GSM/TETRA-LTE signal for PPDR services"	1/2021. 6/2026.	930.000.000
C2 .4. Strengthening the framework for the management of state assets			
Total estimated investment value for the subcomponent (HRK)			**16.000.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C2 .4. R1	Improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD corporate governance guidelines in state-owned enterprises	2/2021. 12/2023.	10.000.000
C2 .4. R2	Strengthening infrastructure and human capacity to implement monitoring of corporate governance in state enterprises and projects	2/2021. 12/2023.	2.000.000
C2 .4. R3	Continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of portfolios of companies not of special interest to the Republic of Croatia	2/2021. 12/2023.	1.500.000
C2 .4. R4	Optimisation of real estate management in state ownership	2/2021. 12/2024.	2.500.000
C2 .5. Improving the efficiency of the judicial system			
Total estimated investment value for the subcomponent (HRK)			**3.130.287.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C2 .5. R1-I1	Strengthening IT infrastructure in the justice sector	10/2020. 12/2024.	240.000.000
C2 .5. R1-I2	Improving the cadastre and land registry system	6/2021. 12/2024.	116.000.000
C2 .5. R1-I3	Implementation of the e-enforcement system in the judicial sector	3/2021. 6/2022.	30.000.000
C2 .5. R1-I4	Implementation of the digital e-archive system in the judicial sector	10/2021. 10/2024.	300.000.000
C2 .5. R1-I5	Improving the bankruptcy framework	10/2021. 10/2024.	20.000.000
C2 .5. R2-I1	Implementation of the Guidelines for Design in accordance with the functional reorganisation of the Court Network	6/2021. 10/2025.	245.160.000

C2 .5. R2-I2	Design and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions	2/2021. 10/2025.	2.082.000.000
C2 .5. R2-I3	Implementation of energy efficiency measures for the reconstruction of outdated judicial facilities	2/2021. 6/2026.	97.127.000
C2 .6. Strengthening the framework for prevention of corruption			
Total estimated investment value for the subcomponent (HRK)			**43.450.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C2 .6. R1-I1	Supporting the achievement of the objectives of the Strategy for the Prevention of corruption for the period 2021-2030	9/2021. 12/2023.	5.700.000
C2 .6. R1-I2	Support for efficiency in the suppression of corruption and organised crime	6/2021 12/2025.	37.750.000
C2 .7. Strengthening the fiscal framework			
Total estimated investment value for the subcomponent (HRK)			**0**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
/	/	/	0
C2 .8. Strengthening the anti-money laundering framework			
Total estimated investment value for the subcomponent (HRK)			**0**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
/	/	/	0

5. COMPONENT
EDUCATION, SCIENCE AND RESEARCH

2. Component Description

Policy area		
Early, pre-school and secondary education Acquisition of fundamental competencies	Higher education	Research, development and innovation

General objective

Improving accessibility and efficiency of quality and relevant education, strengthening scientific excellence and encouraging open science and cooperation with the business sector.

Reforms and investments covered by the component

C3 .1. Reform of the education system	
Reforms	
C3 .1. R1	Structural reform of the education system
C3 .1. R2	Modernisation of higher education
Investments	
C3 .1. R1-I1	Construction, upgrading, reconstruction and equipping of preschool institutions
C3 .1. R1-I2	Construction, upgrading, reconstruction and equipping of primary schools for the purpose of one-purpose work and whole-day instruction
C3 .1. R1-I3	Construction, upgrading, reconstruction and equipping of secondary schools and pupils' homes
C3 .1. R2-I1	Reconstruction and expansion of student dormitories and accompanying sports infrastructure
C3 .1. R2-I2	Digital transformation of higher education
C3 .1. R2-I3	Reconstruction and expansion of educational infrastructure of higher education institutions
C3 .2. Raising research and innovation capacity	
Reforms	
C3 .2. R1	Reform and capacity building for public science and research sector innovations
C3 .2. R2	Creating a framework for attracting students and researchers in STEM and ICT areas
C3 .2. R3	Improving the efficiency of public investments in research and innovation

Investments	
C3 .2. R1-I1	Developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development
C3 .2. R1-I2	Strengthening the institutional capacity of universities and research institutes for innovation
C3 .2. R2-I1	Development of an incentive model for career advancement for researchers
C3 .2. R2-I2	Enabling conditions for strengthening students and researchers' skills and conducting top scientific research in STEM and ICT areas
C3 .2. R3-I1	Introducing a more functional programme framework for project financing for research, development and innovation
C3 .2. R3-I2	Implementation of innovation, research and development programmes for scientific excellence in the areas of green and digital transition in cooperation with the business sector

Contribution	**A green transition**	**The digital transition**
	100%	40%
Total estimated investment value for the component		**HRK 22,821,000,000**
Share of the total plan		20%
Estimated investments per year and sources of financing		see Annex 3.
Impact assessment		Annexes 4a, 4b and 5 (to be developed)
Response to CSR		see Annex 1.
Contribution to other parts of NPOO		see Annex 1.

12. Main challenges and objectives addressed under the component

The CSR underlines the need to reform the education system, improve access, quality and relevance, and focus investment policy on research and innovation.

According to the objectives of the Europe 2020 strategy, the Republic of Croatia lags behind in almost all areas. The share of adults (4% to school age) covered by early childhood education is 81.0% in 2018 (EU target: 95%), the share of fifteen-year olds with insufficient skills in reading is 21.6% (EU target: below 15%), the share of persons aged between 30 and 34 (EU target: below 15%) and the equivalent of 25.4% (EU target: below 15%) in 2019 (source: Pisa 2018). By increasing the target values within the framework of the creation of the European area of Education by 2025, meeting the objectives for the Republic of Croatia is becoming even more challenging.

It is therefore necessary to modernise the education system in order to enable all children and adults access to a quality and efficient education system and to ensure greater employability of individuals with qualifications at all levels of education. It is also necessary to make research careers more attractive through transparent and results based employment and labour policy at universities and scientific institutes. The Republic of Croatia can improve the conditions for research excellence and strengthening of innovation capacity by creating the conditions for work of talented young scientists and ensuring stronger integration into the European Research area.

In terms of per capita, the Republic of Croatia increased budget allocations for research and development, but not enough to reach the EU level. Between 2015 and 2018 Croatia's GBAORD remained at around EUR 350 million, representing a growth of only EUR 50 million compared to the pre-EU situation, which remains below half the EU average per capita.

In order to increase scientific productivity and efficiency, then increase knowledge transfer to the business sector in order to increase competitiveness and impact on society, it is necessary to increase investment for research and development, especially from the business sector. Although investments in research and development have increased (partly due to European Structural and Investment Funds), expenditure efficiency is low. The Republic of Croatia is among the countries with the lowest number of patent applications in the European Patent Office (only 4.8 applications per million inhabitants, while the European average is 106.8). Total investments in R & D increased from 0.86% of GDP in 2017 to 1.11% of GDP in 2019, but business sector investments stagnated to 0.49% of GDP. According to the quality of scientific research, the Republic of Croatia has room for progress when it comes to the number of influential scientific publications (in accordance with criteria or standards of each scientific field or particular discipline), cooperation between research institutions and the business sector, number of patents and efficient transfer of technologies into the business sector, and the third worst in the EU is on the European Innovation success scale for 2020. The results of the scientific research system are modest and Croatia stands out for a large number of low quality publications, measured by the number of unquoted publications per research and development employee (0.23 unquoted publications), which makes Croatia the worst in Europe. It is therefore necessary to invest in basic research as they are a prerequisite for further applied research and innovation. It is necessary to strengthen the human resources, institutional and infrastructural capacities of scientific institutes and universities and to enable organisational reforms aimed at achieving the necessary scientific capacities for

internationally influential, socially important and economically targeted research while reducing inefficient fixed and administrative costs. In order to strengthen research capacities overall, and in order to become more integrated into the European Research area, it is necessary to invest in new research infrastructures.

Incentives should also be strengthened for partnerships of the scientific research sector, economy and society in creating innovation, as well as for the development of institutions for commercialisation of innovations such as science parks and technology centres, technological infrastructure, technology transfer centres, start-ups and spin-off incubators for innovative technologies. Research, development and innovation in all sectors with a focus on key national and emerging industries, with a particular focus on strengthening the resilience and competitiveness of the economy and society, will be encouraged.

Investments in humanistic and social sciences will be integrated as a contribution to the growth of the economy, within the framework of proposed reforms and investments, as a contribution to the progress of society as a whole, which puts emphasis on a multidisciplinary, interdisciplinary and trans-disciplinary approach with the aim of stronger integration of the Republic of Croatia into the European Research area. The new vision of the European Research area to be contributed by the Republic of Croatia includes the principle of excellence and efficiency of the European Research and Innovation system, which allows for more ambitious implementation of activities at national level as well.

(a) main challenges

1. The share of children (4 years until school age) covered by early pre-school education is 81% in 2018 (EU target: 95%).

27. The share of fifteen-year-olds with insufficient reading skills is 21.6% (EU target: below 15%), mathematics is 31.2% (EU target: below 15%) and natural science is 25.4% (EU target: below 15%) (source: Pisa 2018)
28. The share of persons aged 30-34 with higher education qualifications is 33.1% in 2019 (EU target: 40%).
29. The share of adults aged 25-64 included in lifelong learning is 3.5% in 2019 (EU target: 15%).
30. The employment rate of persons with qualifications aged 20-64 is 66.7% in 2019 (EU target: 82%).
31. Insufficient investment in research and development, especially from the business sector, inadequate funding model and organization of universities and scientific institutes make it impossible to achieve the full potential of the Croatian research sector and consequently scientific productivity, efficiency and knowledge transfer are still limited.
32. The conditions for the development of human resources in STEM and ICT in the scientific system are a precondition for increasing the readiness of society for digital transition.
33. Fragmentation and inefficiency of research and innovation policies and lack of IRI investment results are one of the main causes of productivity and competitiveness growth difficulties observed in the CSR for the Republic of Croatia in 2019.

(b) objectives

AD1. Equal opportunities for all children and their inclusion in the education system from

the earliest age.

Ad2. Increased level of basic literacy from early preschool education to high school, which creates preconditions for better walking towards higher education.

A3. Increased availability, quality and relevance of higher education leading to an increase in the share of people with higher education qualifications.

AD4. Increased share of adults involved in lifelong learning through concentrated investment in programmes relevant to the labour market.

AD5. Increased quality and relevance of vocational and study programmes through concentrated investment in programmes relevant to the labour market.

Ad6 .1. Improved institutional funding system for universities and scientific institutes in order to motivate scientific productivity, efficiency and knowledge transfer through direct investments and increased funding of scientific research activities. It plans to increase the share of scientific publications among the 10% of the world's most quoted publications as a percentage of the country's scientific publications from 3.55% to 5.2%.

Ad6 .2. Increased investments in research infrastructure and organisational capacities of universities and scientific institutes will enable greater quality of scientific research, retention of young scientists in the Republic of Croatia, attracting foreign scientists and transfer of knowledge. The reform will consequently enable the increase of investments in R & D and the business sector because of the greater availability of research results and infrastructure to the business sector and the strengthening of the overall level of innovativeness of the Republic of Croatia. It is planned to increase the value of the national h-Index from the current value 287 to 327.

AD7. A new enabling framework for the advancement and career development of researchers has been introduced, in accordance with the specificities of scientific fields, which will attract and retain young scientists from the Republic of Croatia and high-quality foreign scientists from the EU and the world (including the diaspora). It is planned to increase the number of graduates of tertiary education in natural sciences, mathematics, computer science, engineering, production, construction, to 1,000 residents aged 20 to 29 from the current 18.6 to 21.5. Exports of knowledge-based services as a percentage of total exports of services will increase from 20.9% to 23.6%.

A8. A new model for the implementation of competitive programmes has been introduced, which will be quick in terms of innovation processes and adapted to market needs. The new model will help develop the economy with greater efficiency through targeted research at high stages of technological readiness. It is planned to increase the value of the collective innovation index as a percentage of EU values from the current 58.8% to 77.7%.

13. Description of reforms and investments by subcomponents

C3 .1. Reform of the education system

Link with the European Semester and/or strategic documents and the context of the reform

The CSR suggests that the Republic of Croatia take actions aimed at implementing the reform of the education system and improving access to education and training at all levels and their quality and relevance to the labour market.

FOR EXAMPLE, it includes measures related to early and pre-school reform, general and vocational education, lifelong learning and effective and relevant higher education, as well as measures to achieve the objectives of the Europe 2020 strategy.

Increasing investment in the skills and education of Croatian citizens and their lifelong learning is a strategic goal of the future NRR 2030, set out in the Government's program which envisages investing HRK five billion in the modernisation of the education system, which will contribute to building a stable, sustainable and resilient EU.

The reform should thus contribute to the construction of a educational system enabling every person regardless of his socio-economic background and age to acquire knowledge and skills relevant for personal development and successful integration in the labour market, in line with the UN 2030 Agenda for Sustainable Development, which provides for inclusive, quality and equitable education and lifelong learning for all.

Planned reform processes follow the development of new guidelines at European level and approaches in education and training which call for the development of policies equipping young people and adults with knowledge, skills and competences for progress in the labour market and in society, for transition to a green and digital economy, which promote inclusiveness and contribute to achieving social fairness. Furthermore, the reforms will contribute to the construction of a crisis-resilient educational system through strengthening innovation and flexibility, which will develop a culture of lifelong learning and sustainability of educational system, economy and society in general.

Education reform includes modernisation of the system at all levels of education and includes construction of kindergartens in order to improve availability of early and preschool education as well as equality of educational opportunities throughout the educational process. The increase in the length of time students devote to learning is envisioned by increasing the number of classes using digital technology and increasing the number of schools working in one shift, as necessary assumptions. Better connectivity between vocational education and the labour market is planned to be achieved through further development of regional competence centres and increasing the coverage of adults involved in lifelong learning in accordance with the European skills Agenda.

Reform measures planned at different levels of education vary according to the level of preparation, continue to the reform processes started and take into account the assessment of the results achieved. Interventions aim to ensure an adequate level of investment in education and training and, on the other hand, efficient and effective consumption in the system.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C3 .1. R1 Structural reform of the education system

Challenge

The low level of fundamental literacy, especially for students of lower socio-economic status, clearly indicates the necessity to continue existing and introduce additional reform initiatives.

(i) early and pre-school education

Early and preschool education (RPO) is the foundation of lifelong learning. In its conclusions on pre-school education, the EU Council underlines the importance of high-quality early pre-school education for the future development of children in formal years, especially as regards increasing the efficiency of learning as well as increasing the likelihood of continuing education throughout life. International research such as TIMS (TIMS) *Trends in International Mathematics and Science study)* and PISA (*The Programme for International student assessment* (PISA) and PISA show that students who attended preschool for a longer period (three years or more) achieved better average results than their peers who attended preschool for one year or less (TIMSS 2011 and 2015), i.e. that 15-year-olers who were included in educational programmes in early and preschool age achieved better results in tests (PISA 2015).

The rate of participation in THE ROPO in the Republic of Croatia is still among the lowest in the EU. In the period from 2004 to 2016, the number of children attending regular kindergartens or nursery programmes in Croatia increased by 37.2%, while the number of kindergartens increased by 34.7%. In the context of reducing the size of generations of preschool children in the Republic of Croatia, this resulted in a significant increase in the coverage of children by regular preschool programmes in the same period − from 13.4% to 21.4% in children of the Jasna age and from 41.2% to 59.2% in kindergarten children. However, the achieved level remains well below the Barcelona objectives set by the EU (33% of children of the Jasylic age and 90% of children of the kindergarten age covered by THE RPO), i.e. the EU2020 target (95% of children between the fourth year of life and the primary school covered by pre-school programmes). Lack of infrastructure, lack of educators and parents' awareness of its importance are highlighted as obstacles to participation in the RPO.

In addition, there are significant and systematic regional differences in the coverage of children in early and preschool programmes in the Republic of Croatia, which deepens the gap between children in a socio-economic (non) favourable position. Namely, the latest TIMS research shows that in the Republic of Croatia students who come from households of better socio-economic status achieve statistically significantly higher results than those in an unfavourable socio-economic situation. Regarding regional differences, the range of coverage of children with Jasylic programmes in counties in 2016 ranged from 5.6 to 40.4% and kindergarten programmes from 24.4 to 82.8%. The spatial availability of kindergartens is particularly problematic in rural areas and in smaller and less developed LSGUs. In addition, pre-school education programmes in less developed environments are less receptive to parents.

Considering the quality assurance system in RPO, it should be noted that the Republic of Croatia is in the group (one third) of European educational systems which require that at least one staff member who cares for a group of children, regardless of age, be highly educated. Furthermore, there are countries in which the evaluation covers two main quality factors that are often highlighted in the context of the RPOO, the quality of the structure and the quality of the process. Regarding the size of the educational group, after the introduction of the national pedagogical standard in 2008, there was a decrease in the average number of children in both the Jasna (from 17.7 to 16.3) and kindergartens (from 23.9 to 22.6) groups and an improvement in the ratio between the number of teachers and children (from 10.4 to 8.6 children per kindergarten teacher and from 12.4 to 11.0 in kindergartens). However, there is still a great disparity between institutions in these indicators. Thus, in terms of counties, the average size of the Jasylic groups ranged from 12.2 to 19.3 children per group, and kindergarten groups from 20.4 to 24.8 children per group. In most European educational systems, the maximum group size increases from 12-16 children aged two to 23-25 aged four. In addition, a proposal for the methodology of external evaluation of early and preschool education institutions was developed in 2019. The developed methodology, including instruments, will be piloted in the selected kindergartens in 2021.

The increase in the number of children included in THE RPO while maintaining the existing quality necessarily requires personnel preconditions – above all highly educated teachers. In order to expand pre-school programmes, it is primarily necessary to significantly increase the capacities OF THE R & P studies – for which there is a registration interest. More than nine thousand educators should be provided in the R & P system by 2030.

Further investments in infrastructure and personnel capacities will create preconditions for exercising the right to the POPE for all children and achieving the Barcelona goals.

(ii) Elementary education and education

In order to improve learning outcomes, the frontal application of comprehensive curriculum reform in all schools was initiated in the school year 2009/202020/based on modern curricula and professional education of teachers. At the same time, a national project is being implemented to increase the digital maturity of schools, which, among other things, enhances the digital skills of teachers and students. The impact of substantive reforms is limited, however, by a low number of mandatory classes in primary education. Compulsory education in the Republic of Croatia lasts eight years, which is the shortest duration of compulsory education among all European educational systems, and the number of classes is very low in terms of levels, but also in years of education. The PISA 2015 Survey found a great inequality in educational outcomes in the Republic of Croatia. The basic level of mathematical literacy is not achieved by almost 45% of students from the lowest socio-economic quartile, compared to only 15% in the highest socio-economic quartile. A similar discrepancy is evident in the areas of natural and reading literacy. More than half of students from the group with the worst results come from the lowest socio-economic quintile and therefore lags behind in mathematical skills. It has also been proven that students from a better socio-economic position usually attend schools (primarily gymnasiums) with better results in PISA research, while students with lower socio-economic status make up the vast majority of vocational high school students.

Although the number of classes and results on international knowledge tests cannot always be directly linked, the knowledge that students in the Republic of Croatia spend

significantly less hours in classes attending mandatory courses that acquire basic skills, and that international competency tests are compared with students who, in some cases, spent much more hours in classes, is not negligible. International research has shown, however, that students of lower socio-economic status have the greatest benefit from a longer stay in organized educational work.

A smaller number of classes also influence the way students spend their free time, who, after school, spend significant time learning and performing school tasks and other types of preparation. Unfortunately, not all students have equal opportunities when it comes to additional support in learning from parents or private instruction, which can further disadvantage students from weaker socio-economic conditions.

One of the key preconditions for increasing the number of classes refers to the infrastructure capacity of schools. Nearly 60% of primary school students attend school in two shifts, while about 3% attend school in as many as three shifts. It is therefore necessary to invest funds in upgrading and building schools so that all students can attend classes organised in one shift. Also, out of the total number of elementary and secondary schools (Report of the State Audit Office, 2018), 33.41% do not have a sports hall, while 11.94% use a city hall or hall from another school.

(iii) Secondary school and adult education

Gymnasium programmes intended to continue education are attended by about 30% of students in the Republic of Croatia, which is among the lowest share in relation to the EU average of 52%. The number of students enrolled in gymnasium programmes in relation to the total number of students enrolled in secondary school programmes varies greatly from county to county - 40,90% of students attend gymnasium programmes in the City of Zagreb, while this percentage decreases in economically weaker counties (e.g. in Bjelovar-Bilogora County 18.74%). Vocational education programmes are attended by 70% of students, which is one of the largest share of students at the higher secondary level of vocational education in Europe.

Students of four-year and five-year vocational programmes gain their finality by drafting and defending their final work, and if they want to walk towards higher education they are obliged to pass state graduation exams. In the summer term of 2020, 83% of vocational school students applied for state graduation exams, 67% passed, and 61% continued higher education – from which it is evident that Croatia produces vocational education personnel that end mainly in higher education. However, according to initial analyses about giving up on higher education, it is evident that students coming from vocational schools make up a significant share of leaving.

The results of the International PISA Survey from 2018 have shown that in the Republic of Croatia students with better socio-economic status and parents of higher education levels usually attend gymnasium programmes and achieve better results in research. Similarly, students of a weaker socio-economic position make up the vast majority of students of four-year and three-year schools in the vocational education and training system,

Taking into account the above considerations, and with the aim of improving general secondary education and modernising vocational education and training, reform interventions are planned that include a higher participation rate in gymnasium programmes, which will consequently positively affect the rate of completion of higher education, which is also low in relation to the EU average, and the optimisation,

rationalisation and adaptation of vocational educational programmes to the development needs of the economy, as well as the participation of students in the sector-specific priority curricula of vocational education and training. On the other hand, the initiated reform of the curriculum of secondary vocational programmes will have limited impact unless efforts are made to concentrate the highest quality infrastructure and human resources. Although fragmentation of secondary vocational programmes enables equal accessibility, it limits the effects of quality raising. The consolidation of programmes will increase their quality, but at the same time it is necessary to ensure the availability of student dormitories to all students to participate in selected programmes.

A great challenge is the low rate of participation in adult education programmes, which is why it is necessary to continue improving their quality and relevance, as planned by the new adult Education Act which will introduce a system for ensuring the quality of work of adult education institutions and obligation to continuously harmonise education programmes with qualifications standards from the CROQF Register, will be developed with the National adult Education information system which will enable efficient monitoring of the system and significantly disburden administrative procedures, and will also enable recognition of informal and informal knowledge and skills.

Objective

The reform of the education system structure contributes to the achievement of three key objectives. Firstly, the acquisition of basic competences from early and preschool to secondary education is strengthened, thus creating the preconditions for better walking towards higher education. Secondly, the quality and relevance of vocational programmes through concentrated investment in programmes relevant to the labour market within regional centres of competence and secondary schools operating in cooperation with the labour world and the local community is increased. Thirdly, the quality of supply of adult education programmes is improving, which contributes to an increase in the share of adults involved in lifelong learning.

At the level OF THE RPOO, the aim is to ensure the possibility of participating in THE rPO for all children, especially those in socio-economic disadvantage, thus increasing their efficiency of learning and the probability of continuing education. This measure contributes to the achievement of the EU2020 target (95% of children between the age of four and the primary school covered by pre-school programmes).

At the level of basic education, the aim is to increase the quality of teaching and learning outcomes of students, especially students from unfavourable socio-economic status, which will be achieved by increasing the number of compulsory classes and introducing all-day teaching. This measure contributes to the achievement of the EU2020 target (proportion of 15-year-olds with insufficient reading skills, mathematics and natural history: below 15%).

At the level of secondary education, the aim is to increase the quality, efficiency and relevance of education and to enable all students to acquire the knowledge and skills necessary for employment or continuing education. This measure contributes to the achievement of the EU2020 target (the employment rate of persons with qualifications aged 20-64 is 82%).

At the level of adult education, the aim is to increase the share of adults involved in lifelong learning by strengthening the quality assurance of the system and concentrated investments in programmes relevant to the labour market. This measure contributes to the

achievement of the EU2020 target (the share of adults aged 25-64 included in lifelong learning is 15%).

Description

Reform of the system structure refers to: ensuring normative and infrastructural preconditions for introducing compulsory early preschool education; increasing the minimum number of compulsory classes and introducing all-day classes in primary education; increasing the coverage of students in gymnasium programmes in relation to secondary vocational programmes from the existing 30% to 40%; consolidating secondary vocational programmes through regional centres of competence, i.e. secondary vocational schools through concentrated investments in programmes relevant in relation to the labour market.

Reform interventions in primary and secondary schools mean increasing the efficiency of financing through optimisation of the number of students by class departments in primary and secondary schools, consolidation of vocational programmes, efficient management of enrolment points in the secondary education system and encouraging enrolment in gymnasium programmes. For all reform measures, the Ministry will improve the human resources monitoring and management system in the education system and ensure the development of analytical bases based on available data on enrolment quotas, completion rates of study programmes in the field of education and employee data in the education and education system.

Investments in school infrastructure and strengthening the competencies of educational staff have started with the implementation of projects financed through operational programmes effective Human resources and Competitiveness and Cohesion. Implementation projects (development of digitally mature schools systems, support for the implementation of comprehensive curriculum reform, establishment of regional competence centres in priority areas, Modernisation of vocational education and training systems, Modernisation of professional training systems for teachers of vocational subjects) finance, among other things, the development of digital infrastructure of primary and secondary schools and the development of infrastructure of secondary vocational schools designated as regional competence centres. Previous investments did not refer to the restructuring of students' share in secondary school programs or ensuring one-way work, which will consequently require investments in infrastructure and increasing the capacity of pupils' homes.

Implementation

(i) early and pre-school education

At the level OF THE RPO MZO will:

- based on infrastructure capacities and demographic trends, adopt criteria for upgrading and reconstruction of existing ones, and construction of new kindergartens, addressing the problem of regional differences in availability of kindergartens (September 2021)
- on the basis of these criteria, publish an invitation to cities and municipalities to participate in the realisation of infrastructure projects in their territory (December 2021)
- amend the Regulation to increase the number of preschool education classes for children aged one year before leaving for school (September 2021)
- develop, in cooperation with the Education and teacher training Agency, a proposal for professional training of educators in the ROPO in accordance with the changes to the

curriculum (December 2021)
- develop an analysis of personnel capacities in the system OF RPOO and primary education (December 2021)
- in programming the following period, provide funds for (co) financing the costs of including children in socio-economically unfavourable situations in pre-school programmes in order to influence the problem of acceptability of kindergartens for parents of children in socio-economically disadvantaged situations and scholarship students attending study programmes for scarce professions, such as teachers
- in cooperation with MFIN, develop a model for financing operational costs of founders of lower financial capacity in order to ensure sustainability of investment upon construction of kindergartens
- depending on the degree of realisation of infrastructure and personnel investments, make a decision on the introduction of THE right to A RPO/guaranteed place or compulsory attendance in THE RPO at the age of one year before going to school

(ii) Elementary education and education

MZO will form a task force responsible for designing a model of day-long instruction and a proposal to amend the legislative framework that will introduce a new model. The introduction of all-day classes would increase the number of hours of mandatory classes, especially in lower grades of primary school, all students would have lunch in school, increase additional work with students with difficulties in learning, as well as with gifted students, and open the possibility for students to attend extracurricular activities within the time spent in school. Consequently, pupils would have less homework and to a lesser extent would have to learn after school, so success would not depend on the engagement and socio-economic status of parents, the need for additional instructions would be reduced, pupils would not be alone at home while parents work, extra-teaching activities after school would be reduced, parents would have more time to spend quality time with children, and through ensuring a healthy and balanced diet, and more sports activities would have a positive impact on the health of students.

Different scenarios are possible for the implementation of the whole day teaching model: successive introduction from the first year of elementary school, simultaneous introduction in the first four grades of elementary school, gradual introduction into schools that have or after the realization of infrastructural preconditions for one-way work.

The working Group will develop the model on the basis of available analyses from European comparative reports and detailed analysis of standards and norms related to school building, formation of class departments, teachers' standards etc., with close cooperation with stakeholders through established consultative procedures. The whole-day teaching model will be prepared by the end of 2021, based on which the working group will propose amendments to the legislative framework in parts relating to the minimum number of mandatory classes, curricula, teachers' standards, formation of class departments. Adjustments to curricular documents will also be made, since the reform will increase the number of training sessions during which students will receive learning outcomes during instruction. The curriculum adaptation and legislative framework will be amended by the end of 2022. Amendments to the Education Act will ensure exclusive competence of the Ministry of Science and Education over approving the size of class departments, which will result in optimisation of the number of students and more efficient management of existing resources, since the cost of work of educators is fully insured in the state budget.

At the same time, BY June 2021, MZO will complete an assessment of the needs of infrastructure investments for the transition to one-way operation on the basis of data already collected on the infrastructure capacities of schools and the size of class departments and taking into account demographic developments, elaborate criteria and publish a call to founders for the upgrading and construction of schools. Project proposals will include projections of school upgrades and construction and optimisation data in terms of increasing the number of students in class departments in schools where inefficiencies were observed, taking into account new criteria. The invitation will be announced by the end of 2021. Taking into account the time course of removal of infrastructural barriers for introduction of whole-day teaching, a smaller hourly increase in the first 4 grades of elementary school (ISCED 1, 2-3 hours per week) is considered, which can also be performed under existing conditions with minor amendments to implementing acts. One year before the introduction of the whole day course, professional training of teachers will begin, which will be implemented by MZO and the Education Agency and planned to be financed by ESF +. At the same time, it plans to channel funds to attract students into scarce professions in the form of scholarships from ESF +. In the long run, by rationalizing costs, it is planned to provide room for raising teachers' salaries, which will also contribute to increasing the attractiveness of professions.

(iii) Secondary school and adult education

Insufficient infrastructure capacities to increase coverage and improve the quality of teaching also apply to gymnasiums, with just over 50% organising shifts. In order to ensure an increase in coverage, it is necessary to increase the attractiveness of gymnasium programmes, which will be contributed by the organisation of work in one shift. At the same time, the reform of vocational education aimed at increasing relevance will continue, which will also take into account regional needs and the consolidation of existing vocational programmes. MZO will manage interventions through further improvement of needs analysis procedures that will be reflected in the Decision on enrolment of pupils in the first grade of high school.

Likewise, a better connection between vocational and adult education and the labour market will be strengthened through further modernisation of the system and the development of new curriculum documents with a focus on green and digital transition. Further development of the quality assurance framework will be fostered with the aim of raising the level of quality of implementation of educational programmes, i.e. work of institutions, primarily through optimisation and rationalization of vocational programmes, implementation of the system of self-identification and external evaluation, continuous training of employees and encouraging internationalization of education and training and international mobility of pupils and teachers.

Better connectivity between vocational education and the labour market is also planned through strengthening work-based learning and further development of regional competence centres that will become generators of stronger development of education and lifelong learning systems aimed at supporting economic, technological and regional development, communication points between economic and educational sector stakeholders and application of new technologies and innovations, encouraging excellence, lifelong learning and training.

Likewise, reform processes will create preconditions for accessible adult education and increase the scope of adults involved in lifelong learning in order to fully realise their

potential, actively participate in society and assume their social and civil responsibilities. In addition, raising the level of key competencies and new knowledge and skills and the recognition of informally and informally acquired knowledge and skills will enable citizens access to and progress on the labour market, as well as inclusion in further education.

Amendments to the Vocational Education Act 2018 created preconditions for the development and introduction of sectoral, vocational and curricula institutions, made progress in encouraging forms of work-based learning and defined the adoption of the National Curriculum of Vocational Education which defined and predicted work-based learning proportions, as well as legal preconditions for raising the quality of vocational education and training through the processes of self-formation and external valuation of institutions.

Adoption of the new legal framework for adult education in 2021 will create preconditions for raising the quality of adult education. Education programmes will be continuously harmonised with labour market needs in order to provide participants with skills that make them competitive on a highly variable labour market. The new legal framework provides for the introduction of individual education accounts to enable each person to participate in lifelong learning and skills acquisition. In this way, it will be easier to find a job, keep it or advance on it. It also envisages the introduction of a system of self-Regulation and external evaluation of the work of institutions, as well as the recognition of informally and informally acquired knowledge and skills. This will contribute to the increase of availability of adult education with the aim of increasing the coverage of adults in lifelong learning compared to the EU average.

At the level of secondary education, MZO will:

- to perform an analysis of secondary education in order to increase the coverage of students with gymnasium programmes (September 2021)
- based on infrastructure capacities and demographic trends, adopt the criteria for upgrading and reconstruction of existing ones, and building new capacities – increase of gymnasiums working in one shift, develop and establish additional 25 RCKs in additional sectors and determine the need for building and upgrading new homes accordingly (September 2021).
- on the basis of these criteria, publish an invitation to counties to participate in the realization of infrastructure projects in their territory (December 2021)
- adopt the new adult Education Act (April 2021)
- to conduct an analysis of personnel capacities in the secondary education system (December 2021)
- adopt new modular, initially oriented, labour market priority curricula based on qualifications standards and occupational standards. Occupational standards have also been developed in the process of registration in the CROQF Register, qualifications standards will be developed during 2021, and after the adoption of qualifications standards, existing programmes will be revised and new curricula introduced into the system in the school year 2023/2024. Curricular reform of vocational education and training will be accompanied by the development of new teaching materials and professional training of teachers in vocational schools (the period from 2021 to 2023).

Implementation holder	MZO

Target Group	Educational institutions, pupils' homes, Regional competence centres, educational staff, children, pupils, adult students, founders of educational institutions.
Estimated cost	HRK 8,700.000.000 (investment)
Implementation period	7/2018.-8/2026.

C3 .1. R2 Modernisation of higher education

Challenge

The share of persons aged 30-34 with higher education qualifications was 33.1% in 2019. what is significantly lower than the EU average (40,3%) and the Europe 2020 target (40%), i.e. the objective of establishing a European Education area in 2030 (50%). The inclusiveness of higher education is limited, quality dependent on available resources, and relevance on tools for monitoring and analysing employability and effective funding instruments.

Due to the limited offer of study programmes in smaller environments, students tend to study in larger university towns. However, due to the small accommodation capacities in student dormitories, small universities are only partially fulfilled for those living in the place of study, while students living outside the county centres remain disadvantaged. Although according to the REPORT EUROSTUDENT VI (2019) research, on average 20% of European students live in student dormitories, the Republic of Croatia is at the bottom of the scale with 9% of students in student dormitories. Also, THE EUROSTUDENT survey shows that 34.7% of students from families with the lowest parental education did not receive accommodation, which is why the chances of such students successfully studying are significantly reduced.

Secondly, the quality of higher education depends greatly on the availability of quality teaching resources available to all students. At the time of expansion of digital learning and teaching tools, insufficient and uneven equipment of higher education institutions is noticed, which makes it necessary to invest effectively in digital transformation of higher education institutions for which digital teaching infrastructure, digital teaching tools and strengthening teachers' competences for teaching in the digital environment are prerequisites. In addition, the existing normative framework regulating the entire system of higher education in the Republic of Croatia does not enable the introduction of standards in personnel, teaching, scientific and professional infrastructure at public institutions of higher education, which is necessary for the implementation of a particular university and/or professional study programme. The lack of clearly defined standards leads to an uneconomical and dysfunctional system of employment, promotion and training in public institutions of higher education, which causes unequal development and unequal quality assurance in higher education on the territory of the Republic of Croatia.

Thirdly, the lack of reliable data and records in higher education is an obstacle to effective public policy management and strategically targeted financing of higher education. The development of a system for monitoring persons with qualifications relies on interviews, but the lack of central records and population indicators is an obstacle to identifying the real needs for further investments in the development of higher education. According to the framework data of the Agency for Science and higher Education in the academic year 2018/2019. 26.6% of students enrolled in study programmes in technical and biotechnical

fields, but only 4.37% of students studied in the field of natural sciences and 4.19% in study programmes in the field of ICT. In addition, looking at the broader field of STEM, the analysis of the Ministry of Science and Education on the efficiency of investments in STEM scholarships shows that the total share of students in undergraduate study programmes and in the first three years of the integrated study programme in STEM areas decreases every year by an average of 1,500 students, i.e. about 2,5% per year. It follows from the above that the investment measures of scholarships of students in STEM areas of science from the Operational Programme effective Human resources 2014-2020 have not achieved the desired effect. However, an analysis of the desirability of study programmes in STEM areas, in relation to capacity limited by enrolment quotas, taking into account the data of the Central Office of the Agency for Science and higher Education for the Summer registration procedure in the act. 2020/2021. for 288 undergraduate studies, it can be seen that the list of the first 100 programmes with high competition includes mostly study programmes in natural and technical fields of science. The analysis therefore shows that precisely those study programmes that are desirable and have a good potential for employability and economic development do not have sufficient capacities to expand the enrolment quotas and increase the coverage of students and, consequently, persons with qualifications in priority areas.

Finally, due to the lack of measures of inclusive and socially sensitive higher education, inadequate normative framework, the lack of setting qualifications standards and the CROQF Register, the lack of reliable records in higher education, the lack of systematic monitoring of outcomes on the labour market of persons with qualifications in higher education, the development of public policies lacks efficient funding instruments necessary for strategic development of higher education.

Objective

The overall objective of higher education reform through the overall modernisation of the system is to achieve the goal of increasing the share of persons with higher education qualifications and their better employability by increasing accessibility, quality and relevance of higher education. The reform consists of three components:

(viii) Increasing the accessibility of higher education is directed especially towards vulnerable and underrepresented groups presented in the National Plan for improving the social dimension in higher education adopted by the Government in January 2019 and the obstacles these groups of students encounter, recognised in the study on underrepresented and vulnerable student groups: contributions to improving the social dimension of higher education in Croatia (2020).

(xxix) Improving the quality of higher education is part of a comprehensive transformation of higher education which includes setting qualifications standards and establishing the CROQF Register, improving the connection between teaching and scientific research activities, internationalization and participation of Croatian universities in the alignments of European universities of the future and digitisation of higher education.

(xxx) Increasing the relevance of higher education includes reform measures aimed at creating the skills necessary in the labour market of the future and necessary for the development of the economy, and at directing higher education financing towards qualifications in those educational areas that have proven to contribute to the development of the economy and to greater employability of individuals.

In addition to these goals, the “social responsibility” of higher education in the Republic of Croatia is essential, which aims to achieve through a more efficient and efficient transfer of knowledge and technologies between higher education and society, i.e. towards knowledge-based economic development. Networking higher education institutions with society or economy will achieve a two-way relationship in such a way that higher education institutions will address issues related to social and economic practice and participate in the reflection and consideration of changes such as the digital transformation of the Croatian economy and society as a whole and education and training issues for “sustainable development”.

Description

The modernisation of higher education described through goals of accessibility, quality and relevance is planned to be implemented by improving the normative framework in higher education, setting qualifications standards in establishing a comprehensive CROQF Register, introducing an efficient model of financing teaching and scientific research activities based on reliable data from central records, through a comprehensive digital transformation of higher education and with infrastructure investments aimed at improving material conditions of studies.

Implementation

Improving the normative framework in higher education includes the adoption of a new Act on Scientific activity and higher Education and amendments to the Act on quality assurance in Science and higher Education. The new normative framework will create the conditions for organisational and functional reform of public universities and other public higher education institutions and funding aimed at achieving institutional development goals and towards priority areas. The new funding model will be based on transparent criteria and indicators of the achievement of results related to the objectives of an institution.

The introduction of a new model for efficient financing of public universities and other public higher education institutions is planned to be implemented through programme agreements covering the scientific-research and teaching activities of universities and the teaching activities of other public higher education institutions, covering a period of two years. The programme agreements provide funds to achieve institutional objectives through related investments from the state budget, the European Social Fund and the recovery and resilience Fund. Within the Operational Programme effective Human resources 2014-2020 (European Social Fund) preparatory activities will be carried out as part of the project to support higher education institutions in improving management and efficient financing in the period from 2021 to 2022 to introduce a new funding model for scientific research and teaching activities. Preparatory activities include the development of information systems for keeping central records in higher education and human capacity development activities for the introduction of a new funding model. Human capacity development activities will be implemented in cooperation with the World Bank and as the operationalization of World Bank recommendations developed as part of the project capacity building for programme funding of higher education institutions financed, within the framework of the Operational Programme Human resources Development 2007-2013. (European Social Fund).

A precondition for the introduction of a new funding model is the existence of reliable data in central records in higher education. The Ordinance on records and Data collections in

higher Education will regulate the manner of collecting and exchanging data between higher education institutions, the AGENCY for Science and higher Education, MZO and other public bodies, their use for the purpose of monitoring the achievement of institutional goals and results and analysis and research which will be the basis for informed decision making and public policy management. The adoption of the Ordinance is scheduled for 1Q/ 2021. Adoption of the Ordinance on records and Data collections in higher Education will create a precondition for development and interconnection of information systems in higher education and digital tools for keeping central records in higher education. This is foreseen to be achieved through OPEHR as part of the Project support to higher education institutions in improving management and efficient financing in the period from 2021 to 2022 and in partnership with THE HEART entrusted with the TASK of developing information systems in higher education.

Setting standards for all qualifications acquired in higher education and establishing a comprehensive register of the Croatian qualifications Framework will result in optimization of personnel structure of individual higher education institutions as well as all necessary preconditions for quality and efficient implementation of accredited study programmes. The precondition for this is to improve the normative and institutional framework for the implementation of the Croatian qualifications Framework as a tool for improving the quality and relevance of education that started in 2020 and is planned to end in 1Q/2021. Amendments to the Act on the Croatian qualifications Framework and the Ordinance on the Register of the Croatian qualifications Framework will achieve better efficiency in the adoption of qualification standards based on analyses and research of the labour market and the needs of society.

The entire digital transformation of higher education is carried out in accordance with the Action Plan for Digital Education and in light of Council conclusions on digital education in European knowledge-based societies as of 1 December 2020.

The digital transformation of Croatian society and the entire economy opens the space for more intensive investment in strengthening the capacities of Croatian higher education institutions which will enable the launching of new and increasing of existing study programs with a strong digital component. The digital transformation of higher education implies investing in digital teaching infrastructure and the digitisation of administrative processes.

Through the project Preparation for the Digital transition of Croatian higher Education foreseen through the Technical assistance Instrument of the European Commission, an analysis of the digital maturity and readiness of Croatian higher education institutions will be made, as well as recommendations for necessary investments and development activities which will be the basis for further investments in *equipping* higher education institutions and expansion of support for institutions, teachers and students in online teaching and remotely teaching. Recommendations for investments at national level are planned for December 2021, and recommendations for investments at institutional level will be drawn up in 2022. Based on the recommendations that will result from this project at the national and institutional level, further investments are envisaged within the NPOO and the European Regional Development Fund.

The digitalisation of administrative processes includes the development of a digital register of diplomas. The digital diploma Register will be based on the concept and technical specification of the Platform for the digitisation of diplomas and the supplementary study

documents to be prepared through the *ERASMUS + TRACER* project by 1 July 2021, taking into account the experience of the University of Split in the piloting of digital student documents through the Europass Platform and through participation in the *European Universities of the Sees*.

Creating a digital register of diplomas will be an important step in developing a system for monitoring people with qualifications. It consists of two key dimensions. First, improving the quality of data and central records in the higher education system by linking administrative bases of different state administration bodies such as the Croatian Employment Service and the Croatian Institute for Health Insurance will provide a data base for conducting research and analyses on labour market outcomes of persons with qualifications in higher education. Secondly, longitudinal research will continue with improvements in view of the experience gained through pilot EUROGRADUATES in which the Republic of Croatia participated as one of the 8 EU member States. In order to achieve the preconditions for participation in the first wave of the European Initiative *for graduate tracking (ECI*) in 2022, MZO started building the capacity to develop a system for monitoring persons with qualifications, which, in accordance with THE contract concluded with the EC, is implemented BY ECORYS by the end of 2021. Continued investment in the development of a system for monitoring people with qualifications at all levels of education and training with anticipating skills required in the labour market, development of curricula that correspond to new needs, development of digital skills of teachers and students is foreseen within the programming period 2021-2027.

The development of a system for monitoring persons with qualifications with the introduction of a new funding model will enable efficient investment in priority areas in higher education with regard to employability of persons with qualifications and comprehensive strategic economic development. In the first step, an analysis will be carried out on the basis of which priority areas will be defined in order to direct further investments towards those higher education institutions and study programmes which ensure the highest employability and are the most attractive due to quality, without sufficient capacities or enrolment quotas. The definition of priority areas will achieve the fundamental role of Croatian higher education institutions through the openness of higher education institutions to the public, citizens and local community, unity of professional and educational work for the purpose of training for specific professional knowledge and skills, interaction with the social community and the obligation of universities, polytechnics, higher schools to develop the social responsibility of students and other members of the academic and scientific community.

Infrastructure investments aimed at increasing the availability of higher education and consequently increasing the share of people with higher education qualifications are directed towards increasing accommodation capacities by building student dormitories, while investing in teaching digital infrastructure is essential for comprehensive digital transformation of higher education and expansion of teaching capacities in priority scientific and educational areas. These infrastructure investments are envisaged under the Rescue and Resistance Fund.

Implementation holder	MZO
Target Group	The investment covers higher education institutions, student dormitories/campuses, higher education teachers and students.

Estimated cost	HRK 4,437,500,000 (investment)
Implementation period	

(b) Investments

C3 .1. R1-I1	Construction, upgrading, reconstruction and equipping of preschool institutions

Challenge

The share of children in the Republic of Croatia aged four to primary school is among the lowest in the EU. Although the number of early preschool education institutions has been systematically increasing over the past ten years, the achieved level remains well below the Barcelona goals. In addition, there are large regional differences in public expenditures for preschool programmes - the share of preschool expenditures in county budgets for 2015 varied from 5.7% to 14.1%. Decentralised funding is one of the reasons for creating regional differences in public expenditure for THE RPO. There are great differences between LSGUs in terms of subsidisation under the responsibility of the founders. Also, early and preschool education programmes in less developed environments are less suited to parents, and marked systematic regional differences exist in the coverage of preschool children. The low coverage stems from the uneven financing of the early preschool education system and is particularly emphasized in less developed LC (R)SGUs. in order to eliminate the differences between richer urban and relatively poorer rural regions and create preconditions for increasing the scope and increasing compulsory early pre-school education programme it is necessary to include the Government more strongly in financing the early preschool education system.

At the same time, this will be a strong demographic and educational measure, which will ultimately increase the number of years of compulsory education that is now among the lowest in the EU.

The availability of early education is important for young parents, which directly contributes to demographic revitalisation. The availability of early and preschool education and the inclusion of children in society and socialisation from the earliest age contribute to a successful entry into the education system.

Objective

This infrastructure investment addresses the problem of low participation rates for preschool children in early and pre-school education.

Description

The availability of early and pre-school education to every child stems from children's right to care and equal development, but from scientific evidence that systematic, safe and comprehensive development of children is achieved by their early inclusion in pre-school institutions. The availability of RPOO to every child assumes the reduction of regional differences in the quality and price of preschool education, a sufficient number of educators, the extension of existing ones and the construction of new kindergartens in order to ensure quality education and education for every child in the Republic of Croatia from the earliest age.

Increasing the availability of early education will be achieved through investments in

infrastructure.

Implementation

The infrastructure investment plans to increase the capacity of preschool institutions by 30,000 enrollment places, i.e. 8 m ^{2} per enrolment point and 1.500 euros projected construction cost per m ^{2}.

The investment includes preschool institutions, children and parents and teachers. Implementation of the investment is planned at the local level.

At the level OF THE RPO MZO will:

- based on infrastructure capacities and demographic trends, adopt criteria for upgrading and reconstruction of existing ones, and construction of new kindergartens, addressing the problem of regional differences in availability of kindergartens
- on the basis of these criteria, publish an invitation to cities and municipalities to participate in the realization of infrastructure projects in their territory
- upon project approval, the founders conduct public procurement procedures and ensure timely implementation of construction works.

Implementation holder	MZO
Target Group	see C3 .1. R1
Estimated cost	HRK 2,700,000,000
Implementation period	7/2021.-8/2026.

C3 .1. R1-I2	**Construction, upgrading, reconstruction and equipping of primary schools for the purpose of one-purpose work and whole-day instruction**

Challenge

Compulsory education in the Republic of Croatia lasts eight years, which is the shortest duration of compulsory education among all European educational systems, and the number of classes is very low in terms of levels, but also in years of education. Consequently, the Croatian compulsory education system includes the smallest number of teaching sessions in general. For example, at primary education level (ISCED 1), the number of classes in the Republic of Croatia is more than twice the European average (1890 versus the European average of 4062 sunny hours). In most European educational systems, primary education lasts 5 or 6 years, while in the Republic of Croatia it lasts 4 years. However, comparative data show that the number of classes in the Republic of Croatia is low and according to the years of education. (Eurydice, 2018/2019). Also, the Republic of Croatia lags behind the European average even when considering the number of classes per selected area, even those that make up the largest part of the curriculum (e.g. reading, writing and literature and mathematics). The duration of compulsory education and the number of classes by education levels and years directly affect the quality of education, which is evident from periodic PISA surveys.

The school network in the Republic of Croatia is not balanced to enable equal access and quality of education to all students. Nearly 60% of primary school students attend school in two shifts, while about 3% attend school in as many as three shifts. The extended stay is

organised in about 20% of schools, and is attended only by about 12% of students in class classes, primarily due to limited funding from school founders, but also due to the fact that parents often have to participate in costs. Work in shifts prevents effective increase in the number of classes, which consequently causes lower results of students in PISA tests.

Objective

This infrastructure investment provides better conditions for learning and teaching, thereby addressing the problem of low levels of fundamental literacy, especially for students of lower socio-economic status.

The introduction of all-day classes also enables harmonization of parents' private and family life, which contributes to the demographic revitalisation of the Republic of Croatia.

Description

Project proposals will include projections for upgrading and building schools based on new criteria and optimisation data in terms of increasing the number of students in class departments in schools where inefficiencies were observed.

Implementation

Implementation of the investment is planned at the local level. The cost estimation is based on the collected data on school infrastructure capacities and the draft cost estimation model drawn up by the World Bank.

By June 2021, the Ministry will complete an assessment of the needs of infrastructure investments for the transition to one-way operation on the basis of data already collected on the infrastructure capacities of schools and the size of class departments and taking into account demographic developments, elaborate criteria and issue an invitation to founders for the upgrading and construction of schools. The invitation will be announced by the end of 2021. Upon project approval, the founders conduct public procurement procedures and ensure timely implementation of construction works.

Implementation holder	MZO
Target Group	The investment includes school founders, educational institutions conducting instruction organised in two or three shifts, including related sports infrastructure, children and parents, and educational staff.
Estimated cost	HRK 4,250,000,000
Implementation period	7/2021.-8/2026.

C3 .1. R1-I3 Construction, upgrading, reconstruction and equipping of secondary schools and pupils' homes

Challenge

High school gymnasium programmes, whose purpose is to continue education, attend only about 30% of students in the Republic of Croatia, which is among the lowest share in relation to the EU average of 52% (Eurostat). In order to achieve the strategic goal of increasing the rate of completion of higher education, it is necessary to increase the number of gymnasium programmes and the coverage of students on these programmes to

40%.

Objective

Consolidation of vocational programmes, the introduction of new modular, resulting-oriented curricula of priority for the labour market, with special emphasis on the green and digital transition, as well as raising the quality of their performance and strengthening work-based learning, will increase the efficiency of investment in vocational education and training, thus achieving greater quality.

Description

The prerequisite for the implementation of these structural reforms is the further establishment and development of regional competence centres intended for work-based learning, fostering excellence, lifelong learning and training, and the development of innovations and new technologies.

More than 70% of high school students attend shift-organised classes. Therefore, in addition to consolidation of programmes and optimisation of students in class departments, it will be necessary to further improve the existing infrastructure capacities in order to enable secondary schools to organise classes in one shift, thus creating the preconditions for raising the quality of implementation of educational programs, i.e. work of institutions, training of employees, and also creating preconditions for strengthening the implementation of lifelong learning programmes and acquiring knowledge and skills necessary for a fast changing labor market. Creating the preconditions for the work of schools in one shift and enabling the time of implementation of the Lifelong learning Programme for both participants and teachers will increase the share of adult population participating in life-long learning processes.

Implementation

In order to enable all students to attend high-quality selected high school programs, they will invest in the accommodation capacities of pupils' homes.

The quality of adult education programmes will continue to improve, which will increase the share of adult population participating in lifelong learning processes.

The aim of all these reforms is the productivity and quality of the labour force and the ability to adapt to rapid changes, which will at the same time be a key determinant of competitiveness, productivity and investment attractiveness of the Croatian economy.

This investment will finance the construction, upgrading and equipping of secondary schools, regional competence centres, including the accompanying sports infrastructure and the construction and upgrading of pupils' dormitories, in line with complementary structural reforms through improvement of the normative and curriculum framework. The cost estimate is based on the amounts allocated to existing regional competence centres (25 new regional competence centres, 4 million euros per centre), the estimated cost of upgrading schools working in multiple shifts and the expected increased demand for accommodation in student dormitories.

Implementation holder	MZO
Target Group	see C3 .1. R1
Estimated cost	HRK 1,750,000,000

Implementation period	7/2018.-8/2026.

C3 .1. R2-I1	**Reconstruction and expansion of student dormitories and accompanying sports infrastructure**

Challenge

This infrastructure investment addresses the problem of unequal availability of higher education to students of lower socio-economic status through construction, upgrading, reconstruction and equipping of student dormitories, including associated sports infrastructure. The availability of accommodation in student dormitories shows social sensitivity by giving students from families with poor parental education and for other students from underrepresented and vulnerable groups such as parents.

Objective

Increasing the accommodation capacity of student dormitories will significantly contribute to increasing the availability of higher education for students of lower socio-economic status.

Description

Within the framework of the accompanying reform measure, we plan to increase accommodation capacities by building student dormitories/campuses.

Implementation

This investment will be based on previous investments in the construction and reconstruction of houses in the total amount of HRK 1,199,971,324 for a total of 9054 student seats, and data supporting the assumption that there is no accommodation capacity per city or student centers. Accommodation quotas in student dormitories are too small, so that a total of 14142 students applied for accommodation in student dormitories in the cities of Zagreb, Rijeka, Split and Slavonski Brod for the total accommodation quota in these cities of 9866, which means that a total of 4276 students, i.e. 30%, who applied for the call did not qualify for accommodation in the four aforementioned cities. Reconstruction of existing and construction of new accommodation capacities should be ensured for students of the Police College who plan to increase enrolment places for 300 students, and the only institution of higher education in the Republic of Croatia that performs study programmes for police officers.

Further infrastructure investments will be directed towards those cities/student centres where the need remained the highest.

MZO will:

- based on the analysis of insufficient infrastructure capacities and demographic trends, adopt criteria for upgrading and reconstruction of existing ones, and building new homes addressing the problem of regional differences in availability of the same
- based on the above analysis, publish the call for participation in the realization of infrastructure projects
- upon project approval, public procurement procedures are carried out and timely implementation of construction works is ensured.

Implementation holder	MZO

Target Group	see C3 .1. R2
Estimated cost	815.000.000
Implementation period	6/2021.-8/2026.

C3 .1. R2-I2 Digital transformation of higher education

Challenge

see C3 .1. R2

Objective

This infrastructure investment addresses the problem of insufficient digital maturity of higher education institutions.

Description

Digital teaching infrastructure will include equipping higher education institutions on the basis of recommendations made by independent experts engaged in the European Commission Technical assistance Facility. The purpose of the investment is to provide the necessary educational infrastructure and open digital teaching resources for high-quality higher education, development and implementation of e-learning, online learning, active learning. Investing in digital transformation of higher education will help recover from the crisis and support long-term and sustainable development of higher education. The sudden transition to distance learning and teaching will be an opportunity and an incentive to develop high-quality digital tools and resources.

This investment includes the development of open digital teaching resources with the purchase of active equipment (equipment of classrooms with projection, computer, sound, video learning studies) and improvement of passive networks (lighting, optics, electrical installations, distribution panels, connectors, etc.) that will support new technologies and digital teaching resources.

Implementation

Elements of infrastructure investments to support new technologies and digital teaching resources:

- Network-LAN - Access to the network and educational resources for employees with reliable fast connection, at every teacher's desk, in every laboratory, in every institution. It consists of a passive network (wire), active equipment and electrical reconstructions.
- Network-WiFi – Access to the network for students using laptops, tablets, smart phones, in all learning rooms and other working and stay areas, in each institution. It consists of active equipment, electricity supply and power supply sockets for mobile devices.
- Equipping projectors, computers, sound system and other equipment of each lecture room in each institution.
- The purchase of cameras and audio equipment to record live classes in front of audiences.
- A small audio-video studio for recording lectures with sound insulation. It consists of video and audio recording, lighting, processing software.
- Professional audio-video studio for production of complex and more advanced

educational video content with several different recording rooms for 4 major Croatian universities (Zagreb, Rijeka, Split and Osijek).
- Central equipment used for archiving digital teaching resources at the central institution, SWEETHEART. It consists of a video server, a network content server and appropriate software.

Implementation holder	MZO
Target Group	see C3 .1. R2
Estimated cost	HRK 1,372,500,000
Implementation period	6/2021.-8/2026.

C3 .1. R2-I3 Reconstruction and expansion of educational infrastructure of higher education institutions

Challenge

In the academic year 2009/20202020/650 enrollment positions at the Faculty of Electrical Engineering and Computing of the University of Zagreb, 2087 graduates applied, which means that only 31% of registered graduates achieved enrolment. It is evident from the above that there is potential to increase the registration quotas, for which, among other things, resources should be provided for capacity expansion.

The proposed investments will stimulate a greater share of students, as well as greater completion in STEM areas through THE STEAM [9] approach. The orientation towards STEM areas is reform-based, taking into account the potential of STEM areas for the employability of individuals and economic development.

Objective

Ensure the enrolment of a larger number of students into study programmes in STEM areas.

Description

Appropriate substantive conditions for studying in STEM [8] areas imply investing in appropriate teaching resources. This investment will cover investments in teaching infrastructure for STEM areas to improve the quality of teaching and increase the capacity of higher education institutions and, consequently, enrolment quotas in STEM areas.

Implementation

Infrastructure investments relate primarily to the provision of modern classrooms, laboratories, and training rooms which will ensure the enrolment of a large number of students into study programmes in STEM areas. Based on the analysis of applications and the results of enrolment on study programmes, the Committee for Monitoring the implementation of the educational system reform will draw up recommendations for infrastructure investments.

MZO will:

- based on the analysis of insufficient educational infrastructure capacities, adopt the criteria for upgrading and reconstruction of existing ones, and building new ones,
- based on the above analysis, publish an invitation to higher education institutions to

participate in the realization of infrastructure projects - upon project approval, higher education institutions conduct public procurement procedures and ensure timely implementation of construction works.	
Implementation holder	The body responsible for implementation is MZO in cooperation with agencies in the education system. Involvement of other stakeholders in reform processes will be ensured through existing interdepartmental bodies and national councils.
Target Group	The investment covers higher education institutions, students, scientific-educational, teaching and non-teaching staff.
Estimated cost	HRK 2,250,000,000
Implementation period	6/2021.-8/2026.

C3 .2. Raising research and innovation capacity

Link with the European Semester and/or strategic documents and the context of the reform

Following the CSR, the Republic of Croatia should increase investments in research, development and innovation, because investments in research and innovation capacities, in basic and applied research, as well as in the application of advanced technologies are necessary in order to stimulate productivity growth. Although research and innovation are drivers of long-term productivity growth, it is hampered by fragmentation and inefficiency of research and innovation policies. Investments in R & D have increased (the share of R & D expenditure in GDP in 2019 was 1.11%) but their efficiency is still low, as expenditures of the R & D business sector are 0.49% and are among the lowest in the EU. The Republic of Croatia continues to lag behind in transforming the results of its top research into innovation and fails to fully mobilize research and technological capacities. Government Programme (priority axis 2 The prospective future, a competitive, vital and educated Croatia) recognizes the importance of investing in science and research and sets the goal of increasing investment in research and development from the current 1% to 2.5% of GDP.

Draft NRR (Strategic objective 1 “Competitive and innovative economy” the priority area of public policies “Development of Science and Technology” States that the transformation of the economy towards greater competitiveness, innovation and diversity depends greatly on the creation, absorption, use and dissemination of knowledge. Despite individual examples of excellence, the Croatian research sector has not yet reached its full potential in creating new ideas for innovation and entrepreneurship, and therefore the Republic of Croatia is low on the European Innovation success scale. These reforms were also proposed in the World Bank's analysis of the “public expenditure Survey for Science, Technology and Innovation” (2020), which presents a comprehensive analytical overview of public expenditure on science, technology and innovation, and the analysis and evaluation of public policies, focusing on their functionality, efficiency and governance mechanisms. Within the priority area, the NRR has defined policy priorities in the fields of science and technology, including: (i) reform of the science and academic science and research sector in order to achieve world standards of excellence and innovation creation; (ii) development of research capacity, focusing on human potentials in stem areas; (iii) continuous support to the innovation system to ensure its strengthening and sustainability through financial programmes for research, technological development and innovation, in particular in the fields of information and communication technology, artificial intelligence and robotics, bioand green technologies. These priorities are reflected through the measures proposed here and represent a lever for the implementation of the reform “raising research and innovation capacity”.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C3 .2. R1	Reform and capacity building for public science and research sector innovations

Challenge

Insufficient investment in research and development (far from the target of 1.4% of GDP from the Partnership Agreement) and poor productivity of scientific and research sector are the result of an outdated and inadequate system of financing and organization of universities and scientific institutes. The current system prevents the achievement of the full potential of the Croatian scientific and research sector and consequently scientific quality, efficiency of research for innovation and economic objectives, as well as knowledge transfer are still limited. The Croatian scientific and research sector produces too many poorly quoted publications (0.26 unquoted publications per scientist – most in the EU), and is behind in terms of the number of patent applications. Cooperation between science and industry in the Republic of Croatia is sporadic and stronger efforts are needed to connect research with the development of innovation. Only 1% of research and development in the public science and research sector is financed by enterprises, and cooperation between SMEs and universities is low (4% of Croatian SMEs collaborate with universities, unlike 10% in the EU). The current funding system based on the number of employed scientists is not encouraging for research excellence, for successful application of research, for stronger influence of science on society and cooperation between science and business sector. The current system is not incentive enough for the advancement of scientists and leads to a significant outflow of talented scientists abroad.

Objective

Implement structural and organisational reform of the public science and research sector in order to increase the quality, international visibility and impact of scientific research, strengthen targeted research and the impact of science on the development of innovation, economy and society. The purpose of the reform is to increase the efficiency and quality of research and to encourage targeted research focused on the business sector and innovation.

Description

The reform consists of two components: (I) the introduction of a new model for financing public research institutions through programme agreements introducing budget allocation objectives and criteria, and (II) the strengthening of institutional, infrastructure and organisational capacities of the scientific research sector in order to increase efficiency and create a stronger link between research results and the needs of the economy. The reform will encourage better and more influential publications (in accordance with the criteria or standards of each scientific field or disciplines), stronger cooperation of scientists on targeted research and greater openness of scientific infrastructure. The new system of financing scientific research activities and reorganization will thus stimulate increased excellence (citation and importance of publications), impact on the economy (number of patents, transfer of technologies and investments of enterprises in research) and overall influence of science on the development of society. The reform will consequently stimulate the increase of investments in R & D and the business sector because of the greater availability of research results and infrastructure to the business sector and the strengthening of the overall level of innovativeness of the Republic of Croatia.

Implementation

Component I includes the introduction of a new, more efficient model for financing the scientific research system through programme agreements which will be facilitated by the adoption of a new Act on Scientific activity and higher Education. The new Act will create a legal and financial framework for organisational and functional reform of universities and scientific institutes and enable dialogue on institutional goals and financing. The programme agreements will enable universities and scientific institutes to define their scientific and development goals and provide funds for their realisation, through related investments both from the state budget and the RDF. Scientific institutions engaged in significant and influential research through the new model will gradually allocate more public funds on the basis of transparent and commonly defined criteria based on results related to the objectives of an institution. The objectives on which the allocation of additional research funding will depend will include both a greater impact of research in the international context and a greater number of significant innovations for the economy. The analysis of scientific organizations would be determined on the basis of the results of scientific work and the achievement of set goals, and not just on the basis of the number of scientists employed, and would encompass a period of two years. The results of the implementation of the programme agreements will be monitored continuously, and after the two-year implementation period of the programme agreements, the results will be evaluated and based on the conducted evaluation a new cycle of programme agreements for the next implementation period will be determined. RRF would cover three cycles of programme agreements.

The institutions will define, among other things, programme objectives in science such as: strengthening human resources, consolidating scientific teams on high development potential topics, strengthening the quality management system, strengthening and establishing a technology transfer office, building a collaborative network with the economy, encouraging knowledge exchange through collaborative projects with the business sector, as well as conducting competitive competencies for awarding research projects for targeted strategic research within the institution. Through internal competitive tenders to be carried out by a scientific organisation with funding from the programme agreement, the capacities of scientists for applying to national research and development programmes foreseen by measure C3 .2 will be strengthened. R3, Horizon Europe and future programmes financed from the ESI Funds.

Component II encompasses institutional and organizational reform of universities and scientific institutes respecting university autonomy in dialogue with the entire academic community. The main focus will be on strengthening incentives for cost-effective and productive research, focusing research on strategic topics and determining a performance-based budget. The reform will encourage the modernisation of the Croatian scientific research system and enable the gathering of scientific, infrastructure and institutional capacities for stronger orientation and openness towards the business sector and the creation of significant innovations. This will enable greater scientific productivity using the same or less resources, less fragmentation of institutions and research groups and modernisation of the outdated management system which now relies on the decisions of collective bodies.

Implementation holder	The reform will be led BY MZO in close co-operation and dialogue with universities and scientific institutes.
Target Group	Universities and scientific institutes
Estimated cost	HRK 4,648,000,000 (investment)
Implementation period	1Q/2021.- 8/2026.

C3 .2. R2	**Creating a framework for attracting students and researchers in STEM and ICT areas**

Challenge

The conditions for the development and strengthening of human capacities in STEM and ICT in the science and research sector are a prerequisite for increasing society's readiness for digital transition. The Republic of Croatia is lagging behind in the number of researchers and at 0.7% in 2017, compared to the EU average 28 of 1.4%. Due to insufficient investments in young researchers, the entry of young researchers into the scientific community has not been sufficiently encouraged in the last decade. Although the annual number of graduates from natural and technical sciences in the Republic of Croatia (18.5%) grew close to the level of the EU-28 (19.3%), the number of researchers and experts is not sufficient to increase the share of services and knowledge-based products in the Croatian economy. The share of high-tech innovations in manufacturing and services is still too low to allow for digital transformation of the economy. There is a growing demand for various ICT specialists, especially in SMEs. At the same time, the percentage of highly qualified ICT specialists in Croatian companies is constantly decreasing, so that the Republic of Croatia ranked 25 th in the EU-28 in 2017. The lack of experts slows down the adoption of digital technologies and their integration into the economy and society.

Objective

Introduction of a new enabling framework for the advancement and development of researchers' careers in stem and ICT areas, in accordance with the specificities of scientific areas, with the aim of attracting foreign scientists from the EU and the world, as well as keeping young scientists from the Republic of Croatia, i.e. reversing the trend of “brain drain”. The aim of the new career framework for researchers is to increase the number and quality of researchers and experts in the scientific and consequently the business sector. Improved conditions for the career development of scientists include new enabling conditions for work in science and access to technological infrastructures for connecting science and entrepreneurship. They will enable the “spillover” of human capital from scientific institutions into the economy through the transfer of advanced technologies; cooperation between academic and business sectors through technological platforms and the development of high-tech start-ups and *spin-offs*. It is also necessary to make scientific careers more attractive through a clear, transparent and merit-based employment policy. STEM and ICT research will foster an interdisciplinary approach with social and humanistic sciences, which are expected to respond to social challenges and many consequences that the current crisis leaves for society and man.

Description

The measure consists of creating attractive institutional conditions for the development of careers and youth work, as well as those of experienced Croatian researchers and attracting quality scientists from the EU and the world (including diaspora) in the fields of natural sciences, technology, engineering and mathematics (STEM), information and communication technologies, as well as social sciences and humanities. The new conditions will enable employment, career progress and the salary system based on the principles of transparency and academic success.

Implementation

The activities are aimed at developing a system of incentives for human potentials and a more favourable scientific and research environment for students, young and experienced researchers in STEM and ICT areas.

These activities include:

- a new system of promotion based on excellence, which will enable improvement of the legislative framework (Act on Scientific activity and higher Education, which defines the system of scientific vocations, Act on quality assurance in Science and higher Education which should enable strengthening of the quality of doctoral studies and scientific institutions, Ordinance on conditions for selection in scientific vocations and other relevant regulations);
- creating attractive jobs by establishing a funding system for young researchers in STEM and ICT areas (doctoral, post-doctoral, start-ups, international mobility programmes),
- development of technological and innovation infrastructure for the development of new technologies, innovations and high-tech entrepreneurship including human potentials.

Implementation holder	The implementation will be coordinated by THE MZO in cooperation with the academic community, the National Council for Science, higher Education and technological Development (NVZAVVEGOD) and other competent national bodies.
Target Group	Students, researchers and SMEs.
Estimated cost	HRK 3,351,000,000 (investment)
Implementation period	1Q/2021.-8/2026.

C3 .2. R3	**Improving the efficiency of public investments in research and innovation**

Challenge

Fragmentation and inefficiency of research and innovation policies and lack of R & D & I investment results are one of the main causes of the difficult productivity growth observed in the CSR for the Republic of Croatia in 2019. Croatia's national innovation system seems relatively inefficient, limiting the impact of investment for research and development on increasing exports and economic growth. The amount of investments in research and

development necessary for a patent in the Republic of Croatia is over us $20 million and is far higher than in countries with similar levels of development (twice as large as in Slovenia). High investments per patent application reflect the dysfunctionality of the Croatian national innovation system and require changing the incentives system for research and development and innovation throughout the innovation cycle: from basic research, through applied and industrial research to experimental development and commercialisation of innovation. It is necessary to coordinate policies in order to enable better design, monitoring and evaluation of the national innovation system of the Republic of Croatia.

Objective

The reform aims at twofold: I) implementing a new and simplified R & I financing model, ii) revising the existing IRI policy framework “Policy mix”, aiming at excellence in research and innovation, and increasing its focus on green and digital transition. A more efficient and functional management model will be established which will enable the selection process to become faster and based on the results of the merit-based system. This may include reducing the number of institutions involved in managing and implementing research and innovation, reducing the steps in the grant award process and increasing transparency towards beneficiaries. Moreover, the critical element of the new programming framework will be a robust monitoring and evaluation system, fully in line with the objectives and indicators set out in the smart Specialisation Strategy.

The primary focus of the programme framework will be economic-oriented research and innovation programmes, such as applied research, experimental development, concept verification, technology transfer, industrial cooperation, etc. Among other things, this is complementary to the reform of C3 .2. R1 aimed at establishing a result-based framework for the research community. However, to achieve such results, implementation of measure C3 .2 R3 with a number of competitive research and innovation programmes is required.

Description

The measure envisages setting up and launching a smart, targeted and consistent investment policy in research, development and innovation through a new institutional framework for programme implementation that must be swift in terms of innovation processes and tailored to market needs.

Implementation

Implementation includes the adoption of the new Act on the Croatian Science Foundation which will enable the implementation of the adjusted programmes in accordance with the revised framework for financing research, development and innovation. The new framework will help competent institutions/agencies with greater efficiency to develop a sustainable economy through targeted research at different stages of technological readiness. Such research leads to new products and services, which is crucial for diversifying the economy thus increasing economic resilience and reducing the risk of negative effects due to external factors, such as THE CIVIL-19 epidemic.

Investments supporting the reform are elaborated below and consist of: (i) technical

assistance to establish a new institutional and programming framework for IRI policies, (ii) investments to be implemented through the new institutional framework.

Implementation holder	Implementation will be led by MZO in complementarity with activities to be implemented within the framework of measures related to the economy (Fostering investments in research, development and innovation).
Target Group	Scientists, universities, science institutes, science centres of excellence, entrepreneurs.
Estimated cost	HRK 1,684,500,000 (investment)
Implementation period	Preparatory actions have already begun through the project of the Ministry of Science and Education, implemented by the World Bank "overview of public expenditures for Science, Technology and Innovation". 2Q/2021.-8/2026.

(b) Investments

C3 .2. R1-I1	Developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development

Challenge

see C3 .2. R1

Objective

Improving the financing of scientific work of universities and scientific institutes.

Description

Investments will focus on direct scientific and research activities of universities and scientific institutes through new programme agreements, with the aim of improving the financing of scientific work of universities and scientific institutes.

Implementation

The programme agreements will introduce criteria that directly depend on the results and quality of scientific work: influential publications, technology transfer and targeted cooperation with the economy. The programme agreements will strengthen the science budget of those scientific organisations that will strengthen excellence and openness towards the business sector, innovation and social development, and this investment will provide additional funding for the work of universities and scientific institutes that will conclude programme agreements. Investments will be used for: institutional projects for strategically targeted research related to the topics of smart specialisation, incentives for scientific excellence, building a network for cooperation with the business sector, establishing a technology transfer system, strengthening quality management and other purposes which will be determined according to the programme objectives of individual institutions. Investments will encourage universities and scientific institutes to participate in

the new institutional funding model through programme agreements and consequently strengthen their own management and efficiency system.

The estimated cost represents an increase in the amount of institutional funding so far from the state budget for universities and institutes over two (2) years over three cycles. This will create an incentive for institutions to adapt more easily to a new results-oriented funding model. The investment also includes technical assistance for the data collection system the preparation of programme agreements and the evaluation of implementation results on the basis of which a new funding cycle will be determined. Funding provides funding for the implementation of the first cycle of the two-year work of scientific organisations (starting in 2021) through new quality-based programme agreements, and in accordance with implementation results it will be adjusted for the next funding cycle. Three financing cycles are planned through RRF.

Examples of investments: university programmes for inter-faculty projects from smart specialisation topics, technology transfer projects.

Implementation holder	MZO
Target Group	see C3 .1. R1
Estimated cost	HRK 1,373,000,000
Implementation period	1/2021.-7/2026.

C3 .2. R1-I2	**Strengthening the institutional capacity of universities and research institutes for innovation**

Challenge

Scientific and technological infrastructure should contribute to better linking scientific organizations in the process of discovering new insights in R & D & I activities with economy, education and development of society as a whole.

Objective

Creating optimal conditions for increasing scientific excellence and effects on the economy and the development of society.

Description

Support is envisioned for strengthening the institutional capacity of universities and scientific institutes for innovation and technology transfer. Capacity building includes reorganisation and financing of the necessary science and technology infrastructure that contributes to focus on strategic research for the economy and innovation (for example: technological infrastructure, technological platforms and technology transfer capacities). The investment will be based on a strategic approach to the development of research and technological infrastructure so that researchers and the economy can make optimal use of it, then to ensure the justifiability of the investment, and to encourage and accelerate stronger involvement in European research infrastructures (particularly pan-European) and

thus in the European Research area.

Implementation

The implementation of this reform is based on the stock of infrastructure projects collected by MZO as PT1 under OPCC 2014-2020 through the call for grants “Preparation of IRI infrastructure projects”. The invitation is intended for the development of project documentation necessary for the implementation of infrastructure projects in the R & D & I sector in order to accelerate the “process of transformation of Croatian scientific organizations into internationally competitive scientific institutions that create new scientific, social and economic value”. Based on project proposals from this call, the amount necessary for infrastructure investments related to organisational reform has been estimated. The financing of infrastructure that will enable the implementation of organisational reform will include project proposals of those institutions that will introduce a new model for financing universities and scientific institutes, and can be implemented by 8/2026 (preparation of project and technical documentation and investment in infrastructure works).

Examples of investments: University of Zagreb Science and Technology Centre (Borongaj), University of Zagreb Biology Research Centre (PMF), Centre for institutions of socio-humanities in Zagreb.

Implementation holder	MZO
Target Group	see C3 .2. R1
Estimated cost	HRK 3,275,000,000
Implementation period	9/2021.-12/2025.

C3 .2. R2-I1 Development of an incentive model for career advancement for researchers

Challenge

see C3 .2. R2

Objective

It is planned to develop and introduce a new encouraging framework and a system of incentives for career promotion and career development of researchers, in accordance with the specificities of scientific areas.

Description

Incentives are envisaged (scholarship schemes, mobility, etc.) for attracting and maintaining human capacity (especially assistants and post-doctoral students), strengthening skills for the stem and ICT areas, as well as through the STEAM approach, mobility programmes, establishing independent research careers of scientists in internationally competitive and targeted research at high levels of technological readiness (TRL 3-6), but also in the areas of interdisciplinarity, multi and cross-disciplinarity.

Implementation

The estimated cost includes scholarships and recruitment of young researchers for the purpose of carrying out research activities and obtaining a doctoral degree in science, recruitment and scientific training of researchers – post-doctoral, career building programmes in science and mobility incentive programmes, and is based on the assessment of investments made so far in the system of scientific recruits and human resources assessment for similar programmes (funds include technical assistance for the establishment of programmes). Implementation of this reform will provide an estimated HRK 100 million annually for 300 new young researchers per year.

Examples of investment: scholarship programme for doctoral studies, scholarship programme for postdoctoral studies, international mobility, career development programmes.

Implementation holder	MZO
Target Group	see C3 .2. R2
Estimated cost	HRK 388,500,000
Implementation period	1/2021.-7/2026.

C3 .2. R2-I2 Enabling conditions for strengthening students and researchers' skills and conducting top scientific research in STEM and ICT areas

Challenge

see C3 .1. R2

Objective

see C3 .1. R2

Description

Targeted funding of research and development projects of young researchers, *start-up* projects and financing of strategic scientific, technological and innovation infrastructure in STEM and ICT areas is planned (preparation of documentation and infrastructure investments).

Implementation

Investments will create opportunities for digital transformation, particularly in the field of artificial intelligence and cybersecurity, with an emphasis on promoting green and digital innovation and technology infrastructure (but also infrastructure in other areas, such as digital humanities). This will include cooperation between academic and business sectors and develop infrastructure for applied and targeted research at high levels of technological readiness. Furthermore, the establishment and upgrading of innovation and technology infrastructures will be encouraged on the principles of open innovation which will directly foster clean technologies and green and digital transition areas. Investment and management of research infrastructure will be organized rationally and coordinated in

order to avoid its poor use and spending of public funds in vain. Based on communication with the scientific community and expressions of interest, several proposals of strategic importance and high research potential for STEM and ICT areas directly contributing to the implementation of the reform have been identified. In addition, the investment envisions investing in other scientific and technological infrastructures in these areas.

Examples of investments: Nikola Tesla Zagreb Innovation Centre, Novska industry Gaming Center, Osijek livestock and Biotechnology Technology Technology Centre, Croatian quantum communications infrastructure.

Implementation holder	MZO
Target Group	see C3 .1. R2
Estimated cost	HRK 2,962,500,000
Implementation period	1/2021.-7/2026.

C3 .2. R3-I1 Introducing a more functional programme framework for project financing for research, development and innovation

Challenge

Based on the established fragmentation and inefficiency of the current investment policy in the IRI system, a in-depth analysis of the functionality and efficiency of the existing IRI programmes has been carried out and new programmes with a focused and more functional financing framework for research-development and innovation projects will be proposed.

Objective

see C3 .2. R3

Description

The investment implies the design of new R & D programmes that take into account all the difficulties and shortcomings observed so far and are better designed and better focused on achieving goals.

Implementation

The new programmes must be mutually coordinated and adapted to the needs of the scientific and business community, taking into account the specificity of the innovation cycle for different levels of technological readiness, thus achieving the impact of research results for the needs of economic growth. Programmes should encourage business investments in research and development, facilitate cooperation between science and industry and bridge the financial gap existing in early stages of innovation.

The amount necessary for the analysis and creation of proposals for new programmes is based on previous experience and the amount contracted to carry out similar small scale analyses.

Examples of investments: Technical assistance

Implementation holder	MZO
Target Group	see C3 .2. R3
Estimated cost	HRK 12,000,000
Implementation period	1/2021.-12/2021.

C3 .2. R3-I2	**Implementation of the Innovation Research and Development Programme for scientific excellence in the areas of green and digital transition in cooperation with the business sector**

Challenge

see C3 .2. R3

Objective

see C3 .2. R3

Description

This investment covers the implementation of improved and adjusted competitive R & D & I programmes with a high level of technological readiness aimed at developing new products, services, technologies and improving business processes. In addition, it is important to ensure access to appropriate research and technological infrastructures that will enable quick development and testing of innovations for successful entry into the market. Investments shall, in accordance with the proposal from the previous measure, create and strengthen grants and financial instruments for investments in R & D & I and finance projects at all stages of the innovation cycle, enabling the smooth development of the innovation system.

Implementation

Funded projects will include targeted basic and applied research, experimental development, initial funding of innovation and proving concept and prototype development. Programmes to be implemented are either programmes that could not be financed by ESIF due to a complex management and control framework or new programmes with a particular focus on thematic areas are defined in the smart Specialisation Strategy, including green and digital transition. For example, projects to prove the concept and transfer of technology require greater assistance for beneficiaries in the process of preparation of application and implementation of projects. Namely, future users will face a new way of thinking, in which researchers should think about commercially viable research, and entrepreneurs (usually small and young companies[44]) about new products and services. In order to encourage beneficiaries to participate in such programmes, the institutional framework established must be simple and flexible, but with results-based selection procedure. The investment includes funds for the implementation of new research, development and innovation programmes, and the amount is based on previous financial amounts for investments in R & D & I projects and potential for such projects through the number of applications in other tenders, and includes smaller infrastructure

44The Ministry of Science and Education has experience with economically oriented programmes (proving concept), cooperation between the scientific and business sectors (transfer of technology) and research excellence (Fund "Unity with the help of knowledge"). In addition to experience so far, these programmes of this kind have also been fully elaborated and improved in the report "overview of public expenditures for science, technology and innovation: analysis of the theory of change and the framework of results", contracted by the Ministry of Science and Education and delivered by the World Bank in 2020.

interventions.

Examples of investments: programs for financing scientific research projects, applied research, proving concept, transfer of technology, and in accordance with the proposal of the analysis (new programming framework).

Implementation holder	MZO
Target Group	see C3 .2. R3
Estimated cost	HRK 1,672,500,000
Implementation period	6/2021.-7/2026.

The table below illustrates the example of the IRI programme to be financed through C3 .2. RS-2.

The list of results and outcomes is not complete and should also contain other elements resulting from the theory of change for those programmes to be awarded as grants. For easier and easier understanding, the table provides a subset of software elements.

Program name	Programme objective	Result indicator	Output Indicator	TRL phase	Eligible beneficiaries	Allocation
Proof of the concept for SMEs	Increased development of new products and processes due to improved IRI capacities of companies	Increased IRI capacities of companies	Increased IRI workforce in enterprises; increased availability of advisory services and support for innovation; improved availability of funds for business IRI activities	3, 4	SMEs	EUR 20 million
Targeted scientific research	Increased development of new technologies, products and processes due to applied research activities in scientific organizations	Increased capacities of scientific organizations for conducting high-quality applied and industrial research	Increased workforce engaged in research and development activities; increased capacity building support to improve knowledge and skills; increased availability of funds for the implementation of research and development activities	1,2, 3, 4	Scientific organizations and enterprises	EUR 100 million
Technology transfer	Increased number of technology transfer processes at higher education institutions and scientific	Increased transfer of R & D results to the economy	Increased access to IP support services; increased access to business development support services	n/p	Scientific organizations and enterprises	EUR 10 million

	organisations		(e.g. business planning, strategies, creation of new companies, product development); increased access to support services for commercialisation (e.g. licensing, contracting, negotiating and preparing commercialisation agreements)			
Cooperation between scientific and business sectors	Pursuit of industrial research activities by the KICs that meet market needs and promote cooperation with enterprises	Increased cooperation between scientific organizations and enterprises, increased number of new technologies in application	Increased cooperative activities between scientific organisations; increased knowledge transfer and technology activities; increased research activities applied targeting market needs	4, 5, 6, 7, 8	Scientific organizations, researchers and enterprises	EUR 30 million
Scientific cooperation	Enhanced IRI potential of Croatian researchers, thanks to increased cooperation between excellent domestic and foreign researchers that enables knowledge transfer and attracting business investments to Croatian scientific organizations	Improved cooperation within the scientific community, increased number of new technologies in application	Enhanced mobility for national and international cooperation; increased cooperation between Croatian and foreign scientific organisations; increased collaborative research activities between scientific organizations and companies	1, 2, 3, 4	Scientific organizations and enterprises	EUR 15 million

14. Green and digital dimension of the component

C3 .1. Reform of the education system

(a) contribution to the green transition

Proposed reforms in the education system imply investments in public infrastructure, which will also imply an increase in energy efficiency of buildings contributing to the achievement of the green transition objectives.

(b) contribution to digital transition

Proposed reforms in the education system imply investments in public infrastructure, which will include investments in the digital infrastructure of higher education institutions that will contribute to the achievement of the objectives of the digital transition.

C3 .2. Raising research and innovation capacity

(a) contribution to the green transition

As an implementing mechanism of the proposed reforms in the scientific research system, investments in clean energy projects will be encouraged, as well as projects aimed at developing smart mobility, biodiversity conservation, encouraging sustainable industry models and developing new green technologies and materials. Planned infrastructure projects and research projects that will contribute to the reforms will have to meet the criteria for reducing CO2 emissions, encouraging intelligent and innovative solutions (e.g. use of existing and new alternative energy sources, new materials, etc.).

All scientific projects must comply with national and European energy efficiency regulations. Projects must meet the principle of increasing energy efficiency by enabling the production of an equal amount of results by using a smaller amount of input energy (by measuring and/or estimating consumption before and after the implementation of the energy efficiency improvement intervention). This result is expressed in the indicator measuring the total annual energy savings achieved. Projects will also be led by the “do no harm” principle prescribed by the Green Plan.

(b) contribution to digital transition

Through the implementation mechanisms of proposed reforms in the scientific research system, during the implementation of projects we will insist on obligatory digital development of research organizations and universities in order to facilitate communication of remote researchers and enable faster processing of large data necessary in the new era of scientific research. It is necessary to digitalise databases in order to strengthen administrative capacity in terms of monitoring progress in the research sector, and this will also create preconditions for targeted proposing of new policies to improve the scientific system.

The projects will be in line with the principles of the European Digital Strategy and will contribute to increasing the digitisation of work/business and administrative processes of scientific and educational institutions (measured by the ratio of digitised processes before and after intervention implementation).

15. Milestones for the implementation of reforms and investments

C3 .1. Reform of the education system	
(a) qualitative indicators	
- by the end of 1Q/2021, the adult Education Act was adopted	C3.1.R1
- by the end of 4Q/2022, the primary and Secondary school Education Act was amended	C3.1.R1-I2
- by the end of 3Q/2021, amended Regulation to increase the number of preschool education classes for children aged one year before leaving for school (September 2021)	C3.1.R1-I1
- by the end of 1Q/2021, the Act on Amendments to the Croatian qualifications Framework Act was adopted	C3.1.R2
- new Ordinance on the register of the Croatian qualifications Framework was adopted by the end of 2Q/2021	C3.1.R2
- by the end of 4Q/2021, the Act on Scientific activity and higher Education was amended	C3.1.R2
- by the end of 1Q/2021, the Ordinance on records and Data collections in higher Education was adopted	C3.1.R2-I2
- by the end of 2Q/2023, the Ministry of Science and Education information system for keeping central records in higher education was completed.	C3.1.R2-I2
(b) quantitative indicators	
- by the end of 8/2026, 80% of primary school students attend one shift classes	C3.1.R1
- by the end of 8/2026, 30,000 new enrollments were built in pre-school institutions	C3.1.R1
- by the end of 8/2026, the share of students attending gymnasium programmes was 40%.	C3.1.R1
- by the end of 8/2026, new 1750 accommodation units were built in student dormitories	C3.1.R2
- by the end of 8/2026, all public institutions of higher education were equipped with digital infrastructure and/or equipment	C3 .1. R2-I2
C3 .2. Raising research and innovation capacity	
(a) qualitative indicators	
- by the end of 4Q/2021, a new Act on Scientific activity and higher Education was adopted	C3.2.R1
- by the end of 3Q/2022, a new model for reorganisation and financing of universities and scientific institutes was adopted and programming agreements prepared	C3.2.R1
- by the end of 3Q/2021, a new Act on the Croatian Science Foundation was adopted	C3.2.R2
- by the end of 3Q/2022, a new Act on quality assurance in Science and higher Education was passed with a new quality assurance system for doctoral studies	C3.2.R2
- by the end of 3Q/2022, a new Ordinance on conditions for selection into scientific and scientific-educational titles was adopted	C3.2.R2
- by the end of 1Q/2022, a revised programme framework for financing research, development and innovation was adopted	C3.2.R3
- by the end of 2Q/2022, launch new tenders in accordance with the new programme framework for financing research, development and	C3.2.R3

innovation in the Croatian Science Foundation and other institutions of the innovation system	
(b) quantitative indicators	
- by the end of 3Q/2025, at least 75% of universities and scientific institutes have signed new programming agreements	C3.2.R1-I1
- by the end of 4Q/2023, five (5) reorganisations were carried out at university and scientific institutes	C3.2.R1-I2
- by the end of 1Q/2024, five (5) contracted infrastructure projects	C3.2.R1-I2
- by the end of 4Q/2021, five (5) prepared programmes enhancing skills in STEM and ICT areas	C3.2.R2-I1
- by the end of 4Q/2023, two hundred (200) scholarships were awarded to strengthen skills in the STEM and ICT areas	C3.2.R2-I2
- by the end of 1Q/2024, five (5) contracted infrastructure projects	C3.2.R2-I2
- by the end of 1Q/2025, seventeen (700) supported projects	C3.2.R2-I2
- by the end of 1Q/2026, one thousand five hundred (1500) FTE researchers involved in programme implementation	C3.2.R2-I2
- by the end of 4Q/2025, one hundred thirty (130) supported cooperation projects	C3.2.R3-I2
- by the end of 4Q/2025, three hundred (300) supported enterprises	C3.2.R3-I2
- by the end of 1Q/2024, five (5) contracted infrastructure projects	C3.2.R3-I2

Monitoring and evaluation Framework

In addition to the above mentioned indicators related to the approval of expenditure, a robust monitoring and evaluation framework will be established to monitor the results and outcomes of interventions. Also, several selected impact evaluations will be carried out. These activities have already started MZO[45], and budgetary financing and ESI Funds will be taken into account. For example, impact-level objectives going beyond the interventions foreseen BY THE NPO financing will be monitored, which are listed below:

- by the end of 4Q/2026, the share of scientific publications increased among 10% of the globally most quoted publications from 3.55% to 5.2% (C3.2.R1)
- by the end of 4Q/2026, increased quality of research results (publication) and performance of the entire research sector measured by increasing the national h-Index from 287 to 327 (C3.2.R1)
- by the end of 4Q/2026, the number of students of tertiary education from natural sciences, mathematics, computer science, engineering, measured per 1000 inhabitants aged 20 to 29, increased from 18.6 to 22.0 (C3.2.R2)
- by the end of 4Q/2026, the increase in the value of export of knowledge-based services measured as a percentage of the total export of services will be 23.6%, compared to the current 20.9% (C3.2.R3)
- by the end of 4Q/2026, increased private sector investment in R & D, which will show the ratio between BERD and GERD in the percentage of 55.2% from the current 48.45% (C3.2.R3)
- by the end of 4Q/2026, the number of PCT patent applications increased to one billion of GDP from 0.45 to 0.6 (C3.2.R3)
- by the end of 4Q/2026, the increased value of the aggregated innovation index as a percentage of the EU value comprising 27 reference sub-indicators measuring the

45See above footnotes referring to the report “review of public expenditures for Science, Technology and Innovation: analysis of the theory of change and framework of results”, contracted by the Ministry of Science and Education and delivered by the World Bank in 2020.

performance of the country's innovation system from 58,8% to 77,7% (C3.2.R3)

These indicators were developed through two steps:

(i) the first step analyses historical data for each selected indicator used to extrapolate the forecast until 2026. Predictions are based on linear regression and include the upper and lower confidence limits based on the 95% confidence interval.

(ii) in the second step, the envisaged values have been adjusted to take account of the reform scenario, taking into account the expected effects and the timeframe of the reform. For example, the medium-term target value for indicators measuring the increase in citations of scientific publications has not been offered, as this indicator takes several years to collect and stand up. Another example of patent applications is the historical trend of the decline of patent applications in the Republic of Croatia, so the value of the forecast has been changed to show a growth trend taking into account planned reforms and investments, which should reverse this trend. The predicted values were also compared with data from other countries and adjusted as appropriate.

16. Financing and costs

C3. Education, science and research			
Total estimated investment value for the component (HRK)			**22.821.000.000**
C3 .1. Reform of the education system			
Total estimated investment value for the subcomponent (HRK)			**13.137.500.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C3 .1. R1-I1	Construction, upgrading, reconstruction and equipping of preschool institutions	7/2021. 8/2026.	2.700.000.000
C3 .1. R1-I2	Construction, upgrading, reconstruction and equipping of primary schools for the purpose of one-purpose work and whole-day instruction	7/2021. 8/2026.	4.250.000.000
C3 .1. R1-I3	Construction, upgrading, reconstruction and equipping of secondary schools and pupils' homes	7/2018. 8/2026.	1.750.000.000
C3 .1. R2-I1	Reconstruction and expansion of student dormitories and accompanying sports infrastructure	6/2021. 8/2026.	815.000.000
C3 .1. R2-I2	Digital transformation of higher education	6/2021. 8/2026.	1.372.500.000
C3 .1. R2-I3	Reconstruction and expansion of educational infrastructure of higher education institutions	6/2021. 8/2026.	2.250.000.000
C3 .2. Raising research and innovation capacity			
Total estimated investment value for the subcomponent (HRK)			**9.683.500.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C3 .2. R1-I1	Developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development	1/2021. 7/2026.	1.373.000.000
C3 .2. R1-I2	Strengthening the institutional capacity of universities and research institutes for innovation	9/2021. 12/2025.	3.275.000.000
C3 .2. R2-I1	Development of an incentive model for career advancement for researchers	1/2021. 7/2026.	388.500.000
C3 .2. R2-I2	Enabling conditions for strengthening students and researchers' skills and conducting top scientific research in STEM and ICT areas	1/2021. 7/2026.	2.962.500.000
C3 .2. R3-I1	Introducing a more functional programme framework for project financing for research, development and innovation	1/2021. 12/2021.	12.000.000
C3 .2. R3-I2	Implementation of the Innovation Research and Development Programme for scientific excellence in the areas of green and digital transition in cooperation with the business sector	6/2021. 7/2026.	1.672.500.000

6.

COMPONENT LABOUR MARKET AND SOCIAL PROTECTION

3. Component Description

Policy area		
Early, pre-school and secondary education Acquisition of fundamental competencies	Social welfare Pension system	Reduction of poverty and social exclusion Development of community services

General objective

1. Keeping workers in employment and further increasing the employment rate, creating conditions for creating new jobs and further reducing the unemployment rate.

2. Improving the social welfare system by reducing the risk of poverty and social exclusion and developing and accessing social services for particularly vulnerable groups and implementing employment measures and fostering lifelong learning in order to adapt to labour market needs.

Reforms and investments covered by the component

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future	
Reforms	
C4 .1. R1	Improving labour legislation
Investments	
C4 .1. R2-I1	Economic transition measures for competitiveness and employability of the labour force in the economy of the future
C4 .1. R3-I1	Establishment of a voucher system for education of employed and unemployed persons
C4 .1. R4-I1	Digitization and computerization of Croatian Employment Service (CES)
C4 .2. Development and improvement of the pension system	
Reforms	
	Planned investments are also reforms.
Investments	
C4 .2. R1-I1	Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)
C4 .2. R2-I1	Digitization of the Archives of the Croatian Institute for Health Insurance (eArchives)

C4 .3. Improving the social welfare system	
Reforms	
	Planned investments are also reforms.
Investments	
C4 .3. R1-I1	Digitalisation of the system and linking social welfare centres and social service providers
C4 .3. R2-I1	Prevention of institutionalization and development of community services in support of the process of deinstitutionalisation
C4 .3. R3-I1	Improving the quality of life of the elderly by increasing the capacity of accommodation
C4 .3. R4-I1	Improving the infrastructure of social welfare centres, family centres and other social services providers

Contribution	**A green transition**	**The digital transition**
	40%	100%
Total estimated investment value for the component		**HRK 7,353,202,296**
Share of the total plan		7%
Estimated investments per year and sources of financing		see Annex 3.
Impact assessment		Annexes 4a, 4b and 5 (to be developed)
Response to CSR		see Annex 1.
Contribution to other parts of NPOO		see Annex 1.

17. Main challenges and objectives addressed under the component

The Republic of Croatia should be a safe and strong state in which everyone is ensured the right to work, adequate salaries and pensions, age of dignity and social protection. Guided by solidarity, the government will work to stimulate employment, further raise wages, pensions and financial aid, particularly by caring for the most vulnerable groups of society. In order to contribute to the increase of efficiency and efficiency of CROQF operations, new information and communication technologies will be implemented, all with the aim of increasing the level of service quality for end users. The digitisation of the process aims to achieve the possibility of exercising all social and pension rights, as well as *online* applications for active labour market policy measures online.

Proposed reforms and investments will contribute to: a competitive and innovative economy, improving the quality of life and strengthening social cohesion, increasing the overall employment rate (from 66,7% to 70% by 2024), creating the conditions to create at least 100,000 new jobs with a specific focus on under 30 years of age and self-employed, strengthening employment measures and strengthening labour market institutions, improving their cooperation with social services, improving access to education and training, and their quality and relevance to the labour market (increasing participation in lifelong learning to 4% by 2023).

The social welfare system takes care of about 650,000 users through the exercise of various rights and services. The key institution in the social welfare system is the Centre for Social Welfare, which has 82 in the Republic of Croatia, and 56 branches, of which 20 are branches of family centres. The centres employ about 2,500 experts. About 34-40% of social welfare centres need to be built and/or adapted/or equipped, thus ensuring safe work and quality services for users. By 4Q/2022. 200 experts will be licensed to implement family-legal protection measures that measure family-legal protection, which are pronounced as prevention of child institutionalisation and assistance to families at risk. 100 immediate guardians will be licensed to protect the most vulnerable groups of citizens, people who are not capable of taking care of themselves and protecting their rights and interests, which simultaneously prevents the institutionalization of users. Procedures will be standardised and additional experts employed, which will increase the quality of service and ensure availability.

FOR EXAMPLE, as regards the improvement of social services, it States that they are insufficiently developed and fragmented. In order to improve accessibility, accessibility, affordability and quality of social services for the elderly and to harmonize the family and business life of persons caring for the elderly, it is necessary to improve the system of social services for the elderly. Furthermore, the Government Programme foresees that the care system for the elderly and the infirm will be improved by introducing criteria, standards and quality control of accommodation care. In order to increase the quality of life of the elderly, in synergy between the state and municipalities, towns and counties, accommodation capacities for the elderly and the infirm will be increased.

By providing services for elderly persons in need of long-term care, the Republic of Croatia will approach the European percentage of coverage of elderly persons in need of care (5%).

(a) main challenges

2. A low employment rate of 66.7% (2019) is one of the lowest in the EU.

34. Low participation in adult life-long education of 3.5% (2019) is one of the lowest in the EU.
35. Significantly outdated business processes of the Croatian Institute for Health Insurance, as well as information systems supporting them.
36. The lack of accommodation services for the elderly who require long-term care in the Republic of Croatia covers 3.68% of the population of the elderly, while in the EU they cover 5% of the population of the elderly.
37. Lack of experts and unstandardised professional practices in the protection of children, youth and families at risk and persons with disabilities

(b) objectives

AD1. Created conditions for creating as many jobs as possible, thus increasing the general employment rate to 70% by the end of 2024.

Ad2. Easier access to adult education with the aim of increasing participation in lifelong learning to 4% by the end of 2023.

A3. Increased efficiency and efficiency of HZMO's work through modernization of it system and basic business processes, which contributes to a higher level of quality of services provided to users.

AD4. Additional accommodation capacities for elderly persons in need of long-term care are provided.

AD5. Ensure the employment of new experts for the provision of non-institutional services, education and licensing of heads of family-legal protection measures and direct guardians and benefits for their work, which directly affects the prevention of institutionalisation.

18. Description of reforms and investments by subcomponents

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future

Link with the European Semester and/or strategic documents and the context of the reform

Within the main objectives, the Government Programme underlines the importance of preserving jobs and social security. To this end, it is stated that an efficient, developed and regulated labour market will be ensured by further strengthening labour market institutions. Special emphasis will be placed on linking the labour market with the education system and the development of skills needed in the labour market. Active labour market policy measures will be improved in order to adequately respond to future trends in the labour market due to labour market changes caused by the emergency situation and to stimulate job creation in sectors crucial to the green and digital transition. A system or model for acquiring skills of employees and unemployed persons (*reskilling/upskilling*) will be developed in accordance with the needs of the economy and through the proactive role of the Croatian Employment Service (CES). This will ensure that any person who, due to lack of skills, cannot find employment, or is threatened by loss of skills, gets the opportunity to be competitive in the labour market. In the context of these outcomes, the CES will be restructured and adapted to users' needs.

The draft NRR (within the development direction starting the economy and encouraging private investment) highlights that investments will focus on: adapting labour markets to jobs of the future by developing skills for smart specialisation, industrial transition and entrepreneurship; increasing labour market activities and implementing employment policies adjusted to labour market developments. In doing so, a coherent and prospective labour market has been singled out as a special priority area of public policies under the NRR (strategic objective “educated and employed people”). In this context, policy implementation priorities include improving market policies, in particular the strengthening of active employment policies and other programmes encouraging labour market inclusion, achieving greater alignment of people's skills with labour market needs, improving skills and knowledge of the working age population, with a focus on entrepreneurial and digital skills and strengthening the capacity of labour market institutions to provide quality services to users.

Strengthening active labour market policy measures, education, training and skills acquisition in accordance with labour market needs, as well as strengthening the capacities of CES are also part of the CSR. Specific recommendations for 2019 and 2020 (CSR 2) It is emphasised that it is necessary to: strengthen labour market measures and institutions …. Increase access to digital infrastructure and services. Promote acquisition of skills. Specific recommendations for 2019 and 2020 (CSR 2) It is highlighted that there is a need to: … improve access to education and training at all levels and their quality and relevance for the labour market. … strengthen labour market measures and institutions and improve their cooperation with social services. …

Also, the implementation of measures under the reform will contribute to the further growth of employment rates, which is one of the objectives of the EU 2020 strategy. Although the employment rate reached 66.7% in 2019, the Republic of Croatia is still significantly below the EU average (EU-27) of 73.1% in terms of this indicator. Also, the measures are linked to the objectives of the UN Sustainable Development Programme, in particular objective 8. Promote sustainable and inclusive economic growth, full and productive employment and

decent work for all.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C4 .1. R1 Improving labour legislation

Challenge

In challenging circumstances present on the labour market, especially due to technological development, digitization of business processes and the emergence of new forms of work, there is a need for modern legal Regulation or creation of a quality legal framework that will stimulate entrepreneurial activities, reduce the administrative burden on labour and ensure dignified working conditions with maximum protection of workers. Also, the unexpected outbreak of THE CIVIL-19 pandemic, as well as other extraordinary circumstances, further pointed to certain weaknesses in the legal framework governing the area of labour relations, including the Regulation of minimum salaries. In addition, the problem of undeclared work is one of the factors limiting positive changes in society, affecting economic stability, disturbing market balance and breaching the competition of unequal employers as economic subjects of registered and undeclared workers.

Objective

It is planned to open a wide discussion with social partners, as important policy makers in the Republic of Croatia, on the need to redefine labour legislation, with the aim of creating a modern legal framework that will encourage innovative forms of work, such as house work or distance work, in order to stimulate demographic revitalisation of the Republic of Croatia through a better balance of business and private life. It is also necessary to modernise the legal framework of the minimum wage in order to further protect the most vulnerable groups of workers, and to prevent unwanted social phenomena reflected in the high share of undeclared work or informal economy.

Description

Modernisation of labour legislation is a part of the government's programming policy. The basis of this measure, in cooperation with social partners, is to redefine the Labour Act[46] and the minimum wage[47] Act. Implementation of this measure, on the one hand, contributes to the preservation of existing and job creation, and strengthens the safety and employability of workers, and on the other hand, flexibilisation of certain legal institutes contributes to the competitiveness of employers and the preservation of their economic activity.

Implementation

A particular challenge is to enable persons in the illegal labour market to move to formal forms of employment and to provide them with adequate security now, as well as adequate incomes in the future through a deserved pension based on the work experience. Improved employability and ensuring the development of knowledge, skills and competences certainly also includes the suppression of undeclared work as one of the negative indicators of the state of society. The role of several state administration bodies is important, which can influence positive changes in this area only through a coordinated

46 OG 93/14, 127/17 and 98/19

47 NN 118/18

approach to the fight against undeclared work.

Therefore, he has recognized, for EXAMPLE, the importance of suppressing undeclared work and minimising the risk of such occurrences, and is with goal 1. Sustainable economic growth and development, established reform priority 1.1. Improving the business environment, which will establish mechanisms to provide an enabling environment for the transition from the sphere of undeclared work and unregistered activities to the legal framework. In this regard, it was adopted that a strategic document for the suppression of undeclared work, together with the corresponding action plan for the implementation thereof, will be adopted.

Based on the National Programme for Combating undeclared work 2021-2024, a series of activities will be implemented in the field of combating undeclared work. Implementation of measures implies investing in human resources by strengthening the knowledge and competences of stakeholders in the world of work, as well as competent institutions that supervise them, creating common databases for effective monitoring of the implementation of regulations and establishing appropriate mechanisms to ensure the reporting of work. An enabling environment will be provided for the transition from illegal to legal frameworks, while covering all obligations of economic operators. At the same time, a strong emphasis will be placed on raising public awareness of the benefits from lawful work, and as the most important measure is the adoption of a special law which will define undeclared work in all its forms of appearance and for the purpose of legal Regulation of the actions of bodies involved in the fight against undeclared work. The implementation of planned activities positively affects the preservation of jobs, the employment system and ensures a stable economic environment.

Therefore, the adjustment of policies to new trends in the labour market in terms of amendments to the general regulations governing labour relations in the Republic of Croatia, amendments to regulations governing the minimum wage, and the adoption of a strategic document and special regulations influencing unwanted social phenomena of undeclared and partially undeclared work are the objectives to be pursued in order to create the opportunity for quality, sustainable and adequately paid employment for all.

Furthermore, due to a long-term continuous decline in fertility rate, population ageing, long-term experience of early retirement and relatively high emigration rate after the accession of the Republic of Croatia to the EU, there have been negative trends in the labour market which are reflected in the reduction of the working active population, with a low labour activity rate especially expressed in young people and women. An additional challenge for the labour market in the Republic of Croatia was brought about by the global health and economic crisis caused by the civil-19 disease pandemic, and the mentioned vulnerable groups were hit the same. Therefore, by adapting labour legislation to new circumstances and fighting undeclared work, it is necessary to improve the functioning of the labour market in order to increase the chances of creating new jobs and exploiting opportunities arising through new forms of work, which will ultimately contribute to the demographic revitalisation of the Republic of Croatia.

The planned deadlines for adopting the novelties of the aforementioned acts are 3Q/2021 for the minimum wage Act and 3Q/2022 for the Labour Act.

The planned deadline for the adoption of the strategic document for the suppression of undeclared work is January 2021, with the period of implementation of measures set out in

the strategic document until the end of 2024. Furthermore, the planned deadline for the adoption of the new Anti-undeclared 4 Labour Act, as the most important measures set out in this strategic document, is 3Q/2022.

Implementation holder	MRMSOSP
Target Group	Employed and formally unemployed persons, employers.
Estimated cost	/
Implementation period	1/2021. – 12/2024.

(b) Investments

C4 .1. R2-I1	Economic transition measures for competitiveness and employability of the labour force in the economy of the future

Challenge

The Republic of Croatia faces the problem of a lack of qualified labour force which reduces the long-term competitiveness of the Croatian economy, but also creates difficulties for further development and investment. At the same time, there is potential for a significant increase in labour force participation in sectors, activities and occupations that are at the core of digital and green transition. It is necessary to direct the labour force towards high value-added sectors and ensure long-term competitiveness and resistance of the labour force to rapid labour market changes resulting from digital transition.

Objective

Improving and investing in economic transition measures that will stimulate employment in sectors crucial to digital and green transition: (i) agriculture, food and veterinary (emphasis on sustainable agriculture and food); (ii) electrical engineering and computing (emphasis on computing and carbon neutral energy); (iii) construction and geodesy (emphasis on green construction); (iv) information and communication; (v) transport; (vi) engineering, metals and other professions;

Long-term sustainability, competitiveness and employability of the workforce for the economy of the future will be ensured by means of economic transition measures: (i) support for newly employed in green and digital transition activities; (ii) support for traineeships in green and digital transition activities; (iii) support for starting work in green and digital transition activities.

To be financed entirely by the NPOO if used in the aforementioned sectors, in equal or increased intensity compared to other (traditional) sectors of the economy.

They can be combined with the use of vouchers to acquire skills in order to provide the skills necessary for employability in these sectors if the beneficiary of the measure does not possess them. Furthermore, this source will finance skills acquisition measures through voucher for all users of job conservation measures who want to improve their skills and knowledge and thus ensure their long-term competitiveness and sustainability in the labour market.

Description

Financing economic transition measures to strengthen the knowledge and skills of the

labour force in traditional sectors of the economy recovering from the consequences of the COVID pande19.

Implementation

The implementation of economic transition measures directly stimulates employment, self-employment and strengthens the employability of unemployed persons. The measures also have a pronounced demographic effect. The implementation of the measures will also affect the mitigation of negative demographic trends, as this will enable the retention of the workforce and the creation of new jobs in the growing economic branches which represent the main focus of the future economy.

It is estimated that the period until 2023 will require HRK 4,611.966,460 for the implementation of measures, as follows:

Economic transition measures	**Estimated cost per year of implementation**			**Total**
	2021.	**2022.**	**2023.**	
Support for newly employed persons in green and digital transition activities	438.434.880	535.046.850	703.484.730	1.676.966.460
Support for traineeships in green and digital transition activities	404.000.000	493.000.000	600.000.000	1.497.000.000
Start-up aid for green and digital transition activities	400.000.000	488.000.000	550.000.000	1.438.000.000
Total	1.242.434.880	1.516.046.850	1.853.484.730	4.611.966.460

Implementation holder	MRMSOSP
Target Group	Unemployed and employed persons
Estimated cost	HRK 4,611,966,460
Implementation period	1/2021.-12/2023.

C4 .1. R3-I1 Establishment of a voucher system for education of employed and unemployed persons

Challenge

Even before the particular circumstances, the labour market situation strongly underlined the insufficient alignment of labour supply and its skills with the needs of the economy, which was manifested in a relatively high shortage of labour force. This lack of skilled labour was bridged by steadily increasing imports of foreign labour. In the forthcoming period, it will be necessary for the labour force to develop skills that will enable it to face rapid technological, social and economic changes to come, which will be the basis for the long-term competitiveness of the Croatian economy.

Objective

In order to make the system of adult unemployed and employed education as high as possible, it is necessary to improve the process of financing the acquisition of skills. The aim of the existing education measure is to make it more efficient, transparent and simple

to use in such a way that each user can choose informal skills acquisition programmes according to his needs, which will directly improve his employability and develop key competences in the professions required in the labour market. This aims to increase the coverage of the labour force involved in lifelong acquisition of skills. Furthermore, persons who are employed and who are users of vouchers may also use the measure of preserving jobs as a complementary measure. Through the use of vouchers during their absence from work, they will have the opportunity to participate in skills acquisition programmes during a period when they are unable to work in their workplace. This aims to strengthen the skills and competitiveness of employees whose current position is threatened by the consequences of the pandemic, but also to strengthen labour force skills in sectors particularly affected by the pandemic in the medium/long term.

Description

A model for acquiring adult skills through vouchers will be introduced, which users will be able to cash in through application submission on the CES website.

The procedure will consist of creating a user account within the application on the CROMAC web site. It will have the possibility of submitting an application for approval of funding of programmes for acquisition of skills, and the completed application is approved by the Croatian Institute for Health Insurance through payment of skill acquisition services per offer invested in the application. If necessary, prior to the acquisition of skills, the beneficiary is invited to provide additional advice. Upon completion of the programme, the instrument of successful participation shall be invested in the application. The application will enable three-way communication and will enable feedback from users, employers and providers of skill acquisition programmes. Namely, the employer and the skill acquisition service provider will be sent through the application a unified questionnaire that will be required to complete, and their response will automatically be invested in the user account.

There will be several insurers within the framework of the programme and in addition to the adviser's approval there will be a deadline by which the voucher must be used, an employment check or a stay in the workplace for which additional skills have been acquired and a ceiling on the financing of individual voucher. Furthermore, if the beneficiary does not obtain the document on the deposit of the programme, he is obliged to return the invested funds of the Croatian Employment Service, and the employer is obliged to do the same if he requested funding for the acquisition of skills for his employee.

Implementation

The voucher model is planned for implementation from January 2021 to December 2023. The analytical basis for successful implementation of this model will be provided by the Portal for Advanced Labour market Monitoring, which will be fully operational at the beginning of 2021 and will determine the necessary and deficit skills to be funded. The measure has an impact on reducing regional differences in labour market outcomes, as it allows quick activation and acquisition of skills in line with the needs of local labour markets.

This directly contributes to strengthening growth potential, job creation and economic and social resilience.

The measure has a demographic impact. Investment in this programme will influence the mitigation of negative demographic trends through the retention of skilled labour force and ensuring their employment due to the strengthening of their skills, as well as the retention

and increase of employment rates in order for everyone to have the opportunity for a better standard.

Through the amount of HRK 300,000,000 according to the MIMSOSP projections, it is possible to encompass a significant share of the workforce on an annual basis. If the average annual amount in the three-year period is HRK 100,000,000 per year for the voucher system, and the average amount of vouchers is approximately HRK 6,000, this means an annual coverage of approximately 0.5% of the working age population, or approximately 17,000 users, which would reach the target value (4.5% of the target value of the participation rate in lifelong learning by 2023). The current annual trend of increasing the rate of inclusion in lifelong learning is also taken into account in the calculation of the target value. The participation rate in lifelong learning increased from 2.3% in 2017 to 2.9% in 2018 and to 3.5% in 2019. If we look at the workforce (employed and unemployed) through these funding amounts, the annual share of the workforce that will be able to use this model (employed and unemployed) climbs up to 1% of the workforce annually.

Implementation holder	MRMSOSP
Target Group	Unemployed and employed persons
Estimated cost	HRK 300,000,000
Implementation period	1/2021.-12/2023.

C4 .1. R4-I1 Digitization and computerization of Croatian Employment Service (CES)

Challenge

The economic environment, which is constantly changing, demands the same answer from public services. HZZ, as a public institution, faces increasing technological innovations, economic pressures, financial restrictions, new jobs (white, green and digital jobs), competition pressures, demographic changes (baby Boomer and X generation approaching pensions, new generations, generation Z as a service user), and has to start measuring ways in which information technology is more efficient in reengineering its own business processes. The labour market is also changing in line with these changes; labour market transition, new forms of work, social risks, all this needs to be seen in terms of a positive transition in order to solve labour market discord.

Due to growing interactions with the environment at the local, national and European level, the existing technological level of the information system requires further development and improvement, based on modern information and network communication technologies. That is why it is necessary to prepare digitization and computerization of business processes of CES, which will be based on new organizational, business and information and communication technologies. It is necessary to fully automate and digitize business processes, strengthen the capacity to provide services at local, national and international level; create new services for users and constantly adapt active labour market policy measures, and open the CES using information and communication technologies while ensuring the security of processes and data as well as network channels to end users. All with the aim of strengthening the capacity of institutions, ensuring greater transparency and availability of data and services on the labour market.

Objective

(i) in order to improve business security and business data resulting from the provision of services mediating employment and education of unemployed persons and unification of corporate procedures and processes of access rights to information systems of the Croatian Employment Service, it is necessary to design, define and implement a comprehensive system for managing the identities of IT users or access rights, as well as a system for managing security incidents and events within the IT system, i.e. recording diaries on events on it infrastructure to the central place. Implementation of these systems will multiply raise the level of data security that users of CES services are obliged to provide when applying for the register and the level of security and timely visibility of adverse events to administrative persons of CES IT system, thus increasing the level of security of all business data. The additional objective of the proposed activities is to raise the level of compliance of Croatian Employment Service with the European Regulation on personal Data Protection (GDPR).

(ii) Upgrading the existing CES Contact Centre, which already contains the service of eBusiness with the new solution "EConsultant in CES", would improve the efficiency of CES. It is necessary to promote the idea of using alternative communication channels that ultimately simplify and cheapen labour costs. Such a strategy can increase the availability of information, their capillarity, user satisfaction and the general reputation of the CES. In recent years, there have been significant changes in the entire service industry, where social networks have become an alternative to traditional communication methods, therefore the goal is for the basic communication channels in the work of the Institute to be personal contact with the person (F2F), SMS, e - *mail*, call center, remote office, social networks, web chat, forums.

(iii) thorough visual and technical refreshment of the support system for basic (*core*) processes of the CES (which include employment mediation, preparation of unemployed persons for employment, provision of material and other rights of unemployed persons, implementation of active labour market policy measures). Implementation of missing functionalities that would significantly improve the process and improve the efficiency of work:

a) Development of a pro-active it system: the functionality of the system to automatically inform the responsible employee on a given portal of changes requiring his or her attention (e.g.: unemployed person has been employed and needs to be deleted from the register or person participating in ALMP measures has terminated the employment relationship, etc.)

B) New services of the CES towards e-business: construction of self-service portal that would enable on-line services. The portal, as well as the Labour Exchange, should use THE NIAS customer identification system, and in addition to the existing services on the labour exchange, should enable: Online application for the institute; Online application for financial assistance; Online appointment of working workshops; Online submission of applications for active labour market policy measures; Online submission of documentation on executed obligations under the active labour market policy contract

C) Development of an advanced job matchings system based on soft filters and competences. The new advanced system would operate on the basis of competences and use soft filters in percentages to express compatibility between a particular job and an unemployed person. Creating a job matchings system on an individual level, i.e. for

concrete reporting of the need for a worker.

(iv) the human resources management system shall provide a centralised database of each employee and automate standard HZZ processes.

(v) the introduction of a new accounting system will automatize the processing of data coming from individual application solutions of the CES which will reduce human labor and error. Also, the system will connect and automate data exchange with other institutions (e.g. FINA) showing the need for association.

(vi) a comprehensive digitised documentation system project would provide a quality solution for managing documentation at the Croatian Institute for Health Insurance, which is based on standardization, typing and digitization of documents, creation of virtual documentation and its connection with business processes. The solution for the management of records and objects will enable the introduction and standardization of certain business processes without the need for physical flow of paper through offices. Through the implementation of the document management system, the costs of archives will be reduced, with full compliance with legal regulations and business requirements for keeping documents and archival materials, which will enable conversion of archive space into a workspace and thus improve working environment for employees and parties of CES. A paper-free office would be achieved, which would be an important environmental contribution and support for the country's sustainable development. The protective recording of documentation will ensure fast availability of documentation and long-term preservation of CROMAC information that is later used for statistical analysis and possibility of providing information in case of public interest or probative procedures.

For the implementation of the aforementioned activities and the realisation of all the aforementioned objectives, it is necessary to support external consultants with the aim of respecting the public Procurement Act and respecting the deadlines for the implementation of individual projects. In this sense external technical and legal consultants will be engaged for the implementation of individual tenders, as well as external project manager with the aim of planning and monitoring the implementation of projects.

Description

Contained under the goal and implementation.

Implementation

In order to achieve the stated objectives in the process of informatization and digitization of Croatian Employment Service (CES), implementation of the following solutions is envisaged:

(ix) Implementation of user identity management system and system for managing security incidents and events of the CROMAC it system.

(x) Implementation of the eConsultant system in the Croatian Institute for Health Insurance would enable conversion of documentation needed for the work of advisors into digital form, rolling of digitized documents within the system, central processing of electronic documents, digital and biometric signature, document and objects management and efficient communication with users. This will result in raising the quality of public services towards users to a higher level both at national and local level.

(xi) Construction of a new system in support of basic core processes of CES on modern technologies. Defining new business processes and their digitisation and automation.

Upgrading the system with new functionalities (new on-line services of CES, job matching functionality).

(xii) Implementation of the Human resources Management system with many functionalities (e.g. working hours records, travel orders, employee training, holiday planning …). Implementation of the new accounting system. Connecting it with all key applicative solutions of the CES, and linking and automating trade with other state institutions (e.g. NICE, state treasury …).

(xiii) Defining new business processes and redefining the old ones as a precondition for the project “Office without paper”. Defining the key roles of a particular process. Based on the prepared functional specifications, drafting a business application solution with the aim of abandoning the physical delivery of documentation and archiving it for several years. The archiving project is designed in such a way that documentation is implemented through the flexible digitisation process and the micrographic processing process with the necessary assurance of transformation in a way that prevents changes in the digitisation and micrographic processing process.

(xiv) Contracting external consultants for the implementation of all mentioned projects (technical and legal consultants, and project manager).

Implementation holder	MRMSOSP
Target Group	Unemployed and employed persons, employers and CES employees.
Estimated cost	HRK 93,500,000
Implementation period	6/2020.-1/2026.

C4 .2. Development and improvement of the pension system

Link with the European Semester and/or strategic documents and the context of the reform

In order to increase the level of quality of services provided by the Croatian Institute for Health Insurance to its customers and increase the efficiency of the Croatian Institute for Health Insurance itself, its ICT support will be modernized. The project indirectly contributes to meeting all three priorities (smart, sustainable and inclusive growth) under the Europe 2020 Strategy document monitored under the European Semester. Also, the Strategy for Development of public Administration 2015-2020 aims to improve administrative capacities and to better organise public administration, among other things defining the vision of modern public administration through established elements directly harmonised with the scope and objectives of this project. The Digital Agenda for Europe aims to boost the European economy by ensuring sustainable economic and social benefits of the Digital Single market. The project in question contributes to two of the seven areas of operation of the Digital Agenda: 6) improving digital literacy, knowledge and e-inclusion, and 7) the application of information and communication technologies to address key challenges of society, such as climate change, increasing healthcare costs and ageing the population. The project contributes to the realisation of the EU Council recommendation for Croatia for 2020 relating to increasing access to digital infrastructure and services (CSR 2020/2b).

The implementation of the project and the establishment of the digital archives of the Croatian Institute for Health Insurance will ensure more efficient use of funds and contribute to the objectives of sustainable and inclusive growth, which are some of the objectives of the Europe 2020 strategy. The Digital Agenda for Europe identifies 101 measures grouped into 7 priority areas of action at EU level. The focus of the Digital Agenda for Europe is to bring real change and improve people's lives through creating a digital single market, improving the interoperability framework between ICT products and services, boosting trust and Internet security, fast and ultra-fast access to the Internet, research and innovation, improving digital literacy, skills and inclusion, and the benefits of EU society from ICT. This project contributes to the realisation of several priority areas of the Digital Agenda for Europe, in particular 1) improving interoperability of information and communication products and services; 2) improving digital literacy, knowledge and e-inclusion. It will also increase access to digital infrastructure and services, which is in line with the recommendations (CSR 2020/2b).

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

Planned investments are also reforms.

(b) Investments

C4 .2. R1-I1	Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)

Challenge

HZMO is a key institution of the national pension system. HZMO continuously cares for over 1.5 million insured persons and over 1.2 million pension beneficiaries, and over 150

thousand children's allowance beneficiaries (for over 300 thousand children). A snapshot of the situation of existing processes and ICT systems has shown that the current business processes of the Croatian Institute for Health Insurance and the information systems supporting them can be considered largely outdated, hampering progress and imposing limitations inappropriate to the desired level of public service provided by the Croatian Institute for Health Insurance. For example: business processes are geographically/regionally conditioned (5 regional services, 14 regional offices and 92 branches with almost completely separate records of /proc essays). Such organization significantly complicates the dimensioning and utilization of employees (serving users only from its territory), causes slowdowns and unnecessary steps (multiple opening/forwarding of files), decentralisation complicates the management and supervision of the system. Business processes are significantly based on the concept of forming paper documentation, according to which the current information system is also designed. Therefore, instead of the active management and automation of processes, the information system is primarily reduced to the record role of a series of individual activities/transactions carried out on files. This unnecessarily slows down processes (fragmentation of activities, slow rolling) and increases the costs of both the process and the “cold drive” (archives and similar). Inadequate and inflexible it support prevents significant improvements in business processes. The current information system for core processes is based on outdated and expensive server technology of IBM producers. Its limitations cause slowness and difficulties in any change in processes and/or regulations, heavy integration with other systems causes inconnection, partially parallel work in several systems and lack of management information. In addition, maintenance of the outdated system is extremely expensive, available experts with the competence to maintain it are rapidly disappearing. The system in question in general causes a delay in the application of technologically advanced solutions and represents a brake in the implementation of reforms in the Croatian Institute for Health Insurance. In short, the existing business processes at the Croatian Institute for Health Insurance were designed under strong influence of technological solutions and other means of work available at the time of their installation (several decades ago): paper files and their conditional location restrictions, meticulous archiving/microfilming, mass computer processing of limited-scale data with a lot of manual work.

Objective

With the completion of the project, HZMO will increase its own efficiency and efficiency, as well as the level of quality of service to its customers.

Description

This operation will contribute to strengthening the capacities of institutions in the labour market in order to improve the scope, quality and adaptability of services provided, which develop new services, invest in equipment and it applications, as well as information activities. Activities will ensure greater transparency and availability of data both for the needs of the HZMO as an institution and for the needs of the public (users of HZMO services). Activities that contribute to the improvement of procedures for data analysis and development will be carried out, including computerisation and automation of business processes and revision of methodology for collecting and analysing statistical data. HZMO will undertake measures for comprehensive modernization of its it system and further development of basic business processes.

Implementation
The eHZMO project will encompass the following elements: transformation of business processes (defining future business model, key business processes and organisational structure); and computerization of business processes (digitalisation, acceleration and reduction of costs of basic and support processes using ICT). Navedeni elementi ujedno su i područja na kojima su identificirani najznačajniji izazovi, odnosno područja koja je nužno unaprijediti kako bi se povećala interna učinkovitost i djelotvornost te kvaliteta usluga prema korisnicima. Naime, ubrzani napredak informacijske tehnologije (IT) učinio je navedene procese i tehnološka rješenja neefikasnima, sporima i zastarjelima. Danas dostupne nove informacijske i komunikacijske tehnologije mogu snažno utjecati na oblikovanje budućih poslovnih procesa HZMO-a u bitno efikasniju i djelotvorniju organizaciju te znatno unaprijediti kvalitetu i brzinu usluge za njegove korisnike. Stoga će biti potrebno: (i) digitalizacijom transformirati postojeće procese i presložiti ih na način da se isti ili bolji rezultati postižu na značajno efikasniji način (pojednostaviti procese, eliminirati nepotrebne radne tijekove koji ne donose dodatnu vrijednost, zaobići „uska grla“ i ograničenja, stavljajući fokus na brzinu i kvalitetu konačnog rezultata); (ii) adekvatno se procesno i podatkovno povezati s drugim potrebnim tijelima javne uprave i inozemnim nositeljima osiguranja, sa svrhom pojednostavljenja, automatizacije i ubrzanja procesa koji prelaze interne okvire HZMO-a; (iii) olakšati i ubrzati ostvarenje prava i komunikaciju s korisnicima putem novih i unaprijeđenih e-usluga; (iv) u potpunosti digitalizirati procese i dokumentaciju u njima kroz naprednu sinergiju procesnog i dokumentacijskog dijela informacijskog sustava, te time procese odvojiti od papirnate dokumentacije; (v) organizaciju bazirati na centrima kompetencija neovisnim o geografskoj lokaciji, s jasnim nadležnostima i mjerenjem učinkovitosti i djelotvornosti (*KPI - Key Performance Indicators* - Ključni pokazatelji uspješnosti); (vi) otvoriti prostor za potencijalno izdvajanje poslova i aktivnosti koje ne zahtijevaju stručna znanja/ kompetencije (npr. masovni ispis, kuvertiranje i slanje pošiljki); (vii) unaprijediti upravljanje i transparentnost: produbiti uvid u odvijanje procesa, upravljačkim izvještajima stvoriti podloge za informirano odlučivanje i upravljanje; (viii) maksimalno iskoristiti IKT kao glavni alat transformacije, koji uklanja fizičke ograničenja, automatizira, asistira, ubrzava, pojeftinjuje. Gore navedene stavke artikuliraju ciljeve projekta eHZMO. Na taj način će se realizacijom projekta značajno povećati interna učinkovitost i djelotvornost, te postići pružanje pravodobnih, standardiziranih i kvalitetnih usluga korisnicima. The e-HZMO project started in February 2020, and grants were provided from the European Social Fund. This contract foresees a project duration of 46 months. Also, although the procurement activities started on time, the complexity of procurement procedures affects the dynamics of project implementation. Since project activities started from the ESF, funding from the ESF + fund would be inefficient and extend the implementation of project activities due to the need to terminate already initiated procurement procedures. Financing the project from the RDF would ensure continuity of financing and achieve project objectives.

Implementation holder	HZMO
Target Group	users of HZMO services

Estimated cost	166.565.486 HRK
Implementation period	1/2021.- 8/2026.

C4 .2. R2-I1	**Digitization of the Archives of the Croatian Institute for Health Insurance (eArchives)**

Challenge

There is a strong need in the Croatian Institute for Health Insurance to improve business activities related to digitization of business and archive documentation and to improve processes for managing the same documentation within active business processes of the Croatian Institute for Health Insurance with the aim of protecting and long-term or permanent preservation of materials, accelerating the implementation of processes, finding and processing documents, harmonizing business with legal regulations, unifying business operations at all levels and reducing costs. In order to achieve this, it is necessary to digitize the archival material of the Croatian Institute for Health Insurance and establish a unique place for the permanent storage of archival materials. This refers to the existing material, but also to the one that will be generated in the future, that is, current objects that will be available for review or return to operation, monitoring of legal storage deadlines and excretion according to the valid legislative framework. The largest amount of materials refers to the cases of insured persons that are the most sensitive and vital part of the Croatian Institute for Health Insurance and for which there is the greatest need for digitisation. The Institute owns about 4.5 million files at all locations, which requires large costs of archival space, one of which is also rented out. At the moment, the Institute is digitalizing a part of new cases that are opened and old cases at the request of which some actions are being carried out (revision of the status of insured persons, administrative proceedings, court proceedings, etc.). Only originals are digitized. During digitisation, the following metadata are recorded: OIB, personal number, first name and surname, date of birth, personal identification number and file number. For 75% of the materials there are listed metadata in digital form, however, there is no content in digital form, while for the other 15% of the materials it has metadata and content in digital form. The HZMO has an implemented document management system covering a part of the process and most of the new cases since the implementation of the water system have been digital. Since occasionally there is a need to return to work or insight into old files that do not exist in digital form, the file is delivered to a library that scanns and indexes the entire file. The HZMO is located on a total of 43 locations in 19 towns of the Republic of Croatia. The material that is disposed of and kept in the premises of the Institute is located in maps located on shelves. Several objects referring to the same person (insured/user) are kept in one folder. The objects contain various types of paper (A4 80 g. paper makes up 80% of the entire material, indigo paper, returnees, A5, envelopes, sleeves, etc.), 98% of which are A4-sized. Maximum document size is A3, and the quantity of such documents is extremely small. The objects vary in size and range from 1 page to 1000 pages per object. The average number of pages is 50 per object. The objects are of various conservation qualities, so those that are more used in the processing of applications are in poor condition, and they show greater damage to documentation (physical damage to paper edges, compacted documentation, pale ink, fragile paper, etc.). In cases, documentation is often slaughtered and connected with clips. Content layout within the object is not structurally defined. Most of the texts are in text format, while a smaller

amount of text and picture formats is combined.

Objective

Increasing the efficiency of the work of the Croatian Institute for Health Insurance by introducing digital archives and rationalizing administrative procedures with materials, and improving the protection and preservation of archival and registration materials will lead to increased availability and quality of publicly available information and services on the labor market.

Description

The project will introduce a digital archive management system. This will support further digitisation processes as well as improve the overall operations of the Croatian Institute for Health Insurance. This will result in improving business processes, rationalising costs and increasing service efficiency.

Implementation

HZMO currently has about 4.5 million files at its disposal. The subject of digitalisation would be 1,000,000 active files. At the moment, the Institute for electronic documentation Management (ECOURT) digitises pension records, all new files immediately upon their establishment, and old files in case of initiating a new procedure. The project will ensure integration of scanned documentation of each individual file with metadata into the existing COURT system. Scanning and indexing of documentation will protect the resources available to the Croatian Institute for Health Insurance, and it is important for providing services. Implementation of the project will increase the efficiency of work of the Croatian Institute for Health Insurance and rationalize administrative procedures with materials, while at the same time improving the protection and preservation of archival and registration materials. Completion of the project will reduce the cost of archives, with full compliance with legal regulations and business requirements for keeping documents and archival materials. Activities will ensure greater security and availability of data for the needs of the Croatian Institute for Health Insurance as an institution and for the needs of users of HZMO services. The project will contribute to strengthening the capacities of the Croatian Institute for Health Insurance in the labour market.

Implementation holder	HZMO
Target Group	HZMO and users of HZMO services
Estimated cost	HRK 51,170,350
Implementation period	3Q/2021.-8/2026.

C4 .3. Improving the social welfare system

Link with the European Semester and/or strategic documents and the context of the reform

The Government Programme envisaged strengthening the role of social welfare centres and family centres and improving the care system for the elderly and the infirm by providing adequate care by increasing the capacity of accommodation.

According to the draft NRR, in order to better protect users' rights and standardize procedures, organisational and structural changes will be made in social welfare centres, and in order to support family and parenting the role of family centres will be strengthened. The development and accessibility of social services at the local community level will prevent institutionalization and social exclusion. One of the strategic goals is to continue the process of transformation of social welfare homes and prevention of institutionalization while improving the quality and establishing a more balanced network of services. It is important to emphasize that the process of deinstitutionalization did not apply to persons of older age. For this particularly sensitive group, priorities are the development of non-institutional services and ensuring a sufficient number of accommodation capacities, when they are not able to take care of themselves or with the support of the family and community, but need organised long-term care because of their health. Accommodation capacities for the elderly in the Republic of Croatia cover 3.68% of the population of the elderly, while accommodation capacities for the elderly in the EU cover 5% of the population of the elderly. In addition, capacities for accommodating elderly persons in the Republic of Croatia are not equally distributed across counties.

With the development of community support services, the aim is to prevent institutionalization and reduce the number of users entering institutions, and to provide accommodation services for users in need of intensive and long-term care. Improving the quality of life of socially vulnerable groups is closely related to the protection and improvement of human rights, which is an integral part of all national, international and EU documents such as the European Pillar of Social Rights, THE European Social Charter, THE Strategy against poverty and Social Exclusion in the Republic of Croatia, THE Social Welfare Strategy for the Elderly, e.g. the Government Programme.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C4 .3. R1-I1	Digitalisation of the system and linking social welfare centres and social service providers

Challenge

Social welfare centres in the Republic of Croatia work in the contemporary information system SocSkrb. All business processes of social welfare centres and data on beneficiaries of rights and services in the social welfare system are recorded through the system. Procedures related to the recognition of rights to social services in certain service providers are conducted and recorded through the system, but there is no information about the capacities of service providers and the price of their services. The implementation of the project is currently under way, which will result in the elaboration of a methodology for the calculation of prices of all social services. In order to facilitate, faster

and more efficient application of the methodology in view of the large number of service providers, it is necessary to develop and implement it system for analysis and price calculation in accordance with the established methodology. Professional employees working with the user determine the user's need to recognise a service, determine whether the user meets the conditions for recognising the right to a service, selecting the service provider and directing the user to the service provider. During this process, communication between the social welfare centre and the service provider or social welfare centre is limited, and it does not always have information about the service provider, which is necessary to adequately meet the needs of the users.

Information between social welfare centres and providers shall be shared slowly and through outdated communication channels.

Objective

The intention is to ensure data exchange, more efficient provision and better control of social services costs, which is in line with the CSR for the Republic of Croatia and the Council of Europe's conclusions on shaping Europe's digital future

Description

The establishment of a single information system for social welfare centres, social welfare centres founded by the Republic of Croatia, community service centres and service providers with which the Ministry has concluded a mutual relations agreement will provide a unique digital platform for monitoring and analysing data on users and services in the social welfare system.

Implementation

Currently, there are 68 providers in the network of social services providers founded by the Republic of Croatia and 457 social services providers with whom the Ministry has concluded an agreement on mutual relations, and information on the possibility of providing services and services provided is not exchanged or exchanged through traditional communication channels while social welfare centres work in the contemporary SocSkrb web application through which all business processes and user information are recorded. Also, in order to improve the availability of affordable and quality social services and standardize the way prices of social services are defined. The existing method of defining the prices of social services is unstandardized and therefore the project “Development of methodology for calculating the prices of social services” has been launched, within which a single methodology for calculating the prices of social services will be developed, which will serve to calculate the prices that will be an integral part of the developed software solution that will be integrated into the existing SocSkrb system.

It is necessary to formulate project documentation and technical specification and create software solution adjusted to the needs of social welfare institutions and other social service providers.

It is also necessary to develop a software solution for the implementation of the system for methodology for calculation of prices of social services, adjusted to the needs of the Ministry for determining prices of social services. The National Reform Programme 2020 as one of the objectives of the implementation of reform measures is to establish equal status of social service users regardless of the type and status of service providers, equal access to all social service providers and to achieve a price that monitors the quality of the

service provided.

The developed software solution will be integrated into the existing SocSkrb information system used by social welfare centres and thus the entire social welfare system will be connected informatically. All participants in the process will be trained to use a unique information system and provide support in their work.

Implementation holder	MRMSOSP
Target Group	Experts employed in social welfare institutions.
Estimated cost	HRK 30,000,000
Implementation period	6/2021.-12/2024.

C4 .3. R2-I1	**Prevention of institutionalization and development of community services in support of the process of deinstitutionalisation**

Challenge

In order to prevent institutionalisation, it is necessary to ensure the development and regional availability of services, strengthen the capacities of experts working in social welfare institutions and standardize professional procedures.

Although a number of social services have been developed in the previous period in the community, which are extremely important for the process of prevention of institutionalisation and further deinstitutionalisation, resources available to social service providers still do not meet the overall needs of the local community. Regional inequality of service providers is also present.

By strengthening the legal framework and developing new services for children, youth and families, as well as persons with disabilities and timely interventions and taking appropriate measures and connecting experts, efforts are made to reduce risks, strengthen families and ensure conditions for life in the biological family whenever possible.

Starting from the assumption that the availability of adequate community support services prevents the institutionalization of beneficiaries, activities of further development of non-institutional social services in the community for children and families at risk, persons with disabilities and other socially vulnerable groups are planned in the forthcoming period.

The development and regional accessibility of social services in the community and the strengthening of expert competencies and standardization of professional procedures prevent the institutionalization of children, youth and persons with disabilities.

Hiring new experts for the provision of non-institutional services, education and licensing of heads of family-legal protection measures and immediate custodians, as well as providing benefits for their work directly affects family empowerment and support for parenting, prevention of institutionalization and ensuring necessary, affordable and available services for socially vulnerable groups. Implementation of the measure directly affects the reduction of entry into the institution and the improvement of the quality of life by providing available services in the family.

In order to prevent institutionalisation it is necessary to ensure (establishment and development of social services in the community and/or expansion of social services in the community) and strengthen the capacities of experts working in social welfare institutions

and standardize professional procedures. Namely, regional inequality of service providers is still present in the sense that in certain counties certain social services are not developed at all or are insufficient and cannot respond to the overall needs of the local community. For example, the lack of social services for children in Dubrovnik-Neretva County, Lika-Senj County, Medjimurje County, or the lack of social services for other user groups in other counties, etc. Availability of community support services prevents the separation of children and other user groups from their own families or primary environment.

In order to further improve the protection of the well-being of children in families at risk, the Ministry and the UNICEF Office for Croatia signed a cooperation agreement on a “stronger family” programme for the 2017-2021 programming period.

Key priorities of the joint action are focused on the implementation of improved policies and development of family risk assessment instruments and the standardisation of professional procedures aimed at preventing and preventing violence, abuse, exploitation and exclusion of children. This presupposes creating a safe and inspiring family environment for all children, especially those living in families at risk. By strengthening the legal framework and developing new services for children, young people and families at risk, i.e. by timely interventions and taking appropriate measures and connecting experts, efforts are made to reduce risks, strengthen families and ensure conditions for children's life in the biological family whenever possible.

Implementation of this would bring about positive changes in practice, which accompany the standards and strategy of the Council of Europe; prevention of family separation; provision of quality and efficient support services for families with children; prevention of institutionalisation by strengthening parental competences; and creation of conditions for child return to the primary family; priority for children to be placed in foster families; improvement of inter-departmental cooperation in systematic support to families; education for better support of families with children at risk; continuous investment in prevention of violence;

Objective

The development and regional accessibility of social services in the community and the strengthening of expert competencies and standardization of professional procedures prevent the institutionalization of children, youth and persons with disabilities. Implementation of the measure directly affects the reduction of entry into the institution and the improvement of the quality of life by providing available services in the family.

Description

Hiring new experts for the provision of non-institutional services, education and licensing of heads of family-legal protection measures and immediate custodians, as well as providing benefits for their work directly affects family empowerment and support for parenting, prevention of institutionalization and ensuring necessary, affordable and available services for socially vulnerable groups.

Implementation

As part of the programme activities with UNICEF in order to improve services in families at risk of child outsourcing, standardisation of methodology and development of instruments for evaluation, evaluation and monitoring of professional assistance measures for parents in the protection of child well-being have been implemented. The Ministry's obligation is to

implement the aforementioned standards in such a way as to ensure education of all experts who implement family legal protection measures in order to acquire the necessary competencies for obtaining a license for the implementation of measures. In the same way, it would ensure the strengthening of the competences of guardians for persons with disabilities. Standardization of procedures and strengthening the competences of guardians would ensure better protection of mentally ill persons and prevent institutionalization by providing support from guardians who are previously professionally trained. The measure has a demographic impact indirectly, as it affects the raising of the standard of living of the family and is directly related to the well-being and harmonization of family and business life and the Council Directive on the balance between business and private life of parents and providers of care, which should be implemented by 2.8.2022.

Implementation holder	MRMSOSP
Target Group	Experts employed in social welfare institutions, implementers of family legal protection measures and direct guardians, social welfare beneficiaries (children, youth and families at risk, persons with disabilities).
Estimated cost	HRK 100,000,000
Implementation period	2021. -2025.

(b) Investments

C4 .3. R3-I1 Improving the quality of life of the elderly by increasing the capacity of accommodation

Challenge

In accordance with the Strategy for Social Welfare for the elderly and the Programme of the Government for the care of the elderly implies the strengthening and availability of non-institutional services in order to stay in their family as long as possible, and when this is not possible it is necessary to provide accommodation capacities with an emphasis on long-term care of a functionally dependent elderly person because the existing accommodation capacities are below the EU average. It is estimated that the lack of accommodation facilities in elderly homes is about 3,500 beds. At the same time, the construction of additional accommodation capacities will provide conditions for the provision of non-institutional services; help in the house, delivery of meals, which enable the elderly to stay in their families for as long as possible, which is in line with all strategic documents.

The biggest disadvantage is in Krapina-Zagorje, Primorje-Gorski Kotar, Lika-Senj, Virovitica-Podravina, Zadar, Sibenik-Knin, Split-Dalmatia, Istria and Dubrovnik-Neretva County, where accommodation capacities of elderly persons are below the Croatian average (3.68%). In these counties, it is particularly necessary to encourage the construction of additional capacities in order to ensure a more balanced availability of care for the elderly.

Objective

Increasing the capacity of accommodation will ensure adequate and regionally available protection for older people outside their own family. The implementation of the measure directly affects the improvement of the quality of care for the elderly.

Description

In the social welfare system for older people in need of long-term care, it is necessary to provide affordable and accessible social services in order to ensure them an adequate quality of life.

Implementation

Care for the elderly who need long-term care foresees infrastructure construction and equipping of homes, as the existing accommodation capacities for accommodation are below the EU average. The first in the field of improving social services set out, among other things, the objective of providing adequate institutional and non-institutional care for older citizens, by applying innovative services that will target new social risks, in a uniform way for the entire territory of the country.

Increasing accommodation capacities for older people in areas where capacity is below average will enable the use of accommodation services for older functionally dependent persons whose needs due to deterioration of health and functional status will no longer be met by family members or the use of extra-institutional services. By building additional accommodation capacities in areas where they are insufficient, it will enable older people to stay in the environment where they lived until then, while minimising the cultural gap. This will also enable older people to continue to maintain “natural networks” with their relatives, friends and neighbours.

By building homes for the elderly, the elderly will be able to benefit from extra-institutional services, because in addition to providing accommodation services, homes have the possibility to provide a wide range of non-institutional services (e.g. residence services, assistance services, various entertainment and recreational facilities for non-users of accommodation services...). Built homes would be providers of all services for the elderly (both institutional and non-institutional services).

Needs analysis: an overview of the coverage of older population by accommodation services per counties and deviation of counties from the mean coverage of accommodation capacities in the Republic of Croatia is given below.

County	Total population aged 65 years and over	Total accommodation capacity	Coverage of older population by accommodation services in%	Difference between the mean value for the Republic of Croatia and county participation in capacity	Capacities to be secured up to 3.68% on average in counties below average
Zagreb	55.165	2.505	4,54%	0,86%	
Krapina-Zagorje	23.651	718	3,04%	-0,64%	152
Sisak-Moslavina	33.198	1.286	3,87%	0,19%	
Karlovac	26.195	1.101	4,20%	0,52%	
Varazdin	30.791	1.365	4,43%	0,75%	
Koprivnica-Cross Mountain	20.995	1.206	5,74%	2,06%	
Bjelovar-Bilogora	22.089	1.479	6,70%	3,02%	
Primorje-Gorski Kotar	62.102	1.642	2,64%	-1,04%	643

Lika-Senj	11.677	408	3,49%	-0,19%	22
Virovitica-Podravina	14.443	442	3,06%	-0,62%	89
Zazega-Slavonian	13.744	583	4,24%	0,56%	
Brod-Posavina	27.806	1.147	4,13%	0,44%	
Zadar	35.146	869	2,47%	-1,21%	428
Osijek-Baranja	52.409	2.049	3,91%	0,23%	
Sibenik-Knin	24.776	545	2,20%	-1,48%	367
Vukovar-Srijem	31.127	1.226	3,94%	0,26%	
Split-Dalmatia	83.381	2.170	2,60%	-1,08%	898
Istrian	41.683	1.067	2,56%	-1,12%	467
Dubrovnik-Neretva County	23.954	560	2,34%	-1,34%	321
Medjimurje	18.737	978	5,22%	1,54%	
City of Zagreb	146.217	6.068	4,15%	0,47%	
Total	**799.286**	29.414	3,68%	0%	3.387

It is evident that the capacities for accommodating the elderly are not equally distributed across counties and that the counties: Krapina-Zagorje, Primorje-Gorski Kotar, Lika-Senj, Virovitica-Podravina, Zadar, Sibenik-Knin, Split-Dalmatia, Istria and Dubrovnik-Neretva have the capacity to accommodate the elderly below the Croatian average. In these counties, it is particularly necessary to encourage the construction of additional capacities in order to ensure the equal availability of this service throughout the entire territory of the country.

Average house construction price per m^2 net: 1,950 euros

Average cost of equipping the house per m^2: 300 euros

Total per m^2: EUR 2,250 x 7,56 = 17,010 HRK/m2

On 1 waste user: 17 m2 (sleeping room 7 m^2, dining room 2 m^2, living room and active spending time 3 m^2, sanitary facility 1 m^2, other facilities in house 4 m^2)

Total cost per person: 17.010 HRK x 17 m^2 = 289.170 HRK

Total cost for 3387 persons: 979.418.790 HRK (1,000.000.000 HRK)

The measure has a demographic impact indirectly because it affects the raising of family standard of living and is directly related to the well-being and harmonization of family and business life and the Council Directive on the balance between parents' business and private life and the provider of care that should be implemented until 2 August 2022.

Implementation holder	MRMSOSP
Target Group	Older and helpless persons who require long-term care and functionally dependent elderly persons.
Estimated cost	HRK 1,000.000.000 (through construction grants and financial instruments)

Implementation period	2021. -2025.

C4 .3. R4-I1 Improving the infrastructure of social welfare centres, family centres and other social services providers

Challenge

There is a significant number of business premises that do not meet stipulated conditions of space and equipment and lack of adequate real estate or housing space for the provision of organised housing services and other non-institutional forms of care in certain areas of the Republic of Croatia.

Ordinance on minimum conditions of premises, equipment and the necessary number of professional and other employees of the social welfare centre and branches (OG 57/14) lays down the conditions to be met with regard to the business premises in which the centre/branch performs its activities. For example, the Centre must have the necessary number of purposefully distributed premises for performing activities such as: waiting rooms, individual user work rooms, group work rooms with users, group work rooms with professional workers, professional and other workers rooms, storage rooms for documentation and archives and a sanitary facility, especially for workers and especially for users. In the centre and the branch it is necessary to provide a separate room for each professional worker, and exceptionally one room for work can be used by two professional workers.

A significant number of centres perform activities in facilities that do not meet the prescribed conditions of space and equipment (the most frequent spatial problems: wear-out of buildings, insufficient number of necessary premises that cannot be upgraded due to spatial constraints of the facility, one centre sometimes operates in several locations which complicate working processes and efficiency in providing services to users, some facilities are not accessible to persons with disabilities and aspire to mobile persons). Currently 82 social welfare centres operate in the Republic of Croatia with 56 branches (20 of which are family centres).

In 25 social welfare centres (30% of all centres) there is a need to invest in improving spatial conditions (baths/buildings/reconstructions/adaptations, significant equipment procurement).

Needs analysis: Some centres have several branches in which investment is needed, e.g. only CZSS Zagreb (one social welfare centre with 13 branches) has the need to invest in several large branches.

CZSS/branch	**Description of the investment**	**Number of workers for whom the premises are built/adapted and supplied with equipment**
ZAGREB BY ČRNOMEREC	Purchase of land and construction of a new building	26 employees in total, 21 professional workers
ZAGREB PO Novi Zagreb	The present space is insufficient and unconditional, if a new space is obtained it will be necessary to adapt to the needs of the Centre	64 workers, 57 professional workers

ZAGREB BY Treshnjevka	If the disputable issue of ownership of land on which the current facility (which endangers working conditions) is resolved with the city, it is necessary to demolish it and build a new building.	48 workers in total, 41 professional workers
ZAGREB BY Susedgrad	Possibility of adding the space for the needs of this branch to the land PLANNED for purchase under ČRNOMEREC	46 workers in total, 41 professional workers
ZAGREB FOR thorns!	If the issue of space replacement with THE ZAGREB-Duam CAUCUS is resolved, an adaptation of this space is necessary for the needs of the branch office	30 workers in total, 26 professional
CRIKVENICA	The Centre, in partnership with 2 other bodies, is building a new facility in which it would get 1 floor of the total area of 232 m ²	13 workers in total, 9 professional
IVANIC TOWN	Real estate obtained from MDI, necessary reconstruction and adaptation for the needs of the Centre	17 workers in total, 11 professional
KARLOVAC	Real estate obtained by the MI (former military surgery), necessary reconstruction and adaptation for the needs of the Centre	49 workers in total, 39 professional
KNIN	Real estate obtained by AMI, necessary reconstruction and adaptation for the needs of the Centre	25 workers in total, 19 professional
SINJ	Real estate obtained by the MI (former military facility), necessary reconstruction and adaptation for the purposes of the Centre	23 workers in total, 17 professional
CROATIA 'S KOSTAJNICA	Obtained land from the city for the construction of a new facility	15 workers in total, 10 professional
JEREMY	A new facility for the needs of the Centre (EU funds, ERDF II) is being built, the facility in which the Centre is now located would be adapted for the needs of the Regional Office family Centre, a building protected monument of culture.	34 workers in total, 26 professional
SISAK	Additional investments in the Centre's premises (HRK 1,800,000)	40 workers in total, 34 professional
SISAK BY THE family Center		4 workers in total, 4 professional
SPLIT, BY Kastela	Obtained space from the town of Kastela, necessary adaptation for the needs of the branch office	19 workers in total, 15 professional
ZADAR	Reconstruction and adaptation of the premises of the home for upbringing for the needs of the Centre (EU funds, RRRDFII, needed additionally from the state budget about 7 million.)	51 workers in total, 40 professional
CAKOVEC, BY THE family Center	If it fails to reconstruct and adapt the area obtained from the county for the needs OF the OC, the necessary investment	7 workers in total, 4 professional
OGULIN	The Centre operates in unconditional space, if the property is obtained from the local self-government unit or local SELF-government UNIT (P)S, adjustment will be necessary to the needs of the Centre	17 workers in total, 12 professional
PULA	The Centre operates in unconditional space, if the property is obtained from the local self-government unit or local SELF-government UNIT (P)S, adjustment will be necessary to the needs of the Centre	47 workers in total, 37 professional
SIBENIK	The Centre operates in unconditional space on several locations in the city, if the property is obtained from local self-	49 workers in total, 38 professional

	government units or local SELF-government UNITS (P)S, adjustment will be necessary to the needs of the Centre	
VALPOVO	Necessary investment; restoration of roof and one wing in the building that is not currently in use.	20 workers in total, 14 professional
VARAZDIN BY THE family Center	If it fails to adapt the territory of the OC branch from the EU funds (ESF), the necessary investment in the same	5 workers in total, 4 professional
VUKOVAR BY THE family Center	If it fails to adapt the territory of the OC branch from the EU funds (ESF), the necessary investment in the same	6 workers in total, 4 professional
ZAPRESIC	The Centre operates in unconditional space, if the property is obtained from the local self-government unit or local SELF-government UNIT (P)S, adjustment will be necessary to the needs of the Centre	29 workers in total, 23 professional
LONG LINE	The need to reconstruct, decorate and equip the Centre's 172.67 m ^{2} office space, owned by the Ministry of Demography, family, Youth and Social Policy.	17 workers in total, 13 professional
TROGIR	Purchase of real estate whose adaptation is financed from EU funds	20 workers in total, 14 professional
IMOTSKI	Building a new building for the needs of the Centre, the land exists	19 workers in total, 12 professional
ZAGREB PO family Center for the City of Zagreb	The need for the adaptation of the space in which CZSS Samobor is currently active, and which is soon moving to the newly constructed area.	13 workers in total, 10 professional
CZSS RIVER BY THE family Center	Need for space adaptation and equipment procurement	6 workers Total, 4 professional
IVANEC	The need for reconstruction and decoration of the attic area (183 m ^{2})	30 workers in total, 23 professional

In order to ensure support for further process of deinstitutionalisation of beneficiaries and transformation of social service providers, it is necessary to provide infrastructure for the purpose of providing social services (provision and equipping of residential spaces for organised housing and premises for other non-institutional social services and provision of vehicles for the purpose of mobility of social service providers and availability of social services). Also, rented dwellings are used for the provision of organised housing services and in the forthcoming period it is necessary to rationalize the costs of this service by obtaining real estate for use free of charge or buying real estate (e.g. for apartments rented by the Zagreb Rehabilitation Centre in which the organised housing service is provided annually, HRK 1 million).

Objective

Improvement of spatial conditions and ensuring working conditions in social welfare institutions enables comprehensive protection of users and smooth running of business processes. Implementation of the measure will ensure adequate and safe working conditions and improve the quality of services for users.

Description

The government's program envisions strengthening the role of social welfare centres and family centres. In order to better protect users' rights and standardize procedures, organisational and structural changes will be made in social welfare centres.

Implementation	
In the area of protection of children, youth and families at risk, the control role of social welfare centres will be separated from the preventive, advisory and therapeutic role of family centres. An important precondition for these changes and reorganization of work of social welfare centres and family centres is improvement of spatial conditions in which these institutions operate. The Government Programme also foresees the completion of the construction of a shelter for accommodating victims of violence in all counties. The NPB foresees further development and expansion of the social services network and transformation of social welfare homes by improving existing and adding new spatial capacities for non-institutional services.	
Implementation holder	MRMSOSP
Target Group	experts employed in social welfare centres, family centres and service providers, social welfare beneficiaries (children, youth and families at risk, elderly and infirm, victims of domestic violence, addicts, homeless and other user groups
Estimated cost	HRK 1,000,000,000
Implementation period	2021. -2025.

19. Green and digital dimension of the component

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future

(a) contribution to the green transition

Pursuant to Regulation (EU) No 2020/852 of 18 June 2020 establishing a framework for facilitating sustainable investments and amending Regulation (EU) 2019/2088, the so-called Taxonomy Regulation, measures within the "labour market and social security" component adhere to the "do not cause significant harm" principle (*"do not significant harm to harm principle"*) to any environmental objective.

(b) contribution to digital transition

The establishment of a voucher system for education of employees and unemployed persons will be developed in the form of an application solution. This will directly contribute to the development of accessible e-services to citizens and will facilitate inclusion in adult education programmes. Also, the project (eHZZ) will digitize and informatize processes that will enable faster and better operation of CES as well as more efficient work with users in order to provide technologically advanced and efficient service.

C4 .2. Development and improvement of the pension system

(a) contribution to the green transition

During the implementation of all activities of the Project Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO), we shall take into account and endeavour to carry out as many activities as possible electronically. This primarily refers to avoiding the need to print (print) materials used within the project, and to educate 425 employees on sustainable development.

All activities of the project to digitize the archives of the Croatian Institute for Health Insurance (eArchives) contribute to the reduction of the use of paper resources and its multiplication, and as a result of the project the quantities of paper that are in circulation during business processes of the Croatian Institute for Health Insurance will be reduced. The digitalisation of business operations and the establishment of the digital archive contribute to the reduction of the environmental footprint, the reduction of the costs of transporting materials from location to location, energy savings and the reduction of CO2 emissions. The project contributes to sustainable development as part of the promotional material to be procured under the project will be made of recycled materials. Within the framework of educational activities for operational level and trainers, there will be a workshop on sustainable development, resource efficiency and the need for responsible environmental behaviour, all in the context of digitisation of materials implemented through the project.

(b) contribution to digital transition

Through the project Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO), the Croatian Institute for Health Insurance will, by implementing new information and communication technologies, increase its own efficiency and efficiency, and increase the level of quality of services to its users. This project will contribute to strengthening the capacities of institutions in the labour market in order to improve the scope, quality and adaptability of services provided, which develop new services, invest in equipment and it applications, as well as information activities. Activities will ensure greater transparency and availability of data both for the needs of the HZMO as an institution and for the needs of the public (users of HZMO services).

The project to digitize the archives of the Croatian pension Insurance Institute (eArhiva) will introduce a digital archive management system and scan and index archival materials. This continues the process of further digital transformation of the Croatian Institute for Health Insurance and further investment in improving digital services and business. The project will contribute to the rationalization of costs and increase of efficiency of CROQF

work, and the availability and quality of services towards users.

C4 .3. Improving the social welfare system

(a) contribution to the green transition

Pursuant to Regulation (EU) No 2020/852 of 18 June 2020 establishing a framework for facilitating sustainable investments and amending Regulation (EU) 2019/2088, the so-called Taxonomy Regulation, measures within the “labour market and social security” component adhere to the “do not cause significant harm” principle (*“do not significant harm to harm principle”*) to any environmental objective.

(b) contribution to digital transition

Investing in further development and upgrading of information infrastructure in the social welfare system will increase the efficiency and transparency of social welfare systems and improve the quality of life of citizens. Digitisation of the system and linking social welfare centres and social services providers aims to ensure data exchange, more efficient provision and better control of social services costs, which is in line with the CSR for the Republic of Croatia and the Council of Europe conclusions on shaping the digital future of Europe.

20. Milestones for the implementation of reforms and investments

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future	
(a) qualitative indicators	
- by the end of 4Q/2024, amendments to the minimum wage Act, the Labour Act and the new Anti-undeclared Labour Act	C4.1.R1
- on an annual basis (4Q every year), harmonised and improved economic transition measures for competitiveness and employability of the labour force in the economy of the future	C4.1.R2-I1
- by the end of 4Q/2023, a voucher system was established for the education of employed and unemployed persons	C4.1.R3-I1
- by the end of 1Q/2026, new systems for CROMAC operations were implemented, redefined Croatian Employment Service business processes	C4.1.R4-I1
(b) quantitative indicators	
- by 2024, the employment rate increased from 66.7% to 70%	C4.1.R2-I1
- by the end of 4Q/2023, the share of adult participation in lifelong learning increased from 3.5% to 4%	C4.1.R3-I1
- by the end of 1Q/2026, 400 employees of CES were educated and 10 improved or new services of CES were commissioned	C4.1.R4-I1
C4 .2. Development and improvement of the pension system	
(a) qualitative indicators	
- increased efficiency and efficiency of the work of the Croatian Institute for Health Insurance by shortening the average duration of the procedure for resolving requests to exercise the right to deadlines prescribed by the Act on General Administrative procedure (30 and 60 days respectively)	C4.2.R1-I1
- raising the level of quality of service to users by increasing the number of available e-services for citizens, which enables more proactive access of HZMO towards its users and availability of services provided by HZMO regardless of working hours (24/7/365)	C4.2.R1-I1
- by the end of August 2026, a new system for calculating pensions was implemented, a new system for keeping registry records and a new system for payment of pensions	C4.2.R1-I1
- at the end of August 2026, improving the protection and preservation of archival and registration materials through their digitisation	C4.2.R2-I1
- by the end of August 2026, a new digital archive management system was implemented	C4.2.R2-I1
(b) quantitative indicators	
- by the end of August 2026, 425 HZMO employees qualified to provide new or improved services	C4.2.R2-I1
- by the end of August 2026, 110 HZMO employees qualified to provide new or improved services	C4.2.R2-I1
C4 .3. Improving the social welfare system	
(a) qualitative indicators	
- by the end of 4Q/2024, a single information system was established for all social service providers that are in the social services network	C4.3.R4-I1

(b) quantitative indicators	
- by the end of 4Q/2024, increased accommodation capacities for the elderly and the infirm about 2,300 beds	C4.3.R1-I1
- by the end of 4Q/2024, 200 licensed experts for implementing family redress measures 8	C4.3.R2-I1
- by the end of 4Q/2024, constructed and/or adapted and/or equipped spaces for 25 to 35 social welfare centres (taking into account the fact that sometimes 1 CZSS has several branches and/or facilities operating in different locations)	C4.3.R2-I1
- by the end of 4Q/2024, 35 built and/or/or/or adapted and/or equipped social service providers (number of soccer service providers that failed to enter ERDF 2 support to the deinstitutionalisation process, 21 of them and other providers that subsequently had the need to develop infrastructure outside. soccer services)	C4.3.R2-I1
- by the end of 4Q/2022, compensation was provided for 2000 implementers of family-legal protection measures	C4.3.R3-I1
- by the end of 4Q/2024, 100 licensed immediate custodians	C4.3.R3-I1
- by the end of 4Q/2024, 70 newly employed professionals with social services providers	C4.3.R3-I1
- by the end of 4Q/2024, 15 implemented training courses for standardization of professional procedures and licensing	C4.3.R3-I1

21. Financing and costs

C4. Labour market and social protection			
Total estimated investment value for the component (HRK)			**7.353.202.296**
C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future			
Total estimated investment value for the subcomponent (HRK)			**5.005.466.460**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C4 .1. R2-I1	Economic transition measures for competitiveness and employability of the labour force in the economy of the future	1/2021. 12/2023.	4.611.966.460
C4 .1. R3-I1	Establishment of a voucher system for education of employed and unemployed persons	1/2021. 12/2023.	300.000.000
C4 .1. R4-I1	Digitization and computerization of Croatian Employment Service (CES)	6/2020. 1/2026.	93.500.000
C4 .2. Development and improvement of the pension system			
Total estimated investment value for the subcomponent (HRK)			**217.735.836**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C4 .2. R1-I1	Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)	1/2021. 8/2026.	166.565.486
C4 .2. R2-I1	Digitization of the Archives of the Croatian Institute for Health Insurance (eArchives)	3Q/2021. 8/2026.	51.170.350
C4 .3. Improving the social welfare system			
Total estimated investment value for the subcomponent (HRK)			**2.130.000.000**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C4 .3. R1-I1	Digitalisation of the system and linking social welfare centres and social service providers	6/2021. 12/2024.	30.000.000
C4 .3. R2-I1	Prevention of institutionalization and development of community services in support of the process of deinstitutionalisation	2021. 2025.	100.000.000
C4 .3. R3-I1	Improving the quality of life of the elderly by increasing the capacity of accommodation	2021. 2025.	1.000.000.000
C4 .3. R4-I1	Improving the infrastructure of social welfare centres, family centres and other social services providers	2021. 2025.	1.000.000.000

7. HEALTH COMPONENT

4. Component Description

Policy area		
Promoting health and active life Disease prevention and early detection	Health care Availability and sustainability of the health care system	Telemedicine Medical robotics

General objective

Strengthening the health care system in order to adequately respond to the challenges of chronic non-infectious and emerging infectious diseases and ensure fair availability of care to all residents of the Republic of Croatia.

Reforms and investments covered by the component

C5 .1. Strengthening the resilience of the health care system	
Reforms	
C5 .1. R1	Improving the efficiency, quality and accessibility of the health care system
C5 .1. R2	Introduction of a new model of care for key health challenges
C5 .1. R3	Introduction of a system of strategic human resource management in health care
C5 .1. R4	Ensuring financial sustainability of the health care system
C5 .1. R5	e-Health
Investments	
C5 .1. R1-I1	Revitalization of the Institute of Immunology
C5 .1. R1-I2	Introduction of mobile pharmacy services in primary health care
C5 .1. R1-I3	Mobile ambulances
C5 .1. R1-I4	Phase III of the development of the Zagreb KBC - equipping with medical and non-medical equipment
C5 .1. R1-I5	Construction and equipping of clinical isolation units (3, 4 and 1./5 buildings) of the clinic for infectious diseases Fran Mihaljevic
C5 .1. R1-I6	Reconstruction of the Management building of the infectious diseases Clinic Dr. Fran Mihaljevic
C5 .1. R1-I7	Equipping new buildings to be built from a reconstruction project following earthquakes and boosting public health preparedness financed by the World Bank loan
C5 .1. R1-	Equipping of newly built structures II. Stages of the new hospital in KBC

I8	Rijeka at the Susak site
C5 .1. R1-I9	Digital imaging Diagnostics KBC Split
C5 .1. R1-I10	Construction and equipping of the central operating block building with intensive treatment unit (JIL), central sterilisation, RTG diagnostics, transfusion and medical-biochemical laboratory, and construction of interconnectors to existing facilities of the OB Varazdin medical facility
C5 .1. R1-I11	Hvar Health Centre
C5 .1. R2-I1	Procurement of equipment for the prevention, diagnosis and treatment of cancer patients
C5 .1. R2-I2	Procurement and implementation of equipment for the establishment of the National oncological Network and the National oncological Database
C5 .1. R3-I1	Central financing of specialisations
C5 .1. R3-I2	Specialist training of nurses and technicians in emergency medicine activities
C5 .1. R4-I1	Central preparation of all parenteral preparations in 8 Croatian hospitals
C5 .1. R4-I2	Introduction of a unit therapy distribution system in 50 Croatian hospitals
C5 .1. R4-I3	Digitalisation of drug route through health care institutions at secondary and tertiary level of health care
C5 .1. R4-I4	Development of a system for monitoring and prevention of shortages of medicinal products in the Republic of Croatia
C5 .1. R4-I5	Introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies
C5 .1. R4-I6	Improving the system of storage and transport of medicinal products in public pharmacies
C5 .1. R4-I7	Waste disposal in Zagreb's KBC
C5 .1. R5-I1	Improvement, upgrading and renovation of ICT infrastructure and digitization of medical documentation
C5 .1. R5-I2	Digitization integration of operating halls and robotic surgery in KBC Split
C5 .1. R5-I3	TELECORDIS
C5 .1. R5-I4	Teletransfusion

Contribution	**A green transition**	**The digital transition**
	40%	100%

Total estimated investment value for the component	**6.630.282.156 HRK**
Share of the total plan	6%
Estimated investments per year and sources of financing	see Annex 3.
Impact assessment	Annexes 4a, 4b and 5 (to be developed)
Response to CSR	see Annex 1.
Contribution to other parts of NPOO	see Annex 1.

22. Main challenges and objectives addressed under the component

In order to preserve the achievements so far and solve remaining problems in providing health care services in public health, strengthening the role of governance is crucial. By building national capacities for the implementation of health care reform, the Republic of Croatia can ensure the fulfilment of the goals set by it with regard to the health care system, which include, among other things, longer life expectancy, better quality of life and reduction of health inequalities.

The health care system will continue the activities of the public health system in the fight against the pandemic in order to save human lives, citizens' health and the economy. The modernization of the hospital system will continue, planning the development of human resources, equipping medical-technological equipment, comprehensive digitalisation and strengthening of day hospitals and reducing waiting lists.

Digitisation of the health care system will improve citizens' health care, further reduce waiting lists through e-teaching projects, e-Guidelines and e-hospitals. The emergency medical assistance system will be improved and the necessary competences for independent work of teams without doctors will be raised.

The basis of the health care system remains primary health care, which will be strengthened by investments for the most successful preventive action, spreading of curative services and raising the quality of care through continuous education. Quality will be raised and primary health care provided, especially in rural areas, and health centres and outpatient specialist health care will be strengthened. Rationalisation of the hospital system will optimise health care and reduce excessive consumption. Functional integration of hospitals will continue, and the re-categorization of hospital health care institutions will set a transparent scale of excellence of the health care system. Special emphasis will be placed on strengthening human resources and improving working conditions in health care with lifelong development of professional competences. The application of the central preparation system for parenteral medicinal products and the application of digital monitoring of medicinal products will result in significant savings in the consumption of medicinal products in hospitals.

The public health system will be strengthened, as well as the preventive medicine system and the role of the public health institute network with special emphasis on the prevention and early diagnosis of chronic non-infectious diseases, which make up the largest part of mortality and morbidity, but also on the health safety of the population through a well-organised epidemiological service. The production of the Institute of Immunology will be restored and self-sufficiency of the production of vaccines and blood preparations will be ensured. Digital platforms, registers and databases for the collection and monitoring of public health data will be improved.

The strategic goal is to improve the health of citizens throughout their lives, reduce the incidence and mortality of cancer and extend and increase the quality of life of cancer patients in the Republic of Croatia to the level of Western European countries. A National Anti-cancer Plan will be adopted to reduce cancer morbidities and deaths. Procurement of equipment for prevention, diagnosis and treatment of cancer patients and implementation of strategic documents will improve comprehensive monitoring, prevention and treatment of malignant diseases with included and integrated measures of tertiary prevention and optimisation of health care for oncology patients.

(a) main challenges

3. Health outcomes are generally below the EU average. The life expectancy in Croatia is 78.2 years, which is significantly shorter than the EU average (81 years). The life expectancy without health problems at the age of 65 is 5 years, one of the lowest values in the EU. Smoking and alcohol consumption are above the EU average, affecting mortality from cardiovascular and carcinogenic diseases that cause about 75% of all deaths in the country. Common causes of death that can be prevented are lung cancer, heart disease, alcohol consumption and accidents.

38. The health care system remains mainly focused on acute care in hospitals, and the integration of preventive, chronic and long-term care remains weak. The problem of unavailability of health care to the socially most vulnerable population creates additional costs of treatment and accompanying costs related to organisation, travel, nutrition and accommodation, thus putting them in the position of self-assessment of the justifiability of timely visits to the doctor, which further worsens their health condition, which usually results in much higher costs of treatment.

39. The geographical distribution of health infrastructures and human resources varies significantly.

40. The health care system remains a source of risk for public finances. In the next period, the Republic of Croatia will continue to face a reduction in revenues and increased expenditures for health care. Despite a strong increase in revenues from health insurance contributions, the health care sector continues to accumulate overdue debts. Overdue liabilities were mostly incurred in hospitals, especially those owned by counties. About 45% of total procurement in hospitals is done through unified procurement, which is an increase from 8% in 2016 and allows significant savings. However, although unified procurement is obligatory for all state-owned hospitals, many county-owned health institutions opt for independent procurement.

(b) objectives

AD1 .1. Improved health status, well-being and quality of life of the population throughout their lives by strengthening prevention and health care especially in the field of cardiovascular diseases, malignancies, addiction diseases and mental health preservation, through projects aimed at changing and adopting healthy habits for target groups of kindergartens and schools, raising awareness and capacities of citizens for healthier selection, monitoring and reducing risk factors related to behaviour and habits.

AD1 .2. Improved health outcomes due to the introduction of a new patient care model.

Ad2 .1. Improved health care for the most vulnerable groups by improving access to health care by improving access to hospital health care by increasing the capacity of day hospitals and day-long surgery, and functional integration of hospitals and connecting activities in hospitals, and by providing telemedicine services, as well as through beds for prolonged treatment and beds for palliative care.

Ad2 .2. Through investments in the development of the basic network of telemedicine centres, quality of life has been raised and population migrations in remote areas have been stopped, and conditions have been secured to maintain younger population in rural areas with the possibility of personal and professional training through the use of information and communication systems.

Ad2 .3. Improved palliative and long-term care at all levels and integration of these services with the Ministry responsible for social welfare.

Ad3 .1. Improved planning of human resources in health care is one of the most important goals we want to achieve in order to respond well to the challenges ahead.

Ad3 .2. An increased number of medical staff to fill the health care network, taking into account healthcare professionals who will retire in the coming period.

A3 .3. Address the unequal distribution of health resources and the resulting weak geographical coverage in order to increase the availability and quality of health care primarily at the primary basic level of health care especially in rural and isolated areas.

AD4 .1. Rationalised hospital network due to the implementation of the National hospital Development Plan 2018-2020 and functional integration of health care institutions at all levels, which will positively affect rationalization of costs in health care.

AD4 .2. Improved joint public procurement system by including hospitals in county ownership which will achieve significant savings in the system and improve quality on the basis of large scale economic benefits, and by using e-tools.

AD4 .3. Reducing debts in the health care sector due to the reform of the DTS and the limits conferred to health care institutions by the Croatian Institute for Health Insurance.

23. Description of reforms and investments by subcomponents

C5 .1. Strengthening the resilience of the health care system

Link with the European Semester and/or strategic documents and the context of the reform

The reforms planned to be implemented have been recognised in the NRR draft (Strategic goal 4. “Healthy, active and quality life”, which States that accessibility, quality and effectiveness of health care are the fundamental values of modern health systems and will be at the centre of all considerations on future steps in the development of Croatian health that will be taken in partnership with patients as users of services. Also, challenges related to improving population health outcomes and achieving a balance between financial opportunities and rising costs associated with new and advanced treatment methods due to technological and scientific progress, as well as increased demand for health care due to population ageing have been identified. Priorities for the implementation of a healthy and active living policy include, inter alia, promoting the health and active life of all age groups of citizens, especially young people, through sport.

The Government Programme highlights the need for good organization of health services, efficiency of the system and availability to all citizens under equal conditions. Similarly, the reforms to be implemented in the health care system are part of the current NPR.

Existing national strategic documents (e.g. The National Development Plan for clinical hospital centres, clinical hospitals, clinics and general hospitals in the Republic of Croatia, National programmes for cancer, diabetes, rare diseases, etc.), as well as those in the phase of adoption (e.g. The National Programme for the Prevention of Cardiovascular diseases, etc.) defines the necessary changes and reforms of a certain part of the health care system that are in line with other strategic documents and with CSR 2020/1c regarding the need to improve the resilience of the health care system.

Furthermore, in accordance with the government's program in order to stimulate a healthier life, it is necessary to encourage involvement in sports activities from the earliest age, as well as to invest in a better connection between the sports sector and other branches of the economy, including health care.

The Council's conclusions on the impact of the human-19 disease pandemic and the recovery of the sports sector call on Member States to promote the role and value of sport and physical activity in terms of their contribution to the physical and mental health of citizens, particularly during crisis periods such as THE human-19 disease pandemic and beyond.

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C5 .1. R1	Improving the efficiency, quality and accessibility of the health care system

Challenge

Strengthening the health care system is necessary in order to adequately respond to the challenges of chronic non-infectious and emerging infectious diseases and to ensure fair

availability of care to all residents of the Republic of Croatia.

The priority challenge in primary health care is to ensure a balanced approach to effective and quality primary health care especially in remote and deprived areas, and to ensure satisfactory primary health care in crisis situations (such as epidemics), to raise the quality and ensure the availability of primary health care, especially in rural areas, and to strengthen outpatient specialist-conciliar health care at health centres in order to bring the specialist-conciliar health care system closer to patients' home and to reduce referrals to more expensive hospital diagnostics.

The analysis of the situation indicates the significant unequal distribution of doctors in relation to urban and rural areas, as well as the disproportion between primary and hospital health care, because the number of doctors at primary level has decreased over the past four years. In addition, 30% of doctors or 670 of them are over 60 years of age and over 65 years of age and who work with the consent of the minister have 162. Due to its geographic specificity, the gold clock standard in emergency medicine is objectively unattainable by road for residents and visitors of islands and rural, traffic isolated and remote areas, regardless of the number of HMS ground teams. In addition to islands that are not connected to the mainland by a bridge, other demographically endangered areas are included in the risk group.

Currently, there are 47.11% of specialists in family medicine in the activities of family medicine, and only 175 specialists are specialized. Also in emergency medicine activities, the share of emergency medicine doctors in the total number of contracted teams was 14.88%.

According to occupancy status of public health service network in primary health care for October 2020, family (general) medicine activities are missing – 197 doctors (2452 teams are required/2333 teams are contracted, including no doctors (81), in pre-school health care activities: missing – 74 pediatricians (330 teams are required/282 teams are contracted (including unlicensed teams), in women's health care activities: missing – 97 gynecologists (335 teams); 273 teams are contracted;

Faced with the epidemic of CYID-19, the pandemic scale and its impact on the life and health of the population, the economy, the supply of necessary medicines and medical supplies, and the mobility of people and things, we have become aware of the importance and need of national self-sufficiency in securing some medicines, protective equipment, blood preparations that we are able to produce for our needs and further launch on the external market. In 2012, *the Global vaccine Action Plan* was adopted by the *World Health Assembly*, which set the goal of eliminating measles in 4 regions out of 6 WHO regions by 2015. Recent reports show that the *Global vaccine Action Plan* has not been implemented since there are inconsistencies in the implementation of the vaccine availability plan for all children and that no measles have been eliminated in these 4 regions by 2015. Measles epidemics have appeared in the last ten years, according to CDC data, and in economically developed European countries. One of the priority goals of the WHO is to increase global anticorruption to > 90%. According to who, the measles were one of the key indicators of the strength of a country's immunisation system, and the occurrence of

measles epidemics often acts as the first warning to deeper problems. The Republic of Croatia is the owner of the mother vaccine strain of the measles virus Edmonston-Zagreb, which is among the highest quality and safest vaccine strains of measles in the world. The immunity that develops after the use of live attenuated measles vaccine is long-term, demonstrating the presence of antibodies in children and several years after the vaccination of children with these vaccines.[48] According to WHO data in a comparative study analysing data obtained after the administration of multiple virus vaccine strains in different countries of the world, the duration of protective immunity after vaccination with Edmonston-Zagreb vaccine strain is better than with other measles virus vaccine strains (WHO/EPI/GEN/93.17). Also, the vaccine strain of the rubella RA 27/3 virus is one of the safest vaccine strains of the rubella virus in the world.

Objective

The intention is to ensure equal availability of health care at the primary level and improve the emergency medicine service, reduce morbidity and mortality rates from preventive non-infectious and infectious diseases, and reduce mortality and severe disability in seriously injured or life-threatening persons.

Description

Primary health care will be strengthened through the filling of networks with the aim of ensuring territorial availability of care and quality professional work with patients. The same will be done by opening new places in the network to reduce the number of patients in the family medicine team; providing financial incentives to fill less attractive places in the network; strengthening health centres through administrative support centres for teams and opening other specialised infirmary facilities, as well as specialising in family medicine practitioners. The health care system will be strengthened both through integration and coordination of health care providers at the level of health regions and at the national level; categorization of hospitals with redefining the scope of activities; functional integration of institutions and medium-term plan for further integration, merger and conversion of institutions. Likewise, the system will be strengthened through a programme to improve the quality of health care, a team approach to care and ensure availability of poorly populated areas and islands.

Implementation

In order to increase the quality and efficiency of primary health care and provide conditions for conducting 80% of the cases at the primary level, i.e. reduce referral to much more expensive specialist-consultancy and hospital health care, it is necessary to fill the public health service network appropriately and increase the share of family medicine specialists in the total number of doctors contracted in family/general medicine teams.

Production of viral vaccines from native strains of measles and rubella owned by the Republic of Croatia represents strategic products for the Republic of Croatia, and the plan for revitalization of the Institute of Immunology is based on the assumption of construction of a new plant at the Brezje site, which gives the possibility of modern production and

48World Health Organization, WHO Technical Report series, No. 840, 1994. Annex 3

increased capacity in relation to the current infrastructure of the Institute of Immunology.	
Implementation holder	MIZ
Target Group	The entire population, insured persons of the Croatian Institute for Health Insurance and tourists
Estimated cost	HRK 1,944,468,156 (investment)
Implementation period	2020.-1/2026.

C5 .1. R2 Introduction of a new model of care for key health challenges

Challenge

The life expectancy in the Republic of Croatia is 78.2 years, which is significantly shorter than the EU average (81 years). The life expectancy without health problems at the age of 65 is 5 years, one of the lowest values in the EU. Smoking and alcohol consumption are above the EU average, affecting mortality from cardiovascular and carcinogenic diseases that cause about 75% of all deaths in the country. Cancer is the leading public health problem in the Republic of Croatia. Cancer is the second most common cause of mortality (after cardiovascular diseases) and is responsible for 27% of deaths in the Republic of Croatia in 2018. In the Republic of Croatia, more than 24,000 citizens receive a diagnosis of malignancy annually. The primary cause of death is in persons under 65 years of age and responsible for 50% of deaths in women and 35% in men. The most common form of cancer in men is lung cancer, while in women breast cancer. The Republic of Croatia is at the bottom of the EU's survival rate, among five countries with the worst rate, except for children, where survival rates are comparable to those in the EU. The most probable reasons for such unfavourable oncological outcomes in the Republic of Croatia include: high exposure to adverse effects (mostly smoking and obesity), lack of quality primary prevention programs, poor health education and insufficient early detection programs for cancer, later diagnosis, higher incidence of deadlier forms of cancer, poor availability of quality oncology care, lack of radiotherapy and other expensive and sophisticated equipment, lack of true multidisciplinarity in oncology, lack of co-educational and non-laboratory quality data. During the last 20 years, the share of expenditures intended for cancer treatment in total health expenditures remained constant, both in Europe and in the Republic of Croatia (6.9%).

Unfortunately, in the Republic of Croatia the average consumption per newly diagnosed cancer patient is three times lower than in the western part of the EU. All this led to significant disturbances in the infrastructure of the system that takes care of oncology patients, especially in the Croatian radiotherapy network.

An additional problem for the oncology system is the corrona crisis. Since the beginning of the corrona-induced pandemic, about 10,000 people have died of cancer in the Republic of Croatia. Due to the situation in the health care system, a smaller number of patients opt for preventive examinations, control examinations and additional tests are delayed and patient co-operation is reduced, so besides being one of the most vulnerable groups for virus

infection, the real consequences of the oncology pandemic are still expected.

Objective

The aim is to improve the outcomes of treatment with oncology patients, increase the proportion of treated patients, with less undesirable effects of treatment.

Description

The new model of care for key health challenges will contribute to improving the health outcomes of cancer, diabetes, cardiovascular diseases and rare diseases by implementing national programmes for these diseases. Also, the new model of care in terms of treatment organisation implies the restructuring of the hospital system by establishing regional centres of excellence in which the most complex operations are performed on patients. On the example of malignant diseases, this means that oncological patients will be operated on in regional centres of excellence, while radiotherapy and chemotherapy can take patients to a lower-level health facility that is closer to their place of residence. The initial treatment plan for all cancer patients must be in accordance with accepted guidelines and must be adopted by a multidisciplinary team. The entire process is coordinated by a family doctor whose purpose is to monitor the clinical route of treatment and patient recovery.

Implementation

The plan is to establish a patient portal where key information and self-treatment signposts are available to the patient, requiring innovation and strengthening of the IT health platform. For the purpose of monitoring patient satisfaction, MONITORING of health outcomes indicators, PROM (PATIENT's own opinions on the impact of their disease or disorder and treatment of the same on their life) and PREM indicators (measuring patient's experience with health care stated by the patient) will be introduced. The aim of the new care model is to put the patient in the spotlight, and to improve the continuity of care. We are in the process of accepting the National Strategic Framework against cancer, within which we plan to organize, structured and comprehensively approach the problem of cancer in the Republic of Croatia with a plan that the full implementation of it could save 113,000 years of human life through its 10-year implementation.

Implementation holder	MIZ
Target Group	Oncology patients
Estimated cost	HRK 930.000.000 (investment)
Implementation period	1/2021.-12/2025.

C5 .1. R3 Introduction of a system of strategic human resource management in health care

Challenge

Due to the overall high costs of hospital health care, there is a problem of finding funds for financing specialist training of hospital specialisations. The problem occurs especially in less attractive or deficit specialties (e.g. anesthesiology, reanimatology and intensive

medicine, emergency medicine, etc.). Due to financial problems, hospitals sometimes do not even announce all anticipated and planned specialisations. Ensuring central financing of specialisations prevents the financial reasons for hospitals' inability to provide the necessary funds from leading to inability of specialist training of a sufficient number of doctors, determined by the National Plan for specialist training for the five-year period (2020-2024), which is based on the need for development of health care at hospital and other levels of health care, as well as on the need of health care system for appropriate specialities of health care workers, their number, schedule and age structure.

The analysis of the situation indicates the significant unequal distribution of doctors in relation to urban and rural areas, as well as the disproportion between primary and hospital health care, because the number of doctors in the hospital system has increased over the past four years and the number in primary and family medicine has decreased. In addition, 30% of doctors or 670 of them are over 60 years of age in the activities of family medicine, which means that they will be eligible for an old-age pension in the next 5 years. There are 162 employees over 65 who have already acquired the conditions for old-age retirement, but are still working with the consent of the minister. An additional problem is the departure of doctors abroad (according to the Croatian Medical Chamber, about 1850 doctors sought certificates for their departure abroad).

Occupancy status of the public health service network in primary health care for four basic activities for October 2020:

7. (i) family (general) medicine activity: 2452 teams are needed/2333 teams contracted (including teams without carriers (81) missing – 197 doctors)

(ii) pre-school children's health care activities: 330 teams required/282 teams contracted (including carrier-free teams missing – 74 pediatricians)

(iii) Women's health care activities: 335 teams required/278 teams contracted (including carrier-free teams missing – 97 gynecologists)

(iv) dental health care activity: 2271 teams/2057 teams are required (including teams without carriers missing – 239 dental practitioners).

(v) Labour medicine activity: 193 teams required/162 contracted (missing -31)

(vi) ambulance activity: 692 T1 teams have been contracted, out of which 103 teams are holders of Dr. Spec. Emergency medicine, a total of 200 T2 teams have been contracted, of which the specialists of nurses/technicians in the overall emergency medicine activities have 29.

Objective

Enable specialist training of healthcare professionals, doctors of medicine, nurses and technicians in the activities of emergency medicine and thus achieve equal and sufficient occupancy of the public health service network, as well as availability of health care to all citizens of the Republic of Croatia.

Description

In order to increase the quality and efficiency of primary health care and provide conditions

for conducting 80% of the cases at the primary level, i.e. reduce referral to much more expensive specialist-conciliar and hospital health care, it is necessary to increase the share of family medicine specialists in the total number of doctors contracted in family/general medicine teams. Currently, there are 47.11% of specialists in family medicine in the activities of family medicine, and only 175 specialists are specialized.

Also in emergency medicine activities, the share of emergency medicine doctors in the total number of contracted teams was 14.88%.

Implementation

Based on the National Plan for specialist training.

Implementation holder	MIZ
Target Group	Doctors of medicine without specialisation, nurses/technicians in ambulance activities without specialisation.
Estimated cost	HRK 3,140,000,000 (investment)
Implementation period	2020.-12/2025.

C5 .1. R4 Ensuring financial sustainability of the health care system

Challenge

The increasing increase in overdue obligations, uneven procedures and the procurement of particularly expensive medicines in the health care system creates challenges for decision makers to provide public services within limited financial possibilities, measure treatment outcomes and ensure availability of facilities and equipment for future health facilities.

Objective

The aim is to achieve a financially sustainable public health system while achieving a single standard of preparation, contracting and implementation of procedures affecting the ways and possibilities of providing health care.

Description

Covered by implementation.

Implementation

In order to ensure financial sustainability which will enable a high level of health care, the implementation of integrated public procurement of medicines, orthopaedic aids and financially significant goods and services will continue in order to achieve better value for money and ensure better control of public procurement management. Also, a revision of the list of particularly expensive medicines will be carried out, stricter control of the approval and procurement of expensive medicines will be introduced and THE results of treatment measured as criteria for inclusion of such medicines on the list, and *Cost-Utility* analysis and QUALY will be introduced into the process of placing innovative medicines on the list. Clear guidelines for rational prescription of medicines and revision and control of

medicine consumption in hospitals will also be introduced. When determining the highest price of medicine as a reference country, those that are similar to the economic situation and not those economically stronger in the EU countries will be taken. New medicines will be introduced only after they are introduced on the market by several countries. A permanent control of medicine consumption in hospitals will be established - issuing medications from hospital pharmacies for each patient separately, which will digitize completely the route of the medicine to the patient with the creation of the overall history of therapy that the patient received in the hospital, which automatically gives the possibility of connecting with the E-file and sharing data with family medicine physicians. This will also reduce the consumption of solid forms of medicines (capsules and tablets) in hospitals and make maximum use of existing stocks without the possibility of expenditure on medicines that have not been used and expired. The use OF BULK packaging will significantly reduce the cost of disposal of secondary packaging. Digitalisation of the drug route through health care institutions at secondary and tertiary level of health care will contribute to the financial sustainability of the system by removing paper documentation, the system receives a model for monitoring the medicine from order to patient, enables a model for invoicing the administered dose of the medicine to a patient in hospital, creates a platform for monitoring the consumption of medicinal products by indication, patient, prescriber, department and creates a platform for accurate and realistic reporting on the consumption of medicinal products in health institutions.

Rationalisation of the hospital system through functional integration with reduction/reallocation of activities and reduction of acute stationary capacities and strengthening of day hospitals will optimise health care and reduce excessive consumption. One of the significant activities is planning future capacities in accordance with defined needs analyses as well as performed option analyses in which one of the funding models that creates the highest value for money will be selected, in accordance with the EC methodological framework. Starting from this approach, health care planning will be based on the three pillars of development defined under (i) primary, (ii) secondary and (iii) tertiary health care.

Implementing integration measures will not only focus on administrative and institutional capacities of health care institutions, but also on activities in which the planning, procurement and consumption of medicinal products and medical supplies is continuously monitored throughout the entire cycle of providing healthcare to patients in the system. In this respect, the introduction of a single unit therapy system, as well as support for central preparation of all parenteral preparations, will be functionally connected. From the pharmaco-economic point of view, this significantly contributes to reducing drug losses and creating the basic preconditions for monitoring treatment outcomes.

The health care system at the level of primary health care will focus on further strengthening the prevention and availability of the basic approach to health care throughout the entire territory of the Republic of Croatia by increasing the availability and availability of health capacities with the aim of implementing all activities that affect the increase of inflow of patients into the secondary and tertiary systems.

The secondary health care system will focus on regional connectivity of health institutions through functional integration with the aim of further rationalization of institutional and administrative capacities and procurement of equipment, while the establishment of centres of excellence and application of advanced technological and innovative methods of

treatment through strengthening of polyclinical and consultancy health care and monitoring of future effects of treatment outcomes in the Republic of Croatia will be encouraged at the tertiary level. This approach enables application of the methodological framework which will enable monitoring *of efficiency* and COST effectiveness of THE entire health care system through cost-Utility and QUALY analysis.

Encouraging the development of centres of excellence, one of the most important projects is the construction of the National children's hospital, as well as phase III of the project for the development of the clinical hospital Centre Zagreb which includes the construction of a new structure at the Rebro site which will enable the unification of medical and non-medical activities with the aim of improving health infrastructure, improving working conditions, better functionality and efficiency and reducing costs. Better accessibility and quality of health service provision will be enabled, while reducing operational costs. By introducing controlling and centralizing the hospital system through coordination of management and standardization of processes in all hospitals in the Republic of Croatia, activities are also expected to achieve significant financial savings.

The above mentioned and described projects related to the construction and equipping of hospitals in the City of Zagreb which suffered the consequences of a devastating earthquake, as well as hospital health institutions in other regions of the Republic of Croatia, are in line with the reform priority 10: “ensuring financial stability, sustainability and quality of the health care system”.

Implementation and preparation of activities will raise the quality of health care including improvement of treatment outcomes, optimize the resources of the hospital health care system and ensure the resilience, financial stability and sustainability of the health care system.

Implementation holder	MIZ
Target Group	Primary, secondary and tertiary health systems.
Estimated cost	HRK 403,500,000 (investment)
Implementation period	1/2021.-8/2026.

C5 .1. R5 e-Health

Challenge

Without clearly defined and uniform application of data and information standards and regulations, health care is segmentally informatized and grows according to the project approach principle with minimal harmonisation and control of interdependence of projects and their solutions. It projects are often overly technological, without taking into account strategic, legal, organisational and other preconditions. Examples of information mismatches are: insufficient share of unique national health codes used by health institutions, lack or untimely maintenance of metadata standards of common and specific parts of health information infrastructure, so that adherence to minimal metadata standards

is sometimes left to individual client of the computerization project. In addition, the health care system faces challenges (burden caused by THE HUMAN-19 pandemic, ageing population) which require intensified adjustment of the health care system to the real needs of the population and enabling the provision of services when access to the doctor is not possible or the system is under burdens.

Objective

The aim of Croatian e-Health by the end of 2023 is to improve management capacities by using more efficient data usage and to foster innovative solutions in health care in order to better manage the health system

Description

It is necessary to establish structures, processes and procedures for the introduction of data analysis and reporting into existing decision-making practices and policies at the level of healthcare providers, trailers and policy makers. Algorithms should be built into the system by means of which previously selected health data will automatically be converted into health information on the basis of which key decisions will be made.

Implementation

It is therefore necessary: to establish a national health information management system; to regularly apply population health reporting tools as a basis for targeted disease prevention and management activities; to build national capacity for data analysis; including integrating interfaces between healthcare providers and patients with existing infrastructures and practices; to build national capacity to apply artificial intelligence and high performance computing while raising the level of cyber security of e-health and advanced digital skills in healthcare professionals, but also patients through advanced data, in particular artificial intelligence, to enable the development of new healthcare services.

Strategic projects contributing to the digital transition will focus on building systems for different applications in health care, among which the most prominent are: diagnostic automation using machine learning, assisted surgery using robotics and reducing the administrative burden of healthcare professionals by applying innovative approaches and solutions based on telemedicine, teletransfusion and mobile health. Special emphasis will be placed on improving digitalisation of diagnostics and health care for vulnerable groups such as children and chronic patients, in order to enable faster, better quality and more reliable supply of early childhood patients with necessary diagnostic information.

Implementation holder	MIZ
Target Group	Health care workers, patients, citizens.
Estimated cost	HRK 212,234,000 (investment)
Implementation period	1/2021.-2/2024.

(b) Investments

C5 .1. R1-I1 Revitalization of the Institute of Immunology

Challenge

see C5 .1. R1

Objective

By manufacturing in modern facilities, approximately 50% of the total production of vaccines of the Institute of Immunology is planned to be placed on the market of developing countries, and intensive efforts should be made to develop a new vaccine strain against mumps, which could ultimately place polyvalent vaccines on the EU market (about 10% of products).

Description

The issue of establishing the activity of fractionating blood plasma of domesticated donors and producing vaccines from high-quality virus strains is a strategic and geopolitical issue in the Republic of Croatia. The development of therapeutic agents produced from biological materials (immunological medicines) has great scientific and public health potential, advanced research of biotherapeutic medicines for old and new diseases as well as for long-term diseases of modern man, resulting in a growing demand for these medicines.

Since the late 1990 s, the RC has supported the development of vaccines, and the vaccine industry is considered a strategic sector, both for the European economy and public health. In December 2018. The Council of the EU adopted recommendations to strengthen cooperation on disease prevention through vaccination (2018/C 466/01) with a view to achieving the European Action Plan for vaccination 2015-2020. (WHO), directing Joint Action in the field of vaccination (2018) and improving national programmes and vaccination policies. Recommendations to Member States included increasing support and prioritising research and innovation in the field of vaccines. Measures and work were also proposed to strengthen supply and mitigate the risk of shortages of essential vaccines (e.g. increasing the capacity of vaccine production, ensuring continuity of supply and diversification of suppliers), as well as to improve efficiency in financing research and development of vaccines at national and EU level by strengthening existing infrastructures and creating new ones.

In the EU, blood preparations are constantly missing because their production does not cover 40% of its needs for medicines from blood, and imported preparations from other parts of the world pose a potential risk of spreading infectious diseases, which are otherwise not present in Europe (for example, Ebola and many others for which blood is not tested). For this reason, the Council of Europe also recommends and encourages the principle of self-sufficiency, i.e. voluntary and unpaid blood donations, as defined in Article 2. Council recommendations No. R (95) 15, adopted by the EU in Directive 2002/98/E OF the European Parliament and of the Council of 27 January 2003.

The Croatian pharmaceutical industry is recognized as a driving activity and one of the

strategic industrial activities in the Republic of Croatia and in this sense the Institute of Immunology is a legal entity of strategic state interest for the Republic of Croatia, because its activity of producing immunological medicinal products, which needs to be modernized and harmonised with good manufacturing practice (Good manufacturing practice), ensures availability of high quality virus vaccines from the world-renowned quality of virus strains, with special emphasis on measles (Edmonston - Zagreb), for the purpose of immunization and securing of medicinal products in the Republic of human plasma in sufficient quantities.

Implementation

Due to the aforementioned, it is important to modernize the production of the Institute of Immunology in the Republic of Croatia, especially since the stem batches of the measles, rubella and mumps viruses have been produced, while the Institute of Immunology, whose production dates back to 1893, has a centuries-old tradition of producing immunological medicines and is the only Croatian producer of such products.

At the time of the civil-19 pandemic, there is an even greater need for modernisation of production in the Institute of Immunology, because the production of virus vaccines represents strategic products of the highest category.

One of the reasons for the falling behind of the Institute of Immunology for producers in the world is the untimely investment in plants, equipment and technology which had to be modernized. However, the existing approved pharmaceutical technological processes of producing seabream and rubella virus vaccines are in line with good manufacturing practice and minimal harmonisation of the production process in the new factory is necessary and are expected after the transfer of technology to new premises and new production equipment, a rapid continuation of production, while other technologies require somewhat greater harmonisation.

Consequently, in accordance with good manufacturing practice, the production of immunological drugs in the Institute of Immunology should be modernized and the plants of the Institute of Immunology moved from the urban part of Zagreb to the industrial zone on its land in Brezje, Sveti Nedjelja. Since the production of aseptic virus vaccines is very specific and subject to strict regulations of the EU and WHO, obtaining a license to sell viral vaccines through WHO can only be achieved if all elements enabling the fulfillment of all regulatory requirements are incorporated into the design of new facilities.

To this end, by decision of 23 June 2016, the Government entrusted the MIS with the exercise of ownership powers over state property consisting of the virus mother batches, and on 30 April 2020 it adopted a Decision on the assessment of market value and preparation of a study on the use of this property owned by the Republic of Croatia, in the light of measures adopted to combat the CIVILIAN-19 disease pandemic, respecting the National supply Plan of the Republic of Croatia with medicinal products manufactured from human plasma 2019-2022.[49]

The Republic of Croatia is the owner of valuable state property of parent viral series and also the founder of the Institute of Immunology.

The study of the use of state property of parent batches of the virus is based on two models:

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(i) the number of doses of vaccine that can be produced from the existing quantities of parent lots of measles and rubella virus (and the comparison with the projection of revenue from mono-component measles vaccine, two-component MR vaccine and three-component MRP vaccine, according to UNICEF/WHO price data), and the time of use of state property of parent lots for the production of lyophilised two-component MR vaccine in theory allows 608 years of sales and theoretically achievable revenue calculated according to UNICEF prices.

(ii) projection of the use of semi-product (FB) measles and rubella vaccines and the production of a final measles and rubella vaccine in the amount of 100 million doses/year on the example of a request from the sponsor.

In accordance with the results of the study, the completion of the project for the construction of a new immunological Institute plant could bring significant revenue which can be used for further development of the Croatian health system.

The basic effects of the construction and modernisation of the production facilities of the Institute of Immunology are: (i) the capacity of new production plants justifies the construction financially; (ii) the Republic of Croatia will at any time ensure a sufficient quantity of strategically important products; (iii) the preservation of its own production will give a long-term incentive to further development of biotechnology in the Republic of Croatia and give a chance for highly professional young people to work in their own environment; (iv) enabling the development and employment of co-operators of the Institute of the Institute of Immunology; (v) it is possible to return of investment and earnings in a very short time;

The medically positive effects are: (i) the availability of quality virus vaccines necessary for the prevention of various infectious diseases; (ii) the supply of blood plasma products in sufficient quantities exclusively from plasma collected in the territory of the Republic of Croatia; (iii) the provision of a snake antidote which is a guarantee of safety and protection from the effects of bites by European snakes of the family of birds.

Economic positive effects are: (i) ensuring employment of own human resources; (ii) significant export effect of planned product placement; (iii) own production ensures lower costs of immunological medicines for the Republic of Croatia than import of products.

The strategic positive effects are: (i) the availability of strategically important vaccines is ensured at all times, which significantly contributes to the improvement of public health in the Republic of Croatia; (ii) independence from external technology is achieved and the leading role in the region in terms of high technologies; (iii) conditions are created for the development of technologies for the production of new types of vaccines (recombinant vaccines); (iv) highly educated experts in the Republic of Croatia remain and conditions for their further development are created.

The Institute of Immunology's operations should be based on 3 production units of immunological medicines – viral vaccines, anti-toxin against snake bites and human plasma drugs. Institute of Immunology has a nucleus of experts with a unique expertise for the production of complex pharmaceutical products, especially vaccines, and the Centre for Research and transfer of knowledge in Biotechnology of the University of Zagreb is also

planned for the preparation of production in the new factory and the implementation of activities related to the research and development of products.

According to WHO, measles were a key indicator of the strength of a country's immunisation system and the occurrence of measles epidemics often act as the first warning to deeper problems, and vaccines from the Institute of Immunology were often purchased by buyers in the occurrence of measles epidemics, in order to stop the epidemics with our vaccine. The global demand assessment for a combined vaccine or an individual antigen in monovalent vaccines is based on who data. For 2020, UNICEF is planned to distribute approximately 200-250 million doses annually, but due to the frequent outbreaks of epidemics it is highly likely that the vaccine requirements will be greater than planned. New facilities can also be used for the future development of new vaccines, and for the contractual production of developed vaccines against other infectious diseases such as THE human-19 disease, which gives additional value to the Institute of Immunology and creates preconditions for the development of scientific research potentials for medical purposes, interinstitutional and international co-operation.

Implementation holder	MIZ
Target Group	Patients
Estimated cost	750,000,000 HRK
Implementation period	1/2022.-12/2023.

C5 .1. R1-I2 Introduction of mobile pharmacy services in primary health care

Challenge

Today there is an enviable coverage of the pharmacy service in the Republic of Croatia, but there is still a need to cover certain peripheral areas, especially on islands and rural terrestrial areas. Therefore, areas of the Republic of Croatia insufficiently covered by pharmacy care would be ideal places for the introduction of new health facilities. Providing such elementary living conditions could contribute to the growth of the population on the islands, thus improving the demographic picture and reverse the negative trend of emigration of a particularly young population.

During the tourist season, the number of people residing in certain locations, such as: marinas; national parks; lakes; islands; inland-rural tourism, is multiplied.

It has been noted that even larger cities (Rijeka, Crikvenica, Zadar, Split, Dubrovnik), which represent transit points to certain destinations, have too few duty pharmacies.

Objective

For the sake of better supply, both of the resident population and tourists, it is necessary to increase the availability of pharmacy services.

Description

There are many technical solutions in the world for the implementation of mobile pharmacy projects, and the shortlist includes auto-camper pharmacies and catamaran pharmacies,

which will be equipped in accordance with all regulations ensuring the continuity of the quality of medicines.

This project would ensure that all residents have access to health care throughout the territory of the Republic of Croatia, and during the tourist season a service standard would be secured.

Implementation

Phase 1 Data collection

In the first phase it is necessary to identify areas in the Republic of Croatia that require additional capacities to ensure availability of medicinal products. It is necessary to determine the number of inhabited islands that do not have organized pharmacy care and the state of unavailability of pharmacies in deprived areas of the Republic of Croatia. By collecting data we will get the number of mobile pharmacies we need.

Phase 2 Preparation of project documentation

Phase 2 includes preparation of documentation for the procurement of mobile pharmacies in the form of a car camper and a pharmacy catamaran. The vehicle and catamaran camper must meet the standards of good distribution practice and the highest standards for preserving the integrity and quality of the medicinal product.

Phase 3 Organisation of tenders and selection of producers and suppliers

In phase 3, it is necessary to organize the procurement of mobile pharmacies in the form of a camper vehicle and a catamaran pharmacy. It is estimated that in order to meet the needs of the population for medicines and pharmacy care in the entire territory of the Republic of Croatia, 4 mobile pharmacies will be needed in the form of a car camper and 2 catamaran pharmacies. At this stage it is also necessary to define the personnel standards for the Magistrates of Pharmacy that will implement this project and the way in which they will be financed.

Phase 4 Implementation of mobile pharmacies into the primary health care system

In phase 4, it is necessary to define the method of implementation of the new form of pharmacy care and distribution of medicinal products into the primary health care system. For deprived areas and islands, it is necessary to ensure the manner of contracting and financial sustainability of the service. It is necessary to find a model of co-operation with the social welfare system because of the increased number of patients living alone and unable to take care of their therapy on their own.

Implementation holder	MIZ
Target Group	Patients, local self-government
Estimated cost	HRK 20,000,000
Implementation period	6/2021.-7/2024.

C5 .1. R1-I3 Mobile ambulances

Challenge

The Republic of Croatia is facing a long-term process of negative demographic trends that are expressed in several segments: declining birth rate, aging population and population displacement. This particularly refers to the Croatian island area, which represents a great economic and developmental potential for Croatia as a whole, but the islands are also regions exposed to serious and permanent natural and/or demographic difficulties. The population of the Croatian island area is demographically old on average, and the greatest disorder of age and sex composition is recorded by the islands furthest from the mainland. Certain rural or remote settlements, parts of the island or the entire islands are submerged with the core functions, including health care.

The state of occupancy of the public health service network at the primary level of health care is the same in the last few years, but also insufficient. The lack of healthcare professionals in rural and remote areas and islands is therefore a structural problem. The lowest level of primary health care, that is, general medicine doctors, had 58 (19%) island settlements, and only 37 (12%) settlements had some form of specialised doctors (mostly dentists, gynecologists and pediatricians). This situation affects the overall quality of life of the population of rural and remote areas and islands and is one of the most influential factors of emigration.

At the same time, a lack of inhabitants in certain areas influences that primary health care teams cannot provide a minimum number of insured persons, which is why primary health care in rural, remote and island areas is not attractive enough to select young doctors, even with a general tendency to work in such areas.

Objective

Increased availability of health care to the population in smaller and less accessible places and increased quality of health service which will also enable filling of the required number of insured persons in care per primary health care team.

Description

Based on the legal framework set up, the MIC will establish, in cooperation with counties and health centres, a mobile ambulance system in rural and remote areas and on islands.

Implementation

Implementation Plan:

(xv) Drawing up a public call for applications for mobile ambulance procurement projects prepared by local self-government units 4/2021.-7/2021.

(xxxi) Purchase of mobile ambulance vehicles and appropriate medical and other equipment 8/2021.-4/2025.

(xxxii) Education of Healthcare professionals for work in Mobile Clinic 5/2025.-6/2025.

Implementation holder	MIZ
Target Group	Patients, local self-government

Estimated cost	HRK 54,720,000
Implementation period	4/2021.-6/2025.

C5 .1. R1-I4 Phase III of the development of the Zagreb KBC - equipping with medical and non-medical equipment

Challenge

Clinical hospital Centre Zagreb is a hospital institution in which the population from all over the Republic of Croatia is provided with the most complex forms of health care and in which the teaching of higher education institutions and scientific work is performed. KBC Zagreb as the Central National hospital has 1.795 beds contracted with the Croatian Institute for Health Insurance for lying patients, 435 beds - chairs for day hospitals in 6 locations (Rebro, Jordanovac, Petrov, Salat, Bozidarevic and Gundulic) and 5,900 employees.

Objective

In order for KBC Zagreb to remain a reference hospital centre that serves as a quality, available and long-term sustainable healthcare for the citizens of Zagreb and the Republic of Croatia, it is necessary to continue implementing new technologies in medicine and improve the efficiency of the work of KBC Zagreb.

Description

The purchase of medical equipment in the total amount of HRK 142.625 million (including VAT) for orthopaedic clinic, dermatovenerology clinic, eye diseases clinic, transfusion medicine Institute and transplantation biology and tissue and hospital pharmacies, as well as non-medical equipment in the amount of HRK 46,875 million (including VAT) is planned within the framework of the 3 rd phase of the project for the development of the Zagreb clinical hospital.

Implementation

Equipping with medical equipment:

(i) Orthopaedic Clinic

Establishment of new conceptual methods for orthopaedic clinical trials; introduction of more efficient and safe treatment of acute diagnostics and therapeutic procedures in one-day surgery; introduction of new procedures in diagnostics and treatment of musculoskeletal system diseases; improvement of arthroscopic procedures as one of the most serious complications in orthopedics; monitoring of extreme surgery in everyday hospital; improvement of diagnostics and treatment of peripheral infections

(ii) Dermatovenerology Clinic

Procurement of medical equipment for the purposes of the dermatovenerology Clinic will enable the processing of a number of patients in: paediatric deramatovenerology; dermatological oncology; immunodermatology; laser application areas in corrective dermatology; dermoscopy; trichology; dermatohistopathology; medical cosmetology and corrective dermatology; dermatological radiology; photodermatology of clinical

dermatology; pigmental and tumortem skin tumoratories;

(iii) eye disease Clinic

Today, one-day surgery operations are performed in the Central Operational Block and operations are combined and mixed with the operations of lying patients. Also, patients are prepared in rooms where they prepare and stay lying patients. At this moment, rooms and chairs are missing to prepare patients for day-long surgery, as well as equipment and space to perform operations. Procurement of new medical equipment for ocular diseases clinics will enable: expansion of therapeutic and diagnostic potentials (intra-arterial retinoblastoma chemotherapy, intravitreal retinoblastoma therapy); introduction of new therapeutic and diagnostic procedures in ocular colony and transplantation ophthalmology; introduction of genetic tumour analysis and improvement of patient prognostic information; increasing the number of surgery networks through day-long surgery; treatment of rear ocular segments in one-day surgery (easier vitretinulin surgery).

(iv) Institute for Transfusion medicine and transplantation biology and tissue Bank

The Department of Transfusion medicine and transplantation Biology comprises four departments: Department of Accession, Department of Transfusion, Department of tissue typing and Croatian tissue and cell Bank. Public blood Bank from the umbilical cord Ana Rukavina has been operating within the clinical Institute since 2007, and at the same time the blood bank from the umbilical cord has been opened for personal needs. Along with the cardiovascular tissue bank, the cell bank, the eye bank and the bone bank make up the Croatian tissue and cell bank, where tissue for transplants is stored and processed.

The purchase of medical equipment for the purposes of the Institute for Transfusion medicine and transplantation biology will enable: providing secure and sustainable supply of blood components, tissues and cells that meet the needs of patients in the wider area of Zagreb; modernisation of blood processing and testing facilities to improve efficiency and ensure resilience and compliance with pharmaceutical, regulatory and quality standards; additional flexible pharmaceutical space intended for simple integration of new safety measures, products and processes, and working processes suitable for modern production and anticipated increase of cell therapy.

(v) hospital pharmacy

Procurement of the following equipment is planned for hospital pharmacy: robotised storage and dispensing system and unit therapy; cold room of temperature range 2-8 C; complete equipment of new space for central preparation of cytostatics according to the rules of the profession (clean room, additional insulators), laminar for powder forms and suspensions); complete equipment of facilities for parenteral preparation of solutions (clean room, laminar); complete equipment for space for making sterile preparations (clean room, laminar).

Equipping with non-medical equipment:

(i) kitchen

The Department for nutrition and dietetics plans, prepares and distributes meals for all stationary patients, patients in daily hospitals, employees and staff of the KBC Zagreb and

educates patients about the proper diet and diet adjusted to the needs of the patient in accordance with diagnosis and therapy. Daily food is prepared and divided into 2 locations, ribs and Petrov, and distributed to Jordanovac and Bozidarevic's locations.

The objective of building a new kitchen is to provide benefits to all participants in the health care system: patients in the quality and safety of nutritional care they receive; better reliability and productivity of employees because of the facilitation and acceleration of work; management structure in the management structure of information relevant for decision making; society in general in terms of better quality of life and use of resources.

The construction of modern cuisine offers the possibility of opening an educational centre and developing dietetic services for all patients in hospital treatment with the aim of connecting and including them in the education on nutritive care of most patient associations for various diseases.

The purchase of new kitchen equipment will enable: optimal centralisation of food preparation in terms of food quality and hygiene (tablet systems are not at all locations); optimal technology adapted to modern mode (currently outdated equipment and more than a few decades old in the kitchen); rational use of energy and means to operate (outdated devices are not adapted to energy preservation and environmental protection); proper storage, handling, use of food and food preparation; organised control of prepared food and distribution.

The new equipment should contribute to increasing energy efficiency. At the same time, such equipment reduces the pollution of the working environment and increases safety at work and facilitates work by modernising equipment that must be managed by electronic applications. Equipment shall be provided that further reduces the consumption of detergents, water and energy with the EC programmes in accordance with the machinery Directives 2006/42/EC and EN standards.

The application of information technologies will be positively influenced by 24 h control of refrigerated devices monitored from only one place and by recording changes in set parameters in order to prevent food quality deterioration. Equipment must be integrated with BIS in order to increase the security and quality of traceability and cost control.

(ii) furniture

It is planned to purchase furniture for the Orthopaedic Clinic, the dermatovenerology Clinic, the eye diseases Clinic, the Institute of Transfusion medicine and transplantation biology, the hospital pharmacy, the nutrition and dietetics department and the warehouse-archives.

Implementation holder	MIZ
Target Group	Patients, healthcare professionals
Estimated cost	187,500,000 kn (of which 140,625,000 kn of medical equipment and 46,875,000 kn of non-medical equipment)
Implementation period	1/2023.-1/2026.

C5 .1. R1-I5 Construction and equipping of clinical isolation units (3, 4 and 1./5 buildings) of the clinic for infectious diseases Fran Mihaljevic

Challenge

The clinic buildings in question were built by a pavilion type of construction. Given the long-term existence and operation of the clinic, the infrastructure was kept at the level of needs and standards that were valid at the time of construction. An additional circumstance is insufficient investment in building maintenance and the fact that no interventions have been made to improve basic requirements for buildings, compared to the initially built condition. These buildings do not follow health and scientific spatial needs and standards that have changed completely over time, and the existing space is one of the key limiting factors in the regular operation and development of the clinic.

Buildings III and IV and I/V “houses”, Institute for infectious diseases of children - Department for infectious diseases of infants and infants (Division III), Department for Digestive tract infections - Department for Gastrointestinal infections (Division IV), Institute for Acute respiratory infections (and Division) and Department for skin and locomotor system infections (I/V Division) currently do not comply with the existing health service standards. The existing buildings III, IV and I/V “houses” are standalone, of which building III consists of the ground floor and loft with a total floor layout area of 512 m ^{2}, building IV of the basement and ground floor with a total floor layout area of 558 m ^{2}, and BUILDING I/V consists of the cellar, ground floor and loft with a total floor layout area of 732 m ^{2}, according to the data from the Construction certificate until 15 February 1968.

Objective

In order for Clinic to meet the needs on the one hand, and to strategically position herself as efficient, and following the regionally recognized importance for the wider community, it is necessary to ensure its spatial and functional development through the restructuring of the existing situation.

Description

The concept of project task has been made. In the following phases, the design will follow, which will, from the point of view of cultural significance and technical aspects, partially change the abovementioned visions of the clinic, taking into account the fulfilment of functionality.

The future state of affairs will ensure the preservation of the cultural importance of the clinic and strengthen its protection, promote and raise awareness of a good example of connecting cultural, construction, energy and health aspects.

Implementation

In the construction and technical sense, the scope of the project includes demolition of the existing 3 rd, 4 th and 1./5 th buildings and construction of new parts of the complex with basement floor, ground floor and three new floors.

BASEMENT: radiological diagnostics, prosection (autopsy hall – classical and for autopsy of highly contagious diseases) – and service premises (energy blocks and wardrobe of sanitary personnel), while in the middle of the basement there is a radiological

diagnostics).

GROUND FLOOR: emergency admission of Triage clinic (separate for children with six emergency hospitals, 2 triage rooms and 1 emergency room with patient preparation and especially for adults with 10 emergency room bulants, 2 triage rooms and 2 ambulatory rooms with patient preparation); clinical clinic with all specialist clinics and associated diagnostics (respiratory, Urogenital, coronary/haematological, HIV); clinical hospital with all specialist clinics and associated diagnostics

FLOOR 1: Department for treatment of patients with gastrointestinal tract infection (single and double bedrooms with bathroom as insulation units with balcony exit) - Total 25 beds, endoscopy diagnostic space and UZV treatment; Respiratory infections Institute (single and double bedrooms with bathroom as insulation units with balcony) - Total 25 beds, Baroque and spirometry diagnostic rooms

FLOOR 6: Institute for urogenital infections (single and double bedrooms with bathrooms organised as isolation units with access to the balcony) - Total 25 beds, diagnostic space for UZV processing, clear-oscopy and electromagnetic therapy; Institute for CNS infections (single and double rooms with bathrooms organised as isolation units with access to the balcony) - Total 25 beds, diagnostic space for processing CNS infection;

FLOOR 3: Department for intensive and post-intensive treatment of adults (single and double bedrooms with bathrooms organised as isolation units with balcony exit) - Total 30 (intensive) + 10 beds (post-intensive) + ECMO center (10 beds); Department for intensive and post-intensive treatment of children (single and double bedrooms with bathrooms organised as insulation units with balcony exit) - Total 15 (intensive) + 5.

All the ground floor, except the ground floor, has an external gallery due to the specificity of the clinic in terms of treating infectious diseases and every office also has an exit.

In cooperation and dialogue with relevant conservators and designers, the clinic will elaborate every functional part separately. For example, emergency reception capacities must be greater than they are now, waiting rooms will be separated for children and adults, with their infirmary. Due to the nature of treated diseases and infections, all surgeries will have entrance from the outside as an isolation unit.

The construction of a new building would significantly improve the conditions for patients and improve the conditions for providing adequate healthcare.

Implementation Plan: a) preliminary market analysis for the tender documentation proposal; b) contracting the development of proposals for the tender documentation, for the management of the construction project; c) drawing up proposals for tender documentation for the management of the construction project; d) public procurement procedure of high value for the construction project management service; e) contracting the development of proposals for the tender documentation for the design service; d) developing proposals for the design tender documentation; d) developing a high value public procurement procedure for the design project design service: preliminary, main and drawing-up of the project; Don for the execution and the Don for the professional supervision service; m) Preparation of the tender documentation proposal for the execution

and supervision phase; n) previous market analysis; o) open public procurement procedure for the execution and selection of contractors; p) open public procurement procedure for the execution and selection of overview of the construction; q) execution of works, equipping; r) Technical examination and obtaining of the service permit; s) completion of the project: administrative, technical and organisational; t) procurement and delivery procedures related medical and non-medical equipment.

Implementation holder	MIZ, the infectious diseases Clinic Dr. Fran Mihaljevic
Target Group	Patients, healthcare professionals
Estimated cost	119.550.000 HRK (construction works and professional supervision services 44.550.000 HRK; equipment 75.000.000 HRK)
Implementation period	1/2021.-1/2026.

C5 .1. R1-I6	**Reconstruction of the Management building of the infectious diseases Clinic Dr. Fran Mihaljevic**

Challenge

The complex of facilities of the clinic for infectious diseases “Dr Fran Mihaljevic”, Zagreb, is located within the historical urban unit of the City of Zagreb, registered in the Register of Cultural assets of the Republic of Croatia, the list of protected cultural assets under registration number Z-1525, in the part for which the protection system “B” has been established, and the administrative and ambulatory building (on your request marked with number 1. Administrative building) is protected by an individual decision as a cultural asset, entered in the Register of Cultural property of the Republic of Croatia, the List of protected cultural assets under No.: Z-6785, and therefore subject to all provisions of the law on the Protection and Conservation of Cultural property.[50] According to the law on the Protection and Conservation of Cultural property, for projects on buildings within the respective assembly it is necessary to obtain special conditions and prior approval based on the legally prescribed technical documentation prepared according to a legal or natural person who possesses the permission of the Ministry of Culture (MKM) to perform works on the cultural property.

The administrative building of the clinic for infectious diseases, Dr. Fran Mihaljevic, is a building of high architectural, construction and typological (purpose) quality and is intended to preserve, rehabilitate and restore or reestablish original design elements. When planning the project on the building, it is necessary to preserve the original characteristics in the exterior and inside, with the possibility of modifications that will not jeopardise its original design and construction characteristics. Installation and replacement of building elements and materials not suitable for the historical and monumental character of the building is not allowed. In particular, this means that it is not possible to place thermal insulation on the façade from the outside, but to plan to rehabilitate the façade, carpentry and roof according to the original in all elements - design, materials, paint and final treatment with removal (subsequently performed shallow mowing roof over a part of the

50OG 69/99, 151/03, 157/03-ispr., 87/09, 88/10 and 61/11, 25/12, 136/12, 157/13, 152/14 and 98/15 - Regulation

volume in the northeast corner of the building) and to correct all subsequent inadequate interventions.

Objective

The intention is to improve working conditions for non-medical personnel residing and working in the administrative part of the building, as well as for patients and medical staff within the Polyclinic and the children's reception clinic.

Description

The administrative building of the clinic is currently used in one part for office and administrative operations with storage facilities, and in the other part for medical purposes, which would be placed in a new complex. It consists of the ground floor and 3 floors, each floor being organized as a certain administrative unit, while the ground floor has a living groceries' Warehouse (it would be located in the premises of the present radiology and a polyclinic and a hepato-clinic with the Central entrance hospital for children, which will be moved to the new building). A Department for domestic and International projects and EU Funds will be established in the Administrative building.

Implementation

Analogous approach as described for the project of construction of new buildings 3, 4 and I/V, it is necessary to ensure its spatial and functional development through restructuring of the existing situation.

The future state of affairs will ensure the preservation of the cultural importance of the clinic and strengthen its protection, promote and raise awareness of a good example of connecting cultural, construction, energy and health aspects. The concept of project task has been made.

In the following phases, the design will follow, which will, from the point of view of cultural significance and technical aspects, partially change the abovementioned visions of the clinic, taking into account the fulfilment of functionality.

Initial suggestions of the clinic are given below, which will be arranged in dialogue with relevant conservators and other key participants according to optimal conditions. The current conceptual review contains the following works: energy renovation in line with the Programme for Energy Reconstruction of Cultural Heritage, as well as conservation instructions, will significantly improve working conditions for non-medical personnel residing and working in the area of the administrative part of the building, as well as for patients and medical staff within the clinic and children's reception clinic.

Implementation Plan: a) contracting the design task; b) preliminary market analysis for the proposal of the tender documentation; c) small-value public procurement procedure for the service of managing the energy renewal project; d) public procurement procedure for the design service: preliminary, main and project of the realised state; e) Development of the preliminary project; f) Development of the main project; g) contracting the preparation of proposals for the tender of the execution phase. Don for execution and Don for professional supervision services; h) Development of tender documentation proposals for the execution and supervision phase; I) previous market analysis; j) open public procurement procedure for execution and selection of contractors; k) open public

procurement procedure for performance and selection of supervision of construction; l) execution of works; m) Technical examination and obtaining of the use permit; n) completion of the project: administrative, technical and organisational.	
Implementation holder	MIZ, the infectious diseases Clinic Dr. Fran Mihaljevic
Target Group	Patients, healthcare professionals
Estimated cost	HRK 42,949.500
Implementation period	1/2022.-1/2026.

C5 .1. R1-I7	**Equipping new buildings to be built from a reconstruction project following earthquakes and boosting public health preparedness financed by the World Bank loan**

Challenge

The existing equipment used in clinic departments is worn out and requires high maintenance and servicing costs. Also, the existing equipment does not fully meet the needs of the activities underlying the operation of the clinic. Modern ways of diagnosing and treating infectious diseases require the use of modern and innovative technologies that save time and money and provide added value to users of health services and patients.

Objective

Replacement of existing worn-out equipment would primarily contribute to reducing the duration of hospital treatment and safer and easier stay in patients. Likewise, medical staff would be provided with better working conditions in an environment that can withstand predictable day-to-day challenges, but also unforeseeable situations in circumstances such as emergency circumstances during the current civil-19 pandemic.

Description

Users of the health care system would be provided with the entire service and medical treatment in accordance with the primary activities of the clinic, i.e. treatment of infectious diseases, where Clinic is the leading highly specialised institution, primarily in the territory of the Republic of Croatia, as well as neighbouring countries.

Implementation

Implementation Plan: a) market research; b) Development of tendering documentation: medical equipment and inventories, diagnostic equipment and inventories and other non-medical equipment and inventories; c) implementation of the public procurement procedure for medical equipment; d) implementation of the public procurement procedure for diagnostic equipment; e) implementation of the public procurement procedure for non-medical equipment; f) contracting, delivery and installation of the equipment concerned; g) completion of the project: administrative, technical and organisational.

Implementation holder	MIZ
Target Group	Patients, healthcare professionals

Estimated cost	HRK 1,748,656
Implementation period	12/2021.-1/2026.

C5 .1. R1-I8	**Equipping of newly built structures II. Stages of the new hospital in KBC Rijeka at the Susak site**

Challenge

The project for the construction of a new hospital represents a capital investment in Primorje-Gorski Kotar County, and its implementation is in line with the investment priorities in the system which aims to ensure equal availability of all health services for all users of health care by improving the hospital health care system through construction, adaptation and equipping.

The KBC Rijeka Pediatric Clinic is currently located at the Kantrida site, which is located from all other hospitals (clinic/institute). This means that patients who need health services such as MRI, dialysis, interventional cardiology, cardiosurgery should be transferred to the Rijeka/Susak site. Several medical activities such as otolaryngology, ophthalmology, dermatology and psychiatry are not an integral part of the pediatric clinic at the Rijeka and Susak sites.

Furthermore, they are born in the gynaecology and obstetric Clinic. The neonatal intensive care unit is located at the Rijeka site. Neonatal patients who need longer intensive care should be transferred to the intensive care Unit within the Pediatric Clinic at the Kantrida site. At the Kantrida site there are 6-7 buildings providing health services for children. This fact prevents effective transport of patients between departments, diagnostic laboratories and radiology. Therefore, the issue of accessibility to buildings is crucial. Access to buildings is limited for patients and vehicles. The streets between buildings are very narrow, and parked vehicles do not allow fast stopping of transport vehicles (sanitary vehicles, stockpile vehicles, medical supplies, food, ambulances, etc.). Due to the old architecture of buildings not built as health facilities, the movement of persons with disabilities is limited. The Kantrida site is not suitable for a health care facility and substantial funds must be invested to ensure an efficient medical environment.

Objective

The project to equip newly built buildings of the new hospital puts them into full functionality and become ready to use and provide health care. Therefore, the improvement of accessibility and quality of health care provision is directly influenced. The purchase of last generation medical equipment meets the precondition for the provision of state-of-the-art methods and treatment for the wider population of north-western Croatia. Such an approach directly influences the increase of opportunities in the positive outcome of treatment, which indirectly promotes the financial sustainability and capacity of the health care system as a whole. This approach has also been recognised at EU level within the framework of the 3 rd general objective of the third EU Health Programme 2014-2020.

In addition, the unification of medical processes at one location promotes the systematic reorganisation of the internal hospital system, which has positive financial implications on

operating costs, on-going maintenance costs and overheads. In relation to the current consumption of the Kantrida site, annual savings of 40% of electricity, 50% of gas and heat and 30% of water consumption are expected.

Therefore, the KBC Rijeka would follow the premise of continuous improvement of the quality and efficiency of work adopted through strategic documents.

Description

At the moment, the phase of rough work is being carried out, i.e. high-rise construction, while at the same time performing fine interior works (mechanical and electrical works) in positions that are ready for further processing. Completion of construction is scheduled for 2Q/2022, according to the approved schedule.

Equipping of newly built structures II. The phases of the new hospital of KBC Rijeka at the Susak site (hereinafter: the equipment Project) are a sub-project of finalization II. The stages of building a new hospital. The sub-project of equipping the new hospital is considered in the context of a separate unit due to its specificity and characteristics. The equipment project refers to the functional equipping (preparation, procurement, delivery, installation and full functionality) of newly built spaces with medical and non-medical equipment and devices.

Equipping newly built facilities will set high standards and quality of stay, both for patients and medical personnel, in the hospital environment, which in turn facilitates and promotes the working atmosphere and the satisfaction of all involved stakeholders.

Completion of construction and equipping II. The stages of the new hospital on Susak with state-of-the-art equipment and business standards will create preconditions for better, more efficient and faster digitisation, computerization and adequate robotization of business processes within the hospital system.

Implementation

The value of the equipping project is estimated at HRK 200,000,000 (including VAT) according to the prepared indicative list of equipment. The implementation of the equipping project is planned for a period of 36 months, i.e. from the beginning of 2021 to 2023, which is also conditioned by the construction process. The implementation of equipping is planned in three separate phases as shown below:

PHASE I - purchase of equipment which has special technological installation conditions (water, gas, air, electricity - microlocation) and is categorized as installation equipment. The aforementioned equipment belongs to the buildings of hospital kitchen and laundry and central sterilization buildings, static and OP lamps, digesters, beds, protective cabinets, outlets, etc.).

The total estimated procurement value of the said equipment shall be as follows:

8. Equipping of KBC Rijeka, Mother and child hospital – phase I PROCUREMENT

Phase	Building		Project	Value excl. VAT (HRK)	Value with VAT (HRK)
to	D3 .1-2, 2a mid		Central sterilisation	8.765.800	10.957.250
(I)	D3	.1-3	Hospital kitchen *	10.853.387	13.566.734

	Thermoenergetic block			
a)	D3 .1-3 Thermoenergetic block	Laundry	12.384.340	15.480.425
(I)	D3 .1-2.2 a mid	Installation equipment - static and OP lamps	10.259.300	12.824.125
(I)	D3_1-2,2 a mid	Installation equipment - other * * *	4.000.000	5.000.000
Total			**46.262.827**	**57.828.534**

* equipment level if all KBC Rijeka resources were located in one location or on Susak (Phase III)
* * digestors , the surgical bed , protective cabinets , outlets, discharge, disinfection and washing devices, workplaces with beds.

II. PHASE - purchase of radiological equipment which has special technological installation conditions (microlocation, installation) and is categorized as installation equipment. The above mentioned equipment belongs to the building of the radiology recorder-ground floor.

Equipping of KBC Rijeka, Mother and child hospital – phase II PROCUREMENT

Phase	Building	Project	Value excl. VAT (HRK)	Value with VAT (HRK)
II.	D3 .1-2.2 a mid	Radiological device - CT	7.000.000	8.750.000
II.	D3_1-2,2 a mid	Radiological device - MRI	10.000.000	12.500.000
Total			**17.000.000**	**21.250.000**

(III) PHASE **-** purchase of mobile medical equipment, other medical and non-medical equipment which is also the fastest technologically obsolete.

Equipping of KBC Rijeka, Mother and child hospital – phase III PROCUREMENT

Phase	Building	Project	Value excl. VAT (HRK)	VAT value (HRK)
(III)	D3 .1-2.2 a mid -	Medical appliances and devices - other	39.112.240	48.890.300
(III)	D3 .1-2.2 a mid -	Non-medical apparatus in the device	7.170.310	8.962.888
(III)	D3 .1-2.2 a mid -	General equipment - medical	10.735.090	13.418.862
(III)	D3 .1-2.2 a mid -	General equipment - non-medical	6.708.195	8.385.243
(III)	D3 .1-2.2 a mid -	Furnish equipment on order	8.859.327	11.074.158
(III)	D3 .1-2.2 a mid -	Transfused	11.910.200	14.887.750
(III)	D3 .1-2.2 a mid -	Laboratory	4.703.998	5.879.997
(III)	D3 .1-2.2 a mid -	Pathology of cytology	7.537.810	9.422.263
Total			**96.737.172**	**120.921.465**

Implementation holder	MIZ and KBC Rijeka
Target Group	Patients, healthcare professionals
Estimated cost	HRK 200,000,000
Implementation period	1/2021.-12/2023.

C5 .1. R1-I9 Digital imaging Diagnostics KBC Split

Challenge

KBC Split as the largest regional hospital in southern Croatia is one of the rare tertiary health institutions in the Republic of Croatia, which does not have at all or does not have a sufficient number of digital imaging diagnoses, although it cares for a population of approximately 800 000 patients, and during the summer months up to 1 500 000 considering the tourist season. At the clinical Institute for Diagnostic and intervention Radiology there is only one room for intervention to perform diagnostic and therapeutic procedures on the blood vessels of the body and the CBC is not able to respond to all clinical requirements or develop and introduce new procedures and techniques for the treatment of blood diseases, which is why patients often have to go to other tertiary health institutions in northern Croatia.

KBC Split is the only regional centre for endovascular treatment of aortic aneurysm and dissection, and the only centre in which acute treatment of stroke per type of thrombectomy is performed. Unfortunately, due to the lack of a second angio hall in which intervention procedures on blood vessels of the neck and head would be targeted, they are unable to develop neurointervention procedures and patients with brain artery aneurysm and vascular malformations go to other health institutions.

The clinical Institute for Diagnostic and intervention Radiology has 2 MRI devices with the strength of 1.5 T, one from 2007 and the other from 2019 which are currently the most used MRI devices in the Republic of Croatia. Due to lack of 3T KBC potency devices, it is not able to respond to all clinical inquiries especially for the needs of the paediatric population, and such patients are sent to other institutions.

The clinical Institute for Diagnostic and intervention Radiology currently does not have any digital diascopic device that serves to examine the digestive system, and patients are examined at the old (over 20 years of age) analogue devices that often fail due to wear and tear and generate much higher doses of radiation for patients (especially pediatric) and the staff handling them. Furthermore, additional costs for the development of films are generated and the chemicals used have a direct impact on environmental pollution as well.

There is no adequate intervention endoscopic hall at the Institute for gastroenterology, as well as a hall equipped with diascope RTG device (C arc) which is necessary for conducting a large number of interventional interventions (ERCP, dilation and stent digestive tubes, etc.). Endoscopic interventions and interventions are currently being carried out in areas where diagnostic endoscopic procedures are also being performed, which often prevents adequate work and organization of work since some of the interventions are extremely technical and time-intensive, and the number of diagnostic procedures is constantly increasing. Procedures requiring diaspora are performed at the clinical Institute for Diagnostic and intervention radiology, which are neither intended nor equipped for the needs of modern endoscopy. Procedures are performed on old and worn-out diaspora devices which prevents optimal work and directly endangers the health of personnel performing a large number of interventions. The currently existing infrastructure is not adequate nor can it monitor the trend of digitisation of health care, which is one of the development goals of the KBC Split. Modern endoscopy requires not only the diagnostic-therapeutic procedure, but also digital data storage (video and imaging material) in order to re-evaluate the patient's condition without reconducting the procedure in case of procedural complications or recurrent problems. Also, scientific publications, which are

extremely important for the development and progress of the KBC and which would result from performed endoscopic procedures, require digital storage and data processing.

At the Institute of Nuclear medicine there is a hybrid diagnostic device-SPECT-CT gamma camera 10 years old and thus shows certain signs of technical deterioration (crystal degradation). The discrepancy between a large number of patients and a gamma camera at the clinical Institute for Nuclear medicine leads to an unwanted increase in the waiting list, mostly involving oncology patients and the paediatric population. SPECT or SPECT/CT gamma camera is necessary in order to be able to perform urgent nuclear medical diagnostic procedures, including determination of brain death, which we are currently performing with difficulties considering that this test requires the occupation of the device (which is why the regular program is being cancelled) for several hours or the search is planned outside normal working hours.

Objective

This project would increase the availability and quality of health care for all patient categories and thus improve clinical outcomes given the possibility of earlier and better diagnostics, especially in paediatric and oncology patients.

Description

In patient care, it is essential to provide quality and modern diagnostic and therapeutic medical equipment that will enable separation of diagnostic from therapeutic and intervention procedures as well as introduction of new diagnostic and therapeutic procedures for which doctors and nurses in the KBC Split are trained, but are currently unable to implement them.

The trend of modern medicine is the increasing use of minimally invasive procedures for resolving increasingly complex conditions, in order to reduce the days of lying and thus the costs of treatment and to ensure the prompt recovery of patients. Endoscopic methods are increasingly replacing classic surgical treatment methods, and in this context the construction of a hybrid endoscopic hall will undoubtedly result in an increase in diagnostic-therapeutic endoscopic procedures and ensure a significant increase in the quality of their performance, a reduction in the number of complications and hospital days, and consequently the costs of patient treatment.

Such a scarf will enable digital storage of all relevant data for each patient so that they can be used in the best possible monitoring of the patient, and it will contribute to raising the quality in the education of medical students and specialists of gastroenterology, as well as increasing the number of scientific publications.

Implementation

For the successful further development of the Split clinical hospital and increasing the availability and quality of health care for all patient categories, it is necessary to acquire equipment for the purposes of the clinical Institute for Diagnostic and intervention radiology; to build and equip a hybrid endoscopic hall at the Institute for gastroenterology and to obtain equipment for the needs of the Institute of Nuclear medicine. Efficiency of implemented measures will be measured by monitoring the number of diagnostic and therapeutic procedures as well as their quality and reducing complications. New diagnostic and therapeutic procedures will be introduced, which have not been possible so far in

Split's KBC. This will result in shorter hospitalisations, significantly faster patient recovery, reduction of waiting lists and reduction of treatment costs, which is one of the goals of the clinical hospital Split.

Implementation holder	MIZ and KBC Rijeka
Target Group	Patients, healthcare professionals
Estimated cost	HRK 30,000,000
Implementation period	1/2021.-12/2022.

C5 .1. R1-I10 Construction and equipping of the central operating block building with intensive treatment unit (JIL), central sterilisation, RTG diagnostics, transfusion and medical-biochemical laboratory, and construction of interconnectors to existing facilities of the OB Varazdin medical facility

Challenge

General hospital Varazdin is a regional hospital that provides its basic activity of secondary health care to the population of Varazdin County and in certain branches of medicine and for the needs of the population of Medimurje County, Koprivnica-Krizevac County and Krapina-Zagorje County, a significant part of the operating branches of medicine (neurosurgery, urology, ABDOMINAL oncology surgery, CHILD surgery, orthopaedic and Traumatology, VASCULAR, PLASTIC and plastic surgery).

Objective

The resources of the hospital health care system will be optimised, patient safety will be increased and adequate conditions for the work of health care staff will be provided, modern and functional premises of all accompanying activities of the operating block will be integrated, the quality and safety of patients will be increased by connecting corridors when transferring from departments to departments. With the realization of this project, OB Varazdin will transfer from the pavilion type of hospital into uniquely functionally connected buildings as a whole, and financial sustainability will be ensured.

Description

For the construction of the Central Operational block (COB) with accompanying content and connecting hallways, the following are being prepared and prepared: architectural building and functional programme of the building of the central operating block with accompanying content, connecting hallways; concept project; project task, draft procurement documentation of the main project with related abortions, funds for the procurement of the main project secured in 2021 by the founder - Varazdin County. The start of the public procurement procedure is planned for January 2021, and contracting the preparation of the main project in March 2021.

Implementation

The new central operating block building with accompanying facilities and connecting hallways to existing buildings is the second phase of construction, while the construction phase includes projects in the realization of the “Project of Construction of day hospital/day

surgery at Varazdin General hospital" and the project "establishment of a unified emergency hospital reception at Varazdin General hospital". The construction and equipping of the central operating block building with intensive treatment unit (JIL), central sterilization, RTG diagnostics, transfusiology and medical-biochemical laboratory, and the construction of connecting halls to existing facilities of medical content will increase the availability and quality of health care by providing modern health facilities and medical-technical equipment by moving from existing buildings that can no longer monitor the requirements of modern medicine (the existing surface and space does not enable the necessary changes required by modern medicine).

Implementation Plan:

(i) drafting of project technical documentation: the activity of drafting project-technical documentation is essential in order to ensure the construction and equipping of the COB in accordance with legal regulations and examples of good practice, thus directly ensuring the achievement of project results.

(ii) Construction of a new building and equipping of a building with medical and non-medical equipment and education: Construction and equipping activities include the implementation of works and the procurement and installation of equipment necessary for the establishment of conditions, in terms of premises and adequate equipment, for the operation of the CoB. This activity includes execution of works consisting of construction-crafts, electrical installations, mechanical works, sprinklers, works of vertical transport (elevator) and environmental design in accordance with the main project and building permit. Also, the activity includes equipping general medical and non-medical equipment and medical and non-medical appliances, as well as energy audits and creating an energy certificate. The equipping of the CoB will be done in accordance with the main project, in particular the technological project and the building permit obtained. Also, the activity includes obtaining the necessary permits during and after the completion of the work and equipping of the CoB building and training for it. The activity also includes preparation of documentation for public procurement, implementation of public procurement procedure for works and equipment, construction and equipping of the CoB, monitoring of execution of the concluded procurement contract, energy certification and ensuring all legal requirements related to obtaining licenses, in accordance with the legal regulations. Total gross surface of the CoB building with connecting bridges according to the design design = 10,260.59 m^2.

Implementation holder	MIZ and OB Varazdin
Target Group	Patients, healthcare professionals
Estimated cost	HRK 413,000,000
Implementation period	1/2021.-12/2025.

C5 .1. R1-I11 Hvar Health Centre

Challenge

The existing state of health on the island of Hvar is unsatisfactory. The lack of availability

of a large number of health services conditions travel (usually to Split) even for very simple services and examinations. In combination with the connectivity of the island with the mainland, this element represents a very negative impact on the quality of life on the island. The appearance of specialists is insufficient in order to provide services to all those in need, while urgent cases can often end up fatal for people's lives precisely because of their length of travel.

A particular problem is providing health care to tourists, who in the summer months increase the number of people on the island by three to four times, while on the island itself there is not enough doctors or room for adequate care for the resident population (the average number of patients per surgery is 1,275). Due to the aforementioned, the spatial plan of the town of Hvar foresees a location for the construction of the Hvar Health Centre by optimising environmental, tourist and medical conditions with synergy with existing facilities in the city, whose development would integrate several aspects of health care through a comprehensive complex.

Objective

The aim of the establishment of the Hvar Health Centre is synergy between primary and secondary specialist conciliar health care, health tourism and care for the elderly. It is stated in accordance with the development and strengthening of primary health care and the role of health centres and strengthening of specialist-consultancy health care within the framework of the Health Centre.

Description

The Government supports the initiative of the City of Hvar regarding the implementation of the Hvar Health Centre project.

Due to the specific characteristics of air and water, i.e. climatic conditions and natural medicinal factors, the island of Hvar is favourable for the development of health tourism with a focus for rehabilitation. The town of Hvar has financed the development strategy of the Hvar Health Centre, according to which the Hvar Health Centre consists of a health care centre, emergency medical care, a polyclinic with a focus on physical rehabilitation and treatment of rheumatological diseases, followed by Pulmology, allergology, paradenthology and dermatology.

To obtain a strategic partner and secure financial resources for the construction of the Hvar Health Centre, a study of pre-feasibility and market research of demand for services is needed, and a construction site is envisaged. The design of an ideal project of the Hvar Health Centre is currently under way. The concept solution should be completed by the end of this year, after which it is necessary to provide funds for drafting documentation for the preparation of the execution project (estimated cost approx. HRK 5,200,000).

Implementation

The project is planned to be implemented in two phases. PHASE I includes the procurement of the service of drafting construction documentation - the execution project, which is a precondition for PHASE II - construction of the house of health and the emergency medicine department.

The indicative cost and evaluation of necessary construction and equipping resources will

be possible after the design project has been drafted, and the real assessment will be possible only after the complete documentation of the execution project has been prepared.

Implementation holder	MIZ
Target Group	Patients, healthcare professionals
Estimated cost	HRK 125,000,000
Implementation period	5/2021.-3/2026.

C5 .1. R2-I1 Procurement of equipment for the prevention, diagnosis and treatment of cancer patients

Challenge

It plans to improve the health care system in the field of cancer prevention and diagnosis.

Objective

The aim is to ensure optimal therapy to all oncology patients in the Republic of Croatia without waiting for treatment, using modern radiotherapy techniques with the aim of optimal utilization of equipment and quality control of radiotherapy process, thus improving the quality of services and improving health outcomes during treatment of oncology patients.

Description

The radiotherapy equipment to be procured will be networked into a unique Croatian national oncological network with a unique database of radiotherapy oncological data. This digital, it network will ensure continuous control of all outcomes in radiation oncology. Five radiotherapy institutions were organized in the Republic of Croatia in four regional centers. Radiotherapy centres are organized in scientific and educational institutions due to the complexity of planning and conducting radiotherapy treatment performed by the radiotherapy team. By analysing the condition and load of equipment, we present a plan for the restoration of old equipment and the purchase of new equipment.

Implementation

Implementation Plan:

Year	Purchase	Renewal	New	Unit Price (mil.kn)	Total
2021.	Linear accelerator	0	7	20	140
2021.	Fixed and dosimetric equipment	2	2	5	20
2021.	Linear accelerator SBRT	0	2	35	70
2021.	Bunker accelerator	0	9	8	72
2022.	Fixed and dosimetric equipment	2	2	5	20
2022.	Linear accelerator	0	8	20	160
2022.	Bunker accelerator	0	5	8	40
2022.	HDR brachitecropy	0	3	10	30
2022.	HDR brachitecropy	2	0	10	20
2023.	Linear accelerator	4	0	20	80
2024.	Linear accelerator	4	0	20	80

2025.	Networking of RT centres	0	1	10	10
2025.	CT simulator	5	0	8	40

Implementation holder	MIZ
Target Group	Oncology patients
Estimated cost	780,000,000 kn
Implementation period	1/2021.-12/2025.

C5 .1. R2-I2 Procurement and implementation of equipment for the establishment of the National oncological Network and the National oncological Database

Challenge

The Republic of Croatia is one of the EU countries with the greatest cancer problem; a high incidence, even greater mortality, unacceptable outcomes in oncology. Croatia is also the last country in the EU that is in the process of accepting and commencing the implementation of the National Plan against cancer. The aim of the National Plan is to provide equal and quality oncology care to all residents of the Republic of Croatia, despite relatively limited resources, regardless of where they come from or where they are being treated.

Taking into account the size and geographical shape of the Republic of Croatia, defined distribution of oncology institutions, public health importance of oncology, huge need to improve the results of treatment of oncology patients, the need for pharmacologically optimal oncology, it is undoubtedly necessary to organize a national oncology network in which all oncology institutions would be involved and outside which the treatment of oncology patients would be prevented.

Access to data on cancer types and their characteristics, monitoring processes and outcomes based on these data are essential for recognising risks and making decisions in health policy. This information should also be one of the key tools in evaluating the implementation of the National Plan. Due to all of the above, it is necessary to standardize medical documentation for collecting data, types of data, sources of data and their use and interpretation. These data would be extremely important for institutions that finance oncology care (the number of complications above the average basically means significantly higher treatment costs) and also for patients themselves (based on data, the patient can choose the institution that achieves the best results).

Objective

It is necessary to establish a national it oncological network for the purposes of the National oncological Data Base which will connect and record data from hospital information systems and other systems by automated means and which will be compatible and parallel with hospital it systems, and which will not put additional burden on healthcare professionals.

Description

All oncology institutions in the Republic of Croatia must be included in the national it

oncological network. Within the National information Oncology Network, appropriate algorithms of basic diagnostic procedures necessary for the initiation of treatment of the most frequent diagnoses could be installed in order to standardize treatment at all levels in the Republic of Croatia, from small oncology clinics to clinical hospital centres. The networking of oncology institutions/centres should be arranged in accordance with modern it standards, respecting all positive regulations. This primarily refers to information security and personal data protection.

Implementation

Implementation Plan:

(xvi) Application solution (software): HRK 30 000 000 - 1 year

(xxxiii) Maintenance and upgrading of the applicative solution: HRK 40 000 000 -1-5 years

(xxxiv) Hardware requirements: HRK 20 000 000 - 1 year

(xxxv) Software licenses: 20 000 000 HRK - 1 year

(xxxvi) Integration systems: 10 000 000 kn – 1-2 years

(xxxvii) Analytical system: 10 000 000 kn – 1 year

(xxxviii) Communication requirements: 10 000 000 HRK – 1-5 years

(xxxix) Implementation and education: 10 000 000 HRK – 1-5 years

Implementation holder	MIZ
Target Group	Oncology patients
Estimated cost	HRK 150,000,000
Implementation period	1/2021.-12/2025.

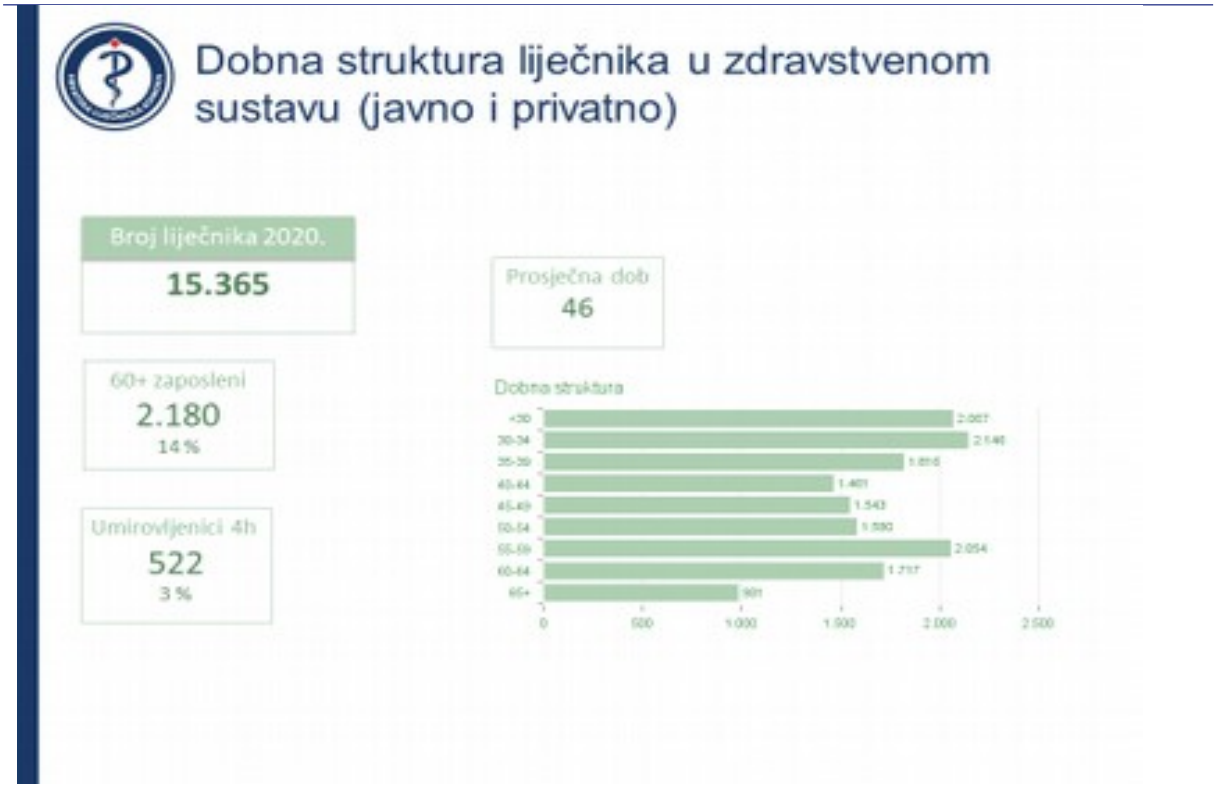
C5 .1. R3-I1 Central financing of specialisations

Challenge

Croatia recognises doctors and other health care professionals as a strategic strength for maintaining a high level of health services and as a strong potential for economic development.

The state of occupancy of the public health service network at the primary level of health care is continuously monitored from which it can be seen that the state of occupancy is the same in the last few years but insufficient with the biggest disadvantage in rural areas.

A special lack of physicians is felt in primary health care, especially in gynecological and pediatric clinics, and the level of patients per doctor in individual counties is very different. There are currently 47.11% specialists in general/family medicine in the activities of family medicine, while the rest are doctors contracted without specialisation. Therefore, the system is based mainly on hospital health care (the largest generator of costs and addressing the population's health needs), which represents a huge burden on the hospital system, and the number of specialists in the hospital system is also declining.



According to data on the number of doctors at the state level, the situation is in a favourable trend in general.

The increase in the total number of doctors is primarily based on the growth of young graduates and the increase in the number of specialists. The growth in the number of doctors has continued throughout Western Europe for decades due to increased system needs, population ageing (emigration is a more prone younger population that uses health services less frequently), more diagnostic and therapeutic procedures (DTP) and procedures are becoming more complex.

The situation as well as the general trend can be analysed through a large number of different presentations, but the share of doctors aged 60 years and over with employment in the public part of health care on 31.12.2019 was 14.9% (2076/13846), and according to the situation on 1.12.20. it was 15.4% (2165/14022). However, the share of doctors over 60 in primary health care activities is almost twice as high. PZZ doctors are on average older than hospital doctors.

Status of network occupancy in family medicine activities

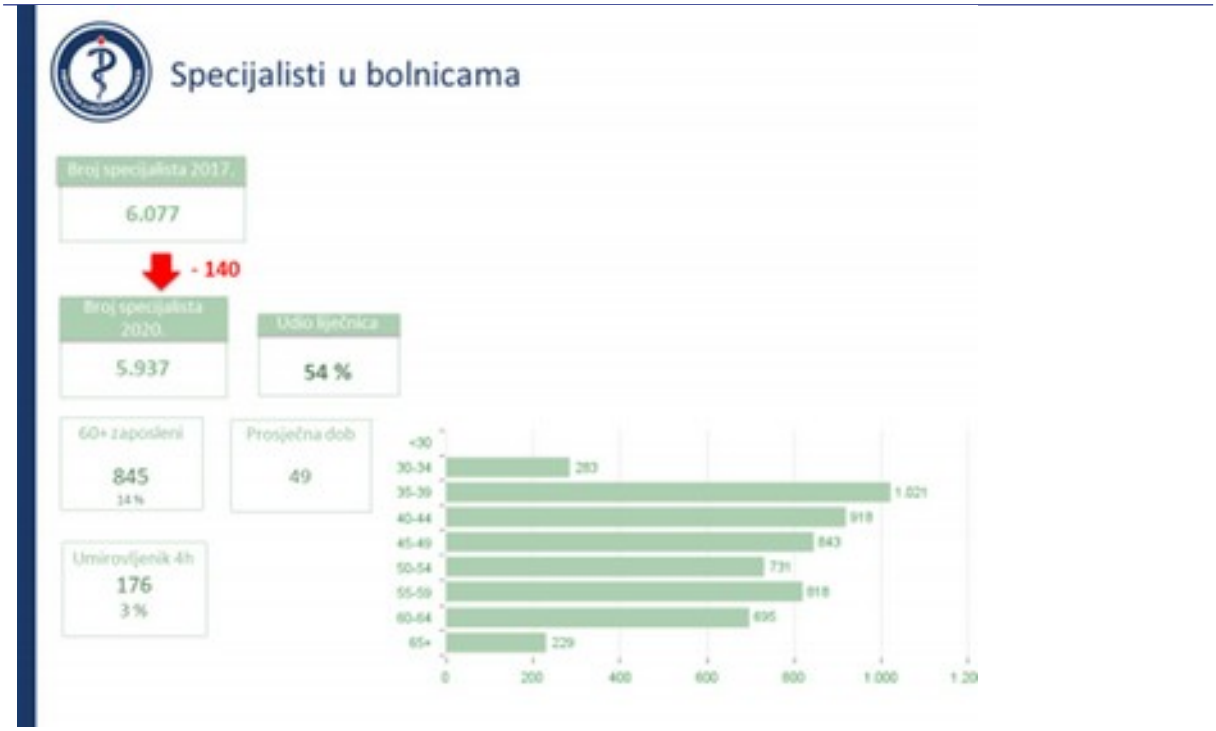
County	Number of doctors (contracted team carriers)	Contracted teams without doctors - team leaders	Necessary number of teams in the Croatian Health Insurance Fund	Missing doctor until network occupancy	% lack of doctors
Total	**2.252**	**83**	**2.452**	**200**	**8%**
Bjelovar-Bilogora	54	12	**67**	13	**19%**
Brod-Posavina	73	2	**92**	19	**21%**
Dubrovnik-Neretva County	77	1	**83**	6	7%
City of Zagreb	441	6	**443**	2	0,5%
Istrian	112	2	**117**	5	4%
Karlovac	72	3	**76**	4	5%
Koprivnica-Cross Mountain	53	4	**66**	13	**20%**
Krapina-Zagorje	73	1	**75**	2	3%
Lika-Senj	30	2	**33**	3	9%
Medjimurje	55	0	**59**	4	7%
Osijek-Baranja	167	3	**178**	11	6%
Zazega-Slavonian	33	5	**42**	9	**21%**
Primorje-Gorski Kotar	164	4	**175**	11	6%
Sisak-Moslavina	80	13	**98**	18	**18%**
Split-Dalmatia	257	7	**268**	11	4%
Sibenik-Knin	62	1	**66**	4	6%
Varazdin	85	1	**99**	14	14%
Virovitica-Podravina	36	8	**47**	11	**23%**
Vukovar-Srijem	87	4	**98**	11	11%
Zadar	97	2	**101**	4	4%
Zagreb	144	2	**169**	25	15%

Data source: Croatian Institute for Health Insurance

Table: Network occupancy status in Paediatric activities in CES

County	Number of doctors (contracted team owner)	Contracted teams without holders	Necessary number of teams in the Croatian Health Insurance Fund	Missing doctor until network occupancy	% lack of doctors
Total	**256**	25	**330**	**74**	**22%**
Bjelovar-Bilogora	8	0	8	0	0%
Brod-Posavina	7	0	11	4	**36%**
Dubrovnik-Neretva County	7	3	12	5	**42%**
City of Zagreb	60	3	68	8	12%
Istrian	12	0	15	3	**20%**
Karlovac	8	0	8	0	0%
Koprivnica-Cross Mountain	3	3	8	5	**63%**
Krapina-Zagorje	4	1	8	4	**50%**
Lika-Senj	3	0	5	2	**40%**
Medjimurje	5	0	9	4	**44%**
Osijek-Baranja	17	2	23	6	**26%**
Zazega-Slavonian	4	0	6	2	**33%**
Primorje-Gorski Kotar	21	1	22	1	5%
Sisak-Moslavina	9	3	12	3	**25%**
Split-Dalmatia	31	2	36	5	14%
Sibenik-Knin	6	1	7	1	14%
Varazdin	7	2	13	6	**46%**
Virovitica-Podravina	5	0	6	1	**17%**
Vukovar-Srijem	10	0	14	4	**29%**
Zadar	9	1	14	5	**36%**
Zagreb	20	3	25	5	**20%**

Data source: Croatian Institute for Health Insurance



The number of specialists in relation to the end of 2019 according to 1.12.2020. is 3005:3033, but still insufficient to fill vacancies in the public health service network and to compensate for pensioners and the development of certain activities. On an annual basis, about 500 students graduated from medical faculties in Croatia, which means that about 2,000 doctors of medicine have graduated since Croatia's accession to the EU.

Within the framework of human resources management in health care 2015, the Strategic

Plan for Human resources Development in Health was adopted as an operational document. one of the measures was to exploit the possibility of co-financing the implementation of the Strategic Plan for Human resources Development in Health 2015-2020. Funds for specialist training are provided in the amount of 186,000,000 kunas social fund in the amount of 85% and national co-financing 15%). the project finances the total of 99 specializations in family medicine, 39 specializations in the field of paediatrics, 37 specializations in emergency medicine, 27 specializations in gynecology and obstetrics and 11 specializations in clinical radiology.

In accordance with the new Health care Act, and with the aim of more efficient planning of human resources in the health care system, the National Plan for specialist training for the five-year period 2020-2024 was adopted for the first time, defining the number and type of necessary specializations at all levels of health care. The National Plan is adopted on the proposal of representative bodies of regional self-government units, i.e. the City of Zagreb and legal and natural persons, with the previously obtained opinion of the Croatian Institute for Health Insurance and competent chambers, based on the need for development of health care activities at primary, secondary and tertiary level, the need of private health care system for appropriate specialties of healthcare professionals, and the number, schedule and age structure of healthcare professionals in the public health care network.

The National Plan for specialist training for the five-year period (2020-2024) determined the need for: 3825 specializations and 555 specializations of doctors of medicine, 447 specializations of dental practitioners, 75 specializations of pharmacy masters and 127 specializations of medical biochemistry masters.

Given the demographic picture of the Republic of Croatia and the ageing population (continuous absolute and relative growth of population 65 +), the same is reflected in the public health system, i.e. more and more healthcare professionals over 60 years of age, while a certain number of physicians who have already acquired conditions for retirement remain in the system. In the next five years, i.e. by the end of 2024, 1,902 doctors will retire from public health care, out of which 845 specialists in hospitals and 1157 doctors in PHC.

Due to the duration of specialist training, mid-term planning is necessary and it is necessary to plan specialist training of doctors of medicine, masters of pharmacy, dental practitioners and masters of medical biochemistry in such a way that the specialist completes the specialisation prior to retirement of an existing specialist in a health care institution, as well as to anticipate a large number of specific specialisations which are less than the required number.

Objective

The aim is to enable specialist training of healthcare professionals, doctors of medicine and thus achieve equal and sufficient occupancy of the public health service network, as well as availability of health care to all citizens of the Republic of Croatia. This will further strengthen the administrative staff, cover the lack of doctors due to the retirement of doctors, lack of interest in accepting jobs in rural/deprived areas, including islands, and due to the outflow of young doctors abroad, especially EU countries after the opening of the EU labour market and for Croatian citizens. Implementation will ensure the resilience of

the health care system to environmental changes and better accessibility and efficiency in relation to the challenges that health systems face on a daily basis.

Description

Central financing of specialisations, i.e. providing financial resources for these purposes, would prevent financial reasons for the inability of specialist training of a sufficient number of health care professionals and their unequal distribution. The National Plan for specialist training for the five-year period (2020-2024) is based on the need for development of health care activities at all levels (primary, secondary and tertiary), as well as on the need of health care system for appropriate specialties of healthcare professionals, their number, schedule and age structure.

Implementation

The financial framework for the implementation of the National Plan for specialist training 2020-2024 amounts to a total of approximately HRK 3,000,000,000. Assuming that one generation of about 500 young doctors begins each year with specialisation (about 500) for the first year of funding, it is necessary to provide about HRK 550,000,000 and each of the following until the end of specialisation, which lasts mostly 5 years, except for family medicine lasting 4 years.

Implementation holder	MIZ
Target Group	Doctors of medicine without specialisation
Estimated cost	HRK 3,000,000,000 (for 3,000 specialists)
Implementation period	2020.-12/2025.

C5 .1. R3-I2 Specialist training of nurses and technicians in emergency medicine activities

Challenge

The network of emergency medicine and regulations governing the urgent Medina activity define the number, schedule and composition of emergency medical services teams. Today there are T1 teams operating in the Republic of Croatia that consist of a doctor, a nurse/technician and a driver or a nurse/technician who manages a vehicle and T2 teams with two nurses/technicians. Nurses/technicians working in the field of emergency medicine do not possess the appropriate competences for independent work in the activities of emergency medicine, but have the knowledge and skills acquired in general education for a nurse/technician, a bachelor, or a master's nurse and a master's degree in sorority, without the appropriate specialist knowledge and skills to work independently in the activities of emergency medicine. The Ministry of Health has drafted and published the Ordinance on specialist training of nursing students in ambulance medicine, which provides the basis for the commencement of this training.

Objective

Specialist training of nurses/technicians in emergency medicine activities would provide knowledge and skills, i.e. competencies for independent work in the emergency medical service. In this way, emergency medical services would become more accessible to

patients and the quality of health care would be increased. At the same time, nurses/technicians with completed specialist training would provide a wider range of health care services to emergency patients and a large number of interventions would not require a doctor. Gradually, doctors working in an outpatient emergency medical service would move to fill the lack of doctors in the hospital system. At the same time, a pilot project is being prepared for the telemedicine connection of vehicles of emergency medical services with unified emergency hospital reception, in order to enable remote telemedicine consultations for medical nurses/technicians with specialist training.

Description

Increasing the competencies of nurses/technicians in ambulance activities will be ensured through organized specialist training, pursuant to the Ordinance on specialist training of nurses in ambulance medicine.

After the preparation of the specialist training plan, tenders will be announced and candidates selected, and then the Ministry of Health will issue the approval of specialist training (Decree). Specialist training will be conducted according to the defined plan defined by the Ordinance.

After completing the specialist training and taking the exam, the emergency medicine network will be completed with nurses/technicians with completed specialist training, that is, the gradual increase of T2 teams in the network, and the reduction of T1 teams (including the doctor on the team).

Implementation

Implementation Plan:

(xl) Preparation of a plan for specialist training of nurses/technicians by institution and defining the conditions of the tender 2/2021.-3/2021.

The specialist training plan will include a balanced distribution of specialists throughout the entire territory of the Republic of Croatia.

(xli) Announcing tenders and selecting candidates for specialist training and concluding contracts on mutual rights and obligations 3/2021.- 4/2021 for the first year of specialist training and every year thereafter during the project opening tenders in 1Q years for the current year.

(xlii) Issuing the Decision on the approval of specialisation (Decree) to be delivered to the institution and the specialist.

(xliii) Conducting specialist training in accordance with the Ordinance on specialist training of Bachelors of nursing in ambulance medicine activities lasting 1[51] year.

(xliv) Taking a specialist exam and issuing a certificate of having passed specialist training.

Implementation holder	MIZ
Target Group	Nurses/technicians in ambulance activities without specialisation
Estimated cost	HRK 140,000,000
Implementation	2021.-5/2025.

51 NN 109/19 and 119/19

period	

C5 .1. R4-I1	**Central preparation of all parenteral preparations in 8 Croatian hospitals**

Challenge

Medicinal products administered parenterally are placed on the market at one dose and for individual patient needs a preparation on the pre-application unit (ex tempore preparation) is made using volumetric or gravimetric methods. These medicines are higher or extremely high prices used to treat oncological, haematological and patients with autoimmune diseases. This category of medicines includes spare antibiotics as a special group of medicines for which the health care system must pay special attention and which have a significantly higher price than first-line antibiotics. Considering the deficiencies of the department preparation, and in order to achieve maximum savings and the highest possible level of safety for the patient in terms of prevention of medication errors and infections caused by microbiological contamination which may occur during the preparation of such preparations in the department, a system of central preparation of parenteral medicinal products has been developed.

Parenteral preparations in hospitals are currently being prepared by nurses in departments. After taking the prescribed dose from the original package, the remainder of the medicine is disposed of.

The central preparation of parenteral medicinal products is performed in aseptic areas – isolators, with a gravimetric dose check.

Objective

In addition to significant financial savings and the possibility of redistributing savings, increasing patient safety, prevention of medication errors and increasing patient adherence, improvement of overall treatment outcomes is achieved. An important effect is also the reduction of the time burden of nurses' work on the ward and targeted focus on patient care.

Description

The introduction of central preparation of parenteral preparations brings significant improvements in the medical, financial and organizational aspects.

Medical aspects: the gravimetric method of manufacturing achieves exact doses of the medicinal product for the patient; the medicinal product is prepared under aseptic conditions which ensures microbiological safety of the medicinal product and prevents the possibility of infection; application of appropriate software ensures the safety and traceability of the medicinal product, and patient monitoring during treatment; pharmacy masters and pharmaceutical technicians assume preparation which significantly relieves nurses in departments.

Financial aspects: the preparation is carried out in isolator and one package of medicinal products can be used for more patients and used completely; from a smaller number of packs we can obtain therapy for more patients; larger packs of medicinal products with significantly lower unit price are used; the cytostatics stockpiles are located in one place, in the pharmacy laboratory, thus optimising stocks; the amount of cytostatic waste whose

removal and destruction is extremely expensive is reduced;

Organizational aspects: the preparation of therapy takes place in one place, which facilitates ordering, planning and issuing thereof; centralised work facilitates material business operations and enables stock control; it is precisely defined by the staff who will produce the therapy and continuous education in this segment is limited to laboratory staff; software solution enables monitoring of patients and prescribed therapy including approval of hospital Committee for Medicinal products, preparation and administration of medicinal products and traceability of medicinal products and infusion solutions.

Implementation

Implementation Plan:

Phase 1 Data collection: given the different spatial and personnel capacities of hospitals in Croatia, it is necessary to prepare precise data on the size of individual hospitals, departments in hospitals and the total number of beds in order to make projections on the number of preparations and to assess the need for equipment for preparation of parenteral preparations.

Phase 2 Construction works: Depending on the needs of a particular hospital, a special Quadrature of the area for central preparation of all parenteral preparations is defined. For the purpose of installing one aseptic space - isolator 50 m^2 is required.

According to the categorization of hospitals, an estimate of the number of required isolators will be prepared. For most hospitals it will be necessary to install two isolators, one for antineoplastic drugs and one for antibiotics, viruses and other medicines. For zero-category hospitals, it will be necessary to install 3 isolators.

It is estimated that most hospitals will require 100 m^2 for central preparation facilities.

The total estimate of the required area for 8 hospitals is 1200 m^2.

Phase 3 Procurement of technological solutions and selection of necessary equipment: depending on the capacities of a particular hospital, it is necessary to obtain isolators for the preparation of parenteral preparations. The estimated number of isolators for the needs of 8 hospitals uniformly distributed throughout the territory of the Republic of Croatia is 18.

Phase 4 Procurement of software solutions for the central preparation of parenteral preparations: for the functioning of the central preparation of parenteral preparations, it is necessary to obtain a software solution which will connect laboratories with clinics where medicinal products are administered, control the accuracy of the preparation and document the performed steps from preparation to application of the preparation to the patient and which enables quick control and correction of the dose in case of changes in the laboratory findings and general condition of the patient.

The purchase of this software would also enable hospitals that already have implemented central preparation of parenteral preparations to maintain the system cheaper. The application of single software would enable monitoring of parenteral medicinal products per patient for the entire health care system. Since these are extremely expensive medicines, precise monitoring of their use is of great importance for the financial sustainability of the health care system.

Phase 5 Integration of a new solution into the hospital information system (BIS).

Implementation holder	MIZ
Target Group	Health care institutions, healthcare professionals, patients, HZZO
Estimated cost	77.880.000 HRK
Implementation period	1/2021.-12/2024.

C5 .1. R4-I2	**Introduction of a unit therapy distribution system in 50 Croatian hospitals**

Challenge

Over 85% of medicinal products used in the hospital system may, instead of the traditional indirect distribution system, be dispensed to departments via the unit therapy system. The unit therapy distribution system, where pharmacists control doses, dosing interval and clinically significant drug interactions prior to distribution, has confirmed a significant decrease in drug utilisation, expressed in daily defined doses (DDD)/100 pain and supply days (b.o.d.). Studies have shown that in the traditional way of distributing medicines from hospital pharmacies to departments, the loss of drugs, due to division and slight alienation, ranges between 25-50%, while after the introduction of a new drug distribution system this loss comes down to 8-12% (GAO study). Also, in a study conducted in the Republic of Croatia in the Department of Cardiac and transplantation surgery of the Dubrava clinical hospital in Zagreb, implementation of the unit therapy distribution system led to a 30% drop in total drug utilisation.

Hospitals in Croatia order solid forms of medicines (capsules, tablets, oriblets) in original packaging which are on the list of medicinal products of the Croatian Institute for Health Insurance (HZO list of medicinal products) and which are registered and placed on the market of the Republic of Croatia. Currently, according to the active substance and the dose of the active substance, more than 4,000 different medicinal products are included in the HZZZO list. Hospitals order at least half of these medicines.

For the needs of one patient, the hospital wards order the entire original packaging of the medicinal product, for example in frequent situations when the patient is sufficient for treatment only e.g. 1-2 tablets (from the total e.g. 60 tablets as often as they contain the original pack) the hospital department commissions the entire original pack. In this way, after arriving at the department, the ordered medications are removed from the blister and, according to the therapeutic plan written on the temperature lists, assigned to patients.

The open original package of the medicinal product is then retained on the suit, under conditions inappropriate for storage of medicinal products, until the arrival of another patient using the same dose of the same medicinal product. Unfortunately, a large number of medicines, which are stored in the department after the original package is opened, have expired. After deleveraging, there is no further system of targeted monitoring of the actual consumption of medicinal products in the department. Although data on the prescribed medicinal product for a particular patient exist on the temperature lists as information, data on the dose, dosing interval, total duration of therapy and total consumption of the medicinal product for a particular patient are not entered as a permanent data in the information system that would analytically monitor the medicinal

product consumption, treatment outcomes and other important pharmaco-economic and therapeutic parameters. Consequently, estimates suggest that 75% of medicinal products stored in the hospital are actually in hospital wards in most hospitals in Croatia, while only 25% are in hospital pharmacy.

Objective

Introduction of the unit therapy distribution system significantly affects the improvement of the quality and purpose of the health care system and all important pharmaco-economic parameters that enable maintenance and further improvement of the achieved quality.

In addition to significant financial savings and the possibility of redistributing savings, increasing patient safety, prevention of medication errors and increasing patient adherence, improvement of overall treatment outcomes is achieved. An important effect is also the reduction of the time burden of nurses' work on the ward and targeted focus on patient care.

Description

Dispensing medicines in hospitals after the introduction of unit therapy: at the moment of receiving the patient into the ward and prescribing the necessary therapy, an order for hospital pharmacy is created based on which the pharmacy prepares and sends the treatment individually for each day of the patient's stay in the hospital.

After receiving the order, the hospital pharmacy examines the entire treatment the patient is taking, checks interactions, contraindications, potential drug allergies and warns the department about the expected adverse drug reactions.

After examination of therapy, the procedure for distribution of unit therapy begins by preparing an order for preparation of unit therapy introduced into a special device (robot).

The device removes the medicinal products from the blister or withdraws the medicinal products from the bulk packaging and places them in the part of the device packing the medicinal products in single-pack aluminium pouches containing the following information: patient's name and surname, name of the medicinal product, dose, method of use and date of dispensation. These special bags may also contain QR code or other labelling option linking the contained therapy to a specific patient, depending on whether the hospital possesses a patient identification system.

After the distribution of unit therapy and its packaging in monodose bags have been completed, the medicinal products are delivered to the department where they are taken over by the unit nurse and issued to the patient.

Implementation

Implementation Plan:

Phase 1 Data collection: given the different spatial and personnel capacities of hospitals in Croatia, it is necessary to prepare precise data on the size of individual hospitals, departments in hospitals and the total number of beds.

Phase 2 Construction works: Depending on the needs of a particular hospital, a special Quadrature of the area for distribution of unit therapy for small, medium and large hospitals is defined. Small hospitals require a space of 30 m^2, medium 60 m^2 and large 150 m^2. Based on the data collected in phase 1, in phase 2 a detailed plan of construction works

and works for the arrangement of the unit therapy distribution area for each hospital is prepared. It is estimated that it is necessary to renovate the total area of approximately 3000 m ^{2}. The average investment in space renovation is EUR 1500/m ^{2}.

Phase 3 Procurement of technological solutions for the selection of necessary equipment: depending on the capacity of individual hospitals, it is necessary to purchase devices with the appropriate capacity of packing unit therapy for daily hospital needs. The capacity of the device ranges from 1000 to 10,000 monodose bags. The capacity of the device corresponding to a particular hospital is determined on the basis of data collected in phase 1 showing how many hospitals have beds (in a daily hospital and in stationary units). Procurement should be carried out through a unified tender for the purchase of devices, related software and maintenance thereof over a period of 5 years. The price of the device ranges from 100,000 to 1,000,000 euros.

Phase 4 Integration of a new solution into the hospital information system (BIS): It is necessary to prepare a digital communication channel from the hospital departments to the hospital pharmacy so that doctors can order the necessary therapy for the patient and get feedback on the delivery time.

Implementation holder	MIZ
Target Group	Health care institutions, healthcare professionals, patients, HZZO
Estimated cost	187.000.000 HRK
Implementation period	10/2021.-10/2025.

C5 .1. R4-I3	**Digitalisation of drug route through health care institutions at secondary and tertiary level of health care**

Challenge

In order to monitor the route of the medicinal product in the hospital (traceability monitoring of the medicinal product), it is necessary to build a software solution that will enable information about the patient generated by prescribing the medicinal product, preparation of unit therapy or parenteral preparation for the patient in the hospital pharmacy to be linked to his unique identification number of the insured person (MBO).

Linking medicinal product traceability with the patient and monitoring of medicinal product traceability should be ensured for the sake of precise and comprehensive: monitoring the prescribing compliance with the HZZO guidelines; monitoring the prescribing compliance with the decisions of the Committee for Medicinal products; monitoring the compliance of prescribing medicinal products with special protocols that define treatment; creating a system for monitoring treatment outcomes; monitoring the financing of medicinal products and other healthcare services according to the added value introduced into the system (so called Value based evaluation). At the moment, once dispensed from a hospital pharmacy to a particular hospital ward, the medicine is considered to be consumed from the financial point of view, but the route of the medicine is not materially monitored. According to the legal provisions, departments are obliged to record the use of the medicinal product per patient, but these data are not always accurate in relation to the brand name of the medicinal product used and its price. The inaccuracy of the data is evident from the annual

reports of the Croatian Institute for Health Insurance, in which there are very large differences between different hospitals in the average financial amount for materials and medicines per patient per DTS. Also, since data on the prescribed and applied medicinal product are not up to date and are not subject to control, medication errors such as the use of the wrong medicinal product, excessive duration of therapy, an unoptimal transition from parenteral to oral medicinal product, etc. occur, leading to a slower recovery, poor treatment outcomes and an increase in the overall costs that burden the health care system.

Objective

Digitalisation of drug route is a model that would enable the Croatian health care system to fully and transparently monitor drug utilisation as the most frequent medical intervention of all modern health systems in the world. It also enables the creation of pharmacepidemiological data that opens doors according to more systematic planning, monitoring and evaluation of all healthcare processes.

This solution allows significant changes in the administrative and financial burden of the system by: eliminating all paper documentation accompanying the medicinal product; reducing administrative costs; contributing to reducing the consumption of medicinal products in departments; reducing the cost of disposal of expired medicinal products; providing better quality healthcare for the patient; contributing to reduced medication errors; contributing to the reduction of the incidence of contraindications and interactions; contributing to the optimisation of therapy and lower consumption of medicinal products; enabling the management of medical treatment costs.

Description

By introducing the “digital route of medicine” in hospitals, immediately upon prescribing the medicine, creating records of the beginning of treatment begins. The department, i.e. a doctor who identifies himself with his access code, sends a patient order to a hospital pharmacy in which a pharmacist, who also identifies himself with his access code, develops a cure for him. After the preparation of the medicine, the pharmacy sends the shipment to the department in the name of the patient. Medical staff who will administer the medicine to the patient and which is also identified with the access code will create a record of the use of the medicine. This fully monitors the traceability of the medicinal product, the appropriate dose and the correct dosing interval.

The hospital, through an appropriate database, can analyse the traceability of each medicine towards the patient, indication, department, time period of treatment, in order to obtain valuable pharmacepidemiological data that can create procurement needs, review the value of individual treatments and ultimately provide the highest level of protection to patients with maximal optimisation of spending. Creating such a database in all hospitals in the Croatian health care system and then dragging data into a single database at the national level would provide invaluable data on patients' health conditions, drug utilisation and the resulting treatment in relation to invested funds.

Implementation

Implementation Plan:

Phase 1 Data collection
Given the different information software solutions in hospitals in the Republic of Croatia, it is necessary to prepare accurate data on the initial conditions of information systems in

each hospital. It is necessary to hire IT experts and provide them with access to all integrated software solutions in each hospital in order to determine the initial situation. It is also necessary to make an estimate of the number of potential users in order to obtain the necessary quantities of communication devices (tablets).

Phase 2 Preparation of project documentation
The second phase of the project includes preparation of project documentation that will have listed treatment processes in its contents, all medical interventions carried out in hospitals and related to prescribing, manufacturing and dispensing medicines, estimating the number of potential users in order to make the software solution functional and creating information messages that will be available to medical staff, hospitals, the Ministry of Health and the Croatian Institute for Health.

In the second phase of the project, a form of reporting to the Croatian Institute for Health Insurance and HALMED on the consumption of all medicinal products should be created and specific categories of medicinal products such as spare antibiotics, medicinal products from the list of particularly expensive medicinal products or any other pharmacepidemiological information that the health care system will require should be separated.

Phase 3 Organisation of tenders and selection of scheme design producers
In phase 3 it is necessary to organise and implement a tender for the development of a software solution for digitisation of medicinal product pathways in hospitals. It is necessary to organize a team of it specialists who will carry out the verification of applications and determine the professional and financial capacities of bidders for the implementation of the project. In the text of the tender it is necessary to lay down responsibilities and obligations for the maintenance of the system.

Phase 4 Procurement of communication equipment for medical staff in departments
In order to enable as high-quality data entry, reduce the burden on medical staff in hospitals and reduce resistance to the introduction of this project, it is necessary to procure communication devices capable of recording data (tablets). Introduction of the possibility of direct registration of patient data during processing will reduce the administrative work of doctors in offices (desktop computers). For the quicker integration of the software solution into the work of medical staff, the greater the involvement and motivation to use the new system, the lesser the time burden of staff on the administration is necessary. It is necessary to prescribe the technical specification of the device and carry out the procurement procedure.

Phase 5 Implementation of a new solution into the health care system
The final phase of the project includes integration of solutions for all hospitals. Implementation would be carried out in phases throughout the entire territory of the Republic of Croatia. It involves testing devices and testing applications for medical interventions included in this project.

Implementation holder	MIZ
Target Group	Health care institutions, patients, HZZO
Estimated cost	HRK 18,900,000

Implementation period	1/2021.-8/2026.

C5 .1. R4-I4 Development of a system for monitoring and prevention of shortages of medicinal products in the Republic of Croatia

Challenge

Today, there is an increasing problem of shortage of certain medicines in Europe and the world, which can be significantly influenced by treatment outcomes that are important for patients. In particular, the main problem is the lack of certain oncological medicinal products with which the patent has expired, and there are situations where, due to economically unfavourable calculation, there is a problem in the supply of these medicinal products.

Such events in the distribution system may seriously compromise the therapy of patients with malignancies. The lack of a particular medicine also causes an increase in the price of the same medicine with another manufacturer in accordance with the basic economic principles regarding supply and demand.

Accordingly, one of the main objectives of the new EU pharmaceutical strategy drafted by the European Commission is to prevent shortage of medicines (https://ec.europa.eu/health/human-use/strategy_en). The serialization of medicinal products is currently being carried out, however, the data on the distribution of medicinal products are not public and it is difficult to predict the future shortage of a specific medicinal product in the country, since the information system supporting the serialisation process is not foreseen for monitoring the shortage of medicinal products. The existing model for monitoring shortages is defined by the manufacturer's obligation to report shortages of medicinal products to the Croatian Agency for Medicinal products and Medical devices (HALMED). The number of reported shortages is far lower than real ones. This is supported by data published on HALMED's webpages, which show that there are currently about 60 shortages of medicines. Manufacturers do not report shortages that are shorter in duration, which greatly complicate the procurement of medicinal products in the hospital system and the public pharmacy system.

The Croatian Institute for Health Insurance has introduced a new database for monitoring shortages published regularly on the web pages, which shows that shortages of 350 to 400 medicines are present on the market almost at any time.

Shortages of medicines cause significant costs to the health care system as the replacement medicines are ordered at full cost. Although there is a system allowing import of medicinal products in case of shortage, it is slow, economically unfavourable and rarely able to respond to acute system needs.

Objective

By introducing a precise system for monitoring and analysing the trade of certain medicines, the Republic of Croatia would get a model for predicting and preventing shortages of medicinal products. Targeted management of these data would enable the health care system to react promptly through interventional import or through effective intervention in the list of medicinal products of the Croatian Health Insurance Fund by including the medicinal product of the additional manufacturer. In this way, it is possible to

ensure the availability of the medicinal product at the most favourable price, which is extremely important for the treatment of oncological diseases which are more affordable prices and equal effectiveness, since shortages of oncology medicinal products are an increasing problem for patients, and consequently for the health care system and its sustainability.

Description

This project would make the current distribution of medicinal products in the Republic of Croatia transparent, while protecting the data of the individual (patient). For this purpose, the so-called blockchain technology would be used to create the required programme, which enables clear transparency for data that should be public, while protecting data that we think should be anonymous or possibly accessible to the state.

The programme could be implemented on the existing structure related to the serialisation of medicinal products and provide a clear insight into the health care system in the current distribution of medicinal products at the state level.

Introduction of described methods for monitoring shortages of medicinal products provides transparent data on the quantity of certain medicinal products in the country (stocks in wholesale drug companies + hospital pharmacies + public pharmacies) and import and consumption of certain medicinal products. Also, the program would predict when a drug shortage can be expected. All data related to individual (patient) or regional consumption of medicinal products (city, village, county, hospital) would be encrypted and available to the body whose jurisdiction they are under (e.g. HZZO), but not to third parties. Public data would include only the cumulative amount of a certain medicine in the Republic of Croatia, what is the cumulative exit and entrance at the state level, which is the occurrence of shortages of a certain medicine on an annual basis, etc.

The programme would enable the following: data on the distribution of medicinal products would be public at the state level and would enable a broader activity (all interested parties) in the field of import of a medicinal product which is clearly at risk of shortage; less possibility of all potential manipulation of falsified medicinal products; possibility of better analysis, prediction of medicinal product utilisation etc.; better control over medicinal product donations; clearer prediction of shortages of a particular medicinal product; achieved savings as the shortage of the medicinal product is procured at more expensive prices; better control over import and import of medicinal products.

Implementation

Implementation Plan:

Phase 1 Collecting data and creating a database of medicinal products on the distribution of medicinal products in the Republic of Croatia: in the first phase of the project, it is necessary to prepare a list of medicinal products to be monitored by this system. Since the capacity of this solution is unlimited, all medicinal products on the market, medicinal products on the list of medicinal products and all medicinal products entered on the market should be monitored by interventional import.

Phase 2 Preparation of the model of data collection from existing software solutions: the second phase of the project includes preparation of methods of data collection and documentation which will contain the prescribed system for collecting data on the

distribution of medicinal products from software solutions used in primary, secondary and tertiary health care facilities. It is also necessary to define the information to be used and collected in the system and which data (personal data on patients) will be encrypted.

In the second phase of the project, a form of reporting on the consumption of all medicinal products should be created and reports on the consumption of specific categories of medicinal products such as spare antibiotics, medicinal products from the list of particularly expensive medicinal products or any other pharmacepidemiological information that the health care system will require should be singled out. It is necessary to create an analytical model that will alert the system to potential deficiencies and enable timely response.

Phase 3 Organisation of the tender and selection of the manufacturers of the programme solution: in phase 3 it is necessary to organise and implement a tender for the preparation of a programme solution for monitoring the shortages of medicinal products in the Republic of Croatia based on the “blockchain” technology. It is necessary to create and prescribe in the tender the model of system self-sustainability in order not to put additional financial burden on the state budget.

It is necessary to organize a team of it specialists who will carry out the verification of applications and determine the professional and financial capacities of bidders for the implementation of the project. In the text of the tender it is necessary to lay down responsibilities and obligations for the maintenance of the system.

Phase 4 Implementation of the new solution into the health care system: in phase 4 it is necessary to integrate the new software solution into existing IT solutions in the health care system. The existing infrastructure used to serialize medicinal products may be used to collect data. An important part of the implementation is educating people about the implementation of the project

Phase 5 Education of employees of the Ministry of Health and the Croatian Institute for Health Insurance: in addition to technical implementation, systematic implementation of data obtained from this technology into the planning and monitoring of medicinal products utilisation in the Republic of Croatia is important. That is why it is very important to educate people so that they can apply new knowledge in their work. In addition to knowledge from data processing, it is important to organise education in the field of pharmacoeconomics and pharmacoepidemiology so that the collected data can be fully applied in the health care system.

Implementation holder	MIZ
Target Group	Health care institutions, healthcare professionals, patients, HZZO
Estimated cost	HRK 10.750.000
Implementation period	1/2021.-8/2026.
C5 .1. R4-I5	**Introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies**
Challenge	

From the pharmaco-economic point of view, the possibility of more accurate monitoring of the evaluation of invested funds and the outcome of patient treatment is extremely important for the purpose and sustainability of the health care system. The importance of monitoring the treatment of chronic patients with polypharmactherapy was emphasized. These patients are increasing in age, consumption of medicinal products for the treatment of chronic diseases is increasing, and due to proven poor adherence the results of treatment do not justify the invested funds to the extent that they should.

From the aspect of treating chronic patients, pharmacies represent the final point of the patient's path through the health system and the medicinal product exit point as the most common medical interventions. A large number of chronic patients, after establishing stable therapy, raise their therapy based on repeatable prescriptions, where the pharmacist is often the only healthcare professional they come into regular contact with every month. Therefore, public pharmacies within the health care system, apart from constituting the medicinal product's exit point as the most frequent medical interventions, from the aspect of treating chronic patients represent the final point of patient's path through the health care system.

This potential has long been recognized in some countries and models for monitoring treatment outcomes and all other important medical and pharmacoeconomic parameters have been implemented at the level of public pharmacies as part of dispensing medicinal products to patients. For example, in the us patients, medicines cannot be dispensed before a special protocol for monitoring pharmacotherapy is met which includes: patient access to therapy, patient report on the use of therapy (possible problems of taking therapy), adverse reactions, adherence, achievement of treatment goals, quality of life assessment, consultation of pharmacists and physicians in solving problems.

Objective

The introduction of a system for monitoring the outcomes of treatment of outpatient chronic patients in public pharmacies is a model that would enable the Croatian health care system to fully and transparently monitor the outcomes of treatment and the justifiability of invested funds on medicines as the most frequent medical intervention of all modern health systems in the world. It also enables the creation of databases of valuable pharmacepidemiological data that open doors according to more systematic planning, monitoring and evaluation of the cost-effectiveness of investments in pharmacotherapy of outpatient patients.

Description

Immediate monitoring of the outcome of treatment of outpatient chronic patients: the potential of the public pharmacy's influence on adherence of chronic patients and the monitoring of treatment outcomes in Croatia is currently completely unused. After establishing stable therapy, most chronic patients continuously raise their therapy in the pharmacy without recording any feedback to the health care system about the results of treatment and the justification of the invested funds. Due to the proven high degree of non-adherence of chronic patients (diabetes, asthma, cardiovascular diseases, outpatient oncology patients), a very large number of prescribed medicines are not used and properly used to achieve the treatment goals. This is supported by a large amount of pharmaceutical waste collected annually by pharmacies from citizens, which presents a large number of medicines used to treat chronic diseases, and for whose effect on the

patient's health, adherence and correct ingestion are essential. Due to the lack of systematic monitoring of the outcomes of treatment of outpatient patients, a large part of the invested funds in their treatment is certainly not justified by achieving those treatment outcomes to the extent that the health care system intervened.

Monitoring the outcome of treatment of outpatient chronic patients after the introduction of a monitoring system in public pharmacies: by introducing a system for monitoring the outcomes of treatment of outpatient chronic patients in public pharmacies, pharmacists would register all important medical and pharmacoeconomic data related to patient therapy (access to therapy, adherence, adverse reactions, medication errors, correct use of medicinal products, achievement of target values, achievement of appropriate quality of life etc.). All data on treatment outcomes of a particular patient would be transferred to the central information system and would be available for analysis to prescribers and the insurer. Furthermore, linking different databases enables faster and more accurate direct transmission of specific data, such as data on the number and type of adverse reactions, degree of adherence etc. The data can then be analysed in certain segments of the health care system in a targeted and precise manner (direct connection of secondary and primary health care - insight of specialist physicians into the outcomes and further purpose and manner of treatment, then direct transfer of adverse reaction records to HALMED, etc.). In this way, the health care system would receive invaluable feedback on the results of treatment and further justifiability of investing funds in comprehensive patient treatment.

Implementation

Implementation Plan

Phase 1 Data collection: the first phase of the project defines the parameters to be collected in the patient health monitoring system. All chronic diseases have control parameters that show the patient's health status. In cooperation with professional societies, it is necessary to define these parameters, and in accordance with international guidelines define the range of parameters that are acceptable and define the values of parameters that require intervention by the healthcare professional. It is also important to define the method of communication and informing a family medicine doctor or a specialist doctor about the need for intervention according to the principle of the existing A5 referral.

Phase 2 Preparation of project documentation: in the second phase it is necessary to prescribe all defined data, communication messages to other health care professionals, models of analysis of these data in relation to prescribed pharmacotherapy and other processes that will be necessary for monitoring the status of chronic patients as a basis for documentation of programming solutions for public pharmacies. Phase 2 also includes defining the procedures that the public pharmacy must carry out in order to collect all data and bring them into the system.
In the second phase of the project, a form of reporting to the Croatian Institute for Health Insurance and Croatian Institute for Health Insurance should be created in order to create national pharmacepidemiological reports necessary for systematic monitoring and planning of health system development.

Phase 3 Organisation of the tender and selection of producers of the software solution: in phase 3 it is necessary to organise and implement a tender for the development of a software solution for monitoring the outcome of treatment of outpatient patients with an

emphasis on chronic patients in public pharmacies.
It is necessary to organize a team of it specialists who will carry out the verification of applications and determine the professional and financial capacities of bidders for the implementation of the project. In the text of the tender it is necessary to lay down responsibilities and obligations for the maintenance of the system.

Phase 4 Procurement of necessary equipment and implementation into software solutions for public pharmacies: the project would prepare and develop a system for monitoring the outcome of treatment of outpatient patients with an emphasis on chronic patients in public pharmacies. At this stage it is necessary to assess the capacity of it equipment in pharmacies and prescribe the standards necessary for implementation.

Phase 5 Education of public pharmacists and project promotion: at this stage it is necessary to provide systematic education of public pharmacists on the manner of collecting data, assessing the status of certain health parameters and using the new application.
It is also necessary to prepare a communication strategy towards patients and healthcare professionals so that all stakeholders recognise the value introduced by this project into the health care system.

Implementation holder	MIZ
Target Group	Health care institutions, healthcare professionals, patients, HZZO
Estimated cost	HRK 4,300,000
Implementation period	1/2021.-12/2024.

C5 .1. R4-I6	**Improving the system of storage and transport of medicinal products in public pharmacies**

Challenge

When handling medicinal products, special transport, accommodation and storage must be ensured in accordance with strictly prescribed requirements, so as not to change the quality of the medicinal product.

Strict provisions require significant financial investments in their implementation, both at the level of wholesale drugs and at hospitals and public pharmacies.

Objective

Improving the existing system of storage and transport of medicinal products in public pharmacies.

Description

Improving the existing system for storage and transport of medicinal products in public pharmacies would define specifications of professional refrigerators for storage of medicinal products and digital system for monitoring and control of temperature during storage which would ensure continuous monitoring and reporting of all deviations.

During internutrition of medicines between individual units of the same institution, specifications of portable refrigerators and digital system of temperature monitoring and

control during transport would be defined, which would ensure continuous monitoring and reporting of all deviations.

The project would ensure the procurement of pharmacy chillers and mobile interstitial sport devices that will have an integrated temperature monitoring system to ensure the integrity and quality of the medicinal product.

Following the monitoring of amendments to the EU regulations and the implementation of provisions on the storage and treatment of medicinal products in the Croatian legislative framework, the modernised and sophisticated system for the storage and transport of medicinal products in public pharmacies increasingly represents a necessary need rather than a superstandard in relation to minimum requirements.

Improving the existing system of storage and transport of medicinal products in public pharmacies by storing and transporting medicinal products in professional refrigerators with digital temperature monitoring and control system would fully ensure high requirements that must be met in order to preserve the quality of medicinal products.

Implementation

Implementation Plan:

Phase 1 Data collection: in the first phase it is necessary to define technical specifications and standards prescribed by the good distribution practice of refrigerating devices in pharmacies, hospitals, public health institutes and technical specifications of portable refrigerators.
It is also necessary to define the total number of stationary and mobile devices necessary to ensure the quality of distribution chain. For the full function of this system it is necessary to prepare an information system for temperature monitoring which will also have a system for reporting and warning according to GDP standards.

Phase 2 Preparation of project documentation: Phase 2 includes preparation of documentation for the procurement of stationary and mobile devices for the public pharmacy system and public health institute, and preparation of documentation for the software solution for temperature monitoring in devices in which the medicinal product is stored and reporting on temperature changes.

Phase 3 Organisation of the tender and selection of producers and suppliers: in phase 3 it is necessary to organize the procurement of equipment for stationary and mobile devices for the public pharmacy system and public health institutes, as well as the procurement of a software solution for temperature monitoring in devices in which the medicinal product is stored and reporting on temperature changes.
The estimated amount of stationary refrigeration equipment is 3,000 and 1,500 mobile refrigerators.

Phase 4 Implementation of the new solution in public pharmacies and public health institutes:
In phase 4, it is necessary to distribute all procured devices according to the needs of organizational units in public pharmacies and public health institutes.

Implementation holder	MIZ

Target Group	Health care institutions, healthcare professionals, patients
Estimated cost	HRK 73,500,000
Implementation period	7/2021.-7/2025.

C5 .1. R4-I7 Waste disposal in Zagreb's KBC

Challenge

Types of waste produced in the Zagreb KBC are classified as medical and non-medical waste.

Waste substances must be collected, disposed of and stored in designated sites, in appropriate labelled containers, until their disposal is ensured. The storage of waste at the site may last for a maximum of one year. In order to protect the environment and waste management, it is necessary to act in such a way as to: reduce the amount of waste; separately collect and dispose of waste whose valuable properties can be used; waste is disposed of only in designated and designated places.

Disposal of waste substances must be carried out in such a way as to avoid: adverse impact on the environment, groundwater and natural conditions of life of the plant and animal world; harmful impact on human health; possibility of fire or explosion; noise generation beyond permitted limits; production of odours; occurrence and reproduction of harmful animals and plants, and development of pathogenic micro organisms.

Today, waste substances in the Zagreb KBC must be disposed of in waste warehouses and designated places for them. Each type of waste is disposed of in appropriate containers, bearing the key number and name of that type of waste and is collected and stored until it is handed over to an authorised collector. Collected waste takes over and disposes of the authority

KBC Zagreb disposes of about 620,000 kg of medical waste annually. Medical waste disposal costs are approximately HRK 5,000 million per year.

According to the who proposals, medical waste should be treated at the site or within the scope of the institution where it was created, in order to prevent the possibility of occurrence of unwanted incidents during transport and transmission.

Objective

Devices for the disposal and treatment of infectious medical waste on site are intended to significantly reduce the costs of disposal and transport of medical waste, increase hygienic quality, improve staff safety and reduce the mass and volume of treated medical waste. Also, harmful impacts on the environment are reduced in line with the trend of reducing emissions into the environment and risks arising from transport of infectious waste.

Description

In order to meet the provisions of the World Health Organisation, the KBC Zagreb plans to acquire devices for the disposal and treatment of infectious medical waste on site and transform it into non-infectious municipal waste.

Implementation

Implementation holder	MIZ and KBC Zagreb
Target Group	Health care institutions
Estimated cost	HRK 31,250,000
Implementation period	1/2023.-12/2024.

C5 .1. R5-I1 Improvement, upgrading and renovation of ICT infrastructure and digitization of medical documentation

Challenge

The current information and communication infrastructure of the Split KBC necessary for everyday business operations is unsatisfactory and inadequate. The average age of servers and active network equipment is 12 years. Some server solutions exceed 20 years of age, while active network equipment has outdated technical characteristics. Several segments of ICT infrastructure of KBC Split represent the so-called “single point of failure”, i.e. the point within the system whose failure would render all external and internal IT services used by KBC Split in everyday work unavailable, without the possibility of prompt recovery. In other words, the operations of the hospital would be halted. Furthermore, most equipment is not implemented in such a way as to ensure continuity of business processes in case of failure of a part of the equipment or loss of data. KBC Split does not possess backup systems and high availability systems, which are a necessary part of any serious IT system. As regards all services and digitisation of KBC Split's operations, it is important to mention the lack of storage space, a lack of network connections, the absence of a wireless network. Also, ICT solutions we use often do not support producers due to obsolescence. The information and communication infrastructure of the KBC Split requires urgent investments in order not to block the work of the second largest health institution in the Republic of Croatia, in order to be able to meet all legal provisions, and finally to ensure the safety of patient data and within the system itself. The current room used to accommodate server and network equipment at the Cross Mountain site is unsatisfactory in terms of construction, safety, electrical and air conditioning aspects. Computer equipment for end users (doctors, nurses, engineers, administrative staff) is partly outdated and requires revelation, noting that there is also a need for new user computer equipment. KBC Split uses free of charge for most public services (OpenSource solution), as well as for e-mail that is not fully adequate. Archival material is currently stored in several different locations in inadequate conditions without the process of digitisation of the same.

Objective

Ensuring a higher level of data security for patients and within the system itself.

Description

Provedbom projekta unaprjeđenja, nadogradnje i zanavljanja ICT infrastrukture i digitalizacije medicinske dokumentacije osigurat će se kontinuitet poslovanja, visoka dostupnost, sigurnosna pohranu i mogućnost brzog oporavka; podatkovni centar (sistem salu) na lokalitetu Križine; povećat će se brzina dostupnosti i korištenja arhivskog gradiva te osigurati podršku u upravljanju građom in situ za potrebe kvalitetnog čuvanja i zaštite arhivskog gradiva; povećati će se brzina računalne mreže sa 100Mbps na 1Gbps za sve korisnike i brzina okosnice mreže s 1Gbps na 10Gbps; osigurat će se redundancija

centralnih mrežnih preklopnika; unaprijedit će se sigurnost računalnog sustava KBC-a Split; osigurati bežična komunikacija unutar KBC-a Split; nadogradit će se pasivna mrežna infrastruktura koja ne zadovoljava trenutne potrebe KBC-a Split; obnovit će se zastarjela korisnička računalna oprema te osigurati novu koja se ukazala potrebnom zbog rasta i razvoja ustanove u svrhu unaprjeđenja poslovnih procesa i mobilnosti korisnika; modernizirat će se i proširiti sustav elektroničke pošte; poboljšat će se kvaliteta rada; uskladit će se IKT sutav KBC-a Split s Uredbom Vlade o Kibernetičkoj sigurnosti[52] i NIAS EU Direktivom (2016/1148); podignut će se kompetencije djelatnika u području IKT; tehnički će se unaprijediti telefonska centrala.

Implementation

Split is planned to be replaced by: consolidation and virtualisation of the server infrastructure; construction, security, electrical and air conditioning adaptation of the unconditional room used to accommodate the server and network equipment; digitisation of hospital archives and access control systems; construction of the wireless network; provision of the centralised KBC IP business archive; provision and implementation of active network equipment and systems

Implementation holder	MIZ and KBC Split
Target Group	Patients, healthcare professionals
Estimated cost	HRK 40,000,000
Implementation period	1/2021.-12/2022.

C5 .1. R5-I2 Digitization integration of operating halls and robotic surgery in KBC Split

Challenge

There are no adequate digitised and integrated operating halls in Split and the entire region; just as there is no robotic system for performing advanced operations. KBC Split is the only regional clinical hospital system and the only hospital in the entire county, and the hospital is gravitated by up to one million people. The only partly integrated and digitised operating room is located at the Firule site, but it is already outdated and not fully digitised and integrated. It is not connected to the hospital's it system, as it does not allow digital information about the patient to be received, nor is it interrated in such a way that data on patients or operations can be stored in the hospital's information system.

Objective

This project will change the quality of health care, improve monitoring of outcomes and extend life for patients with malignancies. Digitisation of operating rooms and the purchase of equipment for advanced treatment of cancer patients will change the way of comprehensive treatment of patients with malignant diseases with integrated health care optimization measures for oncology patients. In this way, health outcomes will be improved due to the introduction of a new model of patient care, especially new modern methods of surgical treatment.

The digitisation and integration of operating rooms will change the planning, documentation, storage and exchange of data on patients and types and modes of surgical

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treatment.

Description

This digital transition, integration and robotic surgery will change the treatment method so far by improving the quality of surgical treatment, increasing the safety of patients, achieving greater transparency in treatment, better controlling costs and health outcomes, thus strengthening and consolidating key resources of health information infrastructure and modernising paperless health services.

Furthermore, all patients will have the possibility to operate in a minimally invasive manner. In the current circumstances, some patients, due to lack of resources, cannot even undergo minimal invasive surgery. The way doctors are educated in training (specialization, training) will also be changed. Better conditions for surgical procedures will result in greater radical intervention in malignant diseases and thus improve the results of treatment. This digitization and integration of operating rooms and robotic surgery will also enable the strengthening of telemedicine and distance learning in the field of surgery. Telemedicine and distance learning will change the usual ways of educating the doctor

This approach will also change the proportion of minimally invasive surgery, reduce surgical stress in patients, improve treatment outcomes due to lower morbidity and mortality, reduce the number of days of treatment and reduce treatment costs.

Implementation

All of this will be done in digitized, integrated operating halls and gyms with robotic surgery. Operating rooms are an integral part and are closely connected to the other part of the clinic for surgery. In operating rooms equipped in this way, it is possible to obtain all data on the patient in real time and on the monitor screen in the operating room itself and during the operation. Also, in such operating rooms it is possible to have all the picture material about the patient available on the monitor screen during the operation, which is of great importance for safer and more successful performance of operations. Furthermore, integration enables the use of other necessary diagnostic and therapeutic devices in the same hall, which are also included in the integrated operating room system. Furthermore, robotic surgery conducts minimally invasive interventions, and instrument movements are enabled such as movement of operator's hands, whereby surgical interventions are performed much easier and more precisely.

Implementation holder	MIZ and KBC Split
Target Group	Patients, healthcare professionals
Estimated cost	HRK 155,000,000
Implementation period	4/2021.-12/2023.

C5 .1. R5-I3 TELECORDIS

Challenge

Cardiovascular diseases are the leading cause of death in the world. In the Republic of Croatia, the percentage amounts to 45% of all causes of death, and the population over 65 is the most affected, which is the age that is at the same time the riskiest in relation to THE human mortality - 19. The continental part of Croatia, with the exception of the City of

Zagreb and Medimurje County, has higher mortality rates than the coastal part, and the most endangered population is in Bjelovar-Bilogora, Virovitica-Podravina, Koprivnica-Krizevac, Vukovar-Srijem, Osijek-Baranja, Pozega-Slavonska, Varazdin, Krapina-Zagorje and Brod-Posavina counties. This also includes rural areas that do not have cardiology specialists in their local hospitals, and patients for the services of Holters and ECG must travel to the nearest city where such services are offered. Also, although the mortality rate is lower, the inhabitants of island areas are endangered and, due to geographical distance, specialist cardiovascular services are difficult to access. This poses a problem especially for the elderly and poorly mobile population, and requires the organisation of transportation to a specialist centre or health centre where the service is offered. Patients must travel to set up Holter and return the next day to take down the Holter. In most cases these are additional costs for patients, while at the same time the possibility of optimal use of healthcare personnel at all levels of healthcare is insufficiently utilised.

Given the ageing population, pervasive globalisation and urbanisation, socio-economic situation, high prevalence of some risk factors such as obesity and diabetes, an increasing burden of cardiovascular diseases can be expected in the future unless prevention measures are taken.

Cardiovascular diseases are largely preventative and can be prevented or delayed by acting on risk factors, as well as better control and treatment. According to the data of the Croatian Institute for public Health, studies conducted in different populations show as much as 44-76% decrease in the mortality from ischaemic heart disease due to the prevention and change of risk behavior.

The challenge of providing available and continuous cardiovascular health services, especially at the time of epidemiological threat, will be addressed by strengthening telemedicine services for remote diagnosis and treatment of patients through telecardiology, i.e. specialist ECG services, ECG hollers and distance pressure.

Objective

This type of digitisation of cardiological services enables continuous monitoring of patients' condition, especially those with chronic cardiological diseases. The expected results of the EKG holter telemedicine service provide patients in remote and rural areas with access to specialist care, significantly increasing the availability of specialist health services in local ambulance centres, improving the efficiency of specialists, improving patients' outcomes, significantly reducing waiting lists and the costs of providing this healthcare service.

Description

Enabling availability of telemedicine cardiological diagnostic services in primary health care enables greater availability of services for patients from remote and rural areas due to digitisation of the health diagnostic process. A more rational mobilization of specialist medical personnel is also achieved when reading the digital requirements of any of the tests (12 channels ECG, Holter pressure, Holter ECG). Each of these diagnostic processes is digitized and as such has the ability to send to dispersed specialist centers for reading. The specialist responsible for readings of the digital recording answers the received request by creating also a digital finding or record. Digital recording, processing request and findings are stored on the central server in the database and are accessible to authorised system users. The entire project uses digital information and communication infrastructure and thus provides a modernized health service.

The advantages for patients as a target group are that, besides reducing costs, using this solution for telemedicine services is possible to obtain an accurate diagnosis as soon as possible and to access further rapid and efficient treatment, which is particularly important in urgent and Pandemic conditions when large specialist centres are not available. Furthermore, avoiding unnecessary travel reduces the risk of exposure to a possible infection of CYNO19, which makes both patients and healthcare professionals safe and healthy.

Enabling fast and available cardiological diagnostic services at the primary health care level affects timely detection of patients' cardiological health problems, timely appropriate treatment of patients and continuous monitoring of their health status.

Implementation

The TeleCordis project plan is installation of medical and computer equipment necessary for the performance of services of ECG holters, pressure hollers and 12 canal ECG in remote and rural areas that are insufficiently covered by these services, i.e. have no specialists in cardiology at their disposal. The technician in the health care centre or in the clinic filmes 12 ECG channels, sets Holter (ECG and pressure if necessary) and sends the patient home. After 24 h (most often) the patient returns, Holter is removed from the patient and transferred to the computer into a program that comes next to Holter. The data thus loaded are transferred to a specialist centre (centre with a cardiologist specialist) for readings. When Holter is evident, a cardiology specialist writes the report and returns it to the access center (local DZ/infirmary where the patient placed Holter).

Implementation Plan

(xvii) Preparation of locations (telemedicine access centres) 2/2021.-7/2021: following the definition of correct locations and the final list of equipment for the conduct of telecardiological services, it is necessary to establish the connection of defined locations into the HealthNet network and, if necessary, to connect to the same, as well as local network cabling to the premises where the service will be performed.

(xviii) Procurement of equipment of telemedicine specialist centres and telemedicine access centres 8/2021.-3/2022: the activity includes the procurement of equipment of medical and computer equipment for each location of the establishment of telecardiological services.

Medical equipment includes Holter ECG, Holter pressure and 12 canal ECG.

Computer equipment includes workstation (AIO computer), network switch, IP phone, overvoltage current, printer/scanner, network router and battery charger used in holter devices.

(xix) Configuration and installation of equipment 4/2022.-9/2022.: When the equipment is supplied, it must be configured and installed on locations. After installing the equipment, it is necessary to install software for loading diagnostic data from the device and for storing the data into the remote central database.

(xx) Education of healthcare professionals for the use of equipment 9/2022.-2/2023: the education of technicians who will appoint hollers in telemedicine access centres is performed after installation of equipment and is performed by the employees of the Telemedicine Service of the Croatian Institute for Emergency medicine. The training of specialists is performed by a company whose equipment has been procured.

Implementation	MIZ and HZHM

holder	
Target Group	Patients, healthcare professionals
Estimated cost	HRK 5,250,000
Implementation period	2/2021.-2/2023.

C5 .1. R5-I4 Teletransfusion

Challenge

Transfusion medicine is an extremely important segment in the overall patient treatment process. Both in the world and in the Republic of Croatia, the number of transfusion medicine specialists is in linear decline in all cities and hospitals with transfusion departments. If we take into account the rural areas and islands, we have a big problem, which is the availability of transfusion services, so patients from these areas have to travel to the nearest city which has a hospital transfusion department.

Objective

The project would also achieve a reform measure of rational use of human resources and the number of necessary standpoints by providing support to all stakeholders connected to the system that includes the project (hospital transfusion centres on the territory of the Republic of Croatia, 35) and availability of services in situations when the transfusiologist is unable to provide the same or does not have it in the institution of origin that needs the service.

Description

Digitisation of transfusion services and ensuring availability of a transfusion duty specialist for all hospital health institutions that have transfusion departments, especially during epidemiological measures, contributes to the strong development of telemedicine services through digital transfer of medical data and strengthen interconnectedness between all hospital institutions that have transfusion departments.

The process is completely digital, and the specialist responsible for the reading of the digital recording answers the received request by creating also a digital finding or record. Digital recording, processing request and findings are stored on the central server in the database and are accessible to authorised system users. The entire project uses digital information and communication infrastructure and thus provides a modernized health service.

Advantages for patients as a target group are such that, in addition to reducing costs, using this solution for telemedicine services is possible to obtain an accurate diagnosis as soon as possible and to access further rapid and efficient treatment, which is particularly important in urgent and pandemic conditions when large specialist centres are not available or when the institution is unable to provide the required diagnostic service due to lack of specialist staff.

The Teletransfuzi project supports the existing digital infrastructure of the treatment process where it uses patient data obtained from the eUinstructions and eKarton necessary to start treatment at the secondary or tertiary health care facility.

Through the project, hospital transfusion centres on the territory of the Republic of Croatia (35 hospital transfusion centres) would be connected and the same services would be

available 24 hours a day seven days a week. The basic goal of the project is reflected in the very digitization of the health diagnostic process by which physical samples are digitized and transformed into a visual form. The samples ready for diagnostic process are located on the central server to which all hospital transfusion centres on the territory of the Republic of Croatia can be connected, and with this type of digital connection we receive a central database of digital requests and readable results in the form of digital findings.

Implementation

Implementation Plan:

(xlv) Preparation of locations (telemedicine access centres) 6/2021.-10/2021: following the definition of correct locations and the final list of equipment for the implementation of teletransfusional services, it is necessary to establish the connection of defined locations into the HealthNet network and, if necessary, to connect to the same, as local network cabling to the rooms where the service will be performed.

(xlvi) Procurement of equipment of telemedicine specialist centres and telemedicine access centres 10/2021.-3/2022: the activity includes public procurement of medical and computer equipment for each location of the establishment of teletransfusion services.

Medical equipment includes transfusion boxes for the transmission of digital images used for diagnostic purposes.

Computer equipment includes workstation (AIO computer), network switch, IP phone, overvoltage current, printer/scanner, network router, reader barcodes.

(xlvii) Configuration and installation of equipment 3/2022.-7/2022.: When the equipment is supplied, it must be configured and installed at locations. After installing the equipment, it is necessary to install software for loading diagnostic data from the transfusion box and for storing data into the remote central database.

(xlviii) Education of healthcare professionals for the use of equipment 7/2022.-10/2022: the education of employees participating in the teletransfusion process of diagnostics in all hospital centres with transfusion departments is performed by employees of the Telemedicine Service of the Croatian Institute for Emergency medicine and software manufacturers who work and educate specialists in cooperation with the company whose equipment has been procured.

Implementation holder	US and HZHM
Target Group	Patients, healthcare professionals
Estimated cost	HRK 11,984.000
Implementation period	6/2021.-10/2022.

24. Green and digital dimension of the component

C5 .1. Strengthening the resilience of the health care system

(a) contribution to the green transition

All projects and investments will take into account that the highest standards for environmental protection are respected, built-in materials during construction and reconstruction of buildings will be environmentally friendly energy efficient. Medical and other waste management will be improved. When purchasing medical devices, care will also be taken to purchase technology that consumes less energy and produces less radiation.

(b) contribution to digital transition

In order to improve quality, raise patient safety, transparency in treatment, cost control and health outcomes will consolidate and strengthen key resources of health information infrastructure and modernise paperless health services. Digitisation of medicinal product pathways through medical institutions at secondary and tertiary level of health care completely digitalizes the route of medicinal product to patient in order to abolish paper documentation accompanying the medicinal product, reduce the consumption of medicinal products in departments and optimally manage the quantities necessary for patient treatment. In order to strengthen cooperation between the public and the business sector in the field of e-health, in particular in the application of artificial intelligence and *blockchain* technologies in the health system and to strengthen capacity in the areas of high performance computing, cybersecurity and advanced digital skills, the launch of digital innovation centres in existing health institutions and innovation centres of the business sector will be encouraged and their functioning coordinated in order to achieve the necessary synergies and solutions that improve the health system. Strengthening telemedicine and in the field of transfusion and cardiological diagnostic services in primary health care will significantly contribute to the digital transition of the system.

25. Milestones for the implementation of reforms and investments

C5 .1. Strengthening the resilience of the health care system

(a) qualitative indicators

- by the end of 4Q/2025, new equipment and neglected old equipment were procured according to defined priorities (15 HRK)	C5.1.R2-I1
- by the end of 4Q/2025, the National oncological Network and the National oncological Data Base were established	C5.1.R2-I2
- by the end of 4Q/2022, upgraded, neglected ICT infrastructure and digitised medical documentation in KBC Split	C5.1.R5-I1
- by the end of 4Q/2022, 12 digitised, integrated operating rooms for KBC Split were procured	C5.1.R5-I2
- by the end of 1Q/2023, 40 telemedicine centres were established for the provision of telecardiological services	C5.1.R5-I3
- by the end of 4Q/2022, 40 telemedicine centres were established to provide teletransfusion services	C5.1.R5-I4

(b) quantitative indicators

- by the end of 1Q/2026, 2071 pieces of medical and non-medical equipment installed in the Zagreb KBC	C5.1.R1-I4
- by the end of 2Q/2023, 3 digital imaging devices were procured in Split's KBC	C5.1.R1-I9
- by the end of 2Q/2026, 3,000 specialists (doctors of medicine) in the central financing programme for specialisations	C5.1.R3-I1
- by the end of 3Q/2024, the share of family medicine specialists in the total number of doctors contracted in general and family medicine teams is 55%	C5.1.R3-I1
- by the end of 1Q/2026, 2 new buildings were built in the infectious diseases Clinic Dr. Fran Mihaljevic	C5.1.R1-I5
- by the end of 1Q/2026, the Management building of the Clinic for infectious diseases, Dr. Fran Mihaljevic	C5.1.R1-I6
- by the end of 8/2026, a new building of the infectious diseases Clinic Dr. Fran Mihaljevic	C5.1.R1-I7
- by the end of 4Q/2025, a building of the central operational block OB Varazdin was constructed and equipped	C5.1.R1-I10
- by the end of 4Q/2023, the number of acute beds in the Rijeka CBC decreased from 161 to 110	C5.1.R1-I8
- by the end of 4Q/2024, 20% of patients participating in the treatment endpoint follow-up programme	C5.1.R4-I5
- by the end of 4Q/2024, 50% of all solid medicinal products for patients in unit packets	C5.1.R4-I2
- by the end of 4Q/2024, 50% of all parenteral preparations made in the central preparation system	C5.1.R4-I1
- by the end of 4Q/2024, 170 million doses of measles, rubella and antitoxin vaccine against snake bites were produced	C5.1.R1-I1
- by the end of 4Q/2025, 420 nurses/technicians completed specialist training in emergency medicine activities	C5.1.R3-I2
- by the end of 4Q/2022, 12 digitised, integrated operating rooms for KBC Split were procured	C5.1.R5-I2
- by the end of 1Q/2023, 40 telemedicine centres were established for the provision of telecardiological services	C5.1.R5-I3
- by the end of 4Q/2022, 40 telemedicine centres were established to	C5.1.R5-I4

provide teletransfusion services	

26. Financing and costs

C5. Health care			
Total estimated investment value for the component (HRK)			**6.630.282.156**
C5 .1. Strengthening the resilience of the health care system			
Total estimated investment value for the subcomponent (HRK)			**6.630.282.156**
Reforms and investments that imply certain costs		**Implementation period**	**Estimated cost**
C5 .1. R1-I1	Revitalization of the Institute of Immunology	1/2022. 12/2023.	750.000.000
C5 .1. R1-I2	Introduction of mobile pharmacy services in primary health care	6/2021. 7/2024.	20.000.000
C5 .1. R1-I3	Mobile ambulances	4/2021. 6/2025.	54.720.000
C5 .1. R1-I4	Phase III of the development of the Zagreb KBC - equipping with medical and non-medical equipment	1/2023. 1/2026.	187.500.000
C5 .1. R1-I5	Construction and equipping of clinical isolation units (3, 4 and 1./5 buildings) of the clinic for infectious diseases Fran Mihaljevic	1/2021. 1/2026.	119.550.000
C5 .1. R1-I6	Reconstruction of the Management building of the infectious diseases Clinic Dr. Fran Mihaljevic	1/2022. 1/2026.	42.949.500
C5 .1. R1-I7	Equipping new buildings to be built from a reconstruction project following earthquakes and boosting public health preparedness financed by the World Bank loan	12/2021. 1/2026.	1.748.656
C5 .1. R1-I8	Equipping of newly built structures II. Stages of the new hospital in KBC Rijeka at the Susak site	1/2021. 12/2023.	200.000.000
C5 .1. R1-I9	Digital imaging Diagnostics KBC Split	1/2021. 12/2022.	30.000.000
C5 .1. R1-I10	Construction and equipping of the central operating block building with intensive treatment unit (JIL), central sterilisation, RTG diagnostics, transfusion and medical-biochemical laboratory, and construction of interconnectors to existing facilities of the OB Varazdin medical facility	1/2021. 12/2025.	413.000.000
C5 .1. R1-I11	Hvar Health Centre	5/2021. 3/2026.	125.000.000
C5 .1. R2-I1	Procurement of equipment for the prevention, diagnosis and treatment of cancer patients	1/2021. 12/2025.	780.000.000
C5 .1. R2-I2	Procurement and implementation of equipment for the establishment of the National oncological Network and the National oncological Database	1/2021. 12/2025.	150.000.000
C5 .1. R3-I1	Central financing of specialisations	2020. 12/2025.	3.000.000.000

C5 .1. R3-I2	Specialist training of nurses and technicians in emergency medicine activities	2021. 5/2025.	140.000.000
C5 .1. R4-I1	Central preparation of all parenteral preparations in 8 Croatian hospitals	1/2021. 12/2024.	77.800.000
C5 .1. R4-I2	Introduction of a unit therapy distribution system in 50 Croatian hospitals	10/2021. 10/2025.	187.000.000
C5 .1. R4-I3	Digitalisation of drug route through health care institutions at secondary and tertiary level of health care	1/2021. 8/2026.	18.900.000
C5 .1. R4-I4	Development of a system for monitoring and prevention of shortages of medicinal products in the Republic of Croatia	1/2021. 8/2026.	10.750.000
C5 .1. R4-I5	Introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies	1/2021. 12/2024.	4.300.000
C5 .1. R4-I6	Improving the system of storage and transport of medicinal products in public pharmacies	7/2021. 7/2025.	73.500.000
C5 .1. R4-I7	Waste disposal in Zagreb's KBC	1/2023. 12/2024.	31.250.000
C5 .1. R5-I1	Improvement, upgrading and renovation of ICT infrastructure and digitization of medical documentation	1/2021. 12/2022.	40.000.000
C5 .1. R5-I2	Digitization integration of operating halls and robotic surgery in KBC Split	4/2021. 12/2023.	155.000.000
C5 .1. R5-I3	TELECORDIS	2/2021. 2/2023.	5.250.000
C5 .1. R5-I4	Teletransfusion	6/2021. 10/2022.	11.984.000

8. *INITIATIVE:*
RENOVATION OF BUILDINGS

5. Component Description

Policy area		
Building Energy efficiency	Earthquake reconstruction Seismic renewal	Protection of the cultural asset

General objective

1. Contribute to the recovery of the economy from the COVID epidemic and increase its resilience and competitiveness through the green and digital transition (for every million €investments in energy renovations, on average 18 new jobs are created, and in the Republic of Croatia this number is 29, which confirms the strong correlation and impact on the Croatian economy).

2. Reduce the environmental footprint of energy consumption, reduce air pollution in cities and increase the energy efficiency of buildings.

3. Achieve the achievement of climate objectives (reducing CO2 emissions from 40% to 55%).

Reforms and investments covered by the component

C6 .1. Decarbonisation of buildings	
Reforms	
C6 .1. R1	Complete renovation of buildings
Investments	
C6 .1. R1-I1	Energy renovation of buildings
C6 .1. R1-I2	Reconstruction of buildings damaged by energy renovation earthquake
C6 .1. R1-I3	Energy renovation of buildings with cultural property status

Contribution	**A green transition**	**The digital transition**
	100%	0%
Total estimated investment value for the component		**HRK 5,000,000,000**
Share of the total plan		4%
Estimated investments per year and sources of financing		see Annex 3.
Impact assessment		Annexes 4a, 4b and 5 (to be developed)
Response to CSR		see Annex 1.
Contribution to other parts of NPOO		see Annex 1.

27. Main challenges and objectives addressed under the component

The experience of energy renovation so far has revealed all visible and hidden challenges that we face today, based on an analysis of experience, knowledge, existing situation and achieved results. The valorisation of renovations carried out so far for the element of mechanical resistance and stability shows that over 50% of buildings are not resistant to risks associated with increased seismic activity and that the risks posed by building owners need to be mitigated. The rate of renovation so far indicates that it is necessary to increase the intensity of energy renovation of the total stock of buildings, which for the period from 2014 to 2020 amounted to only 0.7% of the area in the Republic of Croatia, i.e. 1.35 million m ² annually.

Challenges facing building renovation can be divided into four categories: (i) financial, (ii) legal, (iii) social and (iv) information. It includes a long return on investment and limited ability and access to capital for the reconstruction of buildings. For citizens and households, criteria for vulnerable groups of citizens at risk of energy poverty are defined as the ultimate limit under which the state must take care of stronger support in order for a citizen to live in such conditions with dignity. The draft programme for combating energy poverty in residential buildings in supported areas and areas of special state concern for the period 2021-2025 elaborates a part of the fund of buildings with the worst characteristics encompassing 407 buildings, and elaborates a detailed set of criteria for assessing the potential of energy renovation of buildings, which can be applied to other buildings with the worst characteristics and ranking them according to energy renovation priorities. This can also extend the programme to other multi-dwelling buildings, apart from state-owned buildings.

U pravne izazove spada nesrazmjer između trenutno postavljenih obaveza vlasnika o održavanju zgrada, te stvarnog stanja fonda zgrada koje u većini nisu adekvatno održavane, s čim u vezi su djelomično i složeni imovinsko-pravni odnosi u zgradama. Institucionalni izazov složenih procedura i postupaka je već ranije prepoznat te znatno poboljšan pojednostavljenim procedurama koje su se u praksi pokazale učinkovite. Društveni trendovi i stope prirasta stanovništva formuliraju potrebe za korištenjem zgrada, a depopulacijski trendovi i iseljavanje u tom pogledu nisu obećavajući. Stambena strategija koja je u izradi postavit će, uz ostale mjere iz drugih resora, temelje na kojima će se propisane mjere približiti stvarnim potrebama i mogućnostima ciljanih skupina stanovništva, kojima će se pomoći dodatnim mjerama, kako bi u konačnici iseljavanje zauzelo drugi smjer. Raspoloživost radne snage je međuovisna i povezana s drugim izazovima, na što također treba obratiti pažnju. Informacijski izazovi se tiču slabe svijesti, motiviranosti i informiranosti te su uz financijski izazov jedan od najlakše rješivih, a i relativno neovisan od ostalih resora. Izazovi se mogu navesti kako slijedi: (i) slabi financijski kapaciteti vlasnika zgrada; (ii) nizak standard građana, visoka stopa nezaposlenosti i velik broj umirovljenih građana s niskim primanjima, što sve utječe na neraspoloživost financijskih kapaciteta građana da investiraju u energetske obnovu, čak i uz visoke stope bespovratnog sufinanciranja; (iii) manjak radne snage u građevinskom sektoru, uzrokovan snažnim iseljavanjem; (iv) nedostatak regulative koja obvezuje na primjenu kriterija odabira na temelju najnižeg Ukupnog životnog troška građevine, postizanja zajamčenih ušteda primjenom mjera obnove te jamstava na izvedene radove i ugovorene standarde; (v) dodatna složenost postupka obnove zgrada upisanih u Registar kulturnih dobara Ministarstva kulture i medija; (vi) za razliku od energetske obnove zgrada, sveobuhvatna obnova iziskuje znatna sredstva, čiji povrat se ne može osigurati kroz

poboljšanje energetske učinkovitosti; (vii) nužnost individualnog i multidisciplinarnog pristupa svakoj pojedinoj zgradi; (viii) niske cijene energenata, parcijalno korištenje prostorija (tj. navike korištenja, kako grijanja/hlađenja, tako i boravka u prostorijama koje ne odgovaraju projektiranim uvjetima); (ix) nedovoljna informiranost, educiranost i sudjelovanje javnosti u donošenju važnih odluka o obnovi zgrada.

(a) main challenges

4. Energy inefficient buildings accountable for 40% of energy consumption and 36% of CO2 emissions.
5. A low standard of living, a high unemployment rate and a large number of low-income pensioners, all affecting citizens' lack of financial resources to invest in the energy renovation of buildings even with high rates of grant funding.
6. A large number of buildings damaged by the March 2020 earthquake on the territory of the City of Zagreb and Krapina-Zagorje and Zagreb Counties
7. Energy inefficient and unmaintained buildings with cultural good status.

(b) objectives

AD1. Reduced heating requirements and energy consumption in residential and public buildings, increased use of RES and reduced CO2 emissions.

Ad2. A system for monitoring energy poverty has been established to alleviate and endanger energy poverty.

A3. Increased seismic resistance of residential and public buildings.

AD4. Sustainable management and use of cultural assets as one of the preconditions for their preservation.

28. Description of reforms and investments by subcomponents

C6 .1. Decarbonisation of buildings

Link with the European Semester and/or strategic documents and the context of the reform

Energy efficiency in buildings is particularly stated in the NPR as one of the measures for achieving the objectives of the Europe 2020 strategy and is highlighted in the CSR 2019/3a and CSR 2020/3d and the Council opinion on the Convergence Programme of the Republic of Croatia 2020. Energy renovation of buildings is in line with the European Green Plan, *restoration wave* Strategy, Paris Agreement and UN Sustainable Development goals and is an integral part of the Integrated National Energy and Climate Plan for the Republic of Croatia 2021-2030, long-term strategy for encouraging investments in the reconstruction of the National building Fund of the Republic of Croatia from 14.12.20, draft of the NRR, and programme of the Government.

Building renovation has a direct reference in the second European Initiative *European flagship, Communication on the 2021 Annual Sustainable ground Strategy: "renovation"* - contribution to doubling the rate of renovation and encouraging deep renovation. The renovation of buildings brings energy savings of at least 50% - 60% per year.

The recommendations and communication of the European Commission with the Republic of Croatia have recognized the synergic effect of linking several recommended reforms: (i) renovation of educational buildings, where support for this structural investment is emphasized, (ii) energy efficiency and reconstruction of buildings — in the part of renovation of buildings, (iii) support for energy/sustainable reconstruction for house owners, and also for small-income families, (iv) rationalisation of the health sector — indirectly, modernisation of health infrastructure to which health buildings belong, and thus achieving significant savings. Energy efficiency of buildings is recognized in the strategic documents of the EC, indicated within key reform priorities, directly linking the results of building renovation with employment in the accompanying AEC industry.

The Integrated National Energy and Climate Action Plan for the Republic of Croatia for the period from 2021 to 2030 lists as energy efficiency measures to be implemented the energy renovation programmes for buildings for the period 2021-2030 adopted by the Government in accordance with the Construction Act. The same measures (programmes) are further elaborated in the long-term strategy for the reconstruction of buildings of the Republic of Croatia until 2050, which the Government adopted on 14.12.20. and which will be delivered to the EC. The programmes will encourage in-depth building renovation, highly efficient alternative systems and will pay special attention to ensuring healthy internal climate conditions, fire protection and the risks associated with enhanced seismic activities. Energy renovation programmes for the housing sector will implement measures to reduce energy poverty. A special category will also be introduced, i.e. energy renovation of buildings with cultural property status that have not been included in energy renovation programmes for EU co-financing so far.

In line with the long-term strategy, the energy renovation rate of buildings rises gradually from 1% of the floor area in 2021 to 3% of the floor area in 2030, which is in line with the proposed renovation rate in the *restoration ave* initiative.

A secondary coincidence can be found in the following: "the Council Recommendation on the National Reform Programme of Croatia and the issuing of a Council opinion on the Convergence Programme of Croatia," *Recommendation for a COUNCIL*

RECOMMENDATION on the 2019 National Reform Programme of Croatia, COM (2019) 511 final), said on 5 June 2019: "(15) Croatia could reduce its high energy intensity by investing in energy efficiency and smart energy systems. Particular attention could be paid to reducing electricity consumption in buildings and improving energy efficiency of district heating networks." It is recommended that the Republic of Croatia take actions aimed at "focusing investment policy on research and innovation, sustainable urban and railway transport, energy efficiency, renewable energy sources and environmental infrastructure, taking account of regional differences".

Coverage of reforms and investments, level of preparation and time needed for implementation

(a) reform measures

C6 .1. R1 Complete renovation of buildings

Challenge

From the age of the existing building stock and their situation, there is the possibility of cost-optimal energy renovation of buildings. Comprehensive renovation, apart from energy renovation measures, will implement measures to reinforce the mechanical resilience and stability of buildings with a focus on enhancing earthquake safety, improve their safety in the event of fires and pay particular attention to ensuring sound internal climate conditions. This will make a positive contribution to health and the environment, and will ensure significant energy savings compared to the current situation.

In addition, the devastating earthquake that hit three counties in the Republic of Croatia (City of Zagreb, Krapina-Zagorje and Zagreb County) in March 2020 caused great damage to the public and private sector on public buildings, residential buildings, family houses and other infrastructure buildings. Some important infrastructure facilities, as well as a significant share of cultural assets in the affected area, have been damaged. The earthquake raised awareness of the vulnerability of buildings from the aspect of security, which led to a consensus on the need for a comprehensive renovation of buildings, which will include safety requirements in addition to the energy aspect (fire, earthquake). Part of the buildings that need to be fully renovated are damaged in the earthquake, part of the buildings need to be renovated in anticipation of major damage to these buildings in the forthcoming period, and part of the buildings needs energy renovation.

Joint Research Centre Joint Research Centre (JRC) as part of the work of the European Laboratory for Structural assessment The European Laboratory for Structural assessment (ELSA) presented a number of results of research carried out after recent earthquakes, particularly in Europe (i.e. Athens 1999; L ′ Aquila 2009; Lorca 2011; Emilia 2012; Nepal 2015; Central Italy 2016). These results showed a significant sensitivity of buildings to earthquakes, in areas where there is either an increased probability or a significant impact than a possible earthquake. In order to mitigate the consequences of earthquakes, the JRC studies structural behaviour of buildings and other infrastructures in earthquake scenarios, develops methodologies to increase building safety and contributes to the creation of European standards for the construction sector. Due to the significant impacts of earthquake risk and damage, researchers at the Joint Research Centre of the European Commission are investigating new solutions for simultaneous energy and seismic reconstruction within the framework of research programmes (iRESIST +,

https://ec.europa.eu/jrc/en/research-topic/improving-safety-construction/I-resist-plus).

The survey conducted at the JRC contributes to the development of Eurocodes, a set of European standards for the design of buildings and other construction works, which now replace all national standards, ensuring a more uniform level of security of buildings and critical infrastructure within the EU. However, Eurocodes are standards used in the budgets of buildings that are relatively new, and the stock of buildings in the EU, as well as in the Republic of Croatia, as explained earlier, is relatively old, while the Republic of Croatia is located in a seismically risky area.

According to official EC information (official project website - iRESIST +), the EU governments have started encouraging seismic reinforcement of buildings (e.g. Mammabonus Regulation in Italy, 2017), while energy renewal is already part of EU policy. It is stated that the combined strategy and support policy to address the poor seismic and energy performance of the existing building fund has not yet been developed when EU member States are considered in total.

Croatia is opting for this direction.

Objective

The objective of this subcomponent is to realise a wave of renovation of existing buildings, which includes renovation of residential and/or business buildings, social and/or Affordable housing, private and/or public buildings, taking into account the importance of public interest of health and educational buildings.

Description

Intervention activities to amend the legislative provisions in order to accelerate the renovation of buildings after the mentioned earthquake in 2020 include the possibility that building owners, along with a simplified procedure for obtaining the necessary documentation, can complete the renovation of buildings or perform works bringing the building to a state of complete construction usability to the level required by the applicable regulations (Eurocode 8 related to seismic resistance) and related to the norm, as well as the rules of the profession; including the execution of works to increase the energy efficiency of reconstructed buildings, and the owners of public buildings are obliged to complete renovation.

In addition to interventional actions taken to amend the regulatory framework for the purpose of organised and accelerated post-earthquake renovation in March 2020, the components elaborated here also include preventive measures that contribute to increasing resilience and recovery, relate to seismic reinforcement of buildings, for which there are elaborated and regularly introduced regulatory options.

In cases of the need for seismic reinforcement (in order to ensure safety of staying in the building) and energy renovation of buildings (due to lack of energy properties of the city), their necessity of connectivity arises from the fact that the building is a physical

manifestation with both reconstruction elements, and in technical terms and the organisation of works it is unjustified to separate these works due to technological and organizational dependence. Only simultaneous coordination of renovation activities for mechanical resistance and stability (i.e. earthquake resistance) and energy renovation of buildings can yield results.

Particular attention should be paid to the reconstruction of buildings with cultural property status which are part of the national identity in the context of the capital. The density and number of cultural assets and institutions in the City of Zagreb is highest within the territory of the Republic of Croatia. Buildings with cultural property status also require reconstruction taking into account energy efficiency measures.

The renovation of buildings concerns the improvement of their resilience and the rationalisation of energy, because people live there, so that the component of the renovation of buildings is divided into the following elements: (i) the renovation of buildings of health and educational infrastructure; (ii) the renovation of buildings of other public uses; (iii) the renovation of buildings with cultural property status; (iv) the renovation of buildings of residential uses; (v) the renovation of other buildings. Key parts of these renovations are an increase in mechanical resistance and stability of buildings in relation to earthquakes and energy savings.

Implementation

The National Fund of existing buildings of the Republic of Croatia in 2020 covers the total useful area of 237.315.397 m ², of which 178.592.460 m ² of residential buildings and 58.722.937 m ² of non-residential buildings. This area covers all existing buildings, constantly occupied, temporarily unoccupied and abandoned buildings. It is necessary to restore 110,143,965 m ² of useful land of residential buildings by 2050, with 42,395,923 m ² of waste on residential buildings and 67,748,042 m ² on family houses. For non-residential buildings, the total useful area in 2020 is 58.722.937 m ², of which 42.623.410 m ² in commercial buildings and 16.099.527 m ² in public buildings (long-term strategy for the restoration of housing stock until 2050, MPGI, 2020).

The “building Reconstruction” initiative is a substantive priority reform and represents key investments for the construction sector and related activities, the so-called AEC (*Architectural, Engineering, Construction*) industry. Namely, in the previous period, the AEC industry took two activities out of recession: investing in tourism construction and energy renovations in buildings, which the AEC redirected the industry after years of investment in road infrastructure construction, in the area of energy efficiency in buildings.

Building renovation will directly contribute to the realisation of the green transition, especially by reducing greenhouse gas emissions in buildings, improving resource efficiency in public infrastructure buildings and improving the energy balance of the building stock.

The average energy performance of the building stock, according to data collected in the energy certificate information system (IEC), is equally represented in terms of the heat demand for heating in residential and office buildings, while other uses show a shift towards lower energy classes (hospitals and family houses) or better (shops, hotels and restaurants), which reflects the initial status of the fund as well as investment intensity. The rate of energy renovation of buildings for the period 2014-2020 is 0,7% of the area, i.e. 1,35 million m ² per year, and the target rate is 1% in 2021 and 2022, 1,5% in 2023 and

2024, 2,0% in 2025 and 2026, 2,5% in 2027 and 2028 and 3% in 2029 and 2030, and then from 2031 to 2040. 3.5% and 4% from 2041 to 2050.

With regard to the satisfaction of mechanical resilience and stability of buildings, it should be borne in mind that around 30% of the total stock of buildings is accounted for in buildings built before 1963, when the design resistivity calculation of buildings did not involve taking horizontal loads, in other words, the earthquake was not considered in the building bearing capacity calculations. Since 1964. The Republic of Croatia has significantly increased requirements for building construction, and since 2008 European regulations have been in place which further increases the safety of buildings in case of earthquakes. In addition to energy renovation of buildings, it is possible to apply a number of technical measures that will reduce fire risks and risks associated with increased seismic activity. Such measures may increase the cost of reconstruction by an average of HRK 1,500/m ^{2}. However, the value of investments for the overall reconstruction of buildings already damaged by the earthquake amounts to considerably higher amounts, up to HRK 6,900/m ^{2}.

Finally, the reconstruction of buildings for the country's recovery and resilience is much higher than the achievement of the goals of reducing greenhouse gas emissions and saving energy (obligations as EU members). Buildings contribute 40% of total energy consumption and therefore have to be considered overall. Especially because of the relatively old existing building stock, their renovation is driving the economy, helping SMPs, creating new jobs and increasing gross added value. Therefore, investments in the integral and in-depth renovation of buildings create much wider economic benefits, which particularly affects the increase of economic activities, budget revenues and the strengthening of general financial stability of the state, the increase in GDP and employment growth, the continued growth of property values, and the development of tourism, and the improvement of the economy in almost all segments of IT, WHICH is particularly important in the period of crisis caused by the COD a-19 epidemic. In the Republic of Croatia whose capital city of Zagreb was hit by earthquakes in the middle of THE civil-19 epidemic, the reconstruction of buildings has even greater significance.

The total investments envisaged in the Integrated National Energy Climate Action Plan will on average annually increase the gross value added by HRK 9346.3 million. The projected increase in gross added value of construction accounts for as much as 34% of the total increase in gross added value by 2030. Each million euros invested in the energy renovation of buildings generates an average of 18 new jobs in the EU. In the Republic of Croatia, this number is 29, which clearly indicates a strong influence on the Croatian economy.

Implementation holder	MPGI will coordinate the implementation in cooperation with other relevant state administration bodies, MKM, APN, FZO and SDUOSZ.

Target Group	Owners and/or users of multi-dwelling buildings and public buildings where social activities are carried out, owners of cultural goods-bodies of public law, building managers, ESCO companies, experts in the field of heritage restoration.
Estimated cost	HRK 5,000.000.000 (investment)
Implementation period	2/2020.-6/2026.

(b) Investments

C6 .1. R1-I1 Energy renovation of buildings

Challenge

The energy renovation of buildings supports the green transition in order to achieve a climate-neutral Europe by 2050, contributes to the restoration of THE post-crisis ECONOMY19, especially in the construction sector, encourages job creation and promotes sustainable growth and contributes to strengthening economic, social and territorial cohesion. Energy renovation of buildings is a precondition for achieving the EU's green goals because buildings consume 40% of primary energy and emit 36% of CO2 emissions. As a precondition for green transition and decarbonisation it is necessary to increase investments in energy efficiency measures and use of renewable sources in the construction sector.

Increasing energy efficiency, especially in buildings, is particularly important since without increasing the percentage of renovation of buildings the Republic of Croatia will not be able to achieve basic conditions for decarbonisation of the economy by 2050. The registered rate of energy renovation of the building stock in the Republic of Croatia from 2014 to 2019 is 0.7% of the floor area of the total building stock, or 1.35 million m ^{2} per year. Therefore, it is necessary to increase the intensity of renovation of the total stock of buildings to 2% annually by 2026, or 3% annually since 2030. Accordingly, the rate of reconstruction of the total housing stock in the Republic of Croatia is planned to gradually increase from 1% in 2021 to 3% in 2030.

Objective

Implementation will ensure the reduction of thermal needs and energy consumption in multi-dwelling buildings and public sector buildings, increase the use of RES and consequently reduce CO2 emissions; alleviate energy poverty and the degree of vulnerability to it; establish a system for monitoring energy poverty; foster ESCO models.

Description

The starting point for monitoring the recovery progress was determined on the basis of the total stock of permanent occupied buildings in 2020. For residential buildings, the area of permanently occupied residential buildings in 2020 is 128,960,894 m ^{2} less the surface

area of newly built and renovated buildings from 2011 to 2020, thus providing a useful surface of 110,143,965 m ². Of which 42,395,923 m ² belong to residential buildings and 67,748,042 m ² to family houses. For non-residential buildings, the total useful area in 2020 is 58.722.937 m ², of which 42.623.410 m ² is in commercial buildings and 16.099.527 m ² in public buildings.

The registered rate of energy renovation of the building stock in the Republic of Croatia from 2014 to 2019 is 0.7% of the floor area of the total building stock, or 1.35 million m ² per year. The strategic goal of the long-term strategy is to raise the current rate of renovation of buildings from 0.7% to 3% annually by 2030, 3.5% from 2031 to 2040 and 4% from 2041 to 2050. In the period from 2021 to 2026, a renewal rate of 1% is planned annually in 2021 and 2022, 1.5% annually in 2023 and 2024 and 2% annually in 2025 and 2026.

Implementation

The annual rate of renovation of buildings is as follows: 1.687.918 m ², 1.670.294 m ² in 2022, about 2.479.284 m ² in 2023, about 2.441.006 m ² in 2024, about 3.204.426 m ² in 2026 and about 3.138.936 m ² in 2026.

Within the framework of the RDF, energy renovation of buildings will support measures to increase energy efficiency and use the RES in public and multi-residential buildings which will result in a reduction in energy consumption through an integrated approach with the application of horizontal measures to reinforce the resistance from earthquakes and fires, while encouraging ESCO models. More than 400 projects for energy renovation of public buildings and more than 700 projects for energy renovation of residential buildings have been prepared. Implementation ensures decarbonisation of buildings, with investments covering citizens and the public sector and a number of companies engaged in energy reconstruction.

In accordance with the long-term strategy for the restoration of the National building Fund by 2050 for the period 2021-2030, an investment of HRK 72.4 billion is required in order to achieve the national restoration target of HRK 28 440 000 m ². The assumed unit cost of energy renovation is HRK 1,500/m ² for residential buildings and HRK 2,500/m ² for public sector buildings, in accordance with the cost in 2020. By including the costs of seismic rehabilitation (preventive seismic reinforcement of buildings not already damaged in the earthquake) ranging from 1,000 to 2,500 kn/m ², unit cost of integral reconstruction increases to 3,500 kn/m ² for residential buildings and 4,500 kn/m ² for public sector buildings. It is estimated that 50% of buildings in addition to energy will need seismic reconstruction or reinforcement, and the estimated investment cost in the period 2021-2030 amounts to HRK 11 billion for public buildings; HRK 6.3 billion for buildings with cultural property status; HRK 21.2 billion for residential buildings and HRK 33.9 billion for family houses.

The following amounts have been estimated for the co-financing of reconstruction: HRK

5.6 billion for public buildings, HRK 4.6 billion for buildings with cultural property status; HRK 10.5 billion for residential buildings and HRK 16.9 billion for family houses. Consequently, it will be necessary to use all available sources of funding such as ESI Funds, RRF, national funds of the Environmental Protection and Energy efficiency Fund, funds from the system of energy savings obligations, etc. for co-financing.

Funds planned under this sub-component for energy renovation of buildings spent by the RDF cover only 2.6% of actual needs by 2030. The document "*Why the EU recovery and Resilience Facility must priorities investments in building restoration*", drafted by the *ECOLOGIC INSTITUTE* in November 2020 and commissioned by the EC together with *THE ROCKWOOL group, States how much each country would have to allocate to renovate buildings from recovery funds. In the case of the Republic of Croatia, EUR 428 million of grants and EUR 65 million of loans are proposed.*

OPCC has contracted all available allocation from ERDF for energy renovation of residential and public buildings. AT the end of 2016, MPGI announced the call for energy renovation of multi-dwelling buildings where 649 applications for project proposals were received, while 584 projects for energy renovation of buildings were contracted. More than 16,000 households participate in promoting energy efficiency and renewable energy sources in multi-dwelling buildings across the Republic of Croatia, and the most frequent transitions from energy class E to B. for energy renovation of public sector buildings, MPGI has published four calls within OPCC. In total, 871 grant agreements were signed for energy renovation of buildings and preparation of project documentation.

The RDF will primarily finance the energy renovation of buildings that already have a major energy renovation project in place and are ready to implement the project, which were not financed by OPCC due to lack of financial resources. Particular attention will be paid to the ESCO model, which proved to be the best model for the reconstruction of public buildings owned and used by the central government.

From the MFF 2021-2027 financing for energy renovation of public and residential buildings will continue, encouraging deep and comprehensive renovation of buildings, ensuring healthy internal climate conditions, fire protection and risks associated with intensified seismic activities.

Implementation of the reform implies preparatory actions for the updating and development of relevant building renovation programmes, which are harmonised with other planning documents and the implementation thereof.

There are 3 key programmes for this sub-component: (i) Energy Reconstruction Programme for multi-dwelling buildings 2021-2030; (ii) Energy Reconstruction Programme for public sector buildings 2021-2030; (iii) Energy poverty reduction Programme which includes the use of renewable energy sources in residential buildings in supported areas and areas of Special State concern for the period 2021-2025.

The following is a review of each of them, defined in the long-term strategy for the reconstruction of the housing stock of the Republic of Croatia.

(i) the programme for energy renovation of residential buildings 2021-2030 should be conceived as a continuation of the implementation of the programme for energy renovation of residential buildings from 2014 to 2020. To this end, resources from the recovery Fund and ESI Funds should be planned for the next programming period 2021-2027 (with implementation until 2030), and implementation procedures should be significantly

facilitated, especially in the part of public procurement implementation. It is necessary to encourage in-depth renovation of buildings and comprehensive renovation. In the case of buildings undergoing significant renovation, high-efficiency alternative systems shall be encouraged to the extent technically, functionally and economically feasible and particular attention shall be paid to ensuring sound internal climatic conditions, fire protection and the risks associated with enhanced seismic activity.

It is more important to encourage reconstruction to NZEB standards established for reconstruction. In addition, it is necessary to consider setting up a special fund from which costs will be reinvested in energy-poor households or households at risk of energy poverty, in order to remove the obstacle to ensuring a sufficient number of co-owners' consent for energy renewal. Implementation of the Programme must be accompanied by strong promotional activities, provided technical assistance to applicants and it is necessary to ensure monitoring of energy consumption before and after energy renewal, for which it is necessary to create preconditions within the framework of the ISGE. Savings were calculated assuming energy renovation of buildings at the level of meeting the requirements of technical regulations by the Regulation on rational use of energy and thermal protection in buildings, according to construction periods, at the annual renovation rate, which at the beginning of the period (2021) amounts to 1% and then gradually increases to 3% by 2030. Annual savings amount to 0.148 PJ. The estimated unit cost of energy renovation is HRK 1,500/m ^{2}, which corresponds to the cost in 2020. By including the costs of seismic rehabilitation ranging from 1,000 to 2,500 kn/m ^{2}, unit costs of integral reconstruction grow up to 3,500 kn/m ^{2}.

The estimated investment cost in the period 2021-2030 is HRK 6.36 billion for the energy renovation of buildings at predicted rates only. However, it is estimated that 50% of buildings will require seismic reconstruction, which is estimated to cost HRK 14.84 billion. The exact amount of investment costs and necessary grants will be determined in the Energy Reconstruction Programme for the period 2021-2030.

It is necessary to provide grants from the recovery Fund and ESI Funds amounting to 60% of eligible costs, with maximum co-financing of energy audits, energy certificates before and after renewal, project documentation and technical assistance in project preparation and implementation. The possibility of using national funds and other sources of financing should be considered.

The estimated impact of the programme includes reducing heat demand and energy consumption in residential buildings and increasing the use of RES and consequently reducing CO2 emissions; estimated savings in 2030. 1,48 PJ (35,40 ktoe); estimated reduction of CO2 emissions in 2030 40,74 ktCO2e; cumulative energy savings in the period 2021-2030 8,15 PJ (194,70 ktoe); cumulative reduction of CO2 emissions in the period 2021-2030 232.17 ktCO2e.

The objectives, conditions and activities and the abovementioned numerical values are

indicative, and will be specified in detail in the Energy Reconstruction Programme for the period 2021-2030.

(ii) the programme for energy renovation of public sector buildings 2021-2030 represents a continuation of the implementation of the programme for energy renovation of public sector buildings from 2016 to 2020. To this end, it is necessary to plan the resources from the recovery Fund and the ESI Funds for the next programming period 2021-2027 (with implementation by 2029). The funds need to be planned in such a way as to ensure the activation of private capital and ESCO markets, especially for buildings that are suitable for such models of financing (continuous-work buildings such as hospitals, penitentiaries, homes for accommodating the elderly, etc.) and fall within the category of central government buildings, for which there is a binding renovation target as defined in Directive 2012/27/EU on energy efficiency. Market models should be combined with grants in order to achieve in-depth renewal and NZEB standards set for renewal. In addition to ESI funds, the FEEF is also obliged to plan funds for this Programme in the part relating to co-financing energy renovation of central government buildings according to the ESCO model. For buildings that are not suitable for market models, grants should be provided under the same conditions as in the previous programme. The renovation of public sector buildings must be directed towards the NZEB standard established for reconstruction wherever technically feasible. In the case of buildings undergoing significant renovation, high-efficiency alternative systems shall be encouraged to the extent technically, functionally and economically feasible and particular attention shall be paid to ensuring sound internal climatic conditions, fire protection and the risks associated with enhanced seismic activity.

Savings were calculated assuming the energy renovation of buildings to the level of compliance with the technical regulations on rational energy use and thermal protection in buildings, according to construction periods, at the annual renovation rate, which at the beginning of the period (2021) amounts to 1% and then gradually increases to 3% by 2030. Annual savings amount to 0.169 PJ. The estimated unit cost of energy renovation is HRK 2,500/m ^{2}, which corresponds to the cost in 2020. By including seismic rehabilitation costs ranging from 1,000 to 2,500 kn/m ^{2}, unit costs of integral reconstruction grow up to 4,500 kn/m ^{2}.

For the energy renovation of central government buildings as well as other public sector buildings, where feasible, an energy service model (ESCO) will be applied, whose implementation is under the responsibility of the APN, and co-financing is provided from the FEEF and other sources including EU funds – this segment of the programme is necessary in order to mobilise private capital, develop the energy services market and achieve objectives without additional public sector borrowing.

The estimated investment cost in the period 2021-2030 is HRK 4 billion for energy reconstruction only. However, it is estimated that 50% of buildings will require seismic reconstruction, which is estimated to cost HRK 7.2 billion. The exact amounts of

investment costs and necessary grants will be determined in the Energy Reconstruction Programme of public sector buildings for the period 2021-2030.

It is necessary to provide grants from the recovery Fund and ESI Funds depending on the climate zone (coastal or continental) and the development index, with the maximum co-financing of energy audits, energy certificates before and after reconstruction, project documentation and technical assistance in project preparation and implementation. For the ESCO model, the FEEF provides funds from revenues from the sale of allowances through auctions and from the system of energy efficiency obligations as well as from other sources of FEEF revenue.

The estimated impact of the programme includes reducing heat demand and energy consumption in public sector buildings and increasing the use of RES and consequently reducing CO2 emissions; estimated savings in 2030. 1.69 PJ (40,40 ktoe); estimated reduction of CO2 emissions in 2030 46,52 ktCO2e; cumulative energy savings in the period 2021-2030 9.30 PJ (222,20 ktoe); cumulative reduction of CO2 emissions in the period 2021-2030 264.93 ktCO2e

The objectives, conditions and activities and the abovementioned numerical values are indicative and will be specified in detail in the Energy Reconstruction Programme of public sector buildings for the period 2021-2030.

(iii) the programme for combating energy poverty which includes the use of renewable energy sources in residential buildings in supported areas and areas of Special State concern for the period 2021-2025 aims to alleviate energy poverty and the degree of risk in buildings at the disposal and management of the Central State Office for Reconstruction and housing (SDUOSZ), in which residents are not able to participate in the financing of necessary repairs.

Within the framework of the programme to combat energy poverty, which includes the use of renewable energy sources in residential buildings in supported areas and areas of special state concern for the period 2021-2025, 413 residential buildings were identified for the purpose of the programme, and 407 buildings from the work list and 12 additional ones were included, but 22 were covered in other units, giving a total of 397 buildings. The priorities for the renovation are defined according to the observed shortcomings of buildings, and the possible energy savings for heating and primary energy to be achieved by the renovation of buildings have been estimated. A total of 397 buildings, with a total area of 297.575 m ², have to be reconstructed with 297 to 355 million kuna. The total potential primary energy savings on all buildings are 27 GWh per year.

Investments in the period from 2021 to 2025 covered by this Programme amount to HRK 355 million for the period until 2030, since there are about 600 more buildings under SDUOS management, it is necessary to provide a minimum of HRK 533 million, while maintaining an identical level of investment in buildings and assuming similar

characteristics of buildings.

The forecasted funding sources are the funds of the obliged entity of the energy efficiency obligation system, the EPEEF, EU funds.

The estimated impact of the programme includes a complete renovation of buildings in supported areas and areas of special state concern; capacity building to alleviate energy poverty; reducing direct energy consumption and consequently reducing CO2 emissions in energy-poor households and households threatened by it.

Implementation holder	MPGI will manage projects related to this investment with a horizontal measure to reinforce earthquake and fire resistance. The bodies responsible for project implementation are MPGANS that will approve and monitor projects according to established procedures for EU funds established within THE MPGS. The implementation body at the national level for the ESCO model is the APN based on the Energy efficiency Act.[53] The body responsible for the implementation of the renovation of buildings under the programme to combat energy poverty is the Central State Office for Reconstruction and housing.
Target Group	Co-owners of multi-dwelling buildings, building managers, ESCO companies, building owners, users of buildings, public institutions, LC (R)SGUs, state administration bodies, ministries, central state offices, state administration organisations and state administration offices in counties, religious communities engaged in social activities, associations engaged in social activities.
Estimated cost	HRK 1,000,000,000
Implementation period	2/2020.-6/2026.

C6 .1. R1-I2	**Reconstruction of buildings damaged by energy renovation earthquake**

Challenge

The earthquake that took place in Zagreb and its surroundings in March 2020 confirmed that if Zagreb hits the magnitude earthquake over 6.0 per Richter, which is unfortunately possible for the Zagreb City area and its surroundings, the consequences would be disastrous. Given the current situation, a significant part of hospitals, schools, kindergartens, theatres, churches, museums, multi-dwelling buildings and family houses would be demolished to the ground. Analogous damages could be caused by earthquakes in other parts of the Republic of Croatia. The need for an adequate reconstruction of old buildings for their effective response to earthquake action is particularly well aware of the event in March, so that aseismic construction of new and renovation of old buildings is certainly one of the important priorities of the future period.

Given the EC's awareness of the security challenge related to seismically vulnerable buildings, and the steps taken so far in the preparation of the legislative framework and long-term strategy for the reconstruction of national fund buildings by 2030, the Republic of Croatia has opted for a comprehensive reconstruction which respects the state of

53 OG 127/14, 116/18 and 25/20

fundamental building requirements, of which fire protection, mechanical resistance and stability (containing the earthquake resistance of buildings) and energy efficiency in buildings are of particular importance for security.

The level of preparedness on the part of the legislation has been completed, and the greater challenge of preparedness lies with the financial power of building owners. This was in the part of buildings damaged by the earthquake intervened with the modification of the national regulatory framework and the determination of co-financing by the state (60%) and the city/county (20%), in the part of the structural reconstruction of these buildings (except for exceptional cases where the owner does not bear even 20% of the structural reconstruction). The basic regulatory framework of the organized reconstruction after earthquakes, in the part of the structural reconstruction, is prescribed by the Act on the Reconstruction of earthquake damaged buildings in the City of Zagreb, Krapina-Zagorje County and Zagreb County.[54]

In accordance with the Reconstruction Act and the Technical Regulation for Construction structures, the return of buildings to their original state after damage, i.e. the legal minimum to be achieved, implies, depending on their intended purpose:

(i) buildings for residential, business, residential and business purposes, and public buildings with medium consequences of failure, which are less easily damaged by the earthquake:

Razina 2, popravak konstrukcije: Popravak potresom oštećene građevinske konstrukcije zgrade uz pojačanja kojima se postiže mehanička otpornost i stabilnost zgrade na potresno djelovanje za poredbenu vjerojatnost premašaja od 10% u 10 godina (povratni period 95 god.) za granično stanje znatnog oštećenja; Za zgrade za koje bi postizanje mehaničke otpornosti i stabilnosti zgrade na potresno djelovanje za poredbenu vjerojatnost premašaja od 10% u 10 godina narušilo njihova svojstva zaštićena posebnim zakonom ili bi ulaganja bila u nesrazmjeru u odnosu na njezinu vrijednost, dopušta se popravak potresom oštećene građevinske konstrukcije zgrade uz pojačavanje i primjenu metoda kojima se ne zadire značajno u tehnička svojstva zgrade koja se obnavlja, te kojima se (osim lokalno) ne mijenja bitno ukupna krutost konstrukcije i masa građevine; Izuzetak predstavljaju konstrukcijski sustavi zgrada kod kojih je potresna otpornost u jednom smjeru značajno niža nego u drugom pa se dopušta i lokalno dodavanje novih nosivih elemenata; Popravak građevinske konstrukcije uključuje: povezivanje pojedinih elemenata konstrukcije kako bi se zgrada pri sljedećem potresu globalno ponašala kao cjelina te kako bi se odgodila pojava lokalnih mehanizama sloma i/ili mehanizama sloma izvan ravnine; pojačavanja kritičnih mjesta i elemenata oštećenih u potresu.

(ii) buildings with seismic resilience important in relation to demolition consequences (class III of importance of buildings according to HRN EN 1998); buildings with residential, residential and business purposes and public buildings that are more severely damaged by earthquakes, e.g. sports buildings, cinemas, theatres, museums, churches, public administration buildings that are not vitally important for post-earthquake functioning, medical institutions of minor importance (polyclinics, health centres, etc.), pharmacies, schools, kindergartens, kindergartens, faculties, faculties, faculties, faculties, faculties, and facilities, and facilities, and equipment, etc.

Level 3, Construction reinforcement: reinforcement of earthquake damaged building

54 NN 102/20

structure using methods to increase mechanical resistance and stability of building compared to earthquake action for comparative probability of over 20% in 50 years (return period 225 years) for the limit state of significant damage.

(iii) buildings whose integrity during earthquakes is important for the wider community (Class IV buildings according to the HRN EN 1998 series); e.g. health care institutions of major importance (clinical hospital centres, etc.), intervention services (fire fighting, emergency services, public and national security, etc.), public administration buildings of vital importance for post-earthquake operation, buildings of vital importance for supply, telecommunications, energy, buildings, storage facilities for flammable liquids, gases and toxic materials:

Level 4, achievement of mechanical resistance and stability according to the relevant standards of the HRN EN 1998 series; complete renovation (improvement, reconstruction) by earthquake-damaged building structure using methods to achieve mechanical resistance and stability of the building in relation to the earthquake action for the comparative probability of over 10% in 50 years (return period 475 years).

In the case of buildings which authorised engineers will assess as vulnerable to earthquakes and demand, in accordance with the existing regulations, reinforcement of mechanical resistance and stability with energy renovation, in order to achieve the green objectives and ensure the safety of buildings and their resilience for the forthcoming period, it will be necessary to carry out such renovation of buildings as prescribed by the main project, in accordance with the Reconstruction Act.[55]

Objective

While ensuring the reduction of thermal needs and energy consumption in multi-dwelling buildings and public sector buildings, increasing the use of RES and consequently reducing CO2 emissions; alleviating energy poverty and the degree of vulnerability to it; this component aims to ensure and increase seismic resilience of buildings.

Description

The devastating earthquake that hit three counties in the Republic of Croatia in March 2020 (the City of Zagreb, Krapina-Zagorje and Zagreb County) caused great damage to the public and private sectors on public buildings, residential buildings, family houses and other infrastructure buildings. Some important infrastructure facilities, as well as a significant share of cultural assets in the affected area, have been damaged.

The estimated value of total direct damage caused by the earthquake amounts to HRK 86.36 billion or EUR 11.57 billion. This is about 60% of the annual state budget. After the devastating earthquake in Zagreb, more than 6 thousand buildings, including kindergartens, elementary schools, high schools, faculties, institutes, scientific institutions, sports buildings and cultural institutions (about 1.5% of damaged buildings of public use and 98.5% of buildings are privately owned), were labeled unusable or temporarily unusable. In particular, on 15 June 2020, a total of 5487 damaged buildings of the serviceability category were reported in the City of Zagreb: Utility due to external influences, Utility due to damage, temporarily inusable – necessary detailed inspection and temporarily inusable – necessary emergency measures (note: data according to the letter of the City of Zagreb indicating that the data will be cleared by the end of 2020). It is in the Krapina-Zagorje County on 15 June 2020. In total, 81 damaged buildings were registered

55 OG 153/13, 20/17, 39/19 and 125/19

and in Zagreb County 40 damaged buildings of the serviceability category: Utilised due to external influences, Utilizable due to damage, temporarily inusable – necessary detailed inspection and temporarily inusable – necessary emergency measures.

This earthquake caused further motivation to restore damaged buildings in a quality and timely manner, as well as to improve the serviceability and resilience of undamaged buildings, which would also be damaged under the influence of such an event.

According to the analysis conducted and projections of costs of earthquakes of damaged buildings carried out by the Faculty of Civil Engineering of the University of Zagreb, a preliminary assessment of damages to family houses, residential, residential and business buildings and public buildings, should only surface ("cosmetic") renovation measures be implemented, the total cost of reconstruction would be approximately HRK 9.0 billion, while the complete reconstruction of the structure in all buildings would amount to HRK 97.5 billion. Taking the above as a starting point for the preparation of the estimate of reconstruction costs, depending on the purpose of buildings and proposed levels of renovation, several variants of the estimate of reconstruction costs were made, which include direct reconstruction costs for "Roh-BAU". Indirect reconstruction costs (caused by the eviction of persons and businesses from the renovation project) are not covered by this assessment.

Also, this analysis provides an overview of unit renovation prices (in EUR, excluding VAT) for "Roh-BAU" at different levels of renovation of buildings per purpose, and prices are determined as average unit costs from typical examples of renovation of buildings elaborated individually by experts.

Implementation

With regard to the activities carried out so far concerning damaged buildings in the March 2020 earthquake, we point out the following:

(i) changes to the technical Regulation for construction structures are in force.[56]

(ii) the Act on the Reconstruction of earthquake damaged buildings in the City of Zagreb, Krapina-Zagorje County and Zagreb County was adopted.[57]

(iii) the first programme of measures for the reconstruction of earthquake-damaged buildings has been adopted[58], as well as the decision to establish an Interdepartmental working Group for monitoring the implementation of grants from the European Union Solidarity Fund intended for financing reconstruction.

(iv) the Ordinance on the content and technical elements of the reconstruction project documentation, the project for the removal of the building and the project for the construction of a replacement family house damaged by earthquakes in the City of Zagreb, Krapina-Zagorje County and Zagreb County was adopted.[59]

The Fund for building Reconstruction was established, which will deal with the anti-earthquake aspect of this component. The Act on the Reconstruction of earthquake-damaged buildings in the City of Zagreb, Krapina-Zagorje County and Zagreb County envisaged key participants: building owners and co-owners, financial-technical control of

56 NN 75/20
57 NN 102/20
58 NN 119/20
59 NN 127/20

technical documentation for reconstruction, Ministry (MPGI) which will adopt the Reconstruction Decisions, operational coordinators who will co-ordinate the activities of all other contracted participants, local self-government units, designers, supervisors, auditors, contractors. In accordance with the Act, several programmes of measures will be adopted, which will follow the phase of implementation. The following programmes of measures contain criteria for selection of contractors, expert supervision, elaboration of the content of the final report of the supervisory engineer and other measures necessary for the implementation of this Act.

An application for the reconstruction of an existing earthquake damaged by an existing building, the removal of an earthquake destroyed building, the construction of a replacement family house instead of an earthquake destroyed by an existing family house, financial assistance for the temporary protection of an earthquake damaged existing building, financial assistance for the reconstruction of an earthquake damaged existing building, financial assistance for the costs of preparing a main project for the reconstruction of an existing building damaged by an earthquake is submitted from 31/10/2020.g to:

- 30 June 2021 for cash support for temporary earthquake protection of the damaged existing building; - 30 June 2021 for cash support for construction costs of the main project for the reconstruction of the damaged existing building; - 31 December 2021 for the removal of earthquakes of the destroyed building; - 31 December 2021 for the removal of the earthquake of the destroyed existing family house; - 31 June 2022 for the construction of the replacement family house; - 31 December 2021 for the reconstruction of the building; - 31 December 2030.

Implementation holder	The body responsible for the implementation of investment 7.2 the reconstruction of buildings damaged by the earthquake with energy renovation for public buildings are the owners of public buildings (e.g. LC (R)SGU, state administration bodies, etc.), and for private buildings is the Fund for the Reconstruction of the City of Zagreb, Krapina-Zagorje and Zagreb Counties based on the Act on the Reconstruction of earthquake-damaged buildings in the City of Zagreb, Krapina-Zagorje County and Zagreb County.
Target Group	Co-owners of multi-dwelling buildings, building managers, ESCO companies, building owners, users of buildings, public institutions, LC (R)SGUs, state administration bodies, ministries, central state offices, state administration organisations and state administration offices in counties.
Estimated cost	HRK 3,700,000,000
Implementation period	2/2020.-6/2026.

C6 .1. R1-I3 Energy renovation of buildings with cultural property status

Challenge

13% of all buildings in the Republic of Croatia are immovable cultural property or are within protected cultural and historical units. In the programming period 2014-2020, the financing of energy renovation of buildings with the status of cultural property, particularly individually protected buildings, by the European Regional Development Fund was not possible due to demands for high energy savings which would consequently imply invasive interventions

and endangering the property of cultural property. Until recently, there was no national financing for this type of reconstruction.

Given the large number, value and specificity of such buildings, it is necessary to finance the energy renovation of buildings with the status of cultural property and the drafting of documentation, because the standard rules applicable to other buildings cannot be applied to such buildings. The Ministry of Culture and Media (MKM), in cooperation with MGA, has prepared and issued recommendations for the implementation of energy efficiency measures on the architectural heritage on the basis of which, as well as other laws and regulations, documentation for reconstruction will be prepared. Documentation for energy renovation of buildings with cultural property status must balance the conditions for future use of buildings, improvement of energy performance of buildings, sustainability of protection of buildings, its values and characteristics of cultural property. Projects foreseen in the project documentation shall not in any way adversely affect the monumental properties, integrity and purpose of the building during the performance of works and subsequent use of the building. It is therefore necessary to provide for minimal, non-invasive and possibly reversible interventions, which will ensure the authenticity and values of the building in the long run. Cultural well-being can be threatened by inappropriate construction interventions, therefore it is necessary to deliberately approach traditional as well as innovative methods and contemporary energy concepts. When drafting the documentation, solutions based on circular economy, use of sustainable materials and nature-based solutions will be applied as far as possible.

Sustainable management and use of cultural assets is one of the preconditions for their preservation. Accordingly, the energy renovation of buildings with cultural property status which implies the application of energy efficiency measures in order to improve the energy performance of buildings is fully eligible if it is compatible with the evaluation and preservation of the cultural property. In addition to increasing energy efficiency, there are a number of reasons why the energy renovation of buildings with a cultural good status is stimulating, among which it is highlighted: the long-term reduction of maintenance costs; the setting up of neglected and neglected buildings with a cultural good status; the possibility of eliminating inappropriate cultural property interventions that permanently threaten its values; improving the quality and comfort of using buildings with a cultural good status and thereby their overall value; redesign of newer, unintegrated buildings in historical units with a view to integrating them into the environment.

Since energy renovation of buildings with cultural property status has not been financed so far, it is necessary to pay special attention to strengthening the capacities of all involved in this type of renovation. Experts participating in the preparation of documentation and supervision of the works of energy renovation should have specific knowledge regarding energy renovation of buildings with the status of cultural property which includes preservation of the monumental value and use of solutions based on nature and circular economy and sustainable materials.

Objective

Improving the energy efficiency of buildings and the protection and preservation of cultural assets are aimed at protecting the environment, which is one of the key components of sustainable development. Energy recovery of cultural assets will reduce CO2 emissions, energy consumption will be lower, long-term maintenance costs will be reduced, neglected and neglected buildings with the status of cultural property will be put into function, the

development of the circular economy and the use of nature-based solutions will be improved, the quality of use of buildings with the status of cultural property will be increased, and its total value will improve the knowledge and skills of experts with regard to energy renovation of buildings with the status of cultural property. Cultural well-being can be endangered by inappropriate construction interventions, and it is necessary to deliberately approach traditional, as well as innovative methods and contemporary energy concepts. In order to ensure adequate projects, educational programs will be established through which capacities for the implementation of the measure will be strengthened.

Description

Improving the energy efficiency of buildings and the protection and preservation of cultural assets are aimed at protecting the environment, which is one of the key components of sustainable development. Therefore, the protection of cultural assets includes the application of energy efficiency measures, in a manner that improves their basic characteristics and values, that is, assumes that all participants in energy reconstruction act in accordance with the provisions of the law on the Protection and Conservation of Cultural goods. The restoration wave strategy as one of the key principles points out that the principles of design, craftsmanship and conservation requirements for the protection of cultural assets and public spaces should be observed during the renovation of buildings. It is further stated that this is a strategy for the acceptance, acceleration and management of such transformation in a way that is supported by the objective of climate neutrality, applies the principles of circularity, contributes to the objectives of sustainable development and European competitiveness, and protects the right of all to have an affordable, acceptable and healthy apartment while protecting cultural assets.

CSR 2020/3d recommends directing investments in green and digital transition, clean and efficient production and use of energy and this reform measure will encourage projects for the reconstruction of cultural assets integrating nature-based solutions, climate change resilience elements and energy efficiency development elements. It is also recommended to promote the acquisition of skills that will be implemented through the development of skills and knowledge in the sector of the renewal of cultural assets and adaptation to climate change, the restoration of cultural assets and energy efficiency, and the restoration of cultural assets and integration of nature-based solutions.

The draft NRR States that the energy restoration programs for the residential sector for the period 2021-2030 will implement the complete reconstruction of residential buildings and family houses, part of which will be aimed at vulnerable groups of citizens at risk of energy poverty, and that particular attention will be paid to the reconstruction of schools, kindergartens, hospitals and public sector buildings taking into account the specific features listed in the Register of Cultural goods of the Republic of Croatia and buildings within protected cultural and historical units. In projects of energy renovation of buildings with the status of cultural assets, the energy efficiency measure will be associated with measures to ensure healthy internal climate conditions, fire protection and risks related to intensified seismic activities and water saving.

Implementation

The measure includes preparation and implementation of open calls for proposals for drafting documentation and implementation of works of energy renovation of buildings with the status of cultural property and implementation of education and strengthening of competencies of cultural sector employees dealing with the reconstruction of buildings with

the status of cultural property and its adaptation to climate change, increasing energy efficiency and integration of NBS solutions. The investment will increase the knowledge and capabilities of staff in the culture sector. Educational programmes will integrate the interconnection between building renovation with the status of cultural asset and energy efficiency elements, nature-based solutions and climate change adaptation elements. By increasing the knowledge and development of planned educational programs, possibilities and project ideas for integrating the reconstruction of buildings with the status of cultural property with these elements will be increased.

Implementation is carried out in accordance with the Act on the Protection and Preservation of Cultural assets, the recommendations for the implementation of Energy efficiency measures on the Construction Heritage and the Energy Reconstruction Programme for buildings with the status of Cultural property for the period 2021-2030. The programme covers two categories of buildings: individually protected cultural assets (individual buildings and building assemblies) and buildings located within a protected cultural and historical entity. Two basic approaches to energy renovation of buildings subject to this programme have been developed through the Programme: an integrated approach and an approach to the implementation of individual energy renovation measures.

The renovation will foster the use of highly effective alternative systems, to the extent technically, functionally and economically feasible and will pay particular attention to ensuring healthy internal climate conditions, fire protection and the risks associated with enhanced seismic activity.

The Register of Cultural assets of the Republic of Croatia is a public book of cultural assets kept by THE MINISTRY of Culture. The register contains all cultural assets, and according to the proposal of the programme of energy renovation of buildings with the status of cultural property for the period 2021-2030, the register is separated from the REGISTER by the MKM list of buildings with the status of individual cultural asset. Within cultural and historical units that have the status of cultural property and are contained in the register there is also a certain number of buildings. There is only data on the number of such buildings and their location (location, conservation department or county). There are 102,615 buildings in the Republic of Croatia within cultural and historical units that have the status of cultural assets, out of which 44,889 in the continental Republic of Croatia and 57,726 in the coastal Republic of Croatia. Within this number there are also 1,950 buildings that have the status of an individual cultural asset. For buildings within cultural and historical units that do not have the status of an individual cultural asset, the classification by purpose and construction period was not carried out within the category of buildings with the status of cultural property, but in total with all buildings of the funds of the Republic of Croatia. Also, there are 467 individually protected buildings outside protected units in the Republic of Croatia, which can be included in the energy renovation program for buildings.

Pursuant to the draft programme for energy renovation of buildings with cultural property status for the period 2021-2030, the needs were estimated as follows: Total investment of HRK 6,342 billion; maintenance expenditure of HRK 1,796 billion; average annual renovation rate of 1.6%; total reconstructed area of 4,162,756 m^2; Energy saving of HRK 1,440 058, 72 MWh; financial savings of HRK 0,512 billion; CO2 emission reduction 201,26 kt.

The total needs for the realisation of the energy renovation programme for buildings with

the status of cultural property with the aim of achieving national targets amount to HRK 18.74 billion in the period from 2021 to 2030. This amount includes necessary investments in the amount of HRK 13.67 billion and maintenance costs in the amount of HRK 5.07 billion. Given the very high periods of return on investment, it will be necessary to maximise the possibilities of co-financing grant schemes in order to reduce the simple periods of return on investment and to encourage the energy recovery of such structures. EU and national funds are recognised as sources of funding for grants. Given the total investment needs, total required investments amount to approximately HRK 0.63 billion per year during 2021-2030, out of which the necessary co-financing would amount to HRK 0.46 billion. Since approximately HRK 100 million is collected annually from the monument annuity, the remaining amount of about HRK 360 million should be ensured annually from EU funds. These amounts do not include VAT.

Accurate expression of investment costs and necessary grants will be contained in the final version of the energy renovation programme for buildings with cultural property status.

Implementation holder	The body responsible for the implementation of this investment with the horizontal measure of reinforcement of earthquake and fire resistance is THE MKM.
Target Group	Owners of cultural goods – public law bodies, experts in the field of heritage reconstruction.
Estimated cost	HRK 300,000,000
Implementation period	6/2021.-6/2026.

29. Green and digital dimension of the component

C6 .1. Decarbonisation of buildings

(a) contribution to the green transition

In order to contribute to the EU goal of Green transition, the EC gives member States the opportunity to join the EU project restoration *wave through* the measure “Energy Reconstruction of housing, private and public buildings”.

Building renovation is in line with the priorities set out in the European Green Plan, contributing to climate and environment, namely the energy and climate 2030 target of 37%, and consistently following the National Energy and Climate Plan.

The EC is in its assessment for Croatia's Integrated National Energy and Climate Plan for 2021-2030. (NECP) made recommendations for NPOO and financial support for NextGeneration EU. The EC proposes that the Republic of CROATIA consider including investment and reform activities and measures in the field of climate and energy, one of which is: "3. Measures to support investments in energy efficiency, including the reconstruction of buildings with a focus on schools, hospitals and social housing, targeting energy-poor households.”

(b) contribution to digital transition

MPGI has an information system for issuing Energy certificates (IEC) in place. It is a computer application for issuing, storing and controlling energy certificates, reports on energy audits of buildings, reports on regular inspections of heating and cooling or air conditioning systems in buildings, contains a database of energy certificates, reports on energy audits of buildings, reports on regular inspections of heating and cooling or air conditioning systems and persons authorised for energy certification and energy audits of buildings and persons authorised to control and implement training programmes.

The issuance of energy certificates of buildings in the Republic of Croatia is possible exclusively through this application, and it is regulated by the Construction Act, the Ordinance on the Energy review of buildings and Energy certification, the Ordinance on the control of building energy certificates and reports on regular review of heating and cooling or air conditioning systems in the building and the Ordinance on persons authorised for energy certification, the energy review of buildings and regular review of heating and cooling or air conditioning systems in the building.

The system has been fully produced since October 2017.

In the framework of the implementation of the NPR 2019., the system was upgraded by the e-citizens module which enabled citizens to review all issued and valid energy certificates.

During the following period it is planned to improve the functionality and upgrade of the system and connect with other systems of MPGI - information system of physical planning (ISPU) and e-GOP system for electronic business.

30. Milestones for the implementation of reforms and investments

C6 .1. Decarbonisation of buildings

(a) qualitative indicators

- by the end of 2Q/2021, the publication of the programme for energy renovation of residential buildings for the period from 2021 to 2030, adopted by the Government	C6 .1. R1-I1
- by the end of 2Q/2021, the publication of the programme for energy renovation of public sector buildings for the period 2021-2030, adopted by the Government	C6 .1. R1-I1
- by the end of 2Q/2021, the publication of the Energy Reconstruction Programme for buildings with Cultural property status for the period 2021-2030, adopted by the Government of the Republic of Croatia	C6 .1. R1-I3
- by the end of 2Q/2022, an educational programme will be developed in the field of energy renovation of buildings with the status of cultural property	C6 .1. R1-I3

(b) quantitative indicators[60]

- by the end of 2Q/2026, 540,000 m^2 multiresidential and public buildings were renovated	C6 .1. R1-I1
- by the end of 2Q/2026, 528.571 m^2 buildings damaged during the earthquake were reconstructed	C6 .1. R1-I2
- by the end of 4Q/2023, a documentation for energy reconstruction will be prepared for 20 buildings with cultural property status	C6 .1. R1-I3
- by the end of 2Q/2026, at least 20,000 m^2 of the total area of cultural heritage buildings for public use has been restored	C6 .1. R1-I3
- by the end of 2Q/2026, 20 experts in the field of cultural heritage were educated on energy reconstruction of buildings with the status of cultural property	C6 .1. R1-I3

60 This general part lists quantitative indicators applicable during the implementation phase (from the beginning of the reconstruction works to the end of the reconstruction works). Progress in achieving the results of implemented measures can be monitored by changing the status of the dwelling stock, in terms of the number of renovated buildings or m2 of buildings that have been renovated. Specific indicators refer to measuring the reduction of energy consumption in buildings (in accordance with technical Regulation on rational use of energy and thermal protection in buildings, OG 128/15, 70/18, 73/18, 86/18 and 102/20), based on design values before and after reconstruction, and for the part related to mechanical resistance and stability: the ratio of design seismic resistance of structures to earthquake resistance according to HRN EN 1998 series and related national additions (in accordance with technical Regulation on amendments to technical regulations for construction structures, 75/20).

31. Financing and costs

C6. Renovation of buildings	
Total estimated investment value for the component (HRK)	**5.000.000.000**
C6 .1. Decarbonisation of buildings	
Total estimated investment value for the subcomponent (HRK)	**5.000.000.000**

Reforms and investments that imply certain costs		Implementation period	Estimated cost
C6 .1. R1-I1	Energy renovation of buildings	2/2020. 6/2026.	1.000.000.000
C6 .1. R1-I2	Reconstruction of buildings damaged by energy renovation earthquake	2/2020. 6/2026.	3.700.000.000
C6 .1. R1-I3	Energy renovation of buildings with cultural property status	6/2021. 6/2026.	300.000.000

PART III: COMPLEMENTARITY AND IMPLEMENTATION OF THE PLAN

2. Consistency with other initiatives

General

All projects/programmes submitted under the NPOO are linked to the NPRD by covering the challenges and priorities identified under the European Semester, in particular “green” and “digital”, through Component I of the economy and to the extent that it is possible to contribute to the fulfilment of the National Energy and Climate Action Plan 2030 with a view to 2050. Also, the submitted projects/programmes are harmonised and they find their stronghold in the CSR for the Republic of Croatia for 2019 and 2020.

The programming documents for the EU Financial perspective 2021-2027 will support investments from the ERDF, CF, ESF +, EPFR, FPT, towards the policy objectives and forms of financing set out in the current proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund plus, the Cohesion Fund and the European Maritime and Fisheries Fund and the financial rules for them and the Asylum and Migration Fund, the Internal Security Fund and the Borders and Visa Facility (the proposal for establishing Common provisions). In doing so, the Cohesion Policy Funds (ERDF, ESF +, CF and FTP) will contribute to Union actions leading to the strengthening of its economic, social and territorial cohesion in accordance with Article 174. The TFEU pursues the objectives: (a) “Investment for jobs and growth” (ERDF, CF, ESF +) and (b) “European territorial cooperation” (Interreg), which is to receive support from the ERDF, while the EMFF will contribute to the objectives of the Common Fisheries Policy. In addition to the EU regulatory framework, the Report for Croatia for 2019 and 2020 within the framework of the European Semester (Annex D), CSRs, experience so far in the preparation and implementation of EU funded projects and programmes and development needs at national, regional and local level will be taken into account. The Partnership Agreement will cover the selected policy objectives, specifying which funds and programmes will be implemented, taking into account the relevant CSR for the Republic of Croatia, while the operational programmes will define a strategy for programme contribution to policy objectives and each priority will relate to one policy objective.

Taking into account the early stage of drawing up programming documents for the use of funds under the proposal of the Regulation laying down common provisions and the current needs of the Republic of Croatia in terms of strengthening basic infrastructure and services aimed at citizens and the economy, it is envisaged that the channelling of financial resources of the RDF reflects a kind of continuity in financing needs from the current financial perspective, by ensuring sustainable solutions for building a resilient national economy that participates in the single market and contributing to the resilience of the single market as a whole. The new financial perspective will also represent a continuation of financing activities that will build on the activities of the RDF, which could not be covered by the NPOP due to the limitation of the timeframe, with an emphasis on achieving the objectives of green and digital transition both for citizens and the entire economy. During this period, the Republic of Croatia will undergo implementation of key elements by individual reform processes and thus ensure sustainability not only of investments financed by the RDF but also of all future EU funding.

In order to direct the resources of the RDF or Cohesion Policy for the period 2021-2027 towards those areas in need of financial incentives with the purpose of making changes contributing to common national and European objectives, continuous consultations will be held with competent authorities at national, regional and local level as well as with the EC. Through this consultative process, during programming, with competent authorities within

working groups and with the EC, priorities for the future financial period will be additionally adjusted according to national needs, and taking into account also reform measures and investments that will be approved within NPOO, i.e. where applicable, will be based on reform measures and investments envisaged by NPOP.
Although it is currently difficult to predict the scope of the crisis, which with its entry into the autumn shows new and even more difficult consequences for society and economy at the EU level, the Republic of Croatia will direct funds towards those activities that will ensure faster economic recovery, as well as strengthening the resilience of the health sector which will contribute to the recovery of the entire society affected by the negative consequences of the pandemic CYID-19. Since Zagreb, Zagreb and Krapina-Zagorje County suffered the consequences of a devastating earthquake in March, special attention will be paid to coordinating reconstruction activities financed by the European Solidarity Fund (EUSF) and World Bank loan funds. Furthermore, THE NASA will support adjustments to emerging circumstances and strengthen the competitiveness of the Republic of Croatia at the European and global levels. For the Republic of Croatia, this means reforms and investments related to the green and digital transition**,** employment, skills development, education, research and innovation, improvement of the business environment, efficiency of public administration, health care system, etc.

C1. ECONOMY

C1 .1. Enhancing competitiveness and green transition of the economy

The measure relating to investments in the production and technological capacities of enterprises is in line with the key objectives of “decarbonisation” and “Energy efficiency” set out in the National Energy and Climate Plan from 2021 to 2030. The proposed measure contributes to the green transition which will, in accordance with the Green Plan for Europe, be one of the main pillars of all programme reforms that will be implemented both through the NPO and through the MFF within the FRAMEWORK of economic activities. Productive investments by MEDIUM and large enterprises (including mid-cap enterprises) will be financed through NPOs, while through Cohesion Policy (ERDF) productive investments will be stimulated primarily for micro and small enterprises, among others a broader scope of interventions that will include, for example, investment in human capital, management skills in SMEs. Through Cohesion Policy (ERDF), medium-sized enterprises will be involved in grant allocation through measures for productive investments targeted at SMEs, in particular those involving decarbonisation, which will not be covered by NPO.

HAMAG-BICRO started implementing financial instruments from European funds in the form of loans and guarantees for the first time from OPCC 2014-2020. Since the experience so far is extremely positive and the initial allocations have been increased on several occasions due to the continuously high demand for this type of financing, the measures foreseen by HAMAG-BICRO THROUGH THE RF represent a logical continuation of successful implementation. In addition to the financial instruments that have been implemented so far, HAMAG-BICRO has opted for the introduction of new financial instruments, i.e. the modulation of existing ones, to cover market caps identified during implementation and as a result of the ongoing crisis.

It is being financed from the RDF to cover the financial instruments for the period until the new financial perspective and is exclusively focused on helping the SMEs segment recover from market distortions and creating preconditions for strengthening businesses in order to better respond to potential crises in the future, with special stimulation from those bidders whose investments have a positive impact on environmental sustainability and digitisation. The planned instruments are consistent with the NRR and the National Energy and Climate Action Plan (2021-2030) in part of the planned impacts on the economy and

the environment.

The aim of the new financial perspective is to create financial instruments with conditions that will be adapted to future market needs, which will be visible after the analysis of the state of the SME segment after the crisis is over. The assumption is that the focus of financial instruments helping businesses will shift to further growth and development of the SME segment and increasing employment.

Reforms and investment measures forecasting under the Component of enhancing Competitiveness, Green and Digital transition are one of the key objectives of the national economy as well as the EU economy. The HBOR investment measures proposed within this component are in line with the objectives from the Partnership Agreement as well as with the objectives from the current draft proposal of the National Development Strategy of the Republic of Croatia, both in terms of sustainable economy, green and digital transition but also in terms of strengthening the resilience of the Croatian economy to crises.

Reforms and investments are also in line with the National Energy and Climate Action Plan from 2021 to 2030, which points to the need for stronger investments in energy efficiency, decarbonisation and research, innovation and competitiveness of the Croatian economy. The plan clearly sets national targets to be achieved by the Republic of Croatia as part of the EU targets set by 2030, related to reducing greenhouse gas emissions, increasing energy efficiency, increasing the share of renewable energy sources, etc.

The investment measure “increasing investments in early phases of development and commercialisation of innovation with an emphasis on the contribution to the green transition and digitalisation” is aligned with the investment from the State budget foreseen in projections for the period 2021-2023 which provides support for the administrative implementation of the measure. This measure provides funding for stages 3 and 4 of the technological level of projects and therefore represents a precondition for further investments in successful projects under this programme financed under the European Regional Development Fund (OPCC 2021-2027).

Measure 1.1.2.3 to finance the establishment and implementation of preparatory activities of national digital innovation centres (DIH and EDIH) is envisaged as successive financing, i.e. the first stage of investment in digital innovation centres from the resources of the recovery and resilience mechanism. This investment should continue through co-financing provided for in the Digital Europe 2021-2027 programme and planned funding from the Operational Programme for Competitiveness and Cohesion 2021-2027 for the next phase of establishing and strengthening the activities of the national EDIH and DIH.

One of the key challenges of the Republic of Croatia is to further relieve entrepreneurs in the form of optimisation and digitisation of administrative procedures and the abolition or reduction of para-fiscal levies.

The Action Plan for the Administrative relief of the economy represents a plan of measures to remove administrative barriers, the implementation of which will ultimately result in increased legal certainty and a more favourable investment and business climate.

By adopting and implementing the activities and measures provided for in this Plan, the Republic of Croatia fulfils the obligations from the NPR, as well as the obligation from the Action Plan of the Republic of Croatia for joining the ERM II and the banking Union.

Creation of a support system for investments and internationalization of business Croatia is in line with the NPR-2020 (4.1.2 Future-oriented investment policy) and EC recommendations to the Council on CROATIA for 2020 (23) to encourage private investment and EC recommendations to Member States to encourage investment as a powerful tool for implementing EU industrial policy. It is consistent with the NRR 2030 (strategic objective 4. Global recognition and strengthening of the international position

and role of HR) and CSR recommendation 2020/1a.

C1 .2. Energy transition for a sustainable economy

The Republic of Croatia supports the green transition and decarbonisation of Europe by 2050, as pointed out in the EC's work programme, as well as the Green Plan for Europe. For this reason, green transition is one of the main pillars of all programme reforms in the framework of economic activities. The energy sector in the Republic of Croatia has been promoting renewable energy sources and energy decarbonisation in line with the Energy Union for many years, which is largely aimed at increasing the share of renewable energy sources in electricity production, but also at increasing energy efficiency and using green energy.

Accordingly, the reforms proposed under the NPOO, in particular those related to the energy transition for a sustainable economy, as well as reforms related to the development of a competitive, energy-sustainable and efficient transport system, improving the use of natural resources and strengthening the food supply chain are fully aligned with the national energy and climate plan from 2021 to 2030. (NECP) adopted by the Government in December 2019 and submitted to the EC. The plan, which includes all five dimensions of the Energy Union, clearly sets national targets that the Republic of Croatia needs to achieve as part of the general objectives of the EU set by 2030, and which are related to reducing greenhouse gas emissions, increasing the share of renewable energy sources, increasing energy efficiency and better interconnection between the electricity system. NECP contains 102 measures divided into 5 pillars of the Energy Union, most of which relate to decarbonisation, while other measures relate to energy efficiency, energy security, internal energy market and research, innovation and competitiveness.

With regard to the energy transition for a sustainable economy, which is primarily aimed at developing, revitalising and digitising the transmission power grid, encouraging energy efficiency and heating, encouraging the development of new technologies (especially hydrogen and geological storage of CO2) and the use of hydrogen and advanced biofuels in transport, NECP prescribes a series of measures primarily related to decarbonisation of individual sectors, energy efficiency, energy security and the internal energy market. In particular, measures UET-1 development of the transmission power grid, OIE-3 Fostering the use of RES for the production of electrical and thermal energy, ES-2 Construction and use of energy reservoirs, ES-3 improvement of the power system management system, TR-7 Development of alternative fuels infrastructure, TR-10 promotion of integrated and intelligent transport and development of infrastructure for alternative fuels at local and REGIONAL level and TR-13 DEVELOPMENT Plan FOR advanced biofuels market. These measures encourage the proposed reform and proposed NPOO activities.

The necSP also covers the reform of the development of a competitive, energy-sustainable and efficient transport system which, in addition to the already mentioned transport-related measures (TR-7, TR-10 and TR-13), includes measures such as TR-9 encouraging the development of sustainable integrated transport at national level or TR-12 encouraging ship transport to alternative fuels.

All the above mentioned are only the most important part of the measures by which THE NECP covers the reforms proposed in the NPOO, although there are still a number of measures complementing these two documents in the planning process for the period until 2030. Accordingly, NPOO articulates the reforms together with the investments and projects through which these reforms need to be implemented, as well as the potential financial resources necessary to meet the reform, and the National Energy and Climate Action Plan at a wider level prescribes a number of measures through which the set objectives related to the EU decarbonisation policy are planned to be achieved.

Both documents have been clearly harmonised and the NECP measures envisaged for the achievement of the decarbonisation objectives also serve to achieve potential reforms that,

in accordance with the NPOO, must be implemented in order to achieve these goals.

C1 .3. Improving water management and waste management

The aim of the water management is to provide an appropriate level of services in the function of health and safety of the population, food production and development of other economic activities, and protection of ecosystems and the aquatic environment as a whole. Consequently, a number of national strategic documents have been adopted with the aim of ensuring availability of water services, protecting resources and maintaining their natural functions and characteristics and reducing the potential adverse effects of climate change on human health and safety.

The water Act stipulates that multiannual building programs are to be prepared in accordance with the water Management Strategy and water Management Plan, the integral part of which are flood risk management plans. This ensures compliance of the programme with strategic commitments and water management policy and adopted EU standards in the field of water policy.

The multi-year building programme for municipal water structures and the multi-annual building programme for control and protection water structures and facilities for melioration combine the obligations of a number of EU directives, in particular the water Framework Directive, the Flood risk assessment and management Directive, the water quality Directive intended for human consumption and the Urban waste water treatment Directive. These programmes shall, inter alia, set out the manner and period of implementation of individual projects, the participants in the implementation, the amounts of investments and resources, the order of priority in implementation and the monitoring of implementation.

In addition to identified needs for investments in the water-utility infrastructure itself, the need for implementation of the reform in the water services sector was identified already through the water management strategy. The first step in the implementation of the reform was achieved through the adoption of the water services Act, and its goal is to strengthen the implementation capacity and investment capacity and financial and technical self-sustainability of public suppliers of water services, and to make the price of water services a privilege even after the implementation of investments for the population and the economy. The needs for investments in water management have been identified in the programming documents for financing from EU funds and investments in water management, following identified needs of national strategic documents, have been financed within the programming period 2007-2013, continue to be financed within the programming period 2014-2020, and will also be subject to financing in the financial perspective 2021-2027 and are proposed for financing also through NPOS.

C1 .4. Development of a competitive, energy-sustainable and efficient transport system

In the transport sector, the reform of the development of a competitive, energy-sustainable and efficient transport system proposed in the NPO is in line with the National Energy and Climate Plan from 2021 to 2030. (NECP), as previously stated. In addition, the EC defined the conditions allowing for implementation in the financial perspective 2021-2027, which established a multimodal mapping of existing and planned transport infrastructure for the transport sector. Multimodal mapping is in the final phase of drafting and is subject to compliance with national decarbonisation plans (NECP) and national road safety strategies (THE new National Road Safety Programme is currently being drafted). The comprehensive multi-modal transport infrastructure mapping document will also contribute to the achievement of the objectives of the operational programme in the financial period 2021-2027, as well as to the realisation of the planned reforms in THE NPU.

C1 .5. Improving the use of natural resources and strengthening the food supply chain

The Government Programme for the period from 2020 to 2024 States that it is necessary to stop and reverse unfavourable trends in agricultural production, which are reflected in low labour productivity, low level of GDP and decrease in production and lead to a decrease in food safety and depopulation of rural areas.
The potentials, limitations and needs of the agricultural sector, as well as the objectives and activities for their realisation, have been elaborated in more detail by the draft of the Agricultural Strategy, whose deployment to the adoption procedure is planned for 1Q/2021.
The Strategy recognises the following key opportunities for growth in the agricultural sector:

- connection to the food industry, which is singled out by the possibilities of creating added value and job creation
- adjustment of supply with consumption, not only in terms of quantity (higher offer of domestic products instead of growth of imports), but also differentiation of supply for specific market niches
- better adaptation to climate change by using adapted production techniques or selected varieties or breeds of animals, which may result in cost reduction in production
- improving basic infrastructure in rural areas, which has a positive impact on business performance in the agriculture sector
- modification of the system of agricultural aid and increasing their efficiency by redistribution among beneficiaries
- greater investments and better use of new technologies and innovations in agriculture.

The agriculture strategy, building on the long-term vision of development, defines four strategic objectives: (i) increasing productivity and resilience of agriculture to climate change; (ii) enhancing competitiveness; (iii) restoring the rural economy and improving living conditions in rural areas; (iv) fostering innovation in the agri-food sector.

Each of the objectives is linked to one of the 15 sector priorities identified during public consultations with sector representatives. Among the priority needs can be singled out, for example, increasing the added value of agricultural production, redistributing support to small and medium-sized producers, more efficient use of natural resources, better connecting producers with each other and with the market, strengthening entrepreneurial capacity and knowledge, greater acceptance of new technologies and innovations, investments in public infrastructure for modernisation of agriculture.
In order to meet the priority needs of the agricultural sector, targeted interventions have been proposed, grouped into six activities:

- Directing public funds towards more productive agricultural investments
- Increasing the scope of climate smart agriculture and sustainable land management
- Development of diversified and integrated domestic markets for agri-food products
- Encouraging entrepreneurs to start and develop agricultural business
- Use of new opportunities for growth in the agri-food sector
- Consolidation of agricultural knowledge and innovation systems.

The achievement of the goal of the Strategy on increasing the value of Croatian agriculture will be contributed by each of the proposed six activities, within which specific indicators related to increasing production in individual agricultural sectors are foreseen, more efficient use of production resources, investments in facilities and infrastructure, increasing employment and fostering the exchange of knowledge and innovations.
It should be emphasised that the objectives and activities foreseen in the draft Agriculture Strategy are in line with the reformed common agricultural policy for the post-2020 period, which is currently being discussed at EU level. Therefore, the operative implementation of the reformed Common Agricultural Policy (CAP), as well as the future Agricultural

Strategy, will be ensured by the Strategic Plan of the Republic of Croatia, which will be approved by the EC. The legal framework will be laid down by regulations from the reform package of the CAP, on the one hand, and the Agriculture Act, on the other hand. According to the proposal for a Regulation on the CAP strategic plans, currently being negotiated by the Council of the EU and the European Parliament, Member States will submit drafts of their strategic plans for approval to the European Commission by 1 January 2022. After the approval of the strategic plan, necessary amendments to the existing Agriculture Act will be prepared, which will prescribe the objectives, measures and institutions competent for the implementation of agricultural policy in the period from 2023 onwards.

C1 .6. Development of sustainable, innovative and resilient tourism

The reform and investments proposed under this sub-component aim to provide justification for tourism, as well as to develop its resilience to crises such as this one, which will have a direct impact on GDP growth and economic justification. Within the framework of the initiatives, horizontal activities prescribe those that are in line with the transition to a circular economy, the use of renewable energy sources and the achievement of a higher level of energy efficiency, as well as digital transformation of the sector. These initiatives are in this respect fully aligned with the EU Green Plan, the Digital Agenda and the national strategic framework regulating these issues.

Specific activities identified are directed towards the recovery of this branch of the economy, which is the objective of the RDF, while MINTS will subsequently present measures aimed at achieving the objectives of cohesion policy for the next programming and financial period (2021-2027).

C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY

C2 .1. Strengthening the capacity to develop and implement public policies and projects

The reform in question is in line with the Government Programme (Programme area 2. Perspective future, 2.1 Economic recovery and business environment) stating the accelerated absorption of EU funds for the development of the Republic of Croatia. In this regard, inter alia, efforts will be made to maintain the current level of funding from European funds and ensure smooth financing for their beneficiaries, simplify and digitize procedures and establish a system for managing European funds to the extent of beneficiaries. Also, the reform in question is aligned with the CSR for 2019 and 2020.

The reform is also covered by the NDP, and it is implemented in the part of establishment and implementation of an efficient system of strategic planning and strengthening of capacities for the preparation and implementation of public policies and projects. The aforementioned provides support to civil and public servants in acquiring knowledge and skills which enable them to formulate and implement more qualitative acts of strategic planning and public policies, and which are closely connected with public finances. The legal basis for the implementation of the reform is the Act on the system of Strategic planning and Development Management of the Republic of Croatia[61] and related subordinate legislation. This will ensure an efficient use of EU funds, through the adoption of a special law, which will, in addition to establishing an institutional framework for the implementation of EU funds, address capacity building as well as provide assistance to beneficiaries in the preparation of tender documentation for projects that will contribute to the green and digital transition. This will directly address the CSR by increasing the capacity of competent authorities to develop and implement public (EU) projects, which is directly related to increasing the efficiency of the use of EU funds in the new period.

Namely, one of the key preconditions for successful implementation of EU projects is the absorption capacity of the Republic of Croatia, which starts from the very absorption

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capacity of the beneficiary, i.e. the preparation of projects for implementation, especially large infrastructure ones, for which specific knowledge is needed, as well as authorizations necessary for creation of project and technical documentation, which cannot be secured in the state administration (market category, is performed by authorized experts). In order to ensure the easiest possible transition from one financial period to another, as well as to ensure a stock of ready-made projects common to the RF and cohesion policy, it is necessary to continuously work on preparing them, especially in the context of green and digital transition (predominantly infrastructure).

In addition to qualitative capacity building measures, which are already being implemented, it is necessary to further strengthen capacities by providing assistance in the form of co-financing the preparation of project and technical documentation to beneficiaries, which would increase their absorption capacity and ultimately the absorption capacity of the Republic of Croatia. At the same time, implementation of one of the principles of the future Act on institutional Framework for EU Funds, i.e. strengthening the capacities of beneficiaries for preparation, application and implementation of projects, will be ensured (it should be submitted to the procedure at the end of 1Q/2021). This principle applies not only to education, training, etc., which are already financed and/or will be financed through technical assistance of operational programmes in the future financial period, but also to capacity building by providing assistance to beneficiaries, among other things, in the preparation of project and technical documentation whose preparation is necessary in order to contribute to the objectives of green and digital transition. By financing this measure from the cohesion policy funds 2021-2027, it would not be possible to ensure a sufficient supply of projects in a timely manner. In addition, for the future period, a Roadmap for strengthening administrative capacities will be developed, as a single national document, which represents a place where all the building and capacity building activities that are distributed in different locations within all operational programmes are consolidated, and will, among other things, address the obstacles pointed out in Annex D, the Report for Croatia for 2019. The Roadmap will map all relevant activities of capacity building for preparation and implementation of EU projects, which are undertaken in the Republic of Croatia and financed by some of the EU sources, including a wider context than that covered by the Act (i.e. the Rehabilitation and Resistance Instrument), and complementarities will be ensured by linking certain activities to concrete sources of financing.

C2 .2. Further improvement of the efficiency of the public administration

Reforms in the part of public administration efficiency are in line with the Government Programme (goal 4.1. Efficient, transparent and resilient state) with the aim of further improving efficiency, i.e. further functional decentralisation and functional linking of local self-government units, modernisation of public administration (digitalisation, interoperability, reduction of the number of local officials, Regulation of the salary system and human resource management), and also monitoring the continuation of implementation of measures from the NPR (within measure 4.1.4 Improving public administration).

Financing of these reforms and investments is closely related to the objectives of implementing measures and projects from the Strategy for Development of public Administration for the period from 2015 to 2020.

C2 .3. Digital transition of society and economy

All measures/initiatives foreseen in this component are aligned with the Government and NPR-Programme, i.e. all initiatives planned in the aforementioned strategic documents, relating to digitisation, i.e. digital transformation, are covered by the Digital transition of society and economy component. Activities listed under Reform priority 4. NPR 2020. (improvement of the provision of electronic public services) and activities from the

Government programme, such as the expansion of the Digital services Catalogue with standardization of all services and further connection of databases and registers, in order to enable interoperability of the system, will continue with the implementation of projects contained within the measures of this component and will respond to the given recommendation for creating preconditions for digital transformation of society and economy.

Also, the envisaged measures are in line with the EC's Strategic paper, towards a Sustainable Europe by 2030, which States that ICT skills building and basic digital competences, in line with the EU Digital Education Action Plan, and the focus on artificial intelligence should be prioritised for future action and that the priority is to exploit the potential of digital transformation to achieve sustainable development goals, advocate capacity development and expertise in key digital technologies, such as connectivity, “intact” Internet, cyber security.

C2 .4. Strengthening the framework for the management of state assets

The reform in question is in line with the Government Programme (objective 4.1. Efficient, transparent and resilient state) in which the issue of activation and better management of state property is considered, with special emphasis on a set of activities related to the improvement of management and supervisory functions in legal entities of special interest to the Republic of Croatia.

Furthermore, the reform in question represents a continuation of the activities listed in the NPRR (as part of the reform priority called “improving State asset management and management” and the reform measure “Action and better management of State property”) and is related to the country report on the assessment of progress in the implementation of structural reforms and the prevention and elimination of macroeconomic imbalances and the results of in-depth reviews in accordance with Regulation (EU) No 1176/2011.

The proposed reform is also in line with the Action Plan of the Republic of Croatia for participation in ERM II stating the obligations of the Republic of Croatia after accession to the euro area (tkz *post-entry commitments*). Public sector governance is one of the areas of ERM II, and it defines the policy area “improved management of state-owned enterprises” and the measure “improving corporate governance in state-owned enterprises by auditing and harmonizing regulations and practices in accordance with OECD guidelines for corporate governance in state-owned enterprises”, as one of the most demanding and exceptionally important preconditions for the accession of the Republic of Croatia to full OECD membership.

With the implementation of appropriate recommendations, the state will work on strengthening institutional capacities in relevant parts of the state administration. Strengthening human resources is one of seven specific objectives of the Strategy for State property Management 2019-2025, adopted by the Croatian Parliament on 2 October 2019, which operationalize the strategic objective of systematically, ordinated, evidently, optimal and long-term sustainable management of assets owned by the Republic of Croatia.

Also, the implementation of this reform is linked to the CSR recommendation under which corporate governance of state-owned enterprises should be improved and the sale of enterprises and inactive assets intensified.

C2 .5. Improving the efficiency of the judicial system

All reform measures listed within the NPOO Judicial Sub-component are in accordance with the strategic and programming documents of the Republic of Croatia. The main reform measures intended to be financed under this financial instrument relate to improving the efficiency of the judiciary, in particular in the field of fostering the digitisation of the judiciary and the digital transition and the agile system of planning investments in judicial infrastructure.

Reforms proposed within the framework of the NPOO are fully in line with the Government Programme, in which a special role in strengthening the efficiency of the state lies precisely in increasing the effectiveness of the judiciary.

Also, the proposed reforms are in line with the recommendations of the NPR, which States that in order to further strengthen the legal certainty and efficiency of the judicial system, work will continue to improve the functionality of the system.
Furthermore, the proposed reform measures reflect the direction and strategic objectives set under the NRR and relate to the strategic objective of an efficient and effective judiciary.

C2 .6. Strengthening the framework for prevention of corruption

This sub-component is fully linked to strategic documents. The NPRK States that in order to strengthen the fight against corruption, it is planned to further improve the organisation of the system and legislative framework in priority strategic horizontal and sectoral areas.
Since the period of validity and implementation of the current Anti-corruption Strategy for the period from 2015 to 2020[62] is highlighted, it is planned to draw up a new national strategic framework in the field of prevention of corruption for the period from 2021 to 2030 in order to ensure coherence of all investments in this field. In drafting the new Strategy, the following elements will be taken into account in particular: (i) analysis of the implementation of the Anti-corruption Strategy for the period 2015-2020; (ii) Report V of the GRECO evaluation Framework for the Republic of Croatia; (iii) CSR; (iv) OECD *Investment Policy* recommendations Reviews reports encouraging the Republic of Croatia to continue narrowing the scope for corruption; (v) assessment of the situation and any recommendation of the first Report on the rule of EC law; (vi) need to create anti-corruption mechanisms in the context of business infrastructure and GECAC (19);

C2 .7. Strengthening the fiscal framework

The strengthening of the fiscal framework has been recognized in a series of strategic documents of the Republic of Croatia and the EU. The CSR of the Republic of Croatia for 2019 and 2020, as well as for 2019 and 2020 and the Convergence Programme for the same period underline the importance of strengthening the framework for public financial management and activities implemented or to be implemented in this regard. The Government Programme 2020-2024 and the National Development Strategy for the period until 2030 also stress the importance of the said reform in the long term. In this respect, it will also be necessary to carry out alignment with the acquis communautaire, namely Council Directive 2011/85 of the EU of 8 November 2011 on requirements for Member States' budgetary frameworks in order to establish a more efficient system of financial and statistical reporting, thus achieving compliance with the provisions of the Stability and growth Pact. Also, considering the safety of Croatia's entry into the euro area, the draft budget Act will be harmonised in that part in the coming months, by adding provisions that should enter into force with the accession of the Republic of Croatia into the euro area.

C2 .8. Strengthening the anti-money laundering framework

In accordance with international standards and the acquis communautaire[63], each country is obliged to identify and take appropriate measures related to the risk of money laundering and terrorist financing. In this context, the Republic of Croatia is making significant efforts to strengthen the framework for the prevention of money laundering and terrorist financing.
The said reform is in line with the Action Plan of the Republic of Croatia for participation in ERM II and with the Government Programme stating the obligations of the Republic of Croatia for the purpose of joining the eurozone, as well as with Directive (EU) 2018/843, which the Republic of Croatia has already fully transposed into its legislation.

C3. EDUCATION, SCIENCE AND RESEARCH

C3 .1. Reform of the education system

Comprehensive structural reforms of the education system imply long-term investments in infrastructure and human resources. In line with the NRR objectives and the objectives of

62 NN No. 26/15

63 New recommendations of the Financial Action Group (FATF) and Directive (EU) 2018/843.

the European Education area 2025, the investments foreseen in the NPOO are consistent with all programming documents and reflect identified challenges. The implementation of reforms envisioned in the NPOO includes infrastructure investments, and investments in human resources accompanying reforms will be carried out from a future operational programme related to the European Social Fund +. All infrastructure investments will be implemented in accordance with the National Energy and Climate Action Plan from 2021 to 2030. (NECP), i.e. it will include measures to increase energy efficiency.

C3 .2. Raising research and innovation capacity

Implementing mechanisms of proposed reforms will support proposed policies and measures set out in the National Energy and Climate Action Plan for the Republic of Croatia for the period 2021-2030 through: encouraging investments in clean energy projects, projects aimed at developing smart mobility, biodiversity conservation, encouraging sustainable industry models and developing new green technologies and materials; criteria for reducing CO2 emissions while encouraging intelligent and innovative solutions (e.g. use of existing and new alternative sources of energy, new materials, etc.) to finance infrastructure communications and research projects; implementation of large research organisations.

C4. LABOUR MARKET AND SOCIAL PROTECTION

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future

The reforms proposed under the NPOO, in particular labour market reforms, are fully aligned with the European Pillar of Social Rights (Chapter I: equal opportunities and access to the labour market), the Council Decision on guidelines for Member States' employment policies, the skills Agenda for Europe and the skills Pact.

Active labour market policy measures and measures to establish a voucher system for the education of employees and unemployed persons follow fully the principles of the European Pillar of Social Rights relating to “education, training and lifelong learning” and “actively supporting employment”. With regard to the Council Decision on guidelines for the employment policies of the Member States, active labour market policy measures, digitalisation and computerization of the CES (eHZZ), as well as the establishment of a voucher system for education of employees and unemployed persons are in accordance with Guideline number 5 (“increasing demand for labour force”) and number 6 (“improving labour supply and access to employment of skills and competences”) and number 7. “Improving the functioning of the labour market and the effectiveness of social dialogue.” In addition, the measure to establish a voucher system for the education of workers and unemployed persons builds on the skills Agenda for Europe, which is a five-year plan to help individuals and businesses develop and use the skills required in the labour market. The measure builds on the skills Pact, which aims to mobilise and encourage private and public stakeholders to take concrete measures to develop skills and retrain people of working age. The Pact is based on four key principles: promoting a culture of lifelong learning for all; building strong partnerships for skills development; monitoring skills supply/ demand and anticipating skills needs; and action against discrimination and gender equality and equal opportunities.

The Republic of Croatia supports investments in the field of employment and social protection. In the period 2014-2020, investments in this area were mostly financed by the European Social Fund, Youth Employment Initiative and the European aid Fund for the Most deprived. Investments from the European Social Fund plus will continue in the period 2021-2027. Given the impact of the CID-19 pandemic in 2020, additional resources were also provided from THE SURE loan for labour market measures and from the European Union Solidarity Fund.

C4 .2. Development and improvement of the pension system

Preparation of projects for digitization of business operations of institutions in the labour market (CES and CES) required a thorough preparation considering the importance of

these institutions and ensuring transition to new business models using modern IT solutions and smooth business continuity. Therefore, it was only in the first half of 2020 that ESF (Operational Programme effective Human resources) appropriations were allocated for their implementation. The duration of both projects (eHZZ and eHZMO) is planned until the end of eligibility of expenditures from the ESF, i.e. until 2023. However, since public procurement procedures and related (multi-year) project activities do not take place according to established dynamics, and given the complexity of the preparation of tender documentation, and jeopardise the deadlines for the completion of projects and the achievement of defined performance indicators, it is suggested that the projects for digitisation of operations of the Croatian Employment Service and the Croatian Institute for Health Insurance be financed from THE RDF. This would ensure that all activities are completed in the planned scope and that the digital transformation of institutions' operations increases the availability and quality of their services towards users.

The Republic of Croatia takes into account all available sources of investment and therefore plans the most appropriate sources of investment for individual activities. The programming process for ESF + will take place in the first half of 2021. During the programming process, investments from ESF + will be delimited in relation to investments from the RDF. Investments from different sources will ensure synergistic impact and help improve labour market outcomes and strengthen the social protection system.

C4 .3. Improving the social welfare system

Comprehensive structural reforms to improve the social welfare system and better protect the rights of users include long-term investments in infrastructure and human resources, strengthening the role of social welfare centres and family centres to support families and parenting, and improving the welfare system for the elderly and infirm by providing adequate care by increasing the capacity of accommodation.

The development and accessibility of social services at the local community level will prevent institutionalization and social exclusion. One of the strategic goals is to continue the process of transformation and deinstusification of social welfare homes and prevention of institutionalization while improving the quality and establishing a more balanced network of services. The development and regional accessibility of social services in the community and the strengthening of expert competencies and standardization of professional procedures prevent the institutionalization of children, youth and persons with disabilities.

Hiring new experts for the provision of non-institutional services, education and licensing of heads of family-legal protection measures and immediate custodians, as well as providing benefits for their work directly affects family empowerment and support for parenting, prevention of institutionalization and ensuring necessary, affordable and available services for socially vulnerable groups. Implementation of the measure directly affects the reduction of entry into the institution and the improvement of the quality of life by providing available services in the family.

At the time of the pandemic, there was a pronounced lack of accommodation capacities for the elderly, which underlines the need to provide additional capacities, especially for those who are in no way able to provide extra-institutional services since they need the highest level of support from the professional staff and the best quality of care.

The analysis performed by the MUMSOSP on the capacity needs for the elderly accommodation service showed that 3,387 elderly people need accommodation.

It is important to emphasize that the process of deinstitutionalization did not apply to persons of older age. For this particularly sensitive group, priorities are the development of non-institutional services and ensuring a sufficient number of accommodation capacities, when they are not able to take care of themselves or with the support of the family and community, but because of their health, they need organised long-term care.

The establishment of a single information system for social welfare centres, social welfare centres founded by the Republic of Croatia, community service centres and service providers with which the Ministry has concluded a mutual relations agreement will enable a

unique digital platform for monitoring and analysing data on users and services in the social welfare system, which is in line with the CSR for the Republic of Croatia and the Council of Europe conclusions on shaping Europe's digital future.

C5. HEALTH CARE

C5 .1. Strengthening the resilience of the health care system

The Ministry of Health bases the planned comprehensive investments in the health care system on NRR determinants and in particular on the draft of the National Health Development Plan for the period 2021-2027 as an umbrella strategic document in health care.

On the one hand, through investments from the NPOO mechanism, the objective is to focus on short-term investments of reform character, which can quickly have a positive impact on the health care system as a whole, while through investments from the MFF, investments that by their nature and the duration of the process would fall under medium - and long-term investments, and of course both have a synergic and complementary character. All proposed projects are complementary in order to achieve synergic impact, i.e. the RRF initiative will finance projects that are in the high stage of preparation and contribute to recovery from the existing civil-19 pandemic and strengthen the resilience of the health care system in the narrower sense (Croatian economy in the wider sense) regarding crisis situations, they contribute to the realisation of CSR recommendations for 2019 and 2020. Other initiatives will finance projects that require a longer period of time.

Through the Cohesion Policy Framework offered by the MFF for the period 2021-2027, projects are proposed that contribute to better management of human resources in the health segment (in terms of health personnel and management structures in health institutions), as well as prevention projects aimed at preschool and lower school age children. In the context of the procurement of emergency helicopter assistance (HEMS) services through Phase I or the establishment of our own HEMS fleet through Phase II, there is a complementary need to finance education and/or scholarship of new personnel, pilots exclusively for HEMS, special interest has been expressed in the field of pharmacy (education, pharmacy activities as aid to the health care system - vaccination, national preventive programmes, etc.)

Activities that would lead to the development of new or improved existing databases, as well as activities in the field of transfusion medicine, are also proposed. In addition, there is a great interest in the continuation of financing specialist training for doctors of medicine at national level, as defined by the legislator, along the lines of the (pilot) model of financing 212 doctors through the European Social Fund and taking into account the duration of professional training lasting 4 to 5 years, as well as the continuation of the “live healthy” project – as phase II, currently implemented at national level. The obtained proposals show that there is further interest in investing in the education of health care personnel (doctors, nurses and technicians, and other health care professionals depending on the activities) through the forms of targeted educational programmes for different specialist areas, prevention is still on the priority list, operations aimed at vulnerable groups and especially oncology patients are proposed.

It also envisions financing the project of modernization, reconstruction and equipping of tissue and cell establishments in the trauma Clinic, the Sisters of Mercy clinical hospital Centre, as a segment that has not been covered by infrastructure investments from the ERDF so far. In order to improve the efficiency, quality and accessibility of the health care system, special emphasis is placed on the process of revitalization of the immune system through the NPOO, while clinical trials and education of the employees of the IME for the use of new equipment in new business processes would be financed from the cohesion policy funds. Furthermore, through NAPA investments are focused on services of mobile pharmacies and mobile ambulances in order to further strengthen primary health care, as has been done through 18 projects from the existing financial perspective 2014-2020 through reconstruction, upgrading and/or construction of health centres and equipping of health centres and offices of concessionaires in 18 counties in the Republic of Croatia.

Furthermore, even if so far, investment in hospital health care institutions will not be neglected, starting with the Zagreb clinical hospital and clinic “Dr. Fran Mihaljevic” in the capital, KBC Rijeka in the east, via OB Varazdin in the north, all the way to KBC Split and Hvar Health Centre in the southern part of Croatia. This naturally takes into account the territorial equality of investments and thus the availability of health care for all citizens of the Republic of Croatia. It is a continuation of investments from the ERDF, but now through the NGOs mechanism given the reform importance of investments in these facilities, while the remaining investments in health care institutions of the Republic of Croatia will go through standard investment mechanisms through the cohesion policy for the period 2021-2027. Investments will certainly be complementary to investments in KBC Osijek and KBC Split, for the inhabitants of south and east Croatia, and investments in the construction of a national children's hospital, for children as a particularly vulnerable group, not only for Zagreb but also at the national and regional level.
Furthermore, the Government and thus the Ministry of Health have recognized in particular the importance of developing the National Strategic Framework for cancer until 2030 in order to improve the health of citizens, reduce cancer incidence and mortality and prolong and increase the quality of life of cancer patients in the Republic of Croatia to the level of Western European countries, and in this sense special emphasis has been placed on the procurement of equipment for cancer prevention, diagnostics and treatment, as well as on the establishment of the National oncology Network and National oncology Database. In this regard, and in order to ensure synergy with investments from NPOO, the continuation of national cancer prevention programmes, the implementation of health promotion and disease prevention projects and the cohesion policy framework for the following period 2021-2027 are envisaged. In order to emphasize the financial sustainability of the health care sector, the aim was to digitize the route of medicinal products, develop a system for monitoring and prevention of shortage of medicinal products in the Republic of Croatia, introduce a system for distribution of unit therapy in hospitals in the Republic of Croatia, and monitor the results of treatment of outpatient patients in public pharmacies (with emphasis on chronic patients) and improve the system of storage and transport of medicinal products in public pharmacies on the one hand, and projects aimed at introducing a systematic system for the disposal of infectious waste in CBC Zagreb, as a pilot. Finally, in order to further strengthen the e-health sector, it is proposed to finance a project idea aimed at text-to-speech tools for doctors in hospital health institutions in the Republic of Croatia, ESF project modelled on IT tools judicial system in the Republic of Croatia implemented by the Ministry of Justice through the existing OPEHR 2014-2020, with the aim of shortening the necessary time for administration and indirectly increasing the time physicians can dedicate to working with patients. It is heading towards the continuation of activities from the previous period 2014-2020 in terms of continuing the establishment of the STeZ or the Central Authority for e-Health and ensuring the sustainability of EU projects financed through the field of e-services as foreseen in the existing IT projects (e-hospital, E-Guidelines, Normalization and certification and e-HZZO, e-drugs and HR DRG). In particular, we emphasize that in the financial perspective to date, the field of health tourism has not been recognised in terms of eligibility for financing infrastructure investments through the ERDF, the stocks in the upcoming financial perspective 2021-2027 endeavour to include this segment of health care (and tourism, in the synergy effect) of health care institutions (public and private), and the highest concentration of complementary health tourism services is offered in special hospitals for medical rehabilitation and health resorts, especially in order to reduce acute stationary capacity and reduce efficiency.

C6. *INITIATIVE*: RENOVATION OF BUILDINGS

C6 .1. DECARBONISATION OF BUILDINGS

The decarbonisation of buildings contributes to the objectives set out in the Integrated National Energy and Climate Plan for the Republic of Croatia for the period 2021-2030, which cites as a key document for achieving energy efficiency a long-term strategy for

encouraging investments in the reconstruction of the National building Fund of the Republic of Croatia until 2050, which promotes the need for investment in building funds. In the building sector, the Republic of Croatia committed itself to achieving an energy-efficient and decarbonised building fund by 2050 in order to achieve the long-term objective of reducing CO2 emissions from the building sector by 80% by the end of 2050.

In accordance with the draft long-term strategy, the rate of energy renovation of buildings gradually rises from 1% of the floor area in 2021 to 3% of the floor area in 2030, which is in line with the proposed renovation rate in the restoration ave initiative. Energy efficiency measures will be implemented in accordance with the programme of energy renovation of buildings for the period 2021-2030, adopted by the Government. The measures for the achievement of the long-term strategy, as well as the assessment of their effects (energy savings, CO2 savings, necessary investments) listed in chapters correspond to the NECP measures and bear the same codes in both documents: ENU-1 to ENU-7 and UET-5.

The goals of the long-term strategy are more ambitious than those currently set out in the NECP, but the implementation of the long-term strategy, i.e. concrete reconstruction programmes that will follow, guarantees the achievement of the current goals of the NECP. Long-term strategies have taken into account important changes in the EU framework, primarily the announced new ambitious targets at EU level in reducing CO2 emissions by at least 55% by 2030 as a means of adopting and launching the so-called Wave of renovation – a comprehensive EU initiative to increase the rate of renovation of buildings. In addition, the long-term strategy also took into account the consequences of the March 2020 earthquake, and put a significant emphasis on the overall renovation of buildings, which will include seismic reconstruction in addition to energy.

Likewise, according to the Partnership Agreement, one of the sectors most contributing to final energy consumption is the building sector with 43% share in final energy consumption, while 70% of energy consumption refers to heating/cooling needs. Therefore, the Partnership Agreement cites investments in energy efficiency as one of its priorities.
Since the programming process for the ERDF will take place in the first half of 2021, all available sources of investment will be taken into account, and accordingly the most appropriate sources of investment for individual activities will be planned, i.e. the delimitation of investments from the ERDF in relation to investments from the RDF, WHILE the buildings damaged by the earthquake will be restored from multiple sources: the EU Solidarity Fund, THE World Bank loan, RRF and the MFF 21-27, while also ensuring that there is no double funding.

9. Complementarity of financing

General

During the NPOO preparation, the overall monitoring and monitoring was carried out, at the national level, but also in cooperation with the EC, to ensure synergy and efficient coordination and coordination of the RF with other instruments and programmes of the Union, through numerous consultation meetings and communication with all levels of government. This is carried out in such a way that coordination activities related to the preparation OF NPOS are carried out at the level of the Prime Minister's Office with the support of the MFIN and MRDEUF, which plays the role of the Coordination body for EU Funds and has an overview of projects identified at both national and regional/local level as necessary in order to achieve the strengthening of the economy and society affected by the CIVIL-19 crisis. In the preparation of NPOO, through analysis and qualitative verification of data at several levels and in several iterations, attention was paid to ensuring demarcation, avoiding double financing, but also synergy in relation to different sources of financing.

The process of drafting national level strategic programming documents for the use of funds of the new financial period 2021-2027 will also ensure synergy and effective coordination and coherence with other Union instruments and programmes, including with regard to the RDF.
The implementation of the NPOO shall take due account of Article 107. The Treaty and the Union framework for State aid and its limitations.

C1. ECONOMY

C1 .1. Enhancing competitiveness and green transition of the economy

Measures foreseen under the NPOO will be implemented complementary to interventions planned by the Republic of Croatia within the framework of cohesion policy. In terms of terms, the NPOO is expected to be launched earlier than in 2021, which is necessary for the recovery of the economy after the end of the civil pandemic. Operational programmes financed under the Cohesion Policy will cover a broader scope of investment and build on the interventions *described* below.
The Multi-Annual Financial Framework 2021-2027 plans to continue financing measures from the current period, which allow support to the development of innovative SMEs and to strengthen the capacity of digital transformation enterprises. Proposal of the project TSI Strengthening the R & D capacity of enterprises through tax reliefs and other support instruments provides for an analysis of the impact of the existing measure defined by the Act on State aid for R & D projects and possible improvement of the said Act, in order to increase the efficiency of private sector investment incentives in R & D.
Preparation of reforms related to further improvement of business environment was financed from the Structural Reform support Programme through projects implemented in co-operation with the OECD and *Gesellschaft fur Internationalle Zusammenarbeit* and was based on recommendations from the two projects mentioned above. Activities to improve the business environment are not financed under the Cohesion Policy Operational programmes.

C1 .2. Energy transition for a sustainable economy

Complementarity within the energy transition is ensured through the strategic framework set in the last two years. The Energy Development Strategy of the Republic of Croatia until 2030 with a view to 2050 clearly outlines the appearance of the future energy system of the Republic of Croatia. It is planned to increase the production capacity of energy from renewable sources, mainly wind and solar energy (construction of over 1,300 MW wind farms and about 770 MW solar power plants is planned by 2030). This fully aligns the strategy with the objectives of the Green Plan for Europe.
The second strategic document related to the reform of the energy sector is the National Energy and Climate Plan from 2021 to 2030, which sets clear goals related to the share of renewable energy sources (36.4% of RES in gross direct consumption), the share of renewable energy sources in transport, and the increase of energy efficiency. In order to achieve the objectives, a total of 102 measures have been proposed, 65 of which are related to the decarbonisation of the economy. The reform and investments proposed in the recovery plan are fully compliant with the measures from the National Energy and Climate Action Plan, but the plan does not have a fully closed financial structure and the recovery Plan and the proposed reform will enrich the National Energy and Climate Plan and complement the implementation of the strategic framework of the Republic of Croatia related to the energy sector.
Projects related to the production of energy from renewable sources are planned to be realized in large part from private investments, stimulating the purchase of electricity by introducing a premium model. However, in order to ensure the reception of such electrical energy, which is the main precondition for the realization of projects, it is necessary to establish a quality and developed infrastructure that will successfully balance and distribute the new amount of electrical energy. This reform must be financed with public money to reduce pressure on citizens and the economy, and a combination of resources related to

the recovery and resilience Plan with funds from the Operational Programme 2021-2027 is necessary for its implementation. In addition, other sources such as the Modernisation and Innovation Fund are available to the Republic of Croatia, which can finance a part of the projects, but insufficient to ensure quality infrastructure. However, some of this money will certainly be directed towards the development of energy infrastructure with a clear demarcation of individual types of projects depending on the duration of individual projects, but also on needs. Also, the CEF (*Connecting Europe Facility*) instrument, which can provide part of the investment, is available for a stronger connection between electricity systems and other energy infrastructure at the EU level.

A large part of the investment relates to clean transport, and it is related to the provision of adequate infrastructure for the production and distribution of hydrogen and advanced biofuels which should enable a drastic reduction of CO2 emissions from the transport sector, which is largely complementary to the reform of the development of a competitive, energy-sustainable and efficient transport system.

The decarbonisation of the energy sector with the proposed investments is in line with the draft National Development Strategy whose development direction is 3. The “green and digital transition” largely refers to the decarbonisation of the energy sector.

Accordingly, complementarity of financing is necessary in order to fully achieve the reform related to the decarbonisation of the energy system and enable the transition towards a sustainable and clean economy.

C1 .3. Improving water management and waste management

Investments in the water sector follow identified needs within strategic water management documents, and the order of investments, regardless of the source of financing, depends on the mood of funds, investment priorities and the readiness to realise themselves.

Within the Ministry of economy and Sustainable Development and Croatian waters, internal organizational units have been established which are responsible for coordinating the planning, preparation, approval and monitoring of the implementation of water management projects financed by EU grants.

In addition to identified needs within national strategic documents, the obligation to invest in water and municipal infrastructure derives from the Treaty on Accession of the Republic of Croatia to the EU which establishes transitional periods for compliance with the Urban waste water treatment Directive and the water quality Directive intended for human consumption. In order to comply with these Directives alone, investment needs of more than 3.7 billion euros have been identified. Within the programming period 2014-2020, 1,049 billion euros of grants are available for investments in water utilities infrastructure, and a similar level of available funds is expected in the programming period 2021-2027 and it is evident that these resources will not be sufficient. Given the prolonged crisis caused by the CIVIL epidemic, it is clear that the interventional aid through the REACH EU PROGRAMME will not be sufficient for the so-called CIVIL credits and for assisting enterprises to increase competitiveness through grant schemes and, therefore, a reduction in the allocation of the priority objective for the water utility sector from €1.049.340,216 to €849.340,216 where the above €200 million will be reallocated to the priority axes through which they will be used for new LOANS to entrepreneurship and for the continuation of financing of project proposals for new services.

In the programming period 2014-2020 a large number of projects were approved whose value significantly exceeds the available funds with the intention of providing an opportunity to finance all projects assessed to be at the level of willingness to have the potential to be realised within the said programming period. By November 2020, 59 water utility projects were approved, reaching 170.75% of the allocation, i.e. 211% of the reduced allocation proposal. This decision was made taking into account the fact that all projects to be approved will not be fully financed from available EU funds and that part of the projects will have to be completed from national funds, while part of the projects that meet the conditions will be able to continue to be financed in the next programming period.

Given the aforementioned possibility of financing priority investments of water

management through RDF, it is proposed that a part of projects approved within the programming period 2014-2020 be phased into RDF. These are 15 projects already approved within the programming period 2014-2020. the implementation of which has started and which would be phased into THE RDF and 9 projects that are in the high phase of drafting project study documentation and have been prepared for financing within the programming period 2014-2020. Other investments proposed to be financed by the RDF follow the described logic of the order of investments in the water sector, which relate to investments in water utilities infrastructure and infrastructure for disaster risk reduction that have so far been financed from national funds, i.e. funds of water charges of Hrvatske vode and public suppliers of water services.

It is important to note that the preparation of project study documentation for infrastructure projects lasts for at least 2 years, and the realization of the infrastructure project takes at least 5 years.

All investments proposed to be financed from RDF will be financed under the same conditions under which they would be financed through other sources of financing, i.e. it will be ensured that RDF funding does not favour beneficiaries. For water utility projects prepared for financing from EU funds, the RDF will also require the calculation of the financial deficit rate whereby the co-financing rate to be provided by the beneficiary will be identical to that of EU grants as well as the share of co-financing of the national component by the MANEC and Croatian waters. The mentioned total co-financing rate of the national component according to the study data is on average about 30%, while the exact percentage on the specific project is determined on the basis of the level of development of local self-government units from the scope of the project whereby less developed co-finance smaller and more developed ones. The remaining amount of eligible costs, or about 70%, would be financed from THE RDF. Investments in water utility infrastructure that have so far been financed from national funds will be financed in the amount of 80% through RDF and in the 20% amount co-financed by beneficiaries and Hrvatske vode (10% beneficiary and 10% Croatian water) as is the case with national investments. Investments in disaster risk reduction infrastructure that have so far been fully financed from national funds will be financed in the same way as if it were financed from EU funds, i.e. 85% through RDF and 15% national funds.

In conclusion, most of the investments proposed through THE NPA relate to projects already being implemented and projects that are ready and waiting for the possibility of financing them to be opened. These are projects that are prepared according to the methodology for the use of EU funds and have prepared project study documentation, prepared tender documentation and obtained building permits, as well as projects that are prepared for purely national financing with major projects and obtained building permits. Therefore, the value of these investments is known as such proposed through NPOO.

Investments aimed at encouraging separate collection of waste and environmentally friendly treatment of key categories of waste of specially mixed municipal waste in order to reduce the mass of biodegradable waste deposited at landfills in the Republic of Croatia were included in the waste disposal programme in OPCC. Within the RDF programming period, further investments in infrastructure for separate waste collection are planned. Investments aimed at waste prevention, increasing recycled content, promoting safer and cleaner waste streams and ensuring high-quality recycling are planned for the multiannual financial period 2021-2027. Since a revision of the EU legislation on batteries, packaging, end-of-life vehicles and dangerous substances in electronic equipment is planned based on the new action plan for the circular economy, investment will depend in part on the results of audits. Investments in the future programming period will also depend on the EC proposal for harmonisation of the system for separate collection of municipal waste, which has so far been fully under the competence of the member States. The model proposal for separate waste collection, density and accessibility of separate collection points, given regional and local conditions, will also have a major impact on programming in the next programming period.

An additional 20 million EUR is planned to be invested in OPCC rehabilitation of closed

landfills, i.e. in the RECOVERY of waste contaminated areas at 32 locations, given the number of landfills that local self-government units are obliged to close and rehabilitate by 2026. In the programming period 2021-2027, no investments are planned for this purpose.

C1 .4. Development of a competitive, energy-sustainable and efficient transport system

Furthermore, IN addition to ESI Funds, the MMPI has competence over the Connecting Europe Facility (CEF). *Connecting Europe Facility (CEF*) for the Transport component and successfully coordinates the preparation and implementation of transport investment projects with full assurance of complementarity between funds and the Instrument.

Priority is given to activities that would gain greater importance for rail transport in the Republic of Croatia and relate to the modernization and renewal of railway lines on the TEN-T network and the introduction of modern European safety and ERTMS standards. Complementarity of financing is continuously ensured and the same is planned in the new financial perspective.

Complementarity of financing is also planned to be ensured in the future financial perspective using ESI funds, CEF and RRF. For example, the construction of the Krizevci-Koprivnica-state border section, financed by the CEF, has certain ineligible costs for the Facility concerned and this part of the work IS planned to be provided through THE RDF, which uses the possibility of synergy between the programmes, with full assurance of complementarity of financing. Furthermore, considering the status of preparation of documentation for individual sections and timeframes of their implementation, the financing of works of individual sections through RRF, ESIF or CEF is planned in advance, all with the aim of modernising and restoring railway tracks, ensuring complementarity of financing. Complementarity of financing is also ensured and will be ensured in all other aspects of transport, through synergy and efficient coordination of all instruments and ESI funds.

C1 .5. Improving the use of natural resources and strengthening the food supply chain

Complementarity of financing is ensured by coordination of implementation of priorities defined in strategic documents within the sector (Rural Development Programme, draft of the Agricultural Strategy, draft strategic plan for implementation of the Common Agricultural Policy) and at a higher level through involvement in development of the National Development Strategy. All these documents define funding priorities as the basis for selecting individual projects, in accordance with the principles of strategic planning defined by national legislation and the rules laid down at EU level.

Recovery and transformation of the sector in line with the new priorities and ambitions defined at EU level require significant financial resources, as recognised by the European Green Plan. Although a significant part of the investment is planned by the RDP, the needs of the agricultural sector and rural areas go beyond the possibilities of the RDP, especially for large infrastructure projects necessary for structural transformation of the sector and improvement of conditions for business and living in rural areas. A significant part of the RDP funds is reserved for precisely defined purposes in accordance with the rules of the common agricultural policy, for example 34% of the rural development budget is directed towards measures contributing to environmental protection and climate action, an additional 8% is directed towards measures for knowledge transfer, information, cooperation and networking and slightly more than 5%, using flexibility between pillars, for direct payments. In this way, available funds are reduced for necessary investments in the agricultural production itself (slightly less than 40% of the allocation), which is the basis for the growth and development of the sector.

The RDP did not foresee additional needs of the sector related to damages and unplanned costs resulting from THE CIVIL crisis. It should also be borne in mind that the financing of rural development in line with the new EU agricultural policy priorities will only be possible from 2023, when strategic plans compliant with the legislative framework of the future common agricultural policy are introduced, which also includes the allocation of a large part of the allocation for interventions other than investments in production capacities, i.e.

rural areas. Therefore, in the following period it is necessary to enable financing of part of the activities in the field of agriculture and forestry covered by this National Plan from the RDF.

In part of the improvement of the food donation system, financing of infrastructural equipping of intermediaries in the food donation chain is planned as a complementary measure to financing from the European aid Fund for the Most deprived (FEAD). Since the FEAD does not adequately cover all needs, the funding will be complemented but not duplicated with resources from the recovery and resilience Mechanism.

C1 .5. Development of sustainable, innovative and resilient tourism

The proposal for reform and investment in this subcomponent is based on the adopted legislative reform of the tourism system, aimed at reducing seasonality and facilitating the development of special forms of tourism, and the main objective is to ensure the recovery of the sector, which is significantly affected by the crisis caused by the coronavirus pandemic. MINTS started the process of drafting the National Strategy for Development of Sustainable Tourism until 2030, which will represent the programming basis for programming and financing projects in this sector through the Multi-Annual Financial Framework for the period 2021-2027. In this regard, the demarcation between what is proposed to be financed through the RFF is concentrated on the reform and recovery of the sector from the crisis, while further development of this activity will be financed through the MFF 2021-2027 and EU programmes.

C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY

C2 .1. Strengthening the capacity to develop and implement public policies and projects

Additional capacity building and providing assistance in the form of co-financing the development of project-technical documentation to beneficiaries will increase their absorption capacity and ultimately the absorption capacity of the Republic of Croatia, while simultaneously ensuring the implementation of one of the activities of the future Act on the institutional framework for EU funds, i.e. strengthening the capacities of beneficiaries for preparation, application and implementation of projects (should be referred to the procedure at the end of 1Q/2021). This refers not only to education, training, etc., which are already financed and/or will be financed through technical assistance of operational programmes of this and future financial period, but also to strengthening capacities by providing assistance to beneficiaries, among other things, in the preparation of project-technical documentation whose preparation is necessary in order to contribute to the objectives of green and digital transition. By financing this measure from the cohesion policy funds 2021-2027, it would not be possible to ensure a sufficient supply of projects in a timely manner.

C2 .2. Further improvement of the efficiency of the public administration

Complementarity of financing proposed reforms and investments in the field of public administration from the RDF and other EU funds is reflected in the need for digital transformation of public administration aimed at optimising business processes in order to connect citizens, businesses and data in systems.

Financing of public administration priorities and reforms will continue through THE RDF, as these are reforms related to recovery and resilience, as well as financing opportunities from 2021, while the preparation of operational programmes and cohesion policy priorities with the possibility of financing after the harmonisation of all programming documents is still under way.

In this respect, since the RDF will finance the upgrading of certain systems, it is necessary to provide a complete insight into the analysis, i.e. business reporting, which will be the basis for the analysis of the existing situation and enable better decision-making at all levels.

Reforms and investments will also continue to solve the CSR, i.e. strengthen the efficiency of public administration, and through projects and initiatives public administration is

planned to lead to the EU average and raise the quality of public services both in smaller units of local self-government and at the state level. Strengthening the capacity of the public administration will also positively affect the efficiency and speed of the public administration, and one of the objectives and focus of the reform of the public administration is the further professionalization of employees for the purpose of better work.

Further improvement of the efficiency of public administration (including LC (R)SGUs) through optimisation and digitisation of services and processes in public administration will be reflected in greater availability of digital processes in a manner that will continue the digital transformation of public administration. The aim is to enable all citizens and business entities, either through electronic services they can use from their own home, or through a single administrative place by physical means, to better communicate and use public administration services. Some of the needs have already been proposed for financing from the RDF, and will continue to work through the MFF to digitise public services

Also, the continuation of activities for the implementation of blockchains in the field of administration would apply through the MFF. The application of *blockchain* technology will also enable transparent and safe treatment while ensuring integrity in administrative procedures and registers under management jurisdiction. Artificial intelligence will be used to improve the satisfaction of public administration users, as well as to analyse large quantities of data.

Furthermore, the ESF/ERDF plans to educate civil servants and officials, employees and officials of the LC (R)SGU, as well as judicial officials and officials regarding the acquisition of digital skills and related quality processes, process optimization.

C2 .3. Digital transition of society and economy

Complementarity of financing is planned to be ensured through efficient coordination of strategic/project planning. The revision of the existing system and the establishment of a new *coordination mechanism are planned through the implementation of the Development of the Coordination mechanisms to support e-Governance Policy Coherence* project, applied for funding under the Technical assistance Facility (TSI).

In addition, the Central Office for the Development of the Digital Society has recently initiated the process of drafting the “Digital Croatia Strategy for 2030, which is a prerequisite for programming and financing EU projects in the field of digitisation, in the new financial period from 2021 to 2027, i.e. it will serve as a basis for effective coordination and harmonisation with other instruments and programmes of the EU.

C2 .4. Strengthening the framework for the management of state assets

The Reform priority “improving the management and management of state assets” and the reform measure “Action and better management of state property”, with the aim of reducing the portfolio of inactive financial and non-financial assets, ensuring a more responsible management and successful operation of state-owned companies and optimising the management of real estate, with particular emphasis on further improving relations with LC (R)SGUs in order to realise development projects and stimulate investments, i.e. placing state property in the function of economic development. This reform priority is also related to a set of extensive activities within several SRSS projects in the corporate governance segment, both those completed and those whose implementation of results is still ongoing, as well as projects on non-financial assets, which are in the process of applying within the framework of the TSI for the forthcoming period.

The SRSP project entitled “improving corporate governance in state-owned enterprises by reviewing and aligning legal regulations with OECD corporate governance guidelines” was launched on 29 May 2020. The project aims to review existing corporate governance practices in state-owned enterprises, identify deviations from best practice and draw up recommendations for revision of the corporate governance regulatory framework. The goal is also to create preconditions for a more active role of ownership bodies in setting financial and operational goals, and to achieve better coordination between competent

state bodies.
The SRSS project entitled “Action of non-operational assets in companies with majority state ownership” was launched in June 2020. The aim of the project is to establish ways and methodology for activating non-operational assets in companies with majority state ownership by applying the best world practice and to provide support for the development of a strategic framework for strengthening the efficiency of operations of companies with majority state ownership through the activation of inactive assets.
A project proposal has been submitted under the TSI (*Technical support Instrument*) entitled “State property Management Optimization programme”. The estimated value of the project is 500,000 euros, noting that if the project proposal for financing is accepted, it will still be subject to negotiations by the EC.

C2 .5. Improving the efficiency of the judicial system

Complementarity of financing proposed reforms and investments in the field of justice from the RDF and other EU funds is reflected in the need for digital transformation of judiciary, which aims to optimize business processes and thus connect citizens, businesses and data in systems.
In order to achieve priority policies that include optimisation and digitisation of services and processes in the judicial system, it is necessary to work on the concept of smart courts in order for court services to be available to all users of the judicial system via the online portal. Also, new technologies such as artificial intelligence and blockchains will be used for this, some of which will be financed through the RDF.
In the field of artificial intelligence, this can be seen in the form of the implementation of *chat points* in various electronic services. They will facilitate the use of customer services. Since the share of non-digitised content remains high, the digitisation process can be accelerated with the help of digitisation assistants who can help determine the description and classification of scanned documents. Also, it is necessary to implement artificial intelligence for the anonymisation of court documents and to continue the possibility of converting speech into text in courts. Artificial intelligence can also be used in processing data from the business reporting system.
Blockchain as technology is already planned to be implemented in the ZIS system in the framework of the RDF when it comes to real estate transactions, and wider application can also be used for court registers, as well as for trial procedures itself, ensuring the security and integrity of the evidence itself during the trial.
Within the RDF there is a planned investment in accessibility of judicial infrastructure, standardization of “smart infrastructure” (adoption of guidelines/regulations) aimed at increasing the efficiency of the system itself which will affect greater legal certainty and better services. Since the MFF does not provide for direct investments in public administration and judicial system (there is no part related to good management), it is necessary to finance the above from the RDF. Under the MFF, OPCC (ERDF) plans to finance the improvement of energy efficiency of judicial system facilities (all in accordance with the said Guidelines) throughout the country.
The ESF/ERDF plans to educate judicial officials and officials regarding the acquisition of digital skills and related quality processes, process optimization.
Furthermore, MMPU plans to reconstruct some of the judicial facilities damaged by earthquakes through the Solidarity Fund, however, complementarity with the RDF will partially be necessary and investments will be planned in this context.

C2 .6. Strengthening the framework for prevention of corruption

The proposed reform and anti-corruption investments will continue to strengthen the framework for prevention and sanctioning of corruption to ensure lawful, transparent and efficient use of public funds. An instrument for preventing and sanctioning corruption, particularly at local level, will be strengthened and developed by improving mechanisms for monitoring local companies. Within the framework of the measure “improving the normative framework for the fight against corruption”, the NPRK plans activities to improve the prevention and sanctioning of corruption, inter alia, aimed at the local level. The

adoption of a national strategic document in the field of fighting corruption is currently under way, the adoption of an anti-corruption programme for companies owned by the LC (R)SGU, ensuring the online publication of reports on the assets of judicial officials (property cards of judges, state attorneys and deputy state attorneys) and the implementation of awareness-raising activities that will contribute to the effective and quality implementation of the law on the Protection of the Report on irregularities. Based on the government program, in order to achieve the goal of "an efficient, transparent and resilient state," a further fight against corruption is planned, with an emphasis on its prevention. Among other things, by establishing a new national strategic framework in the fight against corruption, strengthening the repressive body in the fight against corruption (USKOK), aligning the law on the protection of applicants of irregularities with Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the protection of persons reporting infringements of Union law, improving the normative framework for the area of conflicts of interest and regulating the legal framework in the area of lobbying.

C2 .7. Strengthening the fiscal framework

n/a

C2 .8. Strengthening the anti-money laundering framework

n/a

C3. EDUCATION, SCIENCE AND RESEARCH

C3 .1. Reform of the education system

MZO manages strategic processes and planning reform projects aimed at achieving strategic goals and ensures complementarity of implementation of all activities financed from various sources, primarily the state budget and European funds. MZO is a level 1 Intermediate body for the European Social Fund and the European Regional Development Fund and has already ensured the successful implementation of operations financed from both funds in the programming period 2014-2020 (e-schools, Regional competence centres). The implementation of reforms envisaged BY THE EIGS encompasses a phase of one infrastructure investment, while phase 2 will be financed by the ERDF. At the same time, investments in human capacities accompanying reforms will be carried out from ESF +.

C3 .2. Raising research and innovation capacity

Complementarity of funding in the science-research and innovation sector is ensured through coordination of strategic planning and established methodology for project selection.

MZO has the role of Intermediate body level 1 in the management and control system of European Structural and Investment Funds for the programming period 2014-2020, and will continue to play a role in the preparation and implementation of research and development measures in the future programming period 2021-2027. At the same time, MZO will be the coordinator for the implementation of measures under the reform to raise research and innovation capacity, which ensures the principle of complementarity and consistency of planned R & D & I investments through different sources of financing (state budget, new ESI funds). In order to ensure complementarity with planned IRI activities under C1.1.R2-I1 and C1.1.R2-I2, IRI activities will be financed through this measure and all relevant stakeholders will be involved in the process of preparing calls for proposals. THE MINGOR will finance IRI projects aimed at commercialisation.

C4. LABOUR MARKET AND SOCIAL PROTECTION

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future

Complementarity will primarily be ensured according to ESF +. Employment activities relate to strengthening labour market institutions, active labour market policy measures and strengthening local employment initiatives. It envisions the possibility of investing in

social innovations that improve labour market outcomes.

C4 .2. Development and improvement of the pension system

The implementation of the eHZMO project will no longer be financed from the ESF but through the RDF, and the completion of the project will enable the transformation of the Croatian pension Insurance Institute into a modern public institution by applying modern information and communication technologies as a means of work.

C4 .3. Improving the social welfare system

Activities in the field of improving the social welfare system relate to the continuation of the process of deinstitutionalization and strengthening of social services in the community, but also to ensuring sufficient accommodation capacities for old and infirm persons who need systematic institutional care.

RRF will implement investments in the construction of homes for old and powerless people who cannot function independently in the community, which until now has not been possible to finance from EFRD. ERDF funds from the new programming period will be invested in nursing homes in the second phase, after completing NPOO funding, which will ensure clear demarcation of funding from these two sources. With regard to investments in social infrastructure that have so far been financed from the ERDF, PROJECTS that have not entered the ERDF funding in the previous financial period will be financed from THE NPA, and funding from the ERDF in the new financial period for this type of investment will be implemented only after the completion of the implementation of the measures from THE NPOO.

Regarding the social support services for the process of deinstitutionalisation, the NAPA will finance the continuation of the implementation of the programme financed by UNICEF in the previous period, for which it is necessary to ensure the sustainability and continuation of financing. This programme includes support for measures related to the adoption and licensing of professional workers in social welfare centres. The ESF + will not finance identical services in the first phase, but will focus on other eligible activities in the field of social welfare. After completing the implementation of the NPOO, it is possible to finance the second phase of the aforementioned services from ESF +. Since financing through NPNI and financing through ESF + and ERDF in the new programming period and have different timeframes for implementation, investments will be clearly separated and monitored separately.

C5. HEALTH CARE

C5 .1. Strengthening the resilience of the health care system

Priority is outlined in reform measures and draft acts of strategic planning, complementarity of financing all investments in the health care system is continuously ensured and the same is planned in the new financial perspective 2021-2027. For example, for the preparation of project documentation for infrastructure investments in KBC Osijek, KBC Split and for the construction of the National children's hospital in Zagreb (NDB, Blato or other location to be defined by the Feasibility study), grants from the ERDF Technical assistance are provided in this financial perspective 2014-2020, while the realisation of these major infrastructure projects is expected in the following period 2021-2027. All profuturo plans are viewed from the standpoint of reform measures and as a kind of continuation of investments through previous ESI funds, where approximately HRK 2.5 billion were invested through soft and hard infrastructure investments. The implementation of reforms envisaged by the NPOP encompasses phase 1 of infrastructure investments, while phase 2 will be financed by the ERDF. At the same time, investments in human capacity accompanying reforms will be made from the ESF +. RRF will play a role in strengthening infrastructure while ESF + will focus more on investments in people, so-called soft measures. Since investments from these two funding sources have a different timeframe for realisation, investments from the RDF will focus on short - and medium-term investments and investments from the ERDF and ESF + will focus on long-term investments. The Ministry of Justice shall ensure complementarity at all levels through the

application of the partnership principle: particular attention shall be paid to partners at the local and regional level, in particular taking into account the foundation structure of health and hospital centres at the county level, which will enable development needs and priorities of the local and regional level, and not only at the state level, thus achieving synergy of investments regardless of funding mechanisms.

C6. *INITIATIVE*: RENOVATION OF BUILDINGS

C6 .1. DECARBONISATION OF BUILDINGS

The RDF will primarily finance the energy renovation of buildings that already have a major energy renovation project in place and are ready to implement the project, which were not financed by OPCC 2014-2020 due to lack of financial resources. Particular attention will be paid to the ESCO model, which proved to be the best model for the reconstruction of public buildings owned and used by the central government, the reconstruction of buildings damaged by earthquakes and the energy renovation of cultural heritage buildings.
Funding for energy renovation of public and residential buildings will continue from the MFF, encouraging deep and comprehensive renovation of buildings and ensuring healthy internal climate conditions, fire protection and risks related to intensified seismic activities.

10. Implementation

General

(i) **with regard to the mechanisms put in place to ensure coordinated work of ministries and other SABs in the part of activities related to the European Semester**, it should be noted that the Decision on coordination of activities within the framework for economic management of the EU sets out the institutional framework and procedures related to coordination of activities within the framework for economic management of the EU, i.e. the European Semester at government level. The aim was to ensure coordination of policies and measures covered by economic supervision (e.g. macroeconomic imbalances and financial issues, reforms necessary to stimulate growth and create new jobs). In this way, a coordination function has been established at the governmental level, which includes, among other things, technical coordination of the European Semester.
The European Semester at government level implies:

- synchronised model of the work of ministries and other SABs in terms of defining budget and economic priorities and reform measures for their implementation
- identification of common objectives and instruments to address macroeconomic imbalances and financial difficulties, taking into account complementarities and spillover effects between fiscal and structural policies
- cooperation and fulfilment of obligations arising from the participation of the Republic of Croatia in the European Semester
- monitoring progress in implementing measures to achieve identified objectives in the field of smart, sustainable and inclusive growth.

The said Decision established an Interdepartmental working Group for the European Semester, led by the Deputy Prime Minister for the economy, and members are ministers responsible for the implementation of certain measures and activities planned and implemented within the framework of the European Semester. Coordinators for the European Semester (representatives of ministries and other state administration bodies at the official level) were appointed to elaborate measures and activities in accordance with the priorities and objectives established by the Interdepartmental working Group and coordinate their implementation. The Office of the Prime Minister performs expert and administrative tasks for the Interdepartmental working Group, monitors and coordinates the implementation of the European Semester in the Republic of Croatia and works in close cooperation with the Ministry of Finance and other bodies in the system.

The last amendments to the Decision on the coordination of activities within the framework for economic management of the EU from July 2020 expanded the scope of coordination to activities of drafting and monitoring the implementation of NPOs.
At the level of individual bodies involved in the implementation (implementation holders) of reforms, measures and activities/investments, implementation is carried out within the existing organisational structures and processes, in accordance with the applicable regulations.
(ii) the public Procurement Act[64] harmonises the national legislation of the Republic of Croatia with EU acts in the field of public procurement. All public and sectoral contracting entities are obliged to conduct their public procurement procedures in accordance with the public Procurement Act. The public Procurement Act provides, inter alia, effective mechanisms for controlling the spending of public money, as well as mechanisms for protecting the interests of any economic operator who has or has had a legal interest in obtaining a specific public procurement contract, framework agreement, dynamic purchasing system or design contest and who has suffered or might suffer from an alleged violation of subjective rights through an institute of appeal to the State Commission for the control of public procurement procedures.
Also, THE MORTAR has control mechanisms, primarily through tools of professional assistance to system stakeholders, and then through the function of administrative supervision. Administrative supervision shall be carried out in two ways:

- Carrying out rapid preventive supervision of tendering documentation in published tenders in the electronic public Procurement Classifieds of the Republic of Croatia (EOJN RH). These audits aim to eliminate irregularities in the tender documents that may arise as a result of a violation of the public Procurement Act in due time. The discovered irregularity shall be notified to the client by telephone, and the instructions on the procedure shall be given in writing. Findings from these controls are published in the form of instructions on the public procurement portal in order to prevent the repetition of these irregularities by other contracting entities.
- Carrying out ex-post supervision of public procurement (over already published and/or implemented procedures) on the basis of requests from state bodies such as SAO or DSD or presentations of natural/legal persons or bodies or ex officio. In case of suspicion of irregularities which have the characteristics of the offence, an indictment proposal shall be sent to the competent misdemeanour court.

Furthermore, provisions on the prevention of conflicts of interest have been contained in all Croatian public procurement regulations since 2011. The contracting entity cannot conclude public contracts with economic operators with whom the persons — representatives of the contracting entity are in any way connected (leader of the contracting entity, member of the administrative, management or supervisory body of the contracting entity, representatives of the contracting entity participating in the individual procurement procedure and affecting the decision-making process, and related persons of the representative of the contracting entity). Those economic operators shall not be subcontractors to the successful tenderer or members of the Community of tenderers. The transfer of a shareholding to another person or custodian/lawyer does not affect conflict of interest provisions. The representatives of the contracting entity shall sign a declaration of existence or absence of a conflict of interest which shall be necessarily updated. The contracting entity shall, on the basis of a statement from its representatives, publish on its website a list of economic operators with which it is in conflict of interest. The procurement documents shall also include a list of economic operators with whom

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the representative of the contracting entity is in conflict of interest or indicates that there are no such entities. A public procurement contract concluded contrary to the provisions of conflict of interest prevention shall be null and void.
One of the important mechanisms for controlling compliance with public procurement rules is transparency. Process transparency can often replace or complement control and audit systems. Contracting entities have a special responsibility: they spend taxpayers' money for the benefit of citizens, society and businesses. They should do so as professionally and efficiently as possible, and electronic tools should contribute to this. In the practice of public procurement in the Republic of Croatia, the principle is that all communication and exchange of information between contracting entities and economic operators is usually carried out by electronic means of communication. The digitalisation of public procurement brings effectiveness, simplification and cost reduction, in particular by applying the “once only” principle. However, it also has an effect in controlling the spending of public funds. Modules have been developed in THE EOJN system of the Republic of Croatia: the Central Procurement Plan, the Central contract Register, the e-Appeals. The electronic publication of invitations, documentation and the electronic submission of tenders already exists. All this serves the transparency of the entire public procurement system and timely informing business entities about business opportunities on the public procurement market of the Republic of Croatia. THE EOJN of the Republic of Croatia is connected with the OIB register, court and craft register, tax Administration records and criminal records, which enables easier and faster checking of data during the implementation of public procurement procedure.
(iii) **with regard to mechanisms set up to avoid the risk of fraud, corruption or mismanagement in general in the award of grant contracts in general in the award of grant contracts**, it is highlighted that they are set at the level of procedures under which all bodies of the management and control system operate. This has established a policy of integrity and prevention of conflicts of interest, in particular in the context of Regulation (EU, Euratom) 2018/1046, and not only in the award of grants. This implies procedures to ensure that ethical principles are respected, taking into account integrity and proactive action in order to prevent conflicts of interest. As regards the grant award process in particular, the mechanisms for ensuring the absence of conflict of interest in relation to persons participating in that procedure have been further elaborated. Furthermore, the standard procedure of the management and control system body also includes an assessment of the exposure to specific fraud risks, including in the grant award procedure, with procedures that provide insight into recommended actions in response to the identified risk. At the same time, a special procedure has been established that introduces indicators (suspicions) to fraud, that is, fraud. *Fraud)*, which also includes issues such as corruption – offering and accepting bribes, conflict of interest and those related to (public) procurement procedures.
With regard to public procurement and state aid, MRDEUF has established 2 networks of coordinators in the field of public procurement and state aid, involving representatives of all bodies in ESIF management and control systems. The meetings of these networks regularly implement activities related to the sharing of good practices and recommendations with the aim of preventing irregularities arising from the misapplication of the rules related to state aid and public procurement. A total of 23 JN network meetings and 20 DP network meetings were held.
Furthermore, in relation to the management of irregularities, and in order to prevent occurrence of irregularities and fraud, exchange of good and bad practices in procedures and reporting and monitoring of procedures against established irregularities, in January

2017 the Network for the Management of irregularities was established. The meetings of the Network shall involve persons for irregularities from level 2 intermediate bodies (PT-2), as well as representatives of level 1 intermediate bodies (PT1), certification body (TO), public Procurement Directorate of the NGO. In all, 12 meetings of the NP network were held.
Also, in relation to the activities we conduct for the purpose of avoiding the risk of fraud, corruption or mismanagement, binding instructions are issued to intermediate bodies of level 2 whose purpose is to ensure proper and uniform treatment in procedures for determining irregularities. Instructions are a fast and efficient instrument that affects the entire system of management and control systems (SUK) and correct or prevent any errors made by the authorities for the purpose of more efficient treatment. By May 2020, a total of 28 instructions intended for the SUK bodies were issued and over 121 replies, instructions and opinions were issued to the SUC's inquiries, and from July 2019 until the preparation of this preparation of 10 instructions for all SUK bodies and over 49 replies, instructions and opinions.
An overview of certain areas of implementation is given below.

C1. ECONOMY

C1 .1. Enhancing competitiveness and green transition of the economy

Mingor, HAMAG-BICRO and HBOR are responsible for THE implementation OF measures under this component, AS stated above.
All contracting authorities shall apply the public Procurement Act and the subordinate legislation accordingly, as explained in the previous paragraph.
MINGOR, in cooperation with HAMAG-BICRO, will carry out calls for grants to entrepreneurs. Both institutions have significant experience in awarding non-irrecoverable aid, as explained in chapter C.1.1 above. R1 the procedure for awarding the funds shall be laid down in an appropriate legal act on the basis of the existing rules applicable to the OPCC. It provides that the award procedure in relation to the applicable rules for the European Structural and Investment Funds is to be adminstratively simpler in order to ensure the rapid efficient allocation of funds to undertakings for the recovery of the economy, with appropriate application of all relevant principles of public procurement, State aid rules, financial management and control and the prevention of any irregularities.
HAMAG-BICRO implements financial instruments of loans through direct financing (receipt-processing-payment-use) after they are adopted by the Government and the Management Board. Programmes are permanently open, i.e. funds can be used until the date prescribed by the programme or until the utilization of funds.
HAMAG-BICRO implements the financial instrument of the guarantee in cooperation with other financial institutions (banks and leasing companies). Following approval of the programme by the Government and the Board of DIRECTORS, HAMAG-BICRO invites a call for expression of interest in selecting financial institutions within the programme. Financial institutions shall be selected through an objective selection procedure taking into account the general principles of transparency, equal treatment and non-discrimination, in accordance with the ESIF rules and best business and market practices. After the selection of financial institutions, cooperation agreements on the implementation of the programme shall be concluded.
The Croatian Bank for Reconstruction and Development already has developed models of cooperation with commercial banks and other financial intermediaries (leasing companies) and the conclusion of framework agreements on business cooperation both in terms of loan approval, implementation of EU financial instruments but also in terms of

issuing insurance and guarantee policies of the Republic of Croatia. In addition to the model of cooperation with banks and financial intermediaries, HBOR also has existing models for granting direct loans, all in accordance with relevant legislation (including regulations related to good banking practices, prevention of money laundering, state aid, etc.).
As regards equity investments, the implementation of the proposed measures is based on existing models of cooperation with the EIF and private investors.

C1 .2. Energy transition for a sustainable economy

The implementation of the proposed reform will be ensured by THE MORTAR. By 1Q/2021, the MUNIOR will set up a body to monitor the implementation of the programme of revitalisation, construction and digitisation of the energy system and the accompanying infrastructure for decarbonisation of the energy sector which will integrate representatives of the NGO, other state administration bodies necessary for the quick implementation of projects and representatives of companies that will carry out individual investments. The body will be managed by a state official of the ministry, and its main task will be to monitor the implementation of projects and monitor the achievement of certain indicators within the framework of the reform.
Implementation of allocation of necessary funds will be ensured through the bodies of the MANEC, and implementation of individual projects will be carried out at the level of individual company that promotes individual projects within the proposed investments. Companies will ensure transparent public procurement and ensure adequate spending of funds, implementation of selected projects within the framework of reforms and compliance with agreed deadlines, and will systematically inform the body for monitoring the implementation of programmes for revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector that will operate at the Ministry of economy and sustainable development on undertaken activities.

C1 .3. Improving water management and waste management

THE MORTAR is responsible for the water management, it is the holder of water policy and consequently is responsible for the implementation of the water service reform. The implementation body at the national level are Hrvatske vode, whose legal status is a legal entity for water management. Croatian waters are responsible for the implementation of projects for protection against harmful effects of waters, while water-utility projects are implemented by public suppliers of water services in co-operation with MINGOR and Croatian waters. The Ministry of economy and Sustainable Development is responsible for the implementation of the reform together with other stakeholders, the most important being the public suppliers of water services.
The existing mechanisms and capacities for approval and monitoring of implementation in accordance with ALREADY elaborated procedures for EU funds will be used for the implementation of investments that will implement the water management reform under the RDF.
Projects already approved in the programming period 2014-2020 proposed to be based on RDF and other projects prepared for EU funding for the programming period 2014-2020 and 2021-2027, and proposed to be financed through RDF, will be approved and monitored according to established procedures for EU funds established within MINES and Croatian waters.
The remaining proposed investments that have so far been financed exclusively by national funds will be approved by Hrvatske vode in accordance with established

procedures for national financing.
The MINGOR will be responsible for monitoring the progress of implementation of all investments through indicators.
THE MORTAR is responsible for prescribing waste management measures and is accordingly also responsible for the implementation of waste management reform. The implementation body at national level is the Environmental Protection and Energy efficiency Fund which manages the system of collection and processing of certain specific categories of waste. Local self-government units are responsible for the implementation of programmes related to the construction of infrastructure for separate collection of municipal waste.
Monitoring of implementation of measures is carried out through the waste management information system. THE MINGOR implements the coordination of reporting, while the collection, verification and processing of data and the calculation of objectives for reporting purposes shall be carried out in accordance with the methodologies prescribed by delegated and implementing acts and EC/Eurostat guidelines.

C1 .4. Development of a competitive, energy-sustainable and efficient transport system

THE MMPI, responsible for the transport sector, will implement the measures defined by the reform of the development of a competitive, energy-sustainable and efficient transport system. Since the transport portfolio covers several aspects of transport and reforms are necessary in all aspects in order to achieve the set objectives of effective national, regional and local climate-resilient mobility, reform measures will be implemented in all IMPI internal organisational units. For example, the railway infrastructure management and infrastructure managers will implement the railway sector part of the reform, notably by implementing a sectoral policy letter, while the maritime and inland navigation administrations will implement measures to reform maritime affairs and inland navigation. The Directorate responsible for EU funds and strategic planning shall coordinate and monitor the implementation of the measures, as well as the implementation of the investments and direct their implementation in order to avoid the risk of non-implementation.
Furthermore, coordination of individual departments will be necessary for individual measures to be implemented in a timely manner and without duplication of individual activities. For example, the transport and energy sectors are largely linked to the objective of increasing energy sources from renewable sources in the transport sector, which includes the development of infrastructure for alternative fuels, the development of sustainable integrated transport and the encouragement of ship transport to alternative fuels. Coordination of activities and cooperation will also be necessary between the Ministry of Interior and the Ministry of MPAI, in the part of implementation of road safety measures, as well as implementation of fire protection measures.

C1 .5. Improving the use of natural resources and strengthening the food supply chain

THE MINISTRY of AGRICULTURE is responsible for all activities related to the implementation of the reform by improving the use of natural resources and strengthening the food supply chain.
The organizational units of THE MINISTRY of CULTURE, or related agencies, are directly involved in the development of the NPA, and within whose scope measures or projects are proposed.
Paying Agency for Agriculture, Fisheries and Rural Development (PAAFRD) is an

implementing body in terms of publication of public calls and tenders for financing individual projects, selection and approval of submitted projects, contracting and payment, in accordance with achieved results.
Monitoring the implementation of the reform, as a part of THE NPA, is the responsibility of THE MINISTRY of Agriculture, as well as reporting on progress, achieved results and payments to the Government. At the level OF THE MINISTRY of AGRICULTURE, upon approval of THE NPOO by the EC, a coordination for implementation and monitoring OF THE NPOO shall be established, and the members shall be representatives of all the aforementioned bodies. The organizational units of THE MINISTRY of AGRICULTURE and related agencies will be responsible for monitoring the implementation of measures under their jurisdiction, i.e. each individual project within the measure, according to the data submitted by PAAFRD as well as the beneficiaries themselves. From the submitted data, implementation reports will be prepared as well as activity proposals for resolving identified bottlenecks or potential problems in implementation, or possibly necessary amendments to the NPO itself. The described implementation and monitoring system will be interpreted if necessary.

C1 .5. Development of sustainable, innovative and resilient tourism

The implementation of the proposed reform will provide MINTS and will thus manage programmes and projects related to investments proposed in this reform field.
MINTS shall establish by 1Q/2021 a body for monitoring the implementation of each individual activity, with the aim of implementing as quickly as possible the programmes or projects identified through investment measures.
Implementation of allocation of necessary funds will be ensured through THE bodies OF MINTS, and implementation of individual projects will be carried out at the level of individual organizational units of MINTS which will thus be the promoter of individual activities within the proposed investments.
Beneficiaries of proposed investment funds will ensure transparent public procurement in accordance with the public Procurement Act[65] for obliged entities and special rules for non-obliged public procurement, thus taking over the task of adequate spending of funds, implementation of selected projects within the framework of reforms and compliance with agreed deadlines, and will systematically inform the MINE Action Monitoring Authority about undertaken activities.

C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY

C2 .1. Strengthening the capacity to develop and implement public policies and projects

The OPCC's competent managing authority or sectoral competent authorities (MINGOR, SDURDD) will be responsible for the implementation of this reform measure. The measure will be implemented by announcing tenders) for financing the preparation of project-technical documentation as preparation for submitting project applications). Sectoral competent authorities shall cooperate with MRDEUF as OPCC Managing Authority in the preparation and implementation of tenders.

C2 .2. Further improvement of the efficiency of the public administration

In the part related to further improvement of the public administration, measures to improve Croatia and the salary system in the state administration and public services will be organised in co-operation with MRMSOSP as a partner. Other bodies, social partners and other stakeholders will also be involved in the implementation. Within the framework of the measure related to the improvement of the LC (R)SGU system, the participants will be associations and communities of municipalities, towns and counties, and in the part of

65 NN 120/16

digitisation the partner will be the Central State Office for the Development of the Digital Society.
In order to achieve the best results, THE MA (within the framework of the reforms for which it is responsible) will organize reform and project teams at the beginning of 2021, which will invite, in addition to officials from organisational units responsible for a specific area and directly involved in the implementation, external participants concerned by the area as members of the teams, who are experts in precisely this field. In this way, joint ownership of project results and better involvement in implementation and sustainability of results after project completion will be achieved.

C2 .3. Digital transition of society and economy

IN accordance with the Act on the structure and competence of state administration bodies, SDURDD will manage the process of digitisation in all state and public administration bodies; harmonize the policies and objectives of the digitisation process with competent bodies, coordinate and participate in the preparation and supervision of the implementation of strategically important objectives of the digitisation process. Following the above mentioned, SDURDD is the holder of the elaboration of the Digital Croatia Strategy for the period until 2030.
Since digitalisation addresses all departments, implementation will be coordinated through intensive cooperation with other competent public administration bodies and the realisation of an appropriate institutional framework contained in the State information infrastructure Council, working groups for the preparation and implementation of the Digital Croatia Strategy for the period up to 2030 and working groups for the purpose of implementing the reform measures foreseen under the NPOO involving representatives of relevant public administration bodies. Main stakeholders (along with SDURDD) in managing the digital development of the Republic of Croatia are PUMA, MIGOR, MMPI, State Geodetic Administration, MPGI and MRDEUF.

C2 .4. Strengthening the framework for the management of state assets

In accordance with the Act on the structure and scope of the state administration bodies, ministries participate with the ministry competent for managing state property in the management and disposal of shares and business shares of companies that make up state property owned by the Republic of Croatia and with regard to companies that are principally engaged in activities within the field of prescribed competence of individual ministries. With regard to the semi-decentralised model in the field of corporate governance of state-owned companies, MPGI will continue to participate in the processes indicated, including in the implementation of measures to improve corporate governance in state-owned enterprises by auditing and harmonising regulations and practices in accordance with OECD guidelines for corporate governance in state-owned enterprises; strengthening infrastructure and human capacities for the implementation of monitoring of corporate governance in state enterprises and projects, with all other state administration bodies participating in the management and management of shares and business shares of companies that constitute state-owned companies, as well as state-owned it measures.
Regarding the measure, the continuation of privatization of companies owned by the Republic of Croatia through effective reduction of portfolios of companies that are not of special interest to the Republic of Croatia, after the creation of preconditions for sale through restructuring of companies in majority ownership, resolving property rights relations with companies where the same obstacle to sale, is followed by an assessment of the value of majority companies as a basis for sale or the publication of a public invitation to enter a strategic partner, estimate of the value of minority portfolio, and advertising of sales through public bidding, public tendering and stock quotations on a

regulated capital market. Following the implementation of the aforementioned activities, the assumptions for increased advertising of sale of companies from the portfolio managed by THE CERP will be created, which will continue the privatization process of companies owned by the Republic of Croatia and meet the basic objective, i.e. reducing the portfolio of companies owned by the Republic of Croatia which are not of special interest to the Republic of Croatia.

As regards the measure relating to the optimized management of state-owned real estate, the same will include MPGS and state-owned real estate d.o.o. in accordance with the Act on the structure and jurisdiction of State Administration bodies and the Act on State property Management.

C2 .5. Improving the efficiency of the judicial system

The body responsible for the implementation of the measure to improve the efficiency of the judiciary is MPU. Since certain measures and investments are intended to be implemented in several areas, the PUMA will, together with other stakeholders, of which judicial bodies, State Geodetic Administration, Ministry of Culture and Media, financial institutions, SDURDD, City of Zagreb, Judicial Academy, implement and jointly coordinate all activities arising from these measures,

As a part of the sub-component, in order to achieve the best results, the MPI will organize reform and project teams at the beginning of 2021 which will, in addition to officials from organisational units competent for a particular area and directly involved in the implementation, invite external participants to which a particular area relates as members of the teams, and who are experts in that particular field. In this way, joint ownership of project results and better involvement in implementation and sustainability of results after project completion will be achieved (this also refers to part C2 .6).

C2 .6. Strengthening the framework for prevention of corruption

The body responsible for coordinating the implementation of the measure shall strengthen THE framework for PREVENTION of corruption. The Council for the Prevention of corruption, representatives of other public authorities, civil sector, media, academia, representatives of the private sector and social partners within their scope and competences will also participate in the implementation of the reform.

The monitoring of the reform will continue to be carried out by the National Council for Monitoring the implementation of the Anti-corruption Strategy within the Croatian Parliament. Its tasks include: monitoring and monitoring the implementation of the Strategy, monitoring data on occurrences of corruption submitted at its request by the bodies responsible for the implementation of the Anti-corruption Strategy, analysing reports of competent bodies on the implementation of the Anti-corruption Strategy and action plans for the suppression of corruption, evaluating the methods and results of implementation, proposing measures for greater efficiency of the implementation of the Anti-corruption Strategy, encouraging and directing cooperation between the Croatian Parliament and state and other bodies, as well as other factors responsible for the implementation of the Anti-corruption Strategy and submitting to the Croatian Parliament twice a yearly report on its work.

C2 .7. Strengthening the fiscal framework

OVER the past few years, the MFIN has worked intensively to prepare a new budget law. Since this is the most important act of public finances, and since its last adoption has been a number of years and the circumstances have changed significantly, it is necessary to precisely determine the appropriateness of all new provisions before its adoption in order to avoid the need for its rapid change.

Once prepared, the Proposal of the budget Act was published at the public consultation

from 13 March 2020 to 3 April 2020, and at the same time it was sent to local and regional self-government units through the Croatian Community of counties and associations of cities for their opinion.
It is important to note that in October 2017, the Government and the CNB presented a strategy for the introduction of the euro as the official currency in the Republic of Croatia. In the meantime, on July 10, 2020, the Republic of Croatia entered the exchange rate mechanism ERM II and at the same time established close cooperation between the Croatian National Bank and the ECB.
Consequently, and taking into account the safety of Croatia's entry into the euro area, the draft budget Act will be harmonised in that part in the coming months, by adding provisions that should enter into force with the accession of the Republic of Croatia into the euro area.
If the draft budget law is amended to a large extent, it is very likely that it will be republished at a public consultation, after which it will be sent to the Croatian Parliament for first reading in 3q/2021 from a government session. Adoption is expected by the end of 2021, with application from 1 January 2022, i.e. in the budgetary process for the period 2023-2026.

C2 .8. Strengthening the anti-money laundering framework

As part of the reform of strengthening the framework for the prevention of money laundering, THE Croatian Supervisory authorities (CNB, FINANCIAL Inspectorate, HANFA, tax Administration) will continue to cooperate closely in the supervision and monitoring of obliged entities and in the exchange of information with the Office for the Prevention of money laundering (Croatian Financial Intelligence Unit). Namely, the system for the prevention of money laundering and terrorist financing in the Republic of Croatia is not under the jurisdiction of only one institution, but rather a system which legally defines the roles of each stakeholder and their mutual interaction and cooperation, consisting of: (i) preventive bodies - obliged entities referred to in Article 9 Of the Act on the Prevention of money laundering and terrorist financing[66]: banks, savings banks, credit Unions, authorised currency exchange offices, insurance companies, gambling operators, brokers, lawyers, notaries, external accountants, tax advisers and others, (ii) Supervisory authorities - which exercise supervision over obliged entities regarding the implementation of measures for the prevention of money laundering and terrorist financing, implying: CNB, HANFU, Financial Inspectorate, tax Administration and Customs Administration, (iii). The Office for the Prevention of money laundering as a Croatian financial intelligence unit which is a mediation body, on the one hand, between the financial and non-financial sector (banks, etc.), which reports suspicious transactions and law enforcement bodies (police and attorney's offices) to the Office, and courts, on the other hand, (iv) law enforcement authorities - the police conducts police surveys and financial investigations into the criminal offence of money laundering by acting on cases initiated by the Office, by other supervisory bodies and cases initiated on their own initiative. The State Attorney's Office directs the police in the processing of money laundering in cases of the Office and cases of other bodies from the system of prevention of PN/FT, and coordinates the work of other supervisory bodies. (v) Judiciary - Criminal proceedings for the criminal offence of money laundering and confiscation of proceeds for actions initiated by all competent authorities from the system of prevention of PN/FT are conducted in court.
It is important to note that the Office for the Prevention of money laundering is only one link in the chain in the anti-money laundering and terrorist financing system, which can make full contribution only in interactive cooperation with other competent authorities and foreign financial intelligence units in order to prevent the use of the Croatian financial system for money laundering and terrorist financing.
Following the aforementioned, the competence of all supervisory bodies will continue with the implementation of measures to raise awareness among all responsible parties for the implementation of measures through regular education. This means establishing a

66 NN 108/17, 39/19

framework for the continuous training of reporting entities' employees by the end of 2020 and holding an annual conference on the prevention of money laundering and terrorist financing once a year.
Furthermore, in order to continue the joint cooperation, the existing Memoranda of Understanding between the supervisory authorities and the Office for the Prevention of money laundering will be updated by the end of 2020 and work meetings within the Interinstitutional working Sub-Group on supervision will continue. It is a subgroup established in 2011 with the aim of strengthening coordination and exchange of experiences and best practices of the bodies responsible for monitoring the implementation of measures and actions to prevent money laundering and terrorist financing. The sub-group in question was established within the Interinstitutional working Group on the Prevention of money laundering and terrorist financing (MIRS), which includes representatives of 11 institutions and agencies responsible for combating money laundering and terrorist financing: the Office, DORH, Financial Inspectorate, TAX Administration, CUSTOMS Administration, CNB, HANFA, Ministry of Justice and MVEP.
Action Plan for reducing identified risks of money laundering and terrorist financing is also being implemented, containing 13 measures that must be implemented by the end of 2021. By the Government's conclusion of 25 June 2020, public law and other bodies designated by the holders of the respective measures are charged with implementing measures within their competence and reporting annually to the Ministry of Finance on the implemented measures for the previous reporting period.

C3. EDUCATION, SCIENCE AND RESEARCH

C3 .1. Reform of the education system

Five working groups shall be established for the purpose of implementing the reform measures provided for by the NPOO, one for each investment by WORK coordinated by THE MZO. Working groups shall draw up implementation plans containing the elaboration of reform measures and activities and investments in support of the implementation of reforms with corresponding indicators of the achievement of results, time and financial framework of implementation.
By establishing the implementation structure of the National Development Plan for the Education system, the aforementioned working group will fit into the broader implementation structure. This will ensure synergies and efficiency in managing strategic processes.
For monitoring the implementation of the NPOO and the National Plan, a Commission for monitoring the reform of the educational system, a jointly assembled body, will be established.
Implementation plans for reform measures related to pre-tertiary education include cooperation with agencies in the education system and local self-government units that provide information on the existing and necessary infrastructure capacities of educational institutions. Based on the analysis of infrastructure capacities and demographic trends, MZO brings criteria for upgrading and reconstruction of existing and construction of new educational institutions reflecting plans to increase system efficiency. Local self-government units are responsible for preparing conceptual solutions in accordance with the criteria. Upon approval of concept solutions, local self-government units conduct public procurement procedures and ensure timely implementation of construction works. Implementation risks relate to insufficient capacity of construction sector for timely implementation of infrastructure investments. All reforms will be implemented in cooperation with all stakeholders and promptly inform the public about the planned and undertaken steps.
Implementation plans for reform measures related to higher education are drawn up and

implemented by two working groups consisting of MZO employees and experts related to specific areas of reform measures.
The working Group on the Digital transformation of higher Education will draft an action plan based on the recommendations of experts involved in the EC Technical assistance Facility. The task force on the construction, upgrading and reconstruction of student dormitories and educational infrastructure of higher education institutions will draft an action plan based on the analysis of infrastructure capacities and previous investments. Implementation risks relate to the capacities for public procurement implementation and insufficient capacity of construction sector for timely implementation of infrastructure investments.

C3 .2. Raising research and innovation capacity

MZO is responsible for the implementation of the capacity building measure for innovation of the public science and research sector, and cooperation with stakeholders, universities and scientific institutes is necessary for implementation.
The dialogue with stakeholders will define a new funding model through programme agreements that will best contribute to the reform of the scientific research sector. When defining programme agreements, MZO will be guided by the specificities of the Croatian system, best practices of other countries and analysis of the current status and potential of universities and scientific organizations.
Implementation of the new financing model at national level will precede adoption of the legal framework, namely the new Act on Scientific activity and higher Education. Following these assumptions, institutional funding will be allocated to those stakeholders who have accepted the new funding model through programme agreements. These institutions will have to further focus funds on scientific and research activities, strengthen excellence and openness towards the business sector, innovation and social development (incentives for scientific excellence, support for more influential scientific publications, cooperation with the business sector).
The measure also implies an organisational reform of stakeholders in addition to the necessary infrastructure interventions, which increase their functionality and efficiency, in order to be ready to adapt to the implementation of the programme agreements, i.e. to have the preconditions for creating the results on which the new funding model will be based, i.e. to increase their innovation capacities in general. In addition to the implementation of organisational reform, infrastructure investments are planned to enable this. Implementation of organisational reform of universities and scientific institutes will be carried out by them themselves, and MZO will co-ordinate the process.
The regulatory framework for the implementation of the measure relating to the creation of a framework for attracting students and researchers in the STEM and ICT area is a new Act on quality assurance in Science and higher Education in order to adopt a new quality assurance system for doctoral studies and a new Ordinance on the conditions for selection in scientific and scientific-educational vocations.
Such a framework will make career development even better regulated, but can be stimulated by other measures and investments. The attraction of students and researchers in the STEM and ICT area is foreseen by financing necessary for the acquisition of doctoral and postdoctoral training in this field. In addition to qualifications and training, it is necessary to provide young researchers with other conditions. They relate to mobility, the possibility to start-up projects, technical conditions in terms of adequate infrastructure, all of which is covered by investments under this measure. Investments under the measure will be implemented by universities and scientific institutes and coordinated by MZO.
In the part of the reform relating to improving the efficiency of public investments in research and innovation, MZO is in charge of implementation in cooperation with the

Croatian Science Foundation. Amendments to the Croatian Science Foundation Act are therefore envisaged in order to enable the institutional implementation of new programs for the stimulation of research and development. As the body in whose co-jurisdiction financing IRI activities is in, their efficiency is extremely important. External experts will be responsible for carrying out in-depth analysis of the functionality and efficiency of existing programmes and for proposing new ones, and MZO, the Foundation and other agencies of the innovation system are the ones that will allocate funds through the investment to target groups according to the methodology and in the manner established by the new framework.

C4. LABOUR MARKET AND SOCIAL PROTECTION

C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future

The measures under this reform are based on the Labour market Act[67]. The aforementioned measures will be implemented by the CEA as the implementing body MRMSOSP. Conditions and ways of using funds for implementation of measures shall be adopted annually by the Board of Directors of the Croatian Employment Service in accordance with trends in the labour market. The responsibility for meeting the set goals lies with THE MIMSOSP. The implementation of the objectives will be monitored through relevant Eurostat and CBS data. The aforementioned measures will also be part of this MSOSP Implementing Programme for the period 2021-2024. In accordance with the Act on the system of Strategic planning and Development Management of the Republic of Croatia, THE MUMSOSP is obliged to prepare a semi-annual and annual report on programme implementation, through which the implementation of measures will also be actively monitored.

C4 .2. Development and improvement of the pension system

Measures related to the development and improvement of the pension system will be implemented by the Croatian Institute for Health Insurance and MUMSOSP.

Improvement of ICT system of the Croatian Institute for Health Insurance will be monitored through output indicators: introduced new systems for calculating pensions, for keeping registry records and for paying pensions, and implemented education of 425 employees who are trained to provide new or improved services. The digitisation of the archives of the Croatian pension Insurance Institute (eArchives) will be monitored through output indicators: a digital archive management system has been introduced and 110 employees trained to provide new or improved services have been trained. The responsibility for the fulfilment of stated objectives lies with the Croatian Institute for Health Insurance (HZMO) as a user institution within the framework of the project in question. These measures will also be part of the MRMSOSP Implementing Programme for the period 2021-2024.

C4 .3. Improving the social welfare system

Measures aimed at improving the social welfare system will be implemented by THE MIMSOSP in cooperation with other stakeholders in the social welfare system, such as social welfare institutions founded by the Republic of Croatia, social service providers independent of the founder, as well as the local community.

The measure aimed at building homes for the old and the infirm will be implemented through public procurement procedures in LC (R)SGUs where there is a large discrepancy between needs and insured capacities. Priorities will be determined by THE MIMSOSP and will monitor the implementation and achievement of the set indicators.

The measure of prevention of institutionalization and development of community services in support of the deinstitutionalization process will be implemented in cooperation with

67 OG 118/18 and 32/20

THE Social Labour Institute within the MUMSOSP with social welfare centres and service providers in such a way that the priorities will be determined by THE MUMSOSP and monitored implementation and achievement of set indicators. By conducting education and licensing of managers of family legal protection measures and immediate guardians and securing the intentions for their work, i.e. hiring additional professional staff in social welfare centres, family centre branches and service providers who will continue to carry out activities financed by UNICEF in the previous period with the aim of standardization, ensuring necessary, affordable and available services for socially sensitive groups, thus preventing institutionalization.
Improving the infrastructure of social welfare centres, family centres and other social services providers will be implemented through public procurement concessions coordinated and monitored by MRMSOSP.
Digitisation of the system and linking social welfare centres and social services providers will be carried out BY MRMSOSP through the public procurement procedure, and will monitor the achievement of the set indicators.

C5. HEALTH CARE

C5 .1. Strengthening the resilience of the health care system

Improving the efficiency, quality and accessibility of the health care system: Despite the complexity of the task and the need for significant investments, strengthening the health care system is essential in order to be able to deal more successfully with the health and financial challenges of today and the future. Primary health care should be strengthened to fully assume its role as the basis of health and to debit hospitals. To this end, it will be necessary to strengthen the network with additional teams and ensure the financial conditions necessary to achieve coverage across the entire territory of the State. Reducing the number of patients in team care will enable doctors and nurses to work better with patients. Strengthening health centres is an indispensable component of this approach in order to better co-ordinate teams, educate healthcare professionals, take over the largest possible part of administrative tasks, but also directly ensure better availability of health services in the community: nutrition, psychological and pharmaceutical counselling, health promotion and disease prevention programs, palliative care, etc. Also, health centres should take over a part of specialist consultancy health care, which is useful to provide at the primary level through infirmary in which doctors primarily work in hospitals. In order to increase the quality of care, investments in the specialisation of family medicine will need to be increased.
Improving the results of treatment will require much better co-ordination of healthcare providers and integration of care. For this purpose, it will be necessary to operationalize health regions under the leadership of clinical hospital centres and to team connect institutions with redefined categorization and scope of activities and distribution of specific tasks. Additional efforts should be made to develop systemic solutions aimed at patient safety and improving the quality of care. A system in which everyone can do everything without any control is not sustainable and cannot deliver good results. Centres of excellence defined at the national and regional level must become professional treatment holders with the competence of management over other institutions. In the short term, institutions will need to functionally connect with cooperation agreements, and in the medium term through mergers and mergers, which will include the construction of new and conversion of existing capacities. Regardless of the dominant role of hospitals in providing complex therapy, the team approach must be facilitiran by a family doctor who is the only one who can connect all parts of mosaics into a complete picture. For this it will be necessary to implement it solution for planning and coordination of care at the level of individual patients which will enable communication of all involved service providers. Additional attention will need to be paid to the availability of care in communities;

especially in poorly populated areas and islands where telemedicine solutions need to be used more actively.
The systems of the Institute for public Health and Emergency medicine should be further strengthened through better coordination of county institutes under the leadership of national and joint action on resolving public health challenges and emergencies with primary health care and hospitals.
Introduction of a new model of care for key health challenges: establishing a new model of care for key health challenges: cancer, diabetes, cardiovascular and rare diseases is planned through defining and implementing national programmes. They will need to clearly define the organisation of treatment through a national network founded on the basis of health regions, the capital investments needed in equipment, key clinical guidelines and patient pathways that will determine specific treatment steps and acceptable waiting times. Particular emphasis will be placed on monitoring and publishing patients' health outcomes at the level of institutions and regions, including treatment outcomes reported by patients. Better information and easier guidance in patient care will enable the establishment of a web portal for patients, and additional funds will be invested in the research and education of healthcare professionals at all levels of the system.
Introduction of the system of strategic human resource management in health care: Preparation of strategic framework for human resource development from the perspective of demographic changes and reorganization of health care system must define short - and medium-term needs and enable the development of professions with transfer of competencies through educational and training programmes. Human resources management at the institutional level needs to be significantly improved through a career planning and development system, employee evaluation, financial reward for excellence and an impartial system of dispute mediation. The material position of healthcare professionals needs to be further improved in order to prevent emigration to richer EU countries, and this should also contribute to providing flexible working conditions for interested parties. Additional investment should be provided for continuous education programmes which must, among other things, provide opportunities for training at top institutions abroad in order to improve the lifelong development of professional competencies.
Ensuring financial sustainability of the health care system*:* Improving governance at all levels is a basic precondition for financial sustainability of the health care system. For this purpose, guidelines for financial and clinical management of health care institutions will be prepared and it solutions will be implemented which will enable monitoring and evaluation of the success of management work. Also, it will be necessary to establish a system for determining real prices of services through a cost laboratory on a sample of health care institutions. Payment models will strongly reward quality and good health outcomes, and the system of pragmatic and transparent assessment of health technologies will ensure that we spend as much on equipment, medicines and medical devices as we have with the best possible results. Finally, considerable efforts will also need to be made to improve the quality and rationalisation of non-health activities in hospitals: procurement and washing of textiles, cleaning, nutrition and maintenance. Functional integration of hospitals reduces, that is, redistribution of hospital activities and reduction of acute stationary capacities with strengthening and development of day hospitals/day surgeries. The measure to achieve this goal is to adopt a new network of public health services.
Strengthening control mechanisms in the hospital system and systematic controls on monitoring financial results will improve cost control, as well as transfer of fiscal responsibility to lower structures within hospital institutions. The role of government representatives in the administrative councils of hospitals established by local or regional self-government units will be strengthened. Human capacities will be strengthened within the Ministry of Health, which will, within the framework of expert services, analyse natural

and other indicators through the Central Steering system (CUS), with the aim of ensuring the financial sustainability of the system.

C6. *INITIATIVE*: RENOVATION OF BUILDINGS

C6 .1. DECARBONISATION OF BUILDINGS

MPGI will manage projects related to the reconstruction of buildings with a horizontal measure to reinforce earthquake and fire resistance. The bodies responsible for project implementation are MPGANS that will approve and monitor projects according to established procedures for EU funds established within THE MPGS. The implementation body at the national level for the ESCO model is the Agency for mediation in transactions of real estate (APN) based on the Energy efficiency Act.[68]

The body responsible for the implementation of the investment Reconstruction of buildings damaged by the earthquake with energy renovation for public buildings are the owners of public buildings (e.g. JLPR (S), central state administration bodies, etc.), and for private buildings is the Fund for the Reconstruction of the City of Zagreb, Krapina-Zagorje and Zagreb Counties based on the Act on the Reconstruction of earthquake-damaged buildings in the City of Zagreb, Krapina-Zagorje County and Zagreb County[69].

The body responsible for the implementation of the investment Energy renovation of buildings with the status of cultural property with the horizontal measure of increasing the resistance from earthquakes and fires is THE MKM.

11. Reporting

General

In order to better coordinate the implementation of planned activities and minimise the risk of delays in implementation in accordance with the previously mentioned Decision on the coordination of activities within the framework for economic management of the EU, the chairman of the Interdepartmental working Group meets with coordinators for the European Semester on a weekly basis in order to discuss the dynamics of implementation and possible implementation difficulties. The Interdepartmental working Group shall meet on a monthly basis. Namely, ministries, other central state administration bodies and other relevant institutions which are holders of the implementation of measures and activities are obliged to report on all activities to the chairman of the Interdepartmental working Group on a monthly basis. At the closed session of the Government, the president of the Interdepartmental working Group informs members of the Government (most of whom are members of the Interdepartmental working Group) on the implementation of reform measures and activities, including investments. Every six months a written report shall be submitted to the Government on progress in the implementation of economic policy measures, including measures for economic recovery and measures to achieve the objectives of the Europe 2020 strategy.

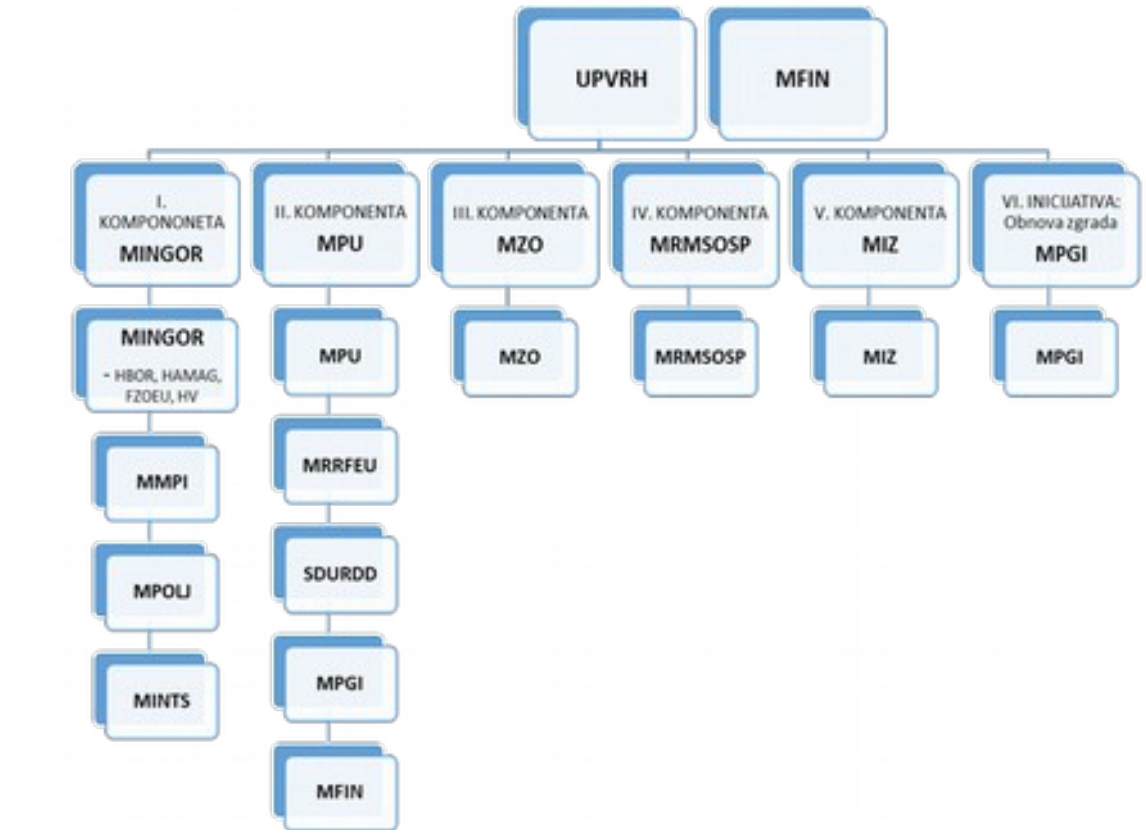
12. Payment, control and audit

The NPOO management and control system was established on the basis of components and subcomponents. It includes the Office of the Prime Minister, Ministry of Finance, competent ministries for individual components and subcomponents, and competent agencies for implementation in component I.

Management and control system NPOO

68 OG 127/14, 116/18 and 25/20

69 NN 102/20



Source: Ministry of Finance

The Office of the Prime Minister (UPSTREAM) and the Ministry of Finance (MFIN) are in charge of the overall coordination and implementation of NPOO.

Ministries responsible for component and component are responsible for the implementation of reforms and investments within their competence.

All bodies involved in the implementation of NPOO have long-term experience in the implementation of EU funds, and are familiar with the principles of management and use of funds.

THE UPSTREAM and THE MFIN, in cooperation with competent ministries, will prepare guidelines for the implementation of NPOO, which will detail all aspects of the implementation and monitoring of NPOO. Implementation will be based on national rules applicable to the Republic of Croatia for the use of budgetary funds or implementation of EU projects.

A single monitoring model will be developed which will include indicators on progress in implementation of reforms and investments, and will be based on data on implementation of contracted projects until the reforms themselves. The competent ministries will be required to provide all the information. Progress in implementation will be monitored monthly at the level of the Government of the Republic of Croatia.

In the context of project beneficiaries, the competent ministries shall, when awarding and paying costs, make all necessary checks to prevent corruption, fraud, conflicts of interest and double financing. In this respect, data on all users will be available on the existing MRDEUF platforms.

RDF funds will be managed centrally in accordance with national rules for planning and implementation of expenditures from the state budget.

Funds from the RDF will be paid to the state budget and used through the State Treasury system to pay expenditures incurred in the implementation of reforms and investments of the NPOO.

Expenditures for the implementation of reforms and investments will be planned in the financial plans of the competent ministries in accordance with the dynamics of implementation.

The competent ministries shall carry out the control of the intended and lawful use of funds.

The Ministry of Finance will apply for EC payment. The basis for the preparation of payment requests will be the reports of the heads of competent ministries confirming progress in the implementation of reforms and the achievement of progress indicators, confirming that expenditure controls have been carried out. BASED on additional data verification, the MFIN will prepare a payment request and submit it to the EC.

Regarding audits, expenditures of the State budget are subject to regular annual audits of the State Audit Office. The competent ministries shall report on all findings and recommendations relating to expenditures for reforms and investments falling within their competence.

IV. PART: TOTAL IMPACT

3. Strengthening economic and social resilience

The crisis triggered by the CIVIL pandemic -19 has shown that hard-achieved achievements in economic policy can be quickly reversed, especially in a situation of relatively low resilience of the overall economy. During the first nine months of 2020, Croatia's GDP dropped by 8.8% from the same period last year, one of the most pronounced reductions in economic activity across the EU. At year-round level, GDP is expected to drop by about 8%, which will also lead to the reversal of multi-year positive trends in the labour market. Therefore, the unemployment rate could increase to over 9%, and the already high share of people at risk of poverty or social exclusion would start to rise again. These developments reflect to a large extent the unfavourable structure of the Croatian economy and the high share of tourism and related activities, which have also suffered the strongest blow of the crisis globally.

In order to mitigate the impact of the CIVIL-19 pandemic, the government reacted quickly and in a targeted manner. Two emergency packages were approved in March and April this year to (i) protect jobs and income, with a strong focus on vulnerable groups and (ii) provide liquidity for businesses, including SMEs most affected by the crisis. The cost of these packages was then estimated at 15% of GDP. The measures were later adapted to respond promptly to the effects of the second wave of crisis and to support the most affected entrepreneurs and those who had to temporarily stop working through decisions of national authorities. These measures, together with a sharp drop in tax revenues due to the economic downturn, are expected to lead to a fiscal deficit of around 7% of GDP in 2020, and public debt could reach 87.3% of GDP, the highest level in the country's history. It should be noted that prudent fiscal policy management in the period 2017-2019. The Republic of Croatia achieved a surplus of general government, and public debt decreased much faster than required by the Stability and growth Pact rules. Although the fiscal cost of the measures introduced is relatively high, it is estimated that without them the economy would experience a contraction of more than 15% and unemployment would increase to more than 20%, which would annul the poverty reduction process.

The basic scenario, which does not include an increased inflow of EU funds, including the recovery and Resistance Fund, is expected to start economic recovery next year because the pandemic could be put under control in the first half of the year, after vaccination of a large number of Croatian and other EU countries. GDP growth of 5% is expected with a strong recovery in the export of services and personal consumption and a stronger investment. Economic recovery should help stabilise public finances and public debt should be falling again. However, returning to the levels of household consumption and arrivals of pre-pandemic tourists are unlikely in 2021 and would only be 2023. GDP could reach the level of 2019. Negative risks still prevail, since there is a great uncertainty about the beginning of mass vaccination in the country.

Croatia'S CEILING sets ambitious but achievable targets in terms of reforms and investments, all in order to speed up recovery and strengthen the country's ability to cope with future unfavourable shocks, with less economic and social costs. The government is aware that the country's economic resilience is influenced by various institutional, economic and social factors. They range from structural characteristics of the economy such as the

sectoral structure, diversification and complexity of exports to specific issues concerning labour and product market regulations and institutional quality and efficiency of the state as providers of services and regulators. To this end, THE DRAFT includes a comprehensive structural reform plan key to the country's long-term development, which, together with major public and private sector investments, should help achieve the stated development goals.

Reform efforts, coupled with increased investment, are expected to support faster economic growth, employment growth and poverty reduction. A strong focus is placed on green and digital infrastructure investments to ensure long-term sustainability of growth. It is important to stress that the impact of demand on economic growth is expected to dominate throughout the programme. However, the reforms to be implemented over the next six years are expected to have a long-term beneficial impact on potential growth. Science, education and innovation reforms will strengthen the quality of human capital over the long term. On the other hand, improving the administrative capacity of public policy makers, strengthening the judiciary and reducing the presence of the state in the economy should affect the increased mobility of production factors and lead to better allocative efficiency of the economy. Together, these reforms should lead to strengthening overall factor productivity as the only long-term sustainable source of growth.

13. Comparison with the baseline investment scenario

In the second step of the NPOO preparation, priorities will be determined among the investments currently included in the Plan. This will enable us to simulate in detail the macroeconomic and fiscal effects of the entire programme and compare it with the basic scenario. Therefore, tables 4a, 4b and 5 will be prepared and submitted with the second iteration of the plan.

CONCLUSION

The Croatian economy took more than a decade to recover from the effects of the global financial crisis. It was only in 2019 that the economy returned to the 2008 level of production, and as early as 2020 the civil-19 pandemic caused economic and social crisis and led to an expected GDP decrease of more than 8%. The crisis reiterated the key structural weaknesses of the domestic economy, as well as the need to improve the quality of institutions and public policies. Therefore, a comprehensive and balanced reform and investment package presented in this plan is essential in order to stimulate faster recovery, but also raise potential growth rates in the long run and ensure its inclusiveness and sustainability. Only in this way can Croatia accelerate convergence towards higher income levels and ensure a better standard of living for its population. The government has recognised the key areas of intervention necessary to raise the overall factor productivity rate, the available quantity and quality of human capital and achieve an adequate level and structure of capital accumulation. Harmonized reforms and investments grouped into five components and one initiative will be accompanied by conscious efforts to achieve inclusive growth of all social groups and all geographic areas and to preserve the country's natural capital for future generations.

The lagging behind in the growth of total factor productivity in relation to Central and Eastern European countries is primarily associated with the unfavourable structure and low alocative efficiency of the economy, insufficient efficient judiciary and public administration in the implementation of public policies, high presence of the state in the economy and excessive Regulation of individual sectors. Accordingly, the reform efforts of this investment in the coming period will focus on addressing these challenges. The government's top priority and the basis for future development is to continue strengthening public policies in the judiciary with increased digital transition, investing in human resources and physical infrastructure, with the aim of significantly increasing the efficiency of the judiciary in the form of shorter court proceedings. Furthermore, the new legislative framework and increased use of digital technologies should help raise the efficiency of public administration, while the new coordination mechanism will help speed up public policies. Territorial fragmentation in the provision of public services at the local level will be reduced through functional merger of local and regional self-government units. In addition, the continuation of privatisation of portfolios of state-owned enterprises while improving corporate governance in public enterprises of special state interest in accordance with best practices should improve alocative efficiency in the economy and support higher overall growth rates. These reforms will create an environment conducive to strengthening the private sector, and the most productive companies and high-growth enterprises will be further supported through grants (branches) and guarantee schemes.

In addition, insufficient labour force and inconsistency between the needs of the economy and the education system have increasingly become a limiting factor of growth in recent years. Croatia faced labour shortages in both labour intensive and high-tech sectors. Ageing the population, an exchange of short life expectancy without health problems, and unfavourable migration movements have only further highlighted these challenges. The government is therefore determined to reform active labour market policies and to promote higher employment rates by facilitating access to adult education. At the same time, the reform of the education system, which is crucial to the country's long-term development, will strive to achieve more favourable outcomes of the education process, while raising the

quality and relevance of vocational and study programmes will ensure compliance with the needs of the labour market. Furthermore, greater attention will be paid to connecting the scientific community and the economy in order to enable increased investment in research and development from the business sector through greater availability of research results and infrastructure. Finally, raising the quality of human capital requires adequate healthcare. This requires overall reform of the healthcare system through strengthening prevention and health care especially in the field of cardiovascular diseases and malignancies with high mortality. At the same time, rationalising the hospital network and expanding the scope of the public procurement system should lead to cuts in health care costs and significant progress in achieving its financial sustainability.

As for capital accumulation, it is expected that public investments in the coming period will generate higher growth rates while at the same time strengthening the growth potential of the entire economy. In the past two decades, Croatia has significantly raised the quality of its road infrastructure through major investments, while in the coming period investments will be directed towards more environmentally friendly modes of transport, water management, waste management and the development of energy infrastructure and energy renovation of buildings, including those affected by earthquakes. At the same time, the development of digital infrastructure and the implementation of digital transition of the public and private sectors will positively affect the overall productivity of the economy.

The government is aware that it is an extremely ambitious reform and investment plan. However, Croatia is in a good position to make significant progress on several fronts over the next decade. In the past period, the government has demonstrated that it can achieve macroeconomic and financial stability, and access to EU funds, including the recovery and resilience mechanism and the perspective of joining the eurozone and the Schengen area in the near future, create new opportunities for Croatia.

ANNEXES

Annex 1 Green and digital impact

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C1. ECONOMY								
C1 .1. Enhancing competitiveness and green transition of the economy								
C1 .1. R1 Strengthening competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies								
C1 .1. R1-I1 non-performing investments in the production and technological capacities of enterprises	40%	40%	n/a	yes!	yes!	40%	40%	MINGOR
C1 .1. R1-I2 support for liquidity and investment investments of micro, small and medium-sized enterprises in the form of loans for economic recovery and fostering digital and green transition	40%	40%	022	yes!	40%	40%	40%	HAMAG-BICRO
C1 .1. R1-I3 Mezzanine Financial Instrument loan for small business entities for economic recovery and fostering digital and green transition	40%	40%	022	yes!	40%	40%	40%	HAMAG-BICRO
C1 .1. R1-I4 support for liquidity and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies	40%	40%	022	yes!	40%	40%	40%	HAMAG-BICRO
C1 .1. R1-I5 Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects	100%	100%	002, 010, 015, 016, 021-034, 049	yes!	yes!	yes!	yes!	HBOR
C1 .1. R1-I6 RRF “Umbrella” guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.	40%	40%	002, 010, 015, 016, 021-034, 04	yes!	yes!	yes!	yes!	HBOR
C1 .1. R1-I7 RRF more favourable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of financing for HBOR + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes	40%	40%	002, 010, 015, 016, 021-034, 042	yes!	yes!	yes!	yes!	HBOR
C1 .1. R1-I8 Fostering the internationalisation of the economy of the Republic of Croatia through strengthening the guarantee fund for export insurance and export credit financing activities	40%	40%	002, 010, 015, 016, 021-034,	yes!	yes!	yes!	yes!	HBOR

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
			047					
C1 .1. R1-I9 Investment in equity and quasi-equity financing instruments (PE)	40%	40%	002, 010, 015, 016, 021-034, 044	yes!	yes!	yes!	yes!	HBOR
C1 .1. R1-I10 Strengthening equity activities in the area of RBI - investment in regional fund for technology transfer	40%	40%	002, 010, 015, 016, 021-034, 046	yes!	yes!	yes!	yes!	HBOR
C1 .1. R2 increasing the competitiveness of the economy by strengthening the development of innovation								
C1 .1. R2-I1 Fostering investments in research, development and innovation	40%	40%	001,002,004 ,005,007,00 8,018,019,0 20,021	yes!	yes!	40%	40%	HAMAG-BICRO
C1 .1. R2-I2 increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation	20%	0%	004, 005	yes!	40%	20%	40%	MINGOR
C1 .1. R2-I3 establishment and implementation of activities of national digital innovation centres (DIH and EDIH)	0%	0%	n/a	n/a	100%	0%	100%	MINGOR
C1 .1. R3 further improvement of the business environment								
C1 .1. R3-I1 implementation of measures for administrative and para-fiscal relief of the economy	0%	0%	011	YES!	100%	20%	100%	MINGOR
C1 .1. R3-I2 improving the system of economic impact assessment	0%	0%	011	YES!	100%	20%	100%	MINGOR
C1 .1. R3-I3 Creating a support system for investments and internationalization of business Croatia	0%	0%	011	YES!	100%	0%	100%	MVEP
C1 .1. R4 Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation								
C1 .1. R4-I1 Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epidemic 19	0%	0%	20	n/a	40%	0%	40%	MKM
C1 .1. R4-I2 Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and by developing modernised production capacities for new content	40%	40%	20	n/a	100%	40%	100%	MKM

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C1 .1. R4-I3 programmes for stimulating media literacy, investing in quality journalism and strengthening independent media	40%	40%	12	n/a	100%	40%	100%	MKM
C1 .2. Energy transition for a sustainable economy								
C1 .2. R1 decarbonisation of the energy sector	100%	40%	026, 032, 033, 034, 049, 055, 077, 145a	yes!	40%	100%	40%	MINGOR
C1 .2. R1-I1 Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector	100%	40%	026, 032, 033, 034, 049, 055, 077, 145a	yes!	40%	100%	40%	MINGOR
C1 .2. R1-I2 Fostering energy efficiency, heating and renewable energy sources for decarbonising the energy sector	100%	40%	032	yes!	0%	100%	0%	MINGOR
C1 .2. R1-I3 use of hydrogen and new technologies	100%	40%	027, 028, 031, 033, 073, 077	yes!	0%	100%	0%	MINGOR
C1 .2. R1-I4 Biofuels for the production of advanced Sisak biofuels	100%	40%	077	yes!	0%	100%	0%	MINGOR
C1 .3. Improving water management and waste management								
C1 .3. R1 implementation of water management programmes								
C1 .3. R1-I1 Programme for Development of public waste water drainage	0%	100%	039, 041	yes!	n/a	100%	40%	MINGOR
C1 .3. R1-I2 Programme for Development of public water supply	0%	100%	039, 041	yes!	n/a	100%	40%	MINGOR
C1 .3. R1-I3 disaster risk reduction Programme in the water management sector	40%	100%	40	yes!	n/a	40%	0%	MINGOR
C1 .3. R2 implementation of projects for sustainable waste management								
C1 .3. R2-I1 waste disposal reduction Programme	0%	100%	042, 044	yes!	n/a	100%	40%	MINGOR
C1 .3. R2-I2 Rehabilitation Programme for closed landfills and locations contaminated by hazardous waste	0%	100%	42	yes!	n/a	100%	40%	MINGOR
C1 .4. Development of a competitive, energy-sustainable and efficient transport system								
C1 .4. R1 Road sector reform	40%	0%	63	yes!	100%	40%	100%	MMPI
C1 .4. R1-I1 electronic toll collection system	40%	0%	63	yes!	100%	40%	100%	MMPI
C1 .4. R1-I2 Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)	0%	0%	59	yes!	n/a	0%	0%	MMPI

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C1 .4. R1-I3 Road from Kasttel Kambelovac to Vučevica	0%	0%	58	yes!	n/a	0%	0%	MMPI
C1 .4. R2 Railway sector reform	0%	40%	067-069	yes!	n/a	40%	0%	MMPI
C1 .4. R2-I1 Construction of the existing and construction of the second track on the long Selo-Novska section, Subsection Kutina-Novska (Phase D)	0%	40%	67	yes!	n/a	40%	0%	MMPI
C1 .4. R2-I2 modernisation of the M604 Elder-Knin-Split railway	0%	40%	068	yes!	100%	40%	100%	MMPI
C1 .4. R2-I3 Railway infrastructure Reconstruction Project on the line R201 and R202 on the section Cakovec-Varazdin-Koprivnica-Pitomaca	0%	40%	069	yes!	n/a	40%	0%	MMPI
C1 .4. R2-I4 Reconstruction of the existing Zadar-Knin railway	0%	40%	068	yes!	n/a	40%	0%	MMPI
C1 .4. R2-I5 removal of “bottlenecks” on railway infrastructure	0%	40%	069	yes!	n/a	40%	0%	MMPI
C1 .4. R2-I6 modernisation of the node Zagreb	0%	40%	067	yes!	100%	40%	100%	MMPI
C1 .4. R2-I7 Construction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border	0%	40%	067	yes!	n/a	40%	0%	MMPI
C1 .4. R3 Maritime and inland navigation reform	40%	0%	080-083	yes!	100%	40%	100%	MMPI
C1 .4. R3-I1 Programme for the modernisation of ports open to public transport	40%	0%	081	yes!	n/a	40%	0%	MMPI
C1 .4. R3-I2 Construction of a specialized energy link in the port of Ploče	40%	0%	080	yes!	n/a	40%	0%	MMPI
C1 .4. R3-I3 Construction and reconstruction of public utilities	40%	0%	081	yes!	n/a	40%	0%	MMPI
C1 .4. R3-I4 Project of expansion and deepening of the waterway attractive draught	0%	0%	n/a	yes!	n/a	0%	0%	MMPI
C1 .4. R3-I5 Reconstruction of the search and rescue fleet	0%	0%	n/a	yes!	n/a	0%	0%	MMPI
C1 .4. R3-I6 purchase/construction of passenger ships for coastal line traffic	40%	0%	080-081	yes!	n/a	40%	0%	MMPI
C1 .4. R3-I7 Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increased safety of navigation	40%	0%	082-083	yes!	n/a	40%	0%	MMPI
C1 .4. R3-I8 Reconstruction of stocks from the special risk of the Sava River waterway (from Račinovac to Sisak)	40%	0%	082-083	yes!	n/a	40%	0%	MMPI
C1 .4. R3-I9 Reconstruction of stocks from the special risk of the river Drava waterway from rkm 0 to rkm 12	40%	0%	082-083	yes!	n/a	40%	0%	MMPI
C1 .4. R4 improving the public transport system	100%	40%	073, 076, 077	yes!	100%	100%	100%	MMPI
C1 .4. R4-I1 purchase of alternatively powered vehicles	100%	40%	073, 074	yes!	n/a	100%	0%	MMPI
C1 .4. R4-I2 Modernisation of tram infrastructure	100%	40%	073, 074	yes!	n/a	100%	0%	MMPI
C1 .4. R4-I3 Modernisation of bus stations	100%	40%	073, 076	yes!	100%	100%	100%	MMPI

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C1 .4. R5 traffic greening	40%	0%	084	yes!	100%	40%	100%	MMPI
C1 .4. R5-I1 Modernisation and greening of infrastructure at Zadar Airport	40%	0%	084	yes!	100%	40%	100%	MMPI
C1 .4. R5-I2 Greening and digitization of Pula Airport	40%	0%	084	yes!	100%	40%	100%	MMPI
C1 .4. R5-I3 Construction of passenger building at Osijek Airport	40%	0%	084	yes!	100%	40%	100%	MMPI
C1 .5. Improving the use of natural resources and strengthening the food supply chain								
C1 .5. R1 setting up a logistics infrastructure network to strengthen the production chain in the fruit and vegetables sector	40%	40%	145a	yes!	40%	40%	40%	MPOLJ
C1 .5. R1-I1 Construction and equipping of logistically distributed fruit and vegetables centres	40%	40%	145a	yes!	40%	40%	40%	MPOLJ
C1 .5. R2 improvement of the system for restructuring agricultural land and land consolidation	40%	0%	143	yes!	40%	40%	0%	MPOLJ
C1 .5. R2-I1 Land consolidation	40%	40%	143	yes!	40%	40%	40%	MPOLJ
C1 .5. R2-I2 Programme for permanent monitoring of the state (monitoring) of agricultural land	40%	100%	143a	yes!	40%	40%	100%	MPOLJ
C1 .5. R3 Digital transformation of agriculture	0%	40%	011	yes!	100%	40%	100%	MPOLJ
C1 .5. R3-I1 Digital transformation of public services in agriculture	0%	0%	011	yes!	100%	0%	100%	MPOLJ
C1 .5. R3-I2 smart farming	0%	40%	011	yes!	100%	0%	100%	MPOLJ
C1 .5. R3-I3 traceability system	0%	0%	011	yes!	100%	0%	100%	MPOLJ
C1 .5. R4 improvement of food donation system	0%	40%	127	yes!	40%	40%	40%	MPOLJ
C1 .5. R4-I1 infrastructural equipping of food banks and intermediaries in the food donation chain	0%	0%	127	yes!	0%	0%	0%	MPOLJ
C1 .6. Development of sustainable, innovative and resilient tourism								
C1 .6. R1 Investments in increasing the resilience and competitiveness of the tourism economy	40%	40%	n/a	yes!	40%	40%	40%	MINTS
C1 .6. R1-I1 diversification and specialization of Croatian tourism through investments in the development of health and sports tourism	40%	40%	10	yes!	40%	40%	40%	MINTS
C1 .6. R1-I2 changing the quality of the tourist offer by strengthening the competitiveness of SMEs	40%	40%	16, 108	yes!	40%	40%	40%	MINTS
C1 .6. R1-I3 Strengthening the capacity of the system for resilient and sustainable tourism	40%	40%	95	yes!	40%	40%	40%	MINTS

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY								
C2 .1. Strengthening the capacity to develop and implement public policies and projects								
C2 .1. R1 effective and efficient coordination and management of the strategic planning system								
C2 .1. R1-I1 Strengthening the capacity of the Network of Coordinators for Strategic planning at national and regional level to formulate and implement public policies and projects	0%	0%	n/a	yes!	n/a	n/a	n/a	MRDEUF
C2 .1. R1-I2 introduction of evidence-based public policy preparation and communication instruments for public policies	0%	0%	n/a	yes!	40%	n/a	40%	MRDEUF
C2 .1. R2 Strengthening capacities for preparation and implementation of EU projects								MRDEUF
C2 .1. R2-I1 ensuring assistance to beneficiaries in the preparation of tender project-technical documentation	0%	0%	n/a	yes!	n/a	n/a	n/a	MRDEUF, MIGOR, SDURDD
C2 .2. Further improvement of the efficiency of the public administration								
C2 .2. R1 Strengthening and empowering human resources	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .2. R1-I1 centralised selection system	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .2. R1-I2 Development of Digital competences of Officials and Officials	n/a	n/a	n/a	n/a	2%	n/a	2%	PAM, SDURDD!
C2 .2. R1-I3 e-State Experts exam	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .2. R2 organisational models in the public administration	n/a	n/a	n/a	n/a	40%	n/a	40%	RAMP
C2 .2. R2-I1 Development of the HRM system for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services	n/a	n/a	n/a	n/a	40%	n/a	40%	RAMP
C2 .2. R2-I2 introduction of a model for hybrid access to the workplace – smart working	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .2. R3 smart PA — further optimization and digitization of processes	n/a	n/a	n/a	n/a	40%	n/a	40%	RAMP
C2 .2. R3-I1 Digitalisation of public administration procedures	n/a	n/a	n/a	n/a	2%	n/a	2%	RAMP
C2 .2. R3-I2 establishment of single administrative posts — YUM (Phase 1 and 2)	n/a	n/a	n/a	n/a	40%	n/a	40%	PAM, SDURDD!
C2 .2. R3-I3 establishment of digital infrastructure and public administration services by creating a conservation base system	n/a	n/a	n/a	n/a	50%	n/a	50%	MK

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C2 .2. R3-I4 improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archive network	n/a	n/a	n/a	n/a	50%	n/a	50%	MK
C2 .2. R4 functional and sustainable local self-government	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .2. R4-I1 further optimisation and decentralisation of LC (R)SGU through support for functional mergers	n/a	n/a	n/a	n/a	n/a	n/a	n/a	RAMP
C2 .2. R4-I2 further optimisation and decentralisation via e-services of local self-government and further digitalisation of public services	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .3. Digital transition of society and economy								
C2 .3. R1 Digital Croatia Strategy and strengthening interinstitutional cooperation and coordination for a successful digital transition of society and economy	0%	20%	011	yes!	100%	20%	100%	SDURDD
C2 .3. R2 improving interoperability of information systems	0%	20%	011	yes!	100%	20%	100%	SDURDD, project holders
C2 .3. R3 Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies	0%	20%	011	yes!	100%	20%	100%	SDURDD, project holders
C2 .3. R4 Strengthening connectivity as a basis for digital transition of society and economy	0%	20%	051, 055	yes!	100%	20%	100%	MMPI, MRDEUF, MINISTRY OF INTERIOR, MPGS
C2 .4. Strengthening the framework for the management of state assets								
C2 .4. R1 improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD guidelines on corporate governance in state-owned enterprises	n/a	n/a	n/a	n/a	40%	n/a	40%	MPGI
C2 .4. R2 Strengthening infrastructure and human capacities for the implementation of monitoring of corporate governance in state enterprises and projects	n/a	n/a	n/a	n/a	40%	n/a	40%	MPGI
C2 .4. R3 continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of the portfolio of companies not of special interest to the Republic of Croatia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	CERP
C2 .4. R4 Optimization of real estate management in state ownership	n/a	40%	n/a	n/a	20%	n/a	20%	MPGI

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C2 .5. Improving the efficiency of the judicial system								
C2 .5. R1 Fostering the digitisation of the judiciary through process optimisation and digital transition	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .5. R1-I1 Strengthening IT infrastructure in the justice sector	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .5. R1-I2 improvement of cadastre and land registry system	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .5. R1-I3 implementation of the e-enforcement system in the judicial sector	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .5. R1-I4 implementation of the digital e-archive system in the judicial sector	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .5. R1-I5 improvement of the bankruptcy framework	n/a	n/a	n/a	n/a	100%	n/a	100%	RAMP
C2 .5. R2 transition to an agile system of planning investments in judicial infrastructure	40%	100%	026, 143	yes!	n/a	40%	n/a	RAMP
C2 .5. R2-I1 implementation of the Design Guidelines in accordance with the functional reorganisation of the court network	40%	100%	026, 144	yes!	n/a	40%	n/a	RAMP
C2 .5. R2-I2 Project and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions	40%	100%	026, 143	yes!	n/a	40%	n/a	RAMP
C2 .5. R2-I3 implementation of energy efficiency measures for the reconstruction of outdated judicial facilities	40%	100%	026, 143	yes!	n/a	40%	n/a	RAMP
C2 .6. Strengthening the framework for prevention of corruption								
C2 .6. R1 drafting a new national strategic framework in the field of anti-corruption	n/a	n/a	n/a	n/a	40%	n/a	40%	RAMP
C2 .6. R1-I1 support for achieving the objectives of the Anti-corruption Strategy for the period 2021-2030	n/a	n/a	n/a	n/a	40%	n/a	40%	RAMP
C2 .6. R1-I2 support for efficiency in fighting corruption and organised crime	40%	100%	026, 143	yes!	n/a	40%	n/a	MINISTRY OF INTERIOR
C2 .7. Strengthening the fiscal framework								
C2 .7. R1 improving fiscal planning and reporting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	MFIN
C2 .8. Strengthening the anti-money laundering framework								
C2 .8. R1 raising awareness of the need to prevent money laundering	n/a	n/a	n/a	n/a	n/a	n/a	n/a	MFIN
C2 .8. R2 Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities	n/a	n/a	n/a	n/a	n/a	n/a	n/a	MFIN
C2 .8. R3 implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing	n/a	n/a	n/a	n/a	n/a	n/a	n/a	MFIN

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C3. EDUCATION, SCIENCE AND RESEARCH								
C3 .1. Reform of the education system								
C3 .1. R1 educational system structural reform								
C3 .1. R1-I1 Construction, upgrading and reconstruction of preschool institutions	100%	40%	085, 026	yes!	n/a	n/a	n/a	MZO
C3 .1. R1-I2 Construction, upgrading and reconstruction of primary schools for the purpose of one-purpose work and whole-day instruction	100%	40%	086, 026	yes!	100%	100%	100%	MZO
C3 .1. R1-I3 Construction, upgrading and reconstruction of secondary schools and pupils' homes	100%	40%	088, 026	yes!	40%	40%	40%	MZO
C3 .1. R2 Modernisation of higher education								
C3 .1. R2-I1 Reconstruction and expansion of student dormitories and accompanying sports infrastructure	100%	40%	087, 026	yes!	40%	40%	40%	MZO
C3 .1. R2-I2 Digital transformation of higher education	0%	0%	087, 003, 006, 051, 055	yes!	100%	100%	100%	MZO
C3 .1. R2-I3 Reconstruction and expansion of educational infrastructure of higher education institutions	100%	40%	087, 026, 003, 006	yes!	n/a	n/a	n/a	MZO
C3 .2. Raising research and innovation capacity								
C3 .2. R1 Reform and capacity building for public research sector innovations								
C3 .2. R1-I1 developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development	0%	0%	n/a	yes!	0%	0%	0%	MZO
C3 .2. R1-I2 Strengthening institutional capacities of universities and research institutes for innovation	40%	40%	003	yes!	0%	0%	0%	MZO
C3 .2. R2 Creating a framework for attracting students and researchers in STEM and ICT areas								
C3 .2. R2-I1 Development of an incentive model for career advancement of researchers	0%	0%	n/a	yes!	0%	0%	0%	MZO
C3 .2. R2-I2 enabling conditions for strengthening students' and researchers' skills and conducting top scientific research in STEM and ICT areas	40%	40%	003, 006, 009, 016, 018	yes!	40%	40%	0%	MZO
C3 .2. R3 improving the efficiency of public investments in research and innovation								
C3 .2. R3-I1 introduction of a more functional programme framework for project financing of research, development and innovation	0%	0%	n/a	yes!	0%	0%	0%	MZO
C3 .2. R3-I2 implementation of the Innovation, Research and Development Programme	40%	40%	001, 002,	yes!	40%	0%	0%	MZO

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
for scientific excellence in the areas of green and digital transition in cooperation with the business sector			003, 004, 005, 006, 007, 008, 009, 018, 020, 021					
C4. LABOUR MARKET AND SOCIAL SECURITY								
C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future								
C4 .1. R1 improving labour legislation	0%	40%	11	yes!	100%	40%	100%	MRMSOSP
C4 .1. R2-I1 Economic transition measures for the competitiveness and employability of the labour force in the economy of the future	n/a	n/a	n/a	n/a	100%	n/a	100%	MRMSOSP
C4 .1. R3-I1 establishment of a voucher system for education of employed and unemployed persons	n/a	n/a	n/a	n/a	100%	n/a	100%	MRMSOSP
C4 .1. R4-I1 Digitalization and computerization of Croatian Employment Service (CES)	n/a	n/a	n/a	n/a	100%	n/a	100%	MRMSOSP
C4 .2. Development and improvement of the pension system								
C4 .2. R1-I1 Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)	0%	0%	11, 102	yes!	100%	0%	100%	MRMSOSP
C4 .2. R2-I1 Digitalization of the Archives of the Croatian Institute for Health Insurance (eArchives)	0%	0%	11, 102	yes!	100%	0%	100%	MRMSOSP
C4 .3. Improving the social welfare system								
C4 .3. R1-I1 Digitisation of the system and connecting social welfare centres and social service providers	0%	0%	n/a	yes!	n/a	n/a	n/a	MRMSOSP
C4 .3. R2-I1 Prevention of institutionalization and development of community services in support of the deinstitutionalisation process	0%	0%	28	yes!	n/a	n/a	n/a	MRMSOSP
C4 .3. R3-I1 improving the quality of life of elderly persons by increasing the capacity of accommodation	40%	40%	22, 28	yes!	n/a	40%	n/a	MRMSOSP
C4 .3. R4-I1 improving the infrastructure of social welfare centres, family centres and other social service providers	40%	40%	11, 28	yes!	n/a	40%	n/a	MRMSOSP
C5. HEALTH CARE								
C5 .1. Strengthening the resilience of the health care system								
C5 .1. R1 improving the efficiency, quality and accessibility of the health care system	n/a	n/a	092, 104	yes!	n/a	n/a	n/a	MIZ

Name of reforms/measures/Investments	Green goals				Digital goals	Transitional challenges		Holder
	Climate	Environmental protection	Intervention area	DNSH		Green	Digital	
C5 .1. R1-I1 Revalidation of the Institute of Immunology	40%	40%	002	yes!	100	40%	100%	MIZ
C5 .1. R2 introduction of a new model of care for key health challenges	0%	0%	093	yes!	20%	n/a	n/a	MIZ
C5 .1. R2-I1 purchase of equipment for prevention, diagnosis and treatment of cancer patients	0%	0%	093	yes!	20%	n/a	n/a	MIZ
C5 .1. R3 introduction of a system of strategic human resource management in health care	n/a	n/a	113	yes!	20%	n/a	n/a	MIZ
C5 .1. R3-I1 Central financing of specialisations	0%	0%	092, 104	yes!	40%	0%	40%	MIZ
C5 .1. R4 ensuring financial sustainability of the health care system	n/a	n/a	n/a	n/a	n/a	n/a	n/a	MIZ
C5 .1. R5 E-Health	n/a	n/a	11, 12, 13	yes!	100%	40%	100%	MIZ
C6. Initiative: RENOVATION OF BUILDINGS								
C6 .1. Decarbonisation of buildings								
C6 .1. R1 complete renovation of buildings								
C6 .1. R1-I1 Energy renovation of buildings	100%	40%	025, 026	yes!	0%	100%	0%	MPGI
C6 .1. R1-I2 Reconstruction of buildings damaged by energy renovation earthquake	100%	40%	025, 026	yes!	0%	100%	0%	MPGI
C6 .1. R1-I3 Energy renovation of buildings with cultural property status	100%	40%	026, 129	yes!	0%	100%	0%	MKM

Annex 2 Measurable targets (*milestones and targets*)

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementation	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
C1. ECONOMY											
C1 .1. Enhancing competitiveness and green transition of the economy											
C1 .1. R1 Strengthening competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies											
C1 .1. R1-I1 non-performing investments in the production and technological capacities of enterprises	Increasing companies' investments towards green and digital technologies.	Number of tenders (2)	Number of projects contracted	0	250	8/2026	MINGOR	MINGOR	Number of tenders No . of projects contracted 50 % of investments of entrepreneurs directed towards green and digital technologies.	Assumption: all preconditions are secured for timely implementation of projects within planned deadlines risk: insufficient number of quality projects submitted risk: inability to provide private co-financing	Reports on project implementation
C1 .1. R1-I2 support for liquidity and investment investments of micro, small and medium-sized enterprises in the form of loans for economic recovery and fostering digital and green transition	Increasing SMEs' investment towards green and digital technologies.	Creation, adoption and implementation of financial instruments — loans	coma	0	7.000	2Q/2026	HAMAG-BICRO	HAMAG-BICRO	Provide investment and liquidity support to enterprises to enable continuity of business activities and maintain jobs. Support is also planned for companies that have the need for investments in the realm of digitization of business processes, i.e. expansion and modernization of capacities by transforming their business into green ones with the aim of reducing operating costs.	Assumption: all preconditions are secured for timely implementation of projects within planned deadlines risk - insufficient preparation of projects; market not in the investment cycle phase (extended duration of crisis due to pandemic)	Reports and audits
C1 .1. R1-I3 Mezzanine Financial Instrument loan for small business entities for economic recovery and fostering digital	Increasing SMEs' investment towards green and digital technologies.	Creation, adoption and implementation of the financial instrument — mezzanine loans	coma	0	700	2Q/2026	HAMAG-BICRO	HAMAG-BICRO	Provide support for investments to companies that have the need for investments in the realm of digitization of business processes, i.e. expansion and modernisation of capacities by transforming their business into green	Assumption: all preconditions are secured for timely implementation of projects within planned deadlines risk - insufficient preparation of projects; market not in	Reports and audits

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
and green transition									ones with the aim of reducing operating costs.	the investment cycle phase (extended duration of crisis due to pandemic); dysfunctional rest of the financial sector.	
C1 .1. R1-I4 support for liquidity and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies	Increasing SMEs' investment towards green and digital technologies.	Creation, adoption and implementation of financial instruments — guarantees	coma	0	500	2Q/2026	HAMAG-BICRO	HAMAG-BICRO	Provide investment and liquidity support to enterprises to enable continuity of business activities and maintain jobs. Support is also planned for companies that have the need for investments in the realm of digitization of business processes, i.e. expansion and modernization of capacities by transforming their business into green ones with the aim of reducing operating costs.	Assumption: all preconditions are secured for timely implementation of projects within planned deadlines risk - insufficient preparation of projects; market not in the investment cycle phase (extended duration of crisis due to pandemic); dysfunctional rest of the financial sector.	Reports and audits
C1 .1. R1-I5 Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects	Financial instrument with a component of a grant for mid-capitalised and large enterprises	1) Development and publication of the RDF financial instrument programme by THE end of 2021. 2) a developed and published call for grants for large enterprises in the tourism sector by the end of 2021.	1) HRK 1.5 billion 2 has been newly approved) Number of projects financed by large enterprises in the environmental, energy efficiency and renewable energy sectors (90).	1) 0 2) 0	HRK 2.3 billion	1) 2Q/2026 2) 2Q/2026	HBOR	HBOR	Financial instrumnet combining more favourable loans with grants	Businesses will not reach expected level of digitalisation and green investment	Quarterly reporting on placements
C1 .1. R1-I6 RRF "Umbrella" guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs	Improving the business environment, strengthening competitiveness and growth of investment activity in the	1) the "Umbrella" guarantee fund 2) signed agreements with commercial banks and HBOR as the beneficiary of the guarantee	1) Guarantee Fund volume 2) volume of newly approved loan guarantees	0	1) HRK 1.5 billion of guarantee fund 2) HRK 5 billion of newly approved guarantees	1) 2Q/2026 2) 2Q/2026	HBOR, commercial banks, Ministry of economy and Sustainable Development	HBOR, Ministry of economy and Sustainable Development	The guarantee fund designed to approve guarantees from sectors of interest of the line ministries. The single guarantee scheme enables a simpler implementation process in	The guarantee scheme must be structured in such a way that it represents a first-class collateral for business banks and HBOR and has to be adequately	Quarterly reporting on placements

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
and large entities independently of business activities.	economy, through support to private and public sector in realization of investments.								cooperation with commercial banks and the Croatian Bank for Reconstruction and Development (HBOR). The fund focused on investments in competitiveness, green and digital transformation projects (investments and OBS) the guarantees cover investments by SMEs, MidCap (if any also large enterprises) + the public sector focus on portfolio guarantees but also the possibility of issuing individual guarantees for exposures above a specific "tresholda". The "Positioning paper" cites a lower level of investment in the Republic of Croatia in accordance with the temporary framework of state aid, i.e. the relevant framework of state aid.	covered.	
C1 .1. R1-I7 RRF more favourable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of financing for HBOR + RRRF fund of interest subsidies and fees/premiums under guarantee/ guarantee schemes	Improvement of business environment and growth of investment activity in the economy, through support to private and public sector in realization of investments.	1) developed and published credit programmes from RDF source 2) established RDF fund of interest rate subsidies and fees	1) volume of newly granted loans	0	1) HRK 3.7 billion of newly granted loans for investments and working assets 2) volume of interest rate subsidies HRK 750 million	2Q/2026	HBOR, commercial banks	HBOR	Bearing in mind that the crisis caused by COVID has reduced the repayment potentials of companies, it is necessary to ensure favourable earnings for investment and working resources to businesses. The same will contribute to the development of the economy and the preservation of jobs. Additional subsidisation of interest on granted loans and fees/premiums on issued guarantees will help reduce the costs of financing the private and	The interest rate on loans must be sufficiently attractive to end users in order to be interested in entering new investments. Interest rate subsidies to commercial bankruptcy/HBOR must be high enough for the bank to cover the increased credit risk.	Quarterly reporting on placements

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
									public sectors		
C1 .1. R1-I8 Fostering the internationalisation of the economy of the Republic of Croatia through strengthening the guarantee fund for export insurance and export credit financing activities	Improving the business environment by strengthening the guarantee activity of the CBRD, aimed at SMEs and large exporters for the implementation of Coviid 19 loan measures.	Insurance premium subsidy fund established	1) volume of the guaranteed export insurance fund 2) volume of new transactions secured under the export insurance scheme	1) 0 2) 0	1) HRK 900 million increase in the volume of the guaranteed export insurance fund 2) HRK 3 billion of new transactions within the framework of the Export Insurance Fund	1) 2Q/2026 2) 2Q/2026	HBOR, commercial banks	HBOR	Providing up to 90% of the principal of loans granted by commercial banks and HBOR to liquidity and investment exporters. This insurance is collateral for loans to banks and it will enable entrepreneurs regardless of the size of obtaining much needed liquid and investment funds. The HBOR has so far signed agreements with 15 banks totalling HRK 5.9 billion.	The risk for reaching the target is the willingness and capacity of banks to provide loans to entrepreneurs in addition to collateral offered by HBOR.	Quarterly monitoring of portfolio utilisation
C1 .1. R1-I9 Investment in equity and quasi-equity financing instruments (PE)	Improving the business environment in the economy of the Republic of Croatia by encouraging the development of equity market. Enabling reaching the maximum size of risk capital funds active in the Republic of Croatia and increasing the size of funds in the total amount up to HRK 490 m	1) established financial model (budget) for increasing funds, 2) established criteria and list of acceptable funds that operate or will operate in the territory of the Republic of Croatia and have already established the fund and have not reached the maximum size	Amount of new investments in equity funds on the Croatian market	0	HRK 475 million of new investments in equity funds	8/2026	Internal data of the Croatian Bank for Reconstruction and Development (HBOR) and the fund	HBOR	The qualitative objective is to establish a budget for increasing risk capital funds that will be used to increase or reach the maximum size of risk capital funds active on the Croatian market. Some of the criteria for determining the list of eligible funds can be e.g.: the participation of the EIF in the structure of investors in individual funds, satisfying the level of investment of fund funds so far, the interest of private investors in additional rounds of closing down the fund. Preliminary HBOR assessments on active funds on the market and the possibilities to increase their size indicate the total budget required in the amount of EUR 65 m. The quantitative objective is set at the level of additional funds secured by funds for investments in projects in the territory	In order to increase the size of risk capital funds in each additional round of fund raising (closing), private investors should also participate in the funds. If private investors do not show interest in additional investment in funds active on the market in the Republic of Croatia, there is a possibility of failure to meet the objectives of this activity.	HBOR and Equity Fund reports

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
									of the Republic of Croatia and also amounts to a total of EUR 65 m.		
C1 .1. R1-I10 Strengthening equity activities in the area of RBI - investment in regional fund for technology transfer	Improving the business environment in the economy of the Republic of Croatia by encouraging the development of equity market and encouraging stronger private sector investment in RDI. Investment in regional technology transfer fund that will invest a minimum of EUR 10 million in projects of technology transfer/commercialisation of scientific research in the Republic of Croatia.	Established equity fund for technology transfer with geographical focus on Croatia.	Amount of new investments in equity funds in technology transfer and RBI.	0	HRK 75 million of new investments in equity funds aimed at technology transfer and RDI	8/2026	Internal data of the Croatian Bank for Reconstruction and Development (HBOR) and the fund	HBOR	The qualitative objective is to establish a technology transfer fund in co-operation with the EIF and the SID Bank. HBOR will participate in the fund with total investment commitment in total of EUR 10 m and minimum target fund size is EUR 40 m. The quantitative objective is to invest a minimum amount of EUR 10 m in projects for technology transfer/commercialisation of scientific research by the established fund, and in the Republic of Croatia.	In order to establish the fund, it is necessary to select the fund manager and animate the scientific community to submit Croatian projects to the manager. Potential problems in selecting the manager and/or insufficient quality of projects from the University of Croatia can lead to failure to meet the objectives.	HBOR and Equity Fund reports
C1 .1. R2 increasing the competitiveness of the economy by strengthening the development of innovation											
C1 .1. R2-I1 Fostering investments in research, development and innovation	Prepared programmes and launch calls for grants through a support package for innovation development. Increasing the expenditures of the business sector for research, development and innovation	Number of tenders (total 5) Private Investments in research, development and innovation, corresponding to public support	Number of tenders announced amount of investment in HRK	0 0	HRK 5 1.5 billion	8/2026	MINGOR/ HAMAG-BICRO	MINGOR/ HAMAG-BICRO	Number of annual tenders for financing innovative concept verification projects Number of SME projects contracted for the verification of innovative concept	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe. Risk: insufficient implementation capacities	Administrative check of applications and implementation.
C1 .1. R2-I2 increasing investments in	Tenders for project financing announced	Number of tenders (2)	Number of supported digital	0	6 (total)	8/2026	MINGOR	MINGOR	Number of implemented tenders for financing the establishment and	Assumption: publication of rules on financing the	Administrative check of applications

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the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation			innovation centres						activities of digital innovation centres Number of contracts for digital innovation centres to provide digital transformation services to enterprises, public administration bodies and other users	establishment and activities of European digital centres and timely EC tenders for co-financing EDIH. Risk: delay in the procedures for the implementation of tenders for EDIH by the Commission and the (UN) transit of national applicants in the relevant EC tender.	and implementation.
C1 .1. R2-I3 establishment and implementation of activities of national digital innovation centres (DIH and EDIH)	Tenders for project financing announced	Number of tenders (2)	Number of supported digital innovation centres	0	6 (total)	8/2026	MINGOR	MINGOR	Number of implemented tenders for financing the establishment and activities of digital innovation centres Number of contracts for digital innovation centres to provide digital transformation services to enterprises, public administration bodies and other users	Assumption: publication of rules on financing the establishment and activities of European digital centres and timely EC tenders for co-financing EDIH. Risk: delay in the procedures for the implementation of tenders for EDIH by the Commission and the (UN) transit of national applicants in the relevant EC tender.	Administrative check of applications and implementation.
C1 .1. R3 further improvement of the business environment											
C1 .1. R3-I1 implementation of measures for administrative and para-fiscal relief of the economy	Milestones: Number of activities carried out; Number of actions digitised; Number of measures implemented; Number of reductions or exclusions;% of total burden/target: implementation of the analysis of non-tax levies;	Upgrading and development of it systems; new e-services developed; electronic services related to e-business; implemented education on the use of new functionalities	Number of activities carried out; number of procedures digitised; number of measures implemented; number of analyses performed; Number of reductions or exclusions;% of the total	448 non-tax levies; 1 analysis carried out; 50 planned measures for reducing non-tax levies; there is no IT system for monitoring non-tax levies; 65 planned administrative relief activities	Measures fulfilled and activities implemented; analysis of non-tax levies performed; established IT system for monitoring non-tax levies; number of non-tax levies reduced in accordance with the results	Implementation of administrative and non-tax relief MEASURES IQ/2022; implementation of analysis and establishment of IT system IVQ/2024.	SCM measurement carried out in 2018; analysis of non-tax levies carried out in 2019; OECD regulatory Policy Report 2019	MINGOR/TDU miscellaneous	Methodology for monitoring and Eurostat: Number of implemented activities; Number of digitised procedures; number of implemented measures - in accordance with adopted action plans; Number of reduced or revoked payments - in relation to the 2019 Register of non-tax payments;% of total burden based on non-tax payments in relation to GDP and compared to% measured in 2019/target: implementation	Assumption: stable and competent team of experts engaged in operational implementation of risks: coordination of state administration bodies in implementation of planned measures, duration of public procurement procedures	Implementation Plan with measurable activities and results thereof, implementation deadlines and defined holders per each component

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	establishment of an it platform for the Register of non-tax levies		burden; established system for monitoring non-tax levies		of the analysis/ 65 implemented activities; 10 digitised procedures				of the analysis of non-tax payments - it is necessary to introduce a uniform methodology of all taxes, contributions and charges, standardised terminology used by public ministries		
C1 .1. R3-I2 improving the system of economic impact assessment	Milestones: setting up quality procedures and standards; increasing the expertise of civil servants/target: adopted regulatory Policy Strategy and Action Plan for organising, planning, coordinating and monitoring the implementation of relevant tools and methodologies; prepared digital pratform for ICJ test	Adopted regulatory Policy Strategy and Action Plan for organising, planning, coordinating and monitoring the implementation of relevant tools and methodologies, prepared digital platform for SME test	Number of training/educated experts in the field of regulatory impact assessment; number of MSP tests performed; number of new business model testing processes performed within the safe test environment; number of innovative projects supported through the safe test environment system that have reached the commercialisation/production stage; prepared platform for SME test	Number of trained/educated experts in the field of regulatory impact assessment: by 2020: 250 experts; in 2020: 40; number of performed SME tests in the period 19. 10. 2016. – 2. 12. In 2020, a total of 1129 SME tests were carried out, however, for subordinate legislation, the ICJ test is carried out for only around 30% of adopted acts; number of new business models tested within the safe test environment: 0; Number of innovative projects supported through the safe test Environment system that	Number of trainings/educated experts in the field of regulatory impact assessment: workshops for 40 experts 2 x per year; number of SMEs implemented: SMEs test carried out for each sub-act; number of new business model testing processes carried out within the safe test environment: entrepreneurs as appropriate; Number of innovative projects supported through the safe test environment system that have reached the commercialisation/production stage: entrepreneurs as appropriate; Digital SMEs	Adopted regulatory Policy Strategy and Action Plan for organising, planning, coordinating and monitoring the implementation of relevant tools and methodologies - IV/2022; prepared digital pratform for ICJ test 4Q/2023.	2019; OECD regulatory Policy Report 2019; Data on conducted SME tests since the start of implementation	MINGOR	Milestones: setting up quality procedures and standards - it is necessary to develop a manual that will prescribe methodology and introduce standard values used for regulatory impact assessment during the ICJ test; increasing the expertise of civil servants - continuous education is needed to standardize the quality of regulatory impact assessments/target: adopted regulatory Policy Strategy and Action Plan for organisation, planning, coordination and monitoring of implementation of relevant tools and methodologies; created digital monitoring form for ICJ test - currently no ICJ test is conducted manually on Word form and communicates via e mail, and all data.	Assumption: stable and competent team of experts engaged in operational implementation of risks: coordination of state administration bodies in implementation of planned measures, duration of public procurement procedures	Implementation Plan with measurable activities and results thereof, implementation deadlines and defined holders per each component

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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				have reached the commercialisation/production stage: 0; Digital SMEs platform: 0	platform: 1						
C1 .1. R3-I3 Creating a support system for investments and internationalization of business Croatia	Strengthening the competitiveness of the economy, increasing exports and creating new jobs	New digital platforms for internationalisation of enterprises established (MVEP/MINGOR and HGK)	Number of platforms	0	2	2Q/ 2023/1Q/ 2022	MVEP, MINGOR, HGK	MVEP, MINGOR, HGK	Establishing new digital platforms to attract and support investments and support the internationalisation of businesses	Risk: procurement procedures, recognition of service usefulness by the business community, finding suitable candidates for new locations.	Reports and surveys
C1 .1. R4 Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation											
C1 .1. R4-I1 Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epidemic 19	Target: number of financial incentives granted for enterprises	Not applicable	Number of aid granted	0	100	4Q/2025	MKM	MKM	Number of aid granted through calls for proposals to improve business operations, develop innovative products and services and strengthen the competitiveness of cultural and creative industries as well as develop financial instruments to ensure liquidity and develop cultural and creative industries.	Risk: insufficient implementation capacities	Administrative verification and on-the-spot controls.
C1 .1. R4-I2 Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and by developing modernised production capacities for new	Target: number of digitised audiovisual works	digitisation of the holdings of audio-visual capital works	Number of digitised and restored works	0	150	4Q/2025	MKM	MKM	Number of digitised and restored works of audiovizalnih works to be realised through calls for proposals for the restoration and digitisation of audiovisual materials and investment implementation of the project to build infrastructure of cultural and creative industries	Risk: insufficient implementation capacities	Administrative verification and on-the-spot controls.

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
content											
C1 .1. R4-I3 programmes for stimulating media literacy, investing in quality journalism and strengthening independent media	Target: establishment of a media fact verification system	Establishment of a media fact verification system	Number of projects	0	100	4Q/2025	MKM	MKM	Number of implemented projects to improve media literacy, support quality journalism and adjust media services to the digital environment.	Risk: insufficient implementation capacities	Administrative verification and on-the-spot controls.
C1 .2. Energy transition for a sustainable economy											
C1 .2. R1 decarbonisation of the energy sector											
C1 .2. R1-I1 Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector	Number of implemented programmes	Not applicable	Number	0	1	2Q/2026	MINGOR, FEEF	MINGOR, FEEF	Number of programmes to be implemented under the proposed reform, which will ensure strong RES growth, reduce greenhouse gas emissions and increase energy efficiency.	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe.	Project reports
C1 .2. R1-I2 Fostering energy efficiency, heating and renewable energy sources for decarbonising the energy sector	Number of implemented programmes	Not applicable	Number	0	1	2Q/2026	MINGOR, FEEF	MINGOR, FEEF	Number of programmes to be implemented under the proposed reform, which will ensure strong RES growth, reduce greenhouse gas emissions and increase energy efficiency.	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe.	Project reports
C1 .2. R1-I3 use of hydrogen and new technologies	Number of hydrogen filling plants	Not applicable	Number	0	6	2Q/2026	MINGOR, FEEF	MINGOR, FEEF	Number of pump stations (public and private) for use of hydrogen in road traffic	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe.	Project reports
C1 .2. R1-I4 Biofuels for the production of advanced Sisak biofuels	Bio-refinery built	Not applicable	Number	0	1	2Q/2026	MINGOR, INA	MINGOR, INA	Bio-refinery made	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe.	Project reports

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			Unit of measure	Baseline value	Target value						
C1 .3. Improving water management and waste management											
C1 .3. R1 implementation of water management programmes		Adopted the following subordinate legislation: the Regulation on services areas, the Regulation on valuation of performance of business of water service providers, the Regulation on methodology for determining the price of water services and the Regulation on special conditions for performing the activities of water services, which will reform public water service suppliers									
C1 .3. R1-I1 Programme for Development of public waste water drainage	1) Programme component 1: 1a) CO18: water supply: increase in the number of inhabitants having access to improved water supply (number of persons) 1b) CO19: waste water treatment: increase in the number of inhabitants using improved waste water treatment system (ES) 1c) 6 and: Number of completed works contracts for water utility	1) Programmatic component 1: 6 I: Number of completed works contracts for water utility sector projects (number) 2) Programmatic component 2: 6 I: Number of completed works contracts for water utility sector projects (number)	1) Programme component 1: 1a) CO18: Number of persons 1b) CO19: equivalence of inhabitants (ES) 1c) 6 and: number 2) Programme component 2: 2a) CO19: equivalent of inhabitants (ES) 2b) 6 and: number	1a) 0 1b) 14.703 1c) 0 2a) 0 2b) 0	1a) 127.397 1b) 406.846 1c) 73 2a) 70.000 2b) 230	1) 2Q/2026 2) 2Q/2026	1) Programmatic component 1: applications of projects approved through OPCC 2014-2020 and working versions of Feasibility study 2) Programmatic component 2: VIABLE (miscellaneous)	GREY (miscellaneous)	Programme Component 1: CO18: NUMBER of inhabitants supplied with drinking water through public water supply buildings as a result of ensuring the supply of drinking water and increasing the capacity (extensions) of the water supply network to be built through the project. It refers to those inhabitants that were previously not connected to the public water supply system or had water of inappropriate quality. It also includes residents who improve the quality of drinking water. The indicator refers to the population actually (and	Assumption: that public procurement procedures will take place in accordance with the planned deadlines and that there will be no large number of complaints. Assuming the consolidation of the water utility sector and strengthening the capacity of public suppliers of water services for the implementation of investments.	Project reports

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
	projects (number) 2) Programme component 2: 2a) CO19: waste water treatment system: Number of inhabitants: improvement								not potentially) connected to the public water supply system. It includes reconstruction projects, but excludes projects related to the construction/improvement of irrigation systems. Programme Component 1 and 2: CO19:Number of inhabitants whose waste water is drained to the waste water treatment plant via water structures as a result of an increase in the capacity (expansion) of the waste water collection and treatment system built/insured by the project. Refers to those inhabitants which have not previously been connected to a public drainage system or whose waste waters have not been purified at an appropriate level. It also includes an increase in the level of waste water treatment. The indicator refers to the population that is actually (rather than potentially) connected to the waste water treatment system. 6 I: Number of completed works contracts for water utility sector projects		
C1 .3. R1-I2 Programme for Development of public water supply	1) Programme component 1: Number of water pumps where necessary equipment for the	Not applicable	1) Programmatic component 1: Number of water pumps	1) 0 2) 0 3) 0	1) 526 2) 7.000 3) 42.000	1) 2Q/2026 2) 2Q/2026 3) 2Q/2026	1) Programmatic component 1: pre-investment study 2)	GREY (miscellaneous)	Programme Component 1: Number of water pumps where necessary equipment will be installed to record the quantities of	Assumption: that public procurement procedures will take place in accordance with the planned deadlines and that	Project reports

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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	record of affected water quantities will be installed (number) 2) Programme component 2: CO18: WATER supply: increase in the number of inhabitants with access to improved water supply (number of persons) 3) Programme component 3: CO18: water supply: increase in the number of inhabitants with access to improved water supply (number of persons)		where necessary equipment for records of affected quantities of water will be installed: number 2) Programmatic component 2: CO18: number of persons 3) Programmatic component 3: CO18: NUMBER of persons				Programmatic component 2 and 3: Project documentation		water affected Programmatic Component 2 and 3: CO18: NUMBER of inhabitants supplying drinking water through public water supply buildings as a result of ensuring the supply of drinking water and increasing the capacity (extensions) of the water supply network to be built through the project. It refers to those inhabitants that were previously not connected to the public water supply system or had water of inappropriate quality. It also includes residents who improve the quality of drinking water. The indicator refers to the population actually (and not potentially) connected to the public water supply system. It includes reconstruction projects, but excludes projects related to the construction/improvement of irrigation systems.	there will be no large number of complaints and assuming the consolidation of the water utility sector and strengthening the capacity of public water service providers to implement investments.	
C1 .3. R1-I3 disaster risk reduction Programme in the water management sector	1) Programmatic component 1: 1a) CO20-N: risk prevention and risk management: Number of inhabitants benefiting from flood protection measures 1b) Number of completed works contracts for projects in the water protection sector	1) Programmatic component 1: Number of completed works contracts for projects of the water protection sector 2) Programmatic component 2: Number of completed works contracts for projects of protection against	1) Programme component 1: 1a) CO20: Number of persons 1b) Number of completed works contracts for projects in the water protection sector: number 2)	1a) 0 1b) 0 2a) - in the upper half of the river profile: > 2 DS/m - in the lower half of the profile > 45 DS/m 2b) 2 - 6 DS/m 2c) 0	1a) 25,000 1b) 252a) - throughout the entire river profile: < 0,75 DS/m 2b) < 2 DS/m 2c) 2	1) 2Q/2026 2) 2Q/2026	Programme Component 1 and 2: working versions of the feasibility study	Croatian waters	Programme Component 1: CO20: Number of inhabitants benefiting from flood protection measures; Number of completed works contracts for projects in the water pollution sector Programme Component 2: the degree of water salinity in the watercourse is estimated on the basis of the total	Assumption: that public procurement procedures will take place in accordance with the planned deadlines and that there will be no large number of complaints.	Project reports

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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	2) Programmatic component 2: 2a) reduction in water salinity in the small water regime 2b) reduction in soil salinity in the rizosphere in the vegetation period 2c) Number of completed works contracts for projects against flooding	consigning	Programme component 2: 2a) reduction in water salinity in the water course under the small water regime: DS/m 2b) reduction in the degree of soil salinity in the rizosphere in the vegetation period: DS/m 2c) Number of concluded works contracts for projects against consolation: number						concentration of salt in the water, i.e. its electrical conductivity (ECw) expressed in DP/m. Due to the uniformity of saline (sea) clay in cross-section height of river bed, the degree of salinity of soil is changed at the level of electrical conductivity of saturation water extract (ECE) of soil expressed in DP/m. Number of completed works contracts for spaying protection projects		
C1 .3. R2 implementation of projects for sustainable waste management											
C1 .3. R2-I1 waste disposal reduction Programme	Share of municipal waste sent for disposal	Not applicable	%	66%	30%	2Q/2026	MINGOR, CBS	MINGOR	The disposal reduction programme includes measures and infrastructure needed to reduce the landfill of waste, including the establishment of reuse centres, the construction of a plant for sorting separately collected municipal waste, the construction of a biological treatment plant for separately collected biowaste, the construction and equipping of recycling yards and recycling yards for construction waste, the purchase of equipment for separate collection of useful fractions of municipal waste.	Risk: the programme is intended for local self-government units that have jurisdiction over municipal waste management and the risk is posed by the professional and administrative capacities of the LSGU.	Municipal waste Report - Annual

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C1 .3. R2-I2 Rehabilitation Programme for closed landfills and locations contaminated by hazardous waste	At least 20 remedied landfills/contaminated sites	Not applicable	Number of remedied landfills/contaminated sites	0	20	2Q/2026	MINGOR	MINGOR	The restoration programme includes the remediation of closed landfills which must be rehabilitated in such a way that those sites comply with the criteria of Directive 1999/31/EC as well as the restoration of sites contaminated by hazardous waste, which includes, inter alia, activities for the removal and treatment of waste and soil remediation.	Assumption: that public procurement procedures will take place in accordance with the planned deadlines.	Review of landfill and landfill data - annually
C1 .4. Development of a competitive, energy-sustainable and efficient transport system											
C1 .4. R1 Road sector reform	Amendments to the Road Act adopted	Amendments to the Road Act adopted	number	0	1	2Q/2021	MMPI	MMPI	The adoption of amendments to the Road Act is planned.	/	Amendments to the Act in force and published in the Official Gazette.
C1 .4. R1-I1 electronic toll collection system	New electronic toll collection system established	New electronic toll collection system established	number	0	1	2Q/2025	MMPI, HAC	MMPI, HAC	A milestone defines the deadline within which a new electronic toll collection system will be established.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Operational functional system.
C1 .4. R1-I2 Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)	Kilometres of the state road D12	n/p	km	0	86,5	2Q/2025	MMPI, HC	MMPI, HC	Construction of the 8.5 km state road D12 is planned.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R1-I3 Road from Kasttel Kambelovac to Vučevica	Kilometers of built state road D8	n/p	km	0	8,2	2Q/2026	MMPI, HC	MMPI, HC	Construction of 8.2 km long sections of the state road D8, including a tunnel and viaducts, is planned.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R2 Railway sector	Sectoral policy letter adopted for	Sectoral policy letter adopted for	number	0	1	2Q/2021	MPPI	MMPI, CEA, CFP, Hz cargo	The Museum defines the deadline within which a	/	Sectoral policy letter

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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reform	the steel sector	the steel sector							letter of sectoral policy for the railway sector will be adopted.		adopted by the Government of the Republic of Croatia.
1.4.2.1. Reconstruction of the existing and construction of the second track on the long Selo-Novska section, subsection Kutina-Novska (Phase D)	Kilometres of constructed and reconstructed railway infrastructure	n/p	km	0	22	2Q/2026	MPPI, CEA	MMPI, CEA	Reconstruction of the existing and construction of the second track of the unelectrified railway, 22 km long, is planned.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R2-I2 modernisation of the M604 Elder-Knin-Split railway	Installed and commissioned signalling system	Installed and commissioned signalling system	number	0	1	4Q/2025	MPPI, CEA	MPPI, CEA	Installation and commissioning of the Signalling and Security system in the Stari-Knin-Split section.	Risk: delay in the works.	Operational functional system.
C1 .4. R2-I3 Railway infrastructure Reconstruction Project on the line R201 and R202 on the section Cakovec-Varazdin-Koprivnica-Pitomaca	Kilometres of reconstructed railway	n/p	km	0	96,54	4Q/2025	MPPI, CEA	MPPI, CEA	96.54 km of railway track reconstructed on the Cakovec-Varazdin-Koprivnica-Pitomaca section	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R2-I4 Reconstruction of the existing Zadar-Knin railway	Kilometres of reconstructed railway	n/p	km	0	94	4Q/2025	MPPI, CEA	MPPI, CEA	The reconstructed 94 km railway line on the Zadar-Knin section.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R2-I5 removal of “bottlenecks” on railway infrastructure	5 bottlenecks removed on sections with current traffic speed limit of 60 km/h	n/p	Number of bottlenecks removed	0	5	4Q/2025	MPPI, CEA	MPPI, CEA	5 bottlenecks removed on sections with an immediate speed limit of 60 km/h.	Risk: delay in the works.	Based on completed works contracts.
C1 .4. R2-I6 modernisation of the node Zagreb	Kilometres of reconstructed and modernised two-	n/p	km	0	17	4Q/2025	MPPI, CEA	MPPI, CEA	Reconstructed and modernised two-track railway on the Zagreb-	Assumption: It is necessary to prepare project documentation	Based on completed works

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
	track railway								Zapresic-Dobova section, 17 km long	in a timely manner and initiate public procurement procedures.	contracts.
C1 .4. R2-I7 Construction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border	Kilometres of constructed and reconstructed railway infrastructure	n/p	km	0	42,6	4Q/2025	MPPI, CEA	MPPI, CEA	Existing and constructed second track on the entire Krizevac-Koprivnica railway section - state border 42.6 km long	Risk: delay in the works.	Based on completed works contracts.
C1 .4. R3 Maritime and inland navigation reform	New coastal line traffic Act adopted	New coastal line traffic Act adopted	number	0	1	3Q/2021	MMPI	MMPI	The adoption of the new coastal line Transport Act is planned.	/	The new law is in force and published in the Official Gazette.
C1 .4. R3-I1 Programme for the modernisation of ports open to public transport	Modernised/ reconstructed 5 seaports open to public transport	n/p	Number of modernised/reconstructed seaports	0	5	4Q/2025	MMPI	MMPI	Modernised/reconstructed 4 seaports open to public transport	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R3-I2 Construction of a specialized energy link in the port of Ploče	1 berth for transshipment of energy in the port of Ploče built	n/p	Number of built berths for energy transhipment	0	1	4Q/2024	LU Ploče	MMPI, LU Ploče	1 berth for transshipment of energy in the port of Ploče built	Assumption: It is necessary to prepare project documentation in a timely manner and initiate procurement procedures.	Based on completed works contracts.
C1 .4. R3-I3 Construction and reconstruction of public utilities	Constructed and/ or reconstructed utility connections	n/p	Number of constructed and/or reconstructed berths	0	4000	4Q/2025	MMPI	MMPI	A total of 4000 public utility berths have been built and/or reconstructed.	Risk: delay in the works.	Based on completed works contracts.
C1 .4. R3-I4 Project of expansion and deepening of the waterway attractive draught	Expanded and deepened navigable channel attractive gaz	Two-way navigation is enabled for boats and yachts in the channel attractive gaz	n/p	0	0	4Q/2023	MMPI, Plovtime	MMPI, Plovtime	An extension and deepening of the channel is planned, which will enable two-way navigation for boats and yachts in the waterway.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Two-way navigation is enabled.
C1 .4. R3-I5 Reconstruction of the search and	Purchase of dedicated search and rescue	n/p	Number of designated search and	0	19	4Q/2025	MMPI	MMPI	A total of 19 designated search and rescue vessels have been	Risk: delay in delivery.	Delivered vessels.

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			Unit of measure	Baseline value	Target value						
rescue fleet	vessels		rescue vessels						procured.		
C1 .4. R3-I6 purchase/construction of passenger ships for coastal line traffic	Number of RO-RO passenger ships procured for the coastal line transport	n/p	coma	0	4	2Q/2026	MMPI	MMPI, local authorities or companies managing and organising public transport services (shippers)	The investment will modernise the fleet with the aim of increasing the quality of providing public passenger transport services and connecting to the islands. The procurement of RO-RO passenger ships is envisaged and the necessary infrastructure is built, all with the aim of promoting the use of vessels with reduced CO2 emissions.	Assumption: the procurement procedures must be in place on time. It is necessary to fulfil all legal and technical requirements in the part of installing the necessary infrastructure for the smooth operation of the acquired vessels.	Under concluded procurement contracts and delivered number of vessels.
C1 .4. R3-I7 Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increased safety of navigation	Purchase/renewal of the inland waterway fleet	n/p	Number of vessels procured/renovated	0	30	2Q/2026	MMPI	MMPI	Purchased/renovated fleet of inland navigation-30 craft	Risk: delay in delivery.	Under concluded procurement contracts and delivered number of vessels.
C1 .4. R3-I8 Reconstruction of stocks from the special risk of the Sava River waterway (from Račinovac to Sisak)	Study and project documentation for sections of the Sava River waterway Special risk (from Račinovac to Sisak) prepared	Study and project documentation for sections of the Sava River waterway Special risk (from Račinovac to Sisak) prepared	Prepared study and project documentation	0	1	2Q/2026	MMPI	MMPI	Study and project documentation for sections of the Sava River waterway is planned (from Račinovac to Sisak).	Risk: delay in drafting documentation.	Prepared study and project documentation.
C1 .4. R3-I9 Reconstruction of stocks from the special risk of the river Drava waterway from rkm 0 to rkm 12	Prepared study and project documentation for sections of special risk of river Drava waterway from rkm 0 to rkm 12.	Prepared study and project documentation for sections of special risk of river Drava waterway from rkm 0 to rkm 12.	Prepared study and project documentation	0	1	2Q/2026	MMPI	MMPI	It is planned to prepare study and project documentation for sections of the special risk of the river Drava waterway from rkm 0 to rkm 12.	Risk: delay in drafting documentation.	Prepared study and project documentation.
C1 .4. R4 improving the public transport system	Public service contracts (PSC) concluded	Public service contracts (PSC) concluded	Number of public service contracts (PSC) concluded	9	30	2Q/2026	MMPI	MMPI	Number of public service contracts concluded (Public Service Contract)	/	/

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C1 .4. R4-I1 purchase of alternatively powered vehicles	Number of alternative-powered buses procured	n/p	coma	0	120	4Q/2025	MMPI	MMPI, LC (R)SGUs and public (bus) transport operators	The investment will modernise the bus fleet with the aim of increasing the quality of public transport services. The purchase of new vehicles is envisaged as an alternative drive and the installation of the necessary infrastructure to promote the use of zero-emission vehicles and reduce CO2 emissions of existing rolling stock.	Assumption: the procurement procedures must be in place on time. It is necessary to fulfil all legal and technical requirements in the part of installation of the necessary infrastructure for the smooth operation of the purchased vehicles.	Based on the concluded procurement contracts and the delivered number of buses.
C1 .4. R4-I2 Modernisation of tram infrastructure	Number of trams procured for public transport	n/p	coma	0	30	4Q/2025	MMPI	MMPI, LC (R)SGU and public tram transport operators	The investment will modernise the tram fleet with the aim of increasing the quality of public transport services.	Assumption: the procurement procedures must be in place on time.	Based on the contracts for procurement and the number of trams delivered.
C1 .4. R4-I3 Modernisation of bus stations	Constructed/ modernised bus stations	n/p	Number of constructed/ modernised bus stations	0	9	4Q/2025	MMPI	MMPI, LC (R)SGU	The investment plans to build/modernise 10 bus stations.	Assumption: the procurement procedures must be in place on time.	Based on completed works contracts.
C1 .4. R5 traffic greening											
C1 .4. R5-I1 Modernisation and greening of infrastructure at Zadar Airport	Construction of 610 kW photovoltaic power plant	n/p	Number of built 610 kW photovoltaic power plants	0	1	4Q/2024	Zadar Airport	MMPI, Zadar Airport	The construction of a 610 kW photovoltaic power plant is planned with the aim of producing energy from renewable sources on its own.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .4. R5-I2 Greening and digitization of Pula Airport	Construction of electric charge plants.	n/p	Number of electric charge plants built	0	3	4Q/2023	Pula Airport	MMPI, Pula Airport	Construction of 3 electric filling plants is planned.	/	Based on completed works contracts.
C1 .4. R5-I3 Construction of passenger building at Osijek Airport	Reconstruct the passenger building at Osijek Airport	n/p	coma	0	1	2Q/2026	Osijek Airport	MMPI, Osijek Airport	The reconstruction of the passenger building at Osijek Airport is planned.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on completed works contracts.
C1 .5. Improving the use of natural resources and strengthening the food supply chain											

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C1 .5. R1 setting up a logistics infrastructure network to strengthen the production chain in the fruit and vegetables sector											
C1 .5. R1-I1 Construction and equipping of logistically distributed fruit and vegetables centres	Number of built and equipped logistic centres for distribution and storage of fruits and vegetables	Educational activities in the field of management and finance have been implemented and support has been provided for the work of producer organisations linked to the logistical distribution centre; a system for the identification of fruits and vegetables with a recognizable designation has been established;	Number	0	5	2Q/2026	MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ	Investments will encourage the realization of 5 projects whose fiunction is the purchase of fruit and vegetables from local producers, and as a necessary technological transformation it is necessary to build a logistical infrastructure consisting of the finishing part for the reception of products, cleaning, washing, sorting and packaging, as well as the storage part. The storage area should provide the received capacity to receive and store fruit and vegetables under the cooling regime +/- 0 C and ultra low Oxygen long term storage regime.	Assumption: obtaining necessary documentation for construction of the facility risk: providing quality and sufficient capacities of the contractor for planned completion of works, securing funds for implementation of investment	Administrative and on-the-spot checks.
C1 .5. R2 improvement of the system for restructuring agricultural land and land consolidation							MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ			Administrative and on-the-spot checks.
C1 .5. R2-I1 Land consolidation	Land consolidation in selected areas	Adoption of the new land consolidation Act	Hectare	0	20.000	1Q/2026	MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ	The investment will create conditions for consolidation participants' agricultural land consolidation, which will enable the planning of sustainable agricultural production and create conditions for competitiveness of agricultural producers	Assumption: consent and cooperation of all stakeholders (primarily local self-government units, farmers). Risk: possible disinterest of the owner and/or local self-government unit in the implementation of land consolidation	Administrative and on-the-spot checks.
C1 .5. R2-I2 Programme for permanent monitoring of the state (monitoring) of agricultural land	Established system for permanent monitoring of the state of agricultural land	1) developed permanent monitoring programme (monitoring) of the state of agricultural land 2) Development	1) Number 2) Number	1) 0 2) 10	1) 90 2) 1	1) 4Q/2025 2) 4Q/2022	MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ	By monitoring of land, at 90 stations, it will be possible to predict the occurrence of negative processes in the soil, determine the extent of damage and contamination of these	Assumption: purchase of devices and equipment, development of software solutions, training of employees.	Administrative and on-the-spot checks.

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		of software solution (application) for land monitoring purposes							processes, and plan reactions to prevent or mitigate them, and define and identify crisis areas where the soil is exposed to threat, and finally determine zones of influence of negative climate and natural processes. In order to digitize all data and the entire monitoring process, a computer application will be developed.		
C1 .5. R3 Digital transformation of agriculture							MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ			Administrative and on-the-spot checks.
C1 .5. R3-I1 Digital transformation of public services in agriculture	1) Action Plan 2) Internal resources for the implementation of plan 3) establishment of e-Agriculture system 4) percentage of public services that are digitally available	Established and confirmed Action Plan which will be the basis for the start of the process of digital transformation of public services in agriculture. Established e-Poljoprvireda system through which digital public services will be published.	Percentage (implementation of the Action Plan, secured internal resources, e-Agriculture system, public services)	1) 0% 2) 0% 3) 0% 4) 0%	1) 100% 2) 100% 3) 100% 4) 100%	1) 4Q/2021 2) 4Q/2021 3) 3Q/2021 4) 3Q/2025	MINISTRY OF AGRICULTURE, PAAFRD, ARRESTS	MPOLJ	1) the milestone revision "Action Plan" implies that all administrative services carried out by the Ministry of Agriculture, in accordance with the legal basis, will be recorded and catalogued. The services will be analysed in detail in order to define the workflow of current business procesa processes (business process model) and to design the basis for transformation, simplification and improvement and automation of digitisation services. Each service recorded in the catalogue through this phase of the project will be contained in the Action Plan, will have defined transformation steps whose completion must be digitally publicly available. The contents of the Action Plan will offer a clear scope and a timely assessment of the implementation of digital	Assumption - employee dedication to analysis and preparation of information on public services within their competence, adequate knowledge of legal frameworks and obligations, availability of planned funds in the national budget risk - long-term process of analysis with users in order to determine all public services in agriculture and their scope, readiness to move away from habits and change of thought in order to simplify and digitally transform public services, preparation of accompanying legal changes	Administrative and on-the-spot checks.

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									transformation of public services of agricultural administration. 2) organised, completed and adequately trained organizational unit for implementation and management of digital transformation projects 3) the second component of this investment, the component of the information system through which digital public availability of services would be enabled, is technically already defined in the early phase of implementation. It includes the e-Agriculture system, which will in the future represent a central platform for all online services in agriculture, i.e. a unique place for reviewing all agricultural information systems, digital public services and communication with agricultural administration and professional support. 4. The number of public services that flourished the simplification and transformation process and became digitally publicly available.		
C1 .5. R3-I2 smart farming	1) E-Advisor 2) system for Central Communication Management 3) National Catalogue of Agricultural Education 4) Integration of Agricultural	Established all planned systems, beneficiaries actively use the smart Agriculture Platform, increasing productivity of agricultural production for users of the smart	Percentage of productivity of production in relation to the EU	31%	40% or more	1) 2Q/2021 2) 1Q/2022 3) 1Q/2022 4) 1Q/2025 5) 1Q/2025	MINISTRY OF AGRICULTUR E, PAAFRD, ARRESTS	MPOLJ	1) E-Advisor - first phase of the smart Agriculture Platform 2) established system for central communication management 3) established national catalogue of agricultural education 4) information systems of agricultural administration integrated	Assumption - availability and education of internal capacities OF THE MINISTRY of CULTURE, availability of planned financial resources in budgetary years, cooperation of sectoral organisations	Administrativ e and on-the-spot checks.

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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	information systems 5) all components of the smart Agriculture Platform have been established	field Platform							according to sectoral vertical 5) All components of the smart Agriculture Platform are established, beneficiaries actively use the system and first parameters are achieved for comparing productivity of agricultural production of individual users	of the field sector with THE MINISTRY of AGRICULTURE, willingness of farmers to undertake an initial greater effort to overcome new technology and achieve long-term results - insufficient information and willingness of farmers to change, unavailability of resources of the Ministry of AGRICULTURE, PAAFRD and CIH to transfer knowledge and new technologies to farmers, limited financial resources in a given financial year	
C1 .5. R3-I3 traceability system	1) Identification of all stakeholders and processes in the food system 2) cataloguing the traceability process for all product types 3) establishment of critical traceability points and control solutions 4) establishment of traceability information system 5) implemented traceability for all food products	Traceability system for agricultural products in place	Percentage (identified stakeholders, traceability rates, critical points, established information system and traceability system)	1) 0% 2) 0% 3) 0% 4) 0%	1) 100% 2) 100% 3) 100% 4) 100%	1) 4Q/2021 2) 4Q/2021 3) 2Q/2022 4) 2Q/2022 5) 4Q/2025	MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ	1) analysis of processes and stakeholders in food production, processing and distribution chains 2) detailed analysis and cataloguing of all processes and activities in food production, processing and distribution processes 3) identification of critical points in the traceability system and implementation of solutions to rehabilitate and monitor RTE points entry and exit 4) central system to verify all stakeholders, input and output information and ensure traceability from source of products or ingredients to customer	Assumption - All information systems in which data are recorded and administered are consolidated and contain only data that are harmonised with national registers and distributors and ready for integration, knowledge of processes and stakeholders that would be subject to the risk traceability system - unwillingness of system participants to share business data - breaking up the product chain and inability to fully traceability, long-term changes or	Administrative and on-the-spot checks.

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			Unit of measure	Baseline value	Target value						
										harmonisation of the legal framework.	
C1 .5. R4 improvement of food donation system							MINISTRY OF AGRICULTURE, PAAFRD	MPOLJ			Administrative and on-the-spot checks.
C1 .5. R4-I1 infrastructural equipping of food banks and intermediaries in the food donation chain	Contracted and paid funds under the support programme for infrastructural equipping of food banks and intermediaries in the food donation chain	Infrastructural equipped Food Bank	Amount of funds paid (HRK)	0	38.000.000	2Q/2024	MPOLJ	MPOLJ	Funds for infrastructural equipping of food banks and intermediaries in the food donation chain will be paid under the framework of the support programme which will define eligible costs which include construction and adaptation of the storage area, storage equipment and furniture, refrigerators and food storage equipment, forklift trucks, refrigerated vehicles, vehicles and it equipment. A clause will be agreed with the beneficiaries that all unintentional funds will have to be returned.	The presumption is the publication of the aid scheme, the publication of tenders, the conclusion of contracts	Administrative and on-the-spot checks.
	Food Bank established	Food Bank established	Number	0	1	4Q/2023	MPOLJ	MPOLJ	A food bank will be established and equipped with infrastructure equipment. The Republic of Croatia does not have a food bank although they have proven to be successful models worldwide for improving the efficiency of food donation systems. Namely, food banks are non-profit organisations that act as “non-profit wholesale companies”, connecting donors and intermediaries in the food donation chain.	The presumption is the publication of the aid scheme, the publication of tenders and the conclusion of contracts. It is rickzik that they will not be interested in setting up a food bank, but we believe that financing capital investments will certainly motivate the initiation of this kind of activity.	Administrative and on-the-spot checks.
C1 .6. Development of sustainable, innovative and resilient tourism											
C1 .6. R1 Investments in increasing the resilience and competitiveness of the tourism economy											
C1 .6. R1-I1	Number of	Not applicable	Number of	0	600	2Q/2026	MINTS	MINTS	The introduction of digital	Risk: Unpreparedness	Insight into

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diversification and specialization of Croatian tourism through investments in the development of health and sports tourism	financed projects		financed projects						technologies to improve business operations and strengthen entrepreneurs' competitiveness, and 800 projects will be realised. 400 projects will be financed to involve stakeholders in tourism activities and related sectors in value chains with the aim of increasing private investment. Investments such as construction, equipping, reconstruction and reconstruction of the infrastructure of small renters, development of accompanying services and programmes; equipping of infrastructure, other related expenditures with the aim of creating family hotels, and 100 projects will be realised.	of projects by entrepreneurs and will be addressed through continuous communication with relevant stakeholders.	the internal MINTS records.
C1 .6. R1-I2 changing the quality of the tourist offer by strengthening the competitiveness of SMEs	Financing of projects	Not applicable	Number of financed projects	0	50	2Q/2026	MINTS	MINTS	This investment will realise at least 50 public and private sector projects which will enable diversification of tourist offer through special forms of tourism with the aim of extending the tourist season in which investments will be made in construction, reconstruction, upgrading and equipping of public and private sector infrastructure providing health and related services. In addition, 100 projects are planned for the purpose of using environmentally conscious aspects of charter fleet	Assumption: possibility of quick project preparation and sufficient number of preparatory projects in MINTS base. Procurement procedures implemented quickly and efficiently.	Insight into the internal MINTS records.

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									propulsion fuel and cruise ships in national navigation		
C1 .6. R1-I3 Strengthening the capacity of the system for resilient and sustainable tourism	Number of financial incentives granted for pupils and students enrolled in tourism programmes	Not applicable	Number of scholarships awarded	0	1000	4Q/2023	MINTS scholarship Register	MINTS	The grant of scholarships ensures the necessary increase of enrolment of the number of pupils and students in the tourism and hospitality sectors with the aim of improving the quality of human resources in the sector. The investment will be managed centrally, with the necessary relevant involvement of other stakeholders in accordance with the competences.	Risk: insufficient number of applicants/ scholarships and insufficient interest of relevant applicants for applications will be addressed through constant communication and information workshops and a campaign aimed at informing and acquainting relevant stakeholders with the advantages of participating in the project.	Insight into the MINTS scholarship register.
	Implementation of life-long learning programmes (employers' employees) for green, smart, sustainable and resilient tourism	Not applicable	Number of participants (employees with employers)	0	500	4Q/2023	Internal records of employers	MINTS	Since by financing skills building for sustainable, smart and green tourism, improving access to lifelong learning by developing educational programmes, it is planned to educate at least 500 employees in tourism enterprises according to educational programmes in lifelong learning for sustainable, smart, resilient and green tourism, this investment is efficient in the short term, but also in the long term with the aim of strengthening human capacity in the sector.	Risk: insufficient number of registered participants and insufficient interest of relevant applicants will be solved through constant communication and information workshops and a campaign aimed at informing and acquainting relevant stakeholders with the advantages of participating in the project.	Insight into employers' internal records.
	Number of promotional campaigns to raise the level of competitiveness of the destination	Not applicable	Number of promotional campaigns	0	3	4Q/2023	HTZ	MINTS	The project will support 3 promotional campaigns to improve the level of competitiveness of destinations, i.e. promote key tourist products in the most important information markets.	Risk: inefficiency of one form of promotion (offline, online), unrealistically set scope of campaigns and continuation or escalation of the pandemic can be an	Insight into the Croatian Tourism Board's annual report on the results of implemented

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										obstacle to the promotion campaign, and will be solved by introducing several elements of the online campaign that proved more resilient at the time of the pandemic.	campaigns.
	Number of participants (general public and HZZ employees) of the Lifelong learning Programme for Green, smart, Sustainable and resilient Tourism	Not applicable	Number of participants (general public and HT employees)	0	1000	4Q/2023	ASOO, upon request, HTZ	MINTS	This project concerns the continuation of funding for skills building for sustainable, smart and green tourism, improving access to inclusive and quality education, training and lifelong learning services through the development and implementation of educational programmes. It is also planned to educate at least 1,000 participants according to educational programs in lifelong learning for sustainable, smart and green tourism; to educate the employees of tourist boards for destination management.	Risk: insufficient number of registered participants and insufficient interest of relevant applicants will be solved through constant communication and information workshops and a campaign aimed at informing and acquainting relevant stakeholders with the advantages of participating in the project.	Insight into the data of ASOO and HTZ.
	Adoption of occupational standards, qualifications standards and study programmes in the field of gastronomy	Not applicable	1) Number of occupational standards, 2) Number of qualifications standards 3) Number of study programmes	1) 0 2) 0 3) 0	1) 1 2) 1 3) 1	4Q/2023	MOZVAG, CROQF Register	MINTS	The project will support the development of a framework (occupational standard, qualifications standard and study programme) for the introduction of gastronomy in science and higher education and all related processes with the aim of enrolling in relevant registers and databases.	Risk: unpreparedness of the qualification system and science and higher education for innovative poets, to be addressed at operational level.	Inspection of MOZVAG and CROQF Register
	Functional ICT solution for value chains in tourism established	Not applicable	Number	5	6	1Q/2023	Centre of shared services	MINTS	The project will encompass the establishment of a platform targeted at all stakeholders throughout the tourism value chain.	Risk: lack of preparation of project documentation and insufficiently trained staff for public procurement	Insight into data of the Centre for shared services.

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										implementation, and will be solved by using advisory and educational resources.	
C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY											
C2 .1. Strengthening the capacity to develop and implement public policies and projects											
C2 .1. R1 effective and efficient coordination and management of the strategic planning system											
C2 .1. R1-I1 Strengthening the capacity of the Network of Coordinators for Strategic planning at national and regional level to formulate and implement public policies and projects	1a) adopted Catalogue of competences for performing strategic planning tasks in state and public services	n/p	1b) Number of available training programmes for strategic planning	1b) 2	1b) 8	1a) 1Q/2023 1b) 4Q/2023	MRDEUF	MRDEUF	A catalogue of competencies for jobs in strategic planning units in state and public administration bodies will be developed.	Risk: capacity shortage	Report
	2a) Education modules for strategic planning for the national, regional and local level in application	n/p	2b) Number of educated civil and public servants for strategic planning (cumulative)	2b) 0	2b) 950	2a) 2Q/2023 2b) 4Q/2023	MRDEUF	MRDEUF	The number of available training programmes as well as the number of participants participating in them will be monitored	Risk: lack of interested participants.	Number of participants in education/issued certificates of participation Annual training Plan
C2 .1. R1-I2 introduction of evidence-based public policy preparation and communication instruments for public policies	Instructions for assessing public policy expenditures published	Instructions published on the MRDEUF website	n/p	n/p	n/p	2Q/2022	MRDEUF	MRDEUF	Following the establishment of the methodology, selected structural measures will be elaborated using the methodology	Risk: lack of number of processed measures.	Websites of MRDEUF, TDU website.
	Adoption of the evaluation plan for strategic planning acts of national importance	Plan adopted and published on the website of MRDEUF	n/p	n/p	n/p	3Q/2022	MRDEUF	MRDEUF	Instructions for the assessment of public policy expenditures will be presented and published.	Risk: Preparation of the institutional framework due to lack of capacity.	The website of MRDEUF.
	Adopted report on the assessment of macroeconomic and fiscal effects of main structural measures	Report adopted	n/p	n/p	n/p	1Q/2023	MRDEUF	MRDEUF	A evaluation plan for acts will be adopted and its implementation will establish a high-quality collection of the effects of public policy implementation covered by the evaluation	Risk: Preparation of the institutional framework due to lack of capacity.	The website of MRDEUF.
C2 .1. R2 Strengthening capacities for preparation and implementation of EU projects											

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			Unit of measure	Baseline value	Target value						
C2 .1. R2-I1 ensuring assistance to beneficiaries in the preparation of tender project-technical documentation	1) publication of calls for project preparation within 6 months from the beginning of 2021. 2) Preparation of projects in the amount corresponding to the amount of RC allocated funds for 2021-2022.	1) invitation published	2) projects contracted in % of value (contracted/published)	2) percentage: 0%	2) percentage: more than 95%	1) 2Q/2021 2) 4Q/2024	Data of the system for monitoring the implementation of bodies responsible for implementation.	MRDEUF	This investment will provide assistance to beneficiaries in timely preparation of tender documentation for green and digital transition projects, common to RDF and cohesion policy. Calling is expected by 6 months in 2021, while contracting more than 95% of the announced funds is expected by the end of 2024.	Risk: insufficient administrative capacity. Pandemic.	Regular and ad hoc reports on the implementation of the bodies responsible for implementation.
C2 .2. Further improvement of the efficiency of the public administration											
C2 .2. R1 Strengthening and empowering human resources											
C2 .2. R1-I1 centralised selection system	Introduced model	Developed and functional system	Number of systems	0	1	2Q/2024	Project Report	RAMP	Introduction of centralised selection system	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R1-I2 Development of Digital competences of Officials and Officials	Educated employees	Enhanced digital skills	Number of employees	0	1000	2Q/2024	Completed program certificate	MPA/SDURDD	Educated employees in the field of digital skills.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Reports in the project/certificate of completion of the training
C2 .2. R1-I3 e-State Experts exam	Introduced model	Developed and functional model	Number of models	0	1	2Q/2021	Project Report	RAMP	this project plans to digitalise the process of taking the State Experts exam with the aim of making it more transparent, accessible (in more locations across the country) and efficient system of taking exams	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R2 organisational models in the public administration											
C2 .2. R2-I1 Development of the HRM system	Established system	Developed and functional system	Number of systems	0	1	2Q/2024	Project Report	RAMP	Introducing a transparent employment system, establishing a career	Assumption: Human capacities secured, tender documentation	Project reports.

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services									development system in the public administration, equalising the salary and reward system and optimising the number of employees.	prepared. Risk: long-term procurement procedures, delivery delays.	
C2 .2. R2-I2 introduction of a model for hybrid access to the workplace – smart working	Introduced model	Developed and functional model	% of equipped employees in the model	0%	30%	2Q/2023 (the funds will be drawn by increasing employees by every 5%)	Project Report	RAMP	Establishment of innovative workflow based on the flexibility element of working hours and place of work according to the needs of the process and plans of public administration bodies. This is 30% of officials in state administration bodies.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R3 smart PA — further optimization and digitization of processes											
C2 .2. R3-I1 Digitalisation of public administration procedures	Development of disseminated public administration services	Developed/ upgraded e-services	Number of services	0	5	2Q/2024 (funds will be withdrawn by establishing/upgrading an e-service)	Project Report	RAMP	A minimum of 5 e-services from the Administration Department have been developed/upgraded.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R3-I2 establishment of single administrative posts — YUM (Phase 1 and 2)	Platform of established physical JUM sites	Number OF UM locations	Number of established UM sites	0	200	2Q/2024 (the funds will be drawn by increasing THE UM sites for every 10)	Project Report	RAMP	As an upgrade of the e-citizens system and a constituent part of the state information infrastructure in order to provide information and services of different public administration bodies to citizens and entrepreneurs in one place (Phase 1) as well as the establishment and expansion of a network of physical SAD sites (Phase 2)	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R3-I3	Established	Developed and	Number of	0	60	42Q024	Project Report	MK	A system for easier	Assumption: Human	Project

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establishment of digital infrastructure and public administration services by creating a conservation base system	system	functional model	developed conservation bases						obtaining of licenses related to the law on the Protection of Cultural property will be established. Educational programme in the field of preparation and application of conservation bases will be developed. 60 conservation bases will be developed, which will be part of the spatial planning documentation.	capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	reports.
C2 .2. R3-I4 improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archive network	Established system	Developed and functional model	Number of creators of materials	0	600	42Q025	Project Report	MK	The program of standardized documentation management, digitization and storage of digitised materials will begin. It will include 600 creators of materials that use the national information system for managing and storing documentation.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R4 functional and sustainable local self-government											
C2 .2. R4-I1 further optimisation and decentralisation of LC (R)SGU through support for functional mergers	Optimised LC (R)SGU		Number of LC (R)SGU	0	50	4Q/2024	Project Report	RAMP	Through this investment it is planned to support further process of functional optimization of activities within the scope of local units (e.g. utilities, pre-school education, public transport, etc.).	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .2. R4-I2 further optimisation and decentralisation via e-services of local self-government and further digitalisation of public services	LC (R)SGU providing shared e-services developed in the project		Number of LC (R)SGU	0	150	2Q/2024 (funds will be drawn from an increase of LC (R)SGU for every 10)	Project Report	RAMP	Preparation, development and implementation of e-services of local and regional self-government accompanied by optimisation and digitization of internal procedures of LC (R)SGU, using available key elements of national IT infrastructure	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .3. Digital transition of society and economy											

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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C2 .3. R1 Digital Croatia Strategy and strengthening interinstitutional cooperation and coordination for a successful digital transition of society and economy	Drafting the Digital Croatia Strategy	digital Croatia Strategy drafted	coma	0	1	2Q/2021	SDURDD	SDURDD	Drafting and adoption of the Digital Croatia strategic document	Risk: delays in initiating and drafting a strategic document will delay the realidation of digitisation investments.	Based on the completed document.
	Establishment of a system of coordination and monitoring of projects	Prepared system for project coordination and monitoring	coma	0	1	Q/2022	SDURDD	SDURDD	Process analysis, defining the scope and business requirements of the system and development of the system and implementation of processes of planning, evaluation, prioritisation, approval and monitoring of digitisation projects at the level of the Republic of Croatia.	Assumption: It is necessary to prepare project documentation in a timely manner and initiate public procurement procedures.	Based on the implemented system
C2 .3. R2 improving interoperability of information systems											
C2 .3. R2-I1 establishment of a central interoperability system	Integration of registry registers into GSB PERFORMED	Number of registers	Number of registers of registry connected to THE GSB	0	60	2Q/2026	SDURDD, APIS;	SDURDD	Integration of mate's data on the collection is planned for integration of 10 registers per year	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the Integration Report
	Integration achieved through the Central interoperability system and external systems	IT system number	Number of IT systems/services connected to GSB	0	20	2Q/2026	SDURDD, APIS; TDU	SDURDD, TDU	The registers are linked to certain services and systems. After the integration of the registers into THE GSB, it is necessary to integrate the systems with new web services that pass through the collection.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report
	Central National interoperability Portal implemented	Production system	Number	0	1	4Q/2021	SDURDD; APIS	SDURDD	The aim is to implement the Central interoperability Portal where it would be a catalogue of all services, descriptions and strategies, standards, descriptions of components and solutions.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the delivery report
	Central	Production	Number	0	1	4Q/2022	SDURDD;	SDURDD	As part of the Singe digital	Assumption: Human	Based on the

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	interoperability system linked to the EU OOP Technical system	system					APIS		Gateway procedure, the aim is to connect our collection with THE TOP project	capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Integration Report
	Established and integrated SDG services	Systems connected to and in production	Number	0	21	4Q/2023	SDURDD, APIS; TDU	SDURDD, TDU	There are 21 services that must be implemented by the end of 2023, which is one of the objectives of this investment	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the Integration Report
C2 .3. R2-I2 establishment of the IoT platform at the national and local level	Establishment of the IoT Platform	Platform established	Number	0	1	1Q/2022	SDURDD, APIS; TDU	SDURDD	The goal is to implement and establish an IOP platform so that it can be used by users. Milestone also includes the acquisition of a platform	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report on the implemented platform
	Training of users for use of IoT platform	Users educated	Number	0	300	2022-2026	SDURDD, APIS; TDU	SDURDD	Education of beneficiaries on an annual basis. So, once a year, there will be an education	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Reports and certificates on conducted education/sub-specialisation
	Building interoperability and integration of platform into European Common Data packages	Integration established	Number	0	1	4Q/2022	SDURDD, APIS; TDU	SDURDD	Integration of platform with ECDS platform so that data can be exchanged at EU level	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the Integration Report
	Integration of external systems and sensors on the platform	Systems integrate and exchange data	Number	0	90	2Q/2026	SDURDD, APIS; TDU	SDURDD	Pilot projects. Integration of external systems and sensors into the implemented platform	Assumption: Human capacities secured, tender documentation prepared.	Based on the Integration Report

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			Unit of measure	Baseline value	Target value						
										Risk: regulatory challenges, long-term procurement procedures, delivery delays.	
	Implementation of project visibility	Promotion and visibility performed	Number	0	1	4Q/2022	SDURDD, APIS; TDU	SDURDD	Implementation of project visibility with the aim of detecting potential beneficiaries	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Visibility report, copies of propaganda.
	Capacity upgrade of the platform depending on demand	Platform upgraded	Number	0	4	2022-2026	SDURDD, APIS; TDU	SDURDD	Upgrading the platform depending on the need for each year. In advance, it is very difficult to predict real needs, especially for data storage.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the delivery and report log
C2 .3. R2-I3 establishment of a data warehouse and a business analytics system	Establishment of DWH platform	Platform established	Number	0	1	1Q/2022	SDURDD, APIS; TDU	SDURDD	The goal is to implement and establish a storage platform and analysis so that it can be used by the user. Milestone also includes the procurement of platforms and tools	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report on the implemented platform
	Training of users for use of DWH platform	Users educated	Number	0	300	2022-2026	SDURDD, APIS; TDU	SDURDD	Annual education for new users. The goal is to educate users in the tool utilisation segment - data analysis	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Reports and certificates on conducted education/sub-specialisation
	Integration of platform into interoperability system	Systems integrate and exchange data	Number	0	1	4Q/2022	SDURDD, APIS; TDU	SDURDD	Platform integration with European Data Spaces envisaged	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement	Based on the Integration Report

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implement ation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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										procedures, delivery delays.	
	Implementation of project visibility	Promotion and visibility performed	Number	0	1	4Q/2022	SDURDD, APIS; TDU	SDURDD	Implementation of project visibility with the aim of detecting potential beneficiaries	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Visibility report, copies of propaganda.
	Capacity upgrade of the platform depending on demand and integrated SDG services	Platform upgraded	Number	0	4	2022-2026	SDURDD, APIS; TDU	SDURDD	Upgrading the platform depending on the need for each year. In advance, it is very difficult to predict real needs, especially for data storage.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the delivery and report log
	Integration of external systems with central platform	Systems integrate and exchange data	Number	0	90	2Q/2026	SDURDD, APIS; TDU	SDURDD	Pilot projects. Integration of external systems or databases into the central platform. A total of 90 systems are planned, which implies the establishment of an ETL process or the creation of a dashboard on existing data for an institution	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the Integration Report
C2 .3. R3 Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies											
C2 .3. R3-I1 Upgrading of the Shared services Centre	Platform for the establishment of a developmental and implementation environment in the information Cloud has been established	Number of users	Number	0	3	4Q/2022	SDURDD, APIS; TDU	SDURDD	The aim is to implement and establish a platform for development, testing and implementation of users of the Shared services Centre, in order to make this process more efficient, especially if the production environment is also located within the CDU.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report on the implemented platform
	Established Platform for Contact Centre and problem reporting ICT support and	Number of users	Number	0	3	4Q/2023	SDURDD, APIS; TDU	SDURDD	Establishment of a contact centre only for CDU services, as well as for regional users	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term	Based on the report on the implemented platform

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			Unit of measure	Baseline value	Target value						
	resolution									procurement procedures, delivery delays.	
	Platform for information Security Surveillance established	Number of users	Number	0	3	4Q/2022	SDURDD, APIS; TDU	SDURDD	A platform for collecting, normalising and automated analysis of security events and logs from different real-time devices will be established. The process of implementation of Platform Procurement enters Milestone	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report on the implemented platform
	Established Platform for Content Management of TDU, TJV and LS Portal	Number of portals	Number	0	3	4Q/2023	SDURDD, APIS; TDU	SDURDD	A platform for creating and managing digital content of web pages will be established through possibilities for user creation, modification and deletion of content from the web and Backend content management on the web. The use of functions and features for intuitive indexing, searching and retrieval of content, format, auditing, publishing, SEO-adjusted URLs, discussion forums, template, admin panel with multilingual support gives users the opportunity to quickly publish new web pages. The process of implementation of the Platform procurement is also being entered into Milestone.	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report on the implemented platform
	Established Platform for biometric authentication for citizens and employees of SABs, TJV and LS	Number of users	Number	0	3	4Q/2022	SDURDD, APIS; TDU	SDURDD	A platform will be established that enables management of access rights, identity and security by using fingerprint recognition technology, facial recognition and other biometric technologies. The platform procurement	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the report on the implemented platform

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			Unit of measure	Baseline value	Target value						
									process enters Milestone		
	Annual system maintenance delivered	Annual maintenance of systems and licenses purchased	Number of annual system maintenance	0	5	2022-2026	SDURDD, APIS; TDU	SDURDD	A very important segment of the CDU are the licenses to be paid on an annual basis	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the delivery log
	Capacity extension	Capacity expanded annually	Total number of years of capacity enlargement	0	3	2023-2026	SDURDD, APIS; TDU	SDURDD	Upgrading the platform depending on the need for each year. Forecasting needs are defined in the project description	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the delivery log
	State Cloud connected to EDS	Integration performed	Number	0	1	4Q/2023	SDURDD, APIS; TDU	SDURDD	Merging the state clouds into European Data Spaces	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Based on the Integration Report
C2 .3. R3-I2 Construction of data centre for public administration and LGAP	Purchase or conversion of land for construction	Purchased or converted land	Number	0	1	2Q/2022	SDURDD	SDURDD	Based on the analysis, make a decision on the purchase or conversion of land suitable for the construction of a data centre and complete the process of purchase or conversion of land	Assumption: secured human capacities, support of all SABs and LGAP in decision making risk : lack of necessary documentation on land, support OF LGAP and SABs for adoption of legislation prior to decision making	Decision on construction or conversion was made
	Documentation obtained for construction or conversion	Building permit obtained	Number	0	1	1Q/2023	SDURDD	SDURDD	Obtain all necessary documentation for construction or conversion	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays	Based on the seizures

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	Data Centre built	Data centre built and certified	Number	0	1	1Q/2025	SDURDD	SDURDD	Data centre constructed and certified according to documentation	Assumption: All documentation harmonized where necessary for the certification risk: lack or defective documentation prior to the certification process.	Certification document for the THIER3 standard obtained
	Relocated equipment from the CDU project	Relocated equipment from the CDU project	Percentage	0	100%	2Q/2025	SDURDD	SDURDD	Moving all ICT equipment acquired from the Shared services Centre project to the Data Centre	Assumption: the system can be moved completely without risk turning out : inability to move due to potential system failures	all equipment moved and procured within the framework of the project establishmen t of the CDU according to documentatio n
	Moving data systems and registers and TDU and LPRS applications	Resettled data systems and refgists and TDU and JLPRS applications	Percentage	0	100%	2Q/2026	SDURDD	SDURDD	Moving all data systems, registers and applications of SABs to JLPRS to secure data centre environment	Assumption: There is no excessive deviation in data on data systems, registers and applications risk: adjustment of data systems, registers and applications cannot be made according to time requirements or financial resources	Based on the existing analysis, all databases and registers of this body application are adopted in the data centre
C2 .3. R3-I3 Strengthening police capacities to combat cybercrime	Organisational units of the Ministry of Interior equipped with special software and hardware components	Equipped units	number	0	25	3Q/2023			Organisational units of the Ministry of Interior equipped with special software and hardware components		
	Educated police officers	Users educated	number	0	65	3Q/2024					
	Procured investigative analytical computer sets	received sets	number	0	135	3Q/2024					
	Education in digital forensics	Educated police officers	number	0	65	2Q/2024					

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			Unit of measure	Baseline value	Target value						
	and cyber attack research										
C2 .3. R3-I4 establishment of a single contact centre for all e-public services for providing user support	Adoption of the legal regulations	Regulation of the lower	Number	0	1	2022-2024	SDURDD; APIS; AKD; FINA; TDU	SDURDD	Adoption of the necessary legislation	Assumption: secured human resources, knowledge of service concepts, necessary consensus of all stakeholders. Risk: delay in harmonisation.	Inspection of the adopted legal act, Official Gazette.
	Establishment of a single user center platform	Platform established	Number	0	1	2022-2024	SDURDD, APIS; AKD; TDU	SDURDD	Establishment of a single contact centre with all necessary modules	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project report, insight into the platform.
	Integration of external systems on the platform	Systems integrate and exchange data	Number	0	10	3Q/2023	SDURDD, APIS; AKD; TDU	SDURDD	Integration of existing systems into the platform	Assumption: completed procurement procedure, concluded contract on implementation risk: duration of procurement procedures. Delivery delay.	Report in the integration project.
	Training of users for the use OF THE PES platform	Users educated	Number	0	200	4Q2024	SDURDD, APIS; AKD; TDU	SDURDD	Annual education for new beneficiaries	Assumption: presumption: completed procurement procedure, concluded contract on implementation risk: duration of procurement procedures. Delivery delay.	Report on completed education.
	Implementation of visibility of the measure	Promotion and visibility performed	Number	0	1	4Q/2022	SDURDD, APIS; AKD; TDU	SDURDD	Visibility for citizens	Assumption: completed procurement procedure, concluded contract on implementation risk: duration of	Visibility report, copies of propaganda.

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										procurement procedures. Delivery delay.	
C2 .3. R3-I5 consolidating the system of HEALTH information infrastructure	1. A specific agreement with the primary provider of shared services 2 . Prepared public procurement procedures 3. Public procurement of machine equipment 4. Public procurement of licences for software products 5. Public procurement of Oracle Server 6. Public procurement of Oracle licenses of equipment 7. Installation of machine equipment in data centre 8. Migration of the COMMON SYSTEM										
C2 .3. R3-I6 Project for introducing a digital ID card	Increasing the number of users of electronic ID card functionalities	Issued certificates for remote qualified el. signature	number	0	300.000	1Q/2021 - Q $/2023	AKD, MINISTRY OF INTERIOR	AKD, MINISTRY OF INTERIOR	It is expected that the project to introduce a digital ID card and enable the use of electrical functionality on mobile platforms will significantly increase the number of users of el. functionality of the OI.	Assumption: established system for digital identity management system, established system and applications for mobile signature and sealing risk: capacities	Reports during project implementation
	Design of digital identity management systems	System Design made	number	0	1	2Q/2020	AKD	AKD	Development of the Digital identity Management system Design Document		
	Implementation of the digital identity	Implemented system	number	0	1	3Q/2020 - 2Q/2021	AKD	AKD	Development and establishment of	Assumption: prepared document for	Reports during project

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	management system								components of the digital identity management system	designing the digital identity management system risk : duration of the procurement procedure. Lack of personnel. Delay of the contractor/supplier.	implementation, contract concluded with supplier, testing, operative funckional system
	System design and application for mobile signing and stamping	System Design made	number	0	1	1Q/2020	AKD	AKD	Creating a system design document and an application for mobile signing and stamping		
	Implementation of the mobile signature and stamping system and application	Implemented system and application	number	0	2	2Q/2020 - 2Q/2021	AKD	AKD	Development and establishment of components of the system and application for mobile signing and stamping	Assumption: prepared document of system design and application for mobile signing and stamping risk: duration of procurement procedure. Lack of personnel. Delay of the contractor/supplier.	Reports during project implementation, contract concluded with supplier, testing, operative funckional system and application
	Implementation of marketing campaign	Campaign completed	number	0	100%	4Q/2021	AKD, MINISTRY OF INTERIOR	AKD, MINISTRY OF INTERIOR	Marketing campaign carried out		Reports during campaign implementation
C2 .3. R3-I7 Investments in national information infrastructure networks	Prepared study on the development of the network of state information infrastructure	Prepared study	coma	0	1	2Q/2021	SDURDD, TDU	SDURDD	Recording the existing state and needs of all SABs, elaboration of proposals for solutions for new network architecture (both wired and wireless access), development of interconnection model for all networks used in public legal bodies, coverage of additional locations of new users, development of technical specification for procurement of complete assembly equipment necessary for establishment of new network design.	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	
	Establishment of	Number of users	Number	0	30	O4/2022	SDURDD, TDU	SDURDD	Hardware and	Assumption:	

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	the core part of the DII network								corresponding licenses of software needed to establish a new network of state information infrastructure will be procured and installed.	completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	
	Establishment of Network Monitoring Centre and User support Centre	established Centre	Number	0	2	4Q/2021	SDURDD	SDURDD	Modernisation of network monitoring centre, as well as customer support system, which will operate 24/7 due to specific dependence of other information systems on availability of state information infrastructure network.	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	
	Consolidation of users on the DII network	Number of users	Number	0	100	2Q/2024	SDURDD, TDU	SDURDD	All existing users need to migrate their network links in the access section to the newly established core part of the state information infrastructure network	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	
	Implementation of education	Number of users	Number	0	100	2Q/2024	SDURDD. SABS	SDURDD	Education of employees working on network connection of bodies will be ensured	Assumption: secured human resources, knowledge of service concepts, necessary consensus of all stakeholders. Risk: delay in harmonisation.	
C2 .3. R3-I8 improvement of the system of physical planning, construction and state property through digitisation	Digitised legal procedures with modules	Number of modules developed	Number	0	9	1Q/2026	MPGI	MPGI	Digitization of procedures in physical planning, construction and state property through module development as part of the spatial planning information system	Assumption: Human resources secured risk: long-term public procurement procedures	Project implementati on Report, execution of contracts
	Implementation of THE BI reporting and planning system	Number of developed systems	Number	0	1	4Q/2023	MPGI	MPGI	The system for monitoring the business operations of state-owned legal entities intended for faster and	Assumption: Human resources secured risk: long-term public procurement	Project implementati on Report, execution of

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									more efficient reporting	procedures	contracts
	Implementation of satellite images of the territory of the Republic of Croatia	Number of consignments of satellite images	Number	0	20	4Q/2021	MPGI	MPGI	Procurement of satellite images of the territory of the Republic of Croatia with a high resolution, which are the basis for even better and more efficient operation of the eSpatial inspection module, and which supervises the territory of the Republic of Croatia in terms of devastation, illegal construction, etc.	Assumption: Human resources secured risk: long-term public procurement procedures	Project implementation Report, execution of contracts
	Unified procedures for drafting spatial plans of the Republic of Croatia in digital form	Number of transformed plans	Number	0	1200	2Q/2026	MPGI	MPGI	Transformation of 1,200 spatial plans into new generation plans (digitisation of spatial plans)	Assumption: Human resources secured risk: failure to fulfil contractual obligations	Project implementation Report, execution of contracts
	Analytical bases designed for digitisation purposes	Number of analyses performed	Number	0	10	4Q/2024	MPGI	MPGI	Preparation of expert analytical bases for spatial plans of areas with special characteristics of the state level	Assumption: Human resources secured risk: long-term public procurement procedures	Project implementation Report, execution of contracts
	Knowledge transfer and educated system users	Number of educated beneficiaries	Number	0	200	4Q/2025	MPGI	MPGI	For the purpose of investment sustainability it is necessary to educate 200 system users (civil and civil servants)	Assumption: Human resources secured risk: non-integration of users for education.	Project implementation Report
C2 .3. R3-I9 outsourcing OF NIAS services for the economy	1. Performed analysis of condition and needs 2. Amendments to Act 3 have been implemented. Prepared business and technical documentation (agreed rights and obligations of all stakeholders regarding terms and conditions of	Number of business entities or their e-services connected to NIAS	Number	0	1	4Q/2021-4Q/2026	SDURDD, NICE!	SDURDD	Indicator name: Number of business entities or their e-services included in THE NIAS Indicator definition: legal entities or natural persons engaged in an economic activity in the Republic of Croatia and providing online services for which access and use requires electronic user identity INDICATOR data source: certificate of acceptance	Assumptions: secured human capacities, amended legal regulations, quality cooperation with HUP and HGK in coordination of determining the list of inclusion of business entities, risk: weaker interest or unwillingness of business entities	Project implementation Report, number of certificates of acceptance test on the inclusion of e-services at NIAS

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	service to business entities (SLA) 4. Necessary ICT capacity extensions, adaptation and maintenance of NIAS, eIDAS node and e-ratings 5 are secured . Successful Pilot business entities/ e-services included in the group: small, medium and large enterprises and non-profit organisations 6. Prepared framework plan for inclusion of business entities/ e-services in NIAS 7. Included 1. Group – 100 legal entities or e-services 8. Included 2. Group – new 200 business entities or e-services 9. Included 3. Group — New 300 business entities or e-services 10. Included 4. Group — New 400 business entities or e-services 11. Included 5. Group – New 500 business entities or e-services								test for integration into NIAS e-services provided by business entity indicators: • included 1,000 e-services provided by business entities		

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C2 .3. R3-I10 Development of the Digital Mobile Platform	Development of mobile application mcitizens, UX/UI	Mobile application developed	Number	0	1	2021-2022	SDURDD, APIS; TDU	SDURDD	Development of mobile platform for the development of mobile application citizens, with a simple and intuitive overview of available customer services	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	Development of authorization and authorization module	Modules made	Number	0	1	2021-2022	SDURDD, APIS; TDU	SDURDD	Creating a new module for authorization in mobile applications using the latest metics of applications, and satisfying THE NIAS method	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	Finishing background services (OKP and eMatice)	Upgraded services	Number	0	1	2021-2022	SDURDD, APIS; TDU	SDURDD	Development of services to connect to the OKP and Matica	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	CDU GSB	Merger to GSB completed	Number	0	1	2021-2022	SDURDD, APIS; TDU	SDURDD	Connection to CDU, central data coordination collection	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	Add eDnevnik Service	Added Service	Number	0	1	2Q/2023	SDURDD, APIS; TDU	SDURDD	Adding a new service to the billboard. Carnet's eDnevnik service is one of the most used and will be the first service added to the platform.	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement	Project implementation Report, execution of contracts

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										procedures. Delivery delay.	
	Add eUsluge (20 services)	20 services added	Number	0	30	4Q/2021	SDURDD, APIS; TDU	SDURDD	Add 20 new services to the platform	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	Add eUsluge (30 services)	Added 30 services	Number	0	30	4Q/2022	SDURDD, APIS; TDU	SDURDD	Add 30 new services to the platform	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	Add eUsluge (40 services)	40 services added	Number	0	40	4Q/2023	SDURDD, APIS; TDU	SDURDD	Add a new 40 services to the platform	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
	Training of beneficiaries for implementation of integration	Education conducted	Number	0	20	1Q/2024	SDURDD, APIS; TDU	SDURDD	Implementation of training for integrators	Assumption: completed procurement procedure, concluded contract on implementation. Risk: duration of procurement procedures. Delivery delay.	Project implementation Report, execution of contracts
C2 .3. R3-I11 improving geospatial data under the jurisdiction of the State Geodetic	Additional optimization of business land management processes (ZIS)	Business processes optimized	Number	0	1	4Q/2023	DGU	DGU	Standardization of existing business processes and implementation of optimization into the ZIS system	Assumption: preparation of project and technical documentation and all necessary data. Risk: public procurement	Based on completed works contracts.

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Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia	Technological modernisation of the existing system (ZIS)	The system has been modernised	Number	0	1	4Q/2024	DGU	DGU	ZIS system migrated to CDU and updated business process management platform	procedure, capacities	
	Establishment of new e-services (JIS)	New e - services established	Number	0	1	4Q/2024	DGU	DGU	Integrating the public portal with 5 external systems and introducing 10 new e-services		
	Further connection to State information infrastructure (ZIS)	Connect completed	Number	0	1	4Q/2024	DGU	DGU	The ZIS system connected to THE GSB, eBusiness, ePersons submits data to the ZSE IT system		
	Further improvement of data quality and support for reconstruction of cadastre and land registries	Quality achieved	Number	0	1	4Q/2024	DGU	DGU	Preliminary analysis of data and acceleration and simplification of existing processes for the establishment of BIPS		
	Further education and awareness raising (ZIS)	Users educated	Number	0	1	4Q/2024	DGU	DGU	Preparation of materials and training of beneficiaries related to upgrades and modernisation of the JIS		
	Implementation of upgrades and modernisation OF SDGE	Upgrading implemented	Number	0	1	4Q/2025	DGU	DGU	Implementation of upgrade and modernisation of SGR. system	Assumption: preparation of project and technical documentation and all necessary data. Risk: public procurement procedure, capacities	Based on completed works contracts.
	Cost of training of users OF SDGE	Users educated	Number	0	1	2Q/2026	DGU	DGU	Preparation of materials and education of users related to upgrades and modernisation OF SDGE		
	Visibility of the SDGE project	Promotion and visibility performed	Number	0	1	4Q/2025	DGU	DGU	Promotion and visibility of the project		
	Cost of increasing resources to CDU (SDGE)	Resources increased	Number	0	1	4Q/2026	DGU	DGU	Cost of increasing resources in CDU		
	Restoration of land registers through cadastral surveys for all construction areas in the Republic of Croatia	1) percentage of implementation of activities from the Programme adopted by the Croatian Parliament)	Percentage of implementation of activities from the programme	0	50%	2Q/2026	DGU	DGU	This multi-annual programme is adopted by the Croatian Parliament and only after the adoption and provision of financial resources can activities from the Programme begin.	Non-adoption of the multi-annual programme of cadastral surveys of construction areas for the period 2021-2030 and non-provision of funding.	A list of grant contracts;

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		2) placed for official use new land registers)	Decisions on the official use of land registers for the local self-government unit	0	278	2Q/2026	DGU	DGU	After the cadastral survey in the field, it is necessary to create a new cadastral operative and a new land registry that will reflect the actual situation on the ground and replace the existing unupdated data with decisions of the general manager of the SGA and Minister of Justice and Administration. Improving information systems will ensure the interoperability of digital data and enable digital public services for users. In this period, decisions will be made for 278/556 local self-government units.	Non-adoption of the multi-annual programme of cadastral surveys of construction areas for the period 2021-2030 and non-provision of funding.	Decisions taken to officially use land registers for the local self-government unit
	Upgrade of infrastructure Cadastre system (SKI) and Single information point (JIT)	Cadastral offices in which it was put into operation SKI and through it provide access to infrastructure cadastre data	Number	3	112	2Q/2026	DGU	DGU	After preparing, processing and migrating data to the SKI for all 112 cadastral offices in the Republic of Croatia and upgrading the existing functionalities of the KIC, the insight into the digital data of the infrastructure cadastre for all users will be obstructed	Provision of financial resources for the preparation and processing of data today in an analogue form	A list of grant contracts;
	Improving the digital archive system	1) Number of pages of analogous documents of archival materials of the State Geodetic Administration converted to digital form 2) Number of aerial recordings converted to digital format	Number	1) 17 million pages 2) 36,000 recordings	1) 32 million pages 2) 86.000 recordings	2Q/2026	DGU	DGU	Translating analogous data under the jurisdiction of the State Geodetic Administration into digital form and storing data into the already established digital archive system. The project envisions procurement of scanners and other equipment, recruitment of scanning operators for the duration of the project and maintenance of the system. Due to the specificity of the archival photomaterial	A production line for scanning analogue documents has been established and a digital archive system has been developed. This project would accelerate the digitalisation of data and the filling of the system with digital data in order to move to full digital data as soon as possible. When it comes to photomaterial, the process was also	Documents or snapshots loaded into the following applications: 1. Application of the digital archive system 2. Application for publishing historical aerial photogramm etric images

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									(aerial filming) recorded in the period from 1968 to 1990, the purchase of a special scanning service on specific equipment (photogrammetric scanners) and additional geo-refurbishing of images in order to place them in space is planned. It is also envisaged that the recordings be made available in the final way through the existing application, which would ensure further work with digital data.	established, a number of recordings were loaded into an appropriate application that would be expanded by this project to all historical aerial recordings.	
	Implementation of education aimed at raising awareness on the interoperability of spatial data of NIPP	Number of NIPP conferences held	Number	11	15	4Q/2024.	DGU	DGU	Education is planned in order to raise awareness on the interoperability of spatial data for both NIPP entities and other stakeholders in the process of establishing the NIPP, all in order for the Republic of Croatia to be as successful as possible in implementing the EU INSPIRE Directive. The goal is to hold an annual conference.	11 annual conferences dedicated to NIPP have been held so far. The risk may be the situation with COVID 19 and conferences will have to be held online.	Record of participants
	Development of NIPP spatial data network services	Number of network services developed	Number	210	260	4Q/2025.	DGU	DGU	The project will result in the harmonisation of spatial data of NIPP entities and the development of interoperable network services over them which will increase the availability of spatial data and facilitate their sharing.	In order to make developed network services available in one place, GeoPortal NIPP was developed through which metadata on INSPIRE GeoPortal is provided, and thus the status of implementation of INSPIRE Directive in the Republic of Croatia.	network services available on the NIPP geportal
	Upgrading and expansion of the GeoPortal DGU system and the SGA service	systems upgraded	number	0	2	4Q/2022	DGU	DGU	Performed analyses, prepared proposals for improvement of implemented improvements in the	Limited resources for the elaboration of technical specifications. Due to the complexity of the	Operational functional systems

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	collection system - analysis and proposal for improvement with implementation								server part of the system.	system, it is possible to extend the delivery deadline.	
	Upgrading and expansion of the GeoPortal DGU system and the SGA Service collection system - documentation and education	documentation and education delivered	number	0	2	1Q/2023	DGU	DGU	Delivered documentation and annexes as well as instructions and completed education for system administrators.	Limited human resources.	Prepared documentation and instructions. A record of education.
	Upgrading and expansion of the GeoPortal DGU system and the DGU Service collection system - new browser module	new module performed	number	0	1	4Q/2021	DGU	DGU	A redesign of the user interface was carried out and a new module of the Geopotal DGU Viewer was derived based on it.	Due to the complexity of the system and functionality, it is possible to delay delivery.	Operationally functional browser
	Upgrading and expansion of the GeoPortal DGU system and the DGU Service collection system - new additional network services	additional network services performed	number	30	45	3Q/2024	DGU	DGU	Additional new network services performed, tested and implemented on the system.	Attachment to availability of newly created spatial data.	Operational functional network services
	Upgrading and expansion of the GeoPortal DGU system and the DGU Service collection system - Module for Advanced geocoding and reversed geocoding	new module performed	number	0	1	4Q/2022	DGU	DGU	The advanced geo-coding and reverse geo-coding module performed and functionally connected to other parts of the GeoPortal DGU system.	Due to the exceptional complexity of module functionality, it is possible to delay connecting to existing modules.	Operationally functional module
	Upgrading and expansion of the GeoPortal DGU system and the DGU Service collection system - implementation of project visibility	promotion and visibility of performed	number	0	2	2Q/2023	DGU	DGU	Promotion and visibility carried out with the final conference and promotional materials.	In the case of COVID, limited possibilities for organising the final conference and the promotion itself.	Prepared promotional material. Minutes of the conference.

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	Upgrading and expansion of the GeoPortal DGU system and the DGU Service collection system - maintenance of the system	annual maintenance performed	number	0	3	4Q/2025	DGU	DGU	Basic and extended maintenance of the entire GeoPortal DGU system	Limited resources for the elaboration of technical specifications	Maintenance Log
	Expanding the network of reference GNSS stations of THE CROPOS POSITIONING system	CROPOS system extended	Number	0	20	4Q/2024	DGU	DGU	Increasing the accuracy of measurement by using THE services of THE CROPOS system in horizontal and vertical terms throughout the whole territory of the Republic of Croatia, and thus expanding the application of system services, as well as better availability of system services throughout the territory of the Republic of Croatia.	Assumption: preparation of project-technical documentation and selection of locations for new GNSS reference stations regarding the conditions that must be fulfilled and the configuration of the existing network. Risk: public procurement procedure, capacities	On-site visit to locations of new GNSS reference stations and control centre of CROPOS system.
	Upgrading of official topographic cartographic information system (STOKIS)	Topologically updated data of the basic topographic base for 56500 km2 and homogenised/updated 114 topographic maps M 1:25000 (TK25)	km2 and number of maps	0 km2 of topologically processed data of the base topographic database and 0 updated/homogenised topographic maps M 1:25000 (TK25)	56 500 km2 of topologically processed data of the base topographic database and 114 updated/homogenised topographic maps M 1:25000 (TK25)	4Q/2024	DGU	DGU	Topological processing of basic topographic database data, homogenised/updated topographic map M 1:25000 (TK25) for the entire territory of the Republic of Croatia.	Assumption: preparation of project and technical documentation and all necessary data. Risk: public procurement procedure, capacities	Insight into the data of the Official Topographic Cartographic information system (STOKIS) and the basic Topographic Database.
	Upgrading functionality and ensuring up-to-date data of the system Register of Spatial units (RPJ)	System upgraded and updated	number	0	1	2Q/2026	DGU	DGU	RPJ system upgraded with new functionalities and modules and quality and updating of data, new network services published	Assumption: preparation of project and technical documentation and all necessary data. Risk: public procurement procedure, capacities	Based on completed works contracts.
	Implementation of visibility and promotion of RPJ project	Promotion and visibility performed	number	0	1	2Q/2026	DGU	DGU	Promotion and visibility of RPJ project		

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C2 .3. R3-I12 Reform of the electronic public Procurement system - EOJN 2.0	Development of Technical specifications for Procurement	Specification created	Document	0	1	3Q/2021	EOJN/OG	NN	Defining system architecture, data model, specification of connection with SSI and process optimization.	Assumption: a working group was formed consisting of all public procurement bodies and clearly defined requirements. Risk: delay in the public procurement procedure; lack of interested bidders.	The delivery log, the account, the contract.
	Development of the system	Web and mobile application released for production	%	0	100%	3Q/2023	NN	NN	Mobile application has been deployed. All components of the web platform have been implemented: 1) CMS – Bilingual system 2) application via THE NIAS/eIDAS system 3) Procurement Plan 4) prior consultation with economic operators 5) E-publication 6) E-documentation 7) TED Web Service 8) E-Nabanja 9) Module for conducting procedures as a central purchasing body 10) Mini-competition 11) E-concession 12) contract Registry 13) Statistical Module 14) simple Procurement module 15) E-appeal 16) E-Drazba 17) obtaining of the evidence from the Register .	Assumption: public procurement was conducted and the project complies with the technical specification of the system.	The delivery log, the account, the contract.
		Shortened preparation and publication of the public procurement	Minutes	35	10-15	3Q/2023	EOJN	NN	Simplifying the use of the platform - optimized processes, exploiting previously entered data, integration with the state.	Assumptions: use of standardized data model. Risk: underdefined processes.	Preparation of the procedure.

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		procedure							INF systems		
		Shortening the duration of the public procurement procedure	Days	76	60	3Q/2023	EOJN	NN	Decreased number of errors when publishing.	Assumptions: intuitive and simple user interface. Risk: poorly designed user interface.	Implementation of the procedure
		Reducing the procedure in which corrections to the published procurement documents occur	%	55%	30%	3Q/2023	EOJN	NN	Reducing the number of corrections to the published documentation.	Assumptions: clearly defined structure of the procurement documentation. Risk: client negligence.	Correction Number Statistics
		Shortening the process of review and evaluation of tenders - retrieval from national registers	%	60%	100%	3Q/2023	EOJN	NN	Retrieving certificates for economic operators participating in public procurement procedures - Economic operators of the Republic of Croatia	Assumptions: improving data retrieval. Risk: unavailability of services.	Number of received receipts in relation to requested certificates.
		Shortening the duration of appeal proceedings - implementation by electronic means	%	55%	100%	3Q/2023	EOJN	NN	The appeal procedure is fully implemented through the web portal for public procurement.	Assumptions: merging with the e-fee service, making a legal decision. Risk: unavailability of services.	Number of appeals carried out in relation to appeals made.
		Shortened time of decision-making in appeal proceedings	Days (from the day of receipt of the appeal/from the date of completion of the appeal procedure documentation)	34/16	28/13	3Q/2023	EOJN	NN	The decision-making time is shortened.	Assumptions: improvement of data exchange system with DKOM. Risk: unavailability of services.	The average number of days per appeal published.
		Reducing the delivery of untimely and messy appeals	%	11%	1%	3Q/2023	EOJN	NN	Connection to the e-fee system: payment of the fee before the appeal is filed.	Assumptions: connection with the e-fee service. Risk: unavailability of services.	Number of rejected appeals.
	Promotion and visibility	Promotional work and project visibility	%	0%	100%	3Q/2023	NN	NN	Conference held, brochures printed, posters made and instructions.	Assumptions: the development of the system has been completed. Risk: Covid-19 - difficulty gathering.	Conference held, workshops held, Internet promotion.
	Education of beneficiaries	Educated users	Number	0	500	2Q/2024	NN	NN	Workshops held throughout HR - use of	Assumption: system development	Signing lists.

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									systems and new mechanisms for implementation of JN procedures.	completed. Risk: Covid-19 - difficulty gathering.	
C2 .3. R3-I13 establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers	Modular units in Zagreb and Vrbovec in function	Modular units	number	0	3	4Q/2025	NN	NN		Risk: delay in preparation of documentation and obtaining necessary permits, public procurement	Report during project implementation
C2 .3. R4 Strengthening connectivity as a basis for digital transition of society and economy		1) the National Plan for Broadband Access in the Republic of Croatia in the period from 2021 to 2027 2) adopted the Act on electronic Communications 3) prepared an analysis of administrative burdens and regulatory barriers to investments in setting up VHCN networks 4) prepared a proposal for amendments to regulations and optimisation of the permit issuing process 5) implemented procedure for issuing licences for use of RF spectrum in the bands for 5G networks				1) 1Q/2021 2) 2Q/2021 3) 1Q/2022 4) 2Q/2022 5) 2Q/2021					
C2 .3. R4-I1		1) prepared plan	%	Percentage of	Percentage of	4Q/2026	HAKOM	LC (R)SGU,	Milestones define	Risk: required	Interactive

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implementation of projects under the Framework National Programme for Broadband infrastructure Development in areas where there is insufficient commercial interest in investment		for the development of broadband infrastructure certified by HAKOM 2) completed building permit 3) implemented public procurement procedures for goods and works 4) completed works		LC (R)SGUs where there is currently a broadband infrastructure - baseline value should be defined with the competent authority	LC (R)SGU that will have broadband infrastructure upon completion of the project - target value should be defined with the competent authority			OIV, MMPI, other project holders	individual stages of project implementation aimed at the development of broadband infrastructure the initial value of indicators (Targeta) includes the percentage of all LC (R)SGUs where there is broadband infrastructure prior to the start of project implementation, and the target value includes the percentage of all LC (R)SGUs where there will be broadband infrastructure after project implementation has been completed.	preparation of procurement documents and duration of public procurement procedures; procedures for obtaining necessary permits.	GIS portal (HAKOM).
C2 .3. R4-I2 Strengthening GSM/TETRA-LTE signal for PPDR services	100% GS/TETRA-LTE signal coverage for PPDR services	n/p	%	50%	100%	4Q/2024	MINISTRY OF INTERIOR	MINISTRY OF INTERIOR	The project will strengthen the GSM signal along the state border by building the core of the system for PPDR users (public Protection and disaster relief) and by installing the MUP and operator base stations and user equipment on the ground.	Risk: duration of public procurement procedure. Lack of personnel. Delay of the contractor/supplier.	Reports during project implementation. Contracts concluded with contractors/suppliers. Signal testing. On-the-spot controls.
	Procurement of TETRA LTE cells	3,000 TETERS of LTE station procured	number	0	3000	4Q/2023	MINISTRY OF INTERIOR	MINISTRY OF INTERIOR	Procurement of 3,000 TETERS of LTE cells with all the accompanying equipment.	Risk: duration of public procurement procedure. Lack of personnel. Delay of the contractor/supplier.	Reports during project implementation, contract concluded with supplier, base station delivery certificate, testing
C2 .4. Strengthening the framework for the management of state assets											
C2 .4. R1 improving corporate governance in	Corporate governance of state-owned legal entities in line	1) review of corporate governance in Croatian state-				1) 1Q/2022 2) 1Q/2022 3)	MPGI - reports	MPGI	Through this investment, it is planned to improve corporate governance in legal entities of special	Assumption: secured human capacities risk: level of readiness of	Reports and adopted documents

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state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD guidelines on corporate governance in state-owned enterprises	with OECD guidelines and international good practice	owned enterprises 2) adopted official decisions or official acts of THE GOVERNMENT of the REPUBLIC of CROATIA on the implementation of relevant OECD recommendations 3) implemented OECD recommendations and process upgrades				4Q/2023			interest to the Republic of Croatia, which will result in increased efficiency of business operations of companies and fulfilment of state and public interest. Implementation of OECD recommendations and adjustment of regulatory framework in accordance with best international practices will create preconditions for a more active role of ownership bodies in setting financial and operational objectives of state-owned enterprises, adoption of ownership policy that will define a clear role and enable more efficient coordination between competent national bodies responsible for performing functions of ownership authority in relation to legal entities of special interest for the Republic of Croatia, implementation of separation of economic activities from activities of public policy objectives, etc.	processes prior to the implementation of recommendations	
C2 .4. R2 Strengthening infrastructure and human capacities for the implementation of monitoring of corporate governance in state enterprises and projects	Improved infrastructure and human capacities for corporate governance in state-owned enterprises	Implemented Education Plan for successful implementation of OECD Guidelines on Corporate governance in State enterprises				4Q/2023	MPGI - reports	MPGI	Through this investment, sectoral sub-specialisation in corporate governance of state-owned companies is planned, which will, in addition to adequate infrastructure equipment (equipment for transparent presentation of work and results) enable improvement of the culture of corporate governance, but ultimately also improvement of	Assumption: implementation of OECD recommendations. Risk: existing level of knowledge and skills in the field of sector sub-specialisations	Reports and certificates on conducted education/sub-specialisation

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									corporate governance in subjects of public interest for the Republic of Croatia.		
C2 .4. R3 continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of the portfolio of companies not of special interest to the Republic of Croatia	Successful and stable continuation of the reduction of the portfolio of companies not of special interest to the Republic of Croatia		Reduced portfolio of companies not of special interest to the Republic of Croatia, in accordance with planned announcements for sale of companies managed by THE CERP.	0	1a) 90 1b) 60 1c) 60	1a) 4Q/2021 1b) 4Q/2022 1c) 4Q/2023	CERP - public tenders and reports held	CERP	This investment will create preconditions for sale through restructuring of companies in majority ownership, resolving property rights relations with companies where the same is an obstacle to sales, followed by an assessment of the value of majority companies as a basis for sale or publication of a public invitation to enter a strategic partner, an estimate of the value of minority portfolios, and advertising of sales through public procurement of bids, public tendering and stocks on a regulated capital market, which will result in creating conditions for increased advertising of sale of companies in the portfolio managed by CERP and continuation of privatization of companies owned by the Republic of Croatia.	Assumption: Human resources secured risk : market risk, COVID of implications.	Public tenders and reports carried out
C2 .4. R4 Optimization of real estate management in state ownership	Development of methodology for reducing the real estate portfolio and activation of unused assets and it additions of the system for channelling assets into priority development projects of the	Prepared methodology for reducing the real estate portfolio and faster and efficient activation of unused state assets (implementation deadline - 4Q 2022)	1a) Number of concluded contracts for remuneration 1b) Number of concluded grant contracts 1c) Number of issued tenders for the disposal of real estate		1a) 2000 1b) 250 1c) 72 1d) 6 1e) 1	1a) 4Q/2023 1b) 4Q/2023 1c) 4Q/2023 1d) 4Q/2023 1e) 4Q/2024	MPGI - reports	MPGI	Development of methodology for reducing the real estate portfolio and activation of unused assets aimed at priority development projects of the Republic of Croatia with realization of revenues from the state budget from non-financial assets will contribute to the release of the investment potential of	Assumption: Human resources secured risk : market risk, COVID of implications.	Reports in the project

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	Republic of Croatia and realization of revenues of the state budget		1d) Number of public calls for the realisation of investment projects 1e) established IT system according to the developed methodology for reducing the portfolio of real estate and faster and efficient activation of unused state assets						state property through increased commercialisation and privatisation with support for overall economic development, especially through further improvement of relations with local and regional self-government units in order to realise projects that are of particular importance for the development of regions, cities and municipalities, thus supporting better utilisation of EU funds. The implementation of these activities and the construction of an effective IT tool for real estate management and the adjustment of the regulatory framework in accordance with best international practices will create preconditions for systematic and efficient management of state property and a more active role of the state in the process of disposal of state-owned real estate, and state property in the form of real estate will become a driving force for economic changes and development of the Republic of Croatia.		
C2 .5. Improving the efficiency of the judicial system											
C2 .5. R1 Fostering the digitisation of the judiciary through process optimisation and digital transition											
C2 .5. R1-I1 Strengthening IT infrastructure in the justice sector	Improved ICT infrastructure and equipment in courts and state attorney's offices		% of courts/state attorney's offices with installed ICT infrastructure	0%	75%	4Q/2024 (the funds will be withdrawn by increasing	Project Report	RAMP	The construction of a new communication infrastructure enables safe and continuous operation of the entire communication system,	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term	Project reports.

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			and equipment			complianc e by every 5%)			which is one of the most important links of the contemporary business of courts, state attorney's offices and ministries, and would further enable integration of the functionality of distance discussion	procurement procedures, delivery delays.	
	Enhanced services		Number of improved/ne wly established e-services and/or functionalities	0	6	4Q/2024 (the funds will be withdrawn for each individual e-service and/or functionalit y)	Project Report	RAMP	Further digitalisation also implies the development of new e-services based on new technologies (artificial intelligence) and the improvement of existing, as well as the digitisation of the judicial registers themselves (communication infrastructure for the development of e-services, harmonisation of land registry and cadastre data, distance court hearings, information equipment for courts and state attorney's offices, functional improvement of e-file, digitisation of the court registry document collection, register of persons deprived of parental care, digital judicial assistant, digital ZIS chain and blockbuster	Assumption: Human capacities secured, tender documentation prepared. Risk: regulatory challenges, long-term procurement procedures, delivery delays.	Project reports.
C2 .5. R1-I2 improvement of cadastre and land registry system	Harmonized land and cadastral records		% of compliance	5%	40%	4Q/2024 (the funds will be withdrawn by increasing complianc e by every 5%)	Project Report	RAMP	harmonised CCA/DATA floor	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays.	Project reports.
	Digital assistant implemented	user can use solution	solution	0	1	4Q/2022	Project Report	RAMP	user can use solution	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term	Project reports.

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										procurement procedures, delivery delays.	
C2 .5. R1-I3 implementation of the e-enforcement system in the judicial sector	Established system	Developed and functional system	Number of systems	0	1	2Q/2022	Project Report	RAMP	Implementation of ePermit (which contributes to digital transition) in accordance with the future enforcement Act which will increase the efficiency of the judiciary and provide conditions for resolving new cases, and ensure faster and cheaper enforcement procedures for citizens	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays.	Project reports.
C2 .5. R1-I4 implementation of the digital e-archive system in the judicial sector	Digital Archive established		Percentage of the digitised archive	0%	45%	4Q/2024	Project Report	RAMP	Digitisation of the archive or conversion of archival materials into digital form will liberate the space that judicial bodies can use for other purposes and will reduce costs. The management and use of archival materials in court proceedings will be facilitated, which will result in relieving the employees of judicial bodies and thus contribute to faster resolution of individual cases.	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays.	Project reports.
C2 .5. R1-I5 improvement of the bankruptcy framework	Established system	Developed and functional system	Number of systems	0	1	4Q/2024	Project Report	RAMP	Implementation of the bankruptcy system (which contributes to the digital transition) in accordance with the EU Directive	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays.	Project reports.
C2 .5. R2 transition to an agile system of planning investments in judicial infrastructure											
C2 .5. R2-I1 implementation of the Design Guidelines in accordance with the functional reorganisation of the court network	Construction, upgrading, reconstruction, equipping of buildings	Number of buildings; energy certification results	Number of buildings	0	16	3Q/2025 (the funds will be drawn from reconstructed buildings/issued	Project Report	RAMP	Construction, upgrading, reconstruction, equipping of buildings	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures and the process of obtaining	Project reports.

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						certificates)				dowells.	
C2 .5. R2-I2 Project and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions	Preparation of project documentation (preliminary, main, execution project)	Design, main, execution project and licenses obtained	Project technical documentation	0	1	3Q/2022	Project Report	RAMP	Preparation of project documentation (preliminary, main, execution project) and issued building permits	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures and the process of obtaining dowells.	Project reports.
	Demolition, reconstruction, upgrading and construction of buildings (garage and building)		Dye of constructed and upgraded buildings	0	6	4Q/2026 (the funds will be withdrawn on use permits for buildings)	Project Report	RAMP	Demolition, reconstruction and extension and construction of buildings (garage and buildings)	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures and the process of obtaining dowells.	Project reports.
C2 .5. R2-I3 implementation of energy efficiency measures for the reconstruction of outdated judicial facilities	Construction, upgrading, reconstruction, energy renovation and equipping of buildings (number of buildings and results of energy certification)		1) Number of buildings 2) Energy class of buildings	1) 0 2) E/D	1) 16 2) C/B	1Q/2025 (the funds will be drawn from reconstructed buildings/issued certificates)	Project Report	RAMP	Construction, upgrading, reconstruction, energy reconstruction, equipping of buildings	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures and the process of obtaining dowells.	Project reports.
C2 .6. Strengthening the framework for prevention of corruption											
C2 .6. R1 drafting a new national strategic framework in the field of anti-corruption											
C2 .6. R1-I1 support for achieving the objectives of the Anti-corruption Strategy for the period 2021-2030	Established system	Developed and functional system	Number of systems	0	1	4Q/2023	Project Report	RAMP	In addition to continuous implementation and upgrading of existing anti-corruption measures, our goal is to create new systemic solutions to fight corruption at all levels, which should raise awareness about the harmfulness of corruption and make it socially unacceptable.	Assumption: Human capacities secured, tender documentation prepared. Risk: long-term procurement procedures, delivery delays.	Project reports.
C2 .6. R1-I2 support for efficiency in fighting corruption	Space in function	Functional space	Number of spaces	0	2	4Q/2025	Project Report	RAMP	There are two units of USKOK PN in Zagreb and Split	Assumption: Human capacities secured, tender documentation prepared.	Project reports.

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and organised crime										Risk: long-term procurement procedures, delivery delays.	
C2 .7. Strengthening the fiscal framework											
C2 .7. R1 improving fiscal planning and reporting	Strengthening the fiscal framework through the creation, adoption and adoption of the budget Act regulating the planning, drafting, adoption and implementation of the budget, obligations and deadlines arising from membership in the euro area, asset and debt management, public debt management, borrowing and guarantees of the Republic of Croatia and local and regional self-government units (LC (R)SGUs),	Act on budget adopted by the Croatian Parliament	n/a	n/a	n/a	4Q/2021	MFIN	MFIN	Adoption of the budget Act prescribing the process and key documents of preparation and adoption and implementation of the state budget and the budget of LC (R)SGUs and their extra-budgetary users, the framework for borrowing LC (R)SGUs, monitoring the use of assigned and own revenues, forecasting and control of future spending including multiannual obligations, enables greater flexibility in the implementation of EU projects as well as harmonisation with Council Directive 2011/85 in order to establish a more efficient system of financial and statistical reporting.	Assumption: consensus of all stakeholders required.	Implementation in accordance with the provisions of the budget Act
C2 .8. Strengthening the anti-money laundering framework											
C2 .8. R1 raising awareness of the need to prevent money laundering	Raising awareness among all responsible parties for the implementation of measures through regular education	1) established framework for continuous training of employees of reporting entities 2) Annual Conference on the Prevention of money laundering and terrorist financing held	n/a	n/a	n/a	1) 4Q/2020 2) 1 x annually	MFIN	Croatian Supervisory authorities (CNB, Financial Inspectorate, HANFA, tax Administration) and Office for the Prevention of money laundering	The supervisory authorities and the Office for the Prevention of money laundering will regularly conduct appropriate training for employees of all reporting entities, including officials for compliance of operations with the prevention of money laundering and the management of credit institutions. Educational initiatives will focus on	There is no	Report of the Office for the Prevention of money laundering.

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									raising awareness of the risk-based approach in implementing customer due diligence measures and on the obligation to report suspicious activities. The supervisory authorities and the Office for the Prevention of money laundering will regularly provide reporting entities with up-to-date information on money laundering developments.		
C2 .8. R2 Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities	Continue cooperation between the Office for the Prevention of money laundering and Supervisory authorities on the basis of updated signed Memoranda of Understanding and regular meetings.	Updated cooperation agreement, continuation of cooperation and working meetings within the Interinstitutional working Group on supervision.	n/a	n/a	n/a	4Q/2020	MFIN	Croatian Supervisory authorities (CNB, Financial Inspectorate, HANFA, tax Administration) and Office for the Prevention of money laundering	There is already an institutional framework in the Republic of Croatia for cooperation in the area of supervision and monitoring of reporting entities. Within this framework, supervisory authorities will continue to participate in the work of the Interinstitutional working Group on supervision. The subgroup was established in 2011 within the Interinstitutional working Group on the Prevention of money laundering and terrorist financing. An overview of the existing Memoranda of Understanding between the supervisory authorities and the Office for the Prevention of money laundering will be prepared. In addition to domestic cooperation, supervisory authorities will continue to cooperate internationally and exchange best practices in the fight against money laundering and terrorist financing.	There is no	Report of the Office for the Prevention of money laundering.

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C2 .8. R3 implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing	Implementation of the new Action Plan for reducing identified risks of money laundering and terrorist financing on the basis of an updated national risk assessment.	New Action Plan for reducing identified risks of money laundering and terrorist financing implemented	n/a	n/a	n/a	4Q/2021	MFIN	Anti-money laundering Office	Based on the National assessment of the risk of money laundering and terrorist financing in the Republic of Croatia, an Action Plan for reducing identified risks of money laundering and terrorist financing is adopted. The Action Plan contains measures for reducing identified risks, public law and other bodies designated by holders for the implementation of individual measures, as well as the deadline for the implementation of measures.	There is no	Report of the Office for the Prevention of money laundering.
C3. EDUCATION, SCIENCE AND RESEARCH											
C3 .1. Reform of the education system											
C3 .1. R1 educational system structural reform											
C3 .1. R1-I1 Construction, upgrading and reconstruction of preschool institutions	Number of new enrollment places in kindergartens	Amended Regulation in order to increase the number of hours of curriculum of compulsory preschool education	%	0	30.000	8/2026	MZO, CBS	MZO	The indicator follows the number of new enrolments in pre-school institutions that will result from investments in construction, upgrading, reconstruction and equipping, which will enable increased coverage of children (4 years to school age) participating in early and pre-school education, and which is monitored under the EU2020 strategy.	Assumption: consensus of all stakeholders required. Risk: potential lack of construction service providers.	Data of the Croatian Bureau of Statistics and Eurostat.
C3 .1. R1-I2 Construction, upgrading and reconstruction of primary schools for the purpose of one-purpose work and whole-day instruction	Coverage of primary school students attending one shift classes	Amended Act on Education in primary and Secondary schools;	%	40%	80%	8/2026	MZO	MZO	The indicator follows the coverage of students who attend classes organized in one shift or do not attend classes organized in two or three shifts. The starting coverage is based on data from the end of the school year 2019/20	Assumption: consensus of all stakeholders required. Risk: potential lack of construction service providers.	Insight into publicly available data from the school e-mine.

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									reflecting the real capacity of schools to organise classes in one shift. At the beginning of 20/21, a large number of schools organized shift classes due to the civil-19 pandemic and the consequences of earthquakes.		
C3 .1. R1-I3 Construction, upgrading and reconstruction of secondary schools and pupils' homes	Share of students enrolled in high school gymnasium programmes	Adult Education Act passed	%	30%	40%	8/2026	MZO, CBS	MZO	Indicator follows share of students enrolled in high school gymnasium programmes	Assumption: consensus of all stakeholders required. Risk: potential lack of construction service providers.	Insight into publicly available data from the school e-mine.
C3 .1. R2 Modernisation of higher education		Amended Act on Scientific activity and higher Education, amended Act on the CROQF, new Ordinance on the CROQF Register was adopted									Data of the Croatian Bureau of Statistics and Eurostat.
C3 .1. R2-I1 Reconstruction and expansion of student dormitories and accompanying sports infrastructure	Number of new accommodation in student dormitories	Amended Act on Scientific activity and higher Education	%	0	1750	8/2026	MZO, CBS	MZO	The indicator monitors coverage of persons aged 30 to 34 who have a higher education qualification	Assumption: consensus of all stakeholders required. Risk: potential lack of construction service providers	Data of the Croatian Bureau of Statistics and Eurostat.
C3 .1. R2-I2 Digital transformation of higher education	Number of higher education institutions equipped with new digital infrastructure and/or equipment	Amended Act on Scientific activity and higher Education, adopted the Ordinance on records and Data collections in higher Education, completed information system of the Ministry of Science and	%	0	105	8/2026	MZO, CBS	MZO	Number of higher education institutions equipped with new digital infrastructure and/or equipment	Assumption: consensus of all stakeholders required. Risk: potential shortage of digital infrastructure service providers	Data of the Croatian Bureau of Statistics and Eurostat.

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		Education for keeping central records in higher education									
C3 .1. R2-I3 Reconstruction and expansion of educational infrastructure of higher education institutions	Coverage of persons aged 30 to 34 who have some form of higher education	Amended Act on Scientific activity and higher Education	%	34,1%	38%	8/2026	MZO, CBS	MZO	The indicator monitors coverage of persons aged 30 to 34 who have a higher education qualification	Assumption: consensus of all stakeholders required. Risk: potential lack of construction service providers	Data of the Croatian Bureau of Statistics and Eurostat.
C3 .2. Raising research and innovation capacity											
C3 .2. R1 Reform and capacity building for public research sector innovations	New model for reorganization and financing of universities and scientific institutes has been adopted and programme agreements have been prepared	New model for reorganization and financing of universities and scientific institutes and prepared programme agreements				3Q/2022	MZO	MZO	The new funding framework will define the funding criteria based on results in public research organisations and will be adopted by the Ministry of Science and Education.	Assumption: MZO should conduct a strong information campaign and encourage dialogue with scientific organisations to accept a new funding model	Programme contracts signed between public scientific organizations and the Institute for Health Insurance
	New Act on Scientific activity and higher Education adopted	New Act on Scientific activity and higher Education				4Q/2021	Official Gazette	MZO	The new Act will create a legal and financial framework for organisational and functional reform of universities and scientific institutes.	Assumption: consensus of all stakeholders required. Risk: No adoption of the Act based on the comments from the public debate.	Official Gazette
C3 .2. R1-I1 developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development	At least 75% of universities and scientific institutes have signed new programme agreements		%	0%	75%	3Q/2025	MZO	MZO	Public research organisations and universities are implementing activities under new programme agreements	Risk: disagreement between scientific organisations and universities on the adoption of a new funding model	Programme agreements signed between scientific organizations and the Institute for Health Insurance
C3 .2. R1-I2 Strengthening institutional capacities of universities and	5 reorganisations carried out at university and scientific institutes		Number	0	5	4Q/2023	MZO	MZO	The model of reorganization of scientific organizations will be developed by independent experts and adopted by	Assumption: the reorganization model will be proposed by independent experts based on best	New structures of scientific organizations

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research institutes for innovation									the Ministry of Science and Education in dialogue with the academic community.	international practice in dialogue with academic community	
	5 contracted infrastructure projects		Number	0	5	1Q/2024	MZO	MZO	The indicator is based on strategic investments in the development of research and technological infrastructure so that researchers and the economy can make optimal use of them.	Risk: in the phase of infrastructure work, problems in inspection, which have not been observed in the preparation of technical and construction documentation	Contracts signed
C3 .2. R2 Creating a framework for attracting students and researchers in STEM and ICT areas	A new Act on quality assurance in Science and higher Education was adopted with a new quality assurance system for doctoral studies	Act on quality assurance in Science and higher Education with a new quality assurance system for doctoral studies				3Q/2022	Official Gazette	MZO	The law will provide a legislative framework for a new system of promotion based on excellence	Assumption: consensus of all stakeholders required. Risk: No adoption of the Act based on the comments from the public debate	Official Gazette
	New Ordinance on conditions for selection in scientific and scientific-educational professions adopted	New Ordinance on conditions for selection in scientific and scientific-educational titles				3Q/2022	Official Gazette	MZO	The Ordinance will establish a new system of promotion based on excellence	Assumption: adoption of the Act as a legal framework for adoption of the new Ordinance	Official Gazette
C3 .2. R2-I1 Development of an incentive model for career advancement of researchers	5 prepared programmes that strengthen skills in STEM and ICT areas		Number	0	5	4Q/2021	MZO	MZO	Support programmes for the development of young researchers will enable easier access to doctoral and post-doctoral studies and career development of young researchers (through scientific projects and scholarships), thus making STEM and ICT areas more attractive for career choices.	Risk: insufficient interest of young researchers	Published programmes strengthening skills in STEM and ICT areas
C3 .2. R2-I2 enabling conditions for strengthening students' and	1,500 FTE researchers involved in programme implementation		Number	0	1500	1Q/2026	MZO	MZO	1,500 FTE researchers involved in programme implementation	Risk: insufficient interest of young researchers	Contracts for programme implementation signed

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researchers' skills and conducting top scientific research in STEM and ICT areas	200 scholarships awarded to strengthen skills in the STEM and ICT areas		Number	0	200	4Q/2023	MZO	MZO	200 scholarships awarded to strengthen skills in the STEM and ICT areas	Risk: insufficient interest of young researchers	Scholarships awarded to strengthen skills in STEM and ICT areas
	700 supported projects		Number	0	700	1Q/2025	MZO	MZO	700 supported projects	Risk: insufficient interest of young researchers	Contracts for project implementation signed
	5 contracted infrastructure projects		Number	0	5	1Q/2024	MZO	MZO	5 contracted infrastructure projects	Risk: in the phase of infrastructure work, problems in inspection, which have not been observed in the preparation of technical and construction documentation	Contracts for infrastructure projects signed
C3 .2. R3 improving the efficiency of public investments in research and innovation	New law on Croatian Science Foundation adopted	New Act on the Croatian Science Foundation				3Q/2021	Official Gazette	MZO	Of the Act on the Croatian Science Foundation will enable the implementation of adjusted programmes in accordance with the revised framework for financing research, development and innovation	Assumption: consensus of all stakeholders required. Risk: No adoption of the Act based on the comments from the public debate	Official Gazette
	Revised financing framework for research, development and innovation adopted	Revised financing framework for research, development and innovation				1Q/2022	MZO	MZO	The revised funding framework for research, development and invovation will enable competent institutions/agencies to help develop a sustainable economy with greater efficiency through targeted research at different stages of technological readiness.	Assumption: Technical assistance contracted to prepare the new framework	Revised financing framework for research, development and innovation adopted
	Launch new tenders in accordance with the new programme framework for financing	New tenders in accordance with the new programme framework for financing research,				2Q/2022	MZO, Croatian Science Foundation and other institutions of the innovation system	MZO, Croatian Science Foundation and other institutions of the innovation system	New tenders announced in accordance with the new funding framework for research, development and innovation in the Croatian Science Foundation and other	Assumption: willingness of all key stakeholders in the innovation system to make the necessary changes	Published tenders

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	research, development and innovation in the Croatian Science Foundation and other institutions of the innovation system	development and innovation in the Croatian Science Foundation and other institutions of the innovation system							institutions of the innovation system		
C3 .2. R3-I1 introduction of a more functional programme framework for project financing of research, development and innovation											
C3 .2. R3-I2 implementation of the Innovation, Research and Development Programme for scientific excellence in the areas of green and digital transition in cooperation with the business sector	130 supported cooperation projects		Number	0	130	4Q/2025	MZO and other institutions of the innovation system	MZO and other institutions of the innovation system	130 supported cooperation projects	Assumption: willingness of all key stakeholders in the innovation system to make the necessary changes	Cooperation agreements signed
	300 supported companies		Number	0	300	4Q/2025	MZO and other institutions of the innovation system	MZO and other institutions of the innovation system	300 supported companies	Assumption: willingness of all key stakeholders in the innovation system to make the necessary changes	Contracts signed with undertakings or vouchers awarded
	5 contracted infrastructure projects		Number	0	5	1Q/2024	MZO	MZO	5 contracted infrastructure projects	Risk: in the phase of infrastructure work, problems in inspection, which have not been observed in the preparation of technical and construction documentation	Contracts for infrastructure projects signed
C4. LABOUR MARKET AND SOCIAL SECURITY											
C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future											
C4 .1. R1 improving labour legislation	Number of new regulations and amendments	By the end of the 4 th quarter of 2024, amendments to the minimum	Number of regulations	0	3	4Q/2024	n/a	MRMSOSP	It is necessary to amend the Labour Act and the minimum wage Act, and in the framework of the implementation of the	Social partners' disputes and delays in implementation are at risk.	n/a

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		wage Act, the Labour Act and the new Anti-undeclared Labour Act							strategic document on combating undeclared work, a new law should be further adopted		
C4 .1. R2-I1 Economic transition measures for the competitiveness and employability of the labour force in the economy of the future	Increased employment rate from 66.7% to 70% by 2024.	On an annual basis (4 th quarter of each year), harmonised and improved economic transition measures for competitiveness and employability of the labour force in the economy of the future	Employment rate (20-64) (%)	66,7% (2019.)	70% (2024.)	continuously	CBS Eurosat	MRMSOSP	The measures directly contribute to stimulating employment, self-employment and strengthening the employability of unemployed persons. This directly contributes to employment growth.	The risks are: - insufficient number of newly created jobs - mild economic recovery curve - unforeseen labour market disruptions	Statistical data Eurostat Croatian Bureau of Statistics
C4 .1. R3-I1 establishment of a voucher system for education of employed and unemployed persons	Increased share of adult participation in lifelong learning from 3.5% to 4.5%	By the end of the 4 th quarter of 2023, a voucher system was established for the education of employed and unemployed persons	Share of population 25-64 in lifelong learning (%)	3,5% (2019.)	4,5% (2023.)	4Q/2023	CBS Eurosat	MRMSOSP	The investment will contribute to linking education with labour market needs, reducing labour shortages and facilitating labour market integration and staying in isolation.	The risks are: - the interest of the unemployed and the employees to be included in educational programmes. - the employers' interest in including seized persons in educational programmes	Statistical data Eurostat Croatian Bureau of Statistics
C4 .1. R4-I1 Digitalization and computerization of Croatian Employment Service (CES)	Increasing the efficiency of CES by applying new IT technologies (number of improved or new services)	by the end of the first quarter of 2026, new operating systems for CES were implemented, redefined Croatian Employment Service business processes	Number	0 (2020)	10 (2026)	1Q/2026	MRMSOSP	MRMSOSP	The use of new IT technologies will enable better and faster work of CES and will be ready to respond to rapid technological changes. It will strengthen the capacity to provide services to local customers.	Delays in the raealisation of public procurement and contracting. Delay due to insufficient human capacities of CES. The problem of lack of competence of employees of CES.	N/P
C4 .2. Development and improvement of the pension system											
C4 .2. R1-I1 Modernisation of ICT support of the	Number of new or improved services provided	1) increased efficiency and efficiency of the	1) Number of new services 2) Number of	1) 0 2) 0	1) 3 2) 425	8/2026	HZMO	MRMSOSP	A new system for calculating pensions has been implemented, a new	Risk: 1) difficulties in project implementation due to	Insight into implemented new systems

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Croatian Institute for Health Insurance (eHZMO)	by labour market institutions and number of employees in labour market institutions qualified to provide new or improved services.	work of the Croatian Institute for Health Insurance by shortening the average duration of the procedure for resolving requests for exercising the right to deadlines prescribed by the Act on General Administrative procedure (30 or 60 days respectively) 2) raising the level of quality of service to users by increasing the number of available e-services for citizens which enables more proactive access of the Croatian Institute towards its users and availability of services provided by the Croatian Institute for Health Insurance regardless of working hours (24/7/365)	HZMO employees qualified to provide new or improved services						system for keeping registry records and a new system for payment of pensions, and 425 HZMO employees qualified to provide new or improved services	insufficient knowledge and experience of Institute employees in project implementation according to RRF Fund 2 rules) delay in public procurement procedures for goods and services in relation to defined procurement plan 3) lack of interest of potential bidders in performing services/delivery of goods due to unclear criteria 4) failure to achieve set objectives and measurable indicators	and insight into certificates of completed training.
C4 .2. R2-I1 Digitalization of the Archives of the Croatian Institute for Health Insurance (eArchives)	Number of new or improved services provided by labour market institutions and number of employees in labour market institutions qualified to provide new or	Improved protection and preservation of archival and registration materials through their digitisation	1) Number of new services 2) Number of HZMO employees qualified to provide new or improved services	1) 0 2) 0	1) 1 2) 110	8/2026	HZMO	MRMSOSP	A new digital archive management system has been implemented, and 110 HZMO employees qualified to provide new or improved services	Risk: 1) difficulties in project implementation due to insufficient knowledge and experience of Institute employees in project implementation according to RRF Fund 2 rules) delay in	Insight into the implemented new system and insight into the certificates of completed training.

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	improved services.									public procurement procedures for goods and services in relation to defined procurement plan 3) lack of interest of potential bidders in performing services/delivery of goods due to unclear criteria 4) failure to achieve set objectives and measurable indicators	
C4 .3. Improving the social welfare system											
C4 .3. R1-I1 Digitisation of the system and connecting social welfare centres and social service providers	Establishing a single information system for all social service providers that are in the social services network. Currently, there are 68 providers in the network of social services providers founded by the Republic of Croatia and 457 social services providers with whom the Ministry has concluded a mutual relations agreement.	1) prepared project documentation and technical specification 2) software 3) implemented education for system use 4) included social service providers in the SocSkrb application	1) designed project and technical specification 2) software 3) number of educational activities held 4) number of service providers included in the SocSkrb application	1) 0 2) 0 3) 20 4) 525	1) 1 2) 1 3) 20 4) 525	4Q/2024	MRMSOSP	MRMSOSP	A technical specification will be developed and a software solution and application interface will be developed for the needs of social service providers that will be integrated into the existing SocSkrb information system used by social welfare centres. Education will be provided to social service providers and social welfare centres for the use of a single information system.	Risk: delay in the public procurement procedure; customer resistance to the use of new technologies	Information system SocSkrb
C4 .3. R2-I1 Prevention of institutionalization and development of community services in support of the deinstitutionalisation process	Improving the provision of social services by increasing the number of providers and licensing	1) Number of licensed experts for the implementation of family legal measures 2) Number of licensed immediate guardians 3) Number of newly employed	number	0	1) 200 2) 100 3) 70 4) 15	4Q/2024	MRMSOSP	MRMSOSP	The capacities of experts working in social welfare institutions will be strengthened and professional procedures standardised, managers of family legal protection measures and immediate guardians licensed, as well as providing benefits for their work, additional employment with	Risk: insufficient human and other capacities.	Register of licensed experts, certificates of completed vocational training, social welfare application.

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		experts with social services provider 4) Number of implemented training activities for standardization of professional procedures and licensing							community service providers (organised housing), mobile team services, insured work of assistants, payment of implementation of family legal protection measures will be strengthened.		
C4 .3. R3-I1 improving the quality of life of elderly persons by increasing the capacity of accommodation	Construction of homes for the elderly and infirm	Number of secured accommodation capacities	%	23199	5-10%	4Q/2024	MRMSOSP, Strategy for the Elderly in the Republic of Croatia 2017-2020	MRMSOSP	Increasing the capacity of accommodation will ensure adequate protection for older people outside their own family. The improvement of care for the elderly and the infirm complicates the construction and equipping of homes for the elderly and the infirm, who, due to health changes, need permanent help from others too, because the existing accommodation capacities are below the EU average. It is estimated that the lack of accommodation capacities in elderly homes is about 3387 beds	Risk: delay in the realisation of the procurement plan; delay in performing works; delay in the implementation of tenders due to unresolved property-legal relations and delays in obtaining documentation; delay in contracting due to the large number of applications for tenders.	Data from the SocSkrb application, records of legal entities and tradesmen providing social services, records of natural persons providing social services prerophssion alally, Register of Social Welfare institutions.
C4 .3. R4-I1 improving the infrastructure of social welfare centres, family centres and other social service providers	Increasing the number and accessibility of social services to a wider range of users	1) Number of new services 2) Number of new users	number	0	1) 25 2) 35	4Q/2024	MRMSOSP	MRMSOSP	Improving the infrastructure of social services providers enables greater availability to a wider range of social services users, as well as the development of new social services that directly influence family empowerment and support to parenting and the prevention of institutionalisation. The implementation of the aforementioned activities	Risk: unresolved property rights relations related to property ownership of spaces and land; delay in performing works.	Contracts for purchase/works concluded.

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									directly influences the reduction of entry into the institution and the improvement of the quality of life by providing available services in the family.		
C5. HEALTH CARE											
C5 .1. Strengthening the resilience of the health care system											
C5 .1. R1 improving the efficiency, quality and accessibility of the health care system	Share of family medicine specialists in the total number of doctors contracted in general and family medicine teams	51%	%	47,11% (9/2020)	55%	3Q/2024	HZZO, contract details	MIZ	With the completion of 200 specialists (the duration of specialisation is 4 years), which is now missing to fill the network (119 vacancies in the network and 81 contracted team without the holder), the share of contracted family medicine specialists would increase by about 7.89%	Assumption: adequate response of the doctor of medicine to specialist training competitions at health care centres, completion of specialisations within the prescribed deadline. Risk: Unknown number of retirements of current specialists.	It system of the Croatian Institute for Health Insurance - monitoring the occupancy status of the public health service network - data on contracting in family medicine activities.
C5 .1. R1-I1 Revalidation of the Institute of Immunology	Availability of viral vaccines and other immunological medicinal products	Study of clinical studies of the production of the Centre for Research and Development	Dose	0	170 mill doses of measles and rubella and antitoxin vaccine against snake bites	4Q/2024	Institute of Immunology	MIZ	The strategic importance of the Institute of Immunology is in the availability of viruses vaccines, high value of worldwide recognized quality of viruses with special emphasis on measles (Edmonston - Zagreb) for the purpose of immunisation and at the time of epidemics, realization of self-sufficiency of production of medicinal products from human blood/plasma of voluntary donors in the Republic of Croatia, availability of hardly available products,	Risk: delay in performing works	Manufacture d immunologic al medicinal products.

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									especially anti-toxins against poisons of European snakes, which production should also be restarted. The establishment of production of semi-products of viral vaccines and other products of the Institute of Immunology would contribute to significant advancement of biotechnological sciences in the Republic of Croatia and significantly better positioning of the Institute of Immunology in future negotiations with strategic partner. The activities of the Institute of Immunology are the production of vaccines, serums, allergens and other immunological medicinal products, medicinal products from human blood or plasma and other biological medicinal products, active substances for the production of biological medicinal products, and the storage and storage of parent virus strains owned by the Republic of Croatia from which immunological medicinal products are manufactured, and the construction of a new Institute of Immunology is planned to be declared a strategic investment project of the Republic of Croatia		
C5 .1. R1-I2 introduction of mobile pharmacy services into primary health	Equal availability of medicinal products and other products from pharmacies	Mobile pharmacy is provided in counties with less availability of pharmacies, and	Increasing the coverage of the pharmacy service	5% of the inhabitants of the Republic of Croatia do not have	0% of the inhabitants of the Republic of Croatia do not have available	3Q/2024	Reports of the contractors themselves on the implementation	Persons responsible for project implementation and managers	Although the Republic of Croatia has a very well organized pharmacy network that is available for more than 95% of the	The assumption is that there are difficulties in finding healthy workers who meet the conditions	

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care	is ensured for citizens of the Republic of Croatia living in deprived areas and islands without organized medical activity	delivery of medicines is ensured on inhabited islands without pharmacies.		available pharmacy care and availability of medicinal products	pharmacy care and availability of Lika-vae		of the project	of mobile pharmacies	population over a 15 minute walk, due to geographic specificities there is nonetheless a part of the population whose pharmacy care is remote or almost unavailable. This project would ensure that all residents have access to health care throughout the territory of the Republic of Croatia. During the tourist season, it would ensure a surstandard service that only parts of Scandinavia and Switzerland have in Europe so far.	for driving. The risk is in oscillations in project costs since there are few suppliers of mobile pharmacies and an international tender will have to be carried out.	
C5 .1. R1-I3 Mobile ambulances	Mobile ambulance with medical and other equipment	Mobile ambulance purchased with medical and other equipment	Mobile ambulances	0	18	3Q/2025			Equipped and functional vehicles for the provision of mobile PZZ services	Assumption: readiness of doctors to provide PZZ services through mobile ambulances; risk: lack of doctors in rural and remote areas	Reports during project implementation
C5 .1. R1-I4 Phase III development of the Zagreb KBC - equipping with medical and non-medical equipment	Newly built facility equipped with medical and non-medical equipment	n/p	coma	0	2071	1Q/2026	Progress Report on the KBC Zagreb project		Procurement of medical and non-medical equipment for the Orthopaedic Clinic, dermatovenerology Clinic, eye diseases Clinic, clinical Institute for Transfusion medicine and transplantation biology and tissue Bank, hospital pharmacy, and purchase of furniture and equipment for kitchen	Assumption: secured funds, completed construction of new facility risk: delay in construction, problems in procurement procedures - complexity of procurement procedures	Receipts, invoices for procured medical equipment
C5 .1. R1-I5 Construction and equipping of clinical isolation units (3, 4 and 1./5 buildings) of the clinic for infectious diseases Fran Mihaljevic	Demolition of existing buildings	Number of demolished buildings	number	0	2	4Q/2022	KZIB	KZIB	Demolition of the existing 3, 4 and 1./5 buildings because these buildings do not follow health and scientific spatial needs and standards that have changed completely over time, and the existing space is one of the key limiting factors in the	Assumption: public procurement projects and procedures should be implemented in time with all elements involved in order to respect the proposed timeframe. Risk: notification of	Based on the contracts for works and handover of the completed work

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									regular operation and development of the clinic	new natural disasters or catastrophes, pandemics or similar labour shortages for the implementation of a large number of public procurement procedures	
C5 .1. R1-I6 Reconstruction of the administrative building of the infectious diseases Clinic Dr. Fran Mihaljevic	The establishment of new buildings that will ensure the preservation of the cultural importance of the clinic, and strengthen its protection, promote and raise awareness of a good example of connecting cultural, construction, energy, scientific and health aspects	Number of buildings built	number	0	2	8/2026	KZIB	KZIB	Construction of new parts of the complex with basement floor, ground floor and three new floors	Assumption: public procurement projects and procedures should be implemented in time with all elements involved in order to respect the proposed timeframe. Risk: notification of new natural disasters or catastrophes, pandemics or similar labour shortages for the implementation of a large number of public procurement procedures	Based on the contracts for works and handover of the completed work
	Reconstruction of the building in line with the Energy Reconstruction of Cultural Heritage Programme and conservation instructions will significantly improve working conditions for staff residing and working in the administrative building	Number of renovated buildings	number	0	1	8/2026	KZIB	KZIB	The underground functioning of the renovated administrative building will allow the cost of regular maintenance to be reduced by more than 60%, and will increase the remainder of the sustainable life (serviceability) to an additional 50 years	Assumption: public procurement projects and procedures should be implemented in time with all elements involved in order to respect the proposed timeframe. Risk: notification of a new natural disaster or catastrophe	Based on the contracts for works and handover of the completed work
C5 .1. R1-I7 equipping new buildings to be built from reconstruction project after	Replacement of existing worn-out equipment and purchase of new equipment which contributes to	Set of medical, diagnostic and non-medical equipment	set of equipment	0	1	8/2026	KZIB	KZIB	The existing equipment does not meet the needs of the activities underlying the operation of the clinic. Modern ways of diagnosing and treating	Assumption: public procurement projects and procedures should be implemented in time with all elements	Based on the contracts for works and handover of the completed

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earthquakes and strengthening public health preparedness financed by World Bank loan funds	reducing the duration of hospital treatment and enables safer and easier stay in patients								infectious diseases require the use of modern and innovative technologies that save time and money and provide added value to users of health services or patients	involved in order to respect the proposed timeframe. Risk: notification of new natural disasters or catastrophes, pandemics or similar labour shortages for the implementation of a large number of public procurement procedures	work
C5 .1. R1-I8 equipping of newly built structures II. Stages of the new hospital in KBC Rijeka at the Susak site	Newly built structures II. Stages of the new hospital in Susak paved to full functionality	Reduction in the number of acute hospital beds	Number	161	110	4Q/2023	BIS system KBC Rijeka	KBC Rijeka	Specific measures of the National Development Plan include a reduction of the number of acute hospital beds by a minimum of 10%. The project of equipping and bringing buildings into full functionality enables increased efficiency and rationalization of operating costs of a hospital institution and reduction of the number of acute hospital beds on organisational units subject to relocation to a new hospital.	Risk: length of duration of public procurement procedures during equipment contracting. Assumption: the scope of providing medical care remains at the existing level with a derogation of +/- 10%.	Report at the end of project implementation (for a certain period).
C5 .1. R1-I9 Digital imaging Diagnostics KBC Split	Digital imaging Diagnostics procured	1	coma	0	3	2Q/2023	Progress Report on the KBC Split project	KBC Split	The project includes: - purchased medical equipment at the clinical Institute for Diagnostic and intervention radiology of KBC Split - purchased medical equipment at the Institute for Gastroenterology - purchased medical equipment at the clinical Institute for Nuclear medicine	Risk: duration of public procurement procedure. Delay of the contractor/supplier.	Reports during project implementation. Contracts concluded with contractors/suppliers. On-the-spot controls.
C5 .1. R1-I10 Construction and equipping of the central operating block building with intensive	Constructed and equipped central operating block building with accompanying facilities of the	1) building of central operating block with accompanying facilities 2) building of	1) Construction of building 2) equipment purchased	1) 0 2) 0	1) 1 2) 1	1) 1Q/2025 2) 4Q/2025	Report on the progress of the OB Varazdin project	OB Varazdin	Construction and equipping of THE COB building with intensive treatment units (JIL), central sterilisation, RTG diagnostics, transfusion	Assumptions: 1. There are enough interested economic operators on the construction market to perform works	Delivery logs submitted

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treatment unit (JIL). central sterilisation. RDG diagnostics. transfusiology and medical-biochemical laboratory and construction of interconnectors to existing facilities of the OB Varazdin medical facility	Varazdin General hospital (COB)	central operating block equipped							and medical-biochemical laboratory, and construction of interconnectors to existing facilities of medical content	2. The received offers are valid and the consequence of healthy competition 3. The capacities of the contractor, service provider and supplier of goods are sufficient to meet the agreed deadlines 4. The project will be implemented without the influence of unplanned circumstances or force majeure risks : 1. Distorted construction market with sub-capacity contractors and service providers 2. Difficulties in the implementation of procurement procedures and/or project activities and consequent delays in the implementation of project activities 3. Difficulties in settling financial liabilities due to slow inflow of funds from financial sources from which the project is financed or reduced planned amounts, making it impossible to close down the project's financial structure	
C5 .1. R1-I11 Health Centre Hvar											
C5 .1. R2 introduction of a new model of	Establishment of an it system for monitoring health	/	Yes/no	No! No!	Yes!	4Q/2025	MIZ	MIZ			

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care for key health challenges	outcomes of cancer treatment										
C5 .1. R2-I1 purchase of equipment for prevention, diagnosis and treatment of cancer patients	Purchase of new equipment and renovation of old equipment according to defined priorities	8	coma	0	15	4Q/2025	Health care institutions/MIZ	MIZ	Improving the health care system in the field of cancer prevention and diagnosis by providing equipment for radiotherapy treatment and diagnosis of cancer patients. Purchase of new equipment and renovation of old equipment according to defined priorities. Procurement of optimal number of radiotherapy devices in accordance with international recommendations and European average	Risk: delay in the realisation of the procurement.	Records of the handover of equipment.
C5 .1. R2-I2 purchase and implementation of equipment for the establishment of the National oncological Network and the National oncological Data Base	Equipment procured for the establishment of the National oncological Network and the National oncological Data Database	Established national it oncological network for the purposes of the National oncological Data Base	network	0	1	4Q/2025			It is necessary to establish a national it oncological network for the purposes of the National oncological Data Base which will connect and record data from hospital information systems and other systems by automated means and which will be compatible and parallel with hospital it systems, and which will not put additional burden on healthcare professionals. All oncology institutions in the Republic of Croatia must be included in the national it oncological network. Within the National information Oncology Network, appropriate algorithms of basic diagnostic procedures necessary for the initiation of treatment of the most frequent diagnoses could be		

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									installed in order to standardize treatment at all levels in the Republic of Croatia, from small oncology clinics to clinical hospital centres. The networking of oncology institutions/centres should be arranged in accordance with modern it standards, respecting all positive regulations. This primarily refers to information security and personal data protection.		
C5 .1. R3 introduction of a system of strategic human resource management in health care											
C5 .1. R3-I1 Central financing of specialisations	Number of medical doctors who entered the central funding programme for specialisations	Not applicable	number	0	3000	2Q/2026	MIZ	MIZ	In accordance with the five-year specialist training plan, specialist training of doctors of medicine will be enabled - thus achieving equal and sufficient occupancy of the public health service network at the primary level of health care and public health as well as equal availability of secondary and tertiary health care in the entire Republic of Croatia.	Assumption: adequate response of the doctor of medicine to specialist training competitions for specific types of specialisations and at health centres, completion of specialisations within the prescribed deadline.	MIZ records on passed specialist exams.
C5 .1. R3-I2 specialist training of nurses and technicians in emergency medicine activities	Specialist training of Ms/MT in ambulance activities	Completed specialist training of Ms/MT in emergency medicine activities	Specialisation	0	420	4Q/2025	MIZ (such specialisation has not existed so far)	MIZ	1-year-old specialist training of nurses/medical technicians in emergency medicine activities	Assumption: preparedness of Ms/ MT for specialist training; risk: untimely completion of specialisation	Reports during project implementation
C5 .1. R4 ensuring financial sustainability of the health care system											
C5 .1. R4-I1 Central preparation of all parenteral preparations in 8 Croatian hospitals	Preparation of most parenteral preparations in the hospital pharmacy and relief of nurses in the ward. Achieving	The amount of anti-neoplastic medicinal products used through the centrane preparation system; the	Number of oncology patients receiving therapy prepared through the central	0 preparations prepared in the new system	50% of all parenteral preparations manufactured in the central preparation system	4Q/2024	Information systems in hospitals and software solution integrated into the preparation system	MIZ, HLJK, responsible person at the hospital pharmacy and hospital director	Implementation of central medicinal products preparation will prepare in the pharmacy laboratory most of the necessary parenteral therapy for departments, made according to the highest	The assumption is that the nurses will accept unburdened work, and the suggestion is that hospital pharmacies will provide sufficient numbers of people to	Comparison of applied therapies with the total number of treated patients and comparison

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	maximum patient safety in parenteral medicinal products use. Removal of department warehouses for parenteral medicinal products.	financial value of antineoplastic medicinal products used; reducing the burden on nurses in departments/hours	system; number of hours of relief of nurses' work/number of DTS preparations in departments						safety standards in the form of “ready to use” in the department. Nurses will no longer have to prepare therapy in departments, have departmental storage of medicines and will get both temporal and spatial relief in departments. Preparations will be labelled with the patient's name and surname, medicinal product name and dose, thus preventing any possible treatment errors.	work in the central preparation laboratory. The risk is that the hospital will have an obstacle in finding enough space to install the isoaltor. The risk is that we will have difficulties in acquiring larger packaging of medicines	of costs before initiation of CP and after
C5 .1. R4-I2 introduction of a unit therapy distribution system in 50 Croatian hospitals	Preparation of solid forms of medicinal products in hospital pharmacy for patients in departments, removal of department storage of medicinal products, monitoring of issued medicinal products per patient and monitoring of consumption per patient, reduction of costs of medicinal products for internal hospital consumption, reduction of costs for granulation of old medicinal products	The amount of solid forms of medications used in the hospital; financial indicators for waste disposal costs; monitoring of consumption per patient	Number of reduced department depots, Financial amount for the consumption of solid forms in internal hospital consumption for medicinal products	0 prepared unit doses of the medicinal product	50% of all solid forms of medication for patients in unit pack units	4Q/2024	Information systems in hospitals and software solution integrated into the preparation system	MIZ, HLJK, responsible person at the hospital pharmacy and hospital director	By introducing the preparation of unit therapy in hospital pharmacies, department warehouses are abolished and treatment for acute and chronic treatment is prepared for each patient. All medicines in the hospital are in one location and their utilization is maximal. Each patient is given a dose labelled with the name and surname, BOM, dose and method of use and medication errors are completely prevented. The system enables monitoring of all issued therapies for one patient, which can prevent and duplicate therapies and reduces the time burden of the staff for dispensing medicines. The cost of disposing of medicines is also reduced because the possibility of expiration of shelf life is reduced by establishing a single hospital storage facility.	The assumption is that the consumption of medicines will be significantly reduced and the time burden of personnel in departments when dispensing medicines will be reduced. Risks are potential problems in the procurement of adequate devices, resistance of personnel because they are denied access to therapy in departments.	Comparison of the consumption of solid medicinal products with the previous period, comparison of costs for disposal of medicinal products with the previous period,

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
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C5 .1. R4-I3 digitalisation of drug route through health care institutions at secondary and tertiary level of health care	Establishment of complete monitoring of medicinal products in the hospital system from pharmacy to patient and in the end of the Croatian Institute for Health Insurance. Monitoring of prescribing by list of medicinal products, decisions of the Committee for Medicinal products and guidelines of the Croatian Institute for Health Insurance.	Number of hospitals that implemented the model and is able to deliver a report to the Ministry of Health and the Croatian Health Insurance Fund and the number of hospitals that established a new model for invoicing costs for medicines per patient	Number of hospitals that implemented the system and percentage of reimbursed medicines according to the Croatian Institute for Health Insurance in relation to medicines procured for hospitals	0 hospitals and unknown financial value of medicinal products	50% of hospitals and 50% of medicinal products with a transparent route through the hospital	4Q/2025	Information systems in hospitals and software solution integrated into the preparation system	MIZ, HLJK, responsible person at the hospital pharmacy and hospital director	The introduction of the digital route of the medicinal product puts in place a system of full and transparent monitoring of the medicinal product from entering the hospital pharmacy to invoicing to the Croatian Institute for Health Insurance. The system enables monitoring of prescribing and dispensing of medicinal products according to the HZZZO list, decisions of the Committee for Medicinal products and guidelines of the Croatian Institute for Health Insurance. This way of monitoring the medicinal product enables monitoring of the treatment outcome and opens the possibility of introducing payments for medicinal products upon their effect. The current medicine becomes an expense after being shipped from the hospital pharmacy and the system no longer has information on its consumption.	It is assumed that by implementing this project the health care system will gain complete control over the consumption of medicines. The risk is the great resistance expected from prescribers and the complexity of the system that must be implemented on different IT infrastructure in hospitals. The risk is also resistance of the owners of the existing partial models for monitoring the consumption of medicinal products in hospitals.	Number of hospitals that implemented the system. Financial monitoring of the characters by invoices from the wholesalers and outbound invoices of Orem to the Croatian Institute for Health Insurance,
C5 .1. R4-I4 drafting a system for monitoring and prevention of medicinal product shortages in the Republic of Croatia	Establishment of a system for monitoring shortages of medicinal products based on blockchain technology; possibility to analyse shortages, predict shortages and interventions through new registrations of	Number of reported shortages at HALMED; Number of real shortages reported at the Croatian Institute for Health Insurance; number of reclaimed shortages reported by healthcare	Number of shortages; financial resources spent on external-tender procurement and funds spent for import interventions from the Health budget	Small and unrealistic number of shortages reported to HALMED	Realistic overview of shortages without possible data failure by drug manufacturers	2Q/2026	Information systems in hospitals; data of the Croatian Institute for Health Insurance; HALMED web pages	MIZ, HLOK, manufacturers and healthcare professionals involved in ordering and dispensing medicinal products	The health care system has no control over shortages of medicines that are becoming a growing problem for the entire EU, including Croatia. Shortages cause an increase in medical consumption for medicines to an increasing extent. The monitoring system enables the health care system to predict shortages of equally	The assumptions are that the transparency of data on shortages will stabilise the drug market, reduce the significant occurrence of shortages and enable small companies with generic medicines the opportunity to appear and compete on the market. The potential risk lies in the uninformed system	Number of shortages on publicly available data on web pages and comparison with the real image offered by blockchain technology

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
	medicinal products and interventional import; ensuring availability of equally cheaper medicines for patients	professionals							cheaper treatments and to react promptly. "Blockchain" technology enables encryption of all patient data and information about medicines and possible shortages can be available to everyone in the system to react and obtain medicines for patients in time.	about new technologies and the possible high price of the system due to the small number of companies in the Republic of Croatia that develop this technology.	
C5 .1. R4-I5 introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies	Establishing a monitoring system for chronic patients by measuring adherence, the value of measurable target parameters characterizing disease status; reducing the number of hospitalisations; reducing the number of new treatments introduced	Index of adherence of chronic patients; Number of hospitalisations of patients included in the programme; achievement of desired therapeutic goals according to guidelines for the treatment of diseases	Patient adherence Index; Number of patient hospitalisations in the project	0 chronic patients monitoring the achievement of terrapist objectives	20% of patients participating in the treatment outcomes follow-up programme	4Q/2024	Report on the hospital of MA by disease; Report on the condition of patients from IT programme provided for in the project	MIZ, HLOK, Lessaries responsible for the work of the pharmacy in which the project is being implemented	Achieving the terrapaeic goals of patients with chronic diseases is a major challenge for the Croatian health system. Despite the use of the latest treatments, hospitalisations remain a great expense for the health care system and models of care must be found that will improve adherence and achievement of terrapist goals. Well compensated patients usually have fewer treatments, they go to search at secondary and tertiary levels of protection, they are less susceptible to hospitalisation, they stay longer in employment and live longer independently	The assumption is that increased control and monitoring of patients with chronic diseases will positively affect patients' status. Better status of chronic diseases will reduce the number of complications, number of hospitalisations and eventually lead to system relief. The risk is an additional major pharmacy involvement that could cause resistance. A potential risk is the reaction of family medicine physicians who might consider pharmacists to fall within their scope of work.	Number of patients in the programme in relation to the number of patients in the registry; measuring of adherence index; number of patient hospitalisations in the programme; Report on achieved therapeutic goals
C5 .1. R4-I6 improving the system of storage and transport of medicinal products in public pharmacies	Ensure adequate conditions for preserving the integrity and quality of the medicinal product until the end of the distribution chain of the medicinal product, i.e. until	The temperature deviation in distribution of medicinal products in the cold chain; the amount of suspended medicinal products due to inappropriate	Amount of medicinal products written off in financial value	30% of institutions have ensured continuity of the cold chain to the end user	All health care institutions have ensured continuity of the cold chain to the end user	2Q/2022	Report on oscillations at the temperature to be available in the developed programming solution; reports on refrigerated medicinal	MIZ, HLJAK, responsible persons within health care institutions	The current storage conditions in health care facilities are below the required standard. Inspections of pharmaceutical inspections have shown significant deviations from the prescribed requirements and large quantities of cold chain	The preopacity is that support for solving this widespread problem will be provided by all directors of health care institutions. The assumption is to lower significantly lower costs for medicines that have been written	Funds for medicinal product write-off due to inappropriate storage conditions. Reducing the number of medicines written off

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
	dispensing to the patient. Ensure inter-regional sport within the units of health care institutions in accordance with the conditions defined by the rules of good distribution practice. Provide healthcare institutions with access to the best quality solutions for ensuring a cold medicinal product chain	storage					products in health care institutions		medicines written off at the expense of health care institutions for storage under inappropriate conditions. The Medicinal products Act and the Ordinances derived from it prescribe standard for the storage of medicinal products, standard for automatic temperature monitoring and system of notification in case of temperature deviations. The implementation of the project will ensure the conditions for storage of medicinal products prescribed by the Act in all health institutions.	off. The risk lies in the market capacities for the procurement of such large quantities of devices and the potential cost of maintenance of the monitoring system, which can be pre-defined and prevented under tender conditions.	because of the possibility of safe inter-trade sports within pharmacy and hospital units.
C5 .1. R4-I7 waste management in CBC Zagreb			System	0	1	4Q/2024	Progress Report on the KBC Zagreb project	KBC Zagreb	Procurement of infectious waste treatment systems	Assumption: secured funds, completed construction of the establishment, compliance with the legal regulative risk: delay in construction, problems in procurement procedures - complexity of procurement procedures	Sale notes, invoices for procured non-medical equipment
C5 .1. R5 E-Health	Number of digital innovation centres established in the field of e-health	3	number	0	5	4Q/2023	MIZ, HZZO, associations (e.g. UIT HGK, CroAI)	MIZ	The Ministry of Health, i.e. the organizational unit for e-health, will encourage and record the establishment of digital innovation centres in existing health institutions or innovation centres of the business sector, and coordinate their functioning in order to achieve the necessary synergy and solutions that improve the health	Assumption: It is necessary to strengthen cooperation between the public and business sectors in the field of e-health, so the establishment of digital innovation centres in the field of e-health is an efficient way of encouraging innovation at national and EU level,	Collecting data and statistics, drawing up common methodologies and, where appropriate, indicators and benchmarks; studies, surveys, analyses and

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
									system.	especially in the application of artificial intelligence, high performance computing, blockchain technologies, cyber security and advanced digital skills in the health system.	surveys, evaluations and impact assessments , and drawing up and publishing guides, reports and educational materials.
C5 .1. R5-I1 improvement, upgrading and renovation of ICT infrastructure and digitization of medical documentation	Upgraded, indexed ICT infrastructure and digitization of medical documentation	Upgraded, indexed ICT infrastructure and digitization of medical documentation		0	1	4Q/2022	Progress Report on the KBC Split project	KBC Split	Project includes: - consolidation and virtualization of server infrastructure - adaptation of facilities for hosting server and network equipment - digitization of hospital archives and access control system - construction of a wireless computer network - structural cabling - procurement of desktop computers, laptops and mobile devices - procurement and implementation of business -class e-mail solutions	Risk: duration of public procurement procedure. Lack of personnel. Delay of the contractor/supplier.	Reports during project implementation. Contracts concluded with contractors/suppliers. On-the-spot controls.
C5 .1. R5-I2 Digitalization integration of operating halls and robotic surgery in KBC Split	Digitised, integrated operating halls and robotic surgery	5	coma	0	12	4Q// 2022	Progress Report on the KBC Split project	KBC Split	The project includes: - digitized, integrated 7 operating halls and robot surgery at the Firule KBC Split site - adapted space, and digitized, integrated 5 operating halls and robot surgery at the KBC Split Cross Mountain site	Risk: duration of public procurement procedure. Delay of the contractor/supplier.	Reports during project implementation. Contracts concluded with contractors/suppliers. On-the-spot controls.
C5 .1. R5-I3 TELECORDIS	Medical and computer	Medical and computer	Telemedicine centres -	0	40	1Q/2023	HZHM	HZHM	the equipment procured (kit per centre) is installed	Assumption: willingness of health	Reports during project

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implementation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
	equipment for telemedicine access centres - telecardiology services	equipment procured	telecardiology services						in telemedicine access centres, the program is connected to telemedicine specialist centres and the telecardiology service is performed through it.	personnel to provide telemedisinct services; risk: inadequate payment of telemedicine services	implementation
C5 .1. R5-I4 Teletransfusion	Medical and computer equipment for telemedicine access centres - teletransfusion services	Medical and computer equipment procured	Telemedicine centres - teletransfusion services	0	35	4Q/2022	HZHM (such a service has not existed so far)	MIZ	the equipment procured (kit per centre) is installed in telemedicine access centres, the program is connected to telemedicine specialist centres and the teletransfusion service is performed through it.	Assumption: willingness of health personnel to provide telemedisinct services; risk: inadequate payment of telemedicine services	Reports during project implementation
C6. Initiative: RENOVATION OF BUILDINGS											
C6 .1. Decarbonisation of buildings											
C6 .1. R1 complete renovation of buildings											
C6 .1. R1-I1 Energy renovation of buildings	Public and residential buildings with improved energy performance	Publication of the programme for energy renovation of residential buildings for the period 2021-2030, publication of the programme for energy renovation of public sector buildings for the period 2021-2030	m2	0	540.000	2Q/2026	MPGI	MPGI/partial APN/SDUOSZ	Building gross area (GBP) of public and multi-dwelling buildings with improved energy performance	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe. Risk: lack of labour force for a large number of low value projects.	Project reports
C6 .1. R1-I2 Reconstruction of buildings damaged by energy renovation earthquake	Public and residential buildings renovated after earthquakes in the area of Zagreb, Zagreb and Krapina Zagorje County, with improved energy performance	Publication of the programme for energy renovation of residential buildings for the period 2021-2030, publication of the programme for energy renovation of public sector buildings for the period 2021-2030	m2	0	528.571	2Q/2026	MPGI	MPGI/partial RECONSTRUCTION FUND	Construction gross surface (GBP) of buildings damaged by earthquakes in the City of Zagreb, Zagreb and Krapina Zagorje County, which will be restored with improved energy performance	Assumption: Project implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe. Risk: notification of new natural disasters or catastrophes, labour shortages for a large number of low value projects	Project reports
C6 .1. R1-I3	Public buildings	The publication of	1) m2	1) 0	1) 20.000	2Q/2026	MKM	MKM	Building gross area (GBP)	Assumption: Project	Project

Name of the reform/measure /Investments	Name *of Milestone/target*	Qualitative indicators *(milestones)*	Quantitative indicators *(targets)*			Implement ation deadline	Source data/ Metodology	Responsibility for implementatio	Description for *Milestone and target*	Assumptions/ risks	Verification mechanism
			Unit of measure	Baseline value	Target value						
Energy renovation of buildings with cultural property status	with cultural property status with improved energy performance	the programme for energy renovation of buildings with the status of cultural property for the period 2021-2030, by the end of the second quarter of 2022, will develop an educational programme in the field of energy renovation of buildings with the status of cultural property	2) number 3) number	2) 0 3) 0	2) 20 3) 20				of public buildings with cultural property status with improved energy performance No. of prepared documentation for energy renovation of buildings with cultural good status Number of experts in the field of cultural heritage who will complete education on energy reconstruction of cultural heritage	implementation procedures should be carried out in time with all elements involved in order to respect the proposed timeframe. Risk: lack of labour force for a large number of small value projects and insufficiently trained experts for the reconstruction of buildings with cultural property status, long-term public procurement procedures	reports

Annex 3 Estimated cost of the plan

Name of the reform/measure/investment	Implementation period	Total estimated implementation costs (in kn)			Total estimated costs for which funding from the RDF is requested and elaboration per year (in HRK)								Financing from other sources					Functional classification of the State budget	Holder
		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
C1. ECONOMY		67.237.562.385	60.302.562.385	4.982.000.000	61.269.776.892	204.000.000	3.707.118.220	10.682.156.468	12.476.105.492	12.652.016.090	12.717.880.402	8.830.499.220	750.000.000		890.465.481	6.896.820.013			
C1 .1. Enhancing competitiveness and green transition of the economy		**24.117.250.000**	**18.142.250.000**	**4.700.000.000**	**25.842.250.000**	**0**	**1.547.000.000**	**5.482.125.000**	**5.947.125.000**	**4.331.312.000**	**4.930.937.000**	**3.603.750.000**	**0**		**0**	**1.275.000.000**			
C1 .1. R1 Strengthening competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies		**23.225.000.000**	**17.250.000.000**	**4.700.000.000**	**21.950.000.000**	**0**	**1.420.000.000**	**4.755.000.000**	**5.073.750.000**	**3.623.750.000**	**3.973.750.000**	**3.103.750.000**	**0**		**0**	**1.275.000.000**			
C1 .1. R1-I1 non-performing investments in the production and technological capacities of enterprises	2021-2026	6.000.000.000	3.000.000.000	3.000.000.000	6.000.000.000	0	0	500.000.000	500.000.000	1.000.000.000	2.000.000.000	2.000.000.000	n/a	n/a	n/a	n/a	n/a		
C1 .1. R1-I2 support for liquidity and investment investments of micro, small and medium-sized enterprises in the form of loans for economic recovery and fostering digital and green transition	2021-2026	4.000.000.000	2.800.000.000	1.200.000.000	4.000.000.000	0	500.000.000	1.500.000.000	1.500.000.000	500.000.000	0	0	n/a	n/a	n/a	n/a	n/a	04	MINGOR (HAMAG - BICRO)
C1 .1. R1-I3 Mezzanine Financial Instrument loan for small business entities for economic recovery and fostering digital and green transition	2021-2026	700.000.000	700.000.000	0	700.000.000	0	0	350.000.000	350.000.000	0	0	0	n/a	n/a	n/a	n/a	n/a	04	MINGOR (HAMAG - BICRO)
C1 .1. R1-I4 support for liquidity and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies	2021-2026	1.200.000.000	700.000.000	500.000.000	1.200.000.000	0	0	600.000.000	600.000.000	0	0	0	n/a	n/a	n/a	n/a	n/a	04	MINGOR (HAMAG - BICRO)
C1 .1. R1-I5 Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects	2021-2026	2.300.000.000	2.300.000.000		2.300.000.000		200.000.000	350.000.000	550.000.000	550.000.000	400.000.000	250.000.000							HBOR
C1 .1. R1-I6 RRF "Umbrella" guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.	2021-2026	1.500.000.000	1.500.000.000		1.500.000.000		150.000.000	300.000.000	300.000.000	300.000.000	300.000.000	150.000.000							*HBOR*
C1 .1. R1-I7 RRF more favourable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of financing for HBOR + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes	2021-2026	4.500.000.000	4.500.000.000		4.500.000.000		450.000.000	900.000.000	900.000.000	900.000.000	900.000.000	450.000.000							HBOR

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													from other EU programmes		from the state budget	from other sources			
		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	amount	program name	amount	amount	name source		
C1 .1. R1-I8 Fostering the internationalisation of the economy of the Republic of Croatia through strengthening the guarantee fund for export insurance and export credit financing activities	2021-2026	1.200.000.000	1.200.000.000		1.200.000.000		120.000.000	240.000.000	240.000.000	240.000.000	240.000.000	120.000.000							*HBOR*
C1 .1. R1-I9 Investment in equity and quasi-equity financing instruments (PE)	2023-2026	1.525.000.000	475.000.000		475.000.000		0	0	118.750.000	118.750.000	118.750.000	118.750.000				1.050.000.000	EIF; HBOR; PRIVATE INVESTORS		HBOR
C1 .1. R1-I10 Strengthening equity activities in the area of RBI - investment in regional fund for technology transfer	2022-2026	300.000.000	75.000.000		75.000.000		0	15.000.000	15.000.000	15.000.000	15.000.000	15.000.000				225.000.000	EIF; SID		HBOR
C1 .1. R2 increasing the competitiveness of the economy by strengthening the development of innovation		**116.000.000**	**116.000.000**	**0**	**3.116.000.000**	**0**	**89.000.000**	**539.000.000**	**669.000.000**	**519.000.000**	**800.000.000**	**500.000.000**	**0**		**0**	**0**			
C1 .1. R2-I1 Fostering investments in research, development and innovation	2021. - 2026.				3.000.000.000		50.000.000	500.000.000	650.000.000	500.000.000	800.000.000	500.000.000						150	MINGOR (HAMAG-BICRO)
C1 .1. R2-I2 increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation	2021. - 2026.	76.000.000	76.000.000		76.000.000		19.000.000	19.000.000	19.000.000	19.000.000	0	0	0		0	0			MINGOR
C1 .1. R2-I3 establishment and implementation of activities of national digital innovation centres (DIH and EDIH)	2021. - 2026.	40.000.000	40.000.000		40.000.000		20.000.000	20.000.000	0	0	0	0			0	0			MINGOR
C1 .1. R3 further improvement of the business environment		**126.250.000**	**126.250.000**	**0**	**126.250.000**	**0**	**13.000.000**	**25.625.000**	**41.875.000**	**26.062.000**	**19.687.000**	**0**	**0**		**0**	**0**			
C1 .1. R3-I1 implementation of measures for administrative and para-fiscal relief of the economy	2021. - 2024.	40.000.000	40.000.000	0	40.000.000	0	8.000.000	10.000.000	10.000.000	12.000.000	0	0	0	n/p	0	0	n/p	0411, 013, 0620	MINGOR
C1 .1. R3-I2 improving the system of economic impact assessment	2021. - 2023.	30.000.000	30.000.000	0	30.000.000	0	5.000.000	10.000.000	15.000.000	0	0	0	0	n/p	0	0	n/p	13	MINGOR
C1 .1. R3-I3 Creating a support system for investments and internationalization of business Croatia	2022. - 2025.	56.250.000	56.250.000	0	56.250.000	0	0	5.625.000	16.875.000	14.062.000	19.687.000	0	0	n/p	n/p	n/p	n/p		MVEP
C1 .1. R4 Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation		**650.000.000**	**650.000.000**	**0**	**650.000.000**	**0**	**25.000.000**	**162.500.000**	**162.500.000**	**162.500.000**	**137.500.000**	**0**	**0**	n/p	**0**	**0**	n/p	082, 083	MKM
C1 .1. R4-I1 Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epidemic 19	2021. - 2025.	200.000.000	200.000.000	0	200.000.000	0	10.000.000	50.000.000	50.000.000	50.000.000	40.000.000	0	0	n/p	0	0	n/p	082, 083	MKM
C1 .1. R4-I2 Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and by developing modernised production capacities for new content	2021. - 2025.	350.000.000	350.000.000	0	350.000.000	0	10.000.000	87.500.000	87.500.000	87.500.000	77.500.000	0	0	n/p	0	0	n/p	082, 083	MKM
C1 .1. R4-I3 programmes for stimulating media literacy, investing in quality journalism and strengthening independent	2021. - 2025.	100.000.000	100.000.000	0	100.000.000	0	5.000.000	25.000.000	25.000.000	25.000.000	20.000.000	0	0	n/p	0	0	n/p	082, 083	MKM

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
media																			
C1 .2. Energy transition for a sustainable economy	**2021. - 2026.**	**11.505.162.500**	**11.505.162.500**	**0**	**7.738.287.500**	**0**	**326.746.537**	**675.099.911**	**1.198.204.154**	**2.070.557.113**	**1.845.607.910**	**1.622.071.875**	**750.000.000**	Innovation Fund	**0**	**3.016.875.000**	Private investor funds	**43**	**MINGOR**
C1 .2. R1 decarbonisation of the energy sector	2021. - 2026.	**11.505.162.500**	**11.505.162.500**	**0**	**7.738.287.500**	**0**	**326.746.537**	**675.099.911**	**1.198.204.154**	**2.070.557.113**	**1.845.607.910**	**1.622.071.875**	**750.000.000**	Innovation Fund	**0**	**3.016.875.000**	Private investor funds	43	MINGOR
C1 .2. R1-I1 Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector	2021. - 2026.	4.471.412.500	4.471.412.500	0	4.471.412.500	0	223.570.625	447.141.250	670.711.875	894.282.500	1.117.853.125	1.117.853.125	0	n/p	0	0	n/p	43	MINGOR
C1 .2. R1-I2 Fostering energy efficiency, heating and renewable energy sources for decarbonising the energy sector	2021. - 2026.	2.475.625.000	2.475.625.000	0	1.237.812.500	0	61.890.625	123.781.250	185.671.875	247.562.500	309.453.125	309.453.125	0	n/p	0	1.237.812.500	Private investor funds	43	MINGOR
C1 .2. R1-I3 use of hydrogen and new technologies	2022. - 2026	1.558.125.000	1.558.125.000	0	779.062.500	0	38.953.125	77.906.250	116.859.375	155.812.500	194.765.625	194.765.625	0	n/p	0	779.062.500	Private investor funds	43	MINGOR
C1 .2. R1-I4 Biofuels for the production of advanced Sisak biofuels	2022. - 2025.	3.000.000.000	3.000.000.000	0	1.250.000.000	0	2.332.162	26.271.161	224.961.029	772.899.613	223.536.035	0	750.000.000	Innovation Fund	0	1.000.000.000	Private investor funds	43	MINGOR
C1 .3. Improving water management and waste management		**14.605.112.385**	**14.605.112.385**	**0**	**11.357.201.892**	**0**	**167.536.683**	**1.478.397.807**	**2.500.231.338**	**2.987.090.727**	**2.324.267.992**	**1.899.677.345**	**0**		**890.465.481**	**2.604.945.013**			**MINGOR**
C1 .3. R1 implementation of water management programmes		**12.955.112.385**	**12.955.112.385**	**0**	**9.707.201.892**	**0**	**137.536.683**	**1.098.397.807**	**1.975.231.338**	**2.717.090.727**	**2.109.267.992**	**1.669.677.345**	**0**	n/p	**890.465.481**	**2.357.445.013**			MINGOR
C1 .3. R1-I1 Programme for Development of public waste water drainage	2020. - 2026.	8.835.008.447	8.835.008.447	0	6.318.313.545	0	137.536.683	740.308.972	1.361.298.086	1.959.953.058	1.354.845.905	764.370.841	0	n/p	890.465.481	1.626.229.422	HV; VIABLE; LOCAL SELF-GOVERNMENT UNIT		MINGOR
C1 .3. R1-I2 Programme for Development of public water supply	2020. - 2026.	2.264.000.000	2.264.000.000	0	1.811.200.000	0	0	200.320.000	377.280.000	441.600.000	360.000.000	432.000.000	0	n/p	0	452.800.000	HV, GREY; LOCAL SELF-GOVERNMENT UNIT		MINGOR
C1 .3. R1-I3 disaster risk reduction Programme in the water management sector	2020. - 2026.	1.856.103.938	1.856.103.938	0	1.577.688.347	0	0	157.768.835	236.653.252	315.537.669	394.422.087	473.306.504	0	n/p	0	278.415.591	HV		MINGOR
C1 .3. R2 implementation of projects for sustainable waste management	2020. - 2026.	**1.650.000.000**	**1.650.000.000**	**0**	**1.650.000.000**	**0**	**30.000.000**	**380.000.000**	**525.000.000**	**270.000.000**	**215.000.000**	**230.000.000**	**0**	n/p	**0**	**247.500.000**	LSGU, private funds		MINGOR
C1 .3. R2-I1 waste disposal reduction Programme	2020. - 2026.	1.500.000.000	1.500.000.000	0	1.500.000.000	0	0	350.000.000	475.000.000	250.000.000	200.000.000	225.000.000	0	n/p	0	225.000.000	LSGU, private funds		MINGOR
C1 .3. R2-I2 Rehabilitation Programme for closed landfills and locations contaminated by hazardous waste	2020. - 2026.	150.000.000	150.000.000	0	150.000.000	0	30.000.000	30.000.000	50.000.000	20.000.000	15.000.000	5.000.000	0	n/p	0	22.500.000	LSGU, private funds		MINGOR
C1 .4. Development of a competitive, energy-sustainable and efficient transport system		**11.056.037.500**	**11.056.037.500**	**0**	**11.056.037.500**	**0**	**824.835.000**	**2.128.533.750**	**1.957.545.000**	**2.332.056.250**	**2.708.067.500**	**1.105.000.000**	**0**		**0**	**0**			**MMPI**
C1 .4. R1 Road sector reform		**2.110.000.000**	**2.110.000.000**	**0**	**2.110.000.000**	**0**	**34.000.000**	**819.000.000**	**295.000.000**	**290.000.000**	**372.000.000**	**300.000.000**	**0**		**0**	**0**		045	MMPI
C1 .4. R1-I1 electronic toll collection system	2021. - 2025.	1.000.000.000	1.000.000.000	0	1.000.000.000	0	8.000.000	700.000.000	110.000.000	110.000.000	72.000.000	0	0	/	0	0	/	045	MMPI
C1 .4. R1-I2 Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)	2021. - 2025.	260.000.000	260.000.000	0	260.000.000	0	26.000.000	34.000.000	50.000.000	50.000.000	100.000.000	0						045	MMPI
C1 .4. R1-I3 Road from Kasttel Kambelovac to Vučevica	2022. - 2026.	850.000.000	850.000.000	0	850.000.000	0	0	85.000.000	135.000.000	130.000.000	200.000.000	300.000.000						045	MMPI
C1 .4. R2 Railway sector reform		**3.524.000.000**	**3.524.000.000**	**0**	**3.524.000.000**	**0**	**246.400.000**	**475.600.000**	**666.800.000**	**816.000.000**	**1.019.200.000**	**300.000.000**	**0**		**0**	**0**		045	MMPI
C1 .4. R2-I1 Construction of the existing and construction of the second track on the long Selo-Novska section, Subsection Kutina-Novska (Phase D)	2022. - 2026.	1.060.000.000	1.060.000.000	0	1.060.000.000	0	0	106.000.000	174.000.000	200.000.000	280.000.000	300.000.000						045	MMPI
C1 .4. R2-I2 modernisation of the M604 Elder-Knin-Split	2021. - 2025.	412.000.000	412.000.000	0	412.000.000	0	41.200.000	61.800.000	82.400.000	103.000.000	123.600.000	0						045	MMPI

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
railway																			
C1 .4. R2-I3 Railway infrastructure Reconstruction Project on the line R201 and R202 on the section Cakovec-Varazdin-Koprivnica-Pitomaca	2021. - 2025.	782.000.000	782.000.000	0	782.000.000	0	78.200.000	117.300.000	156.400.000	195.500.000	234.600.000	0						045	MMPI
C1 .4. R2-I4 Reconstruction of the existing Zadar-Knin railway	2021. - 2025.	300.000.000	300.000.000	0	300.000.000	0	30.000.000	45.000.000	60.000.000	75.000.000	90.000.000	0						045	MMPI
C1 .4. R2-I5 removal of "bottlenecks" on railway infrastructure	2021. - 2025.	120.000.000	120.000.000	0	120.000.000	0	12.000.000	18.000.000	24.000.000	30.000.000	36.000.000	0						045	MMPI
C1 .4. R2-I6 modernisation of the node Zagreb	2021. - 2025.	750.000.000	750.000.000	0	750.000.000	0	75.000.000	112.500.000	150.000.000	187.500.000	225.000.000	0						045	MMPI
C1 .4. R2-I7 Construction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border	2021. - 2025.	100.000.000	100.000.000	0	100.000.000	0	10.000.000	15.000.000	20.000.000	25.000.000	30.000.000	0						045	MMPI
C1 .4. R3 Maritime and inland navigation reform		**2.185.037.500**	**2.185.037.500**	**0**	**2.185.037.500**	**0**	**218.435.000**	**277.933.750**	**359.245.000**	**506.556.250**	**542.867.500**	**280.000.000**	**0**		**0**	**0**		045	MMPI
C1 .4. R3-I1 Programme for the modernisation of ports open to public transport	2021. - 2025.	340.000.000	340.000.000	0	340.000.000	0	30.000.000	45.000.000	60.000.000	85.000.000	120.000.000	0						045	MMPI
C1 .4. R3-I2 Construction of a specialized energy link in the port of Ploče	2021. - 2024.	187.500.000	187.500.000	0	187.500.000	0	20.500.000	32.000.000	62.000.000	73.000.000	0	0						045	MMPI
C1 .4. R3-I3 Construction and reconstruction of public utilities	2021. - 2025.	400.000.000	400.000.000	0	400.000.000	0	40.000.000	60.000.000	80.000.000	100.000.000	120.000.000	0						045	MMPI
C1 .4. R3-I4 Project of expansion and deepening of the waterway attractive draught	2021. - 2023.	17.000.000	17.000.000	0	17.000.000	0	3.000.000	5.000.000	9.000.000	0	0	0						045	MMPI
C1 .4. R3-I5 Reconstruction of the search and rescue fleet	2021. - 2025.	107.000.000	107.000.000	0	107.000.000	0	10.700.000	16.050.000	21.400.000	26.750.000	32.100.000	0						045	MMPI
C1 .4. R3-I6 purchase/construction of passenger ships for coastal line traffic	2021. - 2026.	1.000.000.000	1.000.000.000	0	1.000.000.000	0	100.000.000	100.000.000	100.000.000	200.000.000	250.000.000	250.000.000						045	MMPI
C1 .4. R3-I7 Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increased safety of navigation	2021. - 2026.	88.000.000	88.000.000	0	88.000.000	0	8.800.000	13.200.000	17.600.000	12.000.000	11.400.000	25.000.000						045	MMPI
C1 .4. R3-I8 Reconstruction of stocks from the special risk of the Sava River waterway (from Račinovac to Sisak)	2021. - 2026.	34.312.500	34.312.500	0	34.312.500	0	4.312.500	5.000.000	7.000.000	7.000.000	6.000.000	5.000.000						045	MMPI
C1 .4. R3-I9 Reconstruction of stocks from the special risk of the river Drava waterway from rkm 0 to rkm 12	2021. - 2026.	11.225.000	11.225.000	0	11.225.000	0	1.122.500	1.683.750	2.245.000	2.806.250	3.367.500	0						045	MMPI
C1 .4. R4 improving the public transport system		**1.550.000.000**	**1.550.000.000**	**0**	**1.550.000.000**	**0**	**155.000.000**	**232.500.000**	**310.000.000**	**387.500.000**	**465.000.000**	**0**	**0**		**0**	**0**		045	MMPI
C1 .4. R4-I1 purchase of alternatively powered vehicles	2021. - 2025.	700.000.000	700.000.000	0	700.000.000	0	70.000.000	105.000.000	140.000.000	175.000.000	210.000.000	0						045	MMPI
C1 .4. R4-I2 Modernisation of tram infrastructure	2021. - 2025.	700.000.000	700.000.000	0	700.000.000	0	70.000.000	105.000.000	140.000.000	175.000.000	210.000.000	0						045	MMPI
C1 .4. R4-I3 Modernisation of bus stations	2021. - 2025.	150.000.000	150.000.000	0	150.000.000	0	15.000.000	22.500.000	30.000.000	37.500.000	45.000.000	0						045	MMPI
C1 .4. R5 traffic greening		**1.687.000.000**	**1.687.000.000**	**0**	**1.687.000.000**	**0**	**171.000.000**	**323.500.000**	**326.500.000**	**332.000.000**	**309.000.000**	**225.000.000**	**0**	**0**	**0**	**0**		045	MMPI
C1 .4. R5-I1 Modernisation and greening of infrastructure at Zadar Airport	2021. - 2024.	70.000.000	70.000.000	0	70.000.000	0	10.500.000	17.000.000	17.500.000	25.000.000	0	0						045	MMPI
C1 .4. R5-I2 Greening and digitization of Pula Airport	2021. - 2023.	7.000.000	7.000.000	0	7.000.000	0	1.500.000	2.500.000	3.000.000	0	0	0						045	MMPI
C1 .4. R5-I3 Construction of passenger building at Osijek Airport	2021. - 2026.	30.000.000	30.000.000	0	30.000.000	0	1.000.000	4.000.000	6.000.000	7.000.000	9.000.000	3.000.000						045	MMPI
C1 .4. R5-I4 Programme for co-financing the purchase of new alternative fuel vehicles and the	2021. - 2026.	1.580.000.000	1.580.000.000		1.580.000.000	0	158.000.000	300.000.000	300.000.000	300.000.000	300.000.000	222.000.000							

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
development of alternative fuel infrastructure in road transport																			
C1 .5. Improving the use of natural resources and strengthening the food supply chain		**1.754.000.000**	**794.000.000**	**282.000.000**	**1.076.000.000**	**4.000.000**	**41.000.000**	**118.000.000**	**173.000.000**	**331.000.000**	**359.000.000**	**50.000.000**	**0**		**0**	**0**			
C1 .5. R1 setting up a logistics infrastructure network to strengthen the production chain in the fruit and vegetables sector	2021. - 2026.	**650.000.000**	**640.000.000**	**10.000.000**	**650.000.000**	**0**	**0**	**61.000.000**	**77.000.000**	**230.000.000**	**252.000.000**	**30.000.000**	**0**					0421	MPOLJ
C1 .5. R1-I1 Construction and equipping of logistically distributed fruit and vegetables centres	2021. - 2026.	640.000.000	640.000.000	0	640.000.000	0	0	56.000.000	72.000.000	230.000.000	252.000.000	30.000.000	0		0	0		0421	MPOLJ
C1 .5. R2 improvement of the system for restructuring agricultural land and land consolidation	2021. - 2026.	**288.000.000**	**18.000.000**	**270.000.000**	**288.000.000**	**0**	**6.000.000**	**23.000.000**	**43.000.000**	**93.000.000**	**103.000.000**	**20.000.000**	**0**		**0**	**0**		0421	MPOLJ
C1 .5. R2-I1 Land consolidation	2021. - 2026.	270.000.000	0	270.000.000	270.000.000	0	0	20.000.000	40.000.000	90.000.000	100.000.000	20.000.000	0		0	0		0421	MPOLJ
C1 .5. R2-I2 Programme for permanent monitoring of the state (monitoring) of agricultural land	2021. - 2025.	18.000.000	18.000.000	0	18.000.000	0	6.000.000	3.000.000	3.000.000	3.000.000	3.000.000	0	0		0	0		0421	MPOLJ
C1 .5. R3 Digital transformation of agriculture	2020. - 2025.	**98.000.000**	**98.000.000**	**0**	**98.000.000**	**4.000.000**	**34.500.000**	**33.000.000**	**15.000.000**	**7.500.000**	**4.000.000**	**0**	**0**		**0**	**0**		0421	MPOLJ
C1 .5. R3-I1 Digital transformation of public services in agriculture	2020. - 2025.	21.000.000	21.000.000	0	21.000.000	2.500.000	7.500.000	3.000.000	4.000.000	2.000.000	2.000.000	0	0		0	0		0421	MPOLJ
C1 .5. R3-I2 smart farming	2020. - 2025.	58.000.000	58.000.000	0	58.000.000	1.500.000	20.000.000	20.000.000	10.000.000	5.000.000	1.500.000	0	0		0	0		0421	MPOLJ
C1 .5. R3-I3 traceability system	2020. - 2025.	19.000.000	19.000.000	0	19.000.000	0	7.000.000	10.000.000	1.000.000	500.000	500.000	0	0		0	0		0421	MPOLJ
C1 .5. R4 improvement of food donation system	2021. - 2024.	**40.000.000**	**38.000.000**	**2.000.000**	**40.000.000**	**0**	**500.000**	**1.000.000**	**38.000.000**	**500.000**	**0**	**0**	**0**		**0**	**0**		0421	MPOLJ
C1 .5. R4-I1 infrastructural equipping of food banks and intermediaries in the food donation chain	2021. - 2024.	38.000.000	38.000.000	0	38.000.000	0	0	1.000.000	37.000.000	0	0	0	0		0	0		0421	MPOLJ
C1 .6. Development of sustainable, innovative and resilient tourism		**4.200.000.000**	**4.200.000.000**	**0**	**4.200.000.000**	**200.000.000**	**800.000.000**	**800.000.000**	**700.000.000**	**600.000.000**	**550.000.000**	**550.000.000**	**0**	**0**	**0**	**0**	**0**		**MINTS**
C1 .6. R1 Investments in increasing the resilience and competitiveness of the tourism economy		**4.200.000.000**	**4.200.000.000**	**0**	**4.200.000.000**	**200.000.000**	**800.000.000**	**800.000.000**	**700.000.000**	**600.000.000**	**550.000.000**	**550.000.000**	**0**	0	**0**	**0**	0	0473	MINTS
C1 .6. R1-I1 diversification and specialization of Croatian tourism through investments in the development of health and sports tourism	2020. - 2026.	3.000.000.000	3.000.000.000	0	3.000.000.000	150.000.000	450.000.000	500.000.000	500.000.000	500.000.000	450.000.000	450.000.000	0	0	0	0	0	0473	MINTS
C1 .6. R1-I2 changing the quality of the tourist offer by strengthening the competitiveness of SMEs	2020. - 2026.	800.000.000	800.000.000	0	800.000.000	50.000.000	150.000.000	150.000.000	150.000.000	100.000.000	100.000.000	100.000.000	0	0	0	0	0	0473	MINTS
C1 .6. R1-I3 Strengthening the capacity of the system for resilient and sustainable tourism	2021. - 2023.	400.000.000	400.000.000	0	400.000.000	0	200.000.000	150.000.000	50.000.000	0	0	0	0	0	0	0	0	0473	MINTS
C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY		**17.094.167.478**	**15.228.752.490**	**6.394.988**	**11.802.947.478**	**6.007.988**	**466.010.000**	**918.850.000**	**1.553.377.000**	**1.355.250.000**	**726.000.000**	**537.000.000**	**0**		**0**	**1.500.000**			
C2 .1. Strengthening the capacity to develop and implement public policies and projects		**166.000.000**	**166.000.000**	**0**	**166.000.000**	**0**	**17.750.000**	**33.750.000**	**49.500.000**	**49.000.000**	**16.000.000**	**0**	**0**		**0**	**0**			**MRDEUF**
C2 .1. R1 effective and efficient coordination and		**6.000.000**	**6.000.000**	**0**	**6.000.000**	**0**	**1.750.000**	**1.750.000**	**1.500.000**	**1.000.000**	**0**	**0**	**0**	0	**0**	**0**			MRDEUF

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
management of the strategic planning system																			
C2 .1. R1-I1 Strengthening the capacity of the Network of Coordinators for Strategic planning at national and regional level to formulate and implement public policies and projects	2021. - 2024.	4.000.000	4.000.000	0	4.000.000	0	1.000.000	1.000.000	1.000.000	1.000.000	0	0	0	0	0	0	n/p	0411	MRDEUF
C2 .1. R1-I2 introduction of evidence-based public policy preparation and communication instruments for public policies	2021. - 2023.	2.000.000	2.000.000	0	2.000.000	0	750.000	750.000	500.000	0	0	0	0	0	0	0	n/p	0620	MRDEUF
C2 .1. R2 Strengthening capacities for preparation and implementation of EU projects		**160.000.000**	**160.000.000**	**0**	**160.000.000**	**0**	**16.000.000**	**32.000.000**	**48.000.000**	**48.000.000**	**16.000.000**	**0**	**0**		**0**	**0**			MRDEUF
C2 .1. R2-I1 ensuring assistance to beneficiaries in the preparation of tender project-technical documentation	2021. - 2024.	160.000.000	160.000.000	n/p	160.000.000	0	16.000.000	32.000.000	48.000.000	48.000.000	16.000.000	0	n/p	n/p	n/p	n/p	n/p	04, 046 05, 053	MRDEUF
C2 .2. Further improvement of the efficiency of the public administration		**1.309.200.000**	**1.309.200.000**	**0**	**1.309.200.000**	**0**	**213.500.000**	**328.450.000**	**390.000.000**	**207.250.000**	**140.000.000**	**30.000.000**	**0**		**0**	**0**			
C2 .2. R1 Strengthening and empowering human resources		**55.700.000**	**55.700.000**	**0**	**55.700.000**	**0**	**4.500.000**	**11.200.000**	**21.000.000**	**19.000.000**	**0**	**0**	**0**		**0**	**0**			
C2 .2. R1-I1 centralised selection system	2021. - 2024.	50.000.000	50.000.000		50.000.000	0	2.000.000	10.000.000	20.000.000	18.000.000	0	0	0		0	0		011	RAMP
C2 .2. R1-I2 Development of Digital competences of Officials and Officials	2021. - 2024.	3.000.000	3.000.000		3.000.000	0	500.000	500.000	1.000.000	1.000.000								011	MPA/ SDURDD
C2 .2. R1-I3 e-State Experts exam	2021.	2.700.000	2.700.000		2.700.000	0	2.000.000	700.000	0	0	0	0	0		0	0		011	RAMP
C2 .2. R2 organisational models in the public administration		**236.000.000**	**236.000.000**	**0**	**236.000.000**	**0**	**81.000.000**	**60.000.000**	**76.000.000**	**19.000.000**	**0**	**0**	**0**		**0**	**0**			
C2 .2. R2-I1 Development of the HRM system for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services	2021. - 2024.	60.000.000	60.000.000		60.000.000	0	1.000.000	20.000.000	20.000.000	19.000.000	0	0	0		0	0		011	RAMP
C2 .2. R2-I2 introduction of a model for hybrid access to the workplace – smart working	2021. - 2023.	176.000.000	176.000.000		176.000.000	0	80.000.000	40.000.000	56.000.000	0	0	0	0		0	0		011	RAMP
C2 .2. R3 smart PA — further optimization and digitization of processes		**656.250.000**	**656.250.000**	**0**	**656.250.000**	**0**	**97.000.000**	**178.250.000**	**178.000.000**	**113.000.000**	**90.000.000**	**0**	**0**		**0**	**0**			
C2 .2. R3-I1 Digitalisation of public administration procedures	2021. - 2024.	11.250.000	11.250.000		11.250.000	0	2.000.000	3.250.000	3.000.000	3.000.000	0	0	0		0	0		011	RAMP
C2 .2. R3-I2 establishment of single administrative posts — YUM (Phase 1 and 2)	2021. - 2024.	195.000.000	195.000.000		195.000.000	0	5.000.000	85.000.000	85.000.000	20.000.000	0	0	0		0	0		011	MPA/ SDURDD
C2 .2. R3-I3 establishment of digital infrastructure and public administration services by creating a conservation base system	2021. - 2025.	150.000.000	150.000.000	0	150.000.000	0	30.000.000	30.000.000	30.000.000	30.000.000	30.000.000	0	0	n/p	0	0	n/p	082	MK
C2 .2. R3-I4 improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archive network	2021. - 2025.	300.000.000	300.000.000	0	300.000.000	0	60.000.000	60.000.000	60.000.000	60.000.000	60.000.000	0	0	n/p	0	0	n/p	082	MK
C2 .2. R4 functional and sustainable local self-		**361.250.000**	**361.250.000**	**0**	**361.250.000**	**0**	**31.000.000**	**79.000.000**	**115.000.000**	**56.250.000**	**50.000.000**	**30.000.000**	**0**		**0**	**0**			RAMP

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
government																			
C2 .2. R4-I1 further optimisation and decentralisation of LC (R)SGU through support for functional mergers	2021. - 2024.	100.000.000	100.000.000		100.000.000	0	1.000.000	9.000.000	65.000.000	25.000.000	0	0	0		0	0		011	RAMP
C2 .2. R4-I2 further optimisation and decentralisation via e-services of local self-government and further digitalisation of public services	2021. - 2026.	261.250.000	261.250.000		261.250.000	0	30.000.000	70.000.000	50.000.000	31.250.000	50.000.000	30.000.000	0		0	0		011	RAMP
C2 .3. Digital transition of society and economy		**12.429.230.478**	**10.563.815.490**	**6.394.988**	**7.138.010.478**	**3.007.988**	**34.100.000**	**305.400.000**	**300.000.000**	**300.000.000**	**0**	**0**	**0**		**0**	**0**			
C2 .3. R1 Digital Croatia Strategy and strengthening interinstitutional cooperation and coordination for a successful digital transition of society and economy	**2021. - 2022.**	**7.500.000**	**7.500.000**	**0**	**7.500.000**		**2.100.000**	**5.400.000**										013	SDURDD
C2 .3. R2 improving interoperability of information systems		**439.300.000**	**439.300.000**	**0**	**439.300.000**														
C2 .3. R2-I1 establishment of a central interoperability system	2021. - 2026.	128.500.000	128.500.000	0	128.500.000		5.500.000	9.000.000	92.500.000	2.250.000	17.000.000	2.250.000							
C2 .3. R2-I2 establishment of the IoT platform at the national and local level	2021. - 2026.	154.900.000	154.900.000	0	154.900.000		79.600.000	14.400.000	17.400.000	17.400.000	17.400.000	8.700.000							
C2 .3. R2-I3 establishment of a data warehouse and a business analytics system	2021. - 2026.	155.900.000	155.900.000	0	155.900.000		80.100.000	11.400.000	18.400.000	18.400.000	18.400.000	9.200.000							
C2 .3. R3 Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies	**2021. - 2026.**	**5.122.430.478**	**3.257.015.490**	**3.694.988**	**3.261.210.478**	**3.007.988**													
C2 .3. R3-I1 Upgrading of the Shared services Centre	2022. - 2026.	433.000.000	433.000.000	0	433.000.000		0	23.000.000	118.600.000	114.200.000	114.800.000	62.400.000							
C2 .3. R3-I2 Construction of data centre for public administration and LGAP	2021. - 2026.	150.000.000	150.000.000	0	150.000.000	0	3.000.000	21.500.000	50.800.000	35.000.000	24.100.000	15.600.000							
C2 .3. R3-I3 Strengthening police capacities to combat cybercrime	2021. - 2024.	22.500.000	22.500.000	0	22.500.000	0	4.500.000	9.000.000	6.750.000	2.250.000	0	0							MINISTRY OF INTERIOR
C2 .3. R3-I4 establishment of a single contact centre for all e-public services for providing user support	2021. - 2024.	49.122.500	49.122.500	0	49.122.500	0	4.914.000	15.950.000	11.600.000	16.658.500	0	0	n/a	n/a	n/a	n/a	n/a		SDURDD
C2 .3. R3-I5 consolidating the system of HEALTH information infrastructure	2021. - 2026.	135.500.000	135.000.000	0	135.500.000		48.700.000	60.450.000	10.540.000	10.540.000	5.270.000								
C2 .3. R3-I6 Project for introducing a digital ID card	2020. - 2023.	5.534.978	1.839.990	3.694.988	5.534.978	3.007.988	2.526.990	0	0	0	0	0							AKD, MINISTRY OF INTERIOR
C2 .3. R3-I7 Investments in national information infrastructure networks	2021. - 2024.	100.000.000	100.000.000	0	100.000.000		2.000.000	40.000.000	20.500.000	15.000.000	15.000.000	7.500.000							
C2 .3. R3-I8 improvement of the system of physical planning, construction and state property through digitisation	2021. - 2026.	400.000.000	400.000.000	0	400.000.000	0	10.000.000	100.000.000	120.000.000	100.000.000	50.000.000	20.000.000	n/a	n/a	n/a	n/a	n/a		MPGI
C2 .3. R3-I9 outsourcing OF NIAS services for the economy	2021. - 2026.	18.750.000	18.750.000	0	18.750.000		250.000	2.400.000	2.350.000	3.000.000	3.750.000	7.000.000							SDURDD
C2 .3. R3-I10 Development of the Digital Mobile Platform	2021. - 2024.	41.958.000	41.958.000	0	41.958.000		3.318.000	8.680.000	12.880.000	17.080.000	0	0	n/a	n/a	n/a	n/a	n/a		SDURDD
C2 .3. R3-I11 improving geospatial data under the jurisdiction of the State	2021. - 2026.	3.722.440.000	1.861.220.000	0	1.861.220.000	0	70.920.000	268.700.000	316.042.000	422.558.000	486.042.000	296.958.000	0	n/a	0	0	n/a	0411	DGU

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
Geodetic Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia																			
C2 .3. R3-I12 Reform of the electronic public Procurement system - EOJN 2.0	2021. - 2024	12.500.000	12.500.000	0	12.500.000		1.700.000	4.400.000	6.300.000	100.000	0	0							MINGOR
C2 .3. R3-I13 establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers	2021. - 2025	31.125.000	31.125.000	0	31.125.000														MINISTRY OF INTERIOR
C2 .3. R4 Strengthening connectivity as a basis for digital transition of society and economy	**2021. - 2026.**	**3.430.000.000**	**3.430.000.000**	2.700.000	**3.430.000.000**		**2.000.000**												
C2 .3. R4-I1 implementation of projects under the Framework National Programme for Broadband infrastructure Development in areas where there is insufficient commercial interest in investment		2.500.000.000	2.500.000.000	0	2.500.000.000	0	100.000.000	400.000.000	500.000.000	500.000.000	600.000.000	400.000.000							
C2 .3. R4-I2 Strengthening GSM/TETRA-LTE signal for PPDR services	2021. - 2024.	930.000.000	930.000.000	0	930.000.000	0	30.000.000	300.000.000	300.000.000	300.000.000	0	0							MINISTRY OF INTERIOR
C2 .4. Strengthening the framework for the management of state assets		**16.000.000**	**16.000.000**	**0**	**16.000.000**	**0**	**500.000**	**6.250.000**	**6.750.000**	**1.000.000**	**0**	**0**	**0**		**0**	**1.500.000**			
C2 .4. R1 improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD guidelines on corporate governance in state-owned enterprises	**2021. - 2023.**	**10.000.000**	**10.000.000**		**10.000.000**			**5.000.000**	**5.000.000**										MPGI
C2 .4. R2 Strengthening infrastructure and human capacities for the implementation of monitoring of corporate governance in state enterprises and projects	**2021. - 2023.**	**2.000.000**	**2.000.000**		**2.000.000**		**500.000**	**750.000**	**750.000**										MPGI
C2 .4. R3 continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of the portfolio of companies not of special interest to the Republic of Croatia	**2021. - 2023.**	**1.500.000**	**1.500.000**		**1.500.000**											**1.500.000**	CERP funds (proceeds from the sale of shares and shares/dividend income/fee proceeds from the disposal of shares and shares)		CERP
C2 .4. R4 Optimization of real estate management in state ownership	**2021. - 2024.**	**2.500.000**	**2.500.000**		**2.500.000**			**500.000**	**1.000.000**	**1.000.000**									MPGI
C2 .5. Improving the efficiency of the judicial system		**3.130.287.000**	**3.130.287.000**	**0**	**3.130.287.000**	**3.000.000**	**200.160.000**	**245.000.000**	**807.127.000**	**798.000.000**	**570.000.000**	**507.000.000**	**0**		**0**	**0**			
C2 .5. R1 Fostering the digitisation of the judiciary through process optimisation and digital transition		**706.000.000**	**706.000.000**	**0**	**706.000.000**	**3.000.000**	**100.000.000**	**165.000.000**	**240.000.000**	**198.000.000**	**0**	**0**	**0**		**0**	**0**			RAMP
C2 .5. R1-I1 Strengthening IT infrastructure in the justice sector	2020. - 2024.	240.000.000	240.000.000		240.000.000	3.000.000	40.000.000	40.000.000	80.000.000	77.000.000	0	0	0		0	0		033, 011	RAMP
C2 .5. R1-I2 improvement of cadastre and land registry system	2021. - 2024.	116.000.000	116.000.000		116.000.000	0	20.000.000	35.000.000	45.000.000	16.000.000	0	0	0		0	0		033, 011	RAMP

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
C2 .5. R1-I3 implementation of the e-enforcement system in the judicial sector	2021. - 2022.	30.000.000	30.000.000		30.000.000	0	15.000.000	15.000.000	0	0	0	0	0		0	0		033, 011	RAMP
C2 .5. R1-I4 implementation of the digital e-archive system in the judicial sector	2021. - 2024.	300.000.000	300.000.000		300.000.000	0	20.000.000	70.000.000	110.000.000	100.000.000	0	0	0		0	0		033, 011	RAMP
C2 .5. R1-I5 improvement of the bankruptcy framework	2021. - 2024.	20.000.000	20.000.000		20.000.000	0	5.000.000	5.000.000	5.000.000	5.000.000	0	0	0		0	0		033, 011	RAMP
C2 .5. R2 transition to an agile system of planning investments in judicial infrastructure		**2.424.287.000**	**2.424.287.000**	**0**	**2.424.287.000**	**0**	**100.160.000**	**80.000.000**	**567.127.000**	**600.000.000**	**570.000.000**	**507.000.000**	**0**		**0**	**0**			RAMP
C2 .5. R2-I1 implementation of the Design Guidelines in accordance with the functional reorganisation of the court network	2021. - 2025.	245.160.000	245.160.000		245.160.000	0	15.160.000	50.000.000	50.000.000	80.000.000	50.000.000	0	0		0	0		033, 011	RAMP
C2 .5. R2-I2 Project and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions	2021. - 2025.	2.082.000.000	2.082.000.000		2.082.000.000	0	80.000.000	20.000.000	500.000.000	500.000.000	500.000.000	482.000.000	0		0	0		033, 011	RAMP
C2 .5. R2-I3 implementation of energy efficiency measures for the reconstruction of outdated judicial facilities	2021. - 2026.	97.127.000	97.127.000		97.127.000	0	5.000.000	10.000.000	17.127.000	20.000.000	20.000.000	25.000.000	0		0	0		033, 011	RAMP
C2 .6. Strengthening the framework for prevention of corruption		**43.450.000**	**43.450.000**	**0**	**43.450.000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**			RAMP
C2 .6. R1 drafting a new national strategic framework in the field of anti-corruption		**43.450.000**	**43.450.000**		0														RAMP
C2 .6. R1-I1 support for achieving the objectives of the Anti-corruption Strategy for the period 2021-2030	2021. - 2023.	5.700.000	5.700.000		5.700.000	0	1.700.000	2.000.000	2.000.000	0	0	0	0		0	0		011	RAMP
C2 .6. R1-I2 support for efficiency in fighting corruption and organised crime	2021. - 2025.	37.750.000	37.750.000		37.750.000	0	7.500.000	6.000.000	10.000.000	9.000.000	5.250.000	0	0		0	0		031, 011	MINISTRY OF INTERIOR
C2 .7. Strengthening the fiscal framework		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**			
C2 .7. R1 improving fiscal planning and reporting		**0**	**0**	**0**	**0**														MFIN
C2 .8. Strengthening the anti-money laundering framework		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**			
C2 .8. R1 raising awareness of the need to prevent money laundering		**0**	**0**	**0**	**0**														MFIN
C2 .8. R2 Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities		**0**	**0**	**0**	**0**														MFIN
C2 .8. R3 implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing		**0**	**0**	**0**	**0**														MFIN
C3. EDUCATION, SCIENCE AND RESEARCH		**25.443.500.000**	**25.443.500.000**	**0**	**22.821.000.000**	**0**	**493.500.000**	**1.888.000.000**	**4.264.250.000**	**5.729.250.000**	**6.284.250.000**	**4.161.750.000**	**2.022.360.000**		**4.032.291.760**	**0**			
C3 .1. Reform of the education system		**15.760.000.000**	**15.760.000.000**	**0**	**13.137.500.000**	**0**	**0**	**1.085.000.000**	**2.830.000.000**	**3.900.000.000**	**3.422.500.000**	**1.900.000.000**	**0**		**0**	**0**			
C3 .1. R1 educational system structural reform		**11.322.500.000**	**11.322.500.000**	**0**	**8.700.000.000**	**0**	**0**	**700.000.000**	**1.850.000.000**	**2.350.000.000**	**2.150.000.000**	**1.650.000.000**	**0**		**0**	**0**			MZO
C3 .1. R1-I1 Construction, upgrading and reconstruction of preschool institutions	2021. - 2026.	2.700.000.000	2.700.000.000		2.700.000.000	0	0	100.000.000	550.000.000	850.000.000	750.000.000	450.000.000							MZO

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
C3 .1. R1-I2 Construction, upgrading and reconstruction of primary schools for the purpose of one-purpose work and whole-day instruction	2021. - 2026.	4.250.000.000	4.250.000.000		4.250.000.000	0	0	450.000.000	950.000.000	950.000.000	950.000.000	950.000.000							MZO
C3 .1. R1-I3 Construction, upgrading and reconstruction of secondary schools and pupils' homes	2018. - 2026.	4.372.500.000	4.372.500.000		1.750.000.000	0	0	150.000.000	350.000.000	550.000.000	450.000.000	250.000.000							MZO
C3 .1. R2 Modernisation of higher education		**4.437.500.000**	**4.437.500.000**	**0**	**4.437.500.000**	**0**	**0**	**385.000.000**	**980.000.000**	**1.550.000.000**	**1.272.500.000**	**250.000.000**	**0**		**0**	**0**			MZO
C3 .1. R2-I1 Reconstruction and expansion of student dormitories and accompanying sports infrastructure	2021. - 2026.	815.000.000	815.000.000		815.000.000	0	0	135.000.000	180.000.000	250.000.000	200.000.000	50.000.000							
C3 .1. R2-I2 Digital transformation of higher education	2021. - 2026.	1.372.500.000	1.372.500.000		1.372.500.000	0	0	150.000.000	350.000.000	550.000.000	322.500.000	0							MZO
C3 .1. R2-I3 Reconstruction and expansion of educational infrastructure of higher education institutions	2021. - 2026.	2.250.000.000	2.250.000.000		2.250.000.000	0	0	100.000.000	450.000.000	750.000.000	750.000.000	200.000.000							MZO
C3 .2. Raising research and innovation capacity		**9.683.500.000**	**9.683.500.000**	**0**	**9.683.500.000**	**0**	**493.500.000**	**803.000.000**	**1.434.250.000**	**1.829.250.000**	**2.861.750.000**	**2.261.750.000**	**2.022.360.000**		**4.032.291.760**	**0**			**MZO**
C3 .2. R1 Reform and capacity building for public research sector innovations		**4.648.000.000**	**4.648.000.000**	**0**	**4.648.000.000**	**0**	**301.750.000**	**396.750.000**	**665.500.000**	**828.000.000**	**1.428.000.000**	**1.028.000.000**	**0**	/	**2.900.112.572**	**0**	/	94	MZO
C3 .2. R1-I1 developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development	2021. - 2026.	1.373.000.000	1.373.000.000	0	1.373.000.000	0	233.000.000	228.000.000	228.000.000	228.000.000	228.000.000	228.000.000	0	/	2.900.112.572	0	/	94	MZO
C3 .2. R1-I2 Strengthening institutional capacities of universities and research institutes for innovation	2021. - 2025.	3.275.000.000	3.275.000.000	0	3.275.000.000	0	68.750.000	168.750.000	437.500.000	600.000.000	1.200.000.000	800.000.000	0	/	0	0	/	94	MZO
C3 .2. R2 Creating a framework for attracting students and researchers in STEM and ICT areas		**3.351.000.000**	**3.351.000.000**	**0**	**3.351.000.000**	**0**	**103.000.000**	**125.500.000**	**390.000.000**	**622.500.000**	**1.055.000.000**	**1.055.000.000**	**722.760.000**	MFF 2021-2027	**1.132.179.188**	**0**	/	94	MZO
C3 .2. R2-I1 Development of an incentive model for career advancement of researchers	2021. - 2026.	388.500.000	388.500.000	0	388.500.000	0	3.000.000	25.500.000	90.000.000	90.000.000	90.000.000	90.000.000	0	/	1.132.179.188	0	/	94	MZO
C3 .2. R2-I2 enabling conditions for strengthening students' and researchers' skills and conducting top scientific research in STEM and ICT areas	2021. - 2026.	2.962.500.000	2.962.500.000	0	2.962.500.000	0	100.000.000	100.000.000	300.000.000	532.500.000	965.000.000	965.000.000	722.760.000	MFF 2021-2027	0	0	/	94	MZO
C3 .2. R3 improving the efficiency of public investments in research and innovation		**1.684.500.000**	**1.684.500.000**	**0**	**1.684.500.000**	**0**	**88.750.000**	**280.750.000**	**378.750.000**	**378.750.000**	**378.750.000**	**178.750.000**	**1.299.600.000**	MFF 2021-2027	**0**	**0**	/	94	MZO
C3 .2. R3-I1 introduction of a more functional programme framework for project financing of research, development and innovation	2021.	12.000.000	12.000.000	0	12.000.000	0	10.000.000	2.000.000	0	0	0	0	0	/	0	0	/	94	MZO
C3 .2. R3-I2 implementation of the Innovation, Research and Development Programme for scientific excellence in the areas of green and digital transition in cooperation with the business sector	2021. - 2026.	1.672.500.000	1.672.500.000	0	1.672.500.000	0	78.750.000	278.750.000	378.750.000	378.750.000	378.750.000	178.750.000	1.299.600.000	MFF 2021-2027	0	0	/	94	MZO
C4. LABOUR MARKET AND SOCIAL SECURITY		**7.353.202.296**	**7.253.202.296**	**4.711.966.460**	**7.353.202.296**	**0**	**1.341.845.794**	**2.121.752.764**	**2.481.783.232**	**688.798.502**	**681.123.502**	**37.898.504**	**0**		**0**	**0**			

Name of the reform/measure/investment	Implementation period	Total estimated implementation costs (in kn)			Total estimated costs for which funding from the RDF is requested and elaboration per year (in HRK)								Financing from other sources					Functional classification of the State budget	Holder
		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future		**5.005.466.460**	**5.005.466.460**	**4.611.966.460**	**5.005.466.460**	**0**	**1.303.784.880**	**1.634.991.850**	**2.026.054.730**	**23.070.000**	**15.395.000**	**2.170.000**	**0**	**0**	**0**	**0**			
C4 .1. R1 improving labour legislation	2021. - 2024.	0	0	0	0	0	0	0	0	0	0	0	0						MRMSOSP
C4 .1. R2-I1 Economic transition measures for the competitiveness and employability of the labour force in the economy of the future	2021. - 2023.	4.611.966.460	4.611.966.460	4.611.966.460	4.611.966.460		1.242.434.880	1.516.046.850	1.853.484.730	0	0	0	0					1050	MRMSOSP
C4 .1. R3-I1 establishment of a voucher system for education of employed and unemployed persons	2021. - 2023.	300.000.000	300.000.000	0	300.000.000	0	50.000.000	100.000.000	150.000.000	0	0								MRMSOSP
C4 .1. R4-I1 Digitalization and computerization of Croatian Employment Service (CES)	2021. - 2026.	93.500.000	93.500.000	0	93.500.000	0	11.350.000	18.945.000	22.570.000	23.070.000	15.395.000	2.170.000							MRMSOSP
C4 .2. Development and improvement of the pension system		**217.735.836**	**217.735.836**	**0**	**217.735.836**	**0**	**28.060.914**	**46.760.914**	**35.728.502**	**35.728.502**	**35.728.502**	**35.728.504**	**0**		**0**	**0**			**MRMSOSP**
C4 .2. R1-I1 Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)	2021. - 2026.	166.565.486	166.565.486	0	166.565.486	0	27.760.914	27.760.914	27.760.914	27.760.914	27.760.914	27.760.916							MRMSOSP
C4 .2. R2-I1 Digitalization of the Archives of the Croatian Institute for Health Insurance (eArchives)	2021. - 2026.	51.170.350	51.170.350	0	51.170.350	0	300.000	19.000.000	7.967.588	7.967.588	7.967.588	7.967.588							MRMSOSP
C4 .3. Improving the social welfare system		**2.130.000.000**	**2.030.000.000**	**100.000.000**	**2.130.000.000**	**0**	**10.000.000**	**440.000.000**	**420.000.000**	**630.000.000**	**630.000.000**	**0**	**0**		**0**	**0**			**MRMSOSP**
C4 .3. R1-I1 Digitisation of the system and connecting social welfare centres and social service providers	2021. - 2024.	30.000.000	30.000.000	0	30.000.000		10.000.000	20.000.000	0	0	0	0						101, 102	MRMSOSP
C4 .3. R2-I1 Prevention of institutionalization and development of community services in support of the deinstitutionalisation process	2021. - 2025.	100.000.000		100.000.000	100.000.000		0	20.000.000	20.000.000	30.000.000	30.000.000	0	ESF	56.250.000	0			104	MRMSOSP
C4 .3. R3-I1 improving the quality of life of elderly persons by increasing the capacity of accommodation	2021. - 2025.	1.000.000.000	1.000.000.000	0	1.000.000.000		0	200.000.000	200.000.000	300.000.000	300.000.000	0	ERDF					101, 104	MRMSOSP
C4 .3. R4-I1 improving the infrastructure of social welfare centres, family centres and other social service providers	2021. - 2025.	1.000.000.000	1.000.000.000	0	1.000.000.000		0	200.000.000	200.000.000	300.000.000	300.000.000	0						108	MRMSOSP
C5. HEALTH CARE		**6.630.202.156**	**6.630.282.156**	**0**	**6.630.282.156**	**0**	**520.400.612**	**1.382.068.633**	**1.685.890.112**	**1.644.541.891**	**979.007.419**	**418.373.489**	**0**		**0**	**0**			
C5 .1. Strengthening the resilience of the health care system		**6.630.202.156**	**6.630.282.156**	**0**	**6.630.282.156**	**0**	**520.400.612**	**1.382.068.633**	**1.685.890.112**	**1.644.541.891**	**979.007.419**	**418.373.489**	**0**	**0**	**0**	**0**			
C5 .1. R1 improving the efficiency, quality and accessibility of the health care system		**1.944.468.156**	**1.944.468.156**	**0**	**1.944.468.156**	**0**	**115.705.116**	**289.714.327**	**455.535.968**	**712.168.581**	**269.637.449**	**101.706.715**	**0**		**0**	**0**			MIZ
C5 .1. R1-I1 Revalidation of the Institute of Immunology	2022. - 2023.	750.000.000	750.000.000		750.000.000		10.000.000	84.000.000	213.000.000	443.000.000	0	0							MIZ
C5 .1. R1-I2 introduction of mobile pharmacy services into primary health care	2021. - 2024.	20.000.000	20.000.000		20.000.000		600.000	18.800.000	600.000	0	0	0							
C5 .1. R1-I3 Mobile ambulances	2021-2025	54.720.000	54.720.000		54.720.000		8.418.456	12.627.693	12.627.693	12.627.693	8.418.465	0							
C5 .1. R1-I4 Phase III development of the Zagreb KBC - equipping with medical and	2023. - 2026.	187.500.000	187.500.000		187.500.000		0	0	60.000.000	75.000.000	40.000.000	12.500.000							

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		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
non-medical equipment																			
C5 .1. R1-I5 Construction and equipping of clinical isolation units (3, 4 and 1./5 buildings) of the clinic for infectious diseases Fran Mihaljevic	2021-2026	119.550.000	119.550.000		119.550.000		11.955.000	17.932.500	23.910.000	23.910.000	23.910.000	17.932.500							
C5 .1. R1-I6 Reconstruction of the administrative building of the infectious diseases Clinic Dr. Fran Mihaljevic	2022-2026	42.949.500	42.949.500		42.949.500		4.294.950	6.442.425	8.589.900	8.589.900	8.589.900	6.442.425							
C5 .1. R1-I7 equipping new buildings to be built from reconstruction project after earthquakes and strengthening public health preparedness financed by World Bank loan funds	2024-2026	1.748.656	1.748.656		1.748.655		174.866	262.298	349.731	349.731	349.731	262.298							
C5 .1. R1-I8 equipping of newly built structures II. Stages of the new hospital in KBC Rijeka at the Susak site	2021. - 2023.	200.000.000	200.000.000		200.000.000		57.828.535	113.749.174	28.422.291	0	0	0							
C5 .1. R1-I9 Digital imaging Diagnostics KBC Split	2021. - 2022.	30.000.000	30.000.000		30.000.000		15.000.000	15.000.000	0	0	0	0							
C5 .1. R1-I10 Construction and equipping of the central operating block building with intensive treatment unit (JIL). central sterilisation. RDG diagnostics. transfusiology and medical-biochemical laboratory and construction of interconnectors to existing facilities of the OB Varazdin medical facility	2021. - 2025.	413.000.000	413.000.000		413.000.001		1.433.309	5.900.237	68.036.353	118.691.257	168.369.353	50.569.492							
C5 .1. R1-I11 Health Centre Hvar	2021-2026	125.000.000	125.000.000		125.000.000		6.000.000	15.000.000	40.000.000	30.000.000	20.000.000	14.000.000							
C5 .1. R2 introduction of a new model of care for key health challenges		**930.000.000**	**930.000.000**	**0**	**930.000.000**	**0**	**30.000.000**	**180.000.000**	**375.000.000**	**266.000.000**	**79.000.000**	**0**	**0**		**0**	**0**			MIZ
C5 .1. R2-I1 purchase of equipment for prevention, diagnosis and treatment of cancer patients	2021. - 2025.	780.000.000	780.000.000		780.000.000			120.000.000	345.000.000	246.000.000	69.000.000	0							MIZ
C5 .1. R2-I2 purchase and implementation of equipment for the establishment of the National oncological Network and the National oncological Data Base	2021.2025.	150.000.000	150.000.000		150.000.000		30.000.000	60.000.000	30.000.000	20.000.000	10.000.000	0							
C5 .1. R3 introduction of a system of strategic human resource management in health care		**3.140.000.000**	**3.140.000.000**	**0**	**3.140.000.000**	**0**	**316.666.666**	**623.333.310**	**629.999.970**	**623.333.310**	**629.999.970**	**316.666.774**	**0**		**0**	**0**			MIZ
C5 .1. R3-I1 Central financing of specialisations	2020. - 2025.	3.000.000.000	3.000.000.000		3.000.000.000		300.000.000	600.000.000	600.000.000	600.000.000	600.000.000	300.000.000							MIZ
C5 .1. R3-I2 specialist training of nurses and technicians in emergency medicine activities	2021-2026	140.000.000	140.000.000		140.000.000		16.666.666	23.333.310	29.999.970	23.333.310	29.999.970	16.666.774							
C5 .1. R4 ensuring financial sustainability of the health care system		**403.500.000**	**403.580.000**	**0**	**403.580.000**	**0**	**33.550.000**	**166.430.000**	**160.190.000**	**43.040.000**	**370.000**	**0**	**0**		**0**	**0**			MIZ
C5 .1. R4-I1 Central preparation of all parenteral preparations in 8 Croatian hospitals	2021. - 2024.	77.800.000	77.880.000		77.880.000		120.000	38.000.000	39.360.000	400.000									
C5 .1. R4-I2 introduction of a unit therapy distribution system in 50 Croatian hospitals	2021. - 2024.	187.000.000	187.000.000		187.000.000		30.200.000	120.000.000	30.000.000	6.800.000									
C5 .1. R4-I3 digitalisation of drug route through health care	2021. - 2024.	18.900.000	18.900.000		18.900.000		700.000	530.000	16.800.000	500.000	370.000								

Name of the reform/measure/investment	Implementation period	Total estimated implementation costs (in kn)			Total estimated costs for which funding from the RDF is requested and elaboration per year (in HRK)								Financing from other sources					Functional classification of the State budget	Holder
		total	for investments	for other investments	total	2020.	2021.	2022.	2023.	2024.	2025.	2026.	from other EU programmes		from the state budget	from other sources			
													amount	program name	amount	amount	name source		
institutions at secondary and tertiary level of health care																			
C5 .1. R4-I4 drafting a system for monitoring and prevention of medicinal product shortages in the Republic of Croatia	2021. - 2026.	10.750.000	10.750.000		10.750.000		1.130.000	6.000.000	1.730.000	1.890.000									
C5 .1. R4-I5 introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies	2021. - 2024.	4.300.000	4.300.000		4.300.000		800.000	1.200.000	1.300.000	1.000.000									
C5 .1. R4-I6 improving the system of storage and transport of medicinal products in public pharmacies	2021. - 2023.	73.500.000	73.500.000		73.500.000		600.000	700.000	71.000.000	1.200.000									
C5 .1. R4-I7 waste management in CBC Zagreb	2023. - 2024.	31.250.000	31.250.000		31.250.000		0	0	0	31.250.000	0	0							
C5 .1. R5 E-Health		**212.234.000**	**212.234.000**	**0**	**212.234.000**	**0**	**24.478.830**	**122.590.996**	**65.164.174**	**0**	**0**	**0**	**0**		**0**	**0**			MIZ
C5 .1. R5-I1 improvement, upgrading and renovation of ICT infrastructure and digitization of medical documentation	2021. - 2022.	40.000.000	40.000.000		40.000.000		15.000.000	25.000.000											
C5 .1. R5-I2 Digitalization integration of operating halls and robotic surgery in KBC Split	2021. - 2023.	155.000.000	155.000.000		155.000.000			90.000.000	65.000.000										
C5 .1. R5-I3 TELECORDIS	2021-2023	5.250.000	5.250.000		5.250.000		490.830	4.594.996	164.174	0	0								
C5 .1. R5-I4 Teletransfusion	2021-2022	11.984.000	11.984.000		11.984.000		8.988.000	2.996.000	0	0	0	0							
C6. Initiative: RENOVATION OF BUILDINGS		**5.000.000.000**	**4.990.000.000**	**10.000.000**	**5.000.000.000**	**0**	**420.000.000**	**667.000.000**	**952.000.000**	**1.127.000.000**	**1.077.000.000**	**757.000.000**	**0**		**0**	**0**			**MPGI**
C6 .1. Decarbonisation of buildings		**5.000.000.000**	**4.990.000.000**	**10.000.000**	**5.000.000.000**	**0**	**420.000.000**	**667.000.000**	**952.000.000**	**1.127.000.000**	**1.077.000.000**	**757.000.000**	**0**	**0**	**0**	**0**			
C6 .1. R1-I1 Energy renovation of buildings	2020. - 2026.	1.000.000.000	1.000.000.000	0	1.000.000.000	0	50.000.000	50.000.000	150.000.000	300.000.000	250.000.000	200.000.000	0	n/p	0	0	n/p	06, 0620	MPGI
C6 .1. R1-I2 Reconstruction of buildings damaged by energy renovation earthquake	2020. - 2026.	3.700.000.000	3.700.000.000	0	3.700.000.000	0	370.000.000	555.000.000	740.000.000	740.000.000	740.000.000	555.000.000	0	n/p	0	0	EU Solidarity Fund, MFF 21-27	044, 0443	MPGI
C6 .1. R1-I3 Energy renovation of buildings with cultural property status	2020. - 2026.	300.000.000	290.000.000	10.000.000	300.000.000	0	0	62.000.000	62.000.000	87.000.000	87.000.000	2.000.000	0	n/p	0	0	n/p	082	MKM

Appendix 1 Reforms and investments that will benefit from RDF financing

Legend:

* 1. It hasn't started, 2. In preparation, 3. Implementation

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
C1.	**ECONOMY**				
C1 .1.	**Enhancing competitiveness and green transition of the economy**				C1 .6. C2 .2. C2 .3. C2 .4. C2 .5. C2 .6. C3 .2. C4 .1.
C1 .1. R1	Enhancing competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies				
C1 .1. R1-I1	Grant investments in the production and technological capacities of enterprises	3	1	CSR 2020/3d CSR 2020/3c COM/2019/640 European Green Plan; (2020/C 91 and/01) Temporary framework for State aid measures to support the economy in the current civil-19 pandemic	
C1 .1. R1-I2	Liquidity support and investment investments of micro, small and medium-sized enterprises in the form of economic recovery loans and fostering digital and green transition	3	5	CSR 2020/1a	
C1 .1. R1-I3	Mezzanine financial instrument loan for small business entities for economic recovery and fostering digital and green transition	1	5	CSR 2020/1a	
C1 .1. R1-I4	Liquidity support and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies	3	5	CSR 2020/1a	
C1 .1. R1-I5	Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects			CSR 2019/3a CSR 2020/1a CSR 2020/3c CSR 2020/3d	
C1 .1. R1-I6	RRF “Umbrella” guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.			CSR 2020/1a CSR 2020/3c CSR 2020/3d	
C1 .1. R1-I7	RRF favorable loans to SMEs, large and public sector entities for investments and working resources by providing more favourable sources of HBOR financing + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes			CSR 2020/1a CSR 2020/3c CSR 2020/3d	
C1 .1. R1-I8	Encouraging the internationalization of the Croatian economy by strengthening the guarantee fund for export insurance and export credit financing activities			CSR 2020/1a CSR 2020/3c CSR 2020/3d	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
C1 .1. R1-I9	Investment in equity and quasi-equity financing instruments (PE)			CSR 2019/3a CSR 2020/1a CSR 2020/3c CSR 2020/3d	
C1 .1. R1-I10	Strengthening of equity activities in RDI - investment in regional technology transfer fund			CSR 2019/3a CSR 2020/1a CSR 2020/3c CSR 2020/3d	
C1 .1. R2	Increasing the competitiveness of the economy by strengthening the development of innovation				
C1 .1. R2-I1	Fostering investments in research, development and innovation	1		CSR 2019/3a	
C1 .1. R2-I2	Increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation	2	1	CSR 2019 17/3	C3 .2.
C1 .1. R2-I3	Establishment and implementation of activities of national digital innovation centres (DIH and EDIH)	1	1, 6	CSR 2020 (6, 23)/2	C2 .3.
C1 .1. R3	Further improvement of the business environment				
C1 .1. R3-I1	Implementation of administrative and para-fiscal relief measures for the economy	3	5	CSR 2019/4d	
C1 .1. R3-I2	Improving the system of economic impact assessment			CSR 2019/3b	
C1 .1. R3-I3	Creation of a support system for investments and internationalization of business Croatia				
C1 .1. R4	Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation				
C1 .1. R4-I1	Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs, increasing productivity, fostering sector development and overcoming the crisis caused by THE human epide19	1, 2	5	CSR 2020/1a CSR 2020/2b	
C1 .1. R4-I2	Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and developing modernised production capacities for new content	1, 2	5	CSR 2020/1a CSR 2020/2b	
C1 .1. R4-I3	Programmes for stimulating media literacy, investing in quality journalism and strengthening independent media	1, 2	5, 7	CSR 2020/1a CSR 2020/2b CSR 2020/2c	
C1 .2.	**Energy transition for a sustainable economy**	2	2, 5, 6	European Green Plan CSR 2020/3d	C1 .1. C1 .4. C2 .3. C6 .1.
C1 .2. R1	Decarbonisation of the energy sector	2	2, 5, 6	European Green Plan CSR 2020/3d	C1 .1. C1 .4. C2 .3. C6 .1.
C1 .2. R1-I1	Revitalisation, construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector	2	6	European Green Plan CSR 2020/3d	C1 .1. C2 .3.
C1 .5. R1-I2	Encouraging energy efficiency, heating and renewable energy sources for decarbonisation of the energy sector	2	6	European Green Plan CSR 2020/3d	C1 .1. C6 .1.
C1 .2. R1-I3	Use of hydrogen and new technologies	2	2, 5	European Green Plan CSR 2020/3d	C1 .1. C1 .4.

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
C1 .2. R1-I4	Biofuels for advanced biofuels production Sisak	2	2, 5	European Green Plan CSR 2020/3d	C1 .1. C1 .4.
C1 .3.	**Improving water management and waste management**				C1 .4. C1 .5. C5 .1.
C1 .3. R1-I1	Programme for Development of public waste water drainage	1, 2, 3	n/p	CSR 2019/3a CSR 2020/3d Water Framework Directive Water quality Directive intended for human consumption Municipal waste water treatment Directive	
C1 .3. R1-I2	Programme for Development of public water supply	1, 2, 3	n/p	CSR 2019/3a, CSR 2020/3d, water Framework Directive, water quality Directive intended for human consumption,	
C.1.3. R1-I3	Disaster risk reduction Programme in the water management sector	1, 2, 3	n/p	Water Framework Directive, Flood risk assessment and Management Directive	
C1 .3. R2	Implementation of projects for sustainable waste management				
C1 .3. R2-I1	Waste disposal reduction Programme	3	1	CSR 2019/3a CSR 2020/3d CSR 2020/3c COM/2019/640 European Green Plan COM/2020/98 New action plan for the circular economy	
C1 .4.	**Development of a competitive, energy-sustainable and efficient transport system**				C1 .2. C1 .3. C1 .6. C2 .3. C2 .4. C4 .1. C5 .1.
C1 .4. R1-I1	Electronic toll collection system				
C1 .4. R1-I2	Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)	2	5	CSR 2020/3d	
C1 .4. R1-I3	Fast road from Kasttel Kambelovac node to Vučevica	3	3	CSR 2020/3d	
C1 .4. R2	Railway sector reform	1	3	CSR 2020/3d	
C1 .4. R2-I1	Reconstruction of the existing and construction of the second track on the long Selo-Novska section, subsection Kutina-Novska (Phase D)	2	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R2-I2	Modernisation of the M604 Stari-Knin-Split railway	1	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R2-I3	Project for the restoration of railway infrastructure on railway lines R201 and R202 on the section Čakovec-Varazdin-Koprivnica-Pitomaca	2	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R2-I4	Reconstruction of the existing Zadar-Knin	2	3	CSR 2019/3a	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
	railway			CSR 2020/3d	
C1 .4. R2-I5	Removal of “bottlenecks” on railway infrastructure	2	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R2-I6	Modernization of the Zagreb node	2	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R2-I7	Reconstruction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border	1	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R3	Reform of maritime affairs and inland navigation	3	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R3-I1	Programme for the modernisation of ports open to public transport	2	3	CSR 2020/3d	
C1 .4. R3-I2	Construction of specialized energy links in the port of Ploče	2	3	CSR 2020/3d	
C1 .4. R3-I3	Construction and reconstruction of municipal berths	2	3	CSR 2020/3d	
C1 .4. R3-I4	Project of expansion and deepening of the waterway attractive gaz	2	3	CSR 2020/3d	
C1 .4. R3-I5	Reconstruction of search and rescue fleet	2	3	CSR 2020/3d	
C1 .4. R3-I6	Purchase/construction of passenger ships for the coastal line transport	2	3	CSR 2020/3d	
C1 .4. R3-I7	Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increasing the safety of navigation	2	3	CSR 2019/3a CSR 2020/3d European Green Plan	
C1 .4. R3-I8	Arranging the sections from the special risk of the Sava River waterway (from Račinovac to Sisak)	2	3	European Green Plan	
C1 .4. R4	Improving the public transport system	2	3	CSR 2020/3d	
C1 .4. R4-I1	Purchase of alternative-powered vehicles	3	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R4-I2	Modernisation of tram infrastructure	2	3	CSR 2020/3d European Green Plan	
C1 .4. R4-I3	Modernisation of bus stations	2	3	CSR 2020/3d	
C1 .4. R4-I1	Purchase of alternative-powered vehicles	2	3	CSR 2019/3a CSR 2020/3d	
C1 .4. R5	Greening of transport	2	3	European Green Plan	
C1 .4. R5-I1	Modernisation and greening of Zadar Airport infrastructure	2	3	European Green Plan	
C1 .4. R5-I2	Greening and digitization of Pula Airport	2	3	European Green Plan	
C1 .4. R5-I3	Reconstruction of passenger building at Osijek Airport	2	3	European Green Plan	
C1 .4. R5-I4	Co-financing programme for the procurement of alternative fuels vehicles of categories L1, M1 and N1	2	3	European Green Plan	
C1 .5.	**Improving the use of natural resources and strengthening the food supply chain**				C1 .1. C2 .3. C2 .4.
C1 .5. R1	Establishment of a network of logistical infrastructure to strengthen the production chain in the fruit and vegetables sector	2	6	CSR 2020/1a European Green Plan Common Agricultural Policy	
C1 .5. R1-I1	Construction and equipping of logistically distributed fruit and vegetables centres	2	6	CSR 2020/1a European Green Plan Common Agricultural Policy	
C1 .5. R2	Improving the system for restructuring agricultural land and land consolidation	2	1	CSR 2020/3d European Green	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
				Plan Common Agricultural Policy	
C1 .5. R2-I1	Consolidation of agricultural land	2	1	CSR 2020/3d European Green Plan Common Agricultural Policy	
C1 .5. R2-I2	Permanent monitoring programme for agricultural land	1	5	CSR 2020/3d European Green Plan Common Agricultural Policy	
C1 .5. R3	Digital transformation of agriculture	1	5	CSR 2020/3d European Green Plan Common Agricultural Policy	
C1 .5. R3-I1	Digital transformation of public services in agriculture	1	5	CSR 2020/3d European Green Plan Common Agricultural Policy	
C1 .5. R3-I2	Smart agriculture	1	5	CSR 2020/3d European Green Plan Common Agricultural Policy	
C1 .5. R3-I3	Traceability system	1	5	CSR 2020/3d European Green Plan Common Agricultural Policy	
C1 .5. R4.	Improving the food donation system	2	n/p	CSR 2020/1a European Green Plan Common Agricultural Policy	
C1 .5. R4-I1	Infrastructural equipping of food banks and intermediaries in the food donation chain	2	n/p	CSR 2020/1a European Green Plan COM/2020/98 New action plan for the circular economy	
C1 .6.	**Development of sustainable, innovative and resilient tourism**				C1 .1. C1 .5. C2 .3. C3 .1. C4 .1. C5 .1. C6 .1.
C1 .6. R1	Investments in increasing the resilience and competitiveness of the tourism economy	2	2, 3, 4, 5, 6, 7	CSR 2020/3c	
C1 .6. R1-I1	Transforming the quality of tourism supply by strengthening the competitiveness of SMEs	2	2, 3, 4, 5, 6	CSR 2020/3c European Green Plan Report for Croatia Digital Agenda	
C1 .6. R1-I2	Diversification and specialization of Croatian tourism through investments in the development of health and sports tourism	2	2, 3, 4, 5, 6	CSR 2020/3c European Green Plan Report for Croatia Digital Agenda	
C1 .6. R1-I3	Strengthening the capacity of the system for	2	2	CSR 2020/4a	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
	resilient and sustainable tourism			CSR 2020/2c European Green Plan Report for Croatia	
C2.	**PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY**				
C2 .1.	**Strengthening the capacity to develop and implement public policies and projects**				2.2. 2.3.
C2 .1. R1	Effective and efficient coordination and management of strategic planning system	2	5	CSR 2019/3b Report for Croatia	
C2 .1. R1-I1	Strengthening the capacity of the network of coordinators for strategic planning at national and regional level to formulate and implement public policies and projects	2	7	CSR 2019/3b Report for Croatia	
C2 .1. R1-I2	Introduction of evidence-based public policy preparation and communication instruments for public policies	2	5	CSR 2019/3b Report for Croatia	
C2 .1. R2	Strengthening capacities for preparation and implementation of EU projects	1	2	CSR 2019/3b Report for Croatia European Green Plan and Digital Agenda	
C2 .1. R2-I1	Ensuring assistance to beneficiaries in the preparation of tender project and technical documentation	1	2	CSR 2019/3b Report for Croatia European Green Plan and Digital Agenda	
C2 .2.	**Further improvement of the efficiency of the public administration**				C2 .3. C4 .1.
C2 .2. R1	Strengthening and strengthening human resources	3	5	CSR 2020/4a CSR 2020/2c	
C2 .2. R1-I1	Centralised selection system		5	CSR 2019/2d CSR 2020/2c	
C2 .2. R1-I2	Development of digital competences of officials and officials		5	CSR 2020/2b	
C2 .2. R1-I3	e-State Experts exam	2	5	CSR 2020/2b	
C2 .2. R2	Organizational models in public administration				
C2 .2. R2-I1	Development of the HRM system for compliance, standardisation and automation of business processes and improvement of the salary system in state administration and public services				
C2 .2. R2-I2	Introduction of a model for hybrid access to the workplace – smartworking				
C2 .2. R3	Smart PA – further optimization and digitization of processes				
C2 .2. R3-I1	Digitalisation of public administration procedures				
C2 .2. R3-I2	Establishment of single administrative posts — YUM (Phase 1 and 2)	2	5	CSR 2019/1b	
C2 .2. R3-I3	Establishment of digital infrastructure and public administration services by developing a conservation base system	2	5	CSR 2020/2b	
C2 .2. R3-I4	Improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archives network	2	5	CSR 2020/2b	
C2 .2. R4	Functional and sustainable local self-government	3	5	CSR 2019/1b	
C2 .2. R4-I1	Further optimisation and decentralisation of LC (R)SGU through support for functional mergers	3	5	CSR 2019/1b	
C2 .2. R4-I2	Further optimisation and decentralisation through e-services of local self-government and further digitalisation of public services	2	5	CSR 2019/1b	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
C2 .3.	**Digital transition of society and economy**				Components C1, C2. C3, C4, C5.
C2 .3. R1	Digital Croatia Strategy and strengthening inter-institutional cooperation and coordination for a successful digital transition of society and economy	1, 2	n/p	CSR 2019/3b CSR 2020/4a	C2 .2.
C2 .3. R2	Improving interoperability of information systems				C2 .2.
C2 .3. R2-I1	Establishment of a central interoperability system	1, 2	5	CSR 2020/2b CSR 2020/3d Shaping Europe's digital future Single digital gateway Regulation (SDGR)	C2 .2.
C2 .3. R2-I2	Establishment of an IoT platform at the state and local level	1,2	5	CSR 2020/2b	C2 .2.
C2 .3. R2-I3	Establishment of data warehouses and business analysis systems	1	5	CSR 2020/2b	C2 .2.
C2 .3. R3	Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies	1, 2	5	CSR 2020/2b CSR 2020/3d	C2 .2.
C2 .3. R3-I1	Upgrading of the Shared services Centre				C2 .2.
C2 .3. R3-I2	Construction of data centre for public administration and LC (R)SGU of the Republic of Croatia	1,2	5	CSR 2020/2b CSR 2020/3d	C2 .2.
C2 .3. R3-I3	Strengthening the capacity of police to combat cybercrime	1,2	5	CSR 2020/2b CSR 2020/3d	C2 .2.
C2 .3. R3-I4	Establishment of a single contact centre for all e-public services for providing user support	1,2	5	CSR 2020/2b	C2 .2.
C2 .3. R3-I5	Consolidation of the health information infrastructure SYSTEM	1,2	5	CSR 2020/2b	C2 .2.
C2 .3. R3-I6	Digital ID card implementation Project	3	1, 3, 4	CSR 2020/2b CSR 2020/3d Digital Agenda for Europe	C2 .2.
C2 .3. R3-I7	Investments in national information infrastructure networks	1,2	5	CSR 2020/2b CSR 2020/3d	
C2 .3. R3-I8	Improving the system of physical planning, construction and state property through digitisation	1,2	5	CSR 2020/2b CSR 2020/3d	C2 .2. C2 .4. C2 .5.
C2 .3. R3-I9	Outsourcing OF NIAS services for the economy	1,2	5	CSR 2020/2b	
C2 .3. R3-I10	Development of digital mobile platform	1,2	5	CSR 2020/2b	
C2 .3. R3-I11	Improving geospatial data within the competence of the State Geodetic Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia	1, 2	4	CSR 2020/2b *Shaping Europe's digital future*	C2 .2.
C2 .3. R3-I12	Reform of the electronic public procurement system - EOJN 2.0	1, 2	4	CSR 2020/2b Shaping Europe's digital future	C2 .2. C2 .6
C2 .3. R3-I13	Establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers	1, 2	4	CSR 2020/2b Shaping Europe's digital future	C2 .2.
C2 .3. R4	Strengthening connectivity as a basis for digital transition of society and economy	1,2	5	CSR 2020/2b CSR 2020/3d *Shaping Europe's digital future*	
C2 .3. R4-I1	Implementation of projects under the National Framework Programme for the Development of Broadband infrastructure in areas where	1,2	5	CSR 2020/2b CSR 2020/3d	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
	there is insufficient commercial interest in investments 3Q/2022.-8/2026.				
C2 .3. R4-I2	Preparation and implementation of the project "Strengthening GSM/TETRA-LTE signal for PPDR services"	1,2	5	CSR 2020/2b CSR 2020/3d	C2 .2.
C 2.4.	**Strengthening the framework for the management of state assets**				C1 .1. C2 .3.
C2 .4. R1	Improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD corporate governance guidelines in state-owned enterprises	2	5, 6	CSR 2019/4a ERM II Report for Croatia	
C2 .4. R2	Strengthening infrastructure and human capacity to implement monitoring of corporate governance in state enterprises and projects	2	7	CSR 2019/4a ERM II Report for Croatia	
C2 .4. R3	Continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of portfolios of companies not of special interest to the Republic of Croatia	2	5, 6	CSR 2019/4a ERM II Report for Croatia	
C2 .4. R4	Optimisation of real estate management in state ownership	1	2, 6	CSR 2019/4a ERM II Report for the Republic of Croatia	
C 2.5.	**Improving the efficiency of the judicial system**				C1 .1. C1 .5. C2 .3.
C2 .5. R1	Encouraging the digitisation of the judiciary through process optimization and digital transition	3	5	CSR 2019/4c CSR 2020/4b	
C2 .5. R1-I1	Strengthening IT infrastructure in the justice sector	3	5	CSR 2019/4c CSR 2020/4b	
C2 .5. R1-I2	Improving the cadastre and land registry system	2	5	CSR 2020/4b	
C2 .5. R1-I3	Implementation of the e-enforcement system in the judicial sector	2	5	CSR 2019/4c CSR 2020/4b	
C2 .5. R1-I4	Implementation of the digital e-archive system in the judicial sector	2	5	CSR 2019/4c CSR 2020/4b	
C2 .5. R2	The transition to an agile system of planning investments in judicial infrastructure	2	2	CSR 2020/4b	
C2 .5. R2-I1	Implementation of the Guidelines for Design in accordance with the functional reorganisation of the Court Network				
C2 .5. R2-I2	Design and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions	2	2	CSR 2020/4b	
C2 .5. R2-I3	Implementation of energy efficiency measures for the reconstruction of outdated judicial facilities		2	CSR 2019/4c	
C2 .6.	**Strengthening the framework for prevention of corruption**				C2 .4.
C2 .6. R1	Drafting a new national strategic framework in the field of anti-corruption	2	5	CSR 2019/4b	
C2 .6. R1-I1	Supporting the achievement of the objectives of the Strategy for the Prevention of corruption for the period 2021-2030	2	5	CSR 2019/4b	
C2 .6. R1-I2	Support for efficiency in the suppression of corruption and organised crime				
C2 .7.	**Strengthening the fiscal framework**				C2 .1. C2 .2.
C2 .7. R1	Improving fiscal planning and reporting	2	n/a	CSR 2019/1a CSR 2020/1b	
C2 .8.	**Strengthening the anti-money laundering framework**				

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
C2 .8. R1	Raising awareness of the need to prevent money laundering	3	n/a	ERM II (post accession commitments)	
C2 .8. R2	Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities	3	n/a	ERM II (post accession commitments)	
C2 .8. R3	Implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing	3	n/a	ERM II (post accession commitments)	
C3.	**EDUCATION, SCIENCE AND RESEARCH**				
C3 .1.	**Reform of the education system**				C1 .1. C1 .6. C2 .3. C4 .1.
C3 .1. R1	Structural reform of the education system	2	2, 7	CSR 2019/2a CSR 2020/2c Communication from the Commission on the creation of a European Education area by 2025	
C3 .1. R1-I1	Construction, upgrading, reconstruction and equipping of preschool institutions	2	2	Communication from the Commission on the creation of a European Education area by 2025	
C3 .1. R1-I2	Construction, upgrading, reconstruction and equipping of primary schools for the purpose of one-purpose work and whole-day instruction	2	2, 7	CSR 2019/2a CSR 2020/2c Communication from the Commission on the creation of a European Education area by 2025	
C3 .1. R1-I3	Construction, upgrading, reconstruction and equipping of secondary schools and pupils' homes	3	2, 7	CSR 2019/2a CSR 2020/2c Communication from the Commission on the creation of a European Education area by 2025	
C3 .1. R2	Modernisation of higher education	2	2, 5, 7		
C3 .1. R2-I1	Reconstruction and expansion of student dormitories and accompanying sports infrastructure	3	2	CSR 2019/2a CSR 2020/2c Communication from the Commission on the creation of a European Education area by 2025	
C3 .1. R2-I2	Digital transformation of higher education	2	2,5	CSR 2019/2a CSR 2020/2c Communication from the Commission on the creation of a European Education area by 2025	
C3 .1. R2-I3	Reconstruction and expansion of educational infrastructure of higher education institutions	2	2	CSR 2019/2a CSR 2020/2c Communication	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
				from the Commission on the creation of a European Education area by 2025	
C3 .2.	**Raising research and innovation capacity**				C1 .1. C2 .3. C4 .1.
C3 .2. R1	Reform and capacity building for public science and research sector innovations	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	
C3 .2. R1-I1	Developing a system of programme agreements for financing universities and research institutes aimed at innovation, research and development	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	
C3 .2. R1-I2	Strengthening the institutional capacity of universities and research institutes for innovation	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	
C3 .2. R2	Creating a framework for attracting students and researchers in STEM and ICT areas	2	6	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	
C3 .2. R2-I1	Development of an incentive model for career advancement for researchers	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	
C3 .2. R2-I2	Enabling conditions for strengthening students and researchers' skills and conducting top scientific research in STEM and ICT areas	2	6	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	
C3 .2. R3	Improving the efficiency of public investments in research and innovation	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	C1 .1. R2-I1 C1 .1. R2-I2
C3 .2. R3-I1	Introducing a more functional programme framework for project financing for research, development and innovation	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	C1 .1. R2-I1 C1 .1. R2-I2

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
C3 .2. R3-I2	Implementation of the Innovation Research and Development Programme for scientific excellence in the areas of green and digital transition in cooperation with the business sector	2	5	CSR 2019/3a CSR 2020/2b CSR 2020/2c Communication on a new European area for research and innovation	C1 .1. R2-I1 C1 .1. R2-I2
C4.	**LABOUR MARKET AND SOCIAL PROTECTION**				
C4 .1.	**Improving employment measures and the legal framework for a modern labour market and the economy of the future**				Horizontally affecting all components
C4 .1. R1	Improving labour legislation	2, 3	5	The European Pillar of Social Rights	
C4 .1. R2-I1	Economic transition measures for competitiveness and employability of the labour force in the economy of the future	1	1	CSR 2019/2c CSR 2020/2a	
C4 .1. R3-I1	Establishment of a voucher system for education of employed and unemployed persons	2	7	CSR 2019/2a CSR 2020/2c	
C4 .1. R4-I1	Digitization and computerization of Croatian Employment Service (CES)	2	5	CSR 2019/2c CSR 2020/2a	
C4 .2.	**Development and improvement of the pension system**				C2 .3.
C4 .2. R1-I1	Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)	3	5	CSR 2020/2b	
C4 .2. R2-I1	Digitalisation of the archives of the Croatian pension Insurance Institute (eArhiva)	1	1	CSR 2020/2b	
C4 .3.	**Improving the social welfare system**				C2 .3.
C4 .3. R1-I1	Digitalisation of the system and linking social welfare centres and social service providers	1	5	CSR 2019/2a CSR 2020/2a	
C4 .3. R2-I1	Prevention of institutionalization and development of community services in support of the process of deinstitutionalisation	1	6	CSR 2019/2a The European Pillar of Social Rights	
C4 .3. R3-I1	Improving the quality of life of the elderly by increasing the capacity of accommodation	1	6	The European Pillar of Social Rights	
C4 .3. R4-I1	Improving the infrastructure of social welfare centres, family centres and other social services providers	1	2	CSR 2019/2a The European Pillar of Social Rights	
C5.	**HEALTH CARE**				
C5 .1.	**Strengthening the resilience of the health care system**				C1 .3. C1 .4. C1 .6. C2 .3. C6 .1.
C5 .1. R1	Improving the efficiency, quality and accessibility of the health care system	3	5	CSR 2020/1c Report for Croatia	
C5 .1. R1-I1	Revitalization of the Institute of Immunology	2	2	CSR 2020/1c Report for Croatia	
C5 .1. R1-I2	Introduction of mobile pharmacy services in primary health care	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I3	Mobile ambulances	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I4	Phase III of the development of the Zagreb KBC - equipping with medical and non-medical equipment	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I5	Construction and equipping of clinical isolation units (3, 4 and 1./5 buildings) of the clinic for infectious diseases Fran Mihaljevic	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I6	Reconstruction of the Management building of the infectious diseases Clinic Dr. Fran Mihaljevic	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I7	Equipping new buildings to be built from a	2		CSR 2020/1c	

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
	reconstruction project following earthquakes and boosting public health preparedness financed by the World Bank loan			Report for Croatia	
C5 .1. R1-I8	Equipping of newly built structures II. Stages of the new hospital in KBC Rijeka at the Susak site	3		CSR 2020/1c Report for Croatia	
C5 .1. R1-I9	Digital imaging Diagnostics KBC Split	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I10	Construction and equipping of the central operating block building with intensive treatment unit (JIL), central sterilisation, RTG diagnostics, transfusion and medical-biochemical laboratory, and construction of interconnectors to existing facilities of the OB Varazdin medical facility	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I11	Hvar Health Centre	2		CSR 2020/1c Report for Croatia	
C5 .1. R1-I2	Introduction of mobile pharmacy services in primary health care	2		CSR 2020/1c Report for Croatia	
C5 .1. R2	Introduction of a new model of care for key health challenges	2	5	CSR 2020/1c Report for Croatia	
C5 .1. R2-I1	Procurement of equipment for the prevention, diagnosis and treatment of cancer patients	3	3	CSR 2020/1c Report for Croatia	
C5 .1. R2-I2	Procurement and implementation of equipment for the establishment of the National oncological Network and the National oncological Database	2		CSR 2020/1c Report for Croatia	
C5 .1. R3	Introduction of a system of strategic human resource management in health care	3	6	CSR 2020/1c Report for Croatia	
C5 .1. R3-I1	Central financing of specialisations	3	6	CSR 2020/1c Report for Croatia	
C5 .1. R3-I2	Specialist training of nurses and technicians in emergency medicine activities	2		CSR 2020/1c Report for Croatia	
C5 .1. R4	Ensuring financial sustainability of the health care system	2		CSR 2020/1c Report for Croatia	
C5 .1. R4-I4	Development of a system for monitoring and prevention of shortages of medicinal products in the Republic of Croatia	2		CSR 2020/1c Report for Croatia	
C5 .1. R4-I5	Introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies	2		CSR 2020/1c Report for Croatia	
C5 .1. R4-I6	Improving the system of storage and transport of medicinal products in public pharmacies	2		CSR 2020/1c Report for Croatia	
C5 .1. R4-I7	Waste disposal in Zagreb's KBC	1		CSR 2020/1c Report for Croatia	
C5 .1. R5	e-Health	3	6	CSR 2020/1c Report for Croatia	
C5 .1. R5-I1	Improvement, upgrading and renovation of ICT infrastructure and digitization of medical documentation	2		CSR 2020/1c Report for Croatia	
C5 .1. R5-I2	Digitization integration of operating halls and robotic surgery in KBC Split	2		CSR 2020/1c Report for Croatia	
C5 .1. R5-I3	TELECORDIS	3		CSR 2020/1c Report for Croatia	
C5 .1. R5-I4	Teletransfusion	2		CSR 2020/1c Report for Croatia	
C6.	**Initiative: RENOVATION OF BUILDINGS**				
C6 .1.	**Decarbonisation of buildings**				
C6 .1. R1	Complete renovation of buildings				
C6 .1. R1-I1	Energy renovation of buildings	2	2	CSR 2019/3a CSR 2020/3d	C1 .2. C2 .4.

Component/Reform/measures and Investments		Baseline *	Link to *Flegship Initiative*	Contribution to achieving EU objectives	Contribution to other parts of NPOO
				European Green Plan Directive (EU) 2018/2002 of the European Parliament and of the Council amending Directive 2012/27/EU on energy efficiency	C3 .1. C5 .1.
C6 .1. R1-I2	Reconstruction of buildings damaged by energy renovation earthquake	2	2	CSR 2019/3a CSR 2020/3d European Green Plan Directive (EU) 2018/2002 of the European Parliament and of the Council amending Directive 2012/27/EU on energy efficiency	C1 .2. C2 .4. C3 .1. C5 .1.
C6 .1. R1-I3	Energy renovation of buildings with cultural property status	2	2	CSR 2019/3a, CSR 2020/3d European Green Plan Directive (EU) 2018/2002 of the European Parliament and of the Council amending Directive 2012/27/EU on energy efficiency	C1 .2. C2 .4. C3 .1. C5 .1.

Appendix 2 Overview of RDF estimated investment values

Component/Reform/Investment		Estimated cost (HRK)
TOTAL ESTIMATED VALUE OF INVESTMENT		**114.877.208.822**
C1. ECONOMY		**61.269.776.892**
C1 .1. Enhancing competitiveness and green transition of the economy		**25.842.250.000**
C1 .1. R1 Strengthening competitiveness, internationalisation of the economy and restructuring of the economy according to green and digital technologies		
C1 .1. R1-I1	Grant investments in the production and technological capacities of enterprises	6.000.000.000
C1 .1. R1-I2	Liquidity support and investment investments of micro, small and medium-sized enterprises in the form of economic recovery loans and fostering digital and green transition	4.000.000.000
C1 .1. R1-I3	Mezzanine financial instrument loan for small business entities for economic recovery and fostering digital and green transition	700.000.000
C1 .1. R1-I4	Liquidity support and investment investments of micro, small and medium-sized enterprises for economic recovery and fostering digital and green transition through guarantees to commercial banks with the possibility of interest rate subsidies	1.200.000.000
C1 .1. R1-I5	Financial instruments and grants for mid-capitalised enterprises and large entities for investments in digital and green transition projects	2.300.000.000
C1 .1. R1-I6	RRF “Umbrella” guarantee fund (RRF guarantee scheme) for encouraging investments and liquidity of SMEs and large entities independently of business activities.	1.500.000.000
C1 .1. R1-I7	RRF favorable loans to SMEs. large and public sector entities for investments and working resources by providing more favourable sources of HBOR financing + RRRF fund of interest subsidies and fees/premiums under guarantee/guarantee schemes	4.500.000.000
C1 .1. R1-I8	Encouraging the internationalization of the Croatian economy by strengthening the guarantee fund for export insurance and export credit financing activities	1.200.000.000
C1 .1. R1-I9	Investment in equity and quasi-equity financing instruments (PE)	475.000.000
C1 .1. R1-I10	Strengthening of equity activities in RDI - investment in regional technology transfer fund	75.000.000
C1 .1. R2 increasing the competitiveness of the economy by strengthening the development of innovation		
C1 .1. R2-I1	Fostering investments in research, development and innovation	3.000.000.000
C1 .1. R2-I2	Increasing investments in the early stages of development and commercialisation of innovation with a focus on contributing to the green transition and digitalisation	76.000.000
C1 .1. R2-I3	Establishment and implementation of activities of national digital innovation centres (DIH and EDIH)	40.000.000
C1 .1. R3 further improvement of the business environment		
C1 .1. R3-I1	Implementation of administrative and para-fiscal relief measures for the economy	40.000.000
C1 .1. R3-I2	Improving the system of economic impact assessment	30.000.000
C1 .1. R3-I3	Creation of a support system for investments and internationalization of business Croatia	56.250.000
C1 .1. R4 Development of a resilient cultural and creative sector, necessary infrastructure and fostering innovation		
C1 .1. R4-I1	Investments in strengthening competitiveness and innovation of cultural and creative industries with the aim of creating new jobs. increasing productivity. encouraging sector development and overcoming the crisis caused by THE human epide19	200.000.000
C1 .1. R4-I2	Strengthening the resilience of cultural and creative industries by using and monetizing available creative materials and developing modernised production capacities for new content	350.000.000
C1 .1. R4-	Programmes for stimulating media literacy, investing in quality journalism and	100.000.000

Component/Reform/Investment		Estimated cost (HRK)
I3	strengthening independent media	
C1 .2. Energy transition for a sustainable economy		**7.738.287.500**
C1 .2. R1 decarbonisation of the energy sector		
C1 .2. R1-I1	Revitalisation. construction and digitisation of the energy system and accompanying infrastructure for decarbonisation of the energy sector	4.471.412.500
C1 .2. R1-I2	Encouraging energy efficiency. heating and renewable energy sources to decarbonise the energy sector	1.237.812.500
C1 .2. R1-I3	Use of hydrogen and new technologies	779.062.500
C1 .2. R1-I4	Biofuels for advanced biofuels production Sisak	1.250.000.000
C1 .3. Improving water management and waste management		**11.357.201.892**
C1 .3. R1 implementation of water management programmes		
C1 .3. R1-I1	Programme for Development of public waste water drainage	6.318.313.545
C1 .3. R1-I2	Programme for Development of public water supply	1.811.200.000
C1 .3. R1-I3	Disaster risk reduction Programme in the water management sector	1.577.688.347
C1 .3. R2 implementation of projects for sustainable waste management		
C1 .3. R2-I1	Waste disposal reduction Programme	1.500.000.000
C1 .3. R2-I2	Programme for remediation of closed landfills and locations contaminated by hazardous waste	150.000.000
C1 .4. Development of a competitive, energy-sustainable and efficient transport system		**11.056.037.500**
C1 .4. R1 Road sector reform		
C1 .4. R1-I1	Electronic toll collection system	1.000.000.000
C1 .4. R1-I2	Construction of the traffic route Vrbovec 2 – Bjelovar – Virovitica – GP Terezino Polje (border of the Republic of Hungary)	260.000.000
C1 .4. R1-I3	Fast road from Kasttel Kambelovac node to Vučevica	850.000.000
C1 .4. R2 Railway sector reform		
C1 .4. R2-I1	Reconstruction of the existing and construction of the second track on the long Selo-Novska section. Subsection Kutina-Novska (Phase D)	1.060.000.000
C1 .4. R2-I2	Modernisation of the M604 Stari-Knin-Split railway	412.000.000
C1 .4. R2-I3	Project for the restoration of railway infrastructure on railway lines R201 and R202 on the section Čakovec-Varazdin-Koprivnica-Pitomaca	782.000.000
C1 .4. R2-I4	Reconstruction of the existing Zadar-Knin railway	300.000.000
C1 .4. R2-I5	Removal of “bottlenecks” on railway infrastructure	120.000.000
C1 .4. R2-I6	Modernization of the Zagreb node	750.000.000
C1 .4. R2-I7	Reconstruction of the existing and construction of the second track on the Krizevac-Koprivnica section - state border	100.000.000
C1 .4. R3 Maritime and inland navigation reform		
C1 .4. R3-I1	Programme for the modernisation of ports open to public transport	340.000.000
C1 .4. R3-I2	Construction of specialized energy links in the port of Ploče	187.500.000
C1 .4. R3-I3	Construction and reconstruction of municipal berths	400.000.000
C1 .4. R3-I4	Project of expansion and deepening of the waterway attractive gaz	17.000.000
C1 .4. R3-I5	Reconstruction of search and rescue fleet	107.000.000
C1 .4. R3-I6	Purchase/construction of passenger ships for the coastal line transport	1.000.000.000

Component/Reform/Investment		Estimated cost (HRK)
C1 .4. R3-I7	Modernisation and renewal of the inland waterway fleet in the context of environmental protection and increasing the safety of navigation	88.000.000
C1 .4. R3-I8	Arranging the sections from the special risk of the Sava River waterway (from Račinovac to Sisak)	34.312.500
C1 .4. R3-I9	Arranging the sections of the special risk of the river Drava waterway from rkm 0 to rkm 12	11.225.000
C1 .4. R4 improving the public transport system		
C1 .4. R4-I1	Purchase of alternative-powered vehicles	700.000.000
C1 .4. R4-I2	Modernisation of tram infrastructure	700.000.000
C1 .4. R4-I3	Modernisation of bus stations	150.000.000
C1 .4. R5 traffic greening		
C1 .4. R5-I1	Modernisation and greening of Zadar Airport infrastructure	70.000.000
C1 .4. R5-I2	Greening and digitization of Pula Airport	7.000.000
C1 .4. R5-I3	Reconstruction of passenger building at Osijek Airport	30.000.000
C1 .4. R5-I4	Co-financing programme for the purchase of new alternative fuels vehicles and the development of alternative fuels infrastructure in road transport	1.580.000.000
C1 .5. Improving the use of natural resources and strengthening the food supply chain		**1.076.000.000**
C1 .5. R1 setting up a logistics infrastructure network to strengthen the production chain in the fruit and vegetables sector		10.000.000
C1 .5. R1-I1	Construction and equipping of logistically distributed fruit and vegetables centres	640.000.000
C1 .5. R2 improvement of the system for restructuring agricultural land and land consolidation		
C1 .5. R2-I1	Consolidation of agricultural land	270.000.000
C1 .5. R2-I2	Permanent monitoring programme for agricultural land	18.000.000
C1 .5. R2 improvement of the system for restructuring agricultural land and land consolidation		
C1 .5. R3-I1	Digital transformation of public services in agriculture	21.000.000
C1 .5. R3-I2	Smart agriculture	58.000.000
C1 .5. R3-I3	Traceability system	19.000.000
C1 .5. R4 improvement of food donation system		2.000.000
C1 .5. R4-I1	Infrastructural equipping of food banks and intermediaries in the food donation chain	38.000.000
C1 .6. Development of sustainable, innovative and resilient tourism		**4.200.000.000**
C1 .6. R1 Investments in increasing the resilience and competitiveness of the tourism economy		
C1 .6. R1-I1	Diversification and specialization of Croatian tourism through investments in the development of health and sports tourism	3.000.000.000
C1 .6. R1-I2	Transforming the quality of tourism supply by strengthening the competitiveness of SMEs	800.000.000
C1 .6. R1-I3	Strengthening the capacity of the system for resilient and sustainable tourism	400.000.000
C2. PUBLIC ADMINISTRATION, JUDICIARY AND STATE PROPERTY		**11.802.947.478**
C2 .1. Strengthening the capacity to develop and implement public policies and projects		**166.000.000**
C2 .1. R1 effective and efficient coordination and management of the strategic planning system		
C2 .1. R1-I1	Strengthening the capacity of the network of coordinators for strategic planning at national and regional level to formulate and implement public policies and projects	4.000.000

Component/Reform/Investment		Estimated cost (HRK)
C2 .1. R1-I2	Introduction of evidence-based public policy preparation and communication instruments for public policies	2.000.000
C2 .1. R2 Strengthening capacities for preparation and implementation of EU projects		
C2 .1. R2-I1	Ensuring assistance to beneficiaries in the preparation of tender project and technical documentation	160.000.000
C2 .2. Further improvement of the efficiency of the public administration		**1.309.200.000**
C2 .2. R1 Strengthening and empowering human resources		
C2 .2. R1-I1	Centralised selection system	50.000.000
C2 .2. R1-I2	Development of digital competences of officials and officials	3.000.000
C2 .2. R1-I3	e-State Experts exam	2.700.000
C2 .2. R2 organisational models in the public administration		
C2 .2. R2-I1	Development of the HRM compliance system. standardization and automation of business processes and improvement of the salary system in state administration and public services	60.000.000
C2 .2. R2-I2	Introduction of a model for hybrid access to the workplace – smartworking	176.000.000
C2 .2. R3 smart PA — further optimization and digitization of processes		
C2 .2. R3-I1	Digitalisation of public administration procedures	11.250.000
C2 .2. R3-I2	Establishment of single administrative posts — YUM (Phase 1 and 2)	195.000.000
C2 .2. R3-I3	Establishment of digital infrastructure and public administration services by developing a conservation base system	150.000.000
C2 .2. R3-I4	Improving digital infrastructure and public sector services by developing a national archive system and strengthening the national archives network	300.000.000
C2 .2. R4 functional and sustainable local self-government		
C2 .2. R4-I1	Further optimisation and decentralisation of LC (R)SGU through support for functional mergers	100.000.000
C2 .2. R4-I2	Further optimisation and decentralisation through e-services of local self-government and further digitalisation of public services	261.250.000
C2 .3. Digital transition of society and economy		**7.138.010.478**
C2 .3. R1 Digital Croatia Strategy and strengthening interinstitutional cooperation and coordination for a successful digital transition of society and economy		7.500.000
C2 .3. R2 improving interoperability of information systems		
C2 .3. R2-I1	Establishment of a central interoperability system	128.500.000
C2 .3. R2-I2	Establishment of an IoT platform at the state and local level	154.900.000
C2 .3. R2-I3	Establishment of data warehouses and business analysis systems	155.900.000
C2 .3. R3 Modernisation and further development of the state information infrastructure as a basis for safe and financially efficient interaction between public administration bodies		
C2 .3. R3-I1	Upgrading of the Shared services Centre	433.000.000
C2 .3. R3-I2	Construction of data centre for public administration and LGAP of the Republic of Croatia	150.000.000
C2 .3. R3-I3	Strengthening the capacity of police to combat cybercrime	22.500.000
C2 .3. R3-I4	Establishment of a single contact centre for all e-public services for providing user support	49.122.500
C2 .3. R3-I5	Consolidation of the health information infrastructure SYSTEM	135.500.000
C2 .3. R3-I6	Digital ID card implementation Project	5.534.978
C2 .3. R3-I7	Investments in national information infrastructure networks	100.000.000
C2 .3. R3-I8	Improvement of the physical planning system, construction and state property through digitisation	400.000.000

Component/Reform/Investment		Estimated cost (HRK)
C2 .3. R3-I9	Outsourcing OF NIAS services for the economy	18.750.000
C2 .3. R3-I10	Development of digital mobile platform	41.958.000
C2 .3. R3-I11	Improving geospatial data within the competence of the State Geodetic Administration as a basis for digital transformation in order to ensure a competitive and sustainable Republic of Croatia	1.861.220.000
C2 .3. R3-I12	Reform of the electronic public procurement system - EOJN 2.0	12.500.000
C2 .3. R3-I13	Establishing a modern digital system for conducting a practical part of training and acquiring the skills of police officers	31.125.000
C2 .3. R4 Strengthening connectivity as a basis for digital transition of society and economy		
C2 .3. R4-I1	Implementation of projects under the National Framework Programme for the Development of Broadband infrastructure in areas where there is insufficient commercial interest in investment	2.500.000.000
C2 .3. R4-I2	Preparation and implementation of the project “Strengthening GSM/TETRA-LTE signal for PPDR services”	930.000.000
C2 .4. Strengthening the framework for the management of state assets		**16.000.000**
C2 .4. R1	Improving corporate governance in state-owned enterprises by reviewing and harmonising regulations and practices in line with OECD corporate governance guidelines in state-owned enterprises	10.000.000
C2 .4. R2	Strengthening infrastructure and human capacity to implement monitoring of corporate governance in state enterprises and projects	2.000.000
C2 .4. R3	Continuation of privatisation of companies owned by the Republic of Croatia through efficient reduction of portfolios of companies not of special interest to the Republic of Croatia	1.500.000
C2 .4. R4	Optimisation of real estate management in state ownership	2.500.000
C2 .5. Improving the efficiency of the judicial system		**3.130.287.000**
C2 .5. R1 Fostering the digitisation of the judiciary through process optimisation and digital transition		
C2 .5. R1-I1	Strengthening IT infrastructure in the justice sector	240.000.000
C2 .5. R1-I2	Improving the cadastre and land registry system	116.000.000
C2 .5. R1-I3	Implementation of the e-enforcement system in the judicial sector	30.000.000
C2 .5. R1-I4	Implementation of the digital e-archive system in the judicial sector	300.000.000
C2 .5. R1-I5	Improvement of the bankruptcy framework	20.000.000
C2 .5. R2 transition to an agile system of planning investments in judicial infrastructure		
C2 .5. R2-I1	Implementation of the Guidelines for Design in accordance with the functional reorganisation of the Court Network	245.160.000
C2 .5. R2-I2	Design and implementation of the Justice Square project in Zagreb to improve access and efficiency of judicial institutions	2.082.000.000
C2 .5. R2-I3	Implementation of energy efficiency measures for the reconstruction of outdated judicial facilities	97.127.000
C2 .6. Strengthening the framework for prevention of corruption		**43.450.000**
C2 .6. R1 drafting a new national strategic framework in the field of anti-corruption		
C2 .6. R1-I1	Supporting the achievement of the objectives of the Strategy for the Prevention of corruption for the period 2021-2030	5.700.000
C2 .6. R1-I2	Support for efficiency in the suppression of corruption and organised crime	37.750.000
C2 .7. Strengthening the fiscal framework		**0**
C2 .7. R1 improving fiscal planning and reporting		
C2 .8. Strengthening the anti-money laundering framework		**0**
C2 .8. R1 raising awareness of the need to prevent money laundering		
C2 .8. R2 Strengthening cooperation between the Office for the Prevention of money laundering and Supervisory authorities		
C2 .8. R3 implementation of the Action Plan for reducing identified risks of money laundering and terrorist financing		

Component/Reform/Investment		Estimated cost (HRK)
C3. EDUCATION, SCIENCE AND RESEARCH		**22.821.000.000**
C3 .1. Reform of the education system		**13.137.500.000**
C3 .1. R1 educational system structural reform		
C3 .1. R1-I1	Construction. upgrading. Reconstruction and equipping of preschool institutions	2.700.000.000
C3 .1. R1-I2	Construction. upgrading. reconstruction and equipping of elementary schools for the purpose of one-purpose work and whole-day instruction	4.250.000.000
C3 .1. R1-I3	Reconstruction and equipping of secondary schools and pupils' homes	1.750.000.000
C3 .1. R2 Modernisation of higher education		
C3 .1. R2-I1	Reconstruction and expansion of student dormitories and accompanying sports infrastructure	815.000.000
C3 .1. R2-I2	Digital transformation of higher education	1.372.500.000
C3 .1. R2-I3	Reconstruction and expansion of educational infrastructure of higher education institutions	2.250.000.000
C3 .2. Raising research and innovation capacity		**9.683.500.000**
C3 .2. R1 Reform and capacity building for public research sector innovations		
C3 .2. R1-I1	Developing a system of programme agreements to finance innovation-oriented universities and research institutes. Research and development	1.373.000.000
C3 .2. R1-I2	Strengthening the institutional capacity of universities and research institutes for innovation	3.275.000.000
C3 .2. R2 Creating a framework for attracting students and researchers in STEM and ICT areas		
C3 .2. R2-I1	Development of an incentive model for career advancement for researchers	388.500.000
C3 .2. R2-I2	Enabling conditions for strengthening students and researchers' skills and conducting top scientific research in STEM and ICT areas	2.962.500.000
C3 .2. R3 improving the efficiency of public investments in research and innovation		
C3 .2. R3-I1	Introducing a more functional programming framework for project financing for research. development and innovation	12.000.000
C3 .2. R3-I2	Implementation of innovation. R & D programmes for scientific excellence in the areas of green and digital transition in cooperation with the business sector	1.672.500.000
C4. LABOUR MARKET AND SOCIAL PROTECTION		**7.353.202.296**
C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future		**5.005.466.460**
C4 .1. R1 improving labour legislation		
C4 .1. R2-I1	Economic transition measures for competitiveness and employability of the labour force in the economy of the future	4.611.966.460
C4 .1. R3-I1	Establishment of a voucher system for education of employed and unemployed persons	300.000.000
C4 .1. R4-I1	Digitization and computerization of Croatian Employment Service (CES)	93.500.000
C4 .2. Development and improvement of the pension system		**217.735.836**
C4 .2. R1-I1	Modernisation of ICT support of the Croatian Institute for Health Insurance (eHZMO)	166.565.486
C4 .2. R2-I1	Digitization of the Archives of the Croatian Institute for Health Insurance (eArchives)	51.170.350
C4 .3. Improving the social welfare system		**2.130.000.000**
C4 .3. R1-I1	Digitalisation of the system and linking social welfare centres and social service providers	30.000.000
C4 .3. R2-I1	Prevention of institutionalization and development of community services in support of the process of deinstitutionalisation	100.000.000
C4 .3. R3-I1	Improving the quality of life of the elderly by increasing the capacity of accommodation	1.000.000.000
C4 .3. R4-I1	Improving the infrastructure of social welfare centres. family centres and other social services providers	1.000.000.000

Component/Reform/Investment		Estimated cost (HRK)
C5. HEALTH CARE		**6.630.282.156**
C5 .1. Strengthening the resilience of the health care system		**6.630.282.156**
C5 .1. R1 improving the efficiency, quality and accessibility of the health care system		
C5 .1. R1-I1	Revitalization of the Institute of Immunology	750.000.000
C5 .1. R1-I2	Introduction of mobile pharmacy services in primary health care	20.000.000
C5 .1. R1-I3	Mobile ambulances	54.720.000
C5 .1. R1-I4	Phase III of the development of the Zagreb KBC - equipping with medical and non-medical equipment	187.500.000
C5 .1. R1-I5	Construction and equipping of clinical isolation units (3. 4 th and 1./5 th buildings) of the clinic for infectious diseases Fran Mihaljevic	119.550.000
C5 .1. R1-I6	Reconstruction of the Management building of the infectious diseases Clinic Dr. Fran Mihaljevic	42.949.500
C5 .1. R1-I7	Equipping new buildings to be built from a reconstruction project following earthquakes and boosting public health preparedness financed by the World Bank loan	1.748.656
C5 .1. R1-I8	Equipping of newly built structures II. Stages of the new hospital in KBC Rijeka at the Susak site	200.000.000
C5 .1. R1-I9	Digital imaging Diagnostics KBC Split	30.000.000
C5 .1. R1-I10	Construction and equipping of the central operating block building with intensive treatment unit (JIL). central sterilisation. RDG diagnostics. transfusiology and medical-biochemical laboratory and construction of interconnectors to existing facilities of the OB Varazdin medical facility	413.000.000
C5 .1. R1-I11	Hvar Health Centre	125.000.000
C5 .1. R2 introduction of a new model of care for key health challenges		
C5 .1. R2-I1	Procurement of equipment for prevention, diagnostics and treatment of cancer patients	780.000.000
C5 .1. R2-I2	Procurement and implementation of equipment for the establishment of the National oncological Network and the National oncological Database	150.000.000
C5 .1. R3 introduction of a system of strategic human resource management in health care		
C5 .1. R3-I1	Central financing of specialisations	3.000.000.000
C5 .1. R3-I2	Specialist training of nurses and technicians in emergency medicine activities	140.000.000
C5 .1. R4 ensuring financial sustainability of the health care system		
C5 .1. R4-I1	Central preparation of all parenteral preparations in 8 Croatian hospitals	77.880.000
C5 .1. R4-I2	Introduction of a unit therapy distribution system in 50 Croatian hospitals	187.000.000
C5 .1. R4-I3	Digitalisation of drug route through health care institutions at secondary and tertiary level of health care	18.900.000
C5 .1. R4-I4	Development of a system for monitoring and prevention of shortages of medicinal products in the Republic of Croatia	10.750.000
C5 .1. R4-I5	Introduction of a system for monitoring outcomes of treatment of outpatient patients with emphasis on chronic patients in public pharmacies	4.300.000
C5 .1. R4-I6	Improving the system of storage and transport of medicinal products in public pharmacies	73.500.000
C5 .1. R4-I7	Waste disposal in Zagreb's KBC	31.250.000
C5 .1. R5 E-Health		
C5 .1. R5-I1	Improvement. upgrading and restoration of ICT infrastructure and digitization of medical documentation	40.000.000
C5 .1. R5-I2	Digitization integration of operating halls and robotic surgery in KBC Split	155.000.000
C5 .1. R5-I3	TELECORDIS	5.250.000
C5 .1. R5-	Teletransfusion	11.984.000

Component/Reform/Investment		Estimated cost (HRK)
I4		
C6. *INITIATIVE:* RENOVATION OF BUILDINGS		**5.000.000.000**
C6 .1. Decarbonisation of buildings		**5.000.000.000**
C6 .1. R1-I1	Energy renovation of buildings	1.000.000.000
C6 .1. R1-I2	Reconstruction of buildings damaged by energy renovation earthquake	3.700.000.000
C6 .1. R1-I3	Energy renovation of buildings with cultural property status	300.000.000

Appendix 3 Overview of the plan implementation holders

COMPONENTS	CARRIERS	Government Programme	E. G.	CSR	ERM II	NRR
C1. Economy	**Tomislav Coric** (economy, energy and water sector) **Oleg Butkovic** (Transport sector) **Marija Vuckovic** (Agriculture sector) **Nikola Brnjac** (Tourism sector)					
C1 .1. Enhancing competitiveness and green transition of the economy	Natasa Mikus Zigman	X	X	X	X	X
C1 .2. Energy transition for a sustainable economy	Ivo Milatic	X	X	X		X
C1 .3. Improving water management and waste management	Mario Silage	X	X	X		X
C1 .4. Development of a competitive, energy-sustainable and efficient transport system	Josip Bilaver	X	X	X		X
C1 .6. Improving the use of natural resources and strengthening the food supply chain	Zdravko Tusek	X				X
C1 .7. Development of sustainable, innovative and resilient tourism	Tonci Glavina	X	X	X		X
C2. Public administration, judiciary and state property	**Ivan Malenica (Darko Horvat, Bernard Grasic, Zdravko Maric)**					
C2 .1. Strengthening the capacity to develop and implement public policies and projects	Simima Erlic	X	X	X		
C2 .2. Further improvement of the efficiency of the public administration	Josip Salapic	X	X	X		X
C2 .3. Digital transition of society and economy	Bernard Grasic	X	X	X		X
C2 .4. Strengthening the framework for the management of state assets	Dreaming Bosniak	X	X	X	X	X
C2 .5. Improving the efficiency of the judicial system	Josip Salapic	X	X	X		X
C2 .6. Strengthening the framework for prevention of corruption	Josip Salapic	X	X	X		X
C2 .7. Strengthening the fiscal framework	Stipe Zupan	X	X	X		
C2 .8. Strengthening the anti-money laundering framework	Stipe Zupan	X	X	X	X	
C3. Education, science and research	**Radovan Fuchs**					
C3 .1. Reform of the education system	Stipe Mamic	X	X	X		X
C3 .2. Raising research and innovation capacity	Ivana Franic	X	X	X		X

C4. Labour market and social protection	**Josip Aladrovic**					
C4 .1. Improving employment measures and the legal framework for a modern labour market and the economy of the future	Majda Buric	X	X	X		X
C4 .2. Development and improvement of the pension system	Majda Buric	X		X		X
C4 .3. Improving the social welfare system	Majda Buric	X	X	X		X
C5. Health care	**Villa Beros**					
C5 .1. Strengthening the resilience of the health care system	Tomislav Dulibic	X	X	X		X
C6. *Initiative:* **renovation of buildings**	**Darko Horvat**					
C6 .1. Decarbonisation of buildings	Dreaming Bosniak	X				X