THE BENEFITS OF DIGITAL TRANSFORMATION FOR GOVERNMENTS

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Abstract

EU Member States prioritize during the 2021-2027 programming period. full digitization of public services by 2030 This goal should be met through European and national funding for the development of artificial intelligence and the creation of European interoperable platforms, as well as the promotion of innovation by funding large-scale pilot projects. This report examines the development of digitalisation as a public sector objective to improve the efficiency of public services, the EU's digital connectivity initiatives and the development of digitalisation of public services in Member States, as well as the expected savings for citizens and businesses from using them. The results of the 2023 OECD Digital Government Index are also discussed. and the role of the World Bank GovTech Global Partnership and its implementation in Bulgaria.

Keywords: Digital government; public policy and administration; public administration

1. Introduction

During 80s of XX century digital technologies in government and for public use have changed dramatically. In 2000s digital transformation occupied a central place in the concept of modernization of the public sector. The international organizations World Bank (2002), OECD (2003), and of the European Commission (2003) defined digitalization as a means of modernization and achieving greater efficiency of governments. Information and communication technology services are already widely used by government bodies, but e-government involves more than tools. It involves rethinking organizations and processes and changing behaviour so that public services are delivered more effectively to people.

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Implemented well, e-government allows citizens, businesses and organizations to interact with government more easily, quickly and at a lower cost. During the COVID-19 pandemic e-government services has emerged as a crucial means of guaranteeing educational services, but it has also given impetus to the development of services in health care, justice and other areas of the public sector.

The international institutions introduced indices and indicators to measure aspects of digital government— the Digital Economy and Society Index (DESI), the GovTech Maturity Index, the United Nations e-Government Development Index, the WBG's Digital Adoption Index, and the Organisation for Economic Co-operation and Development (OECD) Digital Government Index.

2. The EU's Digital Decade

The key reforms for digital connectivity are supported by the European Structural and Investment Funds and the Recovery and Resilience Facility (RRF), with a focus on implementing the "Once Only Principle" by integrating electronic identification solutions into all government processes. The RRF dedicates EUR 127 billion for digital related reforms and investments in the member states under the national recovery and resilience plans.[2]

Figure 1. The EU Digital Decade

Source: Own scheme

The European Commission takes concrete actions to develop cross-border digital public services, digital public services or e-government to ensure increased efficiency of the public

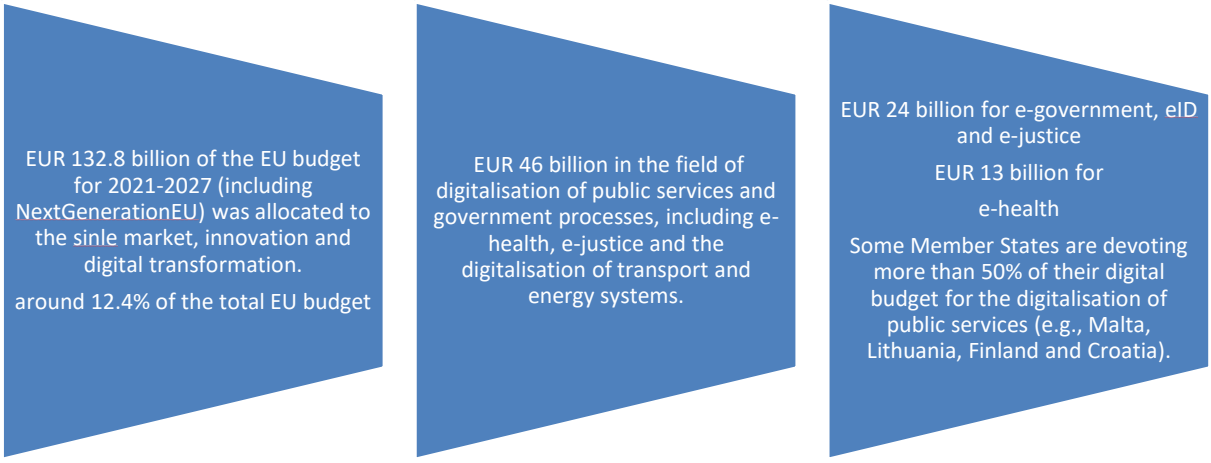
[2] EU DESI (2024), https://digital-strategy.ec.europa.eu/en

sector and savings for governments and businesses, increased transparency and better services for citizens and businesses.

Progress in the digitization of Member States' public services is uneven and favours businesses rather than citizens. A number of countries Member States are close to the target of 100% digital public services such as Denmark (98%), Finland, the Netherlands and Sweden (95%). In 2023 69% of EU citizens have interacted with public authorities online. The main digital public services that are in an advanced phase of digitization are related to online forms, online appointment booking, the availability of more modern public services still requires significant investment. Still 42% of people use e-government services to get information about laws, services, opening hours or similar, and download or print official forms, access personal information and save an appointment or reservation (Eurostat, 2024).

Thus, due to the circumstances of working and education in a digital environment, a new phase of digitalization in the EU member states started and most governments are achieving faster digitization, supported by EU financing. Digital transformation receives significant coordinated support from EU funding across the board under the EU Multiannual Financial Framework for 2021-2027.

Figure 2. EU funding for 2021-2027 for digital transformation

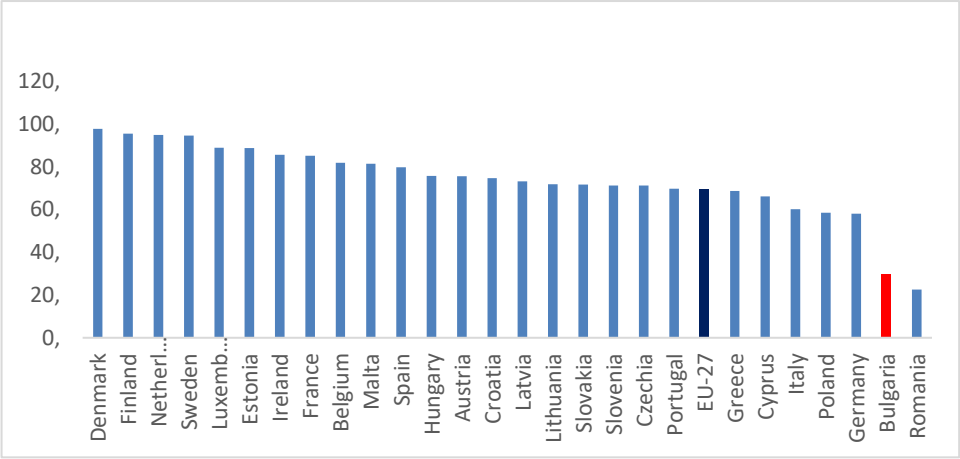


Source: Own scheme, European Commission (2024)

The use of electronic identification (eID) varies across the EU. In 2023 41% of citizens use it to access services. Denmark, the Netherlands, Finland and Sweden are again leading with over

90% and Cyprus, Germany and Bulgaria with less than 10%. In 2023 50% of 25–34-year-old in the EU have used an eID, compared to only 25% among 65–74-year-olds (Eurostat, 2024). According to the EC's assessment, the potential cost savings are huge and can reach EUR 50 billion. Meanwhile, Italy reports that over EUR 3 billion public expenditure was obtained through electronic public procurement systems. According to statistics in Denmark, electronic invoicing saves taxpayers EUR 150 million per year, and the business EUR 50 million per year.

Figure 3. Share of Individuals' E-Government Activities Through Websites 2023



Source: Eurostat (2024)

On August 1, 2024 the European Law on Artificial Intelligence (AI Act) comes into force, which promotes the responsible development and implementation of artificial intelligence in the EU. It regulates clear requirements and obligations regarding specific uses of AI, and so it should protect the rights of citizens and businesses by reducing the administrative and financial burden. Some advanced economies have introduced various initiatives to improve their capacity to use AI in the public sector, but implementation remains a challenge in most countries. 66% of countries have used AI to improve internal processes, while only 32% have used it to improve policies.

3. E-government in Bulgaria

Bulgaria benefits from the Bulgarian Recovery and Resilience Plan allocates 23.1% of the EU funding for digital transformation (EUR 1.3 billion) [3]. According to the cohesion policy, an

[3]The general budget for 2023 for Bulgaria it amounts to 5.7 billion EUR (after a revision of the initial budget of EUR 6.3 billion based on better GDP growth for 2021). In 2024 The EC announced an additional reduction of funds due to non-implementation of some of the measures related to changing the legislation.

additional EUR 1.4 billion (13% of the total budget for the country) are allocated for the digital transformation of the country. The projects under the NRRP are devoted to measures for the development and use of innovative technologies in the public sector such as AI, blockchain, IoT and big data. As stated in the coordinated action plan, big data is the basis for developing effective AI technologies. In this regard, Bulgaria includes specific measures for the widespread use of chatbots in e-government services and the development of services that use machine learning to predict customer behaviour and facilitate the use of public services online.

In the area of digital connectivity, the National Development Program of Bulgaria 2030 aims for a free flow of data between member countries and between different sectors, ensuring the protection of personal data and consumer protection, prioritizing the key sectors of education, health care, and public administration. Construction and development of the necessary data centres; and creating conditions for open access to data and results, as well as access to large sets of databases generated by public organizations for use by businesses. A priority direction is also the provision and maintenance of high-speed and secure communication connectivity, as a basis for offering educational services through the further development of a cloud-based educational environment for the provision of services, including software as a service, infrastructure as a service and platform as a service.

In 2019, a new online platform for accessing publicly available information was launched, enabling citizens and businesses to obtain online the public information.[4] The same year the Cloud Electronic Signature was introduced, as a new means of electronic identification in addition to the existing ones (QES, personal identification code of the National Revenue Agency and the National Social Security Institute, unique access code of the National Health Insurance Fund). With the cloud signature, citizens and businesses are able to request the services provided by the administrations through a mobile smart device with internet access from anywhere in the world, 24/7, 365 days a year, which lead to an increase of public services available for citizens and businesses, but it is still much below the EU average.

[4]Bulgaria's e-Gov portal, https://egov.bg/wps/portal/egov/nachalo

Table 1. Bulgaria: Key Performance Indicators of the Digital Decade 2024

KPIs of the Digital Decade	Bulgaria			EU		Digital decade target by 2030	
	DESI 2023	DESI 2024	Annual progress	DESI 2024 (year 2023)	Annual progress	BG	EU
Digital public services for citizens	59.5	67.5	13.4%	79.4	3.1%	100	100
Digital public services for business	80.8	91.9	13.8%	85.4	2.0%	100	100
Access to electronic health records	77.2	77.2	0.0%	79.1	10.6%	100	100

Source: EU Digital Decade (2024), DESI – Digital Economy and Social Index

Although Bulgaria continues to perform well in terms of fixed gigabit connectivity, its 5G coverage remains below the EU average. The uneven distribution of digital infrastructure in sparsely populated, remote and rural areas also needs further attention. The use of electronic identification (eID) for e-public services is still below 10% of total citizens. Bulgaria should promote favourable conditions for the successful digitalization of SMEs in order to encourage technology transfer and accelerate the entry of new technologies.

4. The World Bank's Global GovTech Partnership

At the end of 2019 The World Bank's Global Governance Practice (GGP) launched the GovTech Global Partnership (GTGP). The aim is to enable the public sector to keep pace with new technologies to strengthen digital governance in the public sector, as well as government efforts to engage with relevant stakeholders to promote digital transformation. Stakeholders in the digitization process are start-ups, multinational technology enterprises, freelance experts, development partners, academia, civil society and other entities that are part of the GovTech space. This partnership supports beneficiary countries through a wide range of activities such as advancing and sharing knowledge and best practices, providing capacity building and knowledge exchange programmes, offering technical advice to member countries and supporting pilot solutions.

The GovTech Maturity Index (GTMI) measures the key aspects of four GovTech focus areas, supporting core government systems, enhancing service delivery, mainstreaming citizen engagement, and fostering GovTech enablers. The GTMI is constructed for 198 economies based on consistent data sources, and thus is considered the most comprehensive measure of digital transformation in the public. The latest data are for 2022 and most of the advanced economies in the EU are with index close to 0,9 (between 0,75 and 1 are leaders), while Bulgaria with 0,681 is ranked as "high" (between 0,5 and 0,75).

Bulgaria's efforts for digitalization are to align with the EU's data strategy, which aims to make more data available for use in the economy and for society, while ensuring that European privacy rules, data protection and competition are fully respected. The World Bank and the Government of Bulgaria have been partners in e-government reforms and digital transformation for many years. In 2024 the World Bank started a new analytical and advisory support to the Bulgarian Ministry of e-Government to strengthen the strategic, organizational and technical foundations for data management and data spaces. Based on this partnership, the strategic, organizational and technical foundations will be elaborated for data management and data spaces, including conducting an assessment of data management, availability of data and data quality in public administration in accordance with relevant EU legislation.[5]

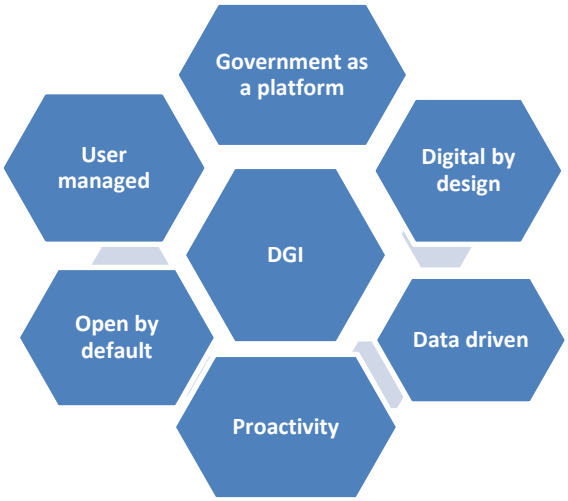
5. The OECD Digital Government Index

Solid foundations for a sustainable and long-term digital transformation of the public sector include establishing governance mechanisms that can adapt to the rapidly changing digital environment. This governance must be based on a digital governance strategy that sets a common vision and goals for the whole of government and provides the opportunities to deliver quality public services. These foundations should also include a reliable and sustainable digital public infrastructure, including digital identity, digital payments, digital mail, data sharing systems, among others. Many governments have developed these systems and tools under their "Government as a Platform" approach. They are essential to ensure consistent digital

[5]World Bank (2024). PRESS RELEASE No: 2024/ECA/107, https://www.worldbank.org/en/news/press-release/2024/05/20/the-world-bank-to-support-bulgaria-on-data-management

transformation at scale, promote responsible use of government data and facilitate inclusive access to services. The DGI assesses countries' digital governance by looking at the extent to which they have the necessary foundations in place to be able to use data and technology to deliver end-to-end governance and people-centred digital transformation of the public sector. These foundations are identified in the provisions of the OECD Recommendation of the Council on Digital Governance Strategies (OECD, 2019) and the six dimensions of the OECD Digital Government Policy Framework presented in the below figure.

Figure 4. Dimensions of the OECD Digital Government Index



Source: OECD Council Recommendation on Digital Governance Strategies (OECD, 2014)
Note: DGI - Digital Governance Index

The OECD's Digital Governance Index (DGI) compares the efforts made by governments to create the foundations needed for a coherent, people-centred digital transformation of the public sector. The OECD's Digital Governance Index (DGI) assesses the efforts made by governments to create the foundations needed for a digital transformation of the public sector that is coherent and people-centred. Based on the pilot exercise conducted in 2020, DGI serves as a resource for policymakers to support comprehensive policy reforms in the digital transformation of government to increase government productivity, improve government services and improve people's lives.

In addition, DGI's 2023 study includes questions on emerging policy areas prioritized by governments in their national digital governance agenda. These include digital public

infrastructure (eg digital identity), the use of artificial intelligence (AI) in the public sector and strategic partnerships with the private sector, including GovTech. Top performing countries in the DGI for 2023 are Korea, Denmark, the United Kingdom, Norway, Australia, Estonia, Colombia, Ireland, France and Canada. These countries demonstrate a comprehensive approach to providing sound foundations for digital governance with a balanced performance across the six dimensions of the index. Germany, Greece, Slovakia, Switzerland and the USA are not represented.

6. Conclusion

The approach to digitalisation in the public sector in member states is changing, with digital public services moving from creating public services for individual public systems to a single portal for public services. Thus, more and more citizens are using electronic identification (eID) should be able to use digital public services of various public institutions, and the administrative burden for businesses should decrease. The full digitalization of public services and cross-border digital public services in the EU by 2030 would allow the EU citizens and business to use them 24/7, 365 days a year within the EU.

The benefits of the digitization of public services are also for the governments themselves, as this increases the efficiency and productivity of public institutions in serving businesses and citizens, ensuring direct use of public services without direct contact with employees, which facilitates communication in the organizations themselves and between them, and facilitates more impartial decision-making based on an independent evaluation of documents and regulations.

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