Digital Government Transformation in Slovenia

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ABSTRACT

The need for a shift towards digital governance is now a crucial issue in various government sectors, ICTs have become an inseparable tool considering the public's demand for more responsive, inexpensive, and inclusive government. The process of shifting, which is better known as digital transformation in Government. This article provides a comprahensive overview of how Slovenian government deliver a digital transformation strategy, as former Yugoslavian republic, Slovenia quickly achieved democratic political stability, implementing the necessary social and economic reforms to help Slovenia progressively strengthen relations in the European continent. Slovenia has made digital government a key priority in recent years through its Public Administration 2020 and Digital Slovenia 2020 strategies. Slovenia adopted key enablers from European Union (EU) to improve access and interoperability of government services. This article uses a case study to collect the necessary data and analyzing the digital transformation phenomenon and exploring the implementation of digital transformation in Slovenia. The results show that Slovenia has increasingly made digital government a key policy priority and has invested in several public policies that stress the importance of technology.

ABSTRAK

Kebutuhan akan pergeseran menuju digital governance menjadi isu penting di berbagai sektor pemerintah saat ini, Teknologi, Informasi, dan Comunikasi (TIK) telah menjadi alat yang tidak terpisahkan untuk memenuhi tuntutan publik akan pemerintah yang lebih responsif, murah, dan inklusif. Proses pergeseran ini lebih dikenal sebagai transformasi digital. Artikel ini memberikan tinjauan komphensif tentang bagaimana pemerintah Slovenia menyediakan strategi transformasi digital, sebagai pecahan Republik Yugoslavia, Slovenia dengan cepat mencapai stabilitas politik demokratis, dengan menerapkan reformasi sosial dan ekonomi. Hal ini membantu Slovenia secara progresif memperkuat hubungan di benua Eropa. Slovenia telah menjadikan pemerintahan digital sebagai prioritas utama dalam beberapa tahun terakhir melalui kebijakan Public Administration 2020 dan Digital Slovenia 2020 strategies. Slovenia mengadopsi rekomendasi-rekomendasi utama dari Uni Eropa (UE) untuk meningkatkan akses dan interoperabilitas layanan pemerintah. Artikel ini menggunakan studi kasus untuk mengumpulkan data yang diperlukan dan menganalisis fenomena transformasi digital dan mengeksplorasi implementasi transformasi digital di Slovenia. Hasilnya menunjukkan bahwa Slovenia saat ini menjadikan pemerintahan digital sebagai prioritas kebijakan utama dan telah berinvestasi dalam beberapa kebijakan publik yang menekankan pentingnya teknologi

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INTRODUCTION

Digital transformation is a gateway that signals changes in the scope and direction of digital governance, where practitioners are currently trying to implement a more comprehensive approach. Amidst the ongoing digitalization process, researchers continue to strive to understand how and why digital governance can be considered successful or unsuccessful. Digitalization efforts are an important improvement for public sector organizations to become more effective and efficient in input and output processes (O'Flynn & Wanna, 2008). However, efforts are also needed that not only focus on technological progress. Recent studies on e-government indicate that a focus on technology use in public administration and e-government helps to explain what e-government really is, which is analyzing the entire organizational system of government and also changes in the meaning of "objective knowledge" or "indicators"(Meijer, 2015) .

However, what the author believes is missing is an understanding of the social construction of behavior, attitudes, and individual cognition, or the transformational changes themselves. They clearly state that research should consider "explaining how individuals change the government" or "how new technology changes the social construction of our government?" (Gasco-Hernandez et al., 2022) to better understand how individual behavior affects the system in which they become a part of, how that behavior affects change, and how interests, values, positions, local contexts, and institutional individuals are related to development and changes in public administration. Therefore, we need to start understanding digital transformation from the perspective of the organization as a whole. This includes the idea that technology is not the only means to support change, but processes, people, policies, and especially leadership need to be fundamentally changed to achieve digital transformation in the public sector.

In the early stages of the transformation approach in the public sector, experts referred to this phenomenon as "transformational government" (T-gov). T-gov is seen as the second stage of e-government (Omar et al., 2020) , where transformation made possible by digital technology covers organizational and socio-technical aspects, including changes in the structure, operations, and culture of governance, as opposed to just introducing digital procedures. Experts in the public sector then introduced the concept of digital government transformation (DGT) following the need for a more accurate term to define the transformation (Curtis, 2019; Mergel et al., 2019; Tangi et al., 2021) , emphasizing "cultural, organizational, and relational change" in public organizations (Mergel et al., 2019) . This terminological shift began with experts in the field of business administration when referring to the concept of digital transformation (Vial, 2019) .

From an organizational perspective, literature on DGT (Digital Government Transformation) and t-gov (technology-enabled government) share significant similarities. DGT and t-gov can be seen as an evolution of the use of digital technology, with the latter focused on digital technology that produces organizational change (Omar et al., 2020; Vial, 2019) . DGT reflects the complexity of the disruptive impact of digital technology on individuals, organizations, and society (Curtis, 2019; Mergel et al., 2019; Tangi et al., 2021). Some studies explore transformational efforts by governments at all levels (Mukherjee et al., 2022; Weerakkody et al., 2012; Weerakkody & Dhillon, 2008), while others highlight the lack of empirical evidence that such transformation has actually occurred (Norris, 2007). Some authors argue that government's inability to pursue

transformation is the reason behind most of the failures in implementing this concept (Omar et al., 2020).

Considering the above argument, there is still a lack of research that has been conducted in the development of the digital transformation concept in government, both from the perspective of the influence of ICT and other factors (Mahmood, 2016; Mahmood et al., 2020). Therefore, it is important to fill the literature gap with research that focuses on the digital transformation approach in government, which ultimately has the potential to transform citizen interactions with the government with two possibilities: digital transformation can improve the quality of public policies and service delivery, and by enhancing the relationship between citizens and the government in the future (Weerakkody et al., 2016).

Digital Government Transformation in the Republic of Slovenia

Governments around the world view digital transformation as a necessary strategy to improve service performance, increase customer satisfaction, streamline bureaucratic processes, and create new business models (Curtis, 2019). Examples of digital government transformation strategies include the "EU eGovernment Action Plan 2016-2020" implemented in the European Union (European Commission, 2016), the "US Digital Government Strategy" in the United States (CIO US GOV, 2012), and the "Internet Plus Government Services" policy in the Government of China (GOV.CN, 2016).

As part of the European Union, Slovenia is a parliamentary democratic republic with a small geographic territory and a population of around 2.1 million people (the fourth smallest in the European Union) (Republic of Slovenia, 2021). Since independence in 1991, Slovenia has benefited from stable international relations with its neighbors, both in the wider European context and in the Balkan region. This former Yugoslav republic quickly achieved democratic political stability after independence by implementing social and economic reforms to help Slovenia progressively strengthen its relationships on the continent of Europe (OECD, 2021; Republic of Slovenia, 2021; Republik Slovenia, 2014).

Figure 1.
Percentage of individuals using the internet to obtain information from public authorities in Slovenia
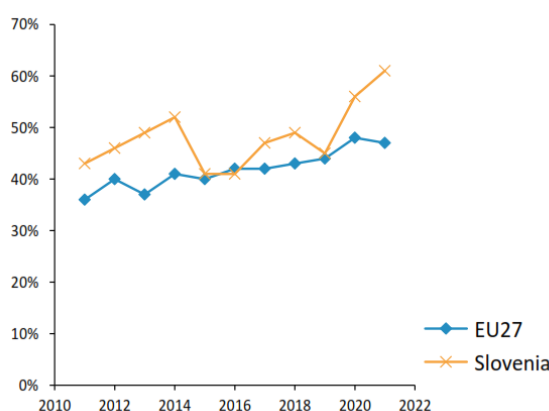
Source : (European Commission, 2022)

Like other countries in Europe, Slovenia also benefits from significant financial support from the European Union to develop its digital governance. The EU consistently funds digitalization efforts in its member states, particularly since the launch of the Lisbon Strategy in March 2000 by European leaders and governments, which aims to make Europe "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more job creation and increased social cohesion". (European Commission, 2016)

Figure 2.
Percentage of individuals using the internet to interact with public authorities in Slovenia
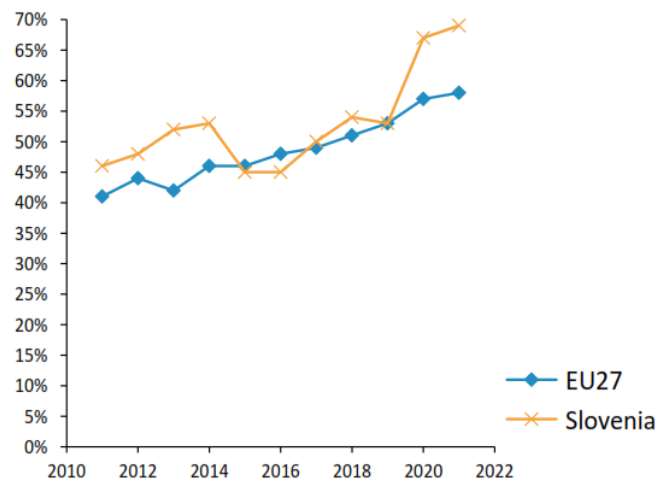
Source : (European Commission, 2022)

According to the latest report on the digital performance of EU Member States, Slovenia is in a moderate position with slightly above-average progress compared to the EU (European Commission, 2022). The progress towards becoming a digital society is very open but requires a considerable amount of time. In recent years, Slovenia has made digital governance a top priority through the Public Administration 2020 and Digital Slovenia 2020 strategies. Slovenia has increasingly made digital governance a top policy priority and has invested in several public policies that emphasize the importance of technology and digital literacy for a digitally capable country. Important concepts for effective digital transformation, such as 'digital by default' and 'once only,' are gradually being adopted, and likewise, Slovenia has adopted key supporters to improve access and interoperability of government services, such as digital identity and citizens' data rights.

Figure 3.
Relevance of national digital government strategy to Slovenian public sector organizations

Relevance that the national strategy has for Slovenian public sector organisations
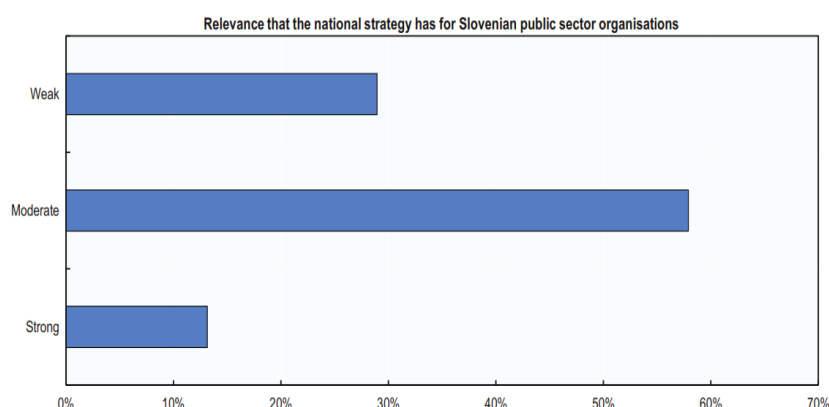
Source: (OECD, 2021)

The digital government policy in Slovenia fully understands the importance of investing in basic infrastructure for digitization, digital skills, and digital capacity for businesses. Even though this policy has shown awareness of the needs of its citizens, there is still a lot of work to be done to implement digital transformation throughout the public sector in Slovenia. For this reason, Slovenia has planned a wide-ranging digitalization of public services to enhance the efficiency of public administration and promote bootstrapping technology that aligns with the digital agenda goals in the EU. This policy package was initiated by the Strategic Council for Digitalization, a government advisory body that covers public administration, healthcare, education, and economic policy. To accelerate digital transformation in Slovenia, a government office led by a Digital Transformation Minister was established in August 2021(European Commission, 2022; OECD, 2021; Republic Slovenia, 2022).

Slovenia's membership in the European Union since 2004 is a significant factor that has had a great impact on digital government policies in Slovenia. For the past two decades, the European Union has made substantial efforts to develop e-government/digital government policies across its member states, with the objective of creating a single digital market for Europe. The collaboration among European countries in this technology field is intense, involving the exchange of knowledge and the development of joint standards for digital governance. It also provides funding for the development of digital identity and interoperability that enables the public sector to offer mature digital services to citizens and businesses. Slovenia plays an active role in EU cooperation, particularly in the implementation of digital governance and the development of the information society. Slovenia's active participation in the implementation of EU strategies, initiatives, and projects has a positive influence on the development of national digital government policies in Slovenia and is considered an essential asset by stakeholders in the country (OECD, 2021).

Literature Review

The impact of information and communication technology (ICT) in governance has been a long-debated topic (West, 2005) . Since the development of the concept of digital government more than two decades ago, the transformative power of ICT and related

technological changes have created a new paradigm among practitioners and researchers (Luna-Reyes et al., 2014) .In fact, digital government has been regarded as a driving force for public administration reform worldwide (Morgeson et al., 2011) . Transformation is often associated with deep and drastic change (Andersen & Henriksen, 2006). Digital transformation refers to the comprehensive redesign or overhaul of existing processes, procedures, structures, and services to institutionalize and routinely operate digital technology within (Tassabehji et al., 2016; Vial, 2019). Fundamental changes in how public organizations are structured and operate, how public services are delivered, how policies are developed, implemented, and evaluated, and how citizens participate in the democratic process are often expected from the introduction of technology.

For years, support from researchers observing this digital transformation has grown rapidly. For example, the natural interactive nature of digital government technology is often seen as having the ability to improve efficiency and reduce costs in government operations, as well as increase transparency and accountability in the public sector (Helbig et al., 2009). Other researchers see a real debate about the benefits of digital government, indicating that more optimistic views come from more conceptual approaches to the phenomenon, and less optimistic views come from more empirical approaches (Norris, 2007; Reddick, 2010).

The literature on the process of fundamental change that can result from a digital transformation approach: most related terms such as e-government, digital government or transformational government are used and thus incorporate the meanings of these different approaches. The concepts themselves are interrelated and have similarities: examining how the public sector uses ICT to improve service delivery, transform organizational processes and culture, and the impact on value creation. Two of the most fundamental theoretical works that frame this research are the technology enactment framework by Fountain (2004) and the Digital Era Governance approach by Dunleavy et al., (2006). They focus on organizational change, organizational culture, and new ways society handles information and new demands for government services. Both frameworks have evolved, and research conducted by Mergel et al., (2019) obtained the following digital transformation variables:

Table 1.
Taxonomy coding to derive from interviewing digital transformation experts
VARIABLES

DIGITAL TRANSFORMATION REASONS	The reasons for transformation, and the reasons for the need to change, are understood as external or internal factors within the organization
DIGITAL TRANSFORMATION OBJECTS	Public administrators highlight different objects of digital transformation, including the use of organizational technology, business models, internal processes, workflows or procedures, public services

VARIABLES

	offered to stakeholders, or products produced, including content production and dissemination
DIGITAL TRANSFORMATION PROCESS	The digital transformation process describes how public administrators approach the transformation of these objects. This includes, for example, digitizing existing processes, forms/documents, and services, as well as their relationships with stakeholders. This includes the use of big data, data-driven and user-centric approaches. Regarding public services, public administration experts state that digitalization efforts offer opportunities to rethink processes, services, and products that they used to create for the offline world
RESULT OF DIGITAL TRANSFORMATION	A range of outcomes can be achieved through digital transformation. These are divided into outputs, outcomes, and impacts, which are seen as long-term effects of digital transformation on the organization or its ecosystem as a whole.

Source: (Mergel et al., 2019)

Understanding and predicting the developments of digital transformation is important for policymakers, government executives, researchers, and all individuals who prepare, create, implement, or evaluate digital government decisions (Ciesielska & Janowski, 2019; Janowski, 2015). Despite high expectations for digital transformation, failures to transform public sector organizations in recent years indicate a lack of understanding of the complexity of digital transformation and the relationship between technology, information use, organizational context, and institutional arrangements (Tassabehji et al., 2016). To date, there is only limited empirical evidence on how governments approach digital transformation (Mergel et al., 2019). Existing empirical studies mostly focus on a single organization at the national level (Ciesielska & Janowski, 2019; Liu et al., 2016; Tassabehji et al., 2016).

Digital Government Transformation

The shift from government to governance has become a contemporary development in political and administrative sciences and other social studies. The role and capacity of government to govern are challenged by the scattered boundaries and blurred lines between public, private, and civil society, making many countries confused about how to govern properly (Ansell & Gash, 2008). New policies and demands with complexity and interconnectivity arise, demanding new forms of governance and collaboration that emphasize the roles of various actors from the public, private, and civil society (Emerson et al., 2012; Emerson & Nabatchi, 2015).

Although there has been considerable interest in Digital Government Transfromation (DGT) in recent years, in reality, the definitions referring to this concept remain diverse and sometimes contradictory. The same applies to how digital transformation relates to other widely used expressions such as e-Government (Helbig et al., 2009; Wulandari & Salomo, 2021), ICT-enabled governance, and also Transformative Governance (or T-gov), which goes beyond the previous understanding of e-Government.

Some recent definitions, such as those developed by Gartner in a report delivered to the JRC (Williams et al., 2019) and those found in several OECD sources (OECD, 2020, 2021), emphasize the importance of data, data analytics, and other new technologies as characteristics of the transition from e-Government to digital transformation. While these definitions represent a good starting point, they require better specification of what 'transformation' means – particularly, as practicing a data-driven public sector vision is no less challenging than the wave of e-Government implementations before. With a little adaptation of the T-government definition, Misuraca et al., (2020) define Digital Government Transformation (DGT) as follows.:

> Digital Government Transformation (DGT) is the introduction of radical changes, as well as more gradual ones, in government operations, both internal and external processes, and structures, to achieve greater openness and collaboration within and beyond government boundaries, made possible by the introduction of a combination of existing ICT and/or new data-based technologies and applications, as well as a radical reframing of organizational and cognitive practices; it can include various forms of public sector innovation in various phases of service delivery and policy cycles to achieve specific public values and related goals such as, among others, improving efficiency, effectiveness, accountability, and transparency, to provide citizen-centric services and design policies that enhance inclusion and trust in government.

Digital Government Transformation (DGT) often involves cross-level changes that impact many elements of the organization. Digital technology can fundamentally change infrastructure, products, services, business processes, business models, organizational strategies, and relationships between organizations in extended business networks (Bharadwaj et al., 2013; Sebastian et al., 2017).

Although a consensus on the definition of digital transformation has not yet been reached, it has been discussed in recent literature based on the use of digital technology (Kraus et al., 2021; Vial, 2019). According to Vial (2019), summarizing based on analysis of 23 digital transformation definitions, it is generally described as a continuous process "aimed at improving an entity by triggering significant changes in its properties through a combination of information, computation, communication, and technology connectivity." This definition is based on two main ingredients: digital technology and significant change.

Transformation in the public sector involves a change in the quality of certain social structures (Meijer & Bekkers, 2015). Instead of simple improvements in performance, it requires fundamental changes in the structure, processes, and/or organizational culture

of the public sector, which may involve the organizational structure of institutions, administrative relationships between citizens using public services and the organizations that provide them, or changes in bureaucratic culture and external relationships between institutions (Pollitt & Bouckaert, 2000).

Following an analysis of existing literature, this article concentrates on the Digital Government Transformation (DGT) approach employed by countries with a centralized system, Its purpose is to augment the body of knowledge on the transition from e-government to digital transformation within the public sector. Specifically, the article provides a fresh analysis of digital transformation approaches in organizational management, technology, and government sector business models.

RESEARCH METHODS

This article uses a case study methodology to understand why and how interesting social phenomena occur through data and sources. The case study methodology is an appropriate approach for conducting this exploratory research (Yin, 2017). This study is also inductive, contributing to building new understandings. The aim of this study is to answer the "how" questions related to digital transformation in government. In-depth case studies are considered an appropriate research method for collecting the necessary data and analyzing the phenomenon of digital transformation in the Slovenian government. Case studies are a very useful tool for examining phenomena in their natural context and gaining a deeper understanding of implicit and explicit social processes.

The case study design is also widely used in e-government research (Boughzala et al., 2014). This research design was chosen because it is highly effective in capturing empirical data from various secondary sources (Snyder, 2019), in this case, reports used by the European Union and the European Commission to promote the acceleration of technology adaptation in government (EU Joint Research Centre (JRC), 2019; European Commission, 2022; Misuraca et al., 2020; OECD, 2020, 2021). The collected data is then analyzed qualitatively to ensure data validity, with source triangulation conducted throughout the study. Thus, the validity of the data in this study is checked by matching three or more sources (triangulation). This step is necessary to ensure that the obtained data is truly valid according to the actual conditions. In addition to being clarifying, this step is used because it can reduce unnecessary data (Woodside, 2010). There are at least four basic forms of triangulation proposed by Denzin (2015), but this study only uses one, namely data triangulation. Valid data is data that has similarities or agreements (mutual reinforcement) between one source and another.

RESULTS AND DISCUSSIONS

Digital Transformation Reasons

The public sector in Europe always receives significant attention, including in Slovenia. In various investment policies issued by the EU, the public sector is always a strong and consistent mainstream, in this sense, the political culture and contextual administration of the European Union support the development of digital governance in Slovenia. As a geographically small and

relatively centralized country highly involved in European cooperation, Slovenia has the capacity to move quickly and leapfrog stages of digital government maturity. The Slovenian government continues to consider these contextual factors as comparative assets of digital government policies in various other European countries and uses them appropriately for better public processes and services.

Slovenia has utilized its size and centralized administration to "move fast and be agile" in designing and implementing digital government policies. As a member of the European Union (EU) since 2004, Slovenia has also benefited from the influence of EU digital government policies and has shown aspirations to achieve the goals set out in the European Digital Agenda. As stated by Mergel et al. (2019), digital transformation requires sustainable processes, services, and product adjustments to optimally meet external needs, one of the most important end-user needs, in our case, being Slovenian citizens. Meeting such needs is likely to result in better relationships between citizens and their public administration, increase satisfaction, positively transform public administration culture, and generate better digital transformation, but the availability and use of ICT, adoption and motivation of digital skills commensurate with expected benefits are crucial to success. By measuring these factors across all of its Member States, the European Union proactively demonstrates the importance of its strategic digital society goals.

Through strengthening the 2030 Slovenian Development Strategy adopted in 2017 to build a systemic approach to sustainable development (Republic Slovenia, 2022), however, in terms of improving quality of life, Slovenia's position is categorized as "lagging in digital society development, which is the result of low levels of investment in digital skills and technology development and a lack of coordinated development across regions despite relatively even distribution of high-speed broadband networks." The strategy also includes sustainable development goals necessary to implement the global development plan set out in the UN's 2030 Sustainable Development Agenda (United Nations, 2015). Several reasons underlying digital transformation in Slovenia have been summarized by the OECD in its 2021 report, which can be seen in context below:

Table 2.
Categorization in the development of Digital Transformation summarized from the Digital Government Review of Slovenia

Digital Governance - Political Communication	• In the context of the Slovenian Public Administration Development Strategy 2015-2020, which also includes a digital governance strategy, the Government has adopted a two-year action plan. In 2018, a new Strategy for Implementing Semantic Interoperability was prepared. • In the field of new technologies, an action plan for preparing the basis for improving the implementation of blockchain technology and building a suitable environment for regulating crypto-currencies in relevant regulations has been adopted.
Digital Governance	Until 2021, the Ministry of Public Administration was responsible for Digital Governance. And since July 2021, a government office at the ministerial level for Digital

	Transformation Affairs led by the Minister of Digital Transformation has been established with the aim of accelerating digital transformation.
Digital Governance Infrastructure	The Ministry of Public Administration provides a central platform for authentication and trust services. The SI-PASS authentication center and eSignature services offer the possibility to verify electronic identities in one place and activate remote eSignature according to eIDAS requirements. The system has been integrated into the most important e-Government portals. In 2018, the new smsPASS service was launched to enable the use of mobile devices for authentication and eSignature through the SI-PASS service. Currently, this function is activated for citizens using the main state eGovernment portal.
Digital Government Services for Citizens and Business	• Starting from April 1st, 2018, the mandatory implementation of eSubmission tendering in the Slovenian public procurement system has been in place. This includes access to electronic services for implementing simpler and faster public procurement procedures. • The state government portal eUprava, managed by the Ministry of Public Administration, offers and develops electronic services for citizens. In 2018, two important new services were launched. Slovenian drivers now have access to their driving records and traffic penalties, and there is an eApplication for organ donation in case of death.

Source: (OECD, 2021)

Digital Transformation Object

In Slovenia, government digital policies are included in the Public Administration 2020, Public Administration Development Strategy 2015-2020, and Digital Slovenia 2020 - Information Society Development Strategy until 2020 (Republic of Slovenia, 2018). Both strategies complement each other, prioritize action-oriented priorities, and secure financial resources for implementation. As of 2021, the Ministry of Public Administration (MPA) is responsible for national digital government policy in Slovenia and holds the leadership and coordination function between various levels and sectors of government. The ministry develops this coordination in line with the State Government IT Development Council in Public Administration. Within the ministry, the Directorate of Informatics, led by a director-general, is responsible for broad executive coordination and implementation of digital transformation policies in the public sector. The directorate also leads important digital government initiatives such as digital identity, interoperability, and digital service delivery.

In Slovenia, the Government IT Development Council in Public Administration, led by the MPA, is responsible for strategic leadership in digital government policy (OECD, 2021). Formal coordination and compliance structures for Slovenia's digital government policy are effective and enable coordination at various levels with clear and generally well-defined responsibilities. The Strategic Council for Digitalization in the Prime Minister's Office has been launched to mobilize public, private, and civil society stakeholders. This council aims to discuss and prepare proposals that can boost the country's performance in the current digital transformation context.

The implementation of the Public Administration Policy 2020 and the Development Strategy of Public Administration in Slovenia 2015-2020 aims to establish a foundation for real improvement in the operations of public administration in Slovenia, which will undergo modernization in government (Republik Slovenia, 2014). Reforms will be achieved by introducing a comprehensive management system through centralized strategic planning, introducing quality control systems for simplifying and modernizing administrative processes, as well as monitoring and evaluating work done and targets to be achieved at all levels. Effective public administration cannot be achieved without efficient government technology. This will leverage new opportunities and potential offered by modern technology and organizational approaches, where cloud computing has one of the greatest potentials. Improving ICT conditions in public administration will have a significant synergistic effect in achieving other strategic targets, as well as in the overall development of an information society.

The implementation of the Public Administration Policy 2020 and the Development Strategy of Public Administration in Slovenia 2015-2020, in addition to having a direct impact on the central government, is anticipated to have indirect positive impacts on the entire public administration (especially local government, public institutions, and non-public bodies) whose business processes are related to the central government. Efficient government technology, according to the Strategy, has the potential to significantly contribute to the digitization of business processes and therefore improve the quality, transparency, and accountability of public administration (European Commission, 2022; Republic Slovenia, 2022).

Data governance is a prerequisite for data-driven development, operation, decision-making, and innovative approaches. In this context, a series of actions have been taken. The development of a central metadata dictionary has become a priority and is also a prerequisite for data storage. The data repository will provide views from different perspectives and contexts, which will be the root for knowledge and understanding of the data. The repository will provide information on how applications are connected to data, which institution is responsible for the data, and how data is used through public administration procedures. In the context of the Slovenian Public Administration Development Strategy 2015-2020, which also includes a digital government strategy, the government has adopted a two-year action plan.

In July 2021, the establishment of the Government Office for Digital Transformation and the appointment of a new Minister for Digital Transformation were seen as developments. The emphasis and priority placed on this appointment show a new commitment to the digital agenda in the political center. When the role and responsibilities of this organization and its relationship

with MPA become clear, it is important to ensure that the digital economy and the digital government agenda work together. The Government Informatics Development Council in Public Administration, led by MPA, is responsible for the strategic leadership of digital government policies (OECD, 2021). Formal coordination and compliance structures for Slovenian digital government policies are effective and allow coordination at various levels with clear and generally well-defined responsibilities. As Slovenia moves forward with its digital transformation agenda, the relationship between these two organizations will become important in ensuring continuity and clarity for the overall direction of digital transformation, as well as initiatives such as digital identity, interoperability, and service design and delivery (Republic of Slovenia, 2018, 2018; Republik Slovenia, 2014).

Digital Transformation Process

Slovenia has been making considerable efforts to adapt its legal framework and regulations in a gradual manner to support digital transformation. By making use of EU regulations, significant steps have been taken in digital identity, access to public sector information, data protection and privacy, digital security, and sharing of government data within and across public sectors. However, limitations in the legal and regulatory approach have been identified as a hindrance to government digital maturity. Respondents of the OECD Digital Government Survey in Slovenia who were public stakeholders highlighted the need to simplify laws, upgrade areas like digital identity or trust services, and enhance communication to strengthen the consistent implementation of such regulations (Republic of Slovenia, 2018, 2018; Republic Slovenia, 2022)

In 2020, the Slovenian Ministry of Public Administration prepared the Strategy for Digital Public Services 2030 to develop a society that can cope with change, uncertainty, and challenges in the best possible way. The strategy established clear objectives for the development of digital public services, with a focus on citizens and private sector companies. Additionally, the eUprava online state portal was set up in 2001 to provide a one-stop-shop for all government information and online services for its citizens and the private sector. The portal has been updated in 2006 and 2016 (Republic Slovenia, 2022). The eVEM portal, established in 2007, offers all private sector online services and is a one-stop-shop for company registration, free of charge. It has successfully reduced the registration time from 60 to 4 days. Integration of various other systems and platforms, including many state registers and databases, followed to enable better transformation and efficiency of public administration (European Commission, 2022).

Digital Transformation Result

The good level of digitalization in the economy and society of Slovenia can be seen in the increase in online interactions with the government. In 2005, only 19% of individuals used the internet to visit public authority websites in Slovenia, but in 2020 that figure increased to 67%, well above the EU average of 56% (OECD, 2021). The latest DESI data - the Digital Economy and Society Index 2022 - also reveals that the work of Slovenian experts in this field has paid off in recent years (Republic Slovenia, 2022). In the overall index ranking, which measures the digital progress of Member States, Slovenia has risen two places and now ranks 11th out of 27 EU members. Slovenia remain above the European average in the field of connectivity, where the country have also contributed to outstanding results through the development of broadband networks, and in the field of digital technology integration, especially cloud services and artificial intelligence. The share of eGovernment service users, which reached 77% of all internet users

last year, is also encouraging and puts us more than 10% above the EU average (OECD, 2021). The share of ICT specialists in Slovenia's human resources has increased (2021: 4.4%; 2022: 4.8%) and is above the European average. The percentage of female ICT specialists remains the same (17%) and is lower than the European average. Slovenia is also behind the European average in the percentage of people with at least basic digital skills and above basic digital skills (SL: 50% and 20%; EU: 54% and 26%).

In digital public services, Slovenia has risen two places and now ranks 13th. 77% of internet users in Slovenia actively use eGovernment services, compared to the EU average of 65%. Slovenia remains below the EU average in the uptake of digital public services available to individuals, while we are above average in the uptake of services for businesses. Slovenia has also risen well above the European average for open data (SL: 92%; EU: 81%). According to the 2022 Development Report (gov.si) from the Institute of Macroeconomic Analysis and Development (IMAD), the biggest challenge for Slovenia in digital transformation is about human capital or digital skills, and this is one of the main priorities that the government is addressing through the Digital Transformation Office in the near future, one of which is the amendment of the Digital Inclusion Act (ZSDV). (European Commission, 2022).

Overall, the socio-economic and technological context in Slovenia is generally very positive. Human development and the level of well-being of the population in this country provide a strong foundation for a strong, resilient, and sustainable digital transformation of the economy, society, and government. Despite the cultural weaknesses identified in innovation, there are generally good conditions for increasing the benefits of digital transformation in the public sector, to strengthen the country's path towards social welfare and sustainable economic development.

Figure 4.
Digital Economy and Society Index (DESI) 2022
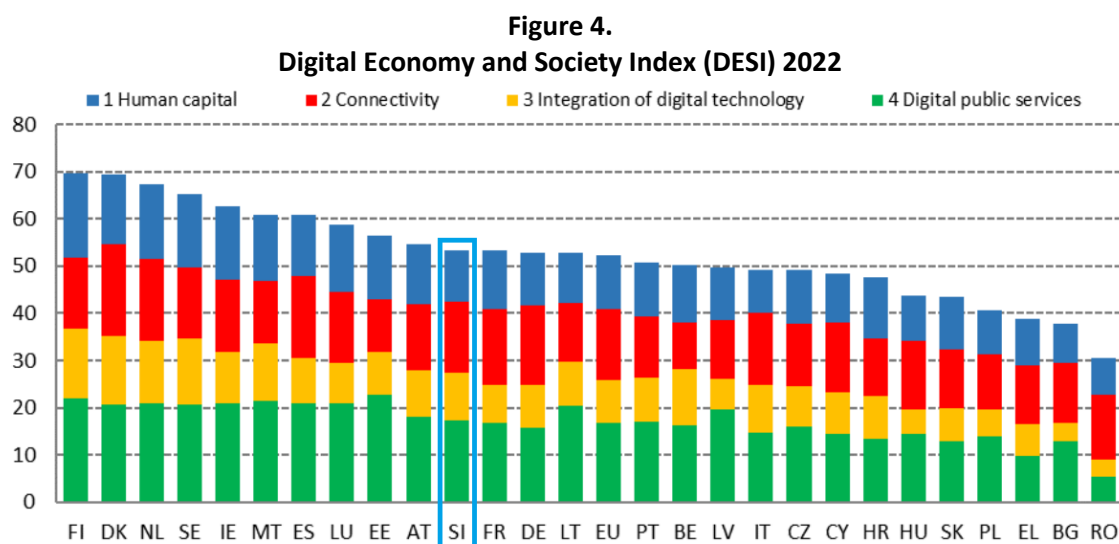
Source: (Republic Slovenia, 2022)

CONCLUSIONS

Slovenia consciously leverages its small territorial size and centralized government administration system to prioritize and accelerate digital governance as a policy priority, and has

invested in several public policies that emphasize the importance of technology and digital literacy for the country's digital policy. Important concepts for effective digital transformation, such as 'digital by default' and 'once only,' are gradually being adopted, and Slovenia has adopted key enablers to enhance access and interoperability of government services, such as digital identity and citizens' data rights. Digital government policies will not run without awareness of investing in basic digital infrastructure and digital skills and talent.

The initiation of digital transformation in Slovenia has made significant progress, including the establishment of the Ministry of Public Administration and the Ministry of Digital Transformation as the institutions responsible for coordinating and implementing digital government initiatives. In addition, the government has launched several programs aimed at promoting digital skills and literacy, including the Digital Innovation Hub Slovenia, which is a network of centers designed to help businesses and individuals adopt new digital technologies and continues to invest in digital infrastructure, promote digital literacy, and encourage innovation and experimentation in the public sector.

Given that digital transformation depends on clear vision formation and solid governance, Slovenia is building their digital social and economic spirit and creating a sense of urgency to capitalize on the current digital disruption and enhance the country's economic development and social welfare. Strategic communication and digitization role placement are also important to enhance citizen trust, social welfare, and inclusive economic growth, as well as create opportunities to engage stakeholder ecosystems in policy design and delivery processes. Finally, there will be no digital transformation without consistent data policies. Thanks to its strong data governance, acknowledging the power of data will help Slovenia unlock more public value. This will not only develop and stimulate data-driven approaches to policy-making and service delivery, for early forecasting using big data or for sustainable service performance analysis, but also strengthen public trust.

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