NORTH MACEDONIA
DIGITAL AGENDA
OBSERVATORY

Country Report and Roadmap for Digital Agenda advancement in North Macedonia
North Macedonia
Digital Agenda
Observatory

Country Report and Roadmap
for Digital Agenda advancement
in North Macedonia

June, 2021

This publication was produced with the support of the European Union. Its contents are the sole responsibility of ICEDA project partners and the research team and do not necessarily reflect the views of the European Union.
Original title: Северна Македонија Опсерваторија за Дигиталната агенда Извештај за тековната состојба и патоказ за унапредување на Дигиталната агенда во Северна Македонија

Publisher:
**Metamorphosis Foundation for Internet and Society**

About the Publisher:
**Bardhyl Jashari**

Authors:
**Irena Bojadzievska** (Ирена Бојаџиевска)
**Natalija Shikova** (Наталија Шикова)

Editor:
**Mila Josifovska Danilovska**

Translator:
**Frosina Gjorgieva** (translation from Macedonian to English language)
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFACE</td>
<td>9</td>
</tr>
<tr>
<td>RESEARCH METHODOLOGY</td>
<td>11</td>
</tr>
<tr>
<td>1. PRECONDITIONS FOR IMPLEMENTING E-GOVERNMENT</td>
<td>15</td>
</tr>
<tr>
<td>1.1. Internet penetration</td>
<td>15</td>
</tr>
<tr>
<td>1.2. e-government services</td>
<td>15</td>
</tr>
<tr>
<td>2. POLITICAL WILL AND STRATEGY</td>
<td>19</td>
</tr>
<tr>
<td>3. COORDINATION FOR IMPLEMENTING E-GOVERNMENT</td>
<td>25</td>
</tr>
<tr>
<td>4. LEGAL FRAMEWORK</td>
<td>29</td>
</tr>
<tr>
<td>4.1. Policy description</td>
<td>30</td>
</tr>
<tr>
<td>5. STATUS OF E-SERVICES</td>
<td>35</td>
</tr>
<tr>
<td>5.1. Digital databases, interoperability, secure data exchange</td>
<td>35</td>
</tr>
<tr>
<td>5.2. Secure digital identity and digital signature</td>
<td>38</td>
</tr>
<tr>
<td>5.3. Results from the testing of e-services, description of the cases from by users</td>
<td>39</td>
</tr>
<tr>
<td>6. DIGITAL LITERACY</td>
<td>47</td>
</tr>
<tr>
<td>7. ACCESS TO SERVICES AND RASING AWARENESS</td>
<td>53</td>
</tr>
<tr>
<td>8. INFORMATION AND CYBER SECURITY</td>
<td>61</td>
</tr>
<tr>
<td>9. E-PARTICIPATION AND E-DEMOCRACY</td>
<td>65</td>
</tr>
<tr>
<td>10. ROADMAP FOR DIGITAL AGENDA</td>
<td>71</td>
</tr>
<tr>
<td>AdvanceMent in RNM</td>
<td></td>
</tr>
<tr>
<td>Glossary</td>
<td>73</td>
</tr>
<tr>
<td>Annex 1: List of interviewed stakeholders</td>
<td>75</td>
</tr>
<tr>
<td>Annex 2: Executive Summary of the Report and Conclusions</td>
<td>76</td>
</tr>
</tbody>
</table>
ACRONYMS

AEC – Agency for Electronic Communications
CSO – Civil society organizations
DA – Digital Agenda
VAT – Value added tax
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
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
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

Digitalization in all spheres and for all social groups (without exception) is an effective mechanism for improving the well-being of citizens. This means improving the electronic work and greater efficiency of institutions, organizations and other social entities. The need for digitalization became even more evident due to the COVID-19 pandemic, as it pointed to the urgent need for mechanisms, tools and adapted regulation for better organization and a fully functioning society. Thereby, the so-called “digital gap” occurred, i.e. – the differences between the citizens in the initial positions – for the access to the Internet and to the appropriate electronic devices, and hence the differences in the levels of their digital skills/literacy.

The Digital Agenda (DA) 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), CRTA – Center for Research, Transparency and Accountability (Serbia), NGO 35mm (Montenegró), 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 March – May 2021, a research consistent with the basic study (conducted in the period May – June 2020) was conducted. The aim of the research is to measure the progress in relation to the initial state of the areas correlated with DA. The analysis resulted in a report that deals with topics related to the chapters of EU legislation, relevant to the DA, i.e. Chapter 10, entitled – “Information Society and Media”.

Research Methodology

The research methodology of the Digital Agenda Observatory (ODA) builds on the previous Report on the Country Report and Roadmap for Digital Agenda advancement in North Macedonia\(^2\) 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 apparently 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, 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.
PRECONDITIONS FOR IMPLEMENTING E-GOVERNMENT
1. Preconditions for implementing e-government

1.1. Internet penetration

According to the State Statistical Office in 2020, 79.9% of households had access to the Internet. Internet users (aged 15 to 74) were 81.4% of the citizens, and business entities with 10 or more employees with Internet access were 96.9%. The percentage of households with Internet access from home has increased by 11 pps in the period from 2014 to 2018 (79.3%), and the penetration of the mobile broadband network is in 61% of the population. According to data from the European Commission (EC), contained in the latest annual RNM Progress Report, 56 companies still face restrictions on fixed broadband access (19.4% in 2018 compared to 17.2% in 2014). In general, the trend of households with access to the Internet is increasing, but still, in this item there is a slight negative trend compared to 2019, which is probably due to the decrease in population. Hence, if in 2019 that percentage was 81.8%, then household access to the Internet in 2020 decreased by 2%-79.9%. The number of Internet users, aged 15 to 74, remained the same compared to last year (81.4%), and the number of businesses with 10 or more employees that have access to the Internet increased by 1.3% in relation to 2019.

1.2. Users of e-government services

The National e-Services Portal (uslugi.gov.mk) was promoted in December 2019. According to the research conducted in 2020, there were a total of 17,241 registered users on the portal, and during the current research on the portal there are 34,834 registered users, i.e. almost twice as many. The total number of users of all available e-services (except on the Portal) cannot be determined, because so far such statistics are not kept by state institutions or the State Statistical Office. There is currently no unified database in RNM with all the data on e-services, and therefore the exact percentage of citizens who use the e-services is not known. Although all e-services from the institutions should be placed on the Portal, e-services are not offered only on the Portal, but also in other ways, i.e. certain e-services are provided independently by the institutions (for example, the services of the Public Revenue Office-PRO, Cadastre, etc.), and there are digital tools such as MyVAT (MojDDV),

3 Information Society. State Statistical Office. Available at: https://cutt.ly/Lb8T6No
5 Key Area Indicators. Information Society. State Statistical Office. Available at: https://cutt.ly/7b8YF17
6 Ibid.
7 Promotion of the e-Services portal. Citizens, in one place, have access to 127 electronic services. MIOA. December, 2019. Available at: https://cutt.ly/ob8Yk2N
8 National e-Services Portal. Available at: https://uslugi.gov.mk/
North Macedonia digital agenda observatory

Vaccination.mk which are provided locally. Compared to last year, this year a section for data on the number of services, total and monthly number of submitted requests for services has been added to the Portal. There are a total of 12,759 submitted services, and in the month of conducting the research, 478 requests for e-services were submitted. However, the Portal does not provide a one-stop shop system, i.e., often in order to use the service the system you will be switched to other systems (such as the PRO), where re-login is required.

The state provides a limited number of e-services, and the potential of the Portal is not fully used. According to research, the performance of e-government services in RNM is lower than the average achieved in the EU in 2010. Often, citizens do not have enough information about electronic services. It is not even possible to obtain comparative data on the use of e-services in relation to the over-the-counter use of services – i.e. with physical presence.\(^1\) Even in a situation of a pandemic, the citizens prefer to receive the services over the counter, and this is evidenced by the data on the total number of registered users of the e-services portal, which represents only about 1.5% of the population in the country.\(^2\) Apart from the unavailability of all services, it is also a result of the lack of information received by citizens, as well as their distrust towards most of the institutions. This is especially pronounced at the local level, where the number of available e-services is lower.\(^3\)

---

\(^1\) “Investigative Article: Citizens wander through the counters, N. Macedonia is 10 years behind Europe in the field of digitalization” – Portalb.mk. Metamorphosis Foundation. Available at: [https://cutt.ly/zntsynY](https://cutt.ly/zntsynY)


\(^3\) Ibid. Citizens prefer over-the-counters services over electronic services. Radio Free Europe. Available at: [https://cutt.ly/RntsjRe](https://cutt.ly/RntsjRe)
POLITICAL WILL AND STRATEGY
2. Political will and strategy

After 15 years of waiting, on 26 March 2020, the European Council decided to start negotiations with RNM for EU membership. The beginning of negotiations means the transformation of society and the acceptance of European rules, principles and values. In that direction, the Government’s efforts are to develop projects that include digital changes that, together with other priorities, would lead to successful EU integration.\(^{13}\)

Organized by the Regional Cooperation Council (RCC) from 26 to 28 October 2020, the “Digital Summit for the Western Balkans” was held in the framework of the Berlin Process and the Multiannual Action Plan of the Regional Economic Area for the Western Balkans. The summit stressed the importance of digital technology in a time of pandemic, the essential importance of digital skills and the need for digital integration in the region.\(^ {14}\)

As part of the Berlin Process, the economy ministers pledged to strengthen business contacts in various areas, including co-operation in establishing a digital infrastructure.\(^ {15}\)

At the Leadership Summit for the Western Balkans, in the framework of the Berlin Process, in November 202, the idea of interconnection was once again emphasized as the basic content of the Berlin Process.\(^ {16}\)

Therefore, based on the results of previous summits on the development of the region, the Western Balkans Summit held in Poznan (Poland) focused on strengthening regional cooperation in the fields of economy and trade, DA, connectivity, security, the fight against corruption, promoting reconciliation and youth. On 6 October 2020, the EC announced the “Economic and Investment Plan for the Western Balkans”, and made investing in the digital future one of its priority areas. The “green” and “digital” transition, should lead to economic growth, through the implementation of reforms to bring the Western Balkans closer to the Single European Market. In addition to all this, the EC proposed to mobilize up to 9 billion euros from the IPA III fund in the period from 2021 to 2027, to support economic convergence with the EU, primarily through concrete investments and digital transition. RNM, as well as the entire Western Balkans, should use the EU digital strategy as a guiding principle for the digital transformation of economies and societies.\(^ {17}\)

RNM is also part of the Digital Skills Working Group set up to support the Western Balkan countries, coordinated by RCC.\(^ {18}\)

It can be said that, to some extent, an agreement has been reached between the political actors on the importance of e-government. 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 Strategy for Cyber Security, 2018 – 2022”.\(^ {19}\)

\(^ {13}\) Next goal: EU Membership. RNM Government. Available at: [https://vlada.mk/node/22528](https://vlada.mk/node/22528)


\(^ {15}\) 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... RNM Government. Available at: [https://vlada.mk/node/23075](https://vlada.mk/node/23075)

\(^ {16}\) Zaev in the final statement for the Western Balkans Summit: The integrated and connected region with a vision for a common regional market and a Green Agenda is moving in the right direction and is taking accelerated steps towards the EU. Deputy Prime Minister in charge of economic affairs and coordination with economic departments. Available at: [https://cutt.ly/Zb8O2jY](https://cutt.ly/Zb8O2jY)


Additionally, on 6 April 2020, Damjan Mančevski, Minister of Information Society and Administration, and Johannes Hahn, EU Commissioner for Budget and Administration, signed an agreement on Macedonia’s accession to – ISA2, the Digital Administration Program. It is a central EU program that supports activities for the development of ICT in public administration, e-services and digitalization in the public sector in general.\(^{20}\)

Modern and efficient public administration, based on digitalization, which provides quality and fast services for citizens and businesses – this is part of the Government Work Program for 2021, which includes several projects and initiating appropriate legal solutions (for example: digitization of archival material; unified websites of state institutions; intensified e-services; adoption of a long-term ICT strategy for the period 2021–2026; European Youth Card, etc.).\(^{21}\) The need for digitalization is recognized in the “Open Data Strategy, 2018 – 2020”, and the action plan.\(^{22}\)

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 infrastructure development. On the other hand, every other ministry and institution has its own competencies. The government does not yet have an e-governance spokesperson. The general priority areas for e-governance are defined, but – indirectly. There is still no long-term national ICT strategy, so the priorities have been set within the “Public Administration Reform Strategy, 2018–2022”.\(^{23}\) There is a “National Operational Broadband Plan” to align national policies for the development of electronic communications with EU policies, but the plan needs to be further aligned with the strategic goals of the EU DA Initiative, the 2010 umbrella strategy for the development of the information society, as well as with the EU strategy – “Towards a European Gigabit Society for 2025”, existing since 2016.\(^{24}\)

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;\(^{25}\) – “National Strategy for e-Government”, from 2010, and covers the period from 2011 to 2012, (no new strategy has been prepared since then);\(^{26}\) – “National Strategy for e-Inclusion”, from 2011, and covers the period from 2011 to 2014;\(^{27}\) and – “National short-term ICT strategy” for the period from 2016 to 2017.\(^{28}\) Collectively, according to the content of the document – “Fundamentals and Development of e-Government”,\(^{29}\) it becomes obvious that the basic guidelines and standards in these strategic documents are already outdated and should be adapted accordingly. Without the adoption of any key documents, the digital transformation and alignment of the reform measures with the EU DA are a complementary part – both of the “Economic Reform Program for the period 2021 – 2023”\(^{30}\) , adopted by the Ministry

\(^{20}\) Macedonia part of the EU Digital Administration Program. Mančevski and Hahn signed an Accession Agreement. Channel 5. Available at: https://cutt.ly/Bb8PUpz

\(^{21}\) RNM Government Work Program 2021. Available at: https://cutt.ly/jb8P8Fz

\(^{22}\) Open Data Strategy 2018-2020. RNM Government. MISA. Available at: https://cutt.ly/mb8AIa2

\(^{23}\) Public Administration Reform Strategy, 2018-2022. MISA. Available at: https://cutt.ly/mb8SxiJ

\(^{24}\) National Operational Broadband Plan. April, 2019. MISA. Available at: https://cutt.ly/Ab8Sv7y


\(^{29}\) Fundamentals and Development of e-Government. October, 2010. MISA. Available at: https://cutt.ly/Ub8DNA5

of Finance, and of the “MISA Strategic Plan 2021–2023”\(^ {31}\). The preparation of a “National Strategy for Artificial Intelligence” is also planned.\(^ {32}\)

Hence, it can be said that the “political will” is confirmed (indirectly) by MISA’s strategic documents and the Strategy for the work of the Public Administration. Regarding the undertaken projects, a certain level of established public-private partnership and cooperation with academic institutions in the field of e-government is evident, but still, that process refers only to certain segments, i.e. it is limited.\(^ {33}\)

The organization of e-Government is relatively low. The PAR's annual report for May 2019 so far indicates poor implementation due to short deadlines and a lack of a national ICT strategy.\(^ {34}\) Such a national ICT strategy (aligned with the DA for Europe 2020) is being prepared, assisted by the EU and a team of experts\(^ {35}\), and is expected to be promoted soon. The annual report on the work of MISA for 2020, on the other hand, indicates projects canceled due to the pandemic with COVID-19, as well as reallocation of funds to deal with the pandemic.\(^ {36}\) As for the e-governance processes, it can be said that there is some level of implementation, but no significant shift. E-governance as a strategy signifies the efforts of the Government to work continuously towards creating better and more efficient institutions, as well as to note the mechanisms that will be later applied. The strategies adopted in recent years show that this Government is committed to better and more efficient institutions. However, the implementation of strategies is not yet at an appropriate level, there are problems with interoperability, difficult communication between institutions, limited capacity of the administration, as well as limited capacity of citizens to apply these tools. Therefore, we cannot talk about full implementation, although there are many positive examples. However, it seems that not only the government but also the private sector cannot support this process, especially in terms of authentication and exchange of documents.

Among the legal provisions in this area, the most important are: The Law on Electronic Management and Electronic Services,\(^ {37}\) the Law on Electronic Documents, Electronic Identification and Trust Services\(^ {38}\), and the Law on Central Population Register.\(^ {39}\)

Regarding the training of the staff in charge of ICT, the Long-Term ICT Strategy also envisions training of the IT staff. For now, every institution can and does provide training to employees (including IT staff) according to requirements, needs and opportunities.

\(^{31}\) Strategic Plan 2021–2023. MISA. Available at: [https://cutt.ly/jb8D77J](https://cutt.ly/jb8D77J)

\(^{32}\) 66th Session of the Government. RNM Government. Available at: [https://vlada.mk/node/24948](https://vlada.mk/node/24948)

\(^{33}\) The Minister of Information Society and Administration Jeton Shaqiri participated in the online event “Dialogues for the Digital Agenda”. MISA. Available at: [https://www.mioa.gov.mk/?q=mk/node/3159](https://www.mioa.gov.mk/?q=mk/node/3159)


\(^{36}\) Report on the implementation of the Annual Work Plan 2020. MISA. Available at: [https://cutt.ly/ub8jtiR](https://cutt.ly/ub8jtiR)

\(^{37}\) Law on Electronic Management and Electronic Services. April, 2019. MISA. Available at: [https://cutt.ly/Mb8InPz](https://cutt.ly/Mb8InPz)


\(^{39}\) Law on Central Population Register. Available at: [https://cutt.ly/db8IK39](https://cutt.ly/db8IK39)
The e-government legislation, in addition to the above-mentioned laws, is also covered by: The Law on General Administrative Procedure;\(^{40}\) Law on Administrative Fees;\(^{41}\) Law on Free Access to Public Information;\(^{42}\) The Law on Central Population Register,\(^{43}\) and certain bylaws, such as the Rulebook on security of personal data processing.\(^{44}\) In this sense, the Law on Central Population Registry is a basic law through which the data of the population is managed, but the key registers for citizens and businesses are still neither digitized nor connected, and so far only 18% of the services are electronic.\(^{45}\) There is no legal solution for the interoperability framework, but MISA is developing modules and projects.\(^{46}\) The so-called “digital identity” – is planned to be developed through a public-private partnership with certain companies whose goal is to help overcome the existing challenges.\(^{47}\)

\(^{40}\) Law on General Administrative Procedure. Available at: [https://cutt.ly/Ib8Kzyw](https://cutt.ly/Ib8Kzyw)

\(^{41}\) Law on Administrative Fees. Available at: [https://cutt.ly/qb8KWBL](https://cutt.ly/qb8KWBL)

\(^{42}\) Law on Free Access to Public Information. Available at: [https://cutt.ly/Db8ZCJE](https://cutt.ly/Db8ZCJE)

\(^{43}\) The Law on Central Population Register. Available at: [https://cutt.ly/xb8KAwd](https://cutt.ly/xb8KAwd)

\(^{44}\) Rulebook on security of personal data processing. Personal Data Protection Agency. Available at: [https://cutt.ly/7b8KGyc](https://cutt.ly/7b8KGyc)

\(^{45}\) Manchevski: Additional 250 electronic services and digitization of key registers. Kanal 5. Available at: [https://cutt.ly/mb8KZN2](https://cutt.ly/mb8KZN2)

\(^{46}\) Digitization (adopted the three laws that replace paper documents by electronic entries) – Government Press. MISA. Available at: [https://cutt.ly/2b8K1Ad](https://cutt.ly/2b8K1Ad)

\(^{47}\) Interoperability platform. MISA. Available at: [https://cutt.ly/Ob8K7Yd](https://cutt.ly/Ob8K7Yd)
COORDINATION FOR IMPLEMENTING E-GOVERNMENT
3. Coordination for implementing e-government

Regarding the 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 body in the processes of this coordination, with its own realized projects, strategic plan and annual work program, and for their implementation there are appointed persons. There are tools and policies, but, as already mentioned, due to the state of emergency caused by the COVID-19 pandemic, many key projects and project activities have been postponed, and the budget for them has been allocated to new priorities.

In the past period, when working on digitalization and implementation of certain e-services, terminological inconsistency has been observed in our legislation. In some laws the conditions for exercising a right or fulfilling an obligation are either too general or vague. This leaves room for manipulation of evidence or inability of something to be proven by citizens, so we cannot even talk about a register of evidence. Due to this, the Government is establishing a Working Group that should prepare specific texts for amending laws, in order to digitalize the processes.

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 infrastructure development. On the other hand, every other ministry and institution has its own competencies. In this regard, the Minister of Information Society and Administration has full responsibility, but in MISA there are additional four state advisors, responsible for projects within the ICT sphere. Specifically, MISA implements projects for information society; e-infrastructure and support; e-services; e-experience; one point for services; and open data. The annual reports on their (non) implementation, among other things, state, for example, that the e-Government initiative has been partially implemented, which should cover the period from 2020 to 2022, i.e. it is currently on hold, and the situation is similar with the initiative for connecting the databases of the key institutions with the Central Population Register. 48

---

48 Report on the implementation of the Annual Work Plan 2020. MISA. Available at: https://cutt.ly/ub8jHR
LEGAL FRAMEWORK
4. Legal framework

Regarding the harmonization of the national legislation with the EU acquis (acquis communautaire), in relation to Chapter 10 – Information Society and Media, North Macedonia is fully and partially harmonized with 77 measures, which is about 50%. We could not identify laws incompatible with e-government. 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 awareness needs to be risen of the need to keep up with the times.49 RNM is clearly lagging behind in e-government compared to the region, and is far below the EU average.50 There is some progress on e-business services, but no progress on fully electronic service delivery.51

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.52 Our society is not sufficiently prepared to follow the necessary pace of digitalization, as indicated by the current crisis with COVID-19. An enormous part of the citizens prefer to receive the services over the counter and not electronically, which showed that we are not ready to digitize, nor to implement the most basic digital processes. The pressure from the citizens on the administration is not so strong to urge it to innovate faster than it usually does. The biggest obstacle is the need for additional verification of digital documents, but also the lack of trust in the electronic issuance of documents.53

The following legal framework is relevant in the field of e-governance:

- Law on Electronic Management and Electronic Services;54
- Law on Electronic Documents, Electronic Identification and Trust Services;55
- Law on Central Population Register;56
- Law on Personal Data Protection (and the Directorate for Personal Data Protection, as a responsible body);
- Law on Free Access to Public Information.58

Although most of the areas are regulated by law, the implementation of the laws remains
Regarding the harmonization of the legal environment and the coordination with the neighbouring countries, it can be said that the Law on Electronic Documents, Electronic Identification and Trust Services is harmonized with the EU regulation no. 910/2014. There is a signed Agreement with Serbia and Montenegro on mutual recognition of qualified services. The draft law on information systems and network security is harmonized with Directive 2016/1148, but that law has not yet been adopted. The Macedonian framework for interoperability is harmonized with the European framework for interoperability, but there is no legal solution for this area either. There are guidelines, modules, technical standards for interoperability, etc., as well as the initiative for adoption of the Law on Data Exchange and Interoperability, but this has not yet been implemented as a legal solution.

4.1. Policy description

A tax policy was selected for this research and, three relevant tax e-services were tested based on it. According to the Strategy for reform of the tax system (2021–2025) in section 3.4 is provided “Priority 4: Better quality of services”. The main goal of this priority is to improve the quality of services that taxpayers receive from the tax authorities in order to increase the economic feasibility of the procedures, to simplify and speed up the processes and to reduce the administrative burden associated with them. The purpose of this measure is to improve the quality and efficiency of service delivery through a wide range of initiatives aimed at greater coverage of services to taxpayers and the implementation of new and improved business processes. The tax authorities serve the taxpayers and therefore they should offer them the best possible experience. To this end, tax authorities need to identify cost-effective methods of providing services and use resources more efficiently. They need to determine which programs require a lot of resources and have them automated; they also need to identify new applications as well as provide fully automated services through multiple channels.

The measure 4.1 is: Improving services for citizens and companies:

- Activity 4.1.1: Expansion of e-services
- Activity 4.1.2: Modernization of services in call centers
- Activity 4.1.3: Introducing paperless customs environment
- Activity 4.1.4: Introducing a one-stop shop system for companies at border crossings

The activities in this measure are closely related to the activity related to the introduction of a new information system in the PRO.
Activity 4.1.1: Expansion of e-services

Taxpayers are constantly looking for opportunities to be able to get things done quickly when dealing with tax authorities. For that purpose, programs for advanced tax application filling and payment will be introduced. The main aspects that will be covered here are the upgrading of the pre-filled annual tax returns for the personal income tax of the citizens, including the improvement of the simplicity and acceptability in their use; obtaining tax data from companies in real time, instead of companies submitting it at the end of each year; expanding Internet services to enable the submission of various tax claims and questions; expanding Internet services to enable and obtain various reports and documents; research on the possibility of introducing new e-services, such as e-accounting, e-invoice, etc.

Activity 4.1.2: Modernization of services in call centers

With the expansion of contact center services, taxpayers will be able to obtain the necessary information more easily, and at the same time it will be easier for the tax authorities to provide that information. The new services in the contact center will be developed and introduced through the establishment of a new working environment, procurement of new equipment and improvement of the business processes in the PRO. In addition, the existing system of tax counters will be reorganized, in order to achieve greater economy and efficiency, reduce the number of fixed tax counters and replace them with a smaller number of mobile tax counters. Special emphasis will be placed on the selection of those regions where the mobile tax counters would be set up, with focuses on the regions where there is the greatest need for direct contact with individuals.

Activity 4.1.3: Introducing paperless customs environment

In order to ensure paper-free customs operations, the Customs Administration (CU) of the RNM started the implementation of a new Customs Declarations and Excise Documents processing System (CDEDS). The purpose of this project is to introduce a system that will ensure a smooth flow of electronic information between all participants in customs and excise procedures, which will significantly improve the quality of services for companies.

Activity 4.1.4: Introducing a one-stop shop system for companies at border crossings

A one-stop shop is a cross-border "smart" option that allows parties involved in trade and transport to submit standardized information, mainly electronically, through a single entry point, to meet all regulatory requirements related to import, export and transit. Establishing a one-stop shop is considered to be the solution to the complex problems associated with border automation and information management involving multiple cross-border regulatory agencies. The activity for introduction of this system will be supported by the World Bank project for one-stop shop system.

Results expected to be achieved with this activity are the following:

- Digitalized services;
- Improved management of the issuance of import-export licenses;
- Removal of unnecessary non-tariff barriers in foreign trade;
- Improved internal control and tax control;
- Improved functional system of the pre-filled annual tax return.

PRO and CU are determined as competent institutions that should implement this policy. The deadline for implementation of all measures is 2025, and 2,108,000 Euros are provided for technical equipment and software, and 211,200 Euros for salaries for employees.

These envisaged measures and results are in line with the Government’s Strategic Plan which sets out the strategic priorities. One of these priorities is “Modern and efficient public administration based on digitalization that provides quality and fast services to citizens and businesses.”

---

61 Strategic priorities. RNM Government. Available at: https://cutt.ly/MnWwgHB
5

STATUS OF E-SERVICES
5. Status of e-services

5.1. Digital databases, interoperability, secure data exchange

MISA has developed a new Document Management System – DMS for uninterrupted exchange of documents electronically which was presented to the public in August 2020 with the following announcement: “DMS enables joint work of administrative staff, from different sectors and departments. Joint work and coordination leads to better services for citizens. The new DMS system is a SMART system that facilitates operation. Each item will be imputed in the archive and exchanged electronically with an institution, and the answer to that item 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 work of the institutions in cooperation with the State Archive and the State Administrative Inspectorate.”

According to the data of the research conducted by the Center for Change Management “Building a public sector based on knowledge”, only 9 out of 101 institutions that responded to the research noted that they have DMS. According to the answers regarding the place where they save the electronic documents they work on every day, 74.16% of the institutions, keep the documents only locally, i.e. on their computer. Hence, the same research contains the recommendation that: “Institutions should choose a technical platform for storing institutional memory with a special module for this purpose. It is not necessary to wait for a central national solution such as the document management system because not all institutions will become part of the central DMS at the same time. The institution can develop its own system or use free solutions as a basis for further customization. It is only necessary to coordinate with MISA to be in line with the DMS solution developed by MISA.”

The principle “Only once” ie. 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 facilitate access to services for all citizens, as well as the entire process they go through to receive those services. This means high quality services regardless of the channel used by 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 the institutions” in the interest of the citizens and the perception that the Government (one institution) is the sole provider of all services.

62 MISA has developed a new DMS system for uninterrupted exchange of documents electronically. PHM Government. Available at: https://vlada.mk/node/22317
63 Building a public sector based on knowledge. CCM. Available at: https://cutt.ly/FnWq70E
64 Ibid.
The Law on General Administrative Procedure and the Law on Obtaining and Exchange of Evidence and Data Ex-Officio provide the basis for achieving these commitments.

The research on the topic of Evaluation of policies for improvement of the public services of the CCM states that: “Ex officio cooperation primarily requires obtaining documents from other institutions after official cooperation between the institutions and these documents should not be required from the citizens. Of the almost all obtained results, the data on this issue are in the most negative trend, i.e. there is a setback in this aspect of the delivery of services. The same was confirmed by the in-depth interviews, i.e. that documents from other public institutions were needed, for example to obtain:

- Social services, for which certificates were requested from the school, health institutions, the Cadastre, the Employment Agency;
- Health services, which required a Marriage Certificate;
- Access to financial assistance, for which certificates of marital status, property status, employment, taxes were requested;
- Calculation of taxes, with a request for cadastral documents;
- Student services, which required certificates of social assistance and certificates of marital status.”

Table 1.

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>33.5</td>
<td>43.7</td>
</tr>
<tr>
<td>No</td>
<td>62.6</td>
<td>54.4</td>
</tr>
<tr>
<td>I don’t know (not readable)</td>
<td>1.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: CCM “Building a public sector based on knowledge”

---

65 Law on Obtaining and Exchange of Evidence and Data Ex-Officio. Available at: [https://cutt.ly/ontf85K](https://cutt.ly/ontf85K)
66 Evaluation of policies for improvement of the public services. CCM. Available at: [https://cutt.ly/wnWwqma](https://cutt.ly/wnWwqma)
For example, for social services in the Municipality of Šuto Orizari, as many as 90% of the respondents were asked for documents from other public institutions, while the percentage is lower and is 13.7% of the students who were asked for such documents when applying for accommodation in student dormitories. There is no justification why the number of procedures in which documents are required from other institutions is increasing. Neither the pandemic nor the measures by the institutions for investment and progress in the digitalization of services go in favor of the data, which means that only the human factor remains as a possible reason for such a setback.67

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:68

- 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 14 May 2021, 34 institutions 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 a private entity is 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, 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). Regarding the conditions that the communication client should meet, MISA has adopted:

- Minimum technical prerequisites for a communication client69, and
- Guidelines for connecting to the interoperability platform.70

MISA has published a List of web services, according to which, as of 14 May 2021, the institutions have at their disposal 438 web services/methods for data exchange. The list contains all web services/data exchange methods that institutions/companies can reuse for their own needs.71 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: LEVEL1 and LEVEL2.

---

67 Ibid.
68 Interoperability Platform. MISA. Available at: https://cutt.ly/sntgVcm
69 Minimum technical prerequisites for a communication client. MISA. Available at: https://cutt.ly/XntgMJF
70 Guidelines for connecting to the interoperability platform. MISA. Available at: https://cutt.ly/QnthrnF
71 List of active production services. MISA. Available at: https://cutt.ly/Znthusr
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 Trust Services by the competent authority (MISA) is considered to be at an advanced stage. A national portal for electronic services, a single point of services, a catalogue of services and an interoperability platform have been established and are functioning for the Law on Electronic Management and Electronic Services. A register of confidential service providers and electronic identification schemes has been established for the Law on Electronic Documents, Electronic Identification and Trust Services, in which a total of 11 records have been registered so far, of which 9 qualified confidential services, 1 unqualified confidential service and 1 electronic identification scheme. MISA maintains a Register of trust service providers and electronic identification schemes. With the Law on Electronic Documents, Electronic Identification and Trust Services, so far no unique persistent 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, where 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 see data on which institution, according to which law and when the personal data contained in the Central Population Register system have been accessed. One of the simplest ways is to access through uslugi.gov.mk where the user has its own electronic identity (eID), i.e. they can log in most easily with their user profile at the PRO and see the exact data that are owned 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 is downloaded by the Ministry of Interior for the part of data change. The registration and the logging in on the portal take place through the Single Login System (SLS), available at https://eid.mk. At the moment, only individuals can register through SLS. To login to the portal, the user is automatically forwarded to the SLS where they identify themselves via username and password or digital certificate for electronic signature. After successful authentication, access to the private part of the portal is provided. SLS in the future will be integrated with the systems of other institutions and will serve for logging in.

72 Trust services and electronic identification schemes. Registry and lists. Available at: https://cutt.ly/eb8X5EY; Register of trusted service providers and electronic identification schemes. Available at: https://cutt.ly/Jb8Cy6L
eID levels refer to the levels of authenticity of the electronic identification confirmation in the registration and login process. SLS 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 at which that service is marked on the public part of the Portal.

MISA is involved in cross-border cooperation for mutual recognition of identities and provision of trust services. At the level of the six countries of the Western Balkans, a Memorandum of Cooperation has been signed between all countries, and so far bilateral agreements have been concluded with the Republic of Serbia and Montenegro for mutual recognition of qualified trusted service providers.

During this research no data was found on how many citizens use electronic signature, but also there was no campaigns to raise public awareness about eID. In practice, in many professions the use of the electronic signature was imposed as a legal obligation, but partly related to what is elaborated below for digital skills, the implementation of such a legal obligation was carried out with the mandatory purchase of a token, without obligation to use it. The traditional way is still in the lead. EC in the EC Report 2020 for this part concludes: “Electronic signatures can be used in the country's new e-portal for services by both individuals and businesses. The use of the interoperability system slightly increased during the reporting period, although many institutions do not use it despite having installed equipment and software.”

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

As part of this year’s research, we tested three e-services offered by institutions to examine their functionality from a user perspective. The selected e-services, namely, issuance of an annual tax return e-personal tax (e-PPD) offered by the PRO, payment of property tax offered by the City of Skopje and registration of a project in the database of the Secretariat for European Affairs (SEA), are described below and supported by graphs.

Annual tax return e-personal tax (e-PPD)
I forgot my password, I sent a request for resetting, and I immediately received an email to reset my password. I successfully reset my password. Back to home page. I logged in. My profile has an option for e-PPD, rents, capital gains, annual tax return and My VAT. I need an annual tax return. I click on my annual tax return and determine that it is generated. The amounts of calculated PPD and paid PPD match. I need to review the application. There is an option to confirm or correct it. Considering that I am OK, I confirm the application. There is an opportunity to print, as well as the opportunity to leave data (transaction account and bank) for them to return the excess tax paid. In my annual

tax return application the taxes match and there is no surplus of paid tax, so I confirm the application. My application is confirmed and on my profile is noted that the annual tax return is confirmed. I have the opportunity to review my current annual tax return as well as tax returns from the previous 2 years. Everything is fine, I log out.

The service is easily accessible. It is not part of the National e-Services Portal. It is secure and can be accessed by phone. There is an overview of all data related to the user that the institution has. Civil society was not involved in the delivery and design of the service. The service is not provided by a private company, but by a state institution – Public Revenue Office. The service was preceded by campaigns and education of the population. Instructions are available and easy to follow. Every step is logical. The operation of the service cannot be rated after use. However, it works great.

Table 2.

Annual tax return e-personal tax – Public Revenue Office

<table>
<thead>
<tr>
<th>ACCESSIBILITY</th>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government portal provides access to the e-service</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>The e-service is securely available on several e-channels and accessible through any device</td>
<td>☒</td>
<td>☐</td>
<td>/</td>
</tr>
<tr>
<td>Citizens can see the data that institutions collect about them when using the e-service</td>
<td>☒</td>
<td>☐</td>
<td>/</td>
</tr>
<tr>
<td>The civil society sector is involved in the design and delivery of the service</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BACKOFFICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service is provided by a private company (if there is info)</td>
</tr>
<tr>
<td>Service is provided by a state institution (if there is info)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GENERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSOs or civil society individuals are involved in providing e-services and designing them (if there is info)</td>
</tr>
<tr>
<td>There were large campaigns organized to introduce and promote this e-service</td>
</tr>
<tr>
<td>E-services are organized by life events (example from Estonia)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USER-FRIENDLINESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions for using the e-service are available and easy to follow</td>
</tr>
<tr>
<td>Every next step in using the e-service is logical</td>
</tr>
<tr>
<td>There is an opportunity to rate the service after its use (user satisfaction)</td>
</tr>
</tbody>
</table>
Property tax

On the portal of the City of Skopje I choose the tab property tax, then e-taxes. I need to register. I enter my name, surname, ID number, e-mail and phone. I agree with the personal data statement, i.e. my personal data to be used for the needs of the City of Skopje in the procedure for resolving the case and I accept the terms of use. I need to enter an activation code to activate my account. I receive an e-mail with an activation code and immediately afterwards an e-mail that my account has been activated. I have not entered the activation code. I receive another email. Both emails have two different codes. I go to the first one and it says that the account has been activated. I get two more emails. Each of them has different codes. I go back to the first of the four emails and consider the first code. In the meantime I get an email with another code. As I log in to my account I receive two more emails with two codes – within 5 minutes I received 7 emails with 7 different codes. I click on the review tab and then on the registered properties and find my apartment. I click on property tax decisions and there are 7 decisions including the last one for 2021. I have the opportunity to print them. I click on print – the document is downloaded in PDF. I cannot see if the previous taxes have been paid. There is only a decision for taxes. There is a report on open items. The unpaid tax is generated on it. I click on the tab status unpaid. It calculates how much I have to pay and how much is the commission. I confirm. A pop-up window appears that states a policy for electronic payment of taxes and fees and reads that I have a commission of 42 denars. If I pay through my e-banking account the commission is significantly lower, i.e. last year it was 9 denars, although if I pay directly to the bank the commission is 36 denars. I confirm. I enter card data. The commission is set aside. I confirm. The data is confidential. I get a notification that it has been paid and that it has not been booked (it is Saturday afternoon). I also receive an e-mail saying that I have successfully paid both tax and commission. I log out.

The service is easily accessible. It is not part of the National e-Services Portal. It does not seem very secure (within 5 minutes we received 7 emails with 7 different activation codes and we did not request them; the account is activated by itself without entering an activation code even though it was by e-mail), but it can also be accessed by phone. There is an overview of all data related to the user that the institution has. Civil society was not involved in the delivery and design of the service. The service is not provided by a private company, but by a state institution – the City of Skopje. The service was preceded by campaigns and education of the population. The instructions are not easy to follow. The steps are not logical (for example, the e-service is at least 5 times more expensive if paid through the portal of the City of Skopje than through personal e-banking, and 10% more expensive than if paid physically in a bank). The operation of the service cannot be rated after use.
<table>
<thead>
<tr>
<th>Accessibility</th>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government portal provides access to the e-service</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>The e-service is securely available on several e-channels and accessible through any device</td>
<td>☐</td>
<td>☒</td>
<td>Within 5 minutes we received 7 emails with 7 different activation codes and we did not request them; the account is activated by itself without entering an activation code even though it was by e-mail.</td>
</tr>
<tr>
<td>Citizens can see the data that institutions collect about them when using the e-service</td>
<td>☒</td>
<td>☐</td>
<td>/</td>
</tr>
<tr>
<td>The civil society sector is involved in the design and delivery of the service</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>BACKOFFICE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service is provided by a private company (if there is info)</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>Service is provided by a state institution (if there is info)</td>
<td>☒</td>
<td>☐</td>
<td>City of Skopje</td>
</tr>
<tr>
<td>GENERAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSOs or civil society individuals are involved in providing e-services and designing them (if there is info)</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>There were large campaigns organized to introduce and promote this e-service</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>E-services are organized by life events (example from Estonia <a href="https://www.eesti.ee/en/">https://www.eesti.ee/en/</a>)</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>USER-FRIENDLINESNESS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructions for using the e-service are available and easy to follow</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>Every next step in using the e-service is logical</td>
<td>☐</td>
<td>☒</td>
<td>The e-service is at least 5 times more expensive if paid through the portal of the City of Skopje than through personal e-banking, and 10% more expensive than if paid physically in a bank.</td>
</tr>
<tr>
<td>There is an opportunity to rate the service after its use (user satisfaction)</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
</tbody>
</table>
Registration of a project in the database of the Secretariat for European Affairs (SEA)

(obtaining confirmation that the project is exempt from VAT, which serves as a basis for obtaining a tax number in the PRO)

Project registration is the first step towards obtaining a tax number, which exempts the project from VAT. To register, you first need to register on the portal and create an account. The login starts with the registration which consists of 5 steps. There is a possibility to change the data of an already registered project, to extend the registered project, to access the submitted requests as well as the archive of all requests. The first step consists of entering basic parameters such as the type of project (whether it is bilateral, multilateral, IPA, sub-grant, etc.) and this is selected from a drop-down menu. You enter a description and the name of the project in Macedonian and English, total project amount, reference number, as well as start date and completion date. The next step is to enter donor data. This includes entering the donor name, address, responsible person, contacts. The third step is to enter the data of the implementer. The name of the organization is selected from the drop-down menu, and then most of the data appears automatically (such as address, contact, tax number, responsible person, etc.) with the possibility of correction. The fourth step involves entering data about the user where again from the drop-down menu the user is selected from a list of institutions and organizations. Contacts for the user, tax number, funds to be used and currency are also entered. The fifth step consists in attaching documents, such as a copy of the financing agreement, a copy of the entire project documentation, a list of experts and a cover letter requesting registration of the project. The documents are submitted electronically. Confirmation is received by e-mail for a successfully submitted application, and the status of the submitted request can be tracked on the profile (whether it is approved or not, with the possibility if it is – to download the confirmation).

After the registration is completed, the electronic registration certificate is physically brought to the PRO, where an additional request for obtaining a tax number of the project is physically submitted. The request (form) can be downloaded from the PRO website, but not filled in and submitted electronically.

The project registration service is easily available. It is not part of the National e-Services Portal. It looks safe and can be accessed by phone. There is an overview of all data related to the user that the institution has. Civil society is not involved in delivery, but was involved in service design. The service is not provided by a private company, but by a state institution – SEA. The service was not preceded by campaigns and education of the population and it is relatively new. We could not see any instructions for use, although the steps are logical and build on previous practice. The operation of the service cannot be rated after use. However, it works great.
Table 4.
Project registration (for obtaining confirmation that the project is exempt from VAT) - SEA

<table>
<thead>
<tr>
<th>ACCESSIBILITY</th>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government portal provides access to the e-service</td>
<td>☐</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>The e-service is securely available on several e-channels and accessible through any device</td>
<td>☒</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td>☒</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>The government portal provides access to the e-service</td>
<td>☒</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>The creation of the portal and the service is supported by a foreign donation and an NGO. The delivery of the service is by a state body.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BACKOFFICE</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service is provided by a private company (if there is info)</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
<tr>
<td>Service is provided by a state institution (if there is info)</td>
<td>☒</td>
<td>☐</td>
<td>SEA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GENERAL</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSOs or civil society individuals are involved in providing e-services and designing them (if there is info)</td>
<td>☒</td>
<td>☒</td>
<td>Only in design.</td>
</tr>
<tr>
<td>There were large campaigns organized to introduce and promote this e-service</td>
<td>☒</td>
<td>☐</td>
<td>The service is new and insufficiently promoted.</td>
</tr>
<tr>
<td>E-services are organized by life events (example from Estonia <a href="https://www.eesti.ee/en/">https://www.eesti.ee/en/</a>)</td>
<td>☐</td>
<td>☒</td>
<td>/</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USER-FRIENDLINESS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions for using the e-service are available and easy to follow</td>
<td>☒</td>
<td>☐</td>
<td>/</td>
</tr>
<tr>
<td>Every next step in using the e-service is logical</td>
<td>☒</td>
<td>☐</td>
<td>Based on previous practice.</td>
</tr>
<tr>
<td>There is an opportunity to rate the service after its use (user satisfaction)</td>
<td>☒</td>
<td>☐</td>
<td>/</td>
</tr>
</tbody>
</table>
6

DIGITAL LITERACY
6. Digital literacy

A large part of Europe, with a few exceptions, suffers from the strength of its platforms and vulnerable Internet infrastructure. Internet speed in much of Europe is much lower than in the United States as a whole, and the infrastructure is older. COVID-19 may partly explain the massive growth, as it has led to higher data traffic and new demands for broadband because people were at home, which in turn has increased demand for fiber optics. The OECD document on the COVID-19 crisis in the Western Balkans, in the section on the impact of the pandemic on digitalization, identifies the following challenges for these countries:

- Many households lack reliable computer and broadband internet access: Nearly half of all households in the six Western Balkan economies lack computer access at home. Additionally, about one third lack fixed broadband internet connections, which offer higher, more reliable connection speeds than other types of broadband connections.
- The majority of individuals in the six Western Balkan economies lack basic digital skills: On average, two thirds of individuals in the six Western Balkan economies lack skills required to navigate digital spaces.
- Limited use of digital government platforms: On average, only about one fifth of individuals in the six Western Balkan economies used the internet to connect with public authorities in 2019.
- Firms are underprepared for digital security challenges: On average, only 12% of firms in the six Western Balkan economies defined or revised their security policy in 2019.  

Building digital skills is an investment in society. The following situation was noted in the CCM research in the area of digital skills:

“Progress in EU countries and rapid digitalization is possible due to the high level of digital literacy. Unfortunately, our country still cannot be compared to most EU member states when it comes to digital literacy of the entire population. The differences in the data that measure the number of individuals with basic and above basic level of digital skills are obvious (Table 6).

Table 5.
Relevant data on internet access and use in the Western Balkans

<table>
<thead>
<tr>
<th></th>
<th>ALB</th>
<th>BIH</th>
<th>KOS</th>
<th>MNE</th>
<th>MKD</th>
<th>SRB</th>
<th>WB6 average</th>
<th>EU – 28 average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households with computer access at home (%) (2017)</td>
<td>/</td>
<td>/</td>
<td>61</td>
<td>10</td>
<td>67</td>
<td>68</td>
<td>51.5</td>
<td>84</td>
</tr>
<tr>
<td>Individuals with basic or above basic digital skills (%) (2019)</td>
<td>/</td>
<td>24</td>
<td>28</td>
<td>50</td>
<td>32</td>
<td>46</td>
<td>36</td>
<td>58</td>
</tr>
<tr>
<td>Individuals using the internet to connect with public authorities in past 12 months (%) (2019)</td>
<td>13</td>
<td>18</td>
<td>16</td>
<td>23</td>
<td>25</td>
<td>29</td>
<td>20.67</td>
<td>55</td>
</tr>
<tr>
<td>Enterprises (excl. financial sector) whose ICT security policy was defined or most recently revised within the past 12 months (%) (2019)</td>
<td>/</td>
<td>7</td>
<td>/</td>
<td>11</td>
<td>15</td>
<td>16</td>
<td>12.5</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: Eurostat, Level of digital skills of individuals, according to a version from 14 October 2020, available at: https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

Table 6.
Individuals who have a basic or above basic level of digital skills

Source: Ibid.
Most additional research suggests that digital skills are lacking not only in the general population but also in employees of service providers. With this level of digital skills, it can be concluded that the transition to fully digital operations as well as fully digital services will not be quick or easy, so the state must urgently develop a strategy to address the problem.\textsuperscript{76} In that regard, the adoption of a National Strategy for Digital Literacy is envisaged, but there is no evidence that any activities have been initiated for this. The latest EC Progress Report on the country states that the drafting of the Strategy for Development of Digital Skills\textsuperscript{77} has started, and digital literacy is a priority in the new Education Strategy, which will probably be coordinated by the Ministry of Education and Science (although MISA might also be a coordinator). Therefore, RNM is currently in the process of creating the Digital Skills Strategy, which was originally expected to be finalized in March 2020, but was postponed due to the pandemic.

Efforts to increase the level of digital literacy of citizens and public servants are not consistent, and citizens have low digital skills, i.e. below the European average. As part of some activities to raise digital literacy, an initiative has been taken based on a government decree\textsuperscript{78} to award digital skills vouchers to persons up to 29 years of age\textsuperscript{79}. The planned activities of MISA for training teachers on the topic of cyber security were not realized. All future activities are planned to be realized within the chapter – Digital Skills, part of the National Long-Term ICT Strategy.\textsuperscript{80} In the last three or four years there have been activities and measures related to digital skills training, which aimed to upgrade the skills of unemployed young people in the field of information technology, in order to increase their competitiveness and faster integration into the labor market. These trainings were part of the Operational Plans for active programs and measures for employment and labor market services.

Regarding the ICT skills of the citizens of RNM, the Metamorphosis Survey\textsuperscript{81} shows that the respondents think that they have the most skills for communication through social networks (64.9%) and Internet search (63%), while they are the least skilled in writing blogs, creating and uploading videos and news content, etc. The most used social networks are Facebook (79.1%), YouTube (65.7%) and Instagram (47.7%). The most common online activity among the respondents is communication through social networks (73.8%) and communication through chat applications (69.8%) such as Skype, Viber, Messenger, WhatsApp, Hangouts, etc. Other common Internet activities that the analysis reveals are following informative content from various websites (30.1%), listening to and downloading music (26.1%), using email (20.3%) and browsing useful data required for their work or studies (20%). The analysis emphasizes that advanced use of the Internet is much rarer, i.e. only 6.5% of respondents use e-banking daily or several times a week, or 5% publish or share content they have created.

Regarding the activities aimed at the population, it can be seen that there were several projects especially led by the civil society on this topic, i.e. projects to support digital literacy, such as the Macedonian Institute for Media entitled “Young innovators with

\textsuperscript{76} Evaluation of public service improvement policies. CCM. Available at: https://cutt.ly/wnWwqma
\textsuperscript{78} Decree with legal force for issuing vouchers for young people for digital skills training in order to improve their competitiveness on the labor market during a state of emergency. Available at: https://cutt.ly/pb84qw1
\textsuperscript{79} Manchevski and Ademi: Vouchers for digital skills provided for young people up to 29 years old. MISA. Available at: https://www.mioa.gov.mk/?q=mrk/node/2955
\textsuperscript{80} Report on the implementation of the Annual Work Plan 2020. MISA. Available at: https://cutt.ly/ub8jirR
ideas for prevention of trolling and media reality education." This project implemented in the period 2018 – 2020 aimed to increase the knowledge of CSOs in order to be able to effectively deal with fake news and unethical reporting in the media, helped social media users to become informed consumers of online news and information and active citizens who are responsible on the internet. In most projects for which data can be found, it is obvious that digital literacy focuses on media literacy. Often, the target group in such projects is children. A brief summary of the projects shows that there is an initiative to introduce digital literacy in formal education. Previously on this topic (more precisely in 2017) was implemented a Project for the Advancement of Digital Literacy in the Republic of Macedonia – National MOS (Microsoft Office Specialist).

From the available information the following conclusions can be pointed: 1) digital literacy is implemented mostly through projects or through competitions organized by the ICT private sector and chambers; 2) there is no national strategic document or structured approach to this issue; 3) there are some beginnings of the idea of introducing digital literacy in formal education; and 4) preparatory steps have been taken for the development of the Digital Skills Strategy.

---

82 Young innovators with ideas for prevention of trolling and media reality education. Macedonian Media Institute. Available at: https://cutt.ly/Xb88gE0
83 Project for the Advancement of Digital Literacy in the Republic of Macedonia - National MOS (Microsoft Office Specialist). Available at: http://arhiva.mioa.gov.mk/?q=node/4534
ACCESS TO SERVICES AND RASING AWARENESS
7. Access to services and raising awareness

The basic, i.e. central portal for e-services in RNM is the National e-Services Portal. Unlike some initial initiatives for development of e-services or electronic processes (such as the e-democracy portal), the ulsugi.gov.mk portal proved to be sustainable. This portal was also dysfunctional and out of date at one stage, so the citizens had to access directly the websites of the competent institutions, but then it was restored, improved and promoted. 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. There are currently 151 existing services on the Portal.84

The portal ulsugi.gov.mk was indirectly promoted for some of the services for which the citizens needed reminding that they are obliged to fulfil or to obtain information, so the portal itself was involved in several campaigns of public interest.

In order for all citizens to have unimpeded access to e-services, the concept “One-stop-shop for services and intermediaries for e-services” was established as a transitional or ancillary solution. According to this concept, the Administrative Office, which provides access to services of several competent authorities and in which acts adopted by the competent authorities can be obtained, in the new legal framework is introduced as “One-stop-shop for services”. The first such office is open and functioning in Skopje. The one-stop-shop also provides information for different types of services provided by public authorities. The initiative is to be welcomed, as a solution for easier access to over-the-counter services, especially since there is no tendency in the EU to completely abolish offline services (which are received over the counter, with personal contact). However, in order to stimulate the use of e-services, the most progressive aspect is the introduction of intermediaries for administrative services, the so-called proxy agents. An intermediary for administrative services electronically is an administrative officer employed in public bodies, who on behalf of the user of the e-service undertakes appropriate actions, i.e. helps the user to access the e-service.85 Research shows that for 2019 the most commonly used public services were the following:86

---

84 Accessed on 7 June 2021 at https://ulsugi.gov.mk/services-by-application-type.aspx?serviceApplicationTypeId=1
85 Roadmap for organizational, legal and technical reforms to improve public services. CCM. Available at: https://ulsugi.gov.mk/services-by-application-type.aspx?serviceApplicationTypeId=1
86 14 most frequently asked questions about the 14 most common public services for citizens. CCM. Available at: https://cutt.ly/mntzpe
## Table 7. Most commonly used public services for 2019

<table>
<thead>
<tr>
<th></th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Registration into the birth registry</td>
</tr>
<tr>
<td>2.</td>
<td>Acquisition of citizenship by origin</td>
</tr>
<tr>
<td>3.</td>
<td>Issuing a passport for the first time</td>
</tr>
<tr>
<td>4.</td>
<td>Issuing an ID card for the first time</td>
</tr>
<tr>
<td>5.</td>
<td>Registration into the marriage registry</td>
</tr>
<tr>
<td>6.</td>
<td>Applying for and renouncing of compulsory health insurance</td>
</tr>
<tr>
<td>7.</td>
<td>Salary allowance during sick leave</td>
</tr>
<tr>
<td>8.</td>
<td>Enrollment of a child in primary school</td>
</tr>
<tr>
<td>9.</td>
<td>Awarding a student scholarship</td>
</tr>
<tr>
<td>10.</td>
<td>Permanent financial assistance</td>
</tr>
<tr>
<td>11.</td>
<td>Cash benefit for help and care from another person</td>
</tr>
<tr>
<td>12.</td>
<td>Registration of ownership in the real estate cadastre on the basis of a purchase agreement</td>
</tr>
<tr>
<td>13.</td>
<td>Determining property tax</td>
</tr>
<tr>
<td>14.</td>
<td>Registration into the death registry</td>
</tr>
</tbody>
</table>

Source: CCM, 14 most frequently asked questions about the 14 most common public services for citizens

In comparison with the Metamorphosis survey within the Digital Agenda Observatory 2020, four other services came in first place in demand, but the impact of the situation with COVID-19 is easily noticeable, which indicates why these services were most in demand:

- Permit for leaving the home during curfew for legal entities and employees;
- Permit for leaving the home during curfew of individuals who provide care for third parties, care for the elderly;
- Exercising the right to monetary compensation in case of unemployment; and
- Certificate for using the right to a special allowance.

---

One of the main recommendations in this context is the upgrading of the Portal uslugi.gov.mk for automatic ranking of the most requested services.

When it comes to electronic banking, according to the data of the National Bank of RNM, citizens are increasingly using payment cards and e-banking. Since the beginning of the COVID-19 crisis, individuals have increasingly used the benefits of e-banking. 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 in particular used computers to make payments. Specifically, in 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 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 to citizens is initiated via mobile phone, while the other three electronic credit transfers are initiated using a computer.88

The business sector participates in digitalization projects for various aspects. For example, the Economic Chamber of Information and Communication Technologies – MASIT participates in a number of projects that provide various aspects of digitalization intended for the business sector in RNM.89 For that purpose, and to encourage the digital transformation in the companies, MASIT has published a Practical Guide.90 However, the ICT companies in RNM themselves have developed capacities, and thus they directly participate in larger consortia of IPA2 projects and appear as creators of digital solutions that can be used by both private legal entities and state institutions. An active role is played by the Fund for Innovation and Technological Development (FITD), which supports the creative ideas of start-ups, and implements measures in cooperation with banks to co-finance the activities of start-ups.

There is a strong civil sector in RNM that monitors the implementation of DA. The Metamorphosis Foundation for Internet and Society91 and CCM92 stand out as two of the specialized CSOs with more numerous researches. With their research and publications, they significantly influence the collection of data and the publication of research findings that enable the RNM to be measurable and comparable with other countries, i.e. to be properly ranked and to determine where there is a need for improvement. One of the most important projects that currently generate such data, and is aimed at meeting the measures and objectives of the DA, is the project “Increasing Civic Engagement in the Digital Agenda – ICEDA”.

---

89 Projects. MASIT - Chamber of Commerce for Information and Communication Technologies. Available at: https://cutt.ly/2ntzJ27
90 Digital Transformation, How to Achieve Digital Transformation, A Practical Guide to Greater Competitiveness. Available at: https://cutt.ly/hntz0ue
91 Projects. MASIT - Chamber of Commerce for Information and Communication Technologies. Available at: https://cutt.ly/2ntzJ27
92 Digital Transformation, How to Achieve Digital Transformation, A Practical Guide to Greater Competitiveness. Available at: https://cutt.ly/hntz0ue
1) The Technical Support Center was established by Skopje Lab, which is managed by SmartAp – Laboratory for Social Innovation Skopje through the sub-grant “Inclusive and successful digital transformation for all – DIGITAL ALL”. SmartAp is one of the three organizations from RNM that has become part of the ICEDA network and which is currently working to provide support to the residents of the City of Skopje in the use of e-services at the local level. The center was established within the existing Info Center as part of the premises of the City of Skopje, and is open to the public from Monday to Friday from 10 am to 3 pm. The activities of the center are complementary to the activities of the Info Center, as many citizens recognize it as a “help center”. In addition to these activities, through the project, SmartAP focuses on the redesign of 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 – ACTAC 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 of low socio-cultural standard, Roma, the illiterate and/or the “technically illiterate”, the elderly, persons with long-term unemployment, persons with basic information literacy, rural ethnic and mixed religious population. Currently ACTAC has established 3 types of info centers: physical center in Prilep (open to citizens 3 days a week), online center (information, educational and support platform for the use of e-services and production and broadcasting of 18 educational multimedia contents for e-services); and a mobile center (20 travel info sessions at 20 different locations to provide physical support to citizens to use specific e-services and digital skills).

3) “Digitalization in Agriculture – NOW!” is a sub-grant implemented by the Rural Coalition, in order to increase trust in institutions by increasing the use and improving the quality of e-services by the local community. At the moment, they manage a rural digital platform and a local e-support center in Kičevo, which contributes to increasing the quality and comprehensibility of e-services, but also increasing the percentage of their use by the rural population. The project activities cover 5 regions in the country (Pelagonija, Northeast, Southwest, Southeast and Polog regions). The center includes the municipalities of Gostivar, Vrapčiste, Makedonski Brod, Plašnica, while local coordinators in Prilep, Krivogaštani, Strumica, Kumanovo and Staro Nagoričane in cooperation with the municipalities will offer the same support as the one that will be available in the center. The organization has direct cooperation and support from the Ministry of Agriculture, Forestry and Water Economy, Agency for Support of Agricultural Development, in order to provide a systematic approach to the digitalization of the sector.
INFORMATION AND CYBER SECURITY
8. Information and cyber security

The unexpected and forced transition to remote work caused by COVID-19 is not easy for governments. Some find that they do not have the infrastructure to handle so many people working from home. Some governments have demanded that music not be streamed to free up bandwidth. Some have experimented with rotating staff (combined model of work – remote working and physical presence) to adhere to social distancing practices, which has raised concerns among security experts about the increased potential for cyber attacks due to access to sensitive government information from home. One of the key prerequisites for the public sector to function online is security, including network and information security.

The National Cyber Security Strategy of the Republic of Macedonia 2018 – 2022 has been adopted in RNM. OBJECTIVE 1 defines Cyber Resistance – “Information and communication infrastructure in the Republic of Macedonia to be resistant to cyber threats and to identify and implement appropriate solutions to protect national interests. Cyber resistance 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.”

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 violation of personal security, data from 2015, amended in 2019. (Official Gazette of RNM, no. 92 from 13 May 2019), where Article 6 stipulates:

“The security policy to be adopted by the operators in accordance with Article 5 of this Rulebook should cover at least the following areas (List 1):
- General security risk management procedures,
- Security of human resources,
- Security of systems and facilities,
- Security and integrity of personal data,
- Operational management,
- Incident management,
- Business continuity management,
- Monitoring and testing of security measures.

The minimum security measures to be taken by the operators and which should be contained in the Security Policy, as well as the reference norms for their implementation are listed in List 2. In addition to the stated reference norms, the operators may apply other appropriate norms in order to achieve the security measures referred to in paragraph 1 of this Article. Lists 1 and 2 of this article are an integral part of this rulebook.”

94 Agency for Electronic Communications, the Rulebook for ensuring security and integrity of the public electronic communications networks and services and activities that operators should undertake in case of violation of the security of personal data. Available at: https://cutt.ly/5b81NiD and modified: https://aek.mk/pravilnik-za-izmenuvanje-i-dopolnuvanje-na-pravilnik-za-bezbednost-i-integritet/
The Law on Electronic Communications established the National Center for responding to computer incidents MKD-CIRT as a separate department in AEC,\(^95\) 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 MKD-CIRT. The procedures for requesting guidance and assistance have already been published and explained on the website of MKD-CIRT, and it remains for the institutions to refer to and follow them. Having in mind the important role and competencies of MKD-CIRT, it is definitely necessary to constantly strengthen this institution with exceptionally qualified staff. But, of course, in the context of the central question of this analysis for the need for any legislative interventions, the answer is that from the aspect of the legal framework everything that is necessary has been established, the rest is implementation.

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.\(^96\) In addition to this service, in general for all issues related to network and information security, the state authorities should establish cooperation and take over and adapt the internal rules. 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.\(^97\)

Regarding the competencies and activities of MKD-CIRT, there are two basic recommendations. The first refers to the strengthening of the capacities of MKD-CIRT, which in fact does not mean inevitable employment but may mean redistribution of the already qualified resources in AEC. The second recommendation refers to increasing the visibility of this body because many state institutions that are/should be constituents of MKD-CIRT, know little about its role and mission.

\(^95\) National Center for responding to computer incidents MKD-CIRT. Available at: https://mkd-cirt.mk
\(^96\) Web application checking service. National Center for responding to computer incidents MKD-CIRT. Available at: https://mkd-cirt.mk/usluga-za-proverka-na-veb-aplikacii/
\(^97\) Law on Electronic Communications. Available at: https://cutt.ly/1ntvcvz
E-PARTICIPATION AND E-DEMOCRACY
9. E-participation and e-democracy

The strategic priorities of the Government 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 non-partisan 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; citizens of R. N. Macedonia trained and well informed about ICT;
- Developing mechanisms for transparent and fair reporting on issues of public interest;
- Open Government Partnership (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.98

Legal acts have been established to coordinate the participation of citizens in decision-making and access to public information, namely the Law on Free Access to Public Information,99 whereby it is legally determined which information is public, so that the holder of such information should inform the public through its website.100 There is an “Open Data Strategy, 2018 – 2020”,101 and an action plan. Citizen participation is also ensured through the Regulatory Impact Assessment (RIA), where RIA is mainly regulated by government decisions,102 and Rules of Procedure of the Government,103 and not by legal solutions.

---

98 Strategic plan 2021-2023. MISA. Available at: https://cutt.ly/jb8D77J
99 Law on Free Access to Public Information. Available at: https://cutt.ly/Db8ZCJE
100 Public information. MISA. Available at: https://cutt.ly/9b83kmg
102 MISA for the form and the content of the RIA report. Available at: https://cutt.ly/ib838kG
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 State Administration Bodies in Article 10\textsuperscript{104}. The Law on Public Sector Data Use 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.\textsuperscript{105} The models for participation are provided by the Law on Local Self-Government\textsuperscript{106}, 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”.\textsuperscript{107} Since 2016, by a decision of the Government, a Council for Cooperation of the Government with the Civil Sector 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.\textsuperscript{108} According to the Strategy for Cooperation of the Government with the Civil Sector 2018 – 2020, Priority Area 2: Democratization, active participation of the civil society sector in social processes, policy making and monitoring, with a special focus on the EU integration process, 9 priority areas have been identified. The Action Plan for implementation of the Strategy, 2020 contains 31 measures and 84 activities, of which 51 are realized (60.7%), 10 activities are partially realized, and 27.7% are not realized.\textsuperscript{109}

As for the question – are there tools available to citizens online that allow them to give feedback to the Government (including – reporting unethical behaviour, filing complaints, etc.), it can be said that there is a certain level of implementation. At the Unique National Electronic Registry of Regulations (ENER), citizens can comment on the proposed legal solutions and initiatives,\textsuperscript{110} and there is a Guide for giving feedback to the public on the results of the law drafting process.\textsuperscript{111} In the last three years, ENER is the most used tool for e-participation. There was an e-democracy portal, but it is no longer in operation,\textsuperscript{112} and the e-citizens platform has not been set up either, i.e. the procurement of software for it has not been realized.\textsuperscript{113} On some websites of the ministries (which are not completely unified) there is a possibility to make a proposal or to submit a complaint. Such a possibility exists on the Portal uslugi.gov.mk, where in the Support section, there is an option to send a proposal for improvement. In contrast, the Law on General Administrative Procedure establishes mechanisms for reporting unethical conduct and violations of the Law, as well as the opportunity to file complaints regarding access to public services and the administration of justice.\textsuperscript{114} There is also a Code for

104  Law on Organization and Operation of State Administration Bodies. Available at: https://cutt.ly/Kb88z0O
105  Law on Public Sector Data Use. Available at: https://cutt.ly/3b88QrW
106  Law on Local Self-Government. Available at: https://cutt.ly/Fb88YxA
108  Council for Cooperation of the Government with the Civil Sector. Available at: https://cutt.ly/Ob88K5Y
110  Unique National Electronic Registry of Regulations. Available at: https://ener.gov.mk/Default.aspx
111  Guide to giving feedback to the public on the results of the law drafting process. MISA. Available at: https://cutt.ly/4b-850jP
112  Portal for e-democracy. Available at: http://archiva.mioa.gov.mk/?q=node/2630 - the functionalities have been transferred to ENER, where there is an opportunity to submit initiatives.
113  Report on the implementation of the Annual Work Plan 2020. MISA. Available at: https://cutt.ly/ub8JtiR
114  Law on General Administrative Procedure. Available at: https://cutt.ly/lb8Kzyw
Administrative Servants," and some institutions provide the opportunity to report file complaints, or to report corruption (for example – the Ministry of Justice), as well as a responsible person to whom citizens turn in case of conflict of interest. The project “One point for services” exists in Skopje, Tetovo and Kumanovo, where citizens can get more services in one place. Such offices are planned in other cities as well.

It cannot 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 in the whole policy-making process. In that direction, the findings are contradictory, and the opinions contradictory. For example, some studies indicate that RNM has the lowest percentage of youth participation in decision-making at both local and central level, or, compared to the region, that the Government of North Macedonia is last in responsiveness. However, globally, in terms of measurements specifically related to the e-Government area, RNM is making progress. Therefore, it is important to emphasize that different researches are based on different methodologies. 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 in the proactivity of the institutions. Citizens are more involved in creating laws, but not policies. In any case, civic participation also depends a lot on the current attractiveness of the law, the size of the group affected, its mobilization and the like. It should also be said that no internal report has been made for the conducted consultations for 2020, i.e. the initiative has been postponed for 2021.

According to the “Open Data Strategy, 2018 – 2020”, the so-called – open government data, are made available for the creation of new services and for providing a contribution to the creation of public policies, so in that regard, according to the report of MISA, it can be said that most of the planned activities in this area for 2020 have been realized. OGP is a successful initiative, one of the most successful in our country. The citizens are fully and continuously involved in all processes, in the creation of the action plan and the commitments. The OGP platform allows online implementation of the OGP action plan to be monitored as progress and is regularly updated for each measure on a quarterly basis. Additionally, the platform enables online meetings of the OGP Council and the CSO network, as well as online consultations on action plans. It is currently being used for consultations on a new action plan being drafted in a pandemic. The OGP Council with 7 institutions is functioning successfully. As part of the USAID Civic En-

---

115 Code for Administrative Servants. Available at: https://www.pravda.gov.mk/toc1/1854
117 For example, according to the Metamorphosis Survey 2020, 71.1% of CSOs were not part of the e-government development process, while only 13.2% said they were involved in some way in this process, see more: https://cutt.ly/Sb8E4yF; This is confirmed by the fact that out of 354 respondents from rural areas from the Northeast and Polog planning regions over 90% of them have never participated in any public hearing in the municipality or in a meeting of a local community. This is also confirmed by the fact that only 12% of over 120 young people from the municipalities of Kumanovo and Staro Nagoricane participated in a session of the Municipal Council, and their knowledge of the tools for participation in the policy-making process is assessed with 3, Rural Coalition Survey, see more: https://cutt.ly/nb8ZRbh.
118 Youth in North Macedonia: Optimism, Apathy or Disappointment? Westminster Foundation for Democracy. Available at: https://cutt.ly/Zb4qeJw
119 WHAT DO CITIZENS TELL US ABOUT ADMINISTRATIVE SERVICES? The second public perception survey in the Western Balkans. 2020. WeBER 2.0. Available at: https://cutt.ly/Zb4gDts8
121 Report on the implementation of the Annual Work Plan 2020. MISA. Available at: https://cutt.ly/ub8JtH
122 Ibid.
engagement Project, the Metamorphosis Foundation in cooperation with MISA conducted several online trainings on open data, Open City and local transparency, training 254 representatives of state institutions, local self-government units and CSOs on these topics. However, many of the trainings are conducted at the initiative of CSOs.

However, despite the Government’s efforts to present the information in open format, some of the institutions still do not publish their databases on their websites in open format. According to the latest data from the Openness Index from 2020, for the use of open data, RNM has significantly improved, i.e. it has the most open executive branch of power in the region. On the other hand, if we take into account that this position is held by the central government with 52.09% of the openness indicators, which is also the highest percentage of fulfillment in the region, then undoubtedly additional efforts are needed in this direction. The central government is significantly more open compared to the local and judicial authorities. The Assembly of the Republic of North Macedonia meets 65.63% of the openness indicators; the Government of the Republic of North Macedonia (75.86%); MISA (76.01%); The Ministry of Defence (72.47%) and the Ministry of Finance (71.57%). The new research for the period 2021 is underway and the research for 2020 is completed and data processing is in progress.

After the general review of the situation, the following barriers for e-participation and e-democracy in RNM could be singled out: the positions inherited from the past and the general unresponsiveness the public administration; lack of capacities; low level of political/administrative culture; partial involvement of the citizens in the processes for creating public policies; lack of resources (money, time); irresponsibility, disorganization, etc. Consultations with citizens and CSOs occur late in the policy-making process, and according to OECD findings, at the general level, consultations do not have a significant impact on regulatory policies.

123 Online training for open data held. Metamorphosis Foundation. Available at: https://metamorphosis.org.mk/en/aktivnosti_arhiva/online-training-for-open-data-held/
124 Assessment of good governance in North Macedonia and the region through the Openness Index. 2020. Metamorphosis Foundation. Available at: https://cutt.ly/PntvNWL
126 OECD Regulatory Policy Outlook 2015
ROADMAP FOR DIGITAL AGENDA ADVANCEMENT IN RNM
10. **Roadmap for Digital Agenda advancement in RNM**

Based on the findings of this research that reflects the current situation regarding the implementation of the Digital Agenda (DA) in the Republic of North Macedonia (RNM), we recommend the following:

**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 to raise 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;

- It is necessary for the institutions to have a proactive approach to the involvement of CSOs in the policy making and co-management processes 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;

- Additional measures are needed to promote the Portal uslugi.gov.mk to achieve greater consistency in terms of its operation. 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;

- Establish a transition plan, i.e. full digitalization of some pilot services, with precisely defined deadlines (5 years) in which the counter option for that given service will be gradually limited, towards its complete abolition. At the same time, it is necessary to give intensive support to the citizens in that direction;

- Regarding the competencies and activities of MKD-CIRT, we recommend strengthening the staff capacities (which does not mean inevitable employment of new staff, but redistribution of already existing qualified resources), as well as increasing the visibility of this body because many state institutions, what their constituents are or should be, are not familiar with its role and mission;
Cyber Security

- Institutions that have neither a priority nor central solution for DMS at all, it is necessary to choose a technical platform for storing institutional memory with a special module for this purpose. It is not necessary to wait for a national solution such as the document management system because the institutions will not become part of the central DMS at the same time. The institution can develop its own system or use free solutions as a basis for further customization. It is only necessary to establish coordination with MISA to ensure compliance with the DMS solution;

- It is necessary to take more serious steps towards the implementation of the interoperability system. EC Progress Report on RNM for 2020 concludes that in the reporting period the use of the interoperability system is insufficiently increased, i.e. many institutions do not use it despite having installed equipment and software;

- The principle “Only once”, (i.e. public administrations to collect information from citizens and businesses only once and then share and re-use this information) should be a high political priority. There is no justification for the increase in procedures requiring documents that other institutions already have;

Digital Literacy

- Having in mind that in this reporting period there is no step forward in terms of digital literacy, the recommendations from last year’s Roadmap for advancing the Digital Agenda in the Republic of North Macedonia remain in full.
Glossary

**Communication** is any information that is exchanged or transmitted between a limited number of parties through public electronic communications services.

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

**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.

**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.

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.

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.

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.
Annex 1: List of interviewed stakeholders

- Blagica Cvetkoska, Executive Director, Association for Tolerance and Citizen Co-operation AGTIS
- Gordana Gapikj-Dimitrovska, State Adviser at the Ministry of Information Society and Administration
- Elena Mančeva, State Secretary, Ministry of Information Society and Administration
- Elena Mihajloska, Normative Advisor in the field of administration, Ministry of Information Society and Administration
- Elham Abazi, Junior Associate for Application Maintenance, Ministry of Information Society and Administration
- Liljana Jonoski, Executive Director, Rural Coalition
- Marija Golabovska, Junior Associate for Administrative Support of Regulation Preparation, Ministry of Information Society and Administration
- Nadica Josifovski, State Advisor for Information Systems and Technologies, Ministry of Information Society and Administration
- Neda Maleska – Sačmaroska, Executive Director of the Center for Change Management
- Nikola Nikolov, State Advisor for Information Systems and Technologies, Ministry of Information Society and Administration
- Petar Fidanovski, Advisor for IT standardization, Ministry of Information Society and Administration
- Sofija Bogeva, Project Coordinator, SMART AP – Laboratory for Social Innovation
- Petar Todorovski, Regulatory Advisor in the field of ICT, EC and AVP, Ministry of Information Society and Administration
- Sandra Anastasovska, Regulatory Advisor in the field of ICT, EC and AVP, Ministry of Information Society and Administration
- Solza Kovačevska, State Advisor for Information Systems and Technologies, Ministry of Information Society and Administration
Annex 2: Executive Summary of the Report and Conclusions

The development of the information society, i.e. what is today called digital society in the Republic of North Macedonia has been occurring for the last 20 years. Despite so many years of implementation, it seems that some things are seriously behind schedule and that they are not realized at the expected pace.

Part of the requirements for e-government is for RNM to adapt to EU standards and principles, as one of the key priorities for accession to membership. The government has shown commitment in adopting e-governance strategies such as the Open Data Strategy, e-governance, e-services management, and thus demonstrated political commitment in this segment. But that is not enough. The implementation of the strategies is still not at an appropriate level, i.e. there are problems with interoperability, difficult communication between institutions, limited capacity of the administration, as well as limited capacity of citizens to apply these tools. Therefore, we cannot talk about full implementation, although positive examples can be singled out. Of course, in addition to the government, the private sector must also support the process and take steps in this direction.

The purpose of this research is to make as comprehensive a mapping of the current situation as possible, and to lay the groundwork for further in-depth measurements. Certain segments related to digitalization in RNM are measured differently from other countries, while certain segments are not measured at all, or such data are not collected at the institutional level. However, the Digital Agenda (DA) has specific parameters and indicators, so based on them a framework is set that allows us a comprehensive self-evaluation and assessment of the progress of the situation in our country. Last year’s Report on the current situation and roadmap for advancing the Digital Agenda in North Macedonia serves as a starting point, so this research in certain segments reflects findings on the cited document, and some of the recommendations overlap, especially where no progress is noted, i.e. where the same priorities continue to dominate.

Based on the research of the situation in the period June 2020 – June 2021, the following conclusions can be drawn:

- As a coordination focal point, MISA has appropriate institutional capacities for implementation of DA;
- DA is not clearly declared as a priority of the Government; The results of the implementation of the DA are not yet directly related to the future membership of RNM in the EU; In the reporting period, the focus of the reforms for the development of the information society is not sufficiently established;
- The public awareness is not high regarding DA and the benefits from it, i.e. DA is not sufficiently promoted;
- Not all institutions have a proactive approach to involving CSOs in the policy-making and co-management processes in areas related to the DA; Cooperation in the areas of “Digital Economy and Society” and “Research and Innovation” is insufficient;
- The number of e-services has increased compared to the last reporting period, but the portal uslugi.gov.mk is not sufficiently promoted for the general public;
- The activities and capacities of MKD-CIRT are not visible enough;
- The interoperability system is not fully implemented even though the institutions have capacities for its application;
- DMS is not developed properly although the institutions have the capacity to develop their own system;
- The principle “Only once” is not always applied – public administrations should collect information from citizens and businesses only once, and then to share and re-use this information;
- Digital literacy is not at a high level. There are announcements for launching a national e-literacy strategy;
- At a general level, there are significant shifts, as evidenced by the United Nations Index for 2020 where RNM is ranked among the countries with a high level of e-government. However, we should strive for the highest level, where the EU member states are.
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:

- 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.crta.rs
- NGO 35mm (Montenegro) www.nvo35mm.org
- Open Data Kosovo-ODK (Kosovo) www.opendatakosovo.org
- Lëvizja Mjaft! (Albania) www.mjaft.org

Metamorphosis Foundation for Internet and Society
Address: “Apostol Guslarot“ 40, 1000 Skopje, North Macedonia
e-mail: info@metamorphosis.org.mk
Phone: +389 2 3109 325
www.metamorphosis.org.mk