Europe's „Digital Decade" - a Digital Response to COVID-19

Assistant Professor Dr. Pavlina Yamukova
Varna Free University „Chernorizets Hrabar"
pavlina.yamukova@vfu.bg

PhD candidate Todor Milkov
Varna Free University „Chernorizets Hrabar"
t.s.milkov@abv.bg

Abstract
The concept of e-government in the first decade of the 21st century in Bulgaria aims to improve the quality of administrative services and the business environment - with expectations to be achieved by the end of 2010. From the beginning of the third decade of the century, the EU's digital strategy aims to make administrative transformation effective for people and businesses across Europe by 2050. In view of the Coronavirus crisis, the digital single market strategy in the European public administration, based on the implementation of digital governance solutions in support of political and administrative processes, is becoming increasingly important. Whether the mistakes of the first decade will be repeated in the third, called the Digital Decade (Digital), whether the Digital Economy and Society Index (DESI) will be improved through the introduction of the EU-wide Joinup Platform - These are the questions to which the article seeks answers through research, systematization and critical analysis of author's opinions in the field of e-government in public organizations, through research, systematization and critical analysis of author's opinions in the field of e-government in public organizations.

Keywords: Digital Decade, Digital Economy and Society Index (DESI), Joinup Platform

JEL Code: H00

Introduction

The rapid and widespread adoption of innovative information, communication and management technologies in everyday practice brings about a real opportunity of changing the traditional notion of public administration. The active interaction between the authorities and the citizens in the process of governance is gradually becoming interactive. Today's dynamically changing and contradictory environment is a strong enough challenge to build an electronically based economy and governance, which are subject to the continuously improving democratic principles of an incipient global space without geographical borders. Technological changes in the industrial sectors of computing, information technologies, communications, radio, television and entertainment, as well as the convergence of these technologies in the field of service provision, combined with a cooperation on a national, regional and global scale, pose the problem of creating new types of infrastructure systems with specific economic and managerial dimensions. Electronic communications, as well as the increasing communicativeness, play a significant role in this technological vision for the future.

The authors' thesis is based on the idea that an essential tool in improving the system of administrative support services to citizens and businesses is to rethink and revalidate the prerequisites and the conditions for the implementation and the effective functioning of an e-government in the Bulgarian administrative environment.

The study focuses on the opportunities for improving the e-processes in the implementation and provision of administrative services in the European Administrative Space.

1. The Global Information Space and the Digital Single Market Strategy in the European Public Administration

E-government (or e-governance) is an umbrella term for the employment of information and

communication technologies by administrations in communicating with citizens and business representatives during the process of providing administrative services. The aim of an e-government is to enable the information exchange between the various administrative information systems, which respectively enables the provision of shortened procedures and allows for savings in the administration of human resources and consumables which, in general, allows for better services provided to citizens and businesses. Based on the formulated concepts and distinctions, the general goal of improving the administrative service, in the context of the one-stop shop principle, is to facilitate and improve the administrative service to citizens and business by applying the organizational principle one-stop shop, while also taking into account other measures for improving the administrative services:

- integration of information, processes and services;
- adoption of the organizational principle of the one-stop-shop service as a means for the implementation of the strategic principles for administrative service improvement;
- relating the concept to other measures aiming at administrative service improvement (actions coordination to facilitate the regulatory regimes; institutional coordination of files; e-government).

The interaction between the citizens and the administration is carried out at all levels. In this sense, the widely explained goal of the basic model 'one-stop-shop service' – to support and encourage the managers and employees in public administration to realize the vision of administrative services improvment – for the given period, fails to be completely and definitely achieved.

With the introduction of the concepts 'e-governance' and 'g-government' in the first decade of the 21st century, Bulgaria aimed to improve the administrative services quality as well as the business environment. In these lines, two theses have been defended – that the electronical development of administrative services will contribute to 1) improving the quality of the administrative services and 2) improving the business environment. All this was expected to be achieved by the end of 2010.

At the same time, along with the range of attractive opportunities offered by the e-government concept, expectations were that if these technological changes were not effectively implemented, there would be a number of risks that would seriously undermine the credibility of administrative institutions. The general vision for improving the administrative service in Bulgaria is based on several strategic principles, guiding the activity of all administrative structures both at central and local level. These principles aim to achieve good practices in the provision of public services by promoting a qualitative change in the way of thinking, so that the administration treats service users rather as customers than as debtors and focuses on the quality of service.

Smart public services, also known as digital public services or e-government, refer to the use of technologies to provide services to citizens at local, regional and national levels. The EU is working to assist public administrations across Europe to achieve the digital transfer so that all citizens would be able to reap the benefits of smart public services during the Digital Decade. The application of ICT significantly improves the efficiency of public services and has a transforming effect on the provision of public services to citizens and businesses. The European Structural and Investment Funds (ESIF), the Connecting Europe Facility (CEF) and ISA2 programs are the funding instruments which together with the free reusable solutions have made a significant contribution to the modernization of the public sector at national and regional level.

Digital technology has been changing people's lives. The EU's digital strategy aims to make this transformation work for people and businesses, while at the same time, aiming to achieve its goal of a climate-neutral Europe by 2050. The European Commission is committed to accomplish the European 'Digital Decade'. Europe now needs to strengthen its digital sovereignty and set

standards instead of following those of others - with a clear focus on data, technology and infrastructure.

Starting at the third decade of the century, the EU's digital strategy aims, by the year of 2050, to have made the administrative transformation effective for people and businesses across Europe. This EU digital compass evolves around four main points: skills, infrastructure, government, and business.

In view of the coronavirus crisis, the European Commission's digital single market strategy is becoming increasingly important as digital tools are used for:

- monitoring the virus spread;
- research and development of methods for diagnosis, treatment and vaccination;
- ensuring that Europeans can stay connected and safe online.

The Digital Response to the COVID-19 collection aims to adequately react to the urgency of COVID-19 by facilitating the access for citizens, businesses and public administrations to a variety of resources. These include those related to the real-time updates on the state and the development of the pandemic, such as websites or platforms that collect information about COVID-19. Not only does sharing existing solutions and new initiatives help the population of Europe and beyond to stay informed, but it also encourages solidarity between citizens and organizations in order to overcome the multiple challenges posed by COVID-19 and to promote the corresponding mitigation measures. Solutions related to the provision of free and open tools to facilitate remote work and continuity of school education are still being added on a regular basis. The same goes for the digital initiatives supporting medical research, as well as the production of medical services equipment (such as an open source 3D model of facial shields, hand sanitizers or even ventilation systems).

European countries encourage the digitalisation of their public administrations. They take advantage of the benefits provided through digital technologies to modernize their activities at all levels. Digital public administrations are needed today to ensure fast and high quality services for businesses and citizens in Europe. This leads to the increased funding for programmes and initiatives aiming at modernizing public administrations through a coordinated approach that promotes consumer focus and cross-border interoperability.

The modernization of the public administration reforms is carried out at national, regional and local level. The adoption of digital strategies for modernizing administrations across Europe is related to the design and implementation of the necessary e-government strategies, roadmaps or action plans to modernize public administrations at different levels in order to meet the evolving societal needs and technological trends.

At the end of the first and the beginning of the second decade of the century, most of the adopted digital government strategies and action plans, which need a supportive legislative framework, have been implemented. Therefore, the adoption of new laws or the amendment of the existing ones is the second phase of the state policy digital cycle of the Member States. Over the last 10 years, all European public administrations have passed laws on the provision of digital public services, the deployment of digital infrastructures (such as eID, or eDelivery) and the digitalisation of their public procurement practices, among others. Although each European public administration has its own pace of reform, stemming from the differences in the public administration composition and history, several common major trends in the implementation of the e-government can be identified. These include the formation of new public sector bodies, responsible for the e-government policy coordination, monitoring, implementation and maintenance, as well as the deployment of e-government infrastructure, the digital public service delivery through e-government portals, the publication of open data, and the investment in digital skills.

Over the last 10 years, the public administrations across Europe have undergone significant

reforms in the field of e-government and interoperability. As shown by the results of the latest e-government benchmarking report, which monitors the development of the e-governments across Europe on the basis of specific indicators, countries are grouped into four main top-level benchmarks. The results show that 18 EU countries (Austria, Belgium, Denmark, Estonia, Finland, France, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden) provide high quality digital services of over 70%, with Estonia and Malta reaching almost 100%. Hungary, Slovakia and Germany have developed their e-government in the range of 60-70%, while Bulgaria, Greece, Poland and Croatia have a level of implementation of 50-60%. (eGovernment Benchmark, 2020) The fact that we are followed by countries like Romania, Serbia, Macedonia and others is hardly reassuring.

Today, European public administrations are adopting new technology strategies, with a total of seven European countries (Switzerland, Sweden, Poland, Italy, Ireland, Germany and Estonia) citing the adoption of an e-government strategy as one of their main achievements in the last 10 years. In the period 2008-2018, various European countries adopted action plans or roadmaps to digitize their public services and promote the interoperability and overall functioning of their public administrations. The first e-government action plan of the European Commission was issued in 2006 (SEC (2006) 511). The e-Government Action Plan 2016-2020 offers an ambitious vision for open, efficient and inclusive public administrations and public institutions in the European Union, providing borderless, personalized, easy to use, end-to-end digital public services for all the EU citizens and businesses. To pursue these goals, the e-Government Action Plan sets out three policy priorities:

- modernization of public administrations using key digital tools (e.g. technical building blocks such as CEF DSI, eID, eSignature, eDelivery, etc.);
- enabling the mobility of citizens and businesses through cross-border interoperability;
- facilitation of digital interaction between administrations and citizens / businesses for high quality public services.

Another area in which the European administrations are making very significant efforts is the provision of improved e-Government services for citizens and businesses. According to the study conducted by Wavestone Luxembourg S.A. for the European Commission (Directorate-General for Informatics, 2019), laws have been adopted / amended to digitize public administrations in a total of 21 Member States.

Cybersecurity and digital trust are another priority of legal initiatives in the digital domain across Europe. This is due to the Network and Information Systems Security Directive (NIS) 85, which provides legal measures to increase the overall level of cybersecurity in Europe.

2. Priorities 2019 - 2024
The actions already taken by the European Commission include:
- ensuring that European platforms can work together and interact with each other;
- financing large-scale projects for electronic participation;
- encouraging public services, businesses and citizens to share solutions through the Joinup platform.

Originally created to bring together different communities (OSOR, SEMIC and ePractice), the Joinup platform has been around for more than 10 years and is still up to date, while currently in process of being visually updated. Joinup will be the platform - showcase for solutions that can be proposed by the Commission and the Member States, as well as by private companies that work with open source. That is why Joinup is expected to play a major role in the European Commission's Digital Europe Program (DIGITAL). This means that the European digital public services are turning into reality. As a facilitator of the public services, the Commission seeks to turn

Joinup into a one-stop shop for the European digital public services, where we can have solutions that meet the requirements of the digital policy makers, helping them to implement, facilitate and maintain the digital public services. In this sense, the platform will assist and support the Member States in the digital public services deployment, with the idea of becoming a one-stop shop for the European digital public services.

The Commission's main priorities for 2019-2024, set in July 2019, Europe, include the Excellence and Trust in Artificial Intelligence (2019). It can bring many benefits, such as a better healthcare, safer and cleaner transport, more efficient production and cheaper and more sustainable energy. The EU's approach to AI will provide people with the confidence to embrace these technologies, while encouraging businesses to develop them, and become able to find solutions to many of the society's problems. This can only be achieved if the technology is of high quality and has been developed and employed in ways that gain people's trust. Therefore, the EU's strategic framework, based on EU values, will provide the citizens with the confidence to make AI-based decisions, while encouraging businesses to develop and implement them. That is why the European Commission is proposing a set of actions to enhance AI excellence along with rules to ensure that the technology reliability. The Regulation of the European approach to artificial intelligence and the updating of the Coordinated Plan for AI are expected to ensure the safety and the fundamental rights of people and businesses, while at the same time boosting the investment and innovations in EU countries.

The European Data Strategy aims to make the EU a leader in a data-driven society. The creation of a single data market will allow them to flow freely within the EU and between sectors for the benefit of business, researchers and public administrations (European Data Strategy, 2019).

European Digital Identity is a widely used way to identify or validate certain personal attributes in order to access public and private digital services across the EU (European Digital Identity, 2019). The European digital identity can be used for any number of cases of public services, such as requesting birth certificates, medical certificates, reporting a change of address, filing tax returns, etc.

At the end of 2020, the European Commission and the High Representative of the Union for Foreign Affairs and Security Policy also presented a new EU strategy for cybersecurity (Shaping Europe's Digital Future, 2020), which covers the security of basic services such as hospitals, energy networks and railways. The strategy focuses on building collective capabilities to respond to major cyber attacks as well as working with partners around the world to ensure international security and stability in cyberspace. It outlines how a joint cybernetics unit can provide the most possibly effective response to cyber threats, using the collective resources and expertise available to the EU and Member States.

Eventually, all priorities also require additional digital skills in the workplace, especially with regard to civil servants performing public procurement. The European Commission is committed to tackling digital skills shortages and promoting projects and strategies to improve digital skills in Europe, which is one of the ten priorities of the EU's Digital Strategy.

3. Digital public administration in Bulgaria
The digital transformation of the public administrations is a way to provide faster, cheaper and better services. E-government can improve the service efficiency and increase the usability and accessibility. It also helps promote ethical practices and reduces the risks of corruption. E-government has a strong inter-agency aspect, as it requires a complete simplification of the various administrative service processes in order to meet the citizens' requirements. The implementation of a stable e-governance is considered the basis for the development of a e-government.

The results of the previous studies on the regional administrations in Bulgaria lead to the conclusion that the administrative services are not understood as a process accomplished by an adequately organized administration providing interoperability of public administrations, businesses and citizens, but rather as a straightforward service provision process regardless of its cost. (Yamukova, 2011).

Today, two decades later, the state and the business are once again facing the task of building the foundations of a new type of administrative service – the e-government – within a global information space. Its main value is the conviction on the behalf of the citizens and the business representatives that they can receive fast administrative services of high quality. On the one hand, the business certification services, the e-government and the e-health care ensure the availability and the continuity of public services. On the other hand, and reliable security systems protect our online identity and ensure that the privacy of our activities.

The identified problems are still due to:

- the lack of understanding of the main goals and the essence of the organizational principle 'one-stop shop';

- the incomplete provision of informational and technological inter-administrative and intra-administrative functional connections.

- the lack of interconnected arrays of information;

- incoherent conceptual apparatus in the organization of the administrative service;

- insufficient administrative work capacity in the field of administrative services.

The amendment of the Electronic Document and Electronic Certification Services Act in Bulgaria aims to reduce the administrative burden for citizens and businesses, and to limit the use of paper documents which serve to certify data and information available in the administrative registers, as well as to oblige the administrations to exchange all the necessary data and information electronically.

The architecture of the e-governance is an integral part of the e-government policy implementation, defined in the Strategy for Development of E-governance in the Republic of Bulgaria and the Law for E-government. The updated Strategy for Development of E-Government in the Republic of Bulgaria 2019 - 2025 guarantees the application of the current European e-governance principles, introduced at national level, builds on the achieved goals after 2018, and covers the development of the following four main areas of communication and services:

- 'Administration – Citizens' – includes modern Internet and Intranet WEB-based solutions, combined with traditional means of providing wide access, leading to qualitative changes in the communication conditions and provision of services to citizens;

- 'Administration – Business' – includes modern solutions that optimize the processes and the business relations between the administration and the various economic entities;

- 'Administration – Administration' – includes the development of information technologies on a national and international level with a view to effective interaction between the various administrative structures;

- 'Internal efficiency and effectiveness' – includes the organization and optimization of business processes, the relationship 'Administration – Employees' and the communication between the various administrative structures.

At the end of 2019, the Council of Ministers adopted the National Program – Digital Bulgaria 2025 and the Roadmap for its implementation. Digital Bulgaria 2025 aims to modernize and promote the implementation of smart IT solutions in all the areas of economy and social life, defining the goals, measures and activities related to the development and the widespread use of ICT, together with the involvement of the various institutions in the implementation of their sectoral policies. The Roadmap for implementation of the Strategy for Development of the E-government in

the Republic of Bulgaria for the period 2019 - 2023 has also been updated, which is expected to contribute to the final achievement of efficient and effective e-government in our country.

All the innovations mentioned so far can be improved. Our experience shows that in order to achieve real results as quickly as possible, it would be most appropriate to focus on four specific areas – the four levers of change:

- (Basic) processes;
- Human Resources;
- Technologies (information technology management);
- Business management.

The one-stop-shop service model is a basic one and, accordingly, there is no universal system for improving the public administrative services provided through it. However, the entire content of the model cannot be expected to be valid for all kind of organizations. There is an indisputable need to develop a generally applicable system / model for service improvement, through the application of new process management and communication technologies within the organization of the one-stop shop system.

To outline the Europe's digital future, the European Commission is committed to finding a solution to the problems related to the digital skills shortages and promoting projects and strategies to improve digital skills in Europe. Digital skills are a crucial driver of the EU's competitiveness and innovation capacity. They are also a key factor for the social cohesion and the personal well-being. The current digital and green transformations are leading to a rapid economic restructuring, which requires people to be committed to a lifelong learning. In addition, these transitions require the Member States to reach their full potential for skills and innovation. This includes reforms to improve the quality of the educational and training systems.

The European Commission supports the EU Member States by providing expertise and good practices exchange in the field of digital skills, education and training. Some examples of such a support include:

- improving the systems for raising the qualification and retraining for adults;
- promoting digital education and skills;
- improving higher education, research and innovation;
- improving vocational education and training.

The European Platform for Digital Skills in the Workplace is a new initiative launched under the Connecting Europe Facility Program which offers information and resources on digital skills as well as training and funding opportunities. The Digital Skills and Jobs Platform (DSJP) provides a wide range of high-quality information, resources and opportunities related to digital skills and jobs at all levels, from the very basic to the advanced ones. (DSJP, 2020).

The implementation of the Digital Skills and Jobs Platform (DSJP) in Bulgaria will offer:

- Insights into the European and the national initiatives and actions in the field of digital skills and jobs;
- Opportunities for training and support for career development;
- Good practices, expert advice, resources and tools;
- Data based on research facts and figures;
- Funding opportunities and financial instruments;
- Thriving interactive public spaces;
- News, opinions and events.

The creation of the Digital Skills and Jobs Platform (DSJP), as one of the initiatives launched under the Connecting Europe Facility Program, is additionally expected to contribute to the development of another program – the Digital Europe Program. The Digital Europe Program (DIGITAL) is a new EU funding program focused on delivering digital technologies to businesses,

citizens and public administrations, which seeks to make Europe more competitive in the global digital economy by building digital capacity and ensuring the widespread use of digital technologies throughout the EU. As part of the new Multiannual Financial Framework 2021-2027, the new Digital Europe funding program, proposed by the European Commission, aims to build the EU's strategic digital capacity and promote the widespread deployment of the new technologies to be used by the EU citizens and businesses. With a total budget of € 9.2 billion, Digital Europe is expected to define and strengthen the digital transformation of the European society and economy (Digital Public Administration Factsheets - European Union, 2020). The program will focus on investing in and promoting the use of new technologies in Europe, such as supercomputers, artificial intelligence, the Internet of Things, blockchain, etc. It will also increase the investments in cybersecurity and advanced digital skills to improve Europe's competitiveness in the global digital economy and to increase its technological autonomy.

The Commission also plans to invest nearly € 2 billion in delivering digital excellence to businesses, citizens and public administrations by adopting three work programs for the implementation of the Digital Europe program. This first set of work programs includes strategic investments that will be essential to achieving the Commission's objectives for the accomplishment of this European Digital Decade.

Conclusion

In view of the Coronavirus crisis, the digital single market strategy in the European public administration, based on the implementation of the digital governance solutions in support of political and administrative processes, is becoming increasingly important. Whether the mistakes of the first decade will be repeated in the third one – the Digital Decade (Digital), or whether the Digital Economy and Society Index (DESI) will be improved through the introduction of the EU-wide Joinup Platform - remains to be seen.

A strong digital economy, driven by Europeans with digital skills, is vital for the innovation, the growth, the jobs and the European competitiveness. Calls for participation are already open to companies, organizations and public administrations from the EU Member States, as well as organizations from other countries associated with the Digital Europe program. These grants should be directed to investments in the infrastructure, artificial intelligence (AI), quantum communication infrastructure, improving people's digital skills, projects that promote safer internet, combating child sexual abuse and misinformation by the end of the year 2022.

There is a necessity for a real interoperability coordination – a responsibility of the Bulgarian State Agency for Electronic Government – with an emphasis on the coordination and activities sharing between the database registers which are kept both at central and decentralized level.

It is also crucial not to underestimate the opportunities provided by the Institute of Public Administration, which has acquired the status of an executive agency at the Council of Ministers and which is the leading institution for training civil servants in the field of e-governance, information and communication technologies, and cybersecurity.

References

1. Zakon za elektronniya dokument i elektronnite udostoweritelni uslugi (zagl. izm. - DV, br. 85 ot 2017 g.), V sila ot 06.10.2001 g., Obn. DV. br.34 от 06.04.2001 g., posl. izm. DV. br.58 ot 23.07.2019 g.
2. Aktualizirana strategiq za razvitie na elektronnoto upravlenie v Republika Bulgariya 2019 - 2025 g. (https://www.strategy.bg/PublicConsultations/View.aspx?lang=bg-BG&Id=5939)
3. Zakon za elektronnoto upravlenie, V sila ot 13.06.2008 g., Obn. DV. br.46 ot 12.06.2007 g.,

posl. dop. DV. br.85 ot 2.10.2020 g.

4. Yamukova, P. (2011) Problemni poleta pri vzemaneto na upravlenski rechenia v rayonnite administrazii – v: Sborniu dokladi ot megdunarodna kragla masa UI na VSU „Ch. Hrabar" I politicheski universitet Sankt Peterburg

5. A Europe fit for the digital age Empowering people with a new generation of technologies (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age_en)

6. COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All {SEC(2006) 511}, Brussels, 25.04.2006 COM(2006) 173 final

7. DIGIT ISA2/ Programme: Directorate-General for Informatics ec.europa.eu/isa2, p. 8-10 (Source: Adobe Stock.com)

8. Digital Public Administration factsheet 2020 European Union: Digital Public Administration Factsheets – European Union, p. 9

9. Digital Skills and Jobs Platform (DSJP) - https://digital-skills-jobs.europa.eu/en/about/digital-skills-and-jobs-platform

10. Excellence and trust in artificial intelligence (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/excellence-trust-artificial-intelligence_en)

11. European Digital Identity (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity_en)

12. European eGovernment Action Plan 2016-2020 (https://wayback.archive-it.org/12090/20210108153056/https://ec.europa.eu/digital-single-market/en/european-egovernment-action-plan-2016-2020)

13. European data strategy, 2019 (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en)

14. eGovernment Benchmark 2020: eGovernment that works for the people - Publication 23 September 2020) (https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2020-egovernment-works-people)

15. Shaping Europe's digital future, 2020 (https://digital-strategy.ec.europa.eu/en/policies/cybersecurity-policies)

16. Wavestone Luxembourg S.A. – Glavna direkciq po informatika, 2019 ISA2, p. 37 (Directorate-General for Informatics ec.europa.eu/isa2: Източник: Adobe Stock.com)