



ICEDA

Increasing Civic Engagement
in the Digital Agenda

NORTH MACEDONIA DIGITAL AGENDA OBSERVATORY

Country Report and Roadmap
for Digital Agenda advancement
in North Macedonia



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ACRONYMS

AEC - Agency for Electronic Communications
CSO – Civil society organizations
DA – Digital Agenda
DMS – Document management system
UENC - unique electronic number of the citizen
eIDAS - electronic IDentification, Authentication and trust Services
eID – electronic identity
e-PPD - Annual tax return for e-personal income tax
EIP – Economic Investment Plan
EC – European Commission
ENER – Unique national electronic registry of regulations
eSDP - Electronic system for automation of administrative procedures
EU – European Union
LEDEITS - Law on Electronic Documents, Electronic Identification and Trust Services
LEMES – Law on Electronic Management and Electronic Services
ICEDA - Increasing Civic Engagement in the Digital Agenda - ICEDA
ISA 2 – Interoperability solutions for public administrations, businesses and citizens
ICT – Information and communication technologies
IPA – Instrument for Pre-accession Assistance
IOP-L - Legal interoperability
IOP-O – Organizational interoperability
IOP-S - Semantic interoperability
IOP-T –Technical interoperability
MASIT - ICT Chamber of Commerce
MIP - Macedonian Interoperability Protocol
MISA – Ministry of Information Society and Administration
MKD-CIRT – National Center for Computer Incident Response
MOS - Microsoft Office Specialist
NAP – National Action Plan
OGP – Open Government Partnership
DAO – Digital Agenda Observatory
OECD – Organisation for Economic Cooperation and Development
RIA – Regulatory Impact Assessment
PAR – Public Administration Reform
RNM – Republic of North Macedonia
RCC – Regional Cooperation Council
SLS – Single login system
SEA – Secretariat for European Affairs
CDEPS - Customs Declarations and Excise Documents processing System
PRO – Public Revenue Office
FITD - Fund for Innovation and Technology Development
CCM – Center for Change Management



Preface

Digitization, i.e. the collection and use of online tools for their analysis and decision-making, is an important process that is expected to lead to the progress of society. In all spheres and for all social groups (without exception), digitalization is an effective mechanism for improving the well-being of citizens. Technology should be accepted as part of everyday life, leading to the so-called "digital transformation",¹ which means the promotion of electronic operations and greater efficiency of institutions, organizations and other social entities.

This is also part of the EU Digital Agenda (DA) that covers the development of the information society in the broadest sense. In order to actualize the issues of DA in the countries of the Western Balkans, the project Increasing Civic Engagement in the Digital Agenda – ICEDA is currently being implemented. The ICEDA project is co-financed by the European Union (EU) and implemented by the Metamorphosis Foundation (North Macedonia) as a leading partner, then by the e-Governance Academy (Estonia), Partners for Democratic Change Serbia (Serbia), NGO 35mm (Montenegro), Open Data Kosovo (Kosovo) and by Levizja Mjaft! (Albania).

Although the topic of DA covers a number of aspects, the activities and studies of the ICEDA project are mainly focused on the implementation of: *e-government, raising public awareness, digital literacy and civic participation*. Within this framework, in the period between March – May 2022, a research consistent with the previous studies was conducted (namely, the basic study (conducted in the period May – June 2020),² and last year's research (conducted in the period March – May 2021).³ The purpose of the research is to measure the progress of the previous situation in areas related to the Digital agenda (DA). The analysis resulted in a report addressing topics related to the chapters of EU legislation relevant to DA, i.e. Chapter 10, entitled "*Information Society and the media*."

1 Digitization, digitization and digital transformation. Metamorphosis Foundation for Internet and Society. Available at: <https://bit.ly/39LJgKI>

2 Digital Agenda Observatory - Country Report and Roadmap for Digital Agenda advancement in North Macedonia, June, 2020. Metamorphosis Foundation. Available at: <https://bit.ly/3L42oQL>

3 Digital Agenda Observatory - Country Report and Roadmap for Digital Agenda advancement in North Macedonia, June 2021. Metamorphosis Foundation. Available at: <https://cutt.ly/OG6oLIY>



Research methodology

The research methodology of the Digital Agenda Observatory (DAO) builds on the previous Report on the Country Report and Roadmap for Digital Agenda advancement in North Macedonia⁴, and focuses on the topics on which CSOs have the greatest impact. The research is conducted on the basis of key indicators contained in a previously prepared questionnaire. The indicators should enable a regional comparison that between the selected countries from the Western Balkans will eventually contribute with positive competition and will be a motive for further implementation of the DA. The research is based on conducted desk research (review of conducted research; existing policy documents; national strategies; programs of the Government and central institutions of the Republic of North Macedonia (RNM); publicly available reports and other relevant sources), then semi-structured interviews with persons directly involved and affected by the digitalization process and responsible persons from institutions;⁵ conducted two focus groups (one with the CSO sector, the other with the business community), as well as the testing of one national policy and three electronic services (e-services).

Based on the research conducted in this way, a report and a roadmap with recommendations have been prepared. The report provides an overview of the current state of development of DA and provides insight into the role of CSOs in this area. The report and the roadmap can serve as a basis for additional in-depth research, but also as a motive and argument for creating strategic documents that will lead to enhanced digital transformation.

Additional parts of this document are: glossary, list of interviewed stakeholders and executive summary of the report.

4 *Ibid.*

5 Unlike previous years, with slight exceptions, this year the responsiveness of institutions was low. Despite our numerous efforts, we have not been able to get an answer regarding the topics that concern us and are within the competence of the institutions.



1



**PRECONDITIONS
FOR IMPLEMENTING
E-GOVERNMENT**



1. Preconditions for implementing e-Government

1.1. Internet penetration

According to the State Statistical Office, in 2021 – 83.7% of households in North Macedonia had access to the Internet, which is an increase of 3.8% over the previous year (79.9%). Of the respondents aged 15 to 74 years, 86.4% reported themselves as Internet users, which is an increase of 5% compared to 81.4% of the previous year. This trend is on the rise compared to previous years, but the percentage of businesses with 10 or more employees that have access to the Internet continues to decline: from 96.9% in 2020, to 94.1% in 2021.⁶ This research does not go into the reasons that led to such a change in the situation. The penetration of the mobile broadband network at the national level is 99.08%, but the acceptance of the mobile broadband Internet is 64.95%. According to data from the European Commission (EC) contained in the latest RNM Annual Progress Report, 88% of households use a fixed broadband internet connection, but smaller companies still face obstacles. Out of the total number of enterprises, 54.5% had a website. In general, the report notes that there is a special need to increase access to broadband Internet; the range of available e-government services needs to be expanded; digital skills should be developed among the population and businesses.⁷ However, despite such positive developments, it is necessary to pay attention to the so-called digital divide, which means not only access to infrastructure and the Internet, but also appropriate, necessary skills that would enable citizens to use digital services and the benefits of digital transformation. The challenges associated with the existing digital divide indicate that a systemic approach and investment is needed to improve the digital skills of the population, and digital literacy is essential for the purposeful exploitation of the benefits of digital transformation into social, educational, economic, political and other social purposes.⁸ The COVID-19 pandemic underlined the need to intensify efforts to improve digital services, especially to prevent the marginalization of vulnerable groups due to a lack of digital skills and lack of access to communication technologies.⁹

6 Information society. State Statistical Office. Available at: <https://cutt.ly/Lb8T6No>

7 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

8 Analysis of e-services in the municipalities in the Republic of North Macedonia, Metamorphosis, 2021. Available at: <https://bit.ly/3wn0ISM>

9 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

1.2. Users of e-government services

The National E-Services Portal (uslugi.gov.mk) was launched in December 2019.¹⁰ According to the research conducted in 2021, there were 34834 registered users on the Portal, whose number is more than doubled and is – 72932, recorded during the current research.¹¹ The total number of users of all available e-services (besides those mentioned by the Portal) cannot be determined yet, because so far such statistics are not kept by state institutions or the State Statistical Office. There is no unified database in RNM that would allow determining the total percentage of citizens who use e-services. Although all e-services from state institutions are sought to be networked, placed on the Portal, however, such services are offered in other ways. For example, e-services are offered individually by the institutions themselves. The disadvantage of the Portal is that it is not the only network site for all services offered by state institutions, and not all of those services are digitized.¹² During this research, so far 19939 requests have been registered on the Portal significantly more than the requests from 2021. In the month when the research was specifically conducted, 865 requests for e-services were submitted, which is almost twice as much as last year when there were 478 requests. However, the Portal does not provide a “one-stop shop”, i.e., in order to use a certain e-service, the system often transfers the user to other systems (*for example, to the PRO*), where re-login is required.

Therefore, it is important to note that the state provides a limited number of e-services, i.e. only 51 out of a total of 816 services, which, in turn, are not functionally electronic, but describe how to get a service over the counter from the 1288 institutions covered with the Portal. The use of certain e-services during 2021 has slightly increased compared to the period – 2019/2020. There are isolated cases of increased use of services electronically, which in itself is a good indicator that citizens are beginning to understand the benefits of digital availability of services, but there are no visible efforts by state institutions to promote the Portal.¹³ This is also underlined by the European Commission, which in its latest progress report on RNM notes that the national e-Portal helps the administration to orient itself towards citizens/users. It is noted that this is an encouraging development, but they believe that state institutions must show greater commitment to improving the functionality of the e-Portal, in parallel with the electronic register of the population, in order to use their full communication potential. In addition, it is necessary to improve the interoperability framework, as many key services cannot be accessed, but this requires political will and additional funding. Some services, such as issuing passports, driving licenses, birth or death certificates, or vehicle registration, etc., have been created very slowly in the past, which has caused great dissatisfaction among citizens.¹⁴

10 Launching of the e-Services Portal, citizens in one place have access to 127 electronic services. Ministry of Information Society and Administration. December, 2019. Available at:

<https://cutt.ly/ob8YKZN>

11 National e-Services Portal. Available at: <https://uslugi.gov.mk/>

12 The use of some electronic services has increased, but it is far from the desired level. Metamorphosis

16 Foundation. Available at: <https://cutt.ly/zHwo6tm>

13 Ibid.

14 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

EU reports and analysis confirm that this is not a superficial statement, but a real situation. According to those comparative data, the Western Balkan countries offer almost the worst e-government services in Europe. It turns out that the four countries of the Western Balkans achieved an average of 43% of the so-called performance indicators in this area, while the rest of Europe reached 71% performance. The EU Report for 2021, in the field of e-government in the Union, determines the overall maturity of the countries in this field of communication, and points out that the performance of e-government services in RNM is lower than the average of the entire Union and the almost the lowest level compared to other countries in the Western Balkans.¹⁵

Comparative data on the use of e-services cannot be obtained in relation to the physical presence at the counter for the use of services by state institutions. The number of registered users of the Portal covers about 4% of the total population in the country.¹⁶ It is certainly a small number, but it shows a growing trend if we take into account the total number of registered users for the past year 2021, when only 1.5% of the total population in RNM are registered. One can not talk about the mass use of the so-called e-commerce, although the National Bank reported a fivefold increase in Internet transactions by citizens in the past period, because in reality, the processes are moving at a very slow pace and additional efforts are needed towards the digital transformation of the country. In other words, progress has been noted in the digitalization of economic processes, but still that level remains relatively low compared to the level of EU member states.¹⁷

The unavailability of services may be the biggest shortcoming in the e-government system, but it is certainly not the only one, because the lack of information of the citizens and the lack of trust in most of the institutions that offer services electronically are noticeable. This is especially pronounced at the local level, where the number of available e-services is smaller.¹⁸ In addition, many key services are not even digitized, such as wedding scheduling. If the personal registers are digitized and connected, i.e. if the need for physical delivery of some of the documents is eliminated (for example, the birth certificate; because the document or data should be held by the responsible institution, not the citizen), then citizens would save both time and money.¹⁹ In some cases, it turned out that it is unfounded, unjust, and even – absurd, and finally – illegal, for state institutions to request certain documents with a validity period not exceeding six months.²⁰ For example, it is obvious that for conditions birth and death that occur only once, it makes no sense to request a document with a certain "shelf life". Wandering over the counter is overcome by digitalization and networking of registries. In such a situation, the state institutions have no reason to ask the citizens for data that they al-

15 European Commission e-Government Progress Report 2021, Available at: <https://bit.ly/3Ph0kIt>

16 According to the 2021 census data, State Statistical Office. Available at: <https://www.stat.gov.mk/IndikatorITS.aspx?id=31>

17 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

18 Focus group with representatives of CSOs, held on April 5, 2022.

19 Investigative article: "RNM, waiting and wandering: The road of two young people towards getting a marriage certificate – Portalb.mk". Available at: <https://bit.ly/38os11m>

20 "Birth certificates older than 6 months shall be accepted, decided the Office for Management of Registers following the Portalb.mk research" – News Agency Meta.mk". Metamorphosis Foundation. Available at: <https://bit.ly/3MlvpZy>

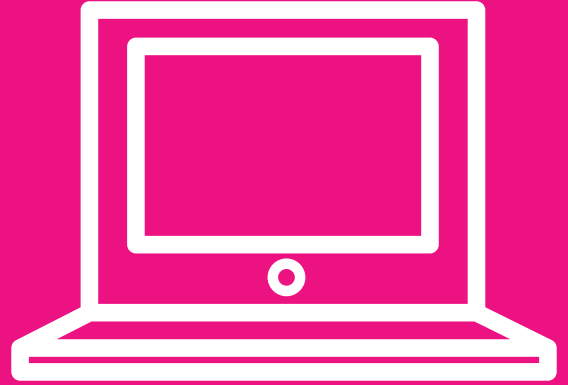
ready have.²¹ Digitization only optimizes if the administration adapts effectively to meet the challenges. However, despite the efforts for more efficient e-government, countless everyday examples show that certain documents that can be obtained in a few minutes can take weeks.²² Additionally, in the last year, few institutional services have been introduced as electronic services (one of them is, for example, "certificate of impunity"). Locally there are no new e-services, and some of the smaller municipalities often do not even have a webpage, and even if they do, it is often digitally unsafe (from computer viruses). At the local level, for better e-services it is necessary to have a clear division of competencies between the municipalities and the central government, because many of the processes can not be moved due to formal-legal reasons.²³ Statistically, the student population dominates the use of e-services, which is evident given that in the recent period students were forced to apply electronically for a student meal.

21 "Portalb: It is illegal to ask citizens to pay for new certificates not older than 6 months" – Meta.mk" Metamorphosis Foundation. Available at: <https://bit.ly/3N7iudU>

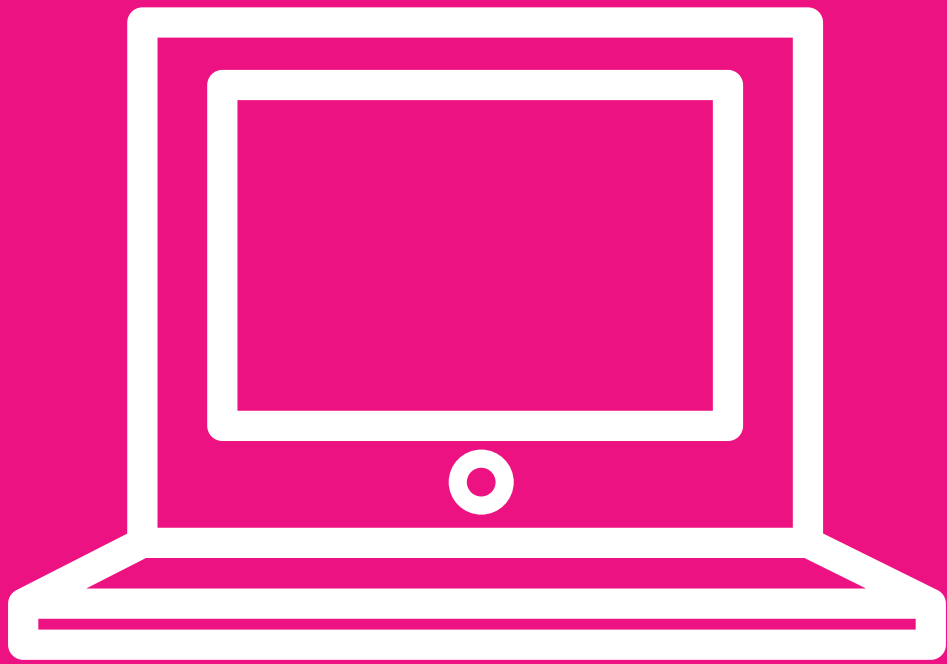
18 22 "Portalb: What steps should you take to obtain an electronic birth certificate" Metamorphosis Foundation. Available at: <https://bit.ly/3swhpo8>

23 Focus group with representatives of CSOs, held on 05.04.2022

2



**POLITICAL WILL
AND STRATEGY**



2. Political will and strategy

In order to achieve European integration, the transformation of society and the acceptance of European rules, principles and values, the Government's efforts continue for developing projects that include digital change and digitalization in society. This is in line with the commitments undertaken within the framework of the Digital Summit for the Western Balkans (October 26–28, 2020), and the multi-annual Regional Economic Area Action Plan for the Western Balkans, which supports the digital integration of the region.²⁴ As part of the Berlin Process, the economy ministers pledged to strengthen business contacts in various fields, including co-operation in establishing digital infrastructure and interconnection.²⁵ On 6 October, 2020, the EC announced the "Economic and Investment Plan for the Western Balkans", and placed investment in the digital future among the priority areas. The "green" and "digital" transitions, should lead to economic growth by implementing reforms to bring the Western Balkans closer to the single European market, and by mobilizing EU funds, through concrete investments and digital transition. The common regional market is structured around the four freedoms of movement of goods, services, capital and people, and includes aspects of digital, investment, innovation and industrial policy. So far, this is the most ambitious step for regional integration in the Western Balkans. The common regional market builds on EU rules and standards and is a springboard for closer integration of the region with the EU single market – before accession.²⁶ RNM pledged to take steps towards using the EU digital strategy.²⁷ The country is also a member of the Digital Skills Working Group, set up to support the Western Balkan countries, coordinated by the Regional Cooperation Council. On July 1, 2021, the regional roaming agreement entered into force, signed at the Digital Summit for the Western Balkans, held in April 2019 in Belgrade, enabling – "roam like at home" (RLAH), i.e. citizens are given the opportunity to use the services in the regional zone without roaming. All this, as well as the reduction of roaming prices in the EU, is in line with the objectives of the Common Market Declaration. The next steps are aimed at reducing roaming prices between the Western Balkan countries and the EU.²⁸ Hence, it can be said that RNM continued to successfully implement the Digital Agenda for the Western Balkans and the Regional Roaming Agreement. In support of this are the activities for the introduction of a European emergency telephone number - 112, as an indicator of the necessary political will.²⁹

24 EU Gazette – 55. October, 2020. Assembly of the Republic of North Macedonia. Available at: <https://cutt.ly/wb8OzVA>

25 Meeting of the Ministers of Economy of North Macedonia and Bulgaria in the framework of the Berlin Process: The future of the Western Balkans is in the creation of a common regional market and the establishment of green corridors that will lead to an enlarged regional. Government of the Republic of North Macedonia. Available at: <https://vlada.mk/node/23075>

26 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

27 EU Gazette – 55. October, 2020. Assembly of the Republic of North Macedonia. Available at: <https://cutt.ly/wb8OzVA>

28 Roaming free Western Balkans from July 1 2021!, Metamorphosis Foundation. Available at: <https://cutt.ly/hHdzATW>

29 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

The IPA III Regulation for the financial period 2021 to 2027 will continue to provide financial support to the region and will finance the Economic Investment Plan (EIP) for the Western Balkans, agreed in October 2020 between the Commission and the countries of the region. The goal is long-term economic recovery of the region, green and digital transition, as well as promising regional integration and convergence with the European Union.³⁰

Therefore, it can be said that an agreement has been reached between political actors on the importance of e-government, and this is reflected in the numerous activities undertaken in that direction. As part of the so-called – “Digital Agenda for Europe”, RNM continued to implement the priorities set in the “National Broadband Strategy, 2019 – 2023”, and in the “National Cyber Security Strategy, 2018–2022”.³¹ Modern and efficient public administration, based on digitalization, which provides quality and fast services to citizens and businesses, is part of the strategic priorities of the Government of RNM, and part of the Government Program for 2022, which includes several projects as well as initiating appropriate legal solutions. For example: digitalization of processes in institutions; development of digital payment services; increased coverage of e-services; Internet access in rural areas, etc.).³² The need for digitalization is also recognized in the “Open Data Strategy, 2018 – 2020”,³³ and the action plan, but so far no steps have been taken to update them.

The Ministry of Information Society and Administration (MISA) performs activities related to the development and promotion of the information society, as well as activities related to the integrated information and communication network, databases, interconnection and exchange of information, security aspects and development of infrastructure. For their part, other ministries and state institutions have their own competencies. The government does not yet have an e-government spokesperson. In the last three years, three different ministers of information society and administration have been appointed, which potentially influences the processes. In 2020, a Deputy Prime Minister responsible for anti-corruption, sustainable development and human resources has been appointed. The Deputy Prime Minister is tasked with coordinating anti-corruption policies and institutions involved in the fight against corruption. In March 2021, the Government adopted an Action Plan to Combat Corruption, entitled Action 21, with priorities for digitalisation, the functioning of research centers, the increased use of the National Interoperability Platform, and changes to anti-corruption legislation.³⁴

30 Ibid.

31 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/>

32 Work program of the Government of the Republic of North Macedonia for 2022. Available at: https://vlada.mk/sites/default/files/programa/2022-2024/programa_na_vladata_2022-2024.pdf

22 33 Open Data Strategy 2018 - 2020. Government of the Republic of North Macedonia. Ministry of Information Society and Administration. Available at: <https://cutt.ly/mb8AIA2>

34 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

Generally, the priority areas for e-government are defined, but – indirectly. There is still no long-term national ICT strategy, i.e. the priorities are set within the “Strategy for Public Administration Reform 2018 – 2022”.³⁵ The long-term ICT strategy has been prepared and a draft has been submitted to ENER,³⁶ but its formal adoption has been delayed.³⁷ There is a “National Operational Broadband Plan” that aligns national electronic communications development policies with EU policies, but the Plan needs to be further aligned with the strategic goals of an EU initiative called the Digital Agenda for Europe, the core strategy of 2010 for the development of the information society, as well as the EU strategy “Towards a European Gigabit Society for 2025”, existing since 2016.³⁸

Chronologically, in this area of social interest, the following documents have been adopted and implemented so far: “National Strategy for Development of Information Society and Action Plan”, from 2005;³⁹ “National Strategy for e-Government”, from 2010, and covers the period from 2011 to 2012 (since then no new strategy has been prepared);⁴⁰ “National Strategy for e-Government”, from 2011, and refers to for the period from 2011 to 2014;⁴¹ and “National short-term ICT strategy” for the period from 2016 to 2017.⁴² Collectively, according to the content of the document “Fundamentals and development of e-Government”,⁴³ it becomes obvious that the basic guidelines and standards in these strategic documents are already outdated and need to be adapted accordingly. Without the adoption of key documents, the digital transformation and linking of reform measures to the EU Digital Agenda are a complementary part both of the “2021–2023 Economic Reform Program”⁴⁴, adopted by the Ministry of Finance and of the “Strategic Plan of the MISA for the period from 2021 to 2023.”⁴⁵ Additionally, the Fund for Innovation and Technological Development, in September 2021 established a working group to prepare a National Strategy for Artificial Intelligence, but since its establishment until the conclusion of this report no other serious steps have been taken.⁴⁶

35 Public Administration Reform Strategy 2018-2022. Ministry of Information Society and Administration.

Available at : <https://cutt.ly/mb8Sxij>

36 Draft National ICT Strategy 2021-2025, available at: <https://ener.gov.mk/Default.aspx?item=newdocumentdetails&detailid=23>

37 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

38 National Operational Broadband Plan. April, 2019. Ministry of Information Society and Administration. Available at: <https://cutt.ly/Ab8Sv7y>

39 National strategy for information society development and action plan. April, 2005. Government of the Republic of Macedonia. Available at: <https://cutt.ly/Qb8S1ib>

40 National e-Government Strategy 2011 - 2012. January, 2010. Ministry of Information Society and Administration. Available at: <https://cutt.ly/gb8DcJG>

41 National Strategy for e-Inclusion 2011-2014. May, 2011. Ministry of Information Society and Administration. Available at: <https://cutt.ly/Ab8DYPz>

42 National short-term ICT strategy 2016-2017. August, 2015. Ministry of Information Society and Administration. Available at: <https://cutt.ly/lb8DJHe>

43 Basics and development of e-Government. October, 2010. Ministry of Information Society and Administration. Available at: <https://cutt.ly/Ub8DNAS>

44 Economic Reform Program for the period 2021 - 2023. January, 2021. Ministry of Finance. Available at: <https://cutt.ly/Lb8D9fc>

45 Strategic plan 2021-2023. Ministry of Information Society and Administration. Available at: <https://cutt.ly/jb8D77J>

46 National AI Strategy. Innovation and Technological Development Fund. Available at: <https://cutt.ly/SHdzVYT>

In almost every strategy related to the development of information society and digital technologies, regarding public administration reforms, the state is planned to create an environment that will support innovation; will enable the delivery of personalized, easily accessible services, aimed at all users and that will contribute to increase the transparency and accountability of state institutions.⁴⁷ Therefore, although the strategic documents are outdated, or are being created for a long time now, it can still be said that the "political will" for digital transformation of our society is present,⁴⁸ but functionally, in practice the organizational level of e-Government is relatively low and the implementation of strategically designed commitments. The annual report on Public Administration Reform (PAR) in the period from 2018 to 2022, so far indicates poor implementation due to short deadlines and lack of national ICT strategy.⁴⁹ The annual report on the work of MISA for 2020 and 2021 has not been published and we can not talk about completed projects. The Long-Term ICT Strategy also plans training of IT staff. For now, according to the requirements, needs and opportunities, each institution can provide training to its employees (including IT staff).

As for the e-government processes, it can be said that there is some implementation, but not a significant shift. Strategically, e-governance signifies the Government's commitment to work continuously towards creating better and more efficient institutions and to note the mechanisms that will be applied. The strategies adopted in recent years show that the current government is committed to better and more efficient institutions, but their implementation is still not at the desired level, mostly due to problematic interoperability, poor communication between institutions, and limited capacity of the administration and citizens to application of the planned tools. Hence, we can not talk about full implementation, although there are many positive examples. On the other hand, the impression is that not only the Government, but also the private sector can not support this whole process, especially in terms of authentication and exchange of documents.

Among the legal provisions in this area, the most important are the following: the Law on Electronic Government and Electronic Services,⁵⁰ the Law on Electronic Documents, Electronic Identification and Confidential Services,⁵¹ and the Law on Central Population Register.⁵²

47 Analysis of e-services in the municipalities in the Republic of North Macedonia, Metamorphosis, 2021. Available at: <https://cutt.ly/RHdxqRa>

48 Shaqiri: The Ministry of Information Society and Administration is the main entity in creating e-government policies and leads the efforts for digital transformation of the society, <https://www.mioa.gov.mk/?q=mk/node/3729>

49 Annual report on the implementation of the Action Plan of the Strategy for Public Administration Reform 2018-2022. May 2019. Ministry of Information Society and Administration. Available at: <https://cutt.ly/rb8FRng>

50 Law on Electronic Management and Electronic Services. April 2019. Ministry of Information Society and Administration. Available at: <https://cutt.ly/Mb8JnPz>

24 51 The Law on Electronic Documents, Electronic Identification and Confidential Services. Available at: <https://cutt.ly/Cb8JSD3>

52 Law on central population register. Available at: <https://cutt.ly/db8JK39>

The legislation on e-government, in addition to the above-mentioned laws, is also covered by: the Law on General Administrative Procedure;⁵³ the Law on Administrative Fees;⁵⁴ the Law on Free Access to Public Information;⁵⁵ the Law on Central Population Register,⁵⁶ and certain bylaws, such as: "Rulebook on security of personal data processing".⁵⁷ In this sense the Law on Central Population Register is a basic law through which the data of the population is managed. There is no legal solution for the interoperability framework, but MISA is developing modules and projects.⁵⁸ The so-called "digital identity" is being developed through public-private partnerships with certain companies.⁵⁹ From the countries in the region, the Republic of Croatia, RNM and Montenegro issue digital identity certificates and provide the opportunity for certain services to be available to the citizens remotely.⁶⁰

State institutions recognize the need and take the digitalization process seriously, but additional efforts and resources are needed for its effective implementation. Digitalization is part of the Strategic Plan of the Ministry of Culture for the period from 2022 to 2024,⁶¹ as well as the Strategic Plan of the Ministry of Economy, for the period from 2022 to 2024.⁶² In the courts and in the public prosecutor's office,⁶³ the steps taken towards digitalization show a positively moving process – "moving from a standstill", visible, for example, in the part of the reform agenda in the judiciary, but at the same time expose the accompanying challenges: staff, resources and an adequate budget.⁶⁴ The digitalization process of the judiciary is generally conducted according to the Strategy for ICT in the judiciary 2019 – 2024,⁶⁵ and although not all the set goals have been achieved so far, significant progress has been made given that in terms of these aspects the judiciary and the public prosecutor's office were previously in extremely poor condition, with partial or complete absence of use of ICT in their work.⁶⁶ Donors predominantly fund the implementation of the IT strategy in the judiciary.⁶⁷ Donors predominantly fund the implementation of the IT strategy in the judiciary. Attempts have been noticed for digitalization of the State Archive, where intensive work is being done on digitalization

53 The Law on General Administrative Procedure. Available at: <https://cutt.ly/lb8Kzyw>

54 Law on Administrative Fees. Available at: <https://cutt.ly/qb8KWBL>

55 Law on Free Access to Public Information. Available at: <https://cutt.ly/Db8ZCJE>

56 The Law on Central Population Register. Available at: <https://cutt.ly/xb8KAwd>

57 Rulebook on security of personal data processing. Available at: <https://cutt.ly/7b8KGyc>

58 Interoperability platform. Ministry of Information Society and Administration. Available at: <https://cutt.ly/Ob8K7Yd>

59 The project for digital identification, towards implementation. Ministry of Information Technology and Administration. Available at: <https://mioa.gov.mk/?q=mk/node/3656>

60 Digital identity in Macedonia - what is it and how to create your own. IT. Available at: <https://it.mk/digitalen-identitet-vo-makedonija-shto-e-i-kako-da-kreirate-svoj/>

61 Strategic Plan 2022-2024. Ministry of Culture. Available at: <https://cutt.ly/AHdxAOk>

62 Ibid.

63 Regional open debate: Digitalization is necessary for efficiency in the work of the Public Prosecutor's Office. Public Prosecutor's Office of the Republic of North Macedonia. Available at: <https://cutt.ly/nHdx41E>

64 Monitoring the European Integration Process: Judicial Reform, Metamorphosis, 2021. Available at: <https://bit.ly/3yAKCIN>

65 ICT Strategy in the judiciary 2019- 2024. Ministry of Justice. Available at: <https://cutt.ly/7HdcRTN>

66 Monitoring the European Integration Process: Judicial Reform, Metamorphosis Foundation. Available at: <https://cutt.ly/pHdcfC9>

67 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

of the priority historical funds.⁶⁸ The new excise module of the Customs Declarations and Excise Processing System (CDEPS) for transfer from paper to digital procedures has been implemented, and the Law on Excises provides for full electronic monitoring of excise goods.⁶⁹

In the Strategy for Regional Development of RNM from 2021 to 2031, digitalization is recognized as a precondition for the development of society.⁷⁰ However, the focus of these digitalization strategies is only the services provided by the central government, and insufficient attention is paid to the digitalization of the services provided by the local self-government units. The digital transformation of municipalities is possible, and is defined in the Government's priorities for digitalization and for increasing transparency and accountability. However, the authorities (mayors/local government) continue to insist that central level support is necessary, i.e. that the state is a key factor in ensuring digitalization, in the digital transformation of municipalities.⁷¹ Local self-government units are increasingly aware that the development of municipalities is necessarily related to the benefits of digitalization,⁷² and on that basis increase the demands and expectations of the central government.⁷³ Nevertheless, there is still no strategy for digitalization of services offered by local self-government units, and it is necessary given that we live in a time of reduced resources, so technology that can help overcome these conditions.⁷⁴ The municipalities are interested in the application of digital tools and share their experiences related to digitalization, but the process must be optimized, i.e. the services must be evenly developed in all municipalities. Otherwise – maintenance is expensive.⁷⁵ For example, the municipalities are aware of the importance of open data, and in that direction steps have been taken to increase the transparency of municipalities and open the data of local self-government units, but these are mainly initiatives taken by the civil society sector.⁷⁶ Some municipalities have published open data sets on their websites, although there are many problems with the implementation of the law. Many of the data sets have not been published, despite the commitments made to publish them. Regarding the requests for free access to public information, the municipalities usually do not respond to them.⁷⁷

68 [71 YEAR STATE ARCHIVE. State Archive of the Republic of North Macedonia. Available at https://cutt.ly/7HdcCww](https://cutt.ly/7HdcCww)

69 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>

70 Amended proposal of the Strategy for regional development of RNM 2021-2031. Available at: <https://cutt.ly/HHdvaR4>

71 DEBATE: Digitalization will bring benefits to citizens, but requires additional effort and resources. Metamorphosis Foundation. Available at: <https://bit.ly/3LcXe57>

72 Analysis of e-services in the municipalities in the Republic of Northern Macedonia. Internet and Society Foundation Metamorphosis. Available at: <https://bit.ly/3ywMI5V>

73 Amended proposal of the Strategy for regional development of RNM 2021-2031. Available at: <https://cutt.ly/HHdvaR4>

74 Analysis of e-services in the municipalities in the Republic of Northern Macedonia. Internet and Society Foundation Metamorphosis. Available at: <https://bit.ly/3ywMI5V>

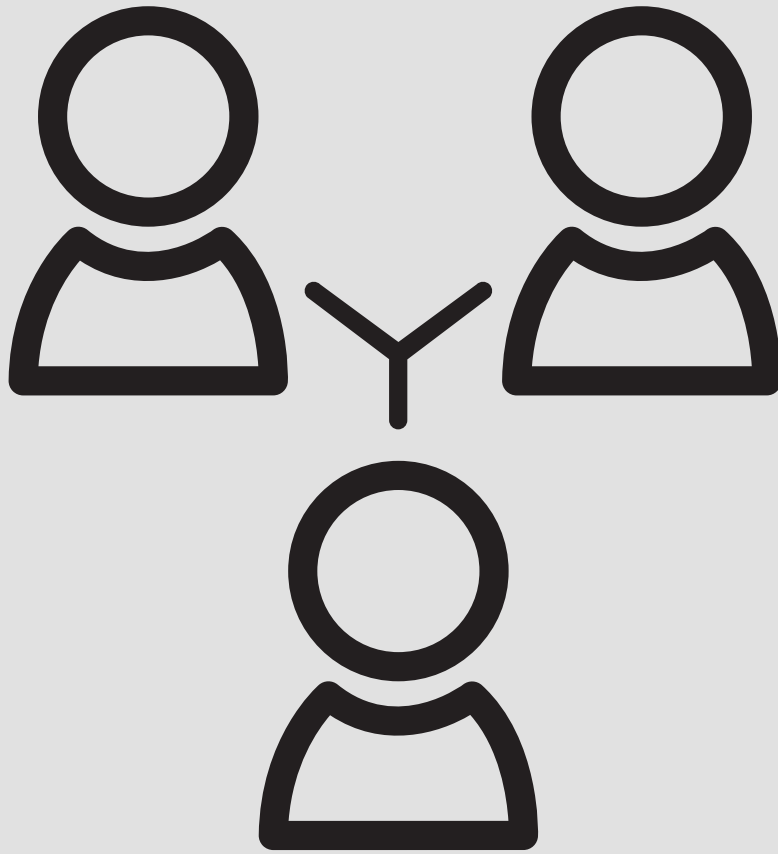
75 Focus group with representatives of CSOs, held on April 5, 2022.

26 76 A final coordination meeting was held within the first cycle of supporting the municipalities for increased transparency and openness of data. Internet and Society Foundation Metamorphosis. Available at: <https://bit.ly/3FKkypy>

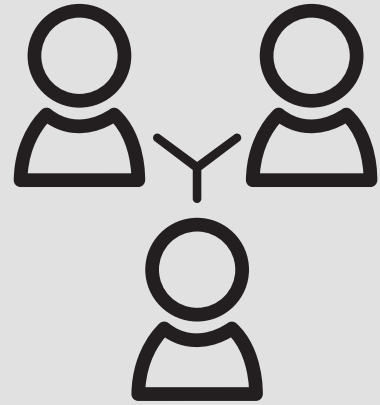
77 Focus group with representatives of CSOs, held on April 5, 2022.

We must work towards the full realization of the set goals and priorities. It is undoubtedly important to turn the enthusiasm and political will regarding digitalization into concrete actions and projects, while consulting the citizens, business entities and stakeholders. RNM has numerous documents related to the implementation of DA by the institutions, but the impression remains that they are largely outdated and need to be adapted to current trends and the needs of citizens. It can be concluded that the political will is evident, but to some extent its concrete implementation remains debatable.⁷⁸

78 Digital Agenda Observatory 2021, Cumulative report on Digital Agenda advancement in Albania, Kosovo, Montenegro, North Macedonia and Serbia. Metamorphosis Foundation. Available at: <https://bit.ly/3w76JhY>



3



COORDINATION FOR IMPLEMENTING E-GOVERNMENT



3. Coordination for implementing e-Government

The process for development of e-Government at central and local level in RNM dates back to about twenty years ago, when the beginning of the development of the National Strategy for Development of Information Society and the respective action plan. Consequently, the government portal www.uslugi.gov.mk was launched, which at the beginning offered scarce, unsophisticated services. The use of the portal uslugi.gov.mk stopped, but this did not stop the process that increased the volume of digitalization in various social spheres. The last decade has seen an increase in individual and collective awareness that digitalization contributes to increased transparency, accountability, efficiency and effectiveness in the delivery of public services to citizens and businesses, as well as to improved communication between the public, private and civil society sectors.⁷⁹ In addition, debates began and the benefits of digitalisation for the quality of services, for the availability and application of the concept of e-Government and for the introduction of e-services in the function of public administration reform were recognized.⁸⁰ Today, in terms of inter-ministerial coordination, which determines the extent to which certain activities and principles for e-Government and cyber security have been implemented, it can be said that there is a certain level of implementation. MISA is the central, coordinating body for these processes, with its own implemented projects, strategic plan and annual work program, and has appointed responsible persons for their implementation. MISA's activities are related to the development and advancement of the information society, as well as to the integrated information and communication network, databases, interconnection and exchange of information, security aspects and infrastructure development.⁸¹ On the other hand, every other ministry and institution has its own competencies. Specifically, MISA implements projects for information society; e-infrastructure and support; e-services; e-experience; one stop-shop for services; and open data. However, the remarks often refer to the implementation of plans and programs. Achievements are often fragmented among different stakeholders (such as, implementation of the National Cyber Security Strategy, 2018 – 2022), and these situations require additional efforts.⁸²

The government and municipalities in RNM must use digital technologies to establish an integrated public service system that will enable flexible, accountable and secure delivery of services to all people, without exception. Such a system must also meet the requirements of citizens/users to monitor the work of the municipality, spending money and the ability to accurately locate responsibility. In order for digitalization to be sustainable, it is necessary to establish a mechanism for monitoring the quality of

79 Janevski Z. et al. 'Business benefits from e-government services: case of Slovenia and Macedonia', Economic Development Year 16, No. 3/2014, pp. 13-24.

80 Analysis of e-services in municipalities of the Republic of North Macedonia. Metamorphosis Foundation. Available at: <https://bit.ly/39hSwpo>

81 Annual work plan for 2021. Ministry of Information Society and Administration Available at: <https://cutt.ly/kHdvmxT>

82 North Macedonia Report. European Commission. Available at: <https://cutt.ly/tHdk6cg>

e-services. Users (citizens, businesses) need to be consulted in detail and continuously in various ways to assess whether digitalized services meet their needs. To ensure the sustainability of e-services, they should function continuously and be achieved with high quality and unchanged standard. This applies to services both centrally and locally. Completely successful digitalization means process optimization and simplification of service delivery procedures.⁸³

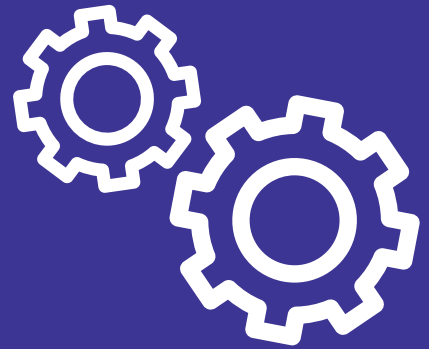
However, due to the lack of accurate, publicly available information, it is not possible to speak objectively about the use of e-services in the country, nor can a comparison be made for a certain period. Although such a database of e-services, with such coverage, is essential, because it would help institutions to improve in this area, such a database does not yet exist. That is why it is still unknown how many of these services are used electronically, and how many are used in the traditional way – with physical presence in front of the counter. Hence, we can not talk about the tendencies in the introduction of new e-services or the promotion of existing e-services.⁸⁴

83 Analysis of e-services in municipalities of the Republic of North Macedonia. Metamorphosis Foundation.

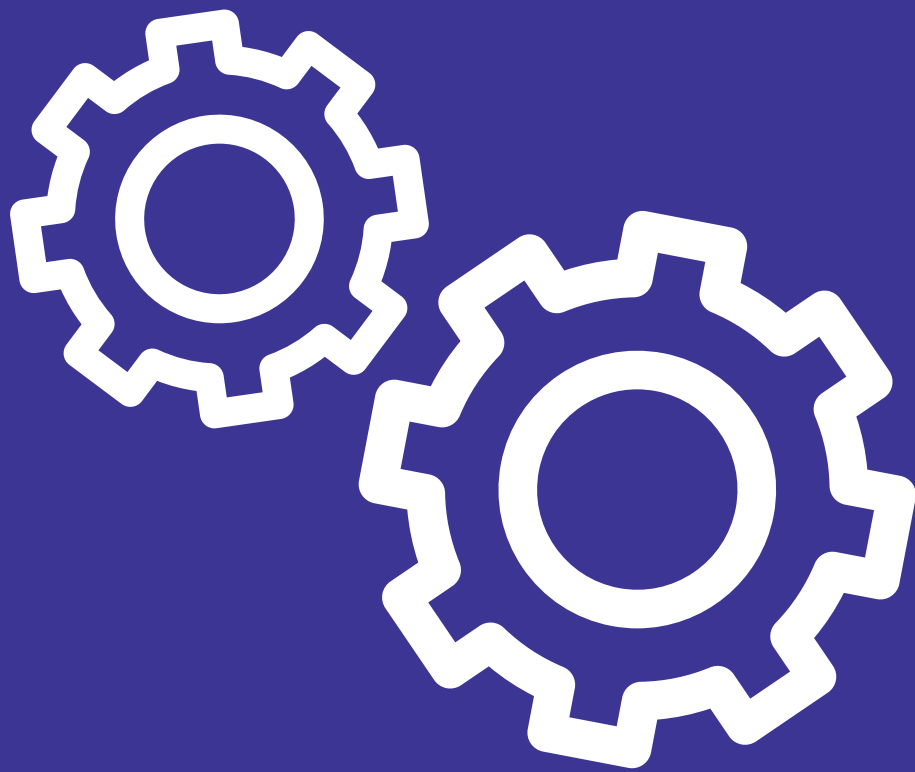
32 Available at: <https://bit.ly/39hSwpo>

84 Analysis of e-services in municipalities of the Republic of North Macedonia. Metamorphosis Foundation.
Available at: <https://bit.ly/39hSwpo>

4



**LEGAL
FRAMEWORK**



4. Legal framework

Regarding the harmonization of the national legislation with the EU law (*acquis communautaire*), especially in relation to Chapter 10 – “Information society and media”, it should be said that it is fully or partially harmonized with 77 measures, i.e. – about 50 % of the total. There are laws that are not in line with e-government, such as the Law on Notaries, the provisions on the use of electronic documents with electronic stamp - the Law on Electronic Documents, Electronic Identification and Confidential Services.⁸⁵ Apart from the observed terminological inconsistency, in some laws the conditions for exercising a certain right or for fulfilling a certain obligation are either too general or vague. Although the government has taken some steps in this direction (a working group on harmonization of laws was established last year), the results are still not visible.

Regarding the legislative framework, there is a level of implementation, but it should be taken into account that this is an area that is developing rapidly. Legislation needs to be constantly updated, as well as raising awareness of the need to keep up with the times.⁸⁶

In the field of e-government, the following legal framework is relevant:

- Law on Electronic Management and Electronic Services;⁸⁷
- Law on Electronic Documents, Electronic Identification and Confidential Services;⁸⁸
- Law on Central Population Register;⁸⁹
- Law on Personal Data Protection (and – Agency for Personal Data Protection, as a responsible body);⁹⁰
- Law on Free Access to Public Information.⁹¹

These are the general laws according to which all current laws should be adapted, and they are related to the digitalization of the processes and procedures in the bodies, and to the digitalization, i.e. the provision of services to the citizens. We are talking about over 100 laws that need to be amended.⁹² The Law on Central Population Register unites the data on the population available to the Ministry of Interior (data from the personal documents of the citizens) and the Ministry of Justice, i.e. the Registry Office (data on the citizens from the registers of births, marriages and the dead). Both ministries have

85 “For faculties, banks and some notaries, the electronic certificate is an unsolvable enigma” – News Agency Meta.mk. Metamorphosis Foundation. Available at: <https://bit.ly/3PlvA9t>

86 aIGOVrithms 2.0 - public policy document. March 2, 2021. Metamorphosis Foundation for Internet and Society. Available at: <https://cutt.ly/ib8LMIY>

87 Law on Electronic Management and Electronic Services. Available at: <https://cutt.ly/2b8ZIN6>

88 Law on Electronic Documents, Electronic Identification and Confidential Services. Available at: <https://cutt.ly/3b8ZSA5>

89 Law on Central Population Register. Available at: <https://cutt.ly/Gb8ZFHL>

90 Law on Personal Data Protection. Available at: <https://cutt.ly/lb8ZLGj>

91 Law on Free Access to Public Information. Available at: <https://cutt.ly/Db8ZCJE>

92 Digitalization as a path to true citizen-oriented administration: Decentralization of processes as a means of accelerated and effective reform, Institute for Social Sciences and Humanities. Available at: <https://www.isshs.edu.mk/digitalizacija/?lang=mk>

an obligation to integrate that data into the Central Population Register. The databases are already integrated and the Registry is established. However, the numerous shortcomings related to digitalization are due, among other things, to the fact that certain recent laws have not yet been adapted to that process. For example – the Law on Identity Card, the Law on Registry, etc., although their adaptation is part of the strategic priorities of the institutions. Of course, this makes the citizens' approach to exercising their rights and services complicated and uncertain. The mentioned shortcomings also refer to the legislation from other spheres of social life.⁹³

Although most areas are regulated, law enforcement remains weak, often for objective reasons. An illustrative example of this is the inability of citizens to use electronically generated documents to exercise their rights. Documents obtained electronically, when printed as a document, are not accepted in legal transactions. The non-acceptance is noted in certain banks, notaries and universities. The application of electronic documents, on the other hand, is regulated by the Law on Electronic Documents, Electronic Identification and Confidential Services, and according to it they have the same legal validity as the paper ones, i.e. they should be applied and accepted in legal circulation by all legal entities. But the rules in this area are not unified and there are no specific directions towards which it should move qualitatively. In practice, it all comes down to an individual decision whether the bank or notary or the administration of a particular educational institution will accept the electronic document as valid.⁹⁴ Often, the rejection of an electronic document occurs for basic documents, such as a birth certificate, a certificate from the Cadastre, etc., and for validation, of course, only after they are printed, citizens must additionally notarize them. The situation is contradictory: on the one hand, state institutions persuade the citizen (insufficiently digitally skilled and literate) to use e-services, and on the other hand – they do not allow them to do so practically,⁹⁵ and all this creates a feeling of individual powerlessness.⁹⁶

Regarding the compliance of the legal environment and the coordination with the neighboring countries, it can be said that the Law on Electronic Documents, Electronic Identification and Confidential Services is in compliance with the EU regulation no. 910/2014. There is an agreement with Serbia and Montenegro on mutual recognition of qualified services. The draft law on network and information systems security is harmonized with the Directive 2016/1148, but that law has not been adopted yet, i.e. it is posted on ENER and is still open.⁹⁷ The Macedonian framework for interoperability is harmonized with the European framework for interoperability, but there is no legal solution in this area either. There are guidelines, modules, technical standards for interoperability, etc., as well as the initiative to adopt a law on data exchange and interoperability, but this has not yet been realized as a legal solution.

93 North Macedonia Report. European Commission. Available at: <https://cutt.ly/tHdk6cg>

94 “For faculties, banks and some notaries, the electronic certificate is an unsolvable enigma”. Metamorphosis Foundation. Available at: <https://cutt.ly/tHco81j>

95 Focus group with representatives of CSOs, held on April 5, 2022.

96 Digitalization as a path of real citizen-oriented administration: Decentralization of processes as a means of accelerated and effective reform, Institute of Social Sciences and Humanities. Available at: <https://www.isshs.edu.mk/>

97 Draft Law on Network and Information Systems Security. Available at: <https://cutt.ly/sHdno9q>

A process for preparation of a law amending the Law on the Use of Public Sector Data has started.⁹⁸ Previous experience from: implementation of the Law; Open Data Strategy 2018 – 2020; the management of the Open Data Portal; and the innovations introduced with the EU; the Directive on open data and re-use of public sector information, June 20, 2019 (2019 – 2024), shows that it is necessary to further regulate this matter.⁹⁹

4.1. Policy Description

For this research, the employment policy was selected and based on it, three relevant and related e-services were tested.

In September 2021, the Ministry of Labor and Social Policy adopted a new National Employment Strategy (2021 – 2027) and an Employment Action Plan (2021 – 2023).¹⁰⁰ The Strategy recognizes that the level of digital skills of the population is low, i.e. that in 2019, the share of the population aged 16 to 74 in the use of digital technologies (one of the goals set in the European pillar of social rights) was 32%, compared to an average of 56% in EU member states. Hence, education and training policies are aimed at expanding adult education as well as learning digital skills.

The planned reforms of the primary and secondary education system, including the introduction of the internship system starting in 2021, as well as the expansion of career guidance services and the introduction of digital skills training, will have a measurable effect on the alignment of competencies with the demands of the labor market. This, accordingly, will contribute to the progressive reduction of the vertical mismatch of skills with the needs of the labor market of the population able to work. It is expected that by 2027 the percentage of learned digital skills will increase, and one of the goals of the Strategy is to increase digital literacy by 45% for people aged 16 to 74. However, these percentages are below the current European average, so the institution that would play the biggest role in this process is the Center for Adult Education.

By 2027, the Education Information Management System (EMIS) is expected to be strengthened to provide reliable information for monitoring and evaluating educational outcomes at all levels. The purpose of the EMIS is to collect and manage data on individuals' educational backgrounds, and the information generated related to other sources of information to provide reliable data for designing, monitoring and evaluating policies and programs. At present, the latest education and training policy documents do not offer quantitative or qualitative indicators for measuring the progress of planned policy initiatives. The information collected by EMIS is not used to design, monitor and evaluate policies, nor is it linked to other administrative data. EMIS needs to be strengthened and linked to available data collection tools, as well as to other administrative databases. For example it should be linked with the Register of Unemployed Persons kept by

98 Third meeting of the Working Group for preparation of a draft-Law on the Use of Public Sector Data. Metamorphosis Foundation. Available at: <https://cutt.ly/pHcpDTU>

99 Draft-law Amending the Law on Using the Public Sector Data Available at: <https://cutt.ly/HHdnhP8>

100 National Employment Strategy 2021-2027 with Employment Action Plan 2021-2023, available at: <https://cutt.ly/vHdnI9e>

the Employment Agency, with the records of employment, with the database for the beneficiaries of the guaranteed minimum assistance. This would provide functional data on learning outcomes, monitoring the transition from education to work, and providing feedback on (re)formulating and adjusting policies.

Although multi-year reforms have significantly improved the business environment and supported sectoral shifts – from agriculture to industry and services, there are still a number of factors slowing down enterprise development. The most notable are the uneven implementation of business-related regulation at various government levels, and the slow progress of the digital transformation.

Regarding the promotion and protection of workers' rights, the tripartite social dialogue in RNM is based on the 2010 Agreement concluded between the Government and the social partners, for the establishment of the Economic and Social Council (ESC) at the national level, as well as the Economic and Social Councils at the local level. The ESC has broad competences and covers economic and social policies. The ESC opinion is binding only on policies relating to employment, pension and disability insurance, and occupational safety and health. In practice, the scope of ESC interventions is limited to the area of labor and social issues, related to the competencies of the Ministry of Labor and Social Policy.¹⁰¹

The Labor Relations Law provides the basis for the protection of employment rights, but its implementation remains a challenge on many grounds. However, in this regard, the documents that can serve as evidence in the procedures for protection or realization of workers' rights – are not easily obtained. That is, this service is provided by state institutions over the counter, or it is waited for too long even if requested electronically, despite the fact that the institutions have the relevant data. This harms the legal security and protection of workers' rights, and is contrary to the strategic priorities of the Government, because – within the Government's program for 2022 – 2024, a set priority is the "Modern and efficient public administration, based on digitalization that provides quality and fast services to citizens and businesses."¹⁰²

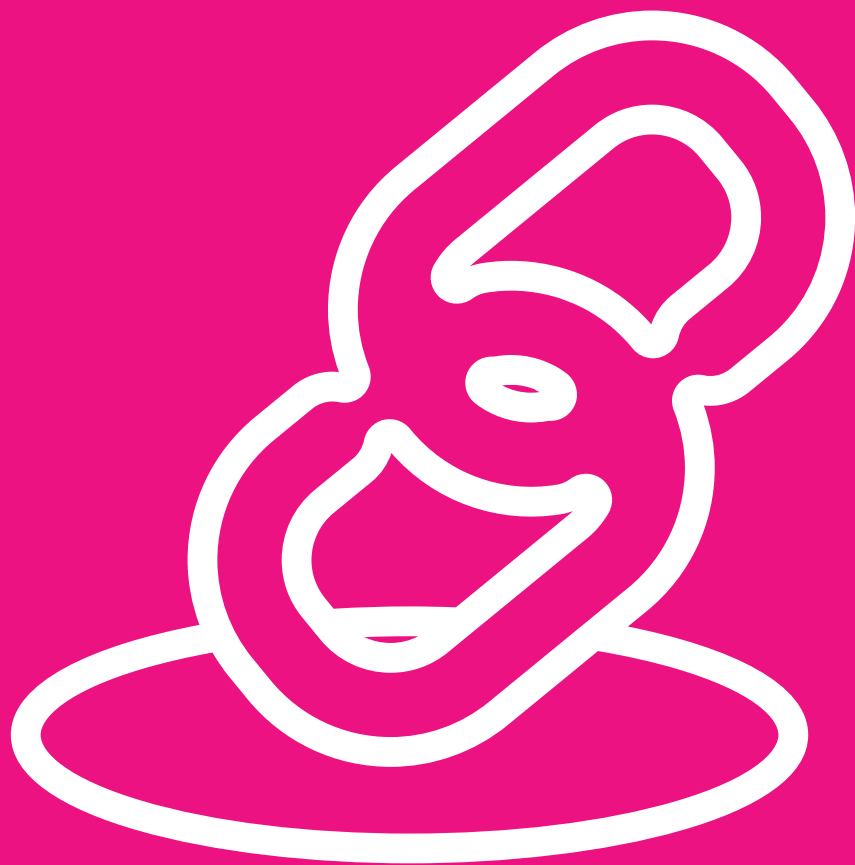
101 Ibid.

102 Strategic priorities. Government of the Republic of North Macedonia. Available at: <https://cutt.ly/PHdnLYL>

5



STATUS OF E-SERVICES



5. Status of e-Services

5.1. Digital databases, interoperability, secure data exchange

The establishment of a document management system (DMS) was identified as a priority by the Revised Action Plan of the Public Administration Reform Strategy 2010 – 2015.¹⁰³ Later, MISA developed a new Document Management System – DMS system for smooth exchange of documents electronically which was presented to the public in August 2020 as a system that should enable joint work of administrative staff, from different sectors and departments. The new DMS system is a SMART system that facilitates operation. For each case that will be certified in the archive and exchanged electronically with an institution, this will mean that the answer to that case will be automatically certified and distributed to the persons who participated in its preparation, regardless of where they work. The national DMS unifies the archival and bookkeeping operations of the institutions in cooperation with the State Archive and the State Administrative Inspectorate.¹⁰⁴

According to the data of the research of the Center for Change Management (CUP) "Developing knowledge-based public sector"¹⁰⁵, out of 101 institutions that responded to the research, only 9 of them noted that they have DMS. Regarding the place where they save the electronic documents that they work on every day, according to the answers 74.16% of the institutions, keep the documents only locally, i.e. on their computer. This was confirmed during the pandemic when many institutions stated that they were not ready to work remotely due to the inability to access documents.

The last official information regarding the DMS was the presentation of the MISA budget for 2021 and it was announced that funds are being invested for the National Document Management System, the institutions will be able to exchange documents in electronic form and that the exchange of documents will happen in real time.

The principle "Only once" i.e. public administrations to collect information from citizens and businesses only once, and then to share and re-use this information, is a political priority. Efforts are being made to enable access to services to all citizens, as well as the entire process they go through. This means high quality services regardless of the channel used by the citizens and problem solving at the first point of contact, and this includes the principle "Data once principle", as well as modern practices such as "security by design" or "zero trust". MISA directs the activities in order to "break down the barriers between institutions" in the interest of citizens and the perception that the

103 Revised Action Plan of the Public Administration Reform Strategy 2010 - 2015. Available at: <https://cutt.ly/3Hdn5Ki>

104 MISA has developed a new DMS system for uninterrupted exchange of documents electronically. Government of the Republic of North Macedonia. Available at: <https://vlada.mk/node/22317>

105 Developing a knowledge-based public sector. Change Management Center. Available at: <https://cup.org.mk/publication/developing-knowledge-based-public-sector>

Government (one institution) is the sole provider of all services. The Law on General Administrative Procedure and the Law on Obtaining and Exchanging Evidence and Data ex officio ¹⁰⁶ provide the basis for achieving these commitments.

The interconnection and exchange of data between state bodies, institutions and business companies in RNM is enabled through the Interoperability Platform. The Interoperability Platform is based on the National Interoperability Framework which follows the European principles of interoperability (EIF 2.0). The National Interoperability Framework covers all aspects of interoperability: legal, organizational, semantic and technical: ¹⁰⁷

- Macedonian National Framework for Interoperability;
- Macedonian Interoperability Module IOP-L (Legal Interoperability);
- Macedonian Interoperability Module IOP-O (Organizational Interoperability);
- Macedonian Interoperability Module IOP-S (Semantic Interoperability);
- Macedonian Interoperability Module IOP-T (Technical Interoperability);
- Annex: MIM protocol.

As of November 29, 2021, 39 entities are connected to the interoperability platform, including stakeholders from the judiciary, several ministries of the executive branch of power, constituent bodies and funds, and also 4 entities from the private sector are registered. Active stakeholders in the interoperability platform, which in terms of interoperability are "institutions" because they have their own special communication client are the National Portal for e-services (uslugi.gov.mk), National Population Register and Electronic System for Automation of Administrative procedures (eSDP). For institutions/companies that want to join the interoperability platform and exchange data through this platform, there is an obligation to provide their own communication client (which is a mediator between their background systems and the central servers of the interoperability platform). For the conditions that the communication client should meet, MISA has adopted:

- Minimum technical prerequisites for a communication client,¹⁰⁸ and
- Guidelines for connecting the interoperability platform.¹⁰⁹

MISA has published a List of web services, according to which, as of May 2022, the institutions have 567 web services/methods for data exchange available compared to last year when 438 were available. The list contains all web services/data exchange methods that institutions/companies can reuse for their own needs.¹¹⁰ The Interoperability Platform is an appropriate technical solution that enables institutions to securely exchange data. According to the Law on Electronic Management and Electronic Services, there are minimum information security criteria that institutions must meet in order to join Interop (for certification). The bylaw prescribes two levels of information security:

¹⁰⁶ Law on Obtaining and Exchanging Evidence and Data Ex officio. Available at: <https://cutt.ly/ontf85K>

¹⁰⁷ Interoperability platform. Ministry of Information Society and Administration. Available at: <https://cutt.ly/sntgVcm>

¹⁰⁸ Minimum technical prerequisites for a communication client. Available at: <https://cutt.ly/XntgMJF>

¹⁰⁹ Guidelines for connecting the interoperability platform. Ministry of Information Society and Administration. Available at: <https://cutt.ly/QnthrnF>

¹¹⁰ List of active production services. Ministry of Information Society and Administration. Available at: <https://cutt.ly/Znthusr>

LEVEL1 and LEVEL2.

Regarding the situation in practice, as the closest relevant inventory of the technical capacities of the institutions is an analysis of the conditions identified for the purposes of establishing the interoperability platform. This review was made in order to analyze the readiness of the institutions to publish their data as open data on data.gov.mk, so the last column proves that the technical possibilities correspond to the fact that certain institutions still can not implement such solutions due to their technical limitation. Such indicators are even more relevant to interoperability expectations.

Table No.1. Technical readiness of institutions

As of November 29, 2021, the Interoperability Platform includes:	Degree of technical readiness	Whether they are available on data.gov.mk
1. Employment Agency of the Republic of North Macedonia	Green	No
2. Agency for Real Estate Cadastre	Green	Yes
3. State Statistical Office	Yellow	Yes
4. State Election Commission	Yellow	No
5. State Commission for Prevention of Corruption	Yellow	Yes
6. General Secretariat	Yellow	No
7. Inspection Council – State Labor Inspectorate	Yellow	No
8. Inspection Council – State Market Inspectorate	Yellow	Yes
9. Inspection Council – State Administrative Inspectorate	Yellow	No
10. Public Prosecutor's Office of the Republic of North Macedonia	Red	No
11. Macedonian Academic Research Network	Red	No
12. Makedonski Telekom AD – Skopje	N/A	N/A
13. (Mastercard – Eurotrast)	N/A	N/A
14. Ministry of Interior	Green	Yes
15. Ministry of Information Society and Administration	Green	Yes
16. Ministry of Foreign Affairs	Yellow	No
17. Ministry of Education and Science	Red	Yes

18. Ministry of Justice	Green	Yes
19. Ministry of Justice – Office for management of Registers	Red	No
20. Ministry of Justice – Agency for Management of Confiscated Property	Red	No
21. Ministry of Justice – Bureau of Metrology	N/A	No
22. Ministry of Labor and Social Policy	Yellow	Yes
23. Ministry of Finance	Green	Yes
24. Ministry of Finance – Public Revenue Office	Yellow	Yes
25. Ministry of Finance – Customs Administration	Green	Yes
26. Ministry of Culture	Red	No
27. National Bank of the Republic of North Macedonia	Green	No
28. Nextsense LLC Skopje	N/A	N/A
29. Basic Court Skopje 1	Red	No
30. Basic Court Skopje 1	Red	No
31. Official Gazette of the Republic of North Macedonia	Green	N/A
32. Financial Police Office	Red	No
33. Financial Intelligence Office	Red	No
34. RNM Health Insurance Fund	Green	No
35. RNM Pension and Disability Insurance Fund	Green	No
36. Central Register of the Republic of Macedonia	Green	No
37. Clearing House KIBS AD Skopje	N/A	N/A
38. City of Skopje	Green	Yes
39. IPARD	Green	Yes

What does the color in the column indicate for the degree of technical readiness:¹¹¹ the institutions that have technical readiness in terms of degree of digitalization and appropriate IT staff are marked in green; institutions are marked in yellow in several cases such as 1. lack of IT staff, and there are technical possibilities provided through a project, or 2. has a system but is outdated, or 3. has part and staff and partly good system; institutions where there are no technical possibilities and no adequate IT staff are marked in red.

The European Commission for this part in the Report 2021 has concluded that the use of

111 The colors in the columns are written if the document is not printed in color.

the interoperability system is still difficult due to the lack of communication software in many institutions and the lack of will to fully use its potential.

In the area of common data standards (for example, standards in the government interoperability framework) for the government as a whole, the adoption of bylaws from the Law on Electronic Governance and Electronic Services was crucial.¹¹²

5.2. Secure digital identity and digital signature

The implementation of the Law on Electronic Management and Electronic Services and the Law on Electronic Documents, Electronic Identification and Confidential Services by the competent authority (MISA) is considered to be at an advanced stage.

Law on Electronic Documents, Electronic Identification and Confidential Services and is fully compliant with Regulation (EU) no. 910/2014 of the European Parliament and of the Council of 23 July 2014 on Electronic Identification and Confidential Services for Electronic Transactions in the Internal Market.

A Register of confidential service providers and electronic identification schemes has been established for Law on Electronic Documents, Electronic Identification and Confidential Services, maintained by MISA.

According to the current situation (as of May 2022) it can be noted that:

- There are a total of 19 entries in the register;
- 4 entities and a total of 12 qualified confidential services are registered as qualified confidential service providers;
- As confidential service providers are registered 3 entities, 3 services of which 2 unqualified confidential services and confidential service for electronic signatures; and
- As an issuer of an electronic identification scheme, 3 entities are registered, all three of which provide a high level of security of the electronic identification scheme, and one of the entities offers a low level of security of the electronic identification scheme.

According to the data in the Register, as a service provider specifically for issuing qualified certificates for qualified electronic signatures, two entities are registered: Clearing

¹¹² The Rulebook on the manner of certification of the information systems used by the bodies for electronic communication and the Guidelines for the certification of the information systems;

Rulebook on the manner and procedure for registration in the list of legal entities that check the interoperability of information systems, the form and content of interoperability certificates, the procedure for issuing an interoperability certificate and the procedures for checking the security and interoperability of information systems , no. 263 of 20.12.2019;

Rulebook on the standards for interoperability of the Macedonian information bus and the standards and rules for security of information systems for data processing in electronic form and the standards and rules for security of information systems used by the bodies for electronic communication;

Rulebook on the standards and rules for unified nomenclatures in the mutual communication electronically between the bodies Official Gazette of RNM, no. 53 of 28.2.2020;

Rulebook on the minimum technical requirements and standards for providing electronic services Official Gazette of RNM, no. 263 from 20.12.2019.

House – Clearing Interbank Systems AD Skopje (KIBS AD Skopje) and Makedonski Telekom AD – Skopje. For the needs of this research, we addressed both entities in order to obtain statistical data on how many electronic signatures were issued to legal entities and how many to individuals, but unfortunately we did not receive a response. The statistics on how many signatures have been issued is set as an indicator in the Action Plan for Development of a long-term National Strategy for ICT for North Macedonia 2020-2025, so it is expected that these data will be available by implementing it.

In the area of confidential services, MISA carries out activities for mutual recognition of such services with the countries in the region.

With the Law on Electronic Documents, Electronic Identification and Confidential Services, so far no single permanent identifier of persons has been implemented (in the context of the Law on Electronic Signature). There is an UENC (unique electronic number of the citizen) which is established through the Central Population Register, but for now, it is not connected and is not used as part of an electronic signature. All technical solutions for electronic signature are taken in accordance with eIDAS, and they are technologically neutral. For now, the most commonly used method of digital identification is a username and password, and electronic signatures are used for a high level of identification.

According to the Law on Central Population Register and the Law on Personal Data Protection, every citizen can see the data recorded for them, as well as a report on which institution, according to which law and when they accessed the personal data contained in the Central Population Register system. One of the simplest ways is to access through the portal uslugi.gov.mk where the user has their own electronic identity (eID), i.e. they can log in most easily with their user profile at the PRO and see exactly the data available about them. In the above-mentioned List of web services (interoperable), if the Law on Central Population Register is listed, it is obvious that it is a web service with the help of which data are downloaded by the Ministry of Interior for delta data exchange. The registration and announcement on the portal uslugi.gov.mk takes place through the Single Login System (SEN), available at <https://eid.mk>.

Now, only individuals can register through SEN. To login into uslugi.gov.mk, the user is automatically forwarded to SEN where they identify with their username and password or digital certificate for electronic signature. After the successful authentication, access to the private part of the portal uslugi.gov.mk is provided. SEN in the future will be integrated with the systems of other institutions.

eID levels refer to the levels of authenticity of the electronic identification confirmation in the registration and login process. SEN supports the following eID levels:

- Basic user profile: username and password;
- Low level of eID: username and password;
- High level of eID: username, password and digital signature certificate.

In order to receive an e-service, you need to have an eID at least at the level with which that service is marked on the public part of uslugi.gov.mk.

Regarding the fact that every citizen can see the data recorded about them, as well as a report on which institution, according to which law and when they accessed the personal data contained in the Central Population Register system, we tested this option as an e-service. By clicking on <https://eid.mk> it redirects you to uslugi.gov.mk if you are already a user (in this case a basic level with a user profile of the PRO).

The data inspection service is in the category of Judiciary and Human Rights, subcategory Personal Data Protection. Two services are provided there.

The first is a Certificate for personal data contained in the central population register, according to which the citizen can receive a certificate as to whether their personal data are contained in the Central Population Register.

Required eID level: LOW.

The same service is provided through an intermediary with a personal presence in the administrative office, one point for services, if you meet the above conditions.

The second service is Insight into the list of logs for extended access to the personal data of the user, according to which the citizen can inspect the list of logs for extended access to their personal data.

When testing this service, we only came to the status submitted on 07.05.2022. We submitted a request again on 13.05.2022, but it was not delivered.

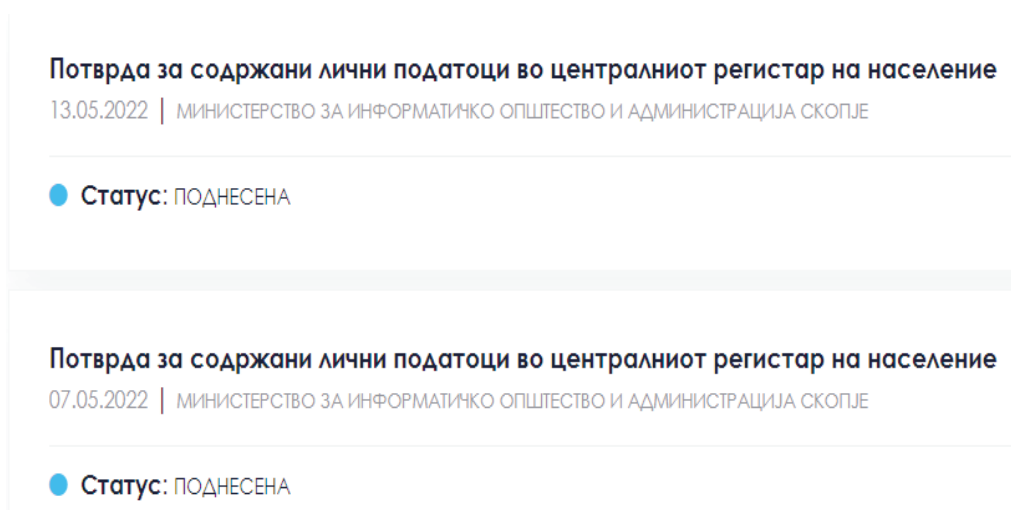


Photo 1 - Confirmation of contained personal data in the central population register.
Source: uslugi.gov.mk

The activities and efforts of MISA continue due to a large number of requests from other institutions for integration and use of data from the National Population Register.

The EC report for 2021 states the recommendation that the data in the population register should be completely transferred and checked, and it should also be used for cross-checking the census data.

Citizens undoubtedly want to know what data is available about them and for what purpose they are being used. More and more research stories are being developed on this topic. One of the newer examples is the creation of a new digital tool, the so-called "Covid calculator" in February 2021 by the Macedonian Occupational Safety and Health Association in cooperation with the Institute of Public Health, which calculates the so-called covid age or percentage of risk of infecting people. Metamorphosis recognized the undoubted great benefit of the calculator, but pointed to several privacy concerns that were reported in the media, including insecure linking and domain linking, unknown ownership of the tool, and thus the responsible collector and data processor given that the tool collects high-risk personal data, including health and biometric data, unnecessary collection of certain pieces of data that do not provide any relevance to the analysis, lack of Privacy Policy, etc.

The Law on Network and Information Systems, which transposes the NIS Directive (EU Directive 2016/1148 of the European Parliament and of the Council of 6 July 2016 regarding measures for a high general level of network and information security systems across the Union) is still in a draft format. During 2021, a new version of the law was posted on ENER.¹¹³

5.3. Results from the testing of e-services, description of the cases from by users

As part of this year's survey, we tested three e-services offered by institutions to examine their functionality from a user perspective. We believe that the selected services should be related to the life event – employment. We have selected services for which no fee is paid. The tested e-services, more precisely, a certificate of insurance offered by the Health Insurance Fund; issuance of a certificate for the registered data in the personal records for the insurance length of service, realized salaries and allowances Pension Insurance Fund; and issuance of a form from a computer record form M1/M2 from registration/deregistration in compulsory social insurance Employment Agency, are described below and supported by tables. The tested services are part of the portal <https://uslugi.gov.mk/>. They can be accessed in two ways, simply with a verification link, via e-mail and through the PRO profile. The second option is significantly better, because through the first, you can look at the services, but not apply for them.

Issuance of a form from a computer record – form M1/M2 from registration/deregistration in compulsory social insurance

Any person who is employed (or has been employed) can obtain a form from the computer record of the registration/deregistration in/from social insurance, which is registered in the ESA records. This document is known as M1/M2. Any employer, only for a person who is employed (or was employed) by him, can obtain the same document (M1 / M2). There is a description of the service on the website but it does not correspond to the real service, i.e. it describes the registration/deregistration in employment and what steps the employer should take to register a person or to deregister a person, but not for issuing a statement from a computer record – form M1/M2 for each person. However, access to the service is simple. A request is created, the data are interconnected via EMBG, and the request is submitted. The request was submitted on 21.04.2022. We have received notification of a request. On 2 May 2022, it has not been submitted to the institution yet. The service is received within 30 days and is free of charge.¹¹⁴

114 Issuance of a form from a computer record - form M1/M2 from registration/deregistration in compulsory social insurance. Available at: <https://cutt.ly/ZHdmlpg>

Table no. 2**Issuance of a form from a computer record - form M2/M2 from registration/deregistration in compulsory social insurance - Employment Agency**

ACCESSIBILITY	YES	NO	Comments
The government portal provides access to the e-service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
The e-service is securely available on several e-channels and accessible through any device	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
Citizens can see the data that institutions collect about them when using the e-service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
The civil society sector is involved in the design and delivery of the service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
SERVICE PROVIDER			
The service is provided by a private company (if there is information)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
The service is provided by a state institution (if there is information)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Employment Agency
GENERAL			
CSOs or civil society individuals are involved in providing e-services and designing them (if there is information)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
There are (have been) big campaigns for introducing and promoting this e-service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
E-services are organized by life events (example from Estonia https://www.eesti.ee/en/)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	This service should be related to a life event - employment
IS THE E-SERVICE EASY TO USE?			
Instructions for using the e-service are available and easy to follow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
Every next step in using the e-service is logical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Access to the service is logical, but it takes a long time to get it electronically
There is an opportunity to evaluate the service after its use (user satisfaction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/

Issuance of a certificate for the registered data in the personal records for the insurance length of service, realized salaries and allowances

The Fund is obliged at the request of the insured to issue a certificate for the data entered in the registry records. Access to the service is simple. A request is created, the data are interconnected via EMBG, and the request is submitted. The request was submitted on 21 April 2022. Notification of submitted request was received. On 02 May 2022 it has not been submitted to the institution yet. The service is received within 30 days and is free of charge.¹¹⁵

Table 3.**Issuance of a certificate for the registered data in the personal records for the insurance length of service, realized salaries and allowances – Pension Insurance Fund**

ACCESSIBILITY	YES	NO	COMMENTS
The government portal provides access to the e-service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
The e-service is securely available on several e-channels and accessible through any device	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
Citizens can see the data that institutions collect about them when using the e-service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
The civil society sector is involved in the design and delivery of the service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
SERVICE PROVIDER			
The service is provided by a private company (if there is information)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
The service is provided by a state institution (if there is information)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pension Insurance Fund
GENERAL			
CSOs or civil society individuals are involved in providing e-services and designing them (if there is information)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
There are (have been) big campaigns for introducing and promoting this e-service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
E-services are organized by life events (example from Estonia https://www.eesti.ee/en/)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	This service should be related to a life event – employment
IS THE E-SERVICE EASY TO USE?			
Instructions for using the e-service are available and easy to follow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
Every next step in using the e-service is logical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Access to the service is logical, but it takes a long time to get it electronically
There is an opportunity to evaluate the service after its use (user satisfaction)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/

Certificate of insurance

This is not an electronic service, although it is listed on the portal uslugi.gov.mk. You can not apply electronically to get the service. Steps are described on how you can get the service on the counter. That is, the request that can be created electronically, is submitted at certain places in the institution. Additionally, a mandatory document is

a valid identification document in the original (passport or ID card) – proof submitted by the service requester. The service is received within 30 days and free of charge. The document (confirmation) is picked up in person or delivered by mail.¹¹⁶

Table. 4
Certificate of insurance – Health insurance fund

ACCESSIBILITY	YES	NO	Comments
The government portal provides access to the e-service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	This is not an e-service although it exists on the portal
The e-service is securely available on several e-channels and accessible through any device	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
Citizens can see the data that institutions collect about them when using the e-service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
The civil society sector is involved in the design and delivery of the service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
SERVICE PROVIDER			
The service is provided by a private company (if there is information)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
The service is provided by a state institution (if there is information)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Health Insurance Fund
GENERAL			
CSOs or civil society individuals are involved in providing e-services and designing them (if there is information)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
There are (have been) big campaigns for introducing and promoting this e-service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
E-services are organized by life events (example from Estonia https://www.eesti.ee/en/)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	This service should be related to a life event – employment
IS THE E-SERVICE EASY TO USE?			
Instructions for using the e-service are available and easy to follow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	This is not an e-service, but it describes the steps how to get it over the counter
Every next step in using the e-service is logical	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/
Instructions for using the e-service are available and easy to follow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/

General remarks

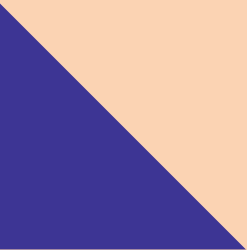
The process of registration on the portal uslugi.gov.mk for services must go through the PRO even for the use of basic services. Almost nothing is received via e-mail, i.e. access is very limited. Additionally, except for the announcement on uslugi.gov.mk, the pages of the institutions are not interconnected, and for some services it is necessary to create an additional profile of the respective institution. Some services that are marked electronically are not electronic at all, and for some of the services such as the tested example only one step is electronic (creating a request), but to get the full service you have to go to the counter of the institution. Additionally, when testing services, it was noted that the certificate of non-conviction (which is often required when terminating employment, or exercising some rights) is still obtained from the court where the person was born, regardless of their current residence, i.e. residence according to the ID card. A lot of time is needed for the e-services, which is not appropriate for their meaning and purpose. Regarding the use of services in other languages (Albanian and English), uslugi.gov.mk is partially translated, while the name of the service exists only in Macedonian.



6



**DIGITAL
LITERACY**



6. Digital literacy

6.1. Broadband Internet

According to the data from the National Broadband Competence Office (NBCO), the Report on the implementation of the National Operational Plan for Broadband Internet (period October 2021 – March 2022) identifies the following situation¹¹⁷:

A. Fixed broadband coverage

- 561,372 households have fixed broadband coverage or 99.48% of the total number of households in the RNM have the opportunity to use fixed broadband internet (basic and/or NGA). 99.395% of households located in rural areas have access to fixed broadband internet (basic and/or NGA);
- Fixed fast broadband coverage (download speed of at least 30 Mbps and not more than 100 Mbps) have 467,599 households or 82.84% of the total number of households in RNM. Of these, 131,627 households or 23.32% of the total number of households in RNM are in rural settlements;
- Fixed ultra fast broadband coverage (download speeds of at least 100 Mbps) have 356,212 households or 63.10% of the total number of households in the RNM. Of these, 65,974 households or 11.69% of the total number of households in the RNM are in rural settlements.

B. Mobile broadband coverage

In RNM, 99.58% of the population is covered by 4G (LTE) network (at least one mobile operator). The average availability of 4G (as an average value of the coverage of the two mobile operators) is 99.395% of the population in RNM.

NBCO in 2020, adopted the Recommendations for free state WiFi internet in open public areas, in accordance with the Government Work Program for the period 2020–2024. Free state WiFi should primarily provide support for the development of tourism and encourage the use of broadband in the white zones of the country. The costs for its provision will be covered by funds from the state budget.

Digital skills

The policy of digital literacy or building digital skills in RNM is implemented horizontally, i.e. from three aspects:

- through employment policy, i.e. building ICT skills for increased employability,
- through education, i.e. introduction of measures for digital skills in the education system, and
- through an ICT strategy which in particular includes building the digital skills in the administration in order to properly implement the new technical solutions and horizontal measures with which the connection is made with the sector strategies.

117 The report on the implementation of the National Operational Plan for Broadband Internet. Available at https://bco.mioa.gov.mk/?page_id=228&lang=en

Digital skills for employability

Eurostat is creating a digital skills index that has been implemented since 2015. Their methodology consists of summarizing four types of skills: information skills, problem solving skills, communication skills, and software skills for content manipulation. According to this indicator, RNM is ranked at the top by a low overall level of digital skills. This percentage of low-level digital skills in 2017 is increasing, compared to 2016. In terms of basic level of digital skills, RNM is again in the lower rank compared to European countries, with 20% in 2017, compared to 23% in 2016. For basic and above basic skills, RNM is again in the lower rank with 32%, only ahead of Bulgaria and Romania. According to the Digital Economy and Society Index for 2017, 44% of people in the EU have very low digital skills and only 27% have basic digital skills. 14% of people in the EU do not use the Internet (European Commission, 2016). Although the number of Internet users (from the EU population) is growing, older people, those with lower levels of education and those with lower incomes continue to be at risk of digital exclusion.¹¹⁸

The Ministry of Labor and Social Policy (RNM) has prepared a National Employment Strategy 2021–2027 with an Employment Action Plan 2021–2023¹¹⁹ that includes measures for the development of digital skills.

According to the Strategy, initial state determined by the Strategy: In 2016 (last available year), the share of adults in education and training in RNM was 12.7 years, 3.5 times lower than the rate recorded at EU level.

In 2019, the share of people aged 16–74 with digital skills was 32%, compared to 56% at EU level. In 2019, the share of medium and highly skilled working age population was 69%.

In 2019, the share of adults (18 years and older) in education was 8.9%, almost half of the rate recorded at EU level in the same year (16.8%).

According to the Action Plan for employment 2021–2023 towards the Strategy, the following is determined:

- Outcome 1.3. Better offerings of adult learning opportunities, including digital skills, and the ability to recognize prior learning, increase the skills of the workforce.

For the realization of this measure, the following is planned:

- Developing a concept to expand the offer of adult education, including digital skills, and
- Developing and pilot testing of digital skills learning modules to be implemented during all adult training courses;

118 What is the level of digital skills in Macedonia and the EU? Macedonian E-Commerce Association. Available at: <https://cutt.ly/8HdQVyD>

119 National Employment Strategy 2021–2027 with Employment Action Plan 2021–2023. Available at: <https://cutt.ly/vHdnI9e>

The expected outcome under this measure by 2027 is that the rate of adult participation (25–64 years) in education and training will reach 16% per year. In 2027, the share of people (16–74 years) with digital skills in the Republic of North Macedonia will be 45%.

- Outcome 1.1 – Education and training system reform leads to improved learning outcomes, students acquire the skills needed to pursue higher education or enter the labor market and reduce skills mismatch with labor market needs.

For the realization of this measure, the following is planned:

- Developing of a concept for introducing digital skills learning in primary and secondary education.

Planned reforms to the primary and secondary education system, including the introduction of an internship system starting in 2021, and the expansion of career guidance services and the introduction of digital skills training, will have a measurable effect on aligning competencies with labor market requirements.

An open call is posted on the website of the Employment Agency for persons interested in digital skills training¹²⁰:

The IT skills trainings aim to upgrade the skills of the unemployed young people up to 34 years old in the field of information technologies in order to increase their competitiveness and faster integration in the labor market.

- 4.1 Advanced IT skills trainings – This measure envisages the inclusion of 193 unemployed young people;
- 4.2 Advanced IT skills trainings (co-financed, financed 49% by the Employment Agency of the Republic of North Macedonia and 51% by the trainer). This measure envisages the inclusion of 60 unemployed young people;
- 4.3 Introductory trainings for IT skills (on line). This measure envisages the inclusion of 1000 unemployed young people.

Digital skills in education

The National Strategy for Education for 2018–2025 and Action Plan provide digital skills in education according to which in Priority III – Ensuring the widespread use of ICT in education and training and digital literacy are identified several priorities whose implementation should give the following measurable results:

- Approved standards for using ICT at all levels of education;
- Provided necessary ICT equipment to at least 50% of the public educational institutions;
- Developed educational software for using ICT according to the standards and provided to the users;
- Trained staff from equipped institutions to use ICT in the educational process;
- Fully operational platform with updated resources for teaching and learning of staff at all levels of education, children, pupils and students;
- Operational Mathematics and Informatics High School and/or ICT classes with a

120 IT skills training. Employment Agency. Available at: <https://cutt.ly/sHdQ8a2>

- continuous educational process for the first generation of students;
- Possibility to increase the number of vacancies in the high school/classes every year, in accordance with the increased number of applicants;
- Education process for at least one generation of students in VET schools;
- Learning outcomes defined according to the curriculum (Qualification Standards) provide adequate quality to students who have completed their education.

Digital skills according to the ICT strategy¹²¹

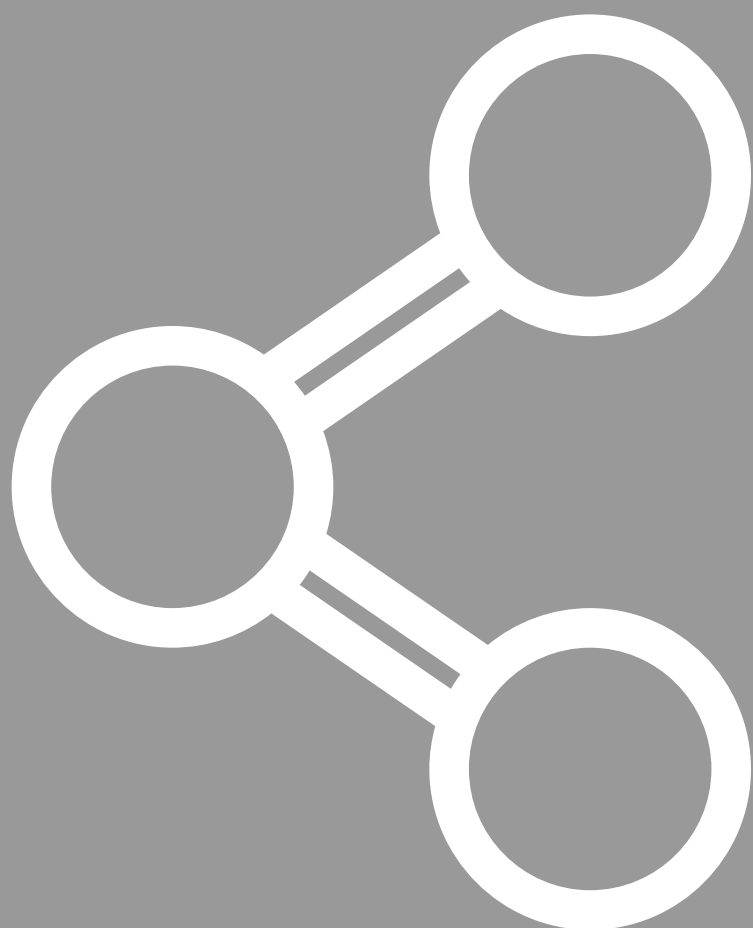
- Establishing partnerships with multiple stakeholders to maximize personal potential through digital technology. The National Coalition for Digital Skills and Jobs (NC of RNM) has been formed.
- Setting goals and preparing an action plan. The goals and action plan will refer to the National ICT Strategy of RNM 2021 – 2025 and will include projects for the benefit of the four main target groups (education and training, citizens, workforce, ICT professionals).
- The measures from the educational processes and those from the employability measures are fully harmonized with the measures from the previously cited two sectoral strategies and supplemented with measurable indicators according to DESI.

It can be concluded that there are measures to promote digital skills at the national level, but the results of the implementation will take time.

7



**ACCESS TO
SERVICES
AND RAISING
AWARENESS**



7. Access to services and raising awareness

The basic, i.e. central portal for e-services in RNM is the National Portal for e-services (uslugi.gov.mk). There are currently 212 existing services on uslugi.gov.mk.¹²² This number is partly confusing because on the main page where there are statistics on electronic services it says that there are 75. The development of 135 new electronic services for citizens and companies has been announced. At the same time, a tool for digitization of registers has been developed, and the relevant registers necessary for the digitization of these services are the first to be digitized. This also goes in the direction of promoting such a central solution because it is difficult for the citizens to cope if they do not find such solutions in an easy and simple way or if there is a constant transition from one central solution to another. The portal uslugi.gov.mk was indirectly promoted for some of the services for which the citizens needed reminding that these are their obligation or opportunity to obtain information, so the portal itself was involved in several campaigns of public interest. But it is necessary to continue its promotion. Having in mind that the upgrade of the portal uslugi.gov.mk was based on a predefined Catalog of services, where a cross-analysis of the services was made (with the support of the EU funded project "Civic-oriented approach in the delivery of public services") the digitalization of services listed in the catalog, among other things, is expected to indicate the necessary legal and technical adjustments for administrative simplification and improvement of public services. The uslugi.gov.mk portal is connected to the Catalog and the National Electronic Population Register, which will enable citizens and businesses to have access to even more services through the portal in the future. Citizens can best be stimulated by explaining the benefits of using e-services.

The portal uslugi.gov.mk has a good division of services by categories and subcategories, but a mechanism for measuring satisfaction must be established, which should especially serve as feedback to institutions for the promotion of services. The good thing is that there is a possibility of reporting a problem. The portal uslugi.gov.mk offers a statistical number of services, but in reality many of them are not electronic but are a description of how to get the service over the counter.

It is recommended to have a tool on uslugi.gov.mk to display the most requested services. In the absence of such data, based on previous research, the most requested e-services are the following:

- For 2019¹²³:
 - Registration of births;
 - Acquisition of citizenship by origin;
 - Issuing a passport for the first time.

122 Accessed on 07.06.2021 : <https://uslugi.gov.mk/services-by-application-type.nspcx?serviceApplicationTypeId=1>

123 14 most frequently asked questions about the 14 most common public services for citizens. Change Management Center. Available at: <https://cutt.ly/mntzpel>

- For 2020¹²⁴:
 - Movement permit for legal entities and employees of their company during the validity of the Decision for prohibition of movement;
 - Permit for movement of natural persons who provide care for third parties, care for the elderly and frail persons during the validity of the Decision for prohibition of movement;
 - Exercising the right to monetary compensation in case of unemployment; and
 - Certificate for exercising the right to a special allowance.

The opportunity to determine which the most requested services are would be useful to the institutions. If such a service was not fully available electronically, institutions should prioritize exactly that service and try to make it be available electronically from start to finish.

In order to stimulate the citizens to use more electronic services, a great motivator would be the option of tracking the service (tracker) to enable citizens to have insight into the process of obtaining the service, or in which institution the case currently is or at what stage.

The National ICT Strategy of North Macedonia 2021–2025 establishes the creation of a Centralized Digital Agency (CDA) which will consolidate all government ICT funds and resources in order to create a cost-effective mechanism for delivery of government ICT services. It is expected that as a central body to address the findings of research in this area to achieve more effective results.

The part of the strategy where the priority of Digital Services is determined envisages "Starting and directing the activities towards new digital services – Assessment and prioritization of the national requests for new digital services specific to RNM and with the possibility for their regional and international use (e.g. in connection with climate change, electricity saving, environmental protection, health, education, agriculture, etc.)."

When developing new digital services, it is recommended to use the concept of open services¹²⁵ based on:

- Collaboration in designing and creating innovative solutions through joint design, co-production with the public sector, companies, civil society and citizens;
- Adoption of new and collaborative models for service delivery (through public, private and non-governmental actors, both within and across national borders);
- Acceptance of creative alternative technological solutions (use of social media, mobility, big data, cloud computing, etc., packed in new digital solutions);
- Readiness for experimentation and entrepreneurship (public sector should become more entrepreneurial).

124 Digital Agenda Observatory 2020. Internet and Society Foundation Metamorphosis. Available at: <https://cutt.ly/VHUR5FE>

125 Roadmap for organizational, legal and technical reforms to improve public services. Change Management Center. Available at <https://cutt.ly/Fb8NUTX>

At the same time, in the process of introducing new e-services, in order to provide greater benefits for the citizens and the business sector from their use, it is necessary to simplify the business procedures, increase the level of interactivity and feedback from the public authorities responsible for the submission of traditional and electronic services, as well as to take care of improving the stability, availability and security of e-services.¹²⁶

In the Report on the state of application of the Digital Economy Society Index (DESI) in the economies of the Western Balkans¹²⁷, Dimension 5: Digital Public Services, the findings for RNM reads: "Digital transformation of production and delivery of public services is an important element of modernization and digitalization of the public sector. The availability of a key e-government has enabled interoperability, a one-stop shop and specialized portals and platforms, well-developed portfolios of online services for citizens and businesses, and increased acceptance of online services over the years across the EU. The use of new technologies for service delivery (AI, Big Data, block chain, etc.) will also increase quality." The recommendation for MISA in this section is: "MISA should continue its active participation in the e-Government Benchmark Study to ensure monitoring of the digital Dimension of a public service for North Macedonia."

The latest available data on electronic banking, according to the data of the National Bank of RNM from 2020 show that citizens are increasingly using payment cards and e-banking.

According to the Presentation of the annual payments in RNM published by the National Bank of RNM¹²⁸ last available for 2020. The statistics shown in Table 5 can be determined.

Table 5.

Payment transactions with payment instruments in the country

Participation in the total number of non-cash transactions (%)		Participation in the total value of non-cash transactions (%)	
Year	Percent	Credit transfers (%)	Payment cards
2016	61%	99%	1%
2017	57%	99%	1%
2018	53%	99%	1%
2019	50%	98.6%	1.4%
2020	44%	98.1%	1.9%

* The total number was **140 million transactions, which was an annual growth of 10.2%**.

* The total value registered an annual **decline of 5% and amounted to 3,859 billion denars**.

126 Analysis of e-services in municipalities of the Republic of North Macedonia. Available at: <https://cutt.ly/3HU9RTE>

127 Report on the status of the application of the Digital Economy Society Index (DESI) in the economies of the Western Balkans. Regional Cooperation Council. Available at: <https://cutt.ly/KHdEPsy>

128 The presentation of the annual payments in RNM published by the National Bank. Available at: https://www.nbrm.mk/platiezhna_statistika.nsp

The number of electronic credit transfers initiated by the citizens in March 2020 increased by significant 30.3% on annual basis, i.e. by 21.4% on monthly basis. Citizens especially used computers to make payments. Specifically, in the payments made via computer, in March, there was a high annual growth of 26.4%, i.e. monthly growth of 27.2%, which is twice higher than the annual growth in the first quarter of this year, which amounted to 13.8%. Citizens also used their mobile phones to make payments significantly more than before. The number of payments made by mobile phone in March increased by 45.5% on annual basis, amid more moderate monthly growth of 7.4%. The realized growth in the payments made in this way is relatively close to the annual growth realized in the first quarter of last year, of 45.9%. Currently, one in four electronic credit transfers of citizens is initiated via mobile phone, while the other three electronic credit transfers are initiated using a computer.¹²⁹

According to the Program for Increasing Market Employability (EME)¹³⁰ supported by the Swiss Embassy in RNM, which aims to strengthen the business sector in the Republic of North Macedonia, the role of the business sector was especially recognized as a lifeline not only in preventing the spread of Covid-19, but also to adapt social services and business processes to the new way of life and work. North Macedonia is no exception. In the first few weeks, Macedonian ICT companies launched digital tools, ranging from mobile applications to detect close contact with potentially infected people, digital platforms for health services, e-commerce and (free) digitization services. We decided to single out the following:

- North Macedonia became the first country in the Western Balkans to launch a mobile application to detect close contact and prevent the spread of the virus. Local software company NextSense has developed the StopKorona app! and donated it to the Macedonian authorities. The app, which was installed by 5,000 users from day one, is a contribution from NextSense in a joint effort to combat the pandemic. At the height of the crisis, this software company developed another digital solution for the Macedonian healthcare system. E-Prescription, a new centralized system for obtaining prescriptions electronically, has met with positive public reactions, with the hope that this solution will put an end to inefficient bureaucratic procedures in healthcare.
- The local company, GDI,¹³¹ promoted a map¹³² that monitors real-time cases of corona in the country in order to better inform the authorities and the public.
- StartUp Macedonia mobilized ICT startups and with the support of FITR launched the TechPack¹³³ platform to offer (free) assistance in digitalization of services of small and medium enterprises from other sectors to help them overcome the crisis more easily. Two other platforms that appeared in this period are Onlajn.mk,¹³⁴

129 Citizens are increasingly using payment cards and electronic banking. National Bank of the Republic of North Macedonia. Available at: <https://cutt.ly/ontzPvj>

130 Program for Increasing Market Employability. Available at: <https://ime.org.mk/mk/doma/>

131 GDI - <https://gdi.net/mk/gdi-team/>

132 Available at: <https://cutt.ly/jHdOd4R>

133 Available at: <https://www.techpack.mk/>

134 Available at: <https://www.onlajn.mk/>

an e-commerce aggregator and Ways2Help¹³⁵ platform for connecting donations. Both platforms are contributed by local ICT professionals and companies.

The future commitments of the Market Employability Program (MEP) will continue to support the software industry as an already established mechanism for increased productivity, efficiency and innovation, as well as to support the transformation to a knowledge-based society.¹³⁶

There is a strong civil society sector in RNM that monitors and supports the implementation of the Digital Agenda. One of the most important projects that currently generate such data, and is aimed at meeting the measures and goals of the Digital Agenda, is the project "Increasing Civic Engagement in the Digital Agenda – ICEDA". The ICEDA team from 5 targeted countries from the Western Balkans continues to educate and inform citizens, civil society organizations, businesses and institutions about the benefits and challenges related to the Digital Agenda, through a public educational and information campaign. The campaign lasted from February 2021 to January 2022, where as part of the goals and activities of the ICEDA network, the team created a number of e-contents that were promoted through social media, with networks of collaborative media, institutions and civil society organizations of local, national, regional and international events.¹³⁷ Metamorphosis is the Macedonian representative in ICEDA and a leader of the network. It contributes in this area through numerous researches and analyzes, with recommendations and directions for implementation of the measures from the Digital Agenda and achieving comparability and visibility of RNM with the other countries of the Western Balkans that are part of this initiative.

In the area of institutional reforms in the direction of digitalization of work and processes, the Center for Change Management has its contribution with numerous publications and researches.¹³⁸ They are involved in the preparation of legal solutions and strategic documents in the field of ICT. A particularly large contribution of CCM in the part of uslugi.gov.mk was the cataloging of services on the principle institution by institution on which the services of the mentioned portal are based.

In the area of OGP, the Republic of North Macedonia continuously records successful results and recognitions, and the latest is that the Innovative tools that enabled greater transparency and accountability of the municipalities in the country have been named one of the global winners of the Open Government Partnership Summit from December 15–17 2021 took place in Seoul, Republic of Korea.¹³⁹

CSOs are fully and continuously involved in all processes, including the creation of the action plan and commitments. The OGP platform <https://ovp.gov.mk/> allows online monitoring of the implementation of the OGP action plan because the progress of each measure is regularly updated on a quarterly basis.

135 Available at: <https://ways2help.us/>

136 MEP - <https://ime.org.mk/mk/ikt-socijalna-odgovornost-covid19/>

137 ICEDA continues to educate and inform about the benefits and challenges related to the Digital Agenda. Metamorphosis Foundation. Available at: <https://cutt.ly/tHdOmnu>

138 Center for Change Management. Available at: <https://cup.org.mk/publikacii>

139 Available at: <https://www.mioa.gov.mk/?q=mk/node/3740>

The 5th Action Plan for Open Government Partnership for 2021–2023¹⁴⁰ sets a priority for the promotion of public services in the field of employment, preventive health care, education, local public services, etc. In each of these priorities, the drivers are civil society organizations that actively contribute to their efforts and activities in achieving measurable results.

Research at the local level makes a great contribution to the advancement of services. There would be no relevant information about the situation in the field without this type of research. The last such comprehensive research was conducted by Metamorphosis in August 2021.¹⁴¹

In terms of the involvement of CSOs and their impact in achieving the goals of digitalization through by bringing it closer to end users and putting the citizen in the spotlight, several positive examples and success stories can be singled out. These positive examples are part of the grant scheme of the project "Increasing Civic Engagement in the Digital Agenda – ICEDA", co-funded by the EU and implemented by Metamorphosis and partners.

- 1) *The Technical Support Center was established by Skopje Lab, managed by SmartUp – Laboratory for Social Innovation Skopje,¹⁴² which also focuses on re-designing certain e-services and digital applications for citizens provided by the City of Skopje.*
- 2) *The sub-grant "E-service as a self-service" is implemented by the Association for Tolerance and Cooperation of Citizens – AGTIS¹⁴³ whose main goal is to manage support centers for citizens of the Municipality of Prilep and the Municipality of Dolneni. More precisely, their target group is the population with low socio-cultural standard, Roma, illiterate and/or "technically illiterate" persons, the elderly, persons with long-term unemployment, and persons with basic information literacy, rural ethnic and mixed religious population.*
- 3) *"Digitalization in Agriculture – NOW!"¹⁴⁴ Is a sub-grant implemented by the Rural Coalition, in order to increase trust in the institutions of the system by increasing the use and improving the quality of e-services by the local community.*

These 3 centers are active and continue to provide support to the citizens. By November 2021, 7,073 citizens were supported through them to use e-services.

Metamorphosis also supported the activities of two organizations with two additional grants:

- The Youth Educational Forum¹⁴⁵ that through a hackathon enabled the upgrade of the Iknow system at the University of Ss. Cyril and Methodius Skopje and

140 OGP 202-2023, <https://ovp.gov.mk/wp-content/uploads/2021/07/NAP5-PARTNERSTVO-ZA-OT-VORENA-VLAST-2021-2023--potvrden-od-Vlada-26.10.2021.pdf>

141 Available at: https://metamorphosis.org.mk/en/izdanija_arhiva/analysis-of-e-services-in-municipalities-of-the-republic-of-north-macedonia

142 Available at: <https://www.innovationlab.mk/>

143 Available at: <https://agtis.org.mk/>

144 Available at: <https://rural.mk/>

145 Available at: <https://mof.mk/>

- Center for Social Innovation Blink 42-21,¹⁴⁶ an organization that developed the application M-Community: <https://mzaednica.mk/>. This is a great example of an e-service that is completely online, used by 5 municipalities. The application enables its users to communicate with the municipality and to influence the activities undertaken by the municipality itself. It is possible for citizens to report certain problems online, share suggestions or launch certain civic initiatives, and the municipality, which is especially useful for this type of application, publishes all applications with their respective processing status, until they are successfully resolved.¹⁴⁷ Many problems were solved. The municipalities started exchanging experiences with each other. The application has the effect of restoring trust in municipalities.

At the local level there are several other e-services with the highest level of sophistication, i.e. "complete transaction", which have been developed and maintained in the past under the leadership of the Association of Local Self-Government Units of RNM, certain ministries and some development organizations active in this field. Examples of this type of e-services provided by the municipalities were the portals and web applications: e-construction permits ([www. Gradezna-dozvola.mk](http://www.Gradezna-dozvola.mk)), the portal for management of B-IPPC permits and environmental reports (<http://www.ekoloska-dozvola.mk>) (which, unfortunately, is no longer active), e-construction land (www.gradezno-zemjiste.mk), the application www.e-stvari.mk, www.e-urbanizam.mk, the web application of the City of Skopje, www.danoci.skopje.gov.mk and others. This way of organizing e-services gives the best effect and the greatest efficiency. The municipal administration and the citizens accurately follow the business process by following the procedure for using the e-service, there can be no misunderstanding or overlapping competencies of individual organizational parts of the municipality or individual jobs, so that cases are processed quickly and with constant insight into what stage of the procedure they are in.¹⁴⁸

146 Available at: <http://blink42-21.mk/za-nas/>

147 Analysis of e-services in municipalities of the Republic of North Macedonia. Metamorphosis Foundation. Available at: <https://cutt.ly/zJh036z>

148 Ibid.



8



**INFORMATION
AND CYBER SECURITY**



8. Information and cyber security

The National Strategy for Cyber Security of the Republic of Macedonia 2018 -2022 has been adopted. OBJECTIVE 1 defines Cyber Resilience – “Information and communication infrastructure in the Republic of Macedonia to be resilient to cyber threats and to identify and implement appropriate solutions to protect national interests. Cyber resilience provides confidentiality, integrity, and accessibility through the identification, protection, and resilience of cyber incidents. The public and private sectors must have timely and accurate information and proposals for improving cyber security and be able to cooperate with each other in the event of cyber incidents.”¹⁴⁹

For the security and integrity of networks, the rules are set by the Agency for Electronic Communications (AEC) with the Rulebook for ensuring security and integrity of public electronic communications networks and services and activities that operators should take in case of breach of personal security data from 2015, amended in 2019 (Official Gazette of RNM, no. 92 from 13.5.2019).

The Law on Electronic Communications established the National Center for Computer Incident Response MKD-CIRT as a separate department in the AEC,¹⁵⁰ which institutionalizes the protection of network and information security, especially of entities with critical infrastructure. State institutions as constituents should harmonize their security measures in consultation with the CIRT. The procedures for requesting guidance and assistance have already been published and explained on the CIRT website, and it remains for the institutions to contact and oblige to them. Regarding the mandate to create policies and laws in this area, the competent state body is MISA in terms of legal and strategic framework. At the same time, MKD-CIRT prepares rulebooks and manuals and other soft policies, and derives its mandate from the Law on Electronic Communications.¹⁵¹

The best option for state institutions is to establish cooperation with MKD-CIRT. MKD-CIRT enables the use of a service for external cyber-security checking of web applications. The service is intended for the organizations – constituents of MKD-CIRT from the public and governmental sector, bodies of state administration.¹⁵² In addition to this service, in general for all issues related to network and information security, the state authorities should establish cooperation and oblige and adapt to the internal rules. MKD-CIRT enables online reporting of a computer security incident.¹⁵³ It also has an active educational role, providing numerous trainings and webinars.

149 National Strategy for Cyber Security of the Republic of Macedonia 2018 -2022. Available at: <https://cutt.ly/antvtUP>

150 National Center for Computer Incident Response MKD-CIRT. Available at: <https://mkd-cirt.mk>

151 Law on electronic communications. Available at: <https://cutt.ly/1ntvcvz>

152 Web application checking service. National Center for Computer Incident Response - MKD-CIRT. Available at: <https://mkd-cirt.mk/usluga-za-proverka-na-veb-aplikacij/>

153 Online Computer Security Incident Reporting Form, <https://mkd-cirt.mk/prijava-na-incident/obrazec-za-prijava-na-incident/>

On the MKD-CIRT website so far there are several warnings about phishing campaigns targeting Macedonian citizens that pose a risk. These are nicely described, displayed in print screen detail about the "attacker" so that each person receives directions on how to recognize, avoid and protect themselves from the threat in question. There is also a section for safety tips. In order for such warnings to be more accessible to the citizens, it would be nice to have such alarms either through social media or another type of MKD-CIRT application so that the citizens are informed in a timely manner.

MKD-CIRT plays an important role in affirming computer security which is seen through the prism of several organized hackathons on this topic.

Regarding the more detailed overview of the activities, no data on the work of MKD-CIRT were found in the annual report on the work of AEC, so it might be more expedient to have a report in the future (independent or within that of AEC).

9



E-PARTICIPARION AND E-DEMOCRACY



9. e-Participation and e-Democracy

Undoubtedly, e-government provides transparency, because it increases the opportunities for citizens to communicate with the government. This improves the efficiency of public administration, increases government accountability to the public, and enables participation in political processes.¹⁵⁴ The Government's strategic priorities in the area of civic engagement and transparency are the following:

- Professional, efficient and accountable administration in the service of the citizens and the business community, digital transformation and further development of the information society (which is part of the Government's vision);
- Effective, efficient and inclusive policy making, professional and departmental administration, and responsible, accountable and transparent operation of the institutions;
- Development of professional, responsible, expert, confidential and accountable administration, oriented towards the citizens and the business community; an administration that meets international and European values and standards of good governance;
- Development and improvement of the conditions for access to information and communication technologies for fast, easy and efficient use of ICT in the daily life of the citizens and the business community;
- Installation and maintenance of quality software solutions and infrastructure in accordance with the needs of the institutions; trained and well-informed citizens of N. Macedonia about ICT;
- Developing mechanisms for transparent and fair reporting on issues of public interest;
- OGP – fiscal transparency, open data, transparency at the local level, access to justice and climate change, as well as five commitments in three priority topics: accountability, access to information and citizen participation.¹⁵⁵

Citizen participation is one of the key mechanisms for ensuring democracy. In that way, social affiliation is ensured and an efficient civil state and a tolerant society are encouraged. E-government provides more information about the government and the work of institutions, thus giving citizens the opportunity to more easily observe the shortcomings, weak points in governance and how to offer opportunities to address them. Digital platforms provide a forum for reaction, and this is important for countries that do not have a high level of political and democratic culture. Of course, the human factor remains one of the biggest challenges in governance, and the problems with the processes need to be addressed primarily at the political level. The role of the digital is to serve democracy, and to enable the advancement of political and democratic culture.

154 How does e-governance ensure transparency? Metamorphosis Foundation. Available at: <https://cutt.ly/xJh7n6z>

155 Strategic plan 2021-2023. Ministry of Information Society and Administration. Available at: <https://cutt.ly/jb8D77J>

In this regard, e-participation tools should be available to every citizen, safe and easy to use.¹⁵⁶ E-participation tools in RNM are the following:

- Single National Electronic Register of Regulations (ENER): <https://ener.gov.mk/Default.asp>;
- Government's Open Data Portal: <https://data.gov.mk/>;
- M-Community: <https://mzaednica.mk/>;
- Open Government Partnership Portal of North Macedonia: <https://ovp.gov.mk/>.

Regarding this issue, legal acts have been established to coordinate the participation of citizens. Citizen participation is also ensured through the Regulatory Impact Assessment (RIA), where RIA is mainly regulated by government decisions,¹⁵⁷ and Rules of Procedure of the Government,¹⁵⁸ and not by legal solutions. Efforts need to be made for the regulators to use ENER, i.e. to publish their proposals there. The current legal framework applies only to ministries and administrations. However, despite the numerous functionalities, the institutions do not always follow the ENER procedures, due to various excuses related to the available resources.¹⁵⁹

The Law on Free Access to Public Information¹⁶⁰ legally stipulates which information is public, so the holder of such information should inform the public through its website.¹⁶¹ In our country there is an "Open Data Strategy, 2018 – 2020",¹⁶² and an action plan, through which the so-called open government data are made available to create new services and to contribute to public policy making, but are not up to date. The decision of the Government from 2017 to publish 21 documents for reports, rulebooks and other acts of public interest, which the ministries are obliged to publish on their websites as part of the efforts for transparent and accountable work, are starting to be followed by the municipalities, in order to become more open to the citizens.¹⁶³

An open government is a government whose public processes are transparent, public information is available online, and citizens and CSOs are encouraged to participate through online civic participation platforms. Open data provides many benefits, including increased transparency due to the fact that the available data is easily accessible to stakeholders, improves the interoperability of institutions, provides input in public

156 E-participation: Empowering citizens' voice in the digital space. Metamorphosis Foundation. Available at: <https://cutt.ly/5Jh5wSl>

157 Ministry of Information Society and Administration. Decision on the form and content of the RIA report. Available at: <https://cutt.ly/lb838kG>; Methodology for regulatory impact assessment. Available at: <https://cutt.ly/sb835uc>

158 Rules of Procedure of the Government of the Republic of Macedonia. Available at: <https://cutt.ly/cb-88pK9>

159 Interview with [Gordana Gapikj-Dimitrovska, State Adviser at the Ministry of Information Society and Administration, conducted on 26 April 2022.](#)

160 Law on free access to public information. Available at: <https://cutt.ly/Db8ZCJE>

161 Public information. Ministry of Information Society and Administration. Available at: <https://cutt.ly/9b-83kmg>

162 Open Data Strategy 2018 – 2020. Government of the Republic of North Macedonia. Ministry of Information Society and Administration. Available at: <https://cutt.ly/mb8AIA2>

163 Analysis of e-services in municipalities of the Republic of North Macedonia. Metamorphosis Foundation. Available at: <https://cutt.ly/lJjiteyc>

policy making and informed civic involvement. It also provides opportunities to contribute to innovative IT solutions, products and services.¹⁶⁴ However, despite the efforts of the Government to present the information in open format, some of the institutions still do not publish their databases on their websites in open format and it can not be said that we have a sufficiently developed culture of open data. There are initiatives of state institutions and local self-governments to "open the data", however, to a large extent publishing wide range of data in machine-readable format is often seen as a policy of MISA and an additional task without going into the essence of the need for it. Data opening is usually done manually and non-automatically. Hence, there is progress but it is not enough.¹⁶⁵ Support in opening data sets at both central and local levels is often provided with the help of foreign donors and through the CSO sector.¹⁶⁶

However, according to the latest data from the Openness Index of 2021, for the use of open data, RNM has significantly improved, i.e. it has the most open executive branch of power in the region with 83.43% fulfillment of all the indicators of openness, and registered a significant increase compared to the results achieved in the last year (52.09%). The central government is significantly more open compared to the local and judicial authorities. The Assembly of the Republic of North Macedonia meets 68.15% of the openness indicators and is ranked third in the region, after the Assembly of Montenegro and the Assembly of Slovenia, respectively. And that is continuously improving compared to previous years and is part of the Initiative OGP – Open Parliament. The Government of the Republic of North Macedonia (83.43%) also registered an improvement compared to last year, as well as MISA (82.24%). Regarding certain institutions, the success in terms of indicators is as follows: Ministry of Defense (79.49%); Ministry of Finance (77.65%); Customs Administration (76.33%); Ministry of Environment and Physical Planning (71.45%); Ministry of Interior (70.39%); Ministry of Justice (68.46%). Collectively, the ministries in our country achieve 62% of the openness indicators, which is the best result in the region.¹⁶⁷ Additionally, an assessment was made of the state of good governance in the units of local self-government (LSGU) in RNM for 2021. The assessment is the result of a survey based on the Openness Index. The 2021 survey found that most municipalities do not work hard enough to meet openness standards. The results in the areas indicate that the LSGUs apply low standards for consultation, transparency, monitoring and control in their work. The average openness of the municipalities for 2021 is as low as 25%. The openness index showed that in the measurement for 2021 the best results are shown by the municipalities of Ohrid (51%), Vasilevo (48%) and Kočani (48%), while the lowest ranked is the municipality of Plasnica (3%).¹⁶⁸

164 Open data and openness of the government. Metamorphosis Foundation. Available at: <https://cutt.ly/hJlOKAW>

165 e-Society.mk: The progress with opening of data is below expectations. Metamorphosis Foundation. Available at: <https://cutt.ly/cJjtdO6>

166 Five central government institutions have opened their data. Metamorphosis Foundation. Available at: <https://cutt.ly/OJjtQzt>

167 Assessment of good governance in North Macedonia and the region through the Openness Index. 2021. Internet and Society Foundation Metamorphosis. Available at: <https://cutt.ly/LJl9ko3>

168 Openness Index of the Local Self-Government 2021. Metamorphosis Foundation. Available at: <https://cutt.ly/TJl3CcW>

The Transparency Strategy of the Government of the Republic of North Macedonia was adopted in November 2019 and covers the period until 2021.¹⁶⁹ The AP for the implementation of the Strategy contains strategic provisions, divided into measures and activities, as well as indicators of success. The Government has not published a report on the implementation of the AP or the implementation of the Strategy (although it was planned), but the analysis shows that the number of responsive institutions has decreased by about 20% compared to previous surveys. Many of the activities have not been implemented, i.e. they are stagnant, and the public is not informed about it. The organizational unit at the General Secretariat for Monitoring the Implementation of the Transparency Strategy has not yet been staffed, but a working group has been set up to monitor the implementation of the Transparency Strategy, consisting of seven members from the institutions. However, this group has not yet held other meetings. According to the commitments undertaken in the Transparency Strategy, it was planned to make a decision by which the Government will oblige all institutions and bodies of the executive power to publish their draft bylaws on ENER for public consultations. The government has not yet made such a decision, but a software solution has been updated to enable this setup.¹⁷⁰

Preparation and processing of data for the Accountability Tool for the 10th cycle is underway, and the Government website enables the opportunity to check the data only for the period from 2017 to August 2021.¹⁷¹ The creation of unified websites for all ministries and for the Government is announced and this activity is still ongoing. Although the institutions have not received instructions for unifying the formats and contents, they still publish frequently asked questions on their websites as well as link the published public procurement documents on their websites with the documents published on the Electronic Public Procurement System. On some ministry websites there is an opportunity to make a proposal or file a complaint, but not all. Such an opportunity exists on the portal uslugi.gov.mk, in the Support section where there is an option to send a proposal for improvement. In contrast, the Law on General Administrative Procedure establishes mechanisms for reporting unethical behavior and violations of the Law, as well as the opportunity to file complaints regarding access to public services and the administration of justice.¹⁷² There is also a Code for Administrative Servants.¹⁷³ The project "One point for services" exists in Skopje, Tetovo, Ohrid and Kumanovo, where citizens can get more services in one place. Such offices are planned in other cities as well.

As for the question of whether there are tools available to citizens online that enable them to provide feedback to the Government (including reporting unethical behavior, filing complaints, etc.), an affirmative answer can be given. The functionalities of the previous e-democracy portal,¹⁷⁴ which is no longer operational, have been transferred to the Single National Electronic Register of Regulations (ENER). At ENER, the citizens can give their comments on the proposed legal solutions, documents and initiatives, but

169 Transparency Strategy of the Government of RNM 2019-2021. Available at: <https://cutt.ly/BHdYBUN>

170 Assessment of the level of implementation of the action plan of the Transparency Strategy (2019-2021) in the period November 2019 - November 2021, Metamorphosis, 2022.

171 <https://vlada.mk/otchetnost-troshoci>

172 Law on General Administrative Procedure. Available at: <https://cutt.ly/lb8Kzyw>

173 Code for Administrative Servants. Available at: <https://www.pravda.gov.mk/toc1/1854>

174 E-democracy Portal. Available at: <http://arhiva.mioa.gov.mk/?q=node/2630> - its functionalities have been transferred to ENER, where there is an opportunity to submit initiatives.

they can also submit their own initiative.¹⁷⁵ There is also a Guide to giving feedback to the public on the results of law drafting processes.¹⁷⁶ It can be said that in recent years ENER is the most used tool for e-participation. It is recognizable and institutional care is taken not to reduce the citizens' trust in this tool.¹⁷⁷

Consultations on the preparation of laws and other regulations as an obligation of the institutions are provided in the Law on Organization and Operation of the State Administration Bodies in Article 10.¹⁷⁸ The Law on the Use of Public Sector Data determines the obligation of the public sector bodies and institutions for public disclosure of the data they create in the exercise of their competencies in accordance with the law, in order to enable the use of that data by legal entities or individuals for the creation of new information, contents, applications or services.¹⁷⁹ The models for participation are provided by the Law on Local Self-Government,¹⁸⁰ and there is an "Action Plan for the Strategy of the Government of the Republic of Macedonia for cooperation with and development of the civil sector".¹⁸¹ Since 2016, by a decision of the Government, a Council for Cooperation of the Government with the Civil Society has been established as an advisory body of the Government for promotion of the cooperation, dialogue and encouragement of the development of the civil sector in the Republic of Macedonia.¹⁸²

According to the Strategy for Cooperation of the Government with the Civil Society 2022 – 2024, Priority Area 2: Democratization, active participation of the civil society in social processes, policy making and monitoring, with a special focus on the European Union integration process, 3 strategic and 9 operational goals have been determined.¹⁸³ According to the Action Plan for implementation of the Strategy, Strategic goal 5: Increasing the involvement of civil society organizations in the process of creating, implementing, monitoring and evaluating policies, two operational goals are envisaged and within them more activities – most of them envisaged for the third quarter from this year, as well as appropriate performance indicators. For example, transformation of the Code of Good Practices for participation of the civil society sector in the policy-making process into a horizontal and mandatory bylaw for all state administration bodies; development of a model for inclusion and selection of civil society organizations in the working groups of state administration bodies; conducting public campaigns for the possibilities for using ENER, etc.¹⁸⁴

175 Single National Register of Regulations. Available at: <https://ener.gov.mk/Default.aspx>

176 Guide to giving feedback to the public on the results of the law drafting process. Ministry of Information Society and Administration. Available at: <https://cutt.ly/4b850jP>

177 Interview with Gordana Gapikj Dimitrovska, State Adviser in the Ministry of Information Society and Administration conducted on April 26, 2022.

178 Law on Organization and Operation of the State Administration Bodies. Available at: <https://cutt.ly/Kb88z0O>

179 Law on the use of public sector data. Available at: <https://cutt.ly/3b88QRw>

180 Law on Local Self-Government. Available at: <https://cutt.ly/Fb88YxA>

181 Action plan for implementation of the Strategy of the Government of the Republic of Macedonia for cooperation with and development of the civil sector 2018-2020. Available at: <https://cutt.ly/Db88GOC>

182 Cooperation Council between the Government of the Republic of Macedonia and the civil society sector. Available at: <https://cutt.ly/Ob88K5Y>

183 Strategy of the Government of the Republic of Macedonia for Cooperation with and Development of the Civil Society 2022-2024, Available at: <https://cutt.ly/mJzwDsM>

184 Implementation of the Strategy of the Government of the Republic of Macedonia for cooperation with and development of the civil sector 2022-2024. Available at: <https://www.nvosorobotka.gov.mk/?q=mk/node/564>

MISA has published the National Action Plan (NAP) for open government partnership for the period 2021 – 2023.¹⁸⁵ This is the fifth NAP. It builds on previous commitments and recognizes the need for the public sector to innovate, to develop policies in response to modern trends that meet the needs of citizens. It is focused on improving access to justice, legal empowerment of citizens and promotion of legal protection especially of young people, marginalized groups and women, promotion of the delivery of public services, continuation of activities related to public disclosure of information about real owners, opening of new data as well as activities for prevention of corruption and protection of the environment and air pollution. The creation of the NAP was carried out with the involvement and consultation of stakeholders which led to the creation of new priorities and commitments within the Open Government Partnership (OGP) process.¹⁸⁶ OGP continues to be one of the most successful initiatives in our country. This is reflected in the fact that the citizens are fully and continuously involved in all processes, i.e. in the creation of the action plan and the efforts in this direction. The OGP platform allows online monitoring of the implementation of the action plan as progress is regularly updated for each measure on a quarterly basis. The Council for Coordination and Monitoring of the Open Government Partnership process 2021–2023 is functioning successfully. The Council is composed of 16 members with an equal number of members from the institutions and the civil society and is an advisory body for coordination and monitoring of the development and implementation of the action plans.¹⁸⁷ Representatives of the Assembly¹⁸⁸ and the Supreme Court also participate in the new mandate in the Council (i.e. balance and presence of representatives from the three authorities are ensured). It is interesting to note that the institutions ask of the Council to nominate members of the CSO sector to participate in working groups for creating laws. That is, this decision for ensuring adequate civic participation is delegated to the Council, despite the fact that there is no normative act that regulates this issue.¹⁸⁹ In this context, it is important to note that the innovative tools that have enabled greater transparency and accountability of the country's municipalities have been named one of the global winners of the Open Government Partnership Summit held in Seoul, Republic of Korea last December. In a competition of more than 100 applications, the commitment to more transparent municipalities in North Macedonia won the third prize at European level for its impact on improving people's lives and the quality of democracy. It is a group of tools that were created and put into operation in the past three years. They contributed to the improvement of fiscal transparency at the local level, enabled live monitoring of the sessions of 18 municipalities, as well as direct involvement of the citizens in the decision-making process in 24 municipalities.¹⁹⁰

185 National Open Government Partnership Action Plan 2021-2023. Available at: <https://cutt.ly/PHdPsPA>

186 Draft National Action Plan for Open Government Partnership 2021-2023. Ministry of Information Society and Administration. Available at: <https://www.mioa.gov.mk/?q=mk/node/3522>

187 OGP Council. Available at: <https://cutt.ly/cHdPYae>

188 Open Parliament. Available at: <https://cutt.ly/UHdPEgX>

189 Interview with Gordana Gapikj Dimitrovska, State Adviser in the Ministry of Information Society and Administration conducted on April 26, 2022.

82 190 Innovative tools for more transparent municipalities in the country among the global winners of the Open Government Partnership. Ministry of Information Society and Administration. Available at: <https://mioa.gov.mk/?q=en/print/3740>;

Strengthening the capacity of citizens to engage in policy-making and decision-making using available technologies is the essence of e-participation. However, despite the steps and activities taken, the analysis shows that the level of citizen involvement in these processes is low and the mechanisms for e-participation are not fully used.¹⁹¹ Therefore, despite the efforts, it can not be said that citizens and CSOs or civil society actors take an active role in proposing policy options and shaping policy dialogue, i.e. that they are involved throughout the policy-making process.¹⁹² Involvement very much depends on the practice of the institutions and those who manage them. There has been an improvement lately, and that is evident by the proactivity of institutions. The European Commission in the 2021 Report on North Macedonia concludes that civil society organizations have continued to be active and have an important role in the reform process. However, the Commission notes that further efforts are needed to ensure a timelier, meaningful and transparent consultation process with civil society.¹⁹³

191 e-Participation – animation. Metamorphosis Foundation. Available at: <https://cutt.ly/YJboPDW>

192 Focus group with representatives of CSOs, held on April 5, 2022.

193 North Macedonia Report. October, 2021. European Commission. Available at: <https://cutt.ly/tHdk6cg>



10



**ROADMAP FOR
DIGITAL AGENDA
ADVANCEMENT
IN RNM**



10. Roadmap for Digital Agenda advancement in RNM

Based on the findings of this research, which reflects the current situation regarding the implementation of the Digital Agenda in the Republic of North Macedonia, the following recommendations emerge:

Strategic, legal and administrative development

- The Government should appoint a spokesperson who will regularly report on the progress regarding the implementation of the DA and whom the citizens will recognize in that context. This is necessary for raising public awareness of the benefits of DA, as well as to bring DA closer to the citizens. In that direction, it is necessary to promote the activities and cooperation under ISA2, i.e. the results of the implementation of DA to be directly related to the future membership of RNM in the EU;
- Due to the benefits that citizens and companies have from e-services, and as a result of the measures from the implementation of DA, it is necessary to focus the reforms on intensive development of the information society;
- When establishing the newly announced Agency for Digitalization, care should be taken not to lose some of the functionalities of the policies coordinated by MISA during the transfer of competencies because certain policies from DA still require more development and not just implementation;
- To invest in resources in the institutions in order to overcome the lack of IT staff, obsolescence of technical capabilities or its complete absence. The difficult use of the interoperability system ascertained by the EC due to the lack of communication software in many institutions and the lack of will to address it should be a matter of priority;
- Efforts for interoperability are necessary despite the visible results because the benefits of interoperability that citizens should feel are still at an early stage;
- MISA should continue its active participation in the e-Government Benchmark Study to ensure monitoring of the digital Dimension of a public service for North Macedonia;
- It is necessary for the institutions to have a proactive approach to the involvement of CSOs in the process of creating and co-managing policies in the areas related to DA. It is necessary to strengthen cooperation in the areas of "Digital Economy and Society" and "Research and Innovation", as well as to improve communication between stakeholders and CSOs, i.e. to strengthen mutual trust;

- The Government should achieve greater visibility in terms of implementation of numerous laws and strategic documents crucial for building the information society;
- Additional efforts are needed to promote real electronic services on the portal uslugi.gov.mk, its greater visibility or promotion to the citizens presented through the benefits of e-services. The portal should provide information on the number of registered users – legal entities and individuals, information on the most requested or most used services by citizens and companies, as well as data resulting from measuring customer satisfaction;
- It is recommended to use the concept of open services based on: collaboration in designing and creating innovative solutions through joint design, co-production with the public sector, companies, civil society and citizens when developing new digital services; adoption of new and collaborative models for service delivery (through public, private and non-governmental actors, both within and across national borders); acceptance of creative alternative technological solutions (use of social media, mobility, big data, cloud computing, etc., packaged in new digital solutions); willingness to experiment and entrepreneurship (public sector needs to become more entrepreneurial);
- The data in the population register should be completely transferred and checked, and the register should be used for cross-checking of the census data;
- To determine the reasons why, despite all the provided tools, the e-participation of the citizens is low and to stimulate the citizens to participate in the democratic processes;

Cyber security

- Useful warnings from MKD-CIRT for phishing campaigns aimed at the Macedonian citizens and security advice to be directly available to citizens, through social media or other application of MKD-CIRT so that citizens are promptly alerted.

Digital literacy

- It is recommended to implement digital skills measures from all three national strategies (employment, education and ICT) and to ensure visibility of the implementation results.

Glossary

Personal data security is the protection against accidental or unlawful destruction, loss, alteration, unauthorized disclosure or access to personal data transmitted, stored or otherwise processed in connection with the provision of public electronic communications services.

Digitization is the process of converting a document whose form is not electronic into a digitized document.

Digital literacy refers to the ability of the individual to find, evaluate and clearly communicate information on different digital platforms.

Digital Agenda is a European Union strategy that ensures that digital technologies, including the Internet, are used to stimulate the European economy and help European citizens and businesses make the most of the use of these technologies.

Document management system is the way an organization stores, manages and finds electronic documents, through the use of a computer system and software.

E-government is the provision of public services to citizens using ICT, as well as enabling more direct and more appropriate access of citizens to the government.

Unique National Electronic Register of Regulations is an electronic system that contains the existing regulations in the RNM as well as documents and analyzes that precede the process of drafting laws.

Electronic document is any document stored in electronic form, in particular text or audio, visual or audio-visual recordings.

Electronic identification is a process of using data for identification of persons in electronic form which in a unique way represent the legal entity or the individual or the authorized person of a legal entity.

Electronic signature is a set of data in electronic form that accompanies or is logically related to other data in electronic form and that the signatory uses for signing.

E – Service is a service that is usually offered for a fee, and which consists entirely or mainly of transmission of signals through electronic communication networks. Interoperability is the ability of two or more systems or their components to exchange data and facilitate the shared use of data and knowledge.

Internet penetration is the relationship between the number of Internet users in each country and its demographic data;

Information technology is the use of computers to store or retrieve data and information.

Open Government Partnership is an international initiative that reflects governments' commitment to transparency, fostering civic participation, fighting corruption, and using new technologies to strengthen good governance.

Open data is content that can be freely used and shared.

Regulatory Impact Assessment is a systematic approach to critically assess the positive and negative effects of proposed and existing regulations, as well as the possibility of introducing non-regulatory alternatives.

Cyber security is a secure, safe, trustworthy and resilient digital environment backed by appropriate capabilities.

Annex 1: List of interviewed stakeholders

- Gordana Gapikj-Dimitrovska, State Adviser at the Ministry of Information Society and Administration

Focus group – business community

- Dirilon Iseni, Executive Director, Economic Chamber of North-West Macedonia
- Vasko Minovski, manager, N47
- Valentin Gjorgjoski, Manager at GrabIT

Focus group – CSO sector

- Joana Treneska, Project Coordinator, Youth Educational Forum
- Marija Vasilevska, Project Coordinator, Center for Social Innovation Blink 42-21
- Blagica Cvetkoska, Executive Director, Association for Tolerance and Cooperation of Citizen (ACTAC)

Annex 2: Executive Summary of the Report and Conclusions

The Regional Cooperation Council (RCC) under the auspices of the United Nations e-Government Operation Unit (UNU-EGOV) has prepared a Report on the implementation of the Digital Economy Society Index (DESI) in the economies of the Western Balkans in order to provide an overview on the state of application of the eponymous digital economy and society index (DESI) methodology. According to the report, the main challenges in ensuring data availability for all DESI indicators are the indicators that use data from the Commission's ad-hoc studies (Europe Broadband Coverage Study, Europe Mobile and Fixed Broadband Pricing Study, European Observatory Reports 5G, e-Government Benchmark Study and Open Data Maturity Study). As most economies in the Western Balkans are not included in these studies, the availability of data on these indicators remains a challenge.

In the absence of involvement of the Western Balkan countries in those studies of the European Commission, this research of ICEDA is indisputably added value. Namely, the research methodology of the Digital Agenda Observatory (DAO) has defined key indicators contained in a pre-prepared questionnaire that is simultaneously answered by selected Western Balkan countries and which will enable regional comparison that will contribute to positive competition and will be a motive for further DA implementation.

Such aspects enable the measurability and comparability of the country in a regional context. Although such thorough and methodologically based surveys are still poorly referenced in official government documents and their subheadings are not used as references, in the absence of official and published valid measurements they can serve the institutions in answering questionnaires and measurements made by international actors such as the European Commission, the Regional Cooperation Council, SIGMA, OECD, Cullen International and others. Institutions that after the adoption of strategies, laws and policies are occupied with their implementation rarely have the opportunity for self-assessment and reflection on what has been done. Hence, such research is an appropriate tool for those involved in implementing DA on a daily basis in their work.

Based on the research of the situation in the period June 2021 – June 2022, the following conclusions can be drawn:

- As a coordination focal point, MISA has adequate institutional capacities for the implementation of the DA, but the constant outflow of staff at a high administrative level is indisputably critical, which calls into question the continuity of work. This can be additionally influenced by the change of management, i.e. change of three ministers within three years;
- The announced Agency for Digitalization should improve the digital processes horizontally, for which other institutions resisted MISA. When establishing the newly announced Agency for Digitalization, care should be taken not to lose some of the functionalities of the policies coordinated by MISA during the transfer of competencies because certain policies from DA still require further development and not just implementation;

- The adoption of the National Strategy for ICT 2022–2025 is crucial, especially in the absence of a National Strategy for Digital Government/e-Government, which as such exist in many digitally developed countries;
- Laws and bylaws on integrated information and communication network, databases, interconnection and exchange of information, security aspects and infrastructure development are fully established, with particular progress through the Law on Electronic Governance and Electronic Services, the Law on Electronic Documents, Electronic Identification and Trust Services, and the Law on Central Population Register.
- One of the assets of coordinated policy at the central level is the National Operational Broadband Plan, which aligns national policies for the development of electronic communications with EU policies;
- Efforts for interoperability are necessary despite the visible results because the benefits of interoperability that citizens should feel are still at an early stage;
- The number of e-services has increased compared to the previous reporting period, but the portal uslugi.gov.mk is not sufficiently promoted among the citizens and many of the services are not electronic in the true sense, but only give a description of the required documents and how the service can be obtained over the counter;
- Digital literacy will be implemented through three sectoral policies: education, employment, and the results will be expected in the coming years;
- ENER and the Open Government Partnership are at an enviable level, but the reasons for the low level of interest of the citizens for e-participation remain to be determined.

Metamorphosis Foundation for Internet and Society is an independent, non-partisan and non-profit foundation based in Skopje, Republic of North Macedonia. Its mission is to contribute towards the development of democracy and towards increasing the quality of life through innovative use and sharing of knowledge. Our guiding values are openness, equality and freedom.

The program areas that Metamorphosis operates in are the following:

- Media for Democracy
- Education for Innovation
- Social Accountability
- Human Rights Online

www.metamorphosis.org.mk

Project partners:

- e-Governance Academy (Estonia) www.ega.ee
- CRTA – Center for Research, Transparency and Accountability (Srbija) www.crtars.rs
- Partners for Democratic Change Serbia (Serbia) www.partners-serbia.org
- NGO 35mm (Montenegro) www.nvo35mm.org
- Open Data Kosovo-ODK (Kosovo) www.opendatakosovo.org
- Lèvizja Mjaft! (Albania) www.mjaft.org

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