



Republic of North Macedonia

Ministry of Finance

DRAFT – CHAPTER 5
ECONOMIC REFORM PROGRAMME
2024-2026

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ABBREVIATIONS

CIT	corporate income tax
CMO	Common market organisation policy
COPD	Chronic obstructive pulmonary disease
CRM	Client relations management
DBNM	Development Bank of North Macedonia
DEU	Delegation of the European Union
DMS	dynamic message signs
DLP	Defect Liability Period
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECG	Electrocardiogram
EDP	Entrepreneurial discovery process
EE	energy efficiency
EEl	energy efficiency improvement
EEF	Energy efficiency Fund
EIB	European Investment Bank
ERP	Economic Reform Programme
ESCO	energy serving company
EQAVET	European framework for quality assurance of Vocational Education and Training
EU	European Union
FRMPs	Flood Risk Management Plans
GDP	gross domestic product
GHG	greenhouse gas
GMA	guaranteed minimal assistance
ICT	information and communication technology
IPA	Instrument for Pre-Accession Assistance
IS	Information system
ITIS	Integrated Tax Information System
ILO	International Labour Organisation
ITS	Intelligent Transport System
IMF	International Monetary Fund
LFS	Labour Force Survey
MAFWE	Ministry for Agriculture, Forestry and Water Economy
MAKStat	State Statistical Office Database
MIS SA	Management Information System for State Aid
MEMO	Organised Market Operator
MOEPP	Ministry of Environment and Physical Planning
MoF	Ministry of Finance
MISA	Ministry for Information Society and Administration
NCD	Non-communicable disease
NDC	Nationally Determined Contributions on Climate Change

NECP	National Energy and Climate Plan
NSE	Non-standard forms of Employment
NQF	national qualifications framework
NTTO	National Technology Transfer Office
OECD	Organisation for Economic Cooperation and Development
p.e	people equivalent
PESR	Public Enterprise for State Roads
PFM	Public Finance Management
PHC	primary health care
PM	particulate matter
PIT	personal income tax
PRO	Public Revenue Office
RBMPs	River Basing Management Plans
RCVET	Regional Vocational Education and Training Centres
REDI	Roma Entrepreneurship Development Initiative
RES	renewable energy sources
S3	Smart Specialization Strategy
SA	State Aid
SLCP	short lived climate pollutants
SME	small and medium enterprises
SSO	State Statistical Office
STP	Science and Technology Park
TAIEX	Technical Assistance and Information Exchange
TABULA	Typology Approach for Building Stock Energy Assessment
TFP	total factor productivity
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change
VAT	value added tax
VET	vocational education and training
VNIL	validation of non-formal and informal learning
WB6	Western Balkan 6
WBIF	Western Balkan Investment Framework
WBTTTF	Western Balkan Trade and Transport Facilitation
WIM	weight in motion
WWTP	Wastewater treatment plant

5. Structural reforms in 2024-2026

5.1. AREA: COMPETITIVENESS

Structural reform 1 - Enabling business environment and further integration in EU single market

a. Analysis of main obstacles

The latest ranking of North Macedonia in the Global Competitiveness Report 2019¹ shows 82nd place out of 141 countries. The lowest scores have been related to the size of the market, product market and innovation capacity. Overall, the rise of the competitiveness of the economy of North Macedonia has been hindered by several major obstacles, which include large informal economy, a complex legal and regulatory environment and skills shortages, lack of full compliance with the EU market requirements, unfavourable structure of the domestic industry with prevalence of the low(er) value added branches, low total factor productivity (including low labour productivity), skills mismatch on the labour market, limited access to finances to the domestic companies, low level of integration of the Macedonian business entities into the global supply and value chains, as well as neglectable public and corporative investment in technology and innovation.

The informal economy is among the most significant obstacles to the competitiveness. Official estimates of the State Statistics Office (SSO) reveal that it represented 17% of GDP and 18% of total employment in 2018. Also, there are other estimates surging up to 37.6% of GDP in 2018 (IMF, 2019a). More recent data indicated there were 84,319 informally employed persons in 2022 (EC Progress Report, 2023) or 12.2% of the total employment in the same year. The informal employment marked significant decrease during the pandemic, from 16.1% in 2019 to 13.6% in 2020, mainly because of government support measures for safeguarding jobs, some of them related to formalization of labour relations. It is positive that this trend continued in 2021(12.1%) and was contained in 2022 (12.2%), which is early sign of sustainability of formalized jobs. Despite the decrease of the latest estimated indicator over the period 2018-2022, the problem of informality remains grave. Most of the informal workers, around 68.8% were men. The informal sector creates unfair competition from unregistered enterprises and shadow workforce, implying undeclared income and informal employment seriously threaten public revenue collection. In that manner, informal economy jeopardises functioning of the formal economy and causes irrevocable damage to the public interests of the taxpayers and citizens, in general.

The citizens' perception of informal economy ranges between 20-40% of the GDP in 2022, according to the UNDP qualitative survey on the subject (UNDP, 2022). This shows rather well understanding of the presence of the shadow economy by the citizens, while the implications of the informality, as well as mechanisms how it could be decreased, along with the effects of formalisation, are to be further articulated and implemented by the policy makers.

Another obstacle that needs to be urgently addressed to improve the competitiveness of the Macedonian business entities refers to the compliance with the EU market requirements. EU has been a major trade partner of North Macedonia for over two decades, with share of over 78% in the total Macedonian export in 2022 (SSO, 2023)². At the same time, export is mainly driven by small number of foreign companies that are largely specialised in technology-intensive sectors. There is a necessity to increase the competitiveness of the domestic companies and to force expansion of their export, as a precondition for faster GDP growth. Export improvements link to compliance with EU market requirements, support for product innovation and diversification, finding appropriate business partners from other countries and promotion of local products on international markets. Compliance to the EU market requirements, particularly with regard to free movement of goods and services is also very important with regards to the further integration of the Macedonian companies into the global supply and value chains.

What also undermines the competitiveness of domestic companies is insufficient innovation and technology development that hinders productivity and integration into GVCs. The country remains an emerging innovator according to the EU innovation scoreboard, but innovation activity remains low overall. At 0.4% of GDP (including a small share

¹ https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

² https://www.stat.gov.mk/pdf/2023/7.1.23.02_mk.pdf

from the private sector), the economy's expenditure on R&D&I remains significantly below EU average. In particular, the private sectors' participation in overall research spending remains low at 0.1% of GDP (EC Assessment of ERP 2023-2025). To create favourable environment for research and innovation-based growth, the government in December 2023 has adopted the Smart specialization strategy S3), which implementation will provide impetus for inclusive and smart growth and strengthened institutional support infrastructure for RDI.

b. Reform measures

1. Description of reform measures

The structural reform **Enabling business environment and further integration in EU single market** is sequenced into the following specific reform measures that would be achieved in the period 2024 - 2026:

Reform measure 5.1-1(1): Introduce mechanisms for formalising informal work in sectors with high incidents of undeclared activities

This reform measure is rolled over from the previous year. It aims to provide regulation of the informal jobs in the sectors where undeclared work and employment is prevalent, such as agriculture, catering, tourism, home services and construction. Based on analyses and recommendations previously prepared for designing of a system and mechanisms that will contribute to reducing undeclared work, the agreed solutions are translated into draft law as lex specialis regulating the seasonal, temporary and occasional work, aiming at ensuring labour rights and decent jobs for persons engaged on such basis and satisfying the employers' needs for work force.

The measure also envisages development of software tools for implementation of the legislation, as well awareness raising campaign about mechanisms and benefits of formalisation.

Reducing the informal economy has been a strategic priority of the Government of the Republic of North Macedonia. The Strategy for the Formalization of the Informal Economy 2023-2027 in North Macedonia, with an Action Plan, was adopted in September 2023. The Strategy outlines stipulation of an effective legal framework, along with the activities for increase of the trust into the institutions, preventive actions towards labour and companies' informalities, as well as strengthened system of monitoring, control and repression of informal operations and shadow work. The Joint Conclusions of the Financial and Economic Dialogue 2023 and EC Progress Report 2023 have recommended to the Macedonian authorities to start promptly with the implementation of the Strategy and its Action plan and to ensure high-level political commitment.

The institution responsible for its implementation is the Ministry for Labour and Social Policy.

a) Activities planned in 2024

- Adoption of Law and by-laws on employment of persons for carrying out work of seasonal, temporary and occasional nature in certain economic activities through a simplified procedure;
- Implemented campaign to raise public awareness of the impact and effects of informal work and the benefits of formalization;
- Developed software in the PRO for employment of persons for carrying out seasonal, temporary and occasional work.

Reform measure 5.1-1(2): Support to development of the innovation eco system

This reform measure is rolled over from the previous year, but it has been amended in its content based on adopted Smart specialization strategy (S3) in December 2023. The Smart Specialization Strategy (S3) is of high importance for the future growth of the Macedonian economy, enabling further development by strengthening the research and innovation potentials, facilitating knowledge-based transformation, enhancing competitiveness based on knowledge and academia-business collaboration, diversifying existing industries and service activities, boosting growth of new and fast-growing industries and enterprises as well as stimulate green and digital transition.

This reform measure will enable continuity of the reform efforts for development of the innovation eco system, increase investments in research, strengthen the links and institutional capacities for collaboration academia business, stimulate

green and digital transition, develop skills, support transformation of the selected domains towards specialization as well support new actions (4 vertical domains: Smart agriculture and food with higher added value, Electro-mechanical industry - Industry 4.0, ICT, Sustainable materials and smart buildings, and 2 horizontal domains: Energy for the future and Tourism). The implementation of the Smart Specialisation Strategy will enable more efficient preconditions for successful launch of STP as an institutional framework. Supporting further development of the innovation infrastructure is one of the projected measures in the S3 Policy Mix and related Action Plan.

The institution responsible for its implementation is the Ministry of Education and Science and Ministry of Economy.

a) Activities planned in 2024

- Implementation of the S3 strategy and related Action Plan,
- Operational activities - establish the governance and implementation framework, M&E, capacity building for implementation,
- Expand the set of instruments enabling development of innovation eco system divided per objective - excellence in science, development of innovation eco system, competitiveness of businesses, digital transformation, human resources development and enabling good governance and continuous EDP,
- Launch first new instruments for S3 and implement pilot projects,
- Stronger regional collaboration in WB countries, collaboration with EU S3 platforms, possible IPA or twinning projects,
- Legislation alignment,
- Development of institutional research infrastructure in S3 domains for innovation, knowledge and technology transfer (centre of excellence, innovation hub, technology park),
- Preparatory phase for establishment of STP,
- Support to DIH development as facilitators of digital transition of businesses,
- Adaptation of initial premises – business incubator & NTT0.

b) Activities planned in 2025

- Further implementation of the AP for S3, implement pilot projects, develop new instruments, support continuous EDP, stronger regional collaboration in WB countries, collaboration with EU S3 platforms, possible IPA or twinning projects,
- Operational activities,
- Further infrastructural development / construction of new infrastructure.

c) Activities planned in 2026

- Further S3 AP implementation, new projects and partnerships promoted, new Horizon projects developed,
- Operational activities,
- Further infrastructural development.

Reform measure 5.1-1(3): Higher compliance to the EU Acquis in the area of single market

This reform measure is rolled over from previous year. It aims to enhance the harmonisation with the EU acquis in the area of internal market with a primary focus on free movement of goods and services, protection of consumers' rights and better regulation of the business functioning. Its objective is to improve conformity with health, safety and environmental requirements. The measure is oriented towards the alignment of the legal framework in areas of Chapter 1, Chapter 3, Chapter 6 and Chapter 28 of the EU Acquis, as well as to improve the capacities of relevant national institutions to operate efficiently within the enhanced legal framework.

The EC Progress Report 2023 for North Macedonia indicates that the country has been moderately prepared in the area of free movement of goods and services. Special attention should be put with regard to the improvement of the legislative and institutional framework to allow better compliance with the EU single market legislative framework. Also, it is necessary to strengthen the law enforcement side by building up the systems and the capacity for implementation of the laws and the control over the markets.

The significance of addressing the issues of compliance with the EU market requirements has been recognised when designing IPA II Action 2019: EU supports competitive and fair markets. This reform measure has been part of the IPA Action and should provide domestic market rules adjusted to the EU Acquis, which is also considered vital for export setting of the Macedonian companies.

The institution responsible for its implementation is the Ministry of Economy in coordination with Bureau of Metrology.

a) Activities planned in 2024

- To strengthen the regulatory, legislative and institutional framework in the area of Free Movement of Goods,
- To strengthen the regulatory, legislative and institutional framework in the area of Free Movement of Services,
- To improve the compliance of legislation with EU law regarding the Law on Commercial Companies, the Law on Accounting and the Law on Auditing,
- To increase the capacity of Bureau of Metrology to perform testing, verification and calibration services.
- To design an e-Inspection as a single inspection interoperable database.

b) Activities planned in 2025

- Capacity building of the relevant institutions in the area of free movement of goods and services;
- Designing of a system for functional Point of single contacts;
- Upgrading of an existing Register of measuring instruments and improvement of the risk analysis methods based on the data from the register;
- Upgrading of calibration and verification working procedures and laboratory manuals;
- Development of new measurement standards and services.

2. Results indicators

Indicator	Baseline	Intermediate target	Target
Participation/share of informally employed in the total number of employed persons (SSO - LFS)	12.2%	11.0% (2025)	10.0% (2026)
Number of active contracts for business & academia innovation cooperation	10 (2024)	20 (2025)	30 (2026)
Number of products being exported towards EU (CN codes recording positive export values)	3257 (2016-2017) ³	-	3500 (2024)

3. Expected impact on competitiveness

Lowering the informal economy, particularly informal employment, can yield numerous benefits for both individuals and the broader economy. By formalizing employment, workers gain access to legal protections, such as minimum wage regulations, job security, and social benefits like health insurance and retirement plans. This transition enhances the overall well-being of the workforce, fostering a more stable and secure labour market. Formalization also contributes to increased tax revenues for governments, providing additional resources for public services and infrastructure development.

A full implementation of the measure for Introduction of mechanisms for formalising informal work in sectors with high incidents of undeclared activities is assumed to lower the level of informal employment from 12.1% to 10% at the end of the medium-term. This will result in around 16,000 more formal employees registered in the system. Using the average wage in North Macedonia and the Personal Income Tax rate of 10%, these additional registered employees can bring up to EUR 1.4 million per year in direct tax revenues. If these additional tax revenues were used for capital expenditure, the result would be an additional of 0.0003% of GDP for the medium term taking into account only the additional revenues from formal employment.

Increasing research and development (R&D) spending can have profound positive effects on a nation's GDP and overall economic vitality. When a country invests in R&D, it fosters innovation, technological advancements, and

³ The value refers to those products (CN 8 digits codes) for which export has been recorded either in 2016 or 2017

knowledge creation. This, in turn, can lead to the development of new products and services, new industries and the improvement of existing ones, ultimately driving economic growth.

Based on a study by OECD⁴, the review of the econometric literature has shown that despite the various measurement and estimation approaches, researchers generally find a positive and statistically significant impact of R&D on productivity and economic growth. The results of a meta-analysis based on recent econometric estimates published over 2000-2010 suggest that the R&D output elasticity runs in the order of 0.10. Using these findings, a full implementation of this measure can increase investments in R&D by 4.3%, hence resulting in an addition of 0.43% of GDP. This significant result is mainly related to the idea that R&D has significant effect in the economy as it fosters innovation, advancements in technology and productivity overall.

Strengthening market rules in a country can have a significant impact on its GDP, especially in the context of international trade. Clear and effective market rules create a more attractive environment for both domestic and foreign businesses, facilitating smoother trade relationships. When market rules are robust, they instil confidence among trading partners, leading to increased cross-border investments and trade activities. Clarity in regulations reduces transaction costs and uncertainties, making it easier for businesses to engage in international trade. Furthermore, since the measures foresees further alignment of legislation in the area of free movement of goods and services, this can have a positive impact on exports.

As a goal of the measure for strengthening market rules, it is foreseen that it will help in increase the number of exported products to the EU market by 7.5%. Countries that export products associated with the export profile of high-income countries tend to converge rapidly towards those higher levels of income and, hence, to grow more rapidly. Using export data to the EU, it is calculated that this increase in exported products can result into around EUR 1.6 million additional exports to the EU, which can result in a 0.016 percent higher GDP.

4. Estimated cost of the activities and the source of financing

In EUR	2024	2025	2026
Introduce mechanisms for formalising informal work in sectors with high incidents of undeclared activities			
1. Budgetary expenditures*	0	0	0
2. Non-budgetary financing	300,000	0	0
2.1 of which IPA funding, including WBIF funding	0	0	0
Total	300,000	0	0
Support to development of the innovation eco system			
1. Budgetary expenditures *	2.000,000	3.000,000	4.000,000
2. Non-budgetary financing	0	0	0
2.1. of which IPA funding, including WBIF funding	0	0	2.000.000 IPA Application for implementation of S3
Total	2.000,000	3.000,000	6.000,000
Higher compliance to the EU Acquis in the area of single market			
1. Budgetary expenditures*	0	0	0
2. Non-budgetary financing	1,000,000	0	0
2.1. of which IPA funding, including WBIF funding	1,000,000	IPA	0
Total	1,000,000	IPA	0

*National public finance sources

5. Expected impact on social outcomes, such as employment, poverty reduction, gender equality and access to health care

The transition “from informal to formal” which is envisaged with this measure can lead to a significant reduction in employment insecurity and to new opportunities for decent work. It should be noted that for some of the workers

⁴ The Impact of R&D Investment on Economic Performance: A Review of the Econometric Evidence [https://one.oecd.org/document/DSTI/EAS/STP/NESTI\(2015\)8/en/pdf](https://one.oecd.org/document/DSTI/EAS/STP/NESTI(2015)8/en/pdf)

informality is not a choice, but a necessity which they venture into by a lack of decent jobs. The measure implies ensuring protection of workers' rights, social and health security of persons employed to carry out casual, temporary and seasonal work. Although around 2/3 of the informal jobs have been carried by men, the measure aims towards the impact that is gender balanced.

RDI investment leads to establishment of new businesses and growth of the existing business, generating new jobs especially for young people and for highly skilled workforce. The enhanced access to finance and investment in innovation infrastructure will encourage women and youth entrepreneurship. Gender equality will be mainstreamed in the implementation of the activities and gender segregated data will be incorporated in the monitoring. With the start of operational activities, the STP will develop a Gender Equality Plan that will include gender diversified data, allocated resources and mechanisms for data collection and monitoring. The strategic documents of the STP will also include performance indicators that will measure contributions or impact of the STP on generating new jobs for young people and highly qualified workforce.

Indirectly by increasing the possibility for export by introducing better production standards and business environment, companies will be able to increase their market share and ideally to expand their sales to foreign (EU) markets. This should increase company's revenues/profit and will create possibilities for increasing the production and opening new jobs.

6. Expected impact on the environment and climate change

The high incidence and persistence of informal labour is increasingly recognized as an obstacle to sustainable development⁵. Informal firms and workers do not contribute to the tax base and, hence, the national budget remains short of income that could have been used for public investments, including environmental investments. Reducing informal work is in line with the 2030 Sustainable Development Agenda's central ambition "to leave no one behind" and the SDG 8.3: "promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized enterprises including through access to financial services". In addition, environment can benefit from formalizing some types of informal workers, such as waste pickers, or street vendors, by reducing waste generation and increasing recycling rates.

Innovation can lead to the development of new technologies and processes that can help reduce greenhouse gas emissions, improve energy efficiency, promote the use of renewable energy sources, reduce the environmental impact of farming by promoting sustainable practices and reducing waste. Innovation can also help promote the circular economy by developing new products and services that are designed to be reused, recycled, or repurposed. Science Technology Parks (STPs) can have a positive impact on the economy, enabling development of research capacities for supporting green transition in industry and society. The STP as itself will carry out Environmental Impact Assessment to minimize and/or mitigate adverse environmental impacts from the construction and operation of the Science Technology Park; in addition, Environmental Impact Assessment will be incorporated through appropriate evaluation criteria into the rules and procedures for provision of STP services to encourage initiatives contributing towards the transition from a linear to a circular economy by supporting entrepreneurship oriented towards "green" products and services.

The third measure will vigorously promote respect to the principles of environmental suitability. The transposition of the new legislation on free movement of goods is very much linked to addressing modern environmental challenges and ensuring compliance of the national markets with the environmental requirements along with the requirements for health and safety. For example, the combustion engines installed in passenger cars, vans, lorries, busses as well as non-road mobile machinery (e.g., diesel or gasoline-fuelled engines) significantly contribute to air pollution by emitting carbon oxide (CO), hydrocarbons (HC), nitrogen oxides (NOx), and particulate matter. By harmonizing emission standards of the country with the EU, the air quality will significantly improve. The European Union has also implemented regulations to reduce the use of hazardous chemicals in consumer products such as cosmetics, pre-

⁵ [What is the Informal Economy? \(imf.org\)](http://imf.org)

packaging, textiles, footwear, aerosol dispensers, and toys. Thus, this measure will contribute to "greening" of the policymaking in the country.

7. Potential risks

Risk	Probability (low or high)	Planned mitigating actions
Lack of public confidence in the effectiveness of the new model for formalisation of the seasonal, temporary and occasional work.	medium	Ensuring good and efficient coordination among the ministries and other relevant institutions and creation of clear cross-sectoral rules for implementation of the measures and policies for promotion of decent work. The implementation of the rules will be accompanied by a targeted public campaign on raising public awareness about the impact and effects of informal work and the benefits of formalisation that will involve all public and private actors.
Delayed adoption of the legal framework for implementation of the new model on formalisation of the casual, temporary and seasonal work	high	Adjusting the plan for unforeseen situations and priorities in accordance with the newly developed situation.
Insufficient STP capacities for developing the strategic and operational documents and for conducting contracts for adaptation of the initial infrastructure	medium	After the legal registration of the STP, budget allocations are planned for employments, strengthening of human capacities and procuring external services for the STP's successful establishment.
Required preconditions in the involved institutions are not met (human resources, system readiness, outsourcing contracts, etc.).	medium	Preparation of working plans based on the analysis for realistic targets, involvements and deadlines.

Structural reform 2 - Ensuring stable and sustainable food supply

a. Analysis of main obstacles

The share of agriculture in the output structure dropped further in 2021 to 9% (-0.8 pps). Its share in total employment also dropped further in 2021 (11.5% – down from 12% in 2020 and 16.6% in 2016). This has not been a favourable statistic, given the potential of the country for agricultural production, as well the global necessity for increase of the food security. The pandemic of Covid-19, Russia's war of aggression against Ukraine and inflation movements over the last two years have put the agriculture in the spotlight. The agricultural sector in North Macedonia is characterised by an unfavourable farming structure of a large number of very small semi-subsistence farms with mixed agricultural production on small and scattered land plots. The sector's efficiency and productivity are low, with high market constraints, lack of seasonal workers, movement restrictions and difficulties in organising transport and logistics. One of the major problems in the country's agricultural sector is the ageing of the labour force – only about 15% of agricultural workers are young (15-24 years old). The sector receives the largest portion of state aid, and subsidies to the sector have been increasing while production has been going down. There needs to be a stronger link between agricultural policies and other sectoral policies such as those on trade, education and SMEs. Advantages for the sector include good access and distribution links to other European markets and potential for structural improvement (e.g. land consolidation, producer groups and cooperatives). Several actions could be taken to increase productivity through innovation and the application of modern technologies (e.g. (i) investing in the skills and know-how of agricultural workers; (ii) strengthening agricultural advisory services; and (iii) connecting agriculture with research, education and tourism). (EC, 2023)

Also, the significance of the agricultural sector has been stressed out in the World Bank Report on the Western Balkans: Towards Sustainable Growth (WB, 2023), in the light of the need for green and sustainable development. The agricultural sector needs to be remodelled, with focus on effective actions, improvement of the regulatory and

institutional set-up, repurpose of the budgetary support to increase climate resiliency of the agricultural production and productivity, strengthening of the knowledge transfer and development of new models of business, yet green and sustainable operations in the agricultural sector.

The agricultural sector in North Macedonia has already been subject to few reforming initiatives, such as land consolidation and improvement of the irrigation systems, which have been included in previous ERPs. Their implementation continues, while current reforming efforts are focused on increase of the productivity of the agricultural sector. In this context, post harvesting treatment of the agricultural products is key to increased competitiveness and sustainability of the sector. Modernization of post-harvest management of agri-products shall tackle problems that seriously disrupt the market for agricultural products, such as inadequate application of mandatory and safety standards in primary production, high percentage of waste due to improper storage, treatment, sorting and packaging of agri-products, improper management of waste, concurrence of pesticide residues and other chemicals, unorganized export and sale, inadequate purchase price, lack of useful data on agri-products like quantity, quality and price and lack of storage capacities for agri-products when there are price disturbances on the market.

b. Reform measures

1. Description of reform measure

The structural reform is referring to the following specific reform measure that would be achieved in the period 2024 - 2026:

Reform measure 5.1-2(4): Modernisation of the postharvest technologies and processes of the agricultural products

This measure has been rolled over from the previous ERP. The main objective of the measure is increasing the competitiveness of the agricultural sector by modernisation of the postharvest management of agricultural products by introducing national agricultural common market organization policy. It would include substantial level of agricultural hygiene and quality standards, waste management and protection of the environment. The modernisation of the sector is envisaged by construction and operation of two purchase centres in the Municipality of Resen and Strumica, and one agri-food trade platform in Skopje. The measure encompasses legal and institutional set-up as a preparatory phase, as well construction and operationalisation of the centres and the agri-food platform.

The centres and the platform are designed to be built and to operate in accordance to the latest standards in this area, with high energy efficiency performances. Their establishment would enable implementation of the national agricultural CMO (Common market organisation) policy, i.e. intervention measures for storage of agricultural products in line with the food security principles.

This measure is directly related with the objectives of the National Strategy for Agriculture and Rural Development 2021 - 2028 (Official Gazette of RNM No: 16/2021). National legal framework related with this measure is: Law on quality of agricultural products (Official Gazette of RNM No: 140/2010) and Law on agriculture and rural development (Official Gazette of RNM No: 49//2010).

Responsible for implementation of the measure would be MAFWE – Ministry of Agriculture, Forestry and Water Economy with close cooperation with the other relevant governmental, public and private institutions and entities in North Macedonia.

a) Activities planned in 2024

- Institutional set up - New working systematisation with introduction of Department on CMO within MAFWE;
- Draft Law for agriculture and rural development (including CMO) published on ENER;
- Development of Feasibility Study and Detailed Design for construction of a purchase centre for fruits and vegetables in Resen and Strumica;
- Development of Feasibility Study and Detailed Design for construction of a trading platform for fruits and vegetables in Skopje;

b) Activities planned in 2025

- Adoption of New Law for agriculture and rural development (including CMO);
- Adoption of the bylaws of the Law for agriculture and rural development (including CMO);
- Starting construction of a purchase centre for fruits and vegetables in Resen and Strumica;
- Starting construction of a trading platform for fruits and vegetables in Skopje.

c) Activities planned in 2026

- Programme for support – CMO;
- Finalisation of construction of a purchase centre for fruits and vegetables in Resen and Strumica;
- Finalisation of construction of a trading platform for fruits and vegetables in Skopje.

2. Results indicators

Indicator	Baseline	Intermediate target	Target
Percentage of agricultural products marketed in compliance with quality standards*	40% (2018)	/	75% (2026)
Percentage of loss in postharvest production**	30 (2018)	/	20 (2026)
Expected new employment	0 (2018)	/	200+400 newjobs*** (2025)

Source: * and ** The World Bank Agriculture Modernisation Project (P168014)

***CCCs and AFP. These are seasonal employments, 100 in CCC Strumica, 100 in CCC Resen and 400 in AFP Skopje

3. Expected impact on competitiveness

The implementation of this measure will improve competitiveness and farmers will achieve better economic results from their production. Namely, through the introduction of quality and safety standards, change of the fresh fruit and vegetables variety structure and improvement of postharvest storage and preservation conditions of the products, it is expected that the products will be with higher quality, higher income and standards that meet European requirements.

The quantity of agricultural products that can be stored in modern purchasing centres with European standards will increase, in Resen 5,000 tons, Strumica 25,000 tons and Skopje 46,000 tons of fruits and vegetables.

4. Estimated cost of the activities and the source of financing

In EUR	2024	2025	2026
Modernisation of the postharvest technologies and processes of the agricultural products			
1. Budgetary expenditures*	5,542,000	25,134,000	24,000
2. Non-budgetary financing	0	350,000	350,000
2.1. of which IPA funding, including WBIF funding	0	0	0
Total	5,542,000	25,484,000	374,000

*National public finance sources

5. Expected impact on social outcomes, such as employment, poverty reduction, gender equality and access to health care

With the construction of the purchasing centres for fruits and vegetables and especially with the introduction of the measures for regulation of the markets, all farmers on the territory of the Republic of North Macedonia will benefit, especially in the region of Strumica, Resen and Skopje. It will reduce the problem with the storage conditions and storage capacities that currently exist, which result in mud and scattering of agricultural products and economic loss. Gender equality will be respected during the implementation of this measure. The construction activities will have positive impact on short term on employment, and on longer term the actual management and maintaining of the centres will require employment of additional persons.

6. Expected impact on the environment and climate change

Postharvest losses impact the environment as the land, water, and energy used to produce the lost food are also wasted along with the food. Unutilized food also results in extra CO₂ emissions, eventually affecting the environment. Reducing the postharvest losses, is a sustainable solution to increase food availability, reduce pressure on natural resources, eliminate hunger and improve farmers' livelihoods⁶. However, postharvest storage and preservation conditions can lead to increased greenhouse gas emissions because refrigeration, as a common method of preserving food, requires a significant amount of energy (refrigeration accounts for 15% of the total energy consumption in the food industry). Therefore, the centres and platform will be designed and built with high energy efficiency standards and the options for use of solar energy will be explored to further reduce GHG emissions; the anticipated impacts of climate change and climate related risks at the three locations will be considered to ensure climate resilience of new systems.

7. Potential risks

Risk	Probability (low or high)	Mitigating actions
A long process of obtaining the necessary building permits and approvals	high	Increased cooperation between the competent institutions
Long process of land expropriation	high	Increasing the capacity of the offices of the ombudsman institution in handling and processing the requests for expropriation to the MoF - Property and Legal Affairs Office

5.2. AREA: SUSTAINABILITY AND RESILIENCE

Structural reform 3 - Strengthen resilience to climate change and reduce environmental pollution

a. Analysis of main obstacles

Green transition means a shift towards economically sustainable growth and an economy that is not based on fossil fuels and overconsumption of natural resources. A sustainable economy relies on low-carbon solutions that promote the circular economy and biodiversity.

The assessment of the EC for ERP 2023-2025 of North Macedonia indicates that the Macedonian economy is characterised by high dependence on energy imports, high energy intensity, inefficiencies in aging of energy production systems, continued reliance on highly polluting coal, and inefficient energy use. The strategic framework for the transition to green energy is well developed, but progress in implementation is limited. The transition to a low-carbon, clean-energy economy requires significant investment in energy infrastructure. According to the Government's Intervention Investment Plan 2021-2027, a total of EUR 3.1 billion is expected to be invested in the energy sector, mostly in renewable energy sources (EBRD, 2021). This is in line with the EU Economic and Investment Plan and the Green Agenda for Western Balkans for the development of renewable energy sources and the use of less polluting energy sources, using the common platform for gas procurement by coordinating demand and the use of infrastructure and negotiations with international partners.

As a signatory country that is not included in Annex I of the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, and as a signatory country of the Kyoto Protocol, North Macedonia undertakes regular activities to reduce greenhouse gas emissions and limit global warming. In 2022, the country adopted the National Energy and Climate Plan, as well as other plans and strategies, but there is still limited progress in implementing green policies, resulting in poor air quality, limited waste and wastewater management, and low use of renewable energy sources (IMF, 2022).

Another challenge is country's limited progress towards achieving a **circular economy**, with the recycling rates being extremely low at less than 1% of solid waste being recycled and almost 99% going to landfill (Eurostat, 2020). However, an increase from 27.08% in 2014 to 47.21% in 2018 has been observed in the recycling of packaging waste, despite the limited economic incentives to promote recycling (MAKStat, 2020). North Macedonia currently generates 456 kg of

⁶ [Foods | Free Full-Text | Reducing Postharvest Losses during Storage of Grain Crops to Strengthen Food Security in Developing Countries \(mdpi.com\)](#)

municipal waste per capita, which is less than the EU average of 492 kg per capita, but it has been increasing since 2014 (Eurostat, 2020).

A number of bodies are responsible for **waste management**, but there are issues with communication, and there is a lack of efficient coordination mechanisms. Lack of staff and financial resources among these bodies impede the implementation of measures. These are recognised issues which the government intends to tackle in the new National Waste Management Strategy 2024-2036 (the previous one was for period 2008-2020). There is a need to enforce measures to establish regional waste management system, in particular in the East and Northeast region (EC, 2020).

North Macedonia's **air quality** has been a moot point for a long period of time. In particular, there are high concentrations of fine particulate matter (PM 2.5), which during the winter period greatly exceed the national limits, as well as those set by the WHO and EU. For instance, the annual mean exposure to PM 2.5 is 33 µg/m³, which is more than three times the recommended highest levels by WHO, significantly above the EU average of 13.1 µg/m³ and somewhat higher than the WB6 average of 25.77 µg/m³ (World Bank, 2020a).

Another problem that the country suffers from is the underdeveloped **water supply and sanitation system**. Water pollution, as a result of an insufficiently treated industrial and municipal wastewater, is a major concern. There were 24 wastewater treatment plants under operation in 2019, which accounts for 24.5% of the required capacity (UNECE, 2019). Skopje as the country's capital still lacks a wastewater treatment plant, but construction contract has been signed in 2023.

All mentioned challenges are grave, requiring urgent actions. The prompt interventions within this structural reform focus on energy sector (with regard to promotion of the use of renewable sources and improvement of energy efficiency), water collection and treatment infrastructure and setting of the efficient and self-sustainable waste management system.

b. Reform measures

1. Description of reform measures

The structural reform **Strengthen resilience to climate change and reduce environmental pollution** is sequenced into the following specific reform measures that would be achieved in the period 2024 - 2026:

Reform measure 5.2-3(5): Promotion of renewable energy sources

This measure has been rolled over from the previous ERP. The main objective of the measure is increasing the use of the renewable energy sources in North Macedonia. The Joint Conclusions of the Financial and Economic Dialogue 2023 point out that the country should focus on energy sector modernisation and transition to clean energy.

The greater use of renewable energy sources (RES) and energy efficiency improvement (EEI) are one of the main strategic goals in the energy sector. In the area of renewable energy, the country will continue its current support mechanisms for RES electricity generation via feed-in tariffs and feed-in premia with auctions (granted in a tendering procedure). The country will promote further utilisation of RES in the electricity sector (without incentives) but also in the other sectors through the introduction of the "prosumer" concept, as well as by increasing the biofuels consumption in the transport sector. These activities and measures will increase the country's efforts for achieving the ambitious target of 38% share of RES in gross final energy consumption by 2030 in accordance with our strategic documents.

In order to successfully implement the guarantee of origin (GO), the amended Energy Law (Official Gazette 236/22), among other things, proposed the competent body for the GO System (issuance and administration) to be transferred from the Energy Agency to the Electricity Market Operator (MEMO).

The Energy Law implements the provisions and obligations from the Third Energy Package of EU and the Directive for Renewable Energy Sources. This Directive is partially transposed, lacking the part that refers to the biofuels, which sets the need for preparation of separate law on biofuels. The Ministry of Economy with technical assistance has prepared a final draft text of the Law on biofuels in transport. The Law was not submitted to the Government, due to the GAP analysis on the transposition of the RES Directive 2018/2001, which shows that certain provisions of the draft

Law on biofuels need to be revised and amended. At the same time, it is necessary to prepare an analysis of the movement of the prices of petroleum products on the market, because due to the energy crisis there are significant fluctuations in the market prices, and the draft law is based on the prices of 2019. In addition, it is necessary to harmonize this law with the Law on Climate Action, which is in the final stage of drafting.

Measure will be implemented by the Ministry of Economy.

a) Activities planned in 2024

- MEMO will conduct a procedure for public procurement for selection of Provider that will establish a national electronic register/domain for administering guarantees of origin;
- Adoption on Rulebook on installers licensing;
- Preparation and adoption of new Law on Renewable Energy Sources to transpose the provisions of the RES Directive 2018/2001;
- Adoption of a revised National Energy and Climate Action Plan;
- Ministry of Economy will publish a public call for subsidizing households which will install photovoltaic power plants for self-consumption.

b) Activities planned in 2025

- Establishment of fully operational system of guarantees of origin by MEMO;
- Preparation of bylaws regarding RES that will arise from the Amendments to the Energy Law / new Law on Renewable Energy Sources;
- Preparation of Report for realisation of the Indicative Plan for the previous year.

c) Activities planned in 2026

- Preparation of amendments to the action plan on biofuels.

Reform measure 5.2-3(6): Improvement of Energy Efficiency

This measure continues from last year. Its implementation refers to adoption of amended Law on energy efficiency in line with the amended Energy Efficiency Directive 2018/2002, and related by-laws. It also foresees establishment of functional EEF (article 30 of the EE Law). The recently adopted amendments to the Law on the Development bank provides for establishment of an EEF within the bank as a separate organizational unit.

EEF's mission will be to fund eligible EE sub-projects implemented by municipalities and other public sector entities that would use the energy cost savings resulting from the EE sub-project to offset the financial costs. The proposed EEF will introduce a 'pay-from-savings mechanism' and help set a critical precedent to help the Government move from grant funding to more sustainable funding. EEF will use the repayments to finance additional sub-projects, allowing funds to circulate over time. It is expected that the Fund will cover its operational costs through administrative fees and thus become a sustainable entity for financing and implementation. The first EEF will focus on municipalities and other public entities with the possibility of expanding the scope to the resident sector.

A study with a typological approach for energy assessment of residential buildings in the country, which was temporarily stopped due to population census, is underway and prepared in accordance with the TABULA methodology (Typological approach for energy assessment of the building stock) The typology will create clear conditions for the classification of all types of buildings in the country for which energy reduction measures will have to be provided in the Building Reconstruction Strategy 2030. The production of this Study was temporarily stopped because of the population census.

The measure will be implemented by the Ministry of Economy.

a) Activities planned in 2024

- Adoption of amendments to the Law on Energy Efficiency;
- Establishment of a EEF;
- Issuing licenses and authorizations for energy auditors at large traders and buildings;
- Preparation of other by-laws arising from the Law on Energy Efficiency.

b) Activities planned in 2025

- Preparation and adoption of the Strategy for reconstruction of buildings until 2030;
- Implementation of other measures from NECP in relation to EE;
- Functioning of the Energy Efficiency Fund and possible expansion of its scope to the resident sector;
- Realization of activities determined by the Building Renovation Plan.

c) Activities planned in 2026

- Functioning of the Energy Efficiency Fund and possible expansion of its scope to the resident sector;
- Realization of activities determined by the Building Renovation Plan.

Reform measure 5.2-3(7): Establishing wastewater collection and treatment infrastructure in accordance with EU requirements

This measure continues from last year.

The measure for establishing wastewater collection and treatment infrastructure is in accordance with EU requirements Water Framework Directive 2000/60/EC, Urban Wastewater Treatment Directive 91/271/EEC, Sewage Sludge Directive 86/278/EEC, and along with legislative compliance, it is aimed at ensuring sustainable water management through the construction of systems for collection and treatment of urban wastewater, as well as protection and conservation of water resources.

It will also contribute to implementation of the National Water Strategy 2012-2042, namely, measures and actions envisaged under chapter 5.3 - Water Protection. The water strategy establishes that the construction of sewage systems and waste water treatment plant to systematically increase and that in the first phase discharges from agglomerations of more than 15,000 PE should be covered. Secondary treatment should be provided for discharges from agglomerations of more than 2,000 PE, and more advanced treatment for agglomerations more than 10,000 population equivalents in designated sensitive areas and their catchments. The measure supports the implementation of other key national strategic and planning documents also, notably, the River Basing Management Plans (RBMPs), Flood Risk Management Plans (FRMPs), Spatial plan of Republic of North Macedonia and National strategy for sustainable development.

It will be implemented by the Ministry of Environment and Physical Planning.

a) Planned activities in 2024

- Amending the Water Law and preparation of related secondary legislation transposing the EU Floods Directive and assessment of other legislation related to flood management;
- Preparation of Flood Risk Management Plans for all river basins (Vardar, Strumica and Crn Drim);
- Preparation of a secondary legislation related to "polluter pay" principle introducing the "harmfulness unit", based on measured quantity and pollution load of the discharged effluent;
- Preparatory activities for supply of equipment for improving the Water Monitoring Information System;
- Preparatory activities for improving the operational and financial capacities of the public utility companies.

b) Planned activities in 2025

- Development of River Basin Management Plans for all River Basins (River Vardar, Crn Drim, Strumica) under the Water Framework Directive;
- Finalizing the amendments of the Water Law and related secondary legislation transposing the EU Floods Directive and harmonizing related legislation concerning flood management;
- Finalizing the activities for preparation of Flood Risk Management Plans for all river basins (Vardar, Strumica and Crn Drim);
- Revising water services` tariff to accommodate the methodology set in the secondary regulation related to the "polluters` pay" principle and introducing the "unit of harmfulness"
- Supply and installation of equipment for improving the Water Monitoring Information System;
- Improving the operational and financial capacities of the public utility companies.

c) Planned activities in 2026

- Starting implementation of River Basin Management Plans for all River Basins (River Vardar, Crn Drim, Strumica) under the Water Framework Directive;
- Adoption of Flood Risk Management Plans for all river basins (Vardar, Strumica and Crn Drim);
- Preparatory activities for developing a comprehensive groundwater programme.

Reform measure 5.2-3(8): Establishing an integrated and financially self-sustainable waste management system

The measure continues from the previous program.

With the adoption of the new Law on Waste Management ("Official Gazette of RNM" No. 216/2021) it will be possible to establish a functional system for regional waste management and the construction of regional landfills, and at the same time to close all noncompliant landfills and dumpsites. At the same time, it will enable regional collection, transport, selection, recycling of waste, as well as treatment and recovery, which will increase the degree of protection of human health and the protection of the environment, and all this will be a step towards enabling a circular economy for this sector.

The waste legislation of the Republic of North Macedonia is harmonized with the EU waste legislation. The new laws also regulate the special waste streams management, such as waste batteries and accumulators, waste electrical and electronic equipment, waste packaging, etc., within the framework of extended responsibility of producers.

The new National Waste Management Plan (2021-2031) adopted in September 2021, covers a period of 10 years, also identified the regions for waste management in the country: East and North-East, Pelagonija and South-West, Vardar and South-East, as well as the Skopje and Polog regions. The necessary technical documentation for the establishment of financially self-sustaining systems for waste management has been prepared for all regions except for Vardar/Southeast, for which funds have been provided for the preparation of the documentation.

The MoEPP has identified waste management as a priority problem to be addressed, as well as a key opportunity to contribute to the achievement of the ambitious climate actions stipulated in Macedonia's enhanced nationally determined contributions to climate change (NDC). Macedonia's NDC explicitly includes the waste sector and opportunities to reduce emissions through circular economy projects.

The measure will be completed by 2026. It will be implemented by the Ministry of Environment and Physical Planning.

a) Activities planned in 2024

- Preparation and adoption of by-laws for the implementation of the Law on Waste Management;
- Support in the implementation of waste management legislation and the extended producer responsibility scheme (drafting legislation for the establishment of a body for balanced responsibility of producers);
- Expanding the current competencies of the Energy and Water Services Regulatory Commission into the solid waste and setting up a new department to adopt a new cost-based methodology for SW tariffs (preparation of associated rulebooks, training staff etc.);
- Strengthening the institutional capacities of the local self-government to implement the regional waste management system (strengthening the capacities of waste departments in municipalities, municipal public utilities, inter-municipal public enterprises for waste management);
- Preparation of national planning documents (Strategy for waste management) and revision of regional planning documents for waste management (for the Southwest and Pelagonian regions).

b) Activities planned in 2025

- Preparation and adoption of by-laws for the implementation of the Laws on the management of special waste streams (packaging, batteries and accumulators);
- Support in the implementation of waste management legislation and the extended producer responsibility scheme (developed procedures for supervision of the accuracy of the statistics related to the quantities of products and packaging placed on the market in North Macedonia);

- Calculating new tariffs and adopting Decisions by the Regulatory Commission to be implemented by the municipalities;
- Strengthening the institutional capacities of the local self-government for the implementation of the system (strengthening of the capacities of the inter-municipal public enterprise for waste management and the municipal environmental inspectors);
- Preparation of national planning documents (Strategy for sludge management) and revision of regional planning documents for waste management (for the Vardar and Southeast regions).

c) Activities planned in 2026

- Adoption of by-laws for the implementation of the Laws on the management of special waste streams (electric and electronic waste);
- Support in the implementation of waste management legislation and the extended producer responsibility scheme (Improve operational and administrative capacity of the body for balanced responsibility of producers within the Extended Producers` Responsibility Schemes);
- Finalization of national planning documents (Strategy for waste management and Strategy for sludge management) and revision of regional planning documents for waste management (for the Southwest and Pelagonian regions, as well as the Vardar and Southeast regions).

2. Results indicators

Indicator	Baseline	Intermediate target	Target
Share of RES in the final consumption	18.2% (2018)	24% (2022) 26% (2023)	29% (2025)
Total installed capacity of RES	766,37 MW (2018)	1,087 MW (2022) 1,162 MW (2023)	1,493 MW (2025)
Percentage of population covered with the WWTPs	27.5 (2020)	37.33 (2024)	74.7 (2028)
% of households connected to sewerage systems	68 (2020)	75 (2024)	
% of household served with waste collection service	75 (2020)	80 (2024)	
Percentage of recycled waste from municipal waste	5%	25% (2025)	28% (2028)

3. Expected impact on competitiveness

The integration of higher shares of renewable energy sources (RES) in a country's energy mix can exert a notable impact on its Gross Domestic Product (GDP). Transitioning to renewable energy contributes to environmental sustainability and can stimulate economic growth through various channels. Investments in renewable energy infrastructure, such as wind, solar, and hydropower facilities, create employment opportunities and spur economic activity in the construction and manufacturing sectors. Additionally, the development and deployment of renewable technologies often foster innovation, attracting investments in research and development. As the energy sector transforms, it can enhance energy security, reduce dependency on fossil fuel imports, and mitigate the economic risks associated with energy price volatility.

The measure for promotion of RES aims to increase RES installed capacity in the country to 1493 MW by 2025. Considering full implementation of this measure and assuming that most of these additional MW would be mainly from solar and wind sources and to some extent from small hydro power plants, using the average cost of investment in RES power plants⁷, the impact was assessed. Total investment needed to have this installed capacity in the country by the end of the period is around EUR 629 million. This is an addition of 6.7% in total investment for the medium-term period. Using the production function to estimate the impact on GDP, this investment can increase GDP over 0.04% cumulatively in the medium term.

⁷ <https://www.irena.org/Publications/2023/Aug/Renewable-Power-Generation-Costs-in-2022>

By employing more energy-efficient technologies and practices, nations can reduce overall energy consumption, leading to cost savings and increased competitiveness. The resulting decline in energy demand can alleviate pressure on energy infrastructure, enhancing grid reliability and mitigating the need for extensive new investments. Moreover, improved energy efficiency contributes to environmental sustainability by curbing greenhouse gas emissions and minimizing the ecological footprint of energy production. In the long term, the economic advantages are substantial, as reduced energy consumption translates into lower operational costs for businesses and households. This, in turn, frees up resources that can be redirected towards other productive investments, ultimately fostering economic growth and resilience. Therefore, a commitment to advancing energy efficiency emerges not only as an environmentally responsible choice but also as a strategic driver for economic prosperity.

As part of the measure for improving EE, there are planned energy efficiency investments in around 50 municipal public buildings. Taking into account the average cost for refurbishment of a building to become energy efficient, which includes standard measures of thermal insulation, installation of new energy efficient windows and external doors, and thermal insulation of the roof, the average cost in North Macedonia is estimated at approximately EUR 125 per m² floor area. Using this estimate, these energy efficiency investments would amount up to EUR 6.87 million during the medium-term. This would result in an addition of around 0.07% in total investment in the country and this value inputted in the production function results in around 0.0004% cumulative impact on GDP for the medium term.

Effective wastewater management and treatment play a crucial role in promoting environmental sustainability, public health, and economic well-being. Proper wastewater management prevents the contamination of water bodies, safeguards ecosystems, and protects human health from waterborne diseases. Additionally, the economic impact of wastewater treatment extends beyond public health benefits and includes agricultural productivity due to more sustainable water sources for irrigation coming from treated waste water; industrial efficiency; and job creation and industry growth. The implementation of this reform requires around EUR 169 million in investment which is around 1.8% additional investment in the medium term. Using the production function and increasing investment in the form of capital, this results in 0.011% cumulative impact on GDP for the medium term.

Effective waste management not only addresses environmental concerns but also carries significant economic implications. By implementing comprehensive waste collection, sorting, and recycling initiatives, communities can stimulate economic growth through the creation of jobs in waste management and recycling industries. The implementation of this reform requires around EUR 34.7 million in investment which is around 0.4% additional investment in the medium term. Using the production function and increasing investment in the form of capital, this results in 0.0024% cumulative impact on GDP for the medium term.

4. Estimated cost of the activities and the source of financing

In EUR	2024	2025	2026
Promotion of renewable energy sources			
1. Budgetary expenditures*	500,000	500,000	500,000
2. Non-budgetary financing	0	30,000	23,000
2.1 of which IPA funding, including WBIF funding	0	0	0
Total	500,000	530,000	523,000
Improvement of Energy Efficiency			
1. Budgetary expenditures*	150,000	90,000	180,000
2. Non-budgetary financing	5,000,000	0	0
2.1 of which IPA funding, including WBIF funding	850,000	510,000	1,020,000
Total	6,000,000	600,000	1,200,000
Establishing wastewater collection and treatment infrastructure in accordance with EU requirements			
Estimated costs of the activities related to the legal framework and capacities and the source of financing			
1. Budgetary expenditures*	0	0	0
2. Non-budgetary financing	400,000	400,000	400,000
2.1 of which IPA funding, including WBIF funding	400,000	400,000	400,000
Total	400,000	400,000	400,000
Estimated costs for infrastructure investments			
1. Budgetary expenditures*	38,295,990	38,295,990	38,295,990
2. Non-budgetary financing	18,495,662	18,495,662	18,495,662
2.1 of which IPA funding, including WBIF funding	18,495,662	18,495,662	18,495,662
Total	56,791,652	56,791,652	56,791,652
Establishing an integrated and financially self-sustainable waste management system			
1. Budgetary expenditures*	3,377,235	2,195,567	2,195,567
2. Non-budgetary financing	13,699,915	7,003,797	7,003,797
2.1 of which IPA funding, including WBIF funding	13,699,915	7,003,797	7,003,797
Total	17,077,150	9,199,364	9,199,364

*National sources of public finance

*Note: the total loan amount for the EE Fund is presented in 2023 as we do not have information on the distribution of the money over the years.

Investment Projects	Value (EUR)
Establishing wastewater collection and treatment infrastructure in accordance with EU requirements	
1. Extension and rehabilitation of sewerage system and construction of waste water treatment plant in Tetovo and supervision activities	23,500,000
2. Extension and rehabilitation of sewerage system and construction of waste water treatment plant in Bitola and supervision activities	21,800,000
3. Municipal Water Infrastructure	50,000,000
4. Skopje WWTP	68,000,000 ⁸ +70,000,000 ⁹ =138,000,000
Total investment	233,323,500
Establishing an integrated and financially self-sustainable waste management system	
1. Construction of the waste management infrastructure facilities, closure of the noncompliance landfills/dumpsites and supply of equipment for handling and transferring of waste in the East and Northeast regions.	20,000,000
2. Establishing and developing a regional waste management systems in five administrative regions (Polog, Southwest/Pelagonia and Vardar/Southeast)	55,000,000
Total	75,000,000

5. Expected impact on social outcomes, such as employment, poverty reduction, gender equality and access to health care

⁸ EIB/EBRD loan [SKOPJE WWTP \(eib.org\)](https://eib.org/en/projects/2023/skopje-wwtp)

⁹ WBIF grant [North Macedonia: EU provides €70 million investment grant for largest environmental protection project \(eib.org\)](https://eib.org/en/projects/2023/north-macedonia-eu-provides-70-million-investment-grant-for-largest-environmental-protection-project)

Licensing of installers will enable new employment and expansion of the market. Also, subsidies for instalment of PV plants for households can be considered to be awarded to energy vulnerable consumers. Creating a system of guarantees of origin that will increase the value of projects in RES.

Opening of temporary and permanent jobs in service sectors such as design, installation, management and maintenance. Construction workers and highly qualified staff will be hired in the construction sector. In the industrial sector, highly qualified personnel with appropriate professional qualifications (auditors and ESCO companies) will be recruited, who will be continuously engaged in monitoring consumption and proposing new measures for greater savings. In the process of implementing the measure for EE, gender equality will be encouraged.

The implementation of the measure for establishing infrastructure for wastewater collection and treatment in accordance with the EU requirements will contribute to improving competitive conditions and the economic development. It will significantly contribute to protection of fresh water resources and to the reduction of health hazards caused by the environment pollution resulting from discharging non-treated waste water to waters or to the soil. The quality of the river waters will be improved and will eliminate the hazard to human health. The implementation of measure will indirectly result in creation of local employment both on short-term, during construction period and long-term employment during operation and maintenance of the new infrastructure. This will have positive benefits for the wider local economy as a whole by attracting investments in agriculture sector, tourism development etc. The Government committed to take over the principles and approach stipulated in the European Union Gender Strategy 2020-2025 and apply them in all sector reforms and support measures.

The implementation of the measure for establishing an integrated and self-sustainable waste management system will ensure more social effects, and above all, access of the majority of the population to a waste collection service and a cleaner environment through its recycling. The closure of illegal landfills will have a particularly significant effect, which will contribute to the reduction of their harmful gas emissions, as well as to the reduction of risks to public health.

Furthermore, the implementation of the projects implies the engagement of workers, which in the short term will directly affect the labour market, while in the long term, the maintenance and management of the regional landfills foresees employment that will contribute to the creation of new jobs. An assessment of the potential for GHG mitigation by introducing circular economy projects in N. Macedonia reveals that the incorporation of circular practices in the treatment of biowaste and construction and demolition waste can result in a reduction of total emissions of ~690.85 Gg/ CO₂ per year and the creation of over 600 new green jobs in several sustainable industries.

6. Expected impact on the environment and climate change

All the measures intended to increase the share of renewable energy sources (RES) and reduce energy consumption by improving energy performance and efficiency contribute to reducing greenhouse gas emissions and improving the air quality.

Emissions from electricity consumption account for a large part of the total carbon footprint for many companies. A guarantee of origin benefit companies by providing proven and verifiable emission reductions. They are efficient, acknowledged, and legislation-backed means to document and formalize the commitment to sustainable electricity. Furthermore, the guarantees of origin market help increase the total demand for renewable energy

Renewable energy source (RES) based electrical power plants are widely considered green and clean due to their contribution to decarbonizing the energy sectors. Although RESs (i.e., solar photovoltaic, wind, biomass, geothermal and hydroelectric plants) are far better than fossil fuels, they can have adverse effects on the environment, such as: land use and habitat loss, noise, dried up rivers, and deforestation, as well as the use of hazardous materials in manufacturing¹⁰. Therefore, full Environmental Impact Processes must be carried out to identify and minimize / mitigate the environmental impacts originating from the installation of RES plants.

By harmonizing the biofuel related legislation with that of the EU, the share of fossil fuels in the energy mix will be reduced. The increased share of biofuels in energy consumption will contribute to reducing greenhouse gas emissions

¹⁰ [Environmental impact of renewable energy source based electrical power plants: Solar, wind, hydroelectric, biomass, geothermal, tidal, ocean, and osmotic - ScienceDirect](#)

in 2030 by about 210 kt CO₂-eq. (the percentage reduction in greenhouse gas emissions will depend on the type of biofuel and the technological generation to which it belongs). While biofuels are important in helping the country reducing greenhouse gas emissions, biofuel production typically takes place on cropland that was previously used for agriculture, to grow food or feed. This process is known as indirect land use change (ILUC) and may cause the release of CO₂ stored in trees and soil, posing a risk to the greenhouse gas savings that result from increased production of biofuels. Therefore, land conversion issues must be considered when planning for biofuel production.

Energy efficiency in buildings can help reduce greenhouse gas emissions by reducing energy consumption. However, the production of building materials and the construction process itself can have negative environmental impacts, such as carbon emissions from machinery, production of cement etc. Development of Construction Management Plans can contribute to mitigating environmental impacts from construction.

7. Potential risks

Risk	Probability (low or high)	Planned mitigating action
Delay in planned construction of RES power plants due to lengthy permitting procedures	High	New energy legislation (laws and bylaws), as well as other legislation relevant for RE investments (urban planning, construction and environment) should transpose declarative provisions from the RES Directive and make them more specific, including where possible further simplification and acceleration of procedures. (Streamlined and expedited administrative procedures, objective, transparent and proportionate rules concerning authorisation, certification and licensing, transparent and cost-related administrative charges simplified and less burdensome authorisation procedures). The new energy legislation should fully transpose and further specify these obligations for establishing contact points and/or one-stop shop system for RE administrative permit applications and granting process. Therefore, there is an intervention needed in every single law that has provisions on permit granting procedures with the objective of further simplifying and accelerating procedures for RE producers. (To shorten the process to 2 years, i.e. 1 year for smaller power plants).
Delay in construction of rooftop PV plants for own consumption in households and small consumers	Medium	Establishment of simple-notification procedure for grid connections of renewables self-consumers. Changes to the Electricity Distribution Grid Code should be made in order to make the procedure for connection to the grid of renewables self-consumers even simpler (e.g. less documents and shorter deadlines).
Lack of capacity and technical staff within the public institution (Ministry of Economy and Energy Agency) for timely implementation of the measure	Medium	A new systematization of the energy sector in the Ministry of Economy has been adopted. There is a separate department for energy efficiency with only two employees at present. It is necessary to increase this number with new technical personnel in order to continuously implement the measure for EE.
Lack of willingness of the main stakeholders (e.g. municipalities) to implement the national water sector reform, sector policies/action plan and regulatory obligations.	Medium	To engage in continuous policy dialogue with central government institutions, mainly through the SWGs, with a strong ownership and leadership by the relevant Ministry.

Structural reform 4 - Building efficient digital public services

a. Analysis of main obstacles

Electronic public services reduce time, administrative and financial burden for the business and individuals, contributing to the increase of the competitiveness of the economy. Digitalisation has an extremely wide range, as it tackles all the public policies in the country.

As stated in the EC Progress Report 2023 on North Macedonia, the reorganisation of state institutions at central level was launched and the digital transformation of the country advanced, with 230 fully automated public e-services for citizens and businesses put in place. Digitalisation of the economy is advancing, but the competitiveness of domestic businesses could be improved through a wider offering of public e-services. On the other hand, capacity to access digital services and digital literacy should be enhanced. The digitalisation of the economy is still at a low level compared with the EU. The percentage of households with internet access at home increased by 10.1 pps. between 2017 and 2021, to 83.6%. A fixed broadband connection to the internet is used by 88% of household users, and by 92% of businesses with 10 or more employees, but smaller companies still face obstacles. Of the total number of enterprises, 54.5% had a website/homepage. Overall, there is a particular need to increase access to broadband, expand e-government services and develop digital skills. This should be also considered with regard to further implementation of the digital agenda for the Western Balkans and the Regional Roaming Agreement, as initiatives that could unleash the business potential of the country.

The EC Progress Report 2023 recommendation to the authorities is to ensure full implementation of the Law on general administrative procedures by completing the digitalisation of institutions' registers and data exchange and simplifying electronic procedures. It is necessary to adopt an ICT strategy for modernization and digitalization of the public sector, which requires better cooperation between the institutions. Also, strengthening integrity, asset declarations and digitalisation are considered key tools for preventing corruption which has been deteriorating the market economy and competitiveness.

In terms of specific e-services available at the National Portal for e-services (uslugi.gov.mk), they include enrolment in primary education, statements with employment and pension data, certificates of non-conviction, population register statement, various social security certificates, labour and employment data, recognition of diplomas, and many others. Setting-up of the e-Portal has been integrated into the previous ERPs, and its further development could be considered as a matter of continuous efforts, i.e., the reform interventions should get more sectoral approach. In this context, reform intervention such as: Modernisation of the road infrastructure with an introduction of the intelligent transport system (ITS) along the Corridor X; Setting of a management information system on state aid and Establishing of an integrated tax information system in Public Revenue Office, provide systemic approach in digitalisation of an important public policy matter.

Setting of the intelligent transport system (ITS) along the Corridor X (it stretches on 114km highway in the North Macedonia, at the direction North-South, connecting Northern Europe through Serbia and North Macedonia with the ports in Greece) is of outmost importance for the country to have modern and sustainable approach toward connectivity with the other countries, provided its small size and good geostrategic position. The Corridor X is integral part of the TEN-T system of transport which is expected to have considerable impact on the economic and social development of the country. The intelligent transport system (ITS) is envisaged to contribute to the preservation of the environment and to secure higher sustainability of the transport routes.

EC assessment of ERP 2023-2025 states that the transparency and effectiveness of state aid remained deficient. Such state of affairs is affected by the high number of state aid providers and users, lack of an updated register and marginal competences of the Commission for the Protection of Competition in the supervision of state aid. As a prerequisite for establishing a register for state aid, the Government should set a management information system that connects different institutions.

The digitalisation of the public finance management system is driven by the technological developments that impose the necessity to expand the functions of the current systems. This particularly refer to the development of a new Treasury System and a new Integrated Tax Information System (ITIS). Considering that the government plans to scale up public investment, strengthening the Public Investment Management should be given particular importance. That being said, a PFM reform programme should combine in-depth diagnostics on cash management, development of new integrated IT systems and improved Public Investment Management.

The inherited systems, which were used and some are still used by the Public Revenue Office (PRO), are limited in their functionality and have not evolved to meet the changing needs of the tax administration. The key weakness of the PRO information system is the lack of real-time information, as well as a reliable and clear picture of the taxpayer compliance status. In addition, there are several ongoing reforms and initiatives aimed at promoting voluntary taxation, improving the effectiveness of taxpayer services, and improving the business environment. These initiatives require the strengthening of IT systems and the development of appropriate functionalities in order to make effective use of these efforts. In this context, the implementation of the new tax system should not only address the current requirements of the tax authorities but also address the most critical questions and limitations of existing systems, thus eliminating (or reducing) current shortcomings.

Apart of the mentioned ones, there are other digital challenges that should be addressed in the future.

b. Reform measures

1. Description of reform measures

The structural reform **Building efficient digital public services** is sequenced into the following specific reform measures that would be achieved in the period 2024 - 2026:

Reform measure 5.2-4(9): Broadening the scope of digital services provided on National E-service Portal

The goal of the measure is to increase the usage of the National e-services Portal (the Portal) uslugi.gov.mk as a central point for e-service delivery. The e-services that are available on and through the Portal are: enrolling the primary education, extract from employment and pension data, claims for non-conviction, extract from population register, different certificates related to social security, labour and employment data, recognition of diplomas, etc. The Portal is offering e-services for both, individuals and businesses (even though at the beginning the Portal was offering only e-services for individuals, it is upgraded with functionality to offer e-services for businesses).

a) Activities planned in 2024

- supply of equipment for supporting the deployment of new e-services;
- introduce the Register of registers;
- introduce the Register of authorisation and services related to the register;
- capacity building on delivered solutions;
- introducing new e-services on the Portal.

b) Activities planned in 2025

- introducing new e-services on the Portal;
- introducing new digital registers, including data entry from the beneficiaries.

c) Activities planned in 2026

- introducing new e-services on the Portal;
- introducing new digital registers, including data entry from the beneficiaries.

Reform measure: 5.2-4(10): Implementation of an Intelligent Transport System (ITS) along Corridor X

The measure is implemented by the Ministry of Transport and Communications.

The use of ITS in the field of transport, related to infrastructure, vehicles or users is fast becoming one of the most important areas in the EU to deliver improvements in network capacity, traveller mobility and therefore enhance economic productivity and increasing the GDP.

This reform measure aims to set an Intelligent Transportation and Traffic Management System that would provide significant improvement in the performance of the current traffic flow through reduced delays due to timely reporting and traffic redirection.

a) Activities planned in 2024

- Preparation of draft legislation for ITS regulation transposition (few laws will be amended).
- Contract for construction.
- Traffic management center.
- Selection and contracting a Contractor for the ITS deployment – South part and the Supervising Consultant. Estimated duration of the Contract for ITS deployment is 14 months and 24 months for Supervision.
- The start of Deployment and installation of ITS equipment and its Supervision are expected in Q1 2024.
- The funds-EUR 12,6 million, for the deployment of ITS - North part of the Corridor X and NTMC with new ITS systems including Supervision should be approved by the World Bank under the Safe and Sustainable Transport Program (SSTP) by the end of 2023. Once funds are approved, the Tendering for the Contractor is expected to start in Q1 2024. The start of the deployment is in Q3. Estimated Contract duration is 16 months, for NTMC with new ITS systems (WIM, HAZMAT and GNG monitoring) is 14 months, as well as 28 months for Supervision including 12 months of Defect Liability Period-DLP.

b) Activities planned in 2025

- Adoption of legislation for ITS regulation (few laws will be amended, accompanying adequate bylaws).
- Finalization of the deployment and implementation activities for ITS - south part including the procedure for hand over certificate to the Public Enterprise for State Roads (PESR) and Defect Liability Period-DLP.
- Continuing of ITS deployment - North part and new ITS systems deployment with supervision.
- Finalization of the NTMC construction activities, including the procedure for hand over certificate to the Public Enterprise for State Roads (PESR) and Defect Liability Period-DLP.
- Due to the fact that the timeframe of the Loan for WBTFP is finishing in December 2025, the overall Tender procedure for the North part of the ITS is conditionally dependent by the Loan extension.

c) Activities planned in 2026

- Finishing of ITS deployment - North part and new ITS systems deployment with supervision.
- Defect Liability Period-DLP.

Reform measure 5.2-4(11): Establishment of Management Information System on State Aid

This measure aims to establish information system for the management of state aid. It is expected to contribute to greater transparency and efficient use of the opportunities provided by the state. Ensuring full transparency of State aid granted by the authorities is among the recommendations stated in the EC Progress Report 2023 on North Macedonia.

Setting a State Aid Register would enable updated information about the types, amount and users of state aid. It is crucial for evaluation of the effectiveness of the state aid, and furthermore, the performance of the public policies incorporating state aid as an instrument in their implementation. The system would also aim to provide in-time information about the state aid calls, contributing to the transparency and ensuring equal opportunities to all.

The measure will be implemented by the Cabinet of Deputy Prime Minister in charge of economic affairs, coordination of economic sectors and investments.

a) Activities planned in 2024

- Development of a custom state aid software (MIS-SA)
- Establish the State Aid Register as part of the MIS SA

b) Activities planned in 2025

- Further development of the State Aid Register in its full capacity

Reform measure 5.2-4(12): Establishing Integrated Tax Information System in Public Revenue Office

The new Integrated Tax Information System (ITIS) aims to improve the operational efficiency of tax administration functions, as well as increase revenue by strengthening compliance monitoring and improving taxpayer services. It is envisaged ITIS to have the following characteristics: real-time processing, transparency, orientation of the service,

continuous availability, automatization of operations, e-Administration, mass-scale processing (data processing), unified monitoring of tax and other liabilities, the 3T principle (Taxpayer; Type of tax; Tax period), client relations management (CRM), log of events and log of revision (audit), and compliance risk management with the taxpayers. Also, it will cover all taxes (PIT, VAT and CIT) managed by the PRO, as well as social contributions.

The Tax System Reform Strategy 2020-2023 points out to the introduction of a new Integrated Tax Information System.

The measure will be implemented by the Public Revenue Office. The realisation of the reform measure is envisaged in two components with the following activities:

Component 1. Completion of the remaining modules of the Integrated Tax Information System

a) Activities planned in 2024

- Realization of the procurement of the software for the implementation of the tax procedure by subject, including Masterfile and tax accounting.

b) Activities planned in 2025

- Continuation of the realization of the procurement of the software for the implementation of tax procedure by subject.
- Starting activities for the establishment of a Data Warehouse
- Establishing a new ICT infrastructure

c) Activities planned in 2026

- Establishing a Data Warehouse and business intelligence tools – Data Warehouse and BI
- Usage of business intelligence tools when processing reports from taxpayers and for risk management and compliance management

Component 2. Ensuring IS security (Information System) and smooth functioning of the integrated tax information system

a) Planned activities in 2024

- Continuation of the modernization of the ICT infrastructure
- Continuation of activities to increase the security of the PRO systems

b) Planned activities in 2025

- Continuation of the activities to increase the security of the PRO systems
- Continuation of the activities for the development and restructuring of the IT subsystems of the Public Revenue office
- Starting activities for the establishment of a Disaster Recovery Centre

c) Planned activities in 2026

- Increasing the reliability of the PRO systems
- Development and restructuring of the IT subsystems of the PRO
- Establishment of a Disaster Recovery Centre

2. Results indicators

Indicator	Baseline	Intermediate target	Target
Number of registered users of the National Portal	82,000 (2022)	92,000 (2024)	97,000 (2025)
Number of e-services offered	200 (2022)	450 (2024)	550 (2025)
Number of applications submitted through the National Portal	25,000 (2022)	41,000 (2024)	49,000 (2025)
Reduced number of traffic accidents expressed in % along Corridor 10			
number of accidents	67 (2018)		56 (2025)

percentage	0% (2018)		16,6% (2025)
Reduced travel time in % along Corridor 10			
minutes	103 (2018)		85.5 (2025)
percentage	0% (2018)		17% (2025)
SA MIS established	0 (2023)	1 (2024)	/
% of taxpayer services that have been digitalised	83% (2021)	Up to 95% (2023)	Up to 100% (2026)

*An EU report summarising evaluation results for ITS projects implemented in Europe between 1994 and 1998 finds that a dynamic signal control can reduce travel times by 17%, increasing to 20% when the dynamic signal control strategies are integrated with information and guidance¹¹. An US study indicates that one DMS (Dynamic Message Signs) is likely to reduce $100 \times (1 - \text{EXP}(-0.181)) = 16.6\%$ of crashes per year, when other factors in the model are controlled.¹²

The benefits of the ITS improvements will begin after 1 year once the systems are installed and the life cycle of the ITS equipment is 10 years (installation in 2023 benefits from 2023 to 2033). The annual growth of the average number of lorries on the corridor equals the projected GDP growth.¹³

In North Macedonia, it is considered that ITS will reduce the travel times by 17% based on the above-mentioned EU report, while the number of crashes by 16.6% based on the above-mentioned US study.

3. Expected impact on competitiveness

Increasing the number of digitalized services on national e-portals has transformative economic implications. Streamlining administrative processes and reducing bureaucratic inefficiencies, digitalization enhances cost efficiency and time savings, fostering a more productive economy. This reform aims to increase the number of digitalized services on the e-portal from 200 to 550 and increase the number of applications submitted per year to 45,000 as an intermediate target and to 49,000 as a final target. Using these indicators and the average time saved that people would have, the implementation of this reform at the end of the period would reduce the total administrative costs by 0.006% of the Gross Value Added, resulting in a GDP increase of 0.005%.

The implementation of an Intelligent Transport System (ITS) along corridor X involves the integration of advanced technologies to enhance the efficiency, safety, and overall performance of the transportation network. The implementation of the measure can ensure faster passing time along corridor X but also fewer accidents due to automated incident detection and response. As such, the economic impact of this measure due to lowering the number of accidents (share of accidents with fatality, with serious injury, and with minor injury)¹⁴ can be up to 0.091% of GVA or 0.079% of GDP.

The implementation of a Management Information System for state aid can have significant impact on economic growth. By enhancing transparency and accountability, the MIS ensures that state aid is efficiently allocated, fostering a favourable business environment that attracts investments. The system also facilitates informed decision-making, allowing the government to strategically allocate resources to sectors crucial for economic development. With an effective system, the government can better monitor and evaluate the impact of state aid programs. This information allows for more informed decision-making, enabling the allocation of resources to areas that have the greatest potential for economic development. Efficient resource allocation where overall state support would not be more than 50% of total capital investment and no duplication of aid contributes to the overall productivity of the economy. Nonetheless, before establishing the system and receiving all information, an exact calculation of the impact cannot be made.

The complete digitalization of tax services represents a great shift with significant economic impacts. Increasing digitalized services from 83% of all services to 100% is a transformation that streamlines tax processes, ensuring greater efficiency, accuracy, and accessibility. Automated systems not only reduce administrative burdens but also enhance compliance monitoring, minimizing tax evasion. The resultant cost savings, faster refunds, and simplified filing

¹¹CODE, 2000, "Network and Traffic Management: Final Area Report" for the "Telematics Applications for transport within the Fourth Framework programme". Available on: http://collections.internetmemory.org/haeu/20161215121151/http://cordis.europa.eu/pub/telematics/docs/tap_transport/netrama.pdf, accessed Feb 15, 2018.

¹² Oh J. et al. (2015), Michigan Department of Transportation, "Costs and Benefits of MDOT Intelligent Transportation System Deployments".

¹³ Based on data from SEETO, EU and National Customs, counts from 2015, updated via linear regression for 2018.

¹⁴ This calculation is done by using the average cost of life in similar countries like North Macedonia, number of accidents reported in North Macedonia of which with fatality and injury, and the target of lowering the number of accidents as an indicator of this reform.

for businesses and individuals stimulate economic activity. The savings in time resulting from the implementation of this measure can result in up to 0.12% in GVA and 0.10% of GDP.

4. Estimated cost of the activities and the source of financing

In EUR	2024	2025	2026
Broadening the scope of digital services provided on National E-service Portal			
1. Budgetary expenditures*	368,000	3,250,000	3,250,000
2. Non-budgetary financing	1,300,000	1,300,000	500,000
2.1 of which IPA funding, including WBIF funding	1,300,000	1,300,000	500,000**
Total	1,668,000	4,550,000	3,750,000
Implementation of an Intelligent Transport Systems (ITS) along Corridor X			
1. Budgetary expenditures*	0	0	0
2. Non-budgetary financing	10,500,000	12,320,000	1,260,000
2.1 of which IPA funding, including WBIF funding	10,500,000	12,320,000	1,260,000
Total	10,500,000	12,320,000	1,260,000
Establishment of Management Information System on State Aid			
1. Budgetary expenditures*			/
2. Non-budgetary financing	2,250,000		/
2.1 of which IPA funding, including WBIF funding	2,250,000		/
Total			/
Establishing Integrated Tax Information System in PRO			
1. Budgetary expenditures*	2,210,000	1,260,000	830,000
2. Non-budgetary financing	0	0	0
2.1 of which IPA funding, including WBIF funding	260,000	366,000	3,509,000
Total	2,470,000	5,626,000	4,339,000

* National public finance sources

** IPA 2022 Action Document currently under maturity assessment

5. Expected impact on social outcomes, such as employment, poverty reduction, gender equality and access to health care

By reducing the administrative burden on companies and increasing their competitiveness, companies could expand their activities and increase employment. Electronic services are equally accessible to all users, both businesses and individuals, regardless of location (urban or rural), gender and social background, degree and type of disability, etc. Digitalisation will help to reduce inequality, enhance health services, get better use of resources and improve business models and ecosystems. Introduction of the e-services will increase trust of people in the society and institutions as well as will save people time and money.

The implementation of the ITS system will have a direct short-term impact on companies that work with this type of equipment by increasing their number of employees. Within the regional project this measure is part of, a gender survey is planned to be undertaken that will shed light on some of the gaps that exist around barriers that women traders face in undertaking trade across the WB at the firm level. The results will be used for potential interventions to help women headed businesses¹⁵. However, this is not the kind of a measure where profound social impact would be expected.

As regards the MIS SA, the transparency of data may increase the probability of efficient use of opportunities provided by the state, thus the acceleration of business activity through higher employment may decrease the pressure towards the social care and support and decrease of unemployment rate.

The digitalisation of the business processes of the tax administration will inevitably lead to less financial burden to the businesses, which can further on allocate funds to increase employment, thus reducing poverty. Another positive impact is gender equality because digitalisation does not favour or discriminates any particular gender.

¹⁵<http://documents.worldbank.org/curated/en/919401555624976466/pdf/Western-Balkans-Trade-and-Transport-Facilitation-Project.pdf>

6. Expected impact on the environment and climate change

Digitalization of public sector services is generally considered a positive measure for the environment, because it can reduce the environmental impacts such as. greenhouse gas emissions` reduction, minimizing energy used for commuting and heating, as well as paper consumption. Negative climate and environmental impacts can emerge from telecommunication connections, data transfers, servers, memory capacity, and equipment manufacturing and materials. Climate impact assessment of large digitalization projects and their procurement should be carried out.

Deployment of ITS solutions is part of the first pillar of Green agenda for the WB aimed at making transport operations more efficient, and reducing CO₂ emissions. In the deployment phase, some minor and reversible negative environmental impacts will mainly relate to traffic safety issues during the modifications. During the operations, the ITS/ will reduce the environmental impact of traffic congestion by improving the efficiency and safety of transport networks. By reducing congestion, ITS/TMS can help reduce fuel consumption and pollutant emissions, which can improve environmental quality. ITS will introduce early warning systems to monitor and address climate related risks on the road network, as well as weather stations that will collect data and monitor GHG emissions from road transport (specifically Short-Lived Climate Pollutants (SLCP) emissions connected with air pollution). The information that will be collected through GHG (SLCP) emissions monitoring systems will help linking specific climate change and development priorities (e.g. mitigation, adaptation and improving air quality) and be a valuable support in developing regulatory and policy reforms and institutional strengthening for pursuing low-emissions development.

Digitalization of state aid monitoring can have both positive and negative environmental impacts: digitalization can help reduce paper consumption and energy use by replacing manual processes with digital ones. leading to a reduction in greenhouse gas emissions and other negative environmental impacts. Also, monitoring state aid can help track the amount of public funding that is being allocated to climate and environment-related projects. This information can be used to calculate the amount of environmental and climate financing that is being provided by the public institutions. By tracking state aid, the Government can ensure that public funds are being used effectively to support climate action and reduce greenhouse gas emissions. Negative environmental impacts include an increase in energy consumption and e-waste generation due to the production and disposal of electronic devices. Additionally, the use of digital technologies can lead to an increase in carbon emissions from data centers and other ICT infrastructure. Therefore, it is important to consider the environmental impacts of digitalization when implementing state aid monitoring systems

The establishment of digital platforms for integrated tax information services to citizens can have both positive and negative environmental impacts. On the one hand, digital platforms can help reduce paper consumption and energy use by replacing manual processes with digital ones. This can lead to a reduction in greenhouse gas emissions and other negative environmental impacts. On the other hand, digital platforms can also lead to an increase in energy consumption and e-waste generation due to the production and disposal of electronic devices. Additionally, the use of digital technologies can lead to an increase in carbon emissions from data centers and other ICT infrastructure. Therefore, it is important to consider the environmental impacts of digital platforms when implementing integrated tax information services to citizens.

7. Potential risks

Risk	Probability (low or high)	Planned mitigating action
Different IT preparedness of the government institution, in the process of digitalisation	High	Using video conferencing tools and providing technical support to the working group. Hiring local workers to fill staffing needs.
Low level of using the e-services due to the lack of knowledge and required equipment.	Medium	While some institutions are at a high level of digitisation and can easily digitise their registry and services, others still have a very low level of IT readiness. Another problem is the lack of IT professionals. To overcome this, MISA develops central solutions such as software for digitising processes in institutions and for digitising registers. These solutions will help institutions until they develop their own IT solutions.

Lack of commitment on the highest level in the institutions involved in the establishment and operation of the SA MIS	Medium	Regular communication and reporting to the ministerial level for the progress and early warning notifications.
Lack of human and institutional capacities in the PRO, especially in the Directorate of Information Technology	High	Human resource management policy, especially in the IT
Late procurement of hardware needed for ITIS	Medium	Temporary use of the existing equipment

5.3. HUMAN CAPITAL AND SOCIAL POLICIES

Structural reform 5: Labour force efficiency improvement

a. Analysis of main obstacles

The quality of human capital as a principal component in every growth model has a vital role in providing sustainable and inclusive development. The disparities between the education outcomes and the needs of the labour market in North Macedonia prolong the transition from school-to-work, nourish the informal economy and support emigration. The shortcomings in the education system stretch from primary to tertiary education, despite continuous and vigorous efforts for reforms. There is also a system of vocational education and training (VET), aiming to develop curricula focusing on competencies that would enable students to integrate more easily on the labour market.

On the side of the labour market, structural labour market challenges persist. In Q2 2023, the participation rate was 52.4%. The female participation rate (42.5%), remains 20 pp lower than that for men. Care for children and the elderly is cited as one of the primary reasons for inactivity of women and hence the need to promote flexible working arrangements among companies. The employment rate (15-89) reached 45.5% while the unemployment rate was 13.1%. The youth unemployment rate (15-29) declined to 24.5%, but, it has been still significantly higher than the EU average. Non-standard forms of employment (NSE) are a common feature of the labour markets worldwide, and North Macedonia is no exception. While the world of work has changed, labour legislation and collective bargaining did not. This has left many new types of workers jobs non-regulated and out of the social protection system. Also, this led to lost tax revenues for the state. Such situation requires for increase of the labour market flexibility.

A skills mismatch analysis framework is in place. It reveals pattern of easier employment of the persons with higher levels of education, along with the tendency of filling the job posts with overqualified persons. The people with low education are more likely to be formally unemployed, while, at the same time, bearing higher risk of being employed in the informal sector. Several attempts have been made in purpose to improve skills matching, including the introduction of a web-based Occupational Outlook to inform young people about the career prospects of selected occupations and sectors in the medium term (ILO, 2018).

According to the EC Country Report 2023, progress in reforming education curricula and reducing skills mismatches is hampered by lack of funding and capacity. While North Macedonia has progressed well in terms of the number of people with higher education qualifications, curricula are not well suited to equipping graduates with skills to match labour demand. State financial support for education is insufficient and coordination between the education sector and businesses is weak. In 2022, public spending on education and training amounted to 3.7% of GDP, about the average of the preceding 5 years. This is below both the EU-level (5%) and peer-country averages, and impedes implementation of the 2018-2025 education strategy. The percentage of adults participating in learning was 2.6% in 2020, which is significantly below the EU-27 average of 10.8% (2021). Further development of qualifications is key to bringing medium-skilled and low-skilled people into the labour market.

Another important aspect related to the labour market is the workforce health. Recent baseline reports (WHO and World Bank) indicate that the life expectancy at birth in North Macedonia was 75.9 years in 2018, compared to 83.6 in EU. In addition, the population over 65 comprised 14.5% of the total population against 20% in EU. Non-communicable disease (NCD) accounts for an estimated 95% of all deaths: cardiovascular diseases (61%) and cancers (21%) are the main contributors with diabetes and chronic respiratory disease making up most of the balance. As per WB

Systematic Country Diagnostic Report¹⁶, North Macedonia may be losing an estimated 19,900 productive years annually to premature deaths from NCDs. NCDs also weigh on public spending as, for instance, every year more than 1% of GDP is spent on disability benefits and paid sick leave.

The aging population, combined with the shrinking health resources, calls for reforms of the health sector in purpose of providing good primary health care and alleviating the problem of the shortages of the medical staff. The public spending in the Macedonian health care sector is low - only 6.58% of GDP in 2018, compared to the European average of 9.9% of GDP or per capita spending was EUR 328.98 and EUR 2,905.26, respectively.

The ambulatory care sensitive conditions are health conditions that can be effectively prevented, diagnosed and treated in primary health care. Unnecessary hospital admissions suggest lack of uniformity in health providers' patterns of referral and admission procedures.¹⁷ In this context, reform of the Primary Health Care system by elaboration and implementation of the clinical guidelines, along with increase of the functionality of the health information system is expected to provide better performances of the health sector. However, the problem of lack of medical staff must be addressed by development of a holistic approach towards education and career development of doctors and other medical workers within the Macedonian public health care system.

b. Reform measures

1. Description of reform measures

The structural reform **Labour force efficiency improvement** is sequenced into the following specific reform measures that would be achieved in the period 2024 – 2026:

Reform measure 5.3-5(13): Further development of the qualification system

The measure is rolled over from previous year. A novelty in educational reforms is the development of a new national assessment, which, among other things, will help to build strategies for students, early leavers from education, and to address their needs accordingly. With the introduction of the National assessment in the third grade, the conditions for the development and completion of the system for monitoring and evaluating the achievements of students at the national level in primary education will be met. National assessment is integrated into the Law on Primary Education and sets the legal framework for conducting national assessment.

Part of the reforms undertaken in secondary education is the establishment of Regional Centres for Vocational Education and Training, which are aimed at fostering an innovation culture at the regional and national level. A new Law on Vocational Education and Training was prepared in cooperation with the business community, chambers, companies, educational institutions, regulating in separate chapters the dual education and the establishment of the Regional Centres for Vocational Education and Training. As support for the new reforms the Ministry of Education and Science started implementation of the IPA project: Increasing attractiveness, inclusiveness and relevance of VET and Adult Education. In November 2023 the Government adopted a Decision to transform 2 secondary schools in Strumica and Veles into Regional Centers for Vocational Education and Training, with which there are now a total of five regional VET. Additionally, it is foreseen the development, upgrading and implementation of the procedures for validation of non-formal and informal learning as an important path to the quality of adult education, development and implementation of post-secondary education programmes and harmonisation of national VET and adult education systems with EQAVET+.

The measure is implemented by the Ministry of Education and Science.

a) Activities planned in 2024

- Adoption of a new Law on vocational education and training with separate chapters for Regional VET Centres and dual education
- Completion of adaptation and reconstruction of 3 Regional VET Centres

¹⁶<https://www.worldbank.org/en/country/northmacedonia/publication/fyr-Macedonia-systematic-country-diagnostic-seizing-brighter-future-for-all>

¹⁷ https://www.euro.who.int/__data/assets/pdf_file/0009/403020/MKD-PHC-report-160519.pdf

- Development of Standards for higher education qualifications, primarily for professions in the field of education, such as pedagogue, psychologist, caregiver, educator
- Establishment of 5 sectoral commissions: for geology, mining and metallurgy, art, graphic design, forestry and wood processing and for sports and recreation
- Adoption of amendments of the NQF Law
- Preparatory activities for evaluation and adoption of a bylaw on methodology for evaluation of qualification standards registered in the Register (validity period 4 years)
- Rulebook that determines the professional and scientific titles, in accordance with the Law on Higher Education

b) Activities planned in 2025

- Establishment of a system for validation of non-formal education for acquiring specific qualifications - recognition of previous learning
- Development and implementation of programmes for post-secondary education and harmonisation of the national VET and adult education systems with EQAVET+
- Further implementation of the NQF as a basis for achieving a coordinated and more efficient quality assurance system of the process for developing qualifications, validation and accreditation
- Alignment and harmonisation of the NQF digital register with other national and international registers
- Proposal - national program for higher education
- Proposal - national program for scientific-research
- Proposal - decree on calculations and criteria for financing higher education
- Proposal - decree on calculations and criteria for financing scientific-research activity

c) Activities planned in 2026

- Establishment of a system for validation of non-formal education for acquiring specific qualifications/recognition of previous learning
- Development of 5 qualifications at level V - specialist and post-secondary education for the needs of the labour market and the possibility of self-employment for trades
- Strengthening the quality assurance aspect of education and training in the context of lifelong learning
- RCSOO in some of the other 5 regions in the country
- Proposal - national program for higher education
- Proposal - national program for scientific-research
- Proposal - decree on calculations and criteria for financing higher education
- Proposal - decree on calculations and criteria for financing scientific-research activity

Reform measure 5.3-5(14): Increasing the flexibility and security of the labour market

The measure aims to contribute to improving the labour market and employment situation in the Republic of North Macedonia, through specific interventions that will lead to:

- Improving and further promoting of the labour market flexibility, through interventions in the area of labour legislation, which will enable further regulation of the legal framework regarding under-represented and non-standard forms of work and employment contracts;
- More efficient and more effective functioning of the labour market through modernising the legal framework that regulates the employment measures and labour market services and the entities that implement them; and
- Additional expansion of the coverage and access of youth, women and various vulnerable groups of citizens to the active employment programmes and measures and labour market services; in this part, this measure is complementary with the measure “Enhancing the system for social inclusion of vulnerable groups”, that is, the part of the activities that refer to the “Labour Market Activation of Vulnerable Groups”.

The measure will be implemented by the Ministry of Labour and Social Policy.

a) Activities planned in 2024

- Proposal of the new Law on Labour Relations submitted to the Government for adoption;
- Implemented awareness raising activities regarding the novelties in the Law on Labour Relations aimed at increasing flexibility on the labour market (non-standard forms of employment contracts, repetitive seasonal work, remote work, work from home, etc.)

b) Activities planned in 2025

- Delivered education, training/seminars for the implementation of the Law on Labour Relations targeting labour inspectors, employers' organizations, trade unions, the Employment Service Agency, Public Revenue Office and other institutions, etc.
- Adopted by-laws enabling implementation of the Law on Labour Relations;
- Draft Law for the regulation of the labour market developed and submitted to the Government for adoption.

c) Activities planned in 2026

- Implemented evaluation of the application and efficiency of the new legal provisions governing labour relations and the labour market

Reform measure 5.3-5(15): Strengthening the quality of the Primary Health Care

The focus of the measure is the reform of the primary health care¹⁸, which should encourage treatment of certain health conditions on primary level and reduction of number of referrals to a higher level of health care that will lead to decrease the cost.

The main goal of starting the reform process in PHC is to improve the quality of primary health care through the reform of the payment model of primary health care, which should encourage and ensure the improvement of prevention, definition and application of standards for the provision of services in accordance with evidence-based medicine, developing guidelines and protocols, encouraging the handling of certain conditions at the primary level and reducing the degree of referral to a higher level of health care, a greater number of doctors from general practice who will have specialisation in family medicine, encouraging the realisation of certain health services by nurses and facilitation of administrative work.

The measure will be implemented by the Ministry of Health.

a) Activities planned in 2024

- Development of protocols for the selected primary care gynaecologists for prenatal care¹⁹, cervical cancer and family planning²⁰;
- Development of protocols for the selected primary care paediatricians for obesity in children and spinal deformities;
- Development and codification of a List of interventions that can be provided by the selected PHC doctors;
- Providing specialisation in family medicine for at least 20 doctors who already work as selected primary care doctors;
- Upgrading of software modules in the system of "My appointment" for code of interventions, protocols and forms that should be filled in by the selected doctors when providing health services;
- Equipping the departments of at least 300 of the selected family medicine specialists with a set of vital signs (otoscope, rhino scope, ophthalmoscope, blood pressure monitor, stethoscope), ECG and inhaler.

b) Activities planned in 2025

- Establishment of a national body for implementation of PHC reforms;

¹⁸<https://documents1.worldbank.org/curated/en/595391593096242357/Assessment-of-Primary-Health-Care-Capacity.docx>

¹⁹The Guideline for pre-natal care is adopted in 2014; it's adaptation for use within this reform is to be completed.

²⁰The protocol for family planning for PHC was developed in 2020/2021, as part of the overall "National guideline for family planning". It is still waiting its adoption

- Development of protocols for the selected general medicine doctors from the primary health care for three additional diseases and development of additional protocol for the selected primary care gynaecologists and primary care paediatricians;
- Providing scholarship for specialisation in family medicine for at least 100 doctors who already work as selected doctors;
- Development/adaptation, application and revision of ten clinical guidelines based on evidence-based medicine, through the National Steering Committee for Clinical Guidance;
- Equipping the selected family medicine doctors with spirometer and ultrasound devices - in average one spirometer and one on ultrasound device per group of three doctors per region; in line with new protocols;
- Equipping the selected primary care gynaecologists with 4D ultrasound devices (60 devices regionally distributed) and establishing a process for their horizontal collaboration, financial incentive (stimulation) for second nurse/administrator and incentives of the selected physicians who are specialists or specialising in family medicine;
- Equipping the offices of the other 1,200 selected primary care doctors with vital signs equipment (otoscope, rhino scope, ophthalmoscope, blood pressure monitor, stethoscope), ECG and inhaler;
- Continuation of the public campaign related to the developed PHC protocols;
- Upgrade modules to "My appointment":
 - Introduction of a new module for smart referrals, through E-clinical guidelines will help in making decisions about the services and will improve the coordination with the secondary healthcare;
 - Introduction of a new module for patronage nurses in the system "My appointment".
 - Creating a new profile - nurse in PHC.
 - Development of an electronic scheduling system for PHC
- Conducting training for the use of the new modules on "My appointment".

c) Activities planned in 2026

- Development of additional protocols for the selected general medicine doctors from the primary health care for five additional diseases and development of additional protocols for the selected primary care gynaecologists and primary care paediatricians;
- Providing scholarships for specialisation in family medicine for at least 100 doctors who already work as selected doctors;
- Development /adaptation, application and revision of six clinical guidelines based on evidence-based medicine, through the National Steering Committee for Clinical Guidance. Providing financial resources for the work of the Committee and preparation of the clinical guidelines;
- Financial incentive (stimulation) for second nurse/administrator and incentives for selected doctors who are specialists or for a specialisation in family medicine;
- Upgrade to 'My appointment' through:
 - Introduction of a population health reporting tool;
 - Introduction of a tool for reporting on the quality of services.

Reform measure 5.3-5(16): Building, monitoring and evaluating human resources in health

The main goal of the reform is to address the needs of the population for universal health coverage (UHC). It requires the best possible use of limited resources and ensuring that they are strategically engaged by adopting and implementing evidence-based health workforce policies tailored to the context of the national health system at all levels. The current challenges of the health workforce deficit, combined with an aging population, require a new, contemporary and ambitious agenda. Alignment with the needs of the population and better cost-effectiveness of services depends on integrated health services focused on people (patient-centered system) at the primary level of health care. That is why the transformation of the health system through changes in Primary Health Care are key for providing an efficient system of human resources in health.

The measure will be implemented by the Ministry of Health.

a) Activities planned in 2024

- Analysis of the market for HRH
- Mapping of key stakeholders for HRH
- Formation of a Supervisory Board for monitoring the reforms in HRH and appointment of a chairman of the board. The role of Board is to monitor and drive forward the process of implementation of the reform.
- Establishing a multisectoral working group that will make necessary changes in the health strategy in the human resources section of health. Representatives from the Ministries of Finance, Education and Science and Health will participate in this group.
- Development of a national digital database for the health workforce
- Analysis of the capacities of health education institutions (public and private)

b) Activities planned in 2025

- Providing funds to finance the specialization of family doctors for rural and suburban environments
- Providing scholarship funds to rural and suburban medical students.
- Accreditation of education for health workers
- Education of nurses for mentoring
- Continuous medical education of doctors and nurses on evidence-based medicine

c) Activities planned in 2026

- Improvement of working conditions, purchase of equipment and improvement of infrastructure
- Drafting a Law on the rights of healthcare workers
- Team-building workshops within public health institutions
- Opening opportunities for career advancement
- Continuous professional support for better performance and professional development.

2. Results indicators

Indicator	Baseline	Intermediate target	Target
Ratio of students enrolling to VET schools compared to general education	58%-42% (2020)	60.3%-39.7% (2021) 62%-38% (2022) 64%-36% (2023)	64%-36% (2024) 64%-36% (2025)
System for VNIL	-	Piloting 1 (2021) Piloting 2 (2022) Piloting 3 (2023)	Efficient system for validation (2024) Established system for validation (2025)
Number of established Regional VET Centres	Adoption of changes in the Law (2020)	Refurbishment and Transforming 3 VET schools (2021) Functional 3 Regional VET centres (2022) Purchase of equipment and development of programmes for 3 regional VET Centres (2023)	New 2 Regional VET centres established (2024) Functional 5 Regional Vet Centres (2025)
Ratio of participation in Life Long Learning (from 25 - 64 participating in education or training) (%)	2.8 (2020)	3.0 (2021, 2022) 3.1 (2023)	3.2 (2024) 3.2 (2025)
Ration of early leavers from education and training at age 18 - 24 (%)	7.1 (2020)	7.0 (2021,2022) 6.9 (2023)	6.8 (2024) 6.7 (2025)
Employment rate (15-89)	45.5% (2023)	47.0%	48.0%
Unemployment rate of young people (15-29)	25.2%	19.0%	18.0%
Long-term unemployment rate	11.5%	11.0%	10.0%
Reduction in referral to a higher level of health care for services that can be performed by the family doctors	-	Reduction by 25% compared to 2020 (2024)	Reduction by 50% compared to 2020 (2025)

Percentage of patients with chronic non-communicable diseases (diabetes, hypertension and hypothyroidism) who are monitored at the primary level	0 (2021)	30% (2024)	50% (2025)
Percentage of patients who underwent preventive examination for timely detection of the diseases	0 (2021)	30% (2024)	60% (2025)
Increased number of doctors that graduate in medical schools	0	Increased number by 20% related to 2024 (2025)	Increased number by 30% related to 2024 (2026)
Increased number of nurses that graduate in medical schools	0	Increased number by 50% related to 2024 (2025)	Increased number by 100% related to 2024 (2026)
Rural and sub-urban coverage with doctors and nurses	0	70% coverage by the end of 2025 (2025)	100% coverage by the end of 2026 (2026)

*Source: State Statistical Office, Labour Force Survey (LFS)

** MLSP estimates. Target years shall be 2025 and 2026 as it takes time for the labour legislation reforms become effective in improving labour market outcomes as reflected in the official statistics

3. Expected impact on competitiveness

The reform for further developing the educational qualification system focuses to a greater extent on VET education and dual education. This type of a reform can have a significant impact on lowering the skills mismatch in North Macedonia and is crucial for fostering a more dynamic and efficient labor market. By aligning the skills of the workforce with the needs of employers, this enhances overall economic productivity and individual employability. A reduced skills gap leads to quicker and more accurate job matching, lowering unemployment rates and promoting economic growth.

Over the medium term, lowering of the conventional macroeconomic skills mismatch measure due to this reform is calculated to be around 0.6 p.p.. Based on this study²¹, 1 p.p. lowering of the skills mismatch can result in to up to 2% increase in labour productivity. As such, using the share of labour in the Production Function for North Macedonia, this increase in labour productivity can result in up to 0.7% higher TFP (Total Factor Productivity) and around 0.6% additional GDP for the medium term.

Implementing reforms to enhance the flexibility and security of the labor market, encompassing non-standard forms of employment contracts, repetitive seasonal work, telework, and remote work, can have significant economic and social impacts. Greater flexibility can lead to improved responsiveness to market demands, enabling businesses to adapt swiftly to changing circumstances. Non-standard employment arrangements, such as temporary contracts and telework, provide employers with the agility to manage workforces efficiently, especially during peak seasons or unforeseen challenges. This flexibility may stimulate job creation and economic growth, as businesses can navigate uncertainties more adeptly. With the implementation of this reform, total employment is estimated to increase from a rate of 59.5% to 61% at the end of the medium term. This increase in the number of employed people inputted as additional employment in the production function, can result in up to 0.0045% increase of GDP.

Strengthening the quality of Primary Health Care reform with a specific focus on Non-Communicable Diseases (NCDs) can have several positive outcomes. Emphasizing NCDs within Primary Health Care enhances early detection and management, reducing the burden on the healthcare system. In addition, early detection and treatment can improve overall quality of life of those patients, increase productivity and lower the rate of premature deaths from NCDs.

Based on a World Bank Systematic Country Diagnostic Report, North Macedonia may be losing an estimated 19,900 productive years annually to premature deaths from NCDs and around 3370 premature deaths per 100,000 people. Using these data, it is estimated that the timely detection and treatment of patients with NCDs in the Primary Health Care system may result in lowering this number of premature deaths by 10%. As a result, based on the employment

²¹ Anneleen Vandeplas and Anna Thum-Thysen. (2019). Skills Mismatch & Productivity in the EU. https://economy-finance.ec.europa.eu/system/files/2019-07/dp100_en.pdf

rate of people in this age group, the gross value added of these people if they were to remain employed would be around 0.38% of the total value added of the economy and this would translate in an impact of 0.33% of GDP at the end of the medium-term period.

Building, monitoring, and evaluating human resources in health is important for the effectiveness of healthcare systems. By focusing on this type of reform, the primary healthcare system can enhance the quality of care, optimize resource allocation, and improve overall patient outcomes. This measure supports the implementation of the measure for strengthening the Quality of the Primary Health Care and contributes to the realisation of the impact estimated for that measure.

4. Estimated cost of the activities and the source of financing

In EUR	2024	2025	2026
Further development of the qualification system			
1. Budgetary expenditures*	4,048,502	4,208,502	4,208,502
2. Non-budgetary financing	1,523,502	1,523,502	1,523,502
2.1 of which IPA funding, including WBIF funding	1,523,502	1,523,502	1,523,502
Total	5,571,754	5,732,004	5,732,004
Increasing the flexibility and security of the labour market			
1. Budgetary expenditures*	0	30,000	33,000
2. Non-budgetary financing	45,000**	140,000	217,000
2.1. of which IPA funding, including WBIF funding	0	100,000	180,000
Total	45,000	170,000	250,000
Strengthening the quality of the Primary Health Care			
1. Budgetary expenditures*	886,000	8,962,500	6,853,300
2. Non-budgetary financing	0	0	0
2.1. of which IPA funding, including WBIF funding	0	0	0
Total	886,000	8,962,500	6,853,300
Building, monitoring and evaluating human resources in health			
1. Budgetary expenditures*	0	6,971,400	12,653,800
2. Non-budgetary financing	0	0	0
2.1. of which IPA funding, including WBIF funding	0	0	0
Total	0	6,971,400	12,653,800

*national public finance sources

**International Labour Organisation (ILO) funding

5. Expected impact on social outcomes, such as employment, poverty reduction, gender equality and access to health care

Increasing the quality of curricula will lead to the acquisition of knowledge, skills and competences that will enable smooth transition from school to work. Additionally, strong transversal skills acquired as a result of new reformed curricula will contribute to better mobility of the workforce and career development. Most of the companies in North Macedonia are SMEs that do not have the capacity to recognise and develop the potential of their employees, so the NQF as a "focal point" for all stakeholders will contribute to better recognition of the necessary skills and competences. On the other hand, through the increased operability of the NQF, the employability, mobility and social integration of workers and students will increase.

The measure for increasing the flexibility and security of the labour market has a direct impact on employment as reflected in the selected results indicators and on improving the opportunities for decent employment in the labour market in the Republic of North Macedonia. And of course, through that, on improving the social status and the socioeconomic situation and position of the persons who will be directly covered and affected by the implementation of the planned activities, both in regard to the flexible and non-standard forms of employment, and the persons that will be covered by specific active programmes and measures for employment and measures for activation in the labour market.

For some workers, the non-standard employment is a choice as it brings greater flexibility in working hours, own organisation of the work, higher earnings, etc. This is true for young men and women who are mostly engaged as online platform workers. However, for plenty of workers the non-standard employment is the only option for earning an income which is also associated with low (or non-existent) labour and social protection. Regulation of the non-standard employment forms that are not formally an employment relationship will enable workers to benefit from the labour protection and rights such as minimum wage, social security coverage, paid sick leave (and maternity leave), safety and health at work, etc. Persons with disabilities may well benefit from the non-standard work, which includes usage of information technology.

The incidence of home-based work is higher among women. In principle, home-based work and telework is expected to help more women to combine their duties around home and taking care of children and elderly with developing a professional career.

One of the basic principles that are always respected and observed in the design, but even more so in the implementation of specific active employment measures is the equal gender representation. One of the special priority target groups to which the active employment programmes and measures and the integrated activation measures are directed, are the persons who are in an unfavourable social position, primarily the young people not in employment, education and training as well as the beneficiaries of guaranteed minimum assistance, who also tend to be long-term unemployed. The new Law on Labour Market Regulation will allow for more targeted services and support for these clients of the Employment Service Agency. Employment, improving employability, their integration into the labour market and improving the economic status of these citizens, have a direct impact on the poverty and social exclusion situation. Likewise, easier access to the unemployment insurance cash benefit and the extension of its minimum and maximum duration of use will improve the income security of the people who lost their jobs.

The healthcare measure is expected to have a positive impact on increasing the number of employments of nurses and administrative and technical staff in PHC, to encourage equalisation of coverage with health services in all regions of the country and to strengthen the patronage service which will lead to more accessible health care especially for the vulnerable categories of citizens.

6. Expected impact on the environment and climate change

The European Green Deal, the EU Biodiversity Strategy for 2030, the United Nations Educational, Scientific and Cultural Organization (UNESCO) strategy Education for Sustainable Development for 2030 and the related United Nations Economic Commission for Europe (UNECE) work, highlight the key role of schools, higher education and other education and training institutions in engaging with learners, parents, educators and the wider community on the changes needed for a successful, just and inclusive green transition. The EU Youth Strategy identifies a sustainable green Europe as a goal and calls for all young people to be environmentally active and educated.

At the policy level in its national climate pledge under the Paris Agreement from 2021²², North Macedonia projected that greening the economy will create almost 8,000 new jobs by 2030, at least 27 per cent of which could be filled by women, while shifting to circular economic models will create 2,740 new jobs. Sectors in which validating non-formal education can generate so-called “green jobs” include energy, agriculture, construction and manufacturing, transportation, waste management, policy, research, and consulting. Unfortunately, both the demand and supply of green jobs are underdeveloped, requiring better regulation and training. There is an opportunity associated with this measure to validate some non-formal education for acquiring specific green and circular economy related qualifications.

Flexibility and security of the labour market addressed by recognizing non-standard forms of employment contracts, repetitive seasonal work, telework, work from home, may have positive environmental impacts with regard to increasing the public tax income and enabling environment and climate related investment. In addition, telework and work from home shall help reduce paper consumption and energy use by replacing manual processes with digital ones. leading to a reduction in greenhouse gas emissions and other negative environmental impacts.

²² [The Republic of North Macedonia releases new national climate pledge under the Paris Agreement | United Nations Development Programme \(undp.org\)](#)

Healthcare services are responsible for between two and five percent of global greenhouse gas, sulfur dioxide, nitrogen oxide, and particulate matter emissions. Healthcare facilities discharge polluted wastewater and generate infectious and toxic waste. By improving the quality of the primary healthcare, the demand for impatient hospitalization will decrease and so will the harmful environmental impacts. The awareness of the population for a healthy lifestyle through preventive activities will be built. Screenings and regular monitoring of chronic conditions in PHC will indirectly affect the change of lifestyle, promoting the use of alternative transport to prevent cardiovascular disease and diabetes and improve the environment.

Increasing the number of employments of nurses and administrative and technical staff will result in a balanced coverage with health services in all regions and more accessible health care especially for the vulnerable categories of citizens. It will reduce the demand for commuting and the harmful emissions of pollutants in the air from the transport.

7. Potential risks

Risks	Probability (low or high)	Planned mitigating action
Weak framework for NQF	Low	Establishment of supporting bodies for support of NQF (sectoral commissions) where the Organisation of Employers, trade unions, students, higher education institutions, government institutions, associations, etc. are involved
Lack of human and other capacities and resources in the Employment Service Agency to efficiently implement active measures in the labour market	high	Realising new employments, trainings employees, improving physical capacities and work processes in the Employment Service Agency of the Republic of North Macedonia
Delays in adoption of the envisaged laws	medium	Adjusting the strategy (meaning the planned activities) for unforeseen situations and priorities according to the newly developed situation
Citizens' distrust in using specialist services at family doctors	High	Conducting media campaigns to increase trust in family doctors
Long-lasting process of transition from the concept of selected doctor to family doctor and lack of motivation for specialisation of doctors	High	Conducting additional education of family doctors in alternative ways through trainings and specialisations and their stimulation by the state

Structural reform 6: Further implementation of social reform package

a. Analysis of main obstacles

According to the latest data published by the State Statistical Office from the Survey on Income and Living Conditions in 2020, the poverty rate in North Macedonia was 21.8% (i.e. 451,900 people). The Gini coefficient (a measure of income inequality) was 31.4%. The share of poor employees, poor pensioners, poor unemployed and the rate of inactive persons was 7.9%, 7.0%, 45.1%, and 32.5%, respectively. These are rather serious indicators. In a mid-run, the increase of pensions and social assistance, as well employment and rise of minimum wage have led to increased incomes of the poorest segment of the population. Nevertheless, the impact was strongest among elderly, while children and youth have seen an increase in poverty. The relative burden of rising prices over the period 2021-2023, particularly of energy and food, have been greater for the poorer households, although the government measures have provided certain mitigation.

The poverty rate among unemployed people, which amounts to 45.1%, has increased compared to previous years. Therefore, activation on the labour market of the beneficiaries of the social protection system is of outmost importance. Out of 105,357 unemployed persons registered in the Employment Service Agency in September 2023, 62,228 of them have been without or with primary education, and 9,057 with incomplete secondary education. This statistic indicates worsening of the problem, as persons without completed primary education cannot participate in active employment measures or programs for professional education and training, due to legal restrictions. In this context, mechanisms

for validation of skills acquired after leaving the formal educational are missing. Implicitly, these persons might be prone to engagement into the informal economy.

Furthermore, despite the obligation for activation on the labour market of the users of Guaranteed Minimum Assistance (GMA), as stipulated in the Law on Social Protection as of 2019, their inclusion in the labor market has been rather limited. The existing capacities of the Centers for Social Work and Employment Centers remain weak to provide a wider coverage of GMA users in terms of preparing and implementing individual plans for activation and rendering targeted support and development of the individual abilities. In addition to the institutional factors, the possibility of informal work while using social benefits creates disincentives for activation among GMA users and lack of interest in formal employment. The lack of a systematic measure and comprehensive database for GMA users activation results in poor visibility for targeting them for inclusion in the labor market. Such situation enables the use of social benefits while working in the informal sector, which in turn affects the long-term divestment of human capital and economic losses. For this purpose, the Plan for activation 2024-2026 has been elaborated, aiming to support the implementation of the policy in this field. It is expected to be adopted by the Government by the end of 2023.

Another relevant aspect to the social policy of vulnerable groups refer to the care of elderly persons. In 2022, only 3.2% of individuals with severe care needs were receiving some type of formal care, whether in an institution or in their own home. Implicitly, the value of informal care in 2022 was nearly 7 times of the spending on formal care services in the country. With the trend of aging population, this problem will become worse. Based on recent research in North Macedonia (Simmons et al. 2022), many individuals have shortened their work hours or have quit their formal jobs to provide care to elderly people, due to shortages of workforce in this field. In this respect, investing in formal care services can alleviate the burden on informal carers (particularly women) and it would also contribute to formal job creation.

b. Reform measures

1. Description of reform measures

The structural reform is referring to the following specific reform measure that would be achieved in the period 2024 - 2026:

Reform measure 5.3-6(17): Enhancing the system for social inclusion of vulnerable groups

The measure arises from and builds on the reform of the social protection system whose aim is to reduce poverty, especially for the vulnerable categories and their successful reintegration into society. The measure is complex and includes several parallel activities that complement each other and are important for supporting the activation and social inclusion of people in a vulnerable position, and of youth in particular. Moreover, there is a need to further deepen the cooperation between the employment and social work services, in order to better profile and support the transition of people in a vulnerable position (e.g. youth, persons with disabilities) from welfare and inactivity to work. At the same time, the conditions and the capacities of the private and non-government social service providers, including social enterprises also need to improve, as these providers could also be involved in outreach activities with vulnerable groups and facilitating their transition to the labour market. In addition, it is important to enact the law on social enterprises, which will enable the development of enterprises for work integration, which will help to develop skills of people who are far from the labour market. The professional rehabilitation as a precondition for successful inclusion of persons with disability and other vulnerable individuals into the open labour market needs to be promoted, and the provision of this service by external service providers, including social enterprises shall be regulated.

Validation of informal and experiential learning is an important way to reduce the shortage of appropriate skills in the labour market. It also facilitates the integration of vulnerable groups and unemployed and low-skilled people into the formal economy. Once the validation system is established, the adult education will be linked with the Employment Service Agency and through various programs persons without education who are registered with the Employment Service Agency will be able to complete the education and thus their employability will be improved.

Social services are central to ensuring equality in opportunities leading to better human capital outcomes for all, poor and vulnerable population in particular. Hence, the measure furthers the expansion of the coverage and range of social services across municipalities. It also sustains the reform of the management and quality assurance of social services.

The measure will be implemented by the Ministry of Labour and Social Policy.

I. Inclusion of vulnerable groups through activation

a) Activities planned in 2024

- Adopted amendments to the Law on Social Protection, which will introduce mentoring for work integration of persons at risk of social exclusion and will enable the household to continue using Guaranteed Minimum Assistance, in the event one of the household members got employed;
- Adopted Law on Social Enterprises, which creates legal ground for establishment of social enterprises that focus on improving employment prospects for the vulnerable;
- Established bodies for assessment as well as training and certification of trainers and experts for disability assessment according to the new Law on Unified Disability Assessment System.

b) Activities planned in 2025

- Adopted new Law on employment and professional rehabilitation of persons with disabilities and related by-laws regulating employment, including professional rehabilitation of persons with disabilities.

c) Activities planned in 2026

- Established centres for professional rehabilitation of persons with disabilities;
- Developed social enterprises for social integration and professional training of persons who are farthest from the labour market.

II. Improving the availability of quality social services

a) Activities planned in 2024

- Introduced new software that integrates social protection cash benefits and services;
- Adopted Rulebook for user's co-payment to the price of social services;
- Launching a new project for development of new social services.

b) Activities planned in 2025

- Developed new quality standards for the social services and monitoring procedures for all types social services;
- Prepared initial design for the adaptation and transformation of additional two residential institutions and opening of new community-based services intended to support the independent living of persons with disabilities.

c) Activities planned in 2026

- Capacity building of institutions and social services providers to apply new social services quality standards and monitoring procedures.

2. Result indicators

Indicator	Baseline	Intermediate target	Target
Poverty rate ²³	21.8% (2020)	21% (2025)	20.5% (2026)
% of people living in households with very low work intensity (0-59)	15% ²⁴ (2020)	14.8% (2025)	14.5% (2026)

²³ <https://makstat.stat.gov.mk/>

²⁴ https://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat_ZivotenStandard_LaekenIndikatorSiromastija/375_ZivStd_Mk_LaekenINTENZITET_ml.px/table/viewLayout2/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef

3. Estimated cost of the activities and the source of financing

In EUR	2024	2025	2026
1. Budgetary expenditures*	1,266,000	0	0
2. Non-budgetary financing	500,000	500,000	300,000
2.1 of which IPA funding, including WBIF funding	500,000	500,000	300,000
Total	1,766,000	500,000	300,000

*National public finance sources

4. Expected impact on social outcomes, such as employment, poverty reduction, gender equality and access to health care

Enhancing the system for social inclusion of vulnerable groups is a measure that can foster equal opportunities and improve the well-being of marginalized populations. This involves implementing policies and initiatives that address the unique needs and challenges faced by vulnerable groups, including but not limited to individuals experiencing unemployment, poverty, discrimination, disability, or homelessness. The implementation of this reform foresees that the percentage of people living in a household with low work intensity will lower from 15% to 14.5% by 2026. This can result in around 14,332 people no longer living in such households. Considering that the average number of people per household is 3.06, if at least one of these individuals is employed, then the number of people employed as a result of this measure will be 4,680.

5. Expected impact on the environment and climate change

Poverty and social exclusion are often associated with unsustainable patterns of consumption and production, which can lead to environmental degradation and resource depletion. By reducing poverty and social exclusion, people can gain access to better education, healthcare, and employment opportunities, which can help them lead more sustainable lifestyles and reduce their environmental impact. Moreover, poverty and social exclusion can exacerbate the effects of climate change, such as food insecurity, water scarcity, and natural disasters, which can further perpetuate poverty and social exclusion. By addressing poverty and social exclusion, we will build more resilient communities that are better equipped to cope with the impacts of climate change and other environmental challenges. In addition, reducing poverty and social exclusion can help promote environmental justice, which is the fair distribution of environmental benefits and burdens across different groups of people. Environmental justice recognizes that marginalized communities, such as low-income and minority populations, are often disproportionately affected by environmental hazards, such as pollution and climate change, and that they should have equal access to environmental resources and decision-making processes.

Reducing poverty and social exclusion has an impact on the lifestyle of the population (e.g. by using energy that is less harmful to the environment) and creates conditions for improving the environment.

6. Potential risks

Risk	Probability (low or high)	Planned mitigating actions
Resistance due to the reduction of the benefits for sheltered companies	High	Consultations and dialogue with employers and their associations, as well as with the association of sheltered companies; Incentivise transformation of sheltered companies into providers of professional rehabilitation
Resistance in maintaining the cooperation between the Centres for Employment and the Centres for Social Work regarding activation of vulnerable groups	Medium	Monitoring, coordination and dialogue between the institutions and introduction of clear rules of interinstitutional cooperation
Delays in adoption of the envisaged laws	Medium	Adjusting the strategy for unforeseen situations and priorities according to the newly developed situation

5.4. Summary of reform measures

5.1 Area Competitiveness
Structural reform 1 - Enabling business environment and further integration in EU single market
5.1-1(1): Introduce mechanisms for formalising informal work in sectors with high incidents of undeclared activities
5.1-1(2): Support to development of the innovation eco system
5.1-1(3): Higher compliance to the EU Acquis in the area of single market
Structural reform 2 - Ensuring stable and sustainable food supply
5.1-2(4): Modernisation of the postharvest technologies and processes of the agricultural products
5.2 Area Sustainability and resilience
Structural reform 3 - Strengthen resilience to climate change and reduce environmental pollution
5.2-3(5): Promotion of renewable energy sources
5.2-3(6): Improvement of Energy Efficiency
5.2-3(7): Establishing wastewater collection and treatment infrastructure in accordance with EU requirements
5.2-3(8): Establishing an integrated and financially self-sustainable waste management system
Structural reform 4 - Building efficient digital public services
5.2-4(9): Broadening the scope of digital services provided on National E-service Portal
5.2-4(10): Implementation of an Intelligent Transport System (ITS) along Corridor X
5.2-4(11): Establishment of Management Information System on State Aid
5.2-4(12): Establishing Integrated Tax Information System in Public Revenue Office
5.3 Area Human capital and social policies
Structural reform 5 - Labour force efficiency improvement
5.3-5(13): Further development of the qualification system
5.3-5(14): Increasing the flexibility and security of the labour market
5.3-5(15): Strengthening the quality of the Primary Health Care
5.3-5(16): Building, monitoring and evaluating human resources in health
Structural reform 6 - Further implementation of social reform package
5.3-6(17): Enhancing the system for social inclusion of vulnerable groups