

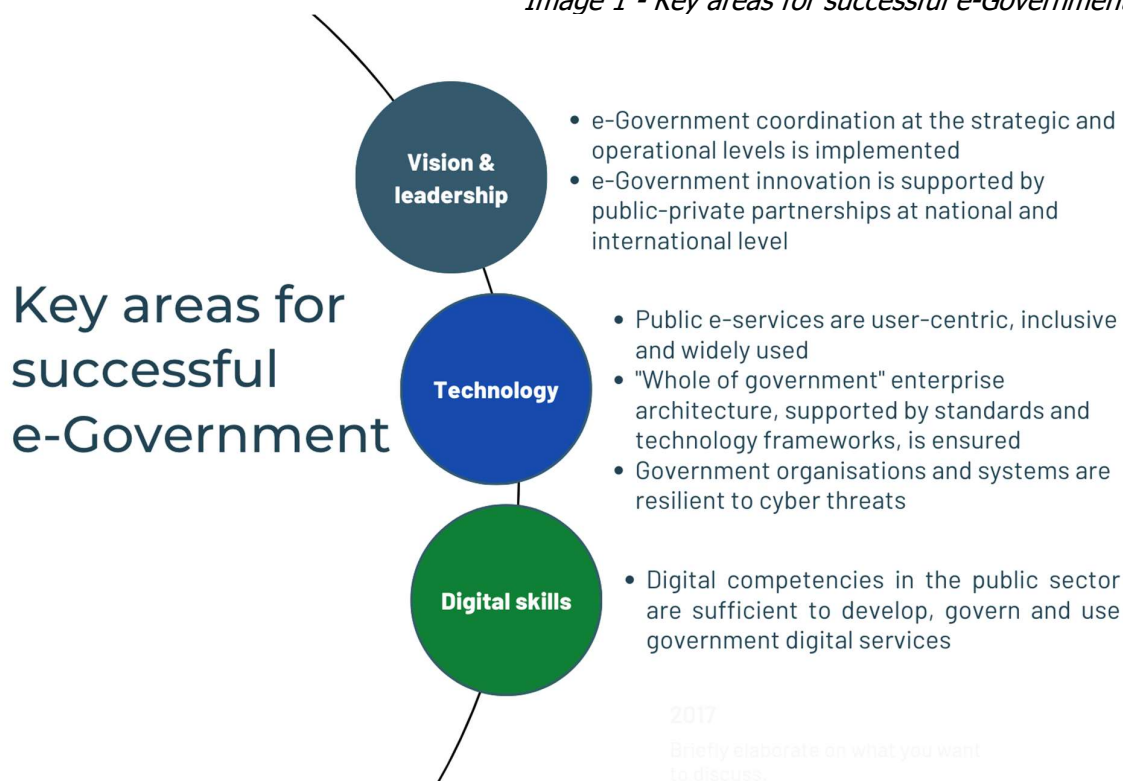
e-Government Strategy Kosovo 2023-2027

Final version 5.5.2023

1. Executive summary

The e-Government Strategy Kosovo 2023-2027 is a strategic document focusing on the main areas of public sector digitalization that help to achieve the vision set out in the Digital Agenda of Kosovo 2030 ¹to transform Kosovo into a successful digital country. Those key areas revolve around vision and leadership, technology, and digital skills (Image 1).

Image 1 - Key areas for successful e-Government



The strategic objectives set in the strategy help to achieve the vision of digital transformation in the public administration of Kosovo. The strategy addresses the current issues and formulates specific objectives and actions to overcome them and achieve the strategic goals.

Kosovo has made good progress in the digitalization of public administration by defining digitalization as one of its priorities but the strategy highlights opportunities for a more coherent and systematic approach to digitalization in the public sector to boost digitalization efforts further. It includes aspects of **e-government coordination** both on a strategic and operational level. For example, the work of the **Commission for Digital Transformation** is to provide high-level overview of the digitalization process. One topic that affects all aspects of e-government is **cybersecurity** to ensure that government organisations and systems are resilient to cyber threats. Investing in the digital future also means **investing in digital skills**, as they are needed both for public officials who drive digitalization and for everyone in the public sector. The public sector needs to be a desirable workplace with a forward-thinking mindset being encouraged and rewarded. A rewarding workplace helps to

¹ [Digital Agenda of Kosovo 2030 \(rks-gov.net\)](https://me.rks-gov.net/en/information-technology-and-telecommunications/) = <https://me.rks-gov.net/en/information-technology-and-telecommunications/>

attract and keep IT specialists, as the shortage of skilled IT personnel is prevalent in Kosovo as it is around the world. From the perspective of information system owners and digital service providers, a leap in digitalization is helped by focusing on a more effective **"whole of government" enterprise architecture** that is supported by standards and technological frameworks. The e-Government Strategy 2023-2027 focuses on citizens to whom digitalization should provide tangible benefits in their day-to-day life. That includes **redesigning digital services** that the public administration offers following a more user-centric approach and helping raise competencies in various topics, from digital services to cybersecurity.

Although the e-Government Strategy is set for five years, the world's digitalization field is constantly changing. Therefore, in order to futureproof the e-government, a culture of innovation is promoted together with fostering an open mindset and cooperation with other stakeholders, such as academia and the public sector both in Kosovo and on the international level.

2. Introduction

The e-Government Strategy 2023-2027 sets a vision that is compatible with the vision set in the Digital Agenda of Kosovo 2030: By 2030, Kosovo will become a digitally modern country with an advanced digital economy and effective public administration ensuring smart use of the territory and infrastructure, whose citizens will use digital tools and electronic services and live high-quality and secure lives in the digital era.

The vision in this Strategy concentrates on the future of e-government that helps to achieve the vision set in the Digital Agenda 2030.

VISION

Digital transformation of the public administration maximizes the well-being of Kosovo's citizens, the effectiveness, transparency and accountability of the public sector, and the sustainable economic growth of the country.

The mission defines what is needed to do at the top level to achieve the vision. **The e-Government Strategy's mission** is to create conditions for accelerating the e-government of Kosovo through better use of the current e-government system in Kosovo and by adding new functionalities, adopting best practices, and using modern technologies.

To fulfil the vision and mission, the e-Government Strategy 2023-2027 focuses on six main areas of e-government. These are presented as strategic objectives.

The Government of Kosovo is committed to reaching the following strategic objectives as defined in this strategy:

Image 2 - Strategic objectives



These six strategic objectives are all equally important for accelerating the e-government in Kosovo in a way that maximizes the benefits of digitalization and helps to achieve the vision for a digitally successful Kosovo.

In addition to the strategy, an action plan has been formulated with specific actions, timeline and budgetary implications to fulfil the strategic objectives of the strategy. Working towards the provided vision requires all participants to follow some general principles that would define the nature of working and values endorsed during the implementation of the strategy. The principles for digitalization are in line with e-government principles set by the European Commission:

- *"Once-only" – no public administration body demands information from the user that they have already provided to the administration in order to ensure that "the data moves and not the user."*
- *Personalisation – users express their preferences for interacting with the public administration, which they can then use to make the interaction as simple as possible.*
- *Proactive service delivery – the public administration is aware of the user's circumstances and proactively delivers services and information that the user needs, tailoring them to the user's needs, circumstances, preferences and so on*
- *"digital-first" – unless there is a reason not to, the user interacts with the public administration digitally.*

Based on the principles set by the European Commission and the strategic objectives of the e-government strategy 2023-2027, the principles for digitalization are as follows:

Principles for digitalization:

1. **Digital by design.** The possibilities of digital technologies are integrated into policymaking and service design processes. Rather than digitizing analogue methods, digital governments exploit new opportunities introduced by digital transformation.
2. **Data-driven.** A data-driven public sector recognizes and takes steps to govern data as a key strategic asset in generating public value through its application in the planning, delivering, and monitoring of public policies.
3. **Interoperability by design.** Digital government enterprise architecture provides a functioning lifecycle of the digital government ecosystem. A government acts as a platform (guidelines, tools, data, and software) for delivering user-driven, consistent, seamless, integrated, proactive, life event based and cross-sectoral services.
4. **User-driven and inclusive.** A user-driven approach describes government actions that allow citizens and businesses to indicate and communicate their own needs and, thereby, drive the design of government policies and digital public services.
5. **Once-only.** Public administrations should ensure that citizens and businesses supply the same information only once to public administrations.
6. **Multi-channel delivery.** Different channels for service delivery are planned and implemented – phones, computers, and service delivery offices. The aim is to offer access to digital services for all citizens without needing specific service delivery channels and tools.
7. **Privacy by design.** Privacy by design is an approach to systems engineering that seeks to ensure protection for the privacy of individuals by integrating considerations of privacy issues from the beginning of the development of products, services, business practices, and physical infrastructures.
8. **Trust and security.** Trust and security in the digital economy facilitate electronic transactions for businesses and citizens, making them safer, faster, and cheaper. It also contributes to the resilience of critical digital infrastructure in telecoms, energy, transport, or banking areas, resulting in a more robust, dynamic economy and increased consumer trust.
9. **Open innovation.** Innovative solutions are created and built openly with government agencies, the private sector, academia, and citizens.

3. Methodology

The e-Government Strategy 2023-2027 has been prepared by the multistakeholder working group of government institutions and other external stakeholders, coordinated by the Office of the Prime Minister and the Ministry of Internal Affairs and supported by the Estonian e-Governance Academy (eGA). The strategy preparation process has included many meetings and consultations with public sector stakeholders, analysis of the technological aspects of e-government in Kosovo, five multistakeholder workshops, and a dedicated conference with more than 150 attendees.

During the development of the e-Government Strategy of Kosovo 2023–2027, a baseline analysis was carried out that focused on the technological aspects of e-government. The research aimed to emphasize the challenges and critical aspects for future developments to

achieve the goal of making Kosovo a digital success. The study was carried out using the desktop method. Among other sources, the analysis has taken notice of previous strategic documents such as Electronic Governance Strategy 2009-2015, Digital Agenda for Kosovo 2013-2020, Better Regulation Strategy 2017-2021, Strategy for Modernization of Public Administration 2015-2020, and recently approved strategic documents National Development Strategy and Plan 2030², Public Administration Reform Strategy 2022-2027³ and the Administrative Burden Prevention and Reduction Programme 2022-2027⁴.

Meetings, interviews and workshops with the main stakeholders were used to map opportunities, problems, and possible strategic goals that were used as an input for preparing the strategic document. The methodology described in The Administrative Instruction on Planning and Drafting Strategic Documents⁵ was used to conduct the workshops.

The preliminary consultation process has included Office of the Prime Minister, Agency for Information Society, Civil Registration Agency, Ministry of Internal Affairs, Ministry of Finance, Labor and Transfers, Ministry of Economy, Kosovo Cadastral Agency, Tax Administration of Kosovo, Public Procurement Regulatory Commission (PPRC), Kosovo Institute for Public Administration (KIPA) and Kosovo Business Registration Agency.

The development of the e-Government Strategy Kosovo 2023-2027 and Action Plan follows relevant regulations in Kosovo, in particular, the Administrative Instructions of Planning and Drafting Strategic Documents and Action plans, and Manual for Planning, Developing And Monitoring Strategic Documents and Their Action Plans⁶.

Preparation and gathering of data for the strategy and action plan was done in the following steps:

1. Problem analysis and cause mapping
2. Setting the vision
3. Setting strategic objectives
4. Setting specific objectives for each strategic objective
5. Identifying actions and defining outputs
6. Developing applicable performance indicators for strategic and specific objectives
7. Outcomes for strategic and specific objectives
8. Estimated costs for actions.

² [Strategjia dhe Plani Kombëtar për Zhvillim 2030 - Zyra e Kryeministrit \(rks-gov.net\)](https://rks.gov.net/)

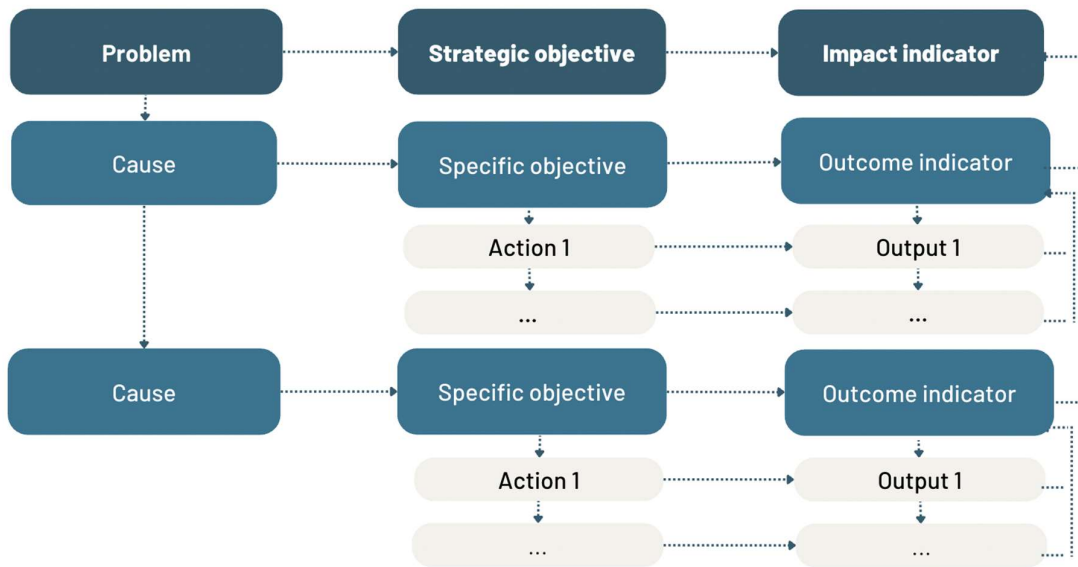
³ <https://kryeministri.rks-gov.net/wp-content/uploads/2023/01/PUBLIC-ADMINISTRATION-REFORM-STRATEGY-2022-2027.pdf>

⁴ <https://kryeministri.rks-gov.net/wp-content/uploads/2022/09/ZPS-shtator2022-PPZBA-2022-2027-dhe-PV-2022-2024-Shtojca-1-6-FINAL-ENG.pdf>

⁵ <https://kryeministri.rks-gov.net/en/blog/administrative-instruction-grk-no-07-2018-on-planning-and-drafting-strategic-documents-and-action-plans-04-04-2018>

⁶ [Manual-for-Planning-Developing-and-Monitoring-Strategic-Documents-and-their-Action-Plans...pdf \(rks-gov.net\)](#)

Image 3 – Process of the preparation of the strategy and action plan



Before being agreed on, the strategy will go through the official public consultation process.

4. Background

Kosovo is a rapidly developing country with good potential for digital transformation. Review of the results achieved by the Digital Agenda of Kosovo 2013-2020 has yielded the following findings: certain areas have made great progress, e.g., in 2021 99.8% of households had access to the internet, 100% of enterprises had opportunity to obtain access to broadband networks, and almost 98% of the population was using information and communication technologies. On the other hand, in recent years, the Government of Kosovo (GoK) has prioritized public administration reforms to transform its public sector into a more modern, efficient, and citizen-centric administration and supported the use of information and communication technology (ICT) in public service delivery.

In collaboration with the European Union, the GoK adopted the Public Administration Reform Strategy (2015-2020), which provided the principal strategic orientation of the Government in the area of digitalization. At the end of 2022, the Public Administration Reform (PAR) strategy 2022-2027 was approved. In that strategy, digitalization is seen as part of better service delivery that helps to achieve the main goal in service provision, shifting from traditional “rules” based administration to service-oriented public administration. The strategy states that the standardization and digitalization of public registers, standardization of services, including the creation of the central online register of administrative services, will be carried out to ensure the quality of service delivery and to create conditions for the multiplication of service delivery channels. In addition, the strategy describes the need to gradually introduce quality management tools in public administration to evaluate and increase the effectiveness of institutional performance.

In addition to the Public Administration Reform Strategy 2022-2027 is the Administrative Burden Prevention and Reduction Programme 2022-2027, which was also approved at the

end of 2022. It aspires to improve service delivery to citizens and businesses by developing, implementing and effectively reviewing public policies and administrative procedures. One of the areas where the program sees an opportunity for burden reduction is digitalization or technological infrastructure investment for the interconnection of public registers and the automatic generation of data, as well as the development of electronic platforms for informing and serving citizens, businesses, and the administration itself.

The Administrative Burden Prevention and Reduction Programme 2022-2027 outlines the principles that will be used to prevent and reduce administrative burden: the European Commission (EC) e-government principles and the general administrative principles for electronic governance. The Administrative Burden Prevention and Reduction Programme 2022-2027 and the e-government strategy share the common vision of e-government where the user with their real-life event is at the center, taking into account the needs and experiences of the user.

The Administrative burden prevention and reduction program 2022-2027 highlights that considering the complexity of the legal framework and the time constraints related to preparing legal acts, it is possible to proceed with digitalization before administrative simplification⁷, with proper planning for simplification in the future. Being able to utilize digitalization in such a way is relevant to the strategic objective of the e-Government Strategy: "Public e-services are user-centric, inclusive and reliable".

The program emphasizes that digitalization will be applied in the simplest way possible, easy and quick to use, avoiding physical appearance in public administration, testimonies, verifications by the party and printed paper.⁸ So, making the point that the legislation should allow and not hinder digitalization.

Digital governance and service delivery is also a central pillar of the EU Enlargement Agenda alongside with the rule of law and public administration reform. The modernization of the public administration - and within that, digitalization for better services - is highlighted as an essential element of the Government Plan for implementing the Government Program for 2021-2025 and the National Development Strategy - 2030 and in the Digital Agenda of Kosovo 2030.

The Digital Agenda of Kosovo 2030 (from now on referred to as DA 2030) is a cross-sectoral horizontal agenda adopted in June 2023 that defines the policy and priorities of Kosovo in the context of the ongoing digital transformation of the economy and society as influenced by innovative technologies and global digital trends. With DA 2030, Kosovo will use the development opportunities of advanced ICT technologies to become an advanced digital economy and society, support economic growth, and strengthen national competitiveness. The high rate of internet use among citizens, a well-developed ICT sector and the availability of broadband connections for all companies, households and educational institutions provide a good basis for the further digital transformation of Kosovo.

Both the Public Administration Reform (PAR) Strategy 2022-2027 and the e-government strategy outline measures to improve the ICT infrastructure and the technical conditions for the broader digitalization of services. As outlined in the PAR strategy, these measures will enable the integration and exchange of data between more institutions and public registers connected to the e-Kosova platform.

⁷ Administrative Burden Prevention and Reduction Programme 2022-2027, Page 16, Paragraph 1.

⁸ Administrative Burden Prevention and Reduction Programme 2022-2027, Page 16, Paragraph 2.

Image 4 – Strategic Framework of Digitalization



The Public Administration Reform (PAR) Strategy 2022-2027 sees the benefit of digitalization of business processes and services in an increased work efficiency and reducing of costs for both institutions and users. The e-Government Strategy’s strategic objectives are aligned with that aim.

One of the challenges identified in the Public Administration Reform (PAR) Strategy 2022-2027 is that although most visible progress has been made in the development of the technical infrastructure for the digitalization of public service, only initial steps have been made towards the establishing a coherent legal framework for administrative procedures and service delivery. This is addressed in the e-government strategy strategic objectives relating to e-government cooperation and “whole of government” enterprise architecture and related frameworks.

PAR states that the function of policy development for service delivery, including digital transformation, remains unclear, and no mechanism has been introduced to ensure coordination between the various institutions engaged in service delivery. As a positive development, the measurement of user satisfaction is diversified, and the quality of data is improved, but the perception of user satisfaction with service delivery is in decline. PAR states that Kosovo is performing below the regional average of improvements in the provision of services.

Citizens use the internet mainly for primary communication purposes, entertainment and obtaining information, but unfortunately, the use of e-commerce, e-government, e-education, and e-health is limited. Furthermore, privacy and security in using ICT services still represent a significant challenge to the people of Kosovo in their private or business lives.

Table 1 - Internet usage in Kosovo

For example, based on the survey of Kosovo Statistics Agency, **only 5.3 per cent of internet users have submitted forms online.**⁹

The World Bank has developed the **GovTech Maturity Index (GTMI)**¹⁰ to measure key aspects in the four focus areas of digital transformation in the public sector: core government systems, public service delivery, citizen engagement, and GovTech enablers. The World Bank GTMI 2022¹¹ index covers 198 countries, and Kosovo has significantly improved its position from group C¹² to B, especially in the field of public service delivery (PSDI). Comparing with regional countries, Kosovo stands in the middle: Group A (Albania, Serbia); Group B (Montenegro, North Macedonia); Group C (Bosnia and Herzegovina). However, the lowest score continues to be associated with GovTech Enablers (GTEI) and Digital Citizen Engagement (DCEI).

As can be concluded from the review of the results achieved by the Digital Agenda of Kosovo 2013-2020 mentioned above, Kosovo is already an information society; however, to become a gigabit society requires additional human capital investments and direct investment to generate development in all technical areas. Furthermore, the development of new technologies and services, which we have witnessed in the last years, requires new skills and much more advanced IT infrastructure.

%	Area
95%	Internet usage
51%	Online shopping & services
14%	Used internet to find information
11%	Used internet to access information about public services
78%	Did not download/print any official form from public sector websites/applications or use digital services

5. Problem Analysis

The problem analysis for the e-Government Strategy is separated into three focus areas that cover the aspects crucial for succeeding in digital transformation in the public sector: vision and leadership, digital skills, and technology. For each focus area, the main problems are defined that hinder Kosovo's digitalization of the public sector.

The problem identification process has been carried out through extensive bilateral meetings, consultations and multistakeholder workshops. Five multistakeholder workshops have been organized, and a dedicated conference with more than 150 attendees has been used to finalize the public consultations process¹³.

⁹ <https://ask.rks-gov.net/en/kosovo-agency-of-statistics/add-news/results-of-the-usage-of-information-and-communication-technology-survey-ict-2022>

¹⁰ <https://www.worldbank.org/en/programs/govtech/gtmi>

¹¹ <https://openknowledge.worldbank.org/entities/publication/10b535a7-e9d4-51bd-96ed-6b917d5eb09e>

¹² GTMI groups: Group A: (Very High, GovTech leaders); Group B (High, Significant focus on GovTech); Group C (Medium, Some focus on GovTech); Group D (Low, Minimal focus on GovTech)

¹³ Initial meetings were held on 22-24/08/2022; workshops were held on 19-20/09/2022, 09/11/2022, 13/01/2023, 19-20/01/2023, 10/03/2023, and the final consultation conference was held on 06/04/2023)

5.1 Vision and leadership

The background information for the topic of vision and leadership covers e-government coordination and policymaking as well as cooperation at the national and international levels to foster innovation. These form the backbone of the e-government.

Kosovo has been developing its e-government as part of a broader digital strategy to become a prosperous digital nation.

- Kosovo set its first e-governance strategy in 2008 for the years 2009 to 2015.¹⁴
- In 2018 Kosovo joined the EU Digital Agenda for Western Balkans and demonstrated political will and commitment towards digitalization.
- In 2022, Administrative Burden Prevention and Reduction program 2022-2027 was approved that sees digitalization as one tool for reducing administrative burden.
- In 2022, Public Administration Reform (PAR) strategy 2022-2027 was approved, focusing on the role of digitalization as part of better service delivery.
- In 2023, Digital Agenda of Kosovo 2030 was approved.
- The draft Cyber Security Strategy 2023-2027 is expected to be approved approximately at the same time with this e-government strategy

The government of Kosovo has worked on creating **laws and regulations** related to electronic documentation, electronic signature, data protection, and cybersecurity for personal data in line with international standards and EU regulations have been set. Including The Law on the Information Society Services (Law No. 04/L-094, Chapter 1, Article 1. March 15, 2012), which recognizes electronic documents as legally equivalent to paper documents, (ii) the Law on Electronic Identification and Trust Services in Electronic Transactions (Law No. 08/L-022, December 6, 2021), and (iii) the Law on Personal Data Protection (Law No. 06/L-082, January 30, 2019), which covers all of the main areas of data protection, including comprehensive cybersecurity requirements and is in line with the EU General Data Protection Regulation.

While different institutions are working towards digitalization and strategic documents in the field have been drafted, there is space for more coordinated and practical actions for succeeding as an e-government. That includes a need for more clearly defined processes, ownership and technological standards.

Kosovo has participated in the EU Research and Innovation programs since 2007 and became a fully associated member of Horizon Europe in January 2022. That will allow increased cooperation with EU Member States and beyond. However, according to the European Commission Kosovo 2020 Report, Kosovo's research and innovation policy remain underdeveloped. To change this, the Government of Kosovo has made research a priority area, and Kosovo's structural reform priorities encourage the competitive generation and distribution of knowledge through investing in research and development¹⁵.

¹⁴ <https://mpb.rks-gov.net/ap/desk/inc/media/7D2C521A-DBD2-4890-968A-472AEC772A85.pdf>

¹⁵ NDP 2030, page 22. pilar: Equal Human Development; Goal 4: Quality and accessible education; Strategic goal 4.5: Development of scientific research and innovation

From an e-government point of view, it is positive that digital transformation is one of Kosovo's main priority areas in Horizon Europe.¹⁶

Ministry of Innovation and Entrepreneurship has adopted the National Strategy for Innovation and Entrepreneurship 2019-2023, emphasizing the need for a coordinated approach to innovation in the public sector.¹⁷ In the meantime, a new strategy for that area is being developed.

Innovation can be used as a tool for futureproofing the public sector digitalization and is, therefore, one of the strategic objectives of the e-Government Strategy 2023-2027.

Problem 1.

The e-government organization in Kosovo is not sustainable in the long term:

- Stakeholder roles in the e-government are unclear.
- The information and data policies are not fully implemented in the public sector.
- A comprehensive understanding of digitalization-related responsibilities in all governmental entities is needed. More e-government know-how, resources and capacity at strategic and implementation levels are required.

Problem 2.

Innovation is missing a coordinated approach in the public sector:

- Cooperation between the public sector, private sector, and academia in innovation is irregular (academia has a minimal role in the digitalization process, and the private sector is simply a service provider).
- Emerging technologies (AI, blockchain, internet of things) are not tested in the public sector.
- Opportunities for international cooperation in innovation are not used sufficiently.

5.2 Digital skills

This strategy focuses primarily on digital competencies in the public sector as these are needed to develop, govern and use government digital services.

The estimated total number of IT specialists and support staff in the public sector is around 450, corresponding to only 0.5 per cent of total public employment as there is no digital skills overview (including skills gaps) of the IT units established in public sector organizations. Based on international experience, the total share of technical specialists should be at around 2-3 per cent to ensure adequate support for existing/new government systems, country-wide digital infrastructure, and expected increases in the workload due to the digital transformation in Kosovo. Almost half of the salaries in the ICT sector lie between 750 and 2,000 EUR, which is much higher than the national average of 416 EUR. It also means that Kosovo's government and public sector **struggle to find competent IT personnel** to drive digital transformation – salaries offered in the public sector for IT personnel are incompatible with the private sector salaries.

¹⁶ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/europe-world/international-cooperation/kosovo_en

¹⁷ https://konsultimet.rks-gov.net/Storage/Consultations/15-02-29-24122018/3.%20Strategjia%20Kombetare%20per%20Inovacion%20dhe%20Ndermarresi_Anglisht.pdf

Professional-level skills for planning and implementing digital transformation are of vital importance. However, the lack of skills training opportunities for IT personnel and key roles (service design, business, and data analyst, etc.) on digital transformation in the public sector is currently hindering digitalization.

The Digital Household Survey (DHS)¹⁸ indicates a significant divide in terms of productive use of devices and networks, whereby most usage is limited to social media and communication, with low levels of usage around e-collaboration, e-banking, web content creation, coding, etc. Unfortunately, no official in-depth analysis has been conducted about the digital skills of public sector officials but based on general digital skills assessment in the DHS we can assume that it is on a similar level unless they are IT professionals.

Public officials need **sufficient digital literacy skills** to use office software, communication tools and digital services. Furthermore, public sector officials must be able to support citizens in the take-up of digital services.

Problem 3.

Digital competencies in the public sector in Kosovo are outdated or missing:

- The public sector is not attractive to IT personnel.
- Public officials lack basic digital skills to use digital services and advise citizens how to use them.
- Public sector officials driving digital transformation (IT specialists) do not have enough professional skills to lead digital transformation.

5.3 Technology

The technology background covers technical aspects of e-government and change management topics related to it, from the government enterprise architecture and cybersecurity of governmental systems to providing proactive digital services to citizens that follow the life event approach.

Central and local governments currently provide **over 700 services** to businesses and citizens, **but only 10 per cent** of the services **are provided online**, with most institutions still needing the necessary infrastructure, systems, or skills.

Digital identity is one of the enablers of digitalization. Population information is well-maintained and has reasonably good quality; however, **there is a need for more cooperation** between various stakeholders to use digital identity-related functionalities for maximum benefit.

Many online services are provided through individual agency portals, making data transfers across agencies difficult. A more intuitive and **proactive life event approach** organized around the users' needs at key life moments (for example the birth of a child, buying a new home) for creating services is preferred.

Several generic solutions and central services have been implemented that should simplify the digitalization of various public services for service providers. However, the mechanism of how platforms are made usable and how clients are engaged to use them needs to be better maintained, and more public service providers should be using them.

¹⁸ <https://www.undp.org/kosovo/digital>

Currently, the dedicated **governmental network** is used by all governmental entities which enables secure communication between different institutions. The interoperability platform **Government Gateway** (GG) has been in place since 2017. GG is the core back-end integration solution; there is more potential to add services used by many such as tax-related information systems. The **e-Kosova portal** is a single window to transactional and personalized digital governmental services from all levels of government (state, regions, municipalities), providing more services to institutions and businesses. The platform has been integrated with the Government Gateway, allowing full interactivity between the already connected electronic registers.

The e-government strategy is aligned with the principles of the European Interoperability Framework that promotes seamless services and data flows for European public administrations. One of its purposes is to provide guidance to public administration for the design and update of National Interoperability Framework (NIF), or national policies, strategies and guidelines promoting interoperability. This is linked to the strategic objective of interoperability.

The European Interoperability Framework is helping countries to ensure that services are accessible, not only within their national borders, but also across countries. In other words, it will help countries apply interoperability in practice. This way, public administrations can to **save time, reduce costs, increase transparency, and improve the quality of services** that they offer to citizens and businesses. This aim is aligned also with the goals of the administrative burden prevention and reduction program 2022-2027 and the Public Administration Reform (PAR) strategy 2022-2027.

Openness is also one of the underlying principles of the European Interoperability Framework. The e-Government strategy is aligned with the recommendations of the EIF on open data and open software.

For all the technical enablers and solutions, a **critical aspect is cybersecurity**. Moreover, at a broader societal level, the users (private or business) need to be made aware of the importance of information security and cybersecurity, due to society's openness and **lack of awareness of the citizens**.¹⁹

The Government of **Kosovo has already made important decisions to strengthen the national cyber defense**, such as forming a cyber security agency and cybersecurity strategy focusing on creating cyber resilience, cyber preparedness and cyber incident handling capacities and allocating adequate financial and human resources accordingly.

Although a separate national cybersecurity strategy is being drafted, the cybersecurity topic is also one strategic objective in the e-Government Strategy as it is crucial to many aspects of digital governance.

Problem 4.

The "whole of government" architecture is missing in Kosovo:

- Government enterprise architecture and interoperability framework are missing or outdated.
- The managing of technical enablers of the e-government (for example, digital identity, government gateway, e-Kosova, and data center) is dependent on outside partners. It increases the risk that critical know-how is missing in the public sector.

¹⁹ Source: Digital Agenda of Kosovo 2030 (draft)

- Establishing and using centrally managed administrative support tools in the public sector (for example, document management, HR, inventory management, project management, and procurement) needs additional coordination.
- There is no overview of IT systems being used in the public sector.
- Lack of harmonization of metadata in the public sector.

Problem 5.

Public services don't take full advantage of digitalization opportunities:

- Digitalization principles (for example "data driven" and "once-only") are only partially recognized and implemented.
- Process and service (re)design practices in the public sector are not implemented.
- The uptake of public digital services is low.

Problem 6.

The public IT infrastructure is vulnerable to external cyber attacks and technology risks:

- The government lacks a current cyber threat and risk overview concerning its infrastructure and services. Government agencies are missing procedures to assess cyber risks concerning their digital infrastructure and the provision of governmental functions and services.
- There is a lack of consistent cybersecurity requirements in the public sector, and security aspects have not been planned in parallel with infrastructure architecture.
- No "security by design" principle is applied to digital infrastructure and service design.
- Cybersecurity incident prevention and response plans, processes and capacities for government systems are not set.
- There is a shortage of funding dedicated to cybersecurity and skilled cybersecurity experts.

6. Strategic and specific objectives

The objectives in the strategy are divided into strategic and specific objectives. For each strategic objective, the outcome is defined and explained.

The objectives cover the following six crucial topics for public sector digitalization: **coordination and management, digital competencies, interoperability, digital services, cybersecurity and innovation.**

6.1 Coordination and management

Effective e-government coordination enforces the relevant strategies, legislation, and policies by setting up relevant authorities or committees and review mechanisms. Although it includes a comprehensive set of organizational, regulative, and technological measures, e-governance is about reforming and modernizing the Public Administration with ICT tools, not limited to the computerization of government offices.

Strategic objective I: e-Government coordination at the strategic and operational levels is implemented

Specific objectives:

Stakeholder roles are agreed upon, understood and accepted at the government level

Information & data policy is established in the public sector

Registers and information systems in the public sector are well managed

Outcome: Coordination for e-Government and digital transformation is well organised with clearly defined responsibilities and has reached GTEI level B by 2027

The indicators for this strategic objective are listed in the table below²⁰:

No.	Strategic and specific objectives, indicators and actions	Baseline value (2023)	Interim target (2025)	Final year target (2027)	Outcome
I.	Strategic objective: e-Government coordination at the strategic and operational levels is implemented				
1	Indicator: GovTech Enablers Index (GTEI) within the GovTech Maturity Index (GTMI)	0,456 (Level C)	not less than 0.50	not less than 0.70	Coordination for e-Government and digital transformation is well organised with clearly defined responsibilities and has reached GTEI level B by 2027.
I.1	Specific objective: Stakeholder roles are agreed upon, understood and accepted at the government level				
1	Indicator: readiness of AIS as an executive body to implement central elements of digital government and support institutions of RKS in digitalization	N/A	TBD	TBD	AIS as an executive body is able to implement central elements of digital government and support institutions of RKS in digitalization.
2	Indicator: Central coordination bodies within OPM are established and functionalized	No	Yes	Yes	Central coordination bodies within OPM are established and functionalized.
I.2	Specific objective: Information & data policy is established in the public sector				
1	Indicator: Share (%) of governmental institutions who have implemented data and information classification system	N/A	15%	30%	Public institutions have implemented data and information classification system, which allows for improved interoperability and data usage.
2	Indicator: Result (%) of yearly cross-governmental independent data quality assessment of governmental institutions implementing data quality methods	N/A	15%	30%	Government institutions' used data quality has improved.
I.3	Specific objective: Registers and information systems in the public sector are well managed				
1	Indicator: Share (%) of governmental institutions that have established the necessary roles and procedures	N/A	15%	30%	Role-based management of public digital information systems and procedures for system-owners are established and advanced.

²⁰ All the indicators provided in the e-Government strategy 2023-2027 and its action plan should be considered draft suggestions. The exact list and description of indicators, their measurement methodology, base values and targets will be defined in the Passport of Indicators. Development of the Passport of Indicators is planned to be finalized within 3 months from the strategy approval.

The mapping between the identified problems and this strategic objective and its indicators is provided in the table below:

Prob. #	Problem	Obj. #	Strategic objective	Impact indicator
1	The e-government organization in Kosovo is not sustainable in the long term.	I	e-Government coordination at the strategic and operational levels is implemented	GovTech Enablers Index (GTEI) within the GovTech Maturity Index (GTMI)
	Sub-Problem	Obj. #	Specific objective	Outcome indicator
	Stakeholder roles in the e-government are unclear.	I.1	Stakeholder roles are agreed upon, understood and accepted at the government level	- Readiness of AIS as an executive body to implement central elements of digital government and support institutions of RKS in digitalization. - Central coordination bodies within OPM are established and functionalized.
	The information and data policies are not fully implemented in the public sector.	I.2	Information & data policy is established in the public sector	- Share (%) of governmental institutions who have implemented data and information classification system. - Result (%) of yearly cross-governmental independent data quality assessment of governmental institutions implementing data quality methods.
	A comprehensive understanding of digitalization-related responsibilities in all governmental entities is needed. More e-government know-how, resources and capacity at strategic and implementation levels are required.	I.3	Registers and information systems in the public sector are well managed	- Share (%) of governmental institutions that have established the necessary roles and procedures

6.2 Digital competencies

Digital transformation is about removing outdated processes, services, and legacy technology and planning and building data-based user-centric cyber secure services with modern technologies. For this reason, digital transformation is also tightly linked to human resources and needs a **capacity-building focus** for all those involved in the digital transformation process. Furthermore, to ensure users prefer digital services, digital competencies must rise on every level in the public sector.

The public sector can be an excellent workplace for people who want to innovate and modernize society. However, to do so, they need to be motivated and have learning opportunities. If public officials are confident in using digital services, they can also help citizens to use them. As a result of all these actions, citizens can see the benefit of digital

services as they save time and money

Strategic objective II: Digital competencies in the public sector are sufficient to develop, govern and use public digital services

Specific objectives:

Mechanisms to attract, recruit and keep IT personnel in the public sector are developed and implemented

The professional skills in the public sector are sufficient for driving digital transformation

Public officials have basic digital skills

Outcome: Public sector is a reputable employer and provides digital competencies training for public sector officials to drive digital transformation

The indicators for this strategic objective are listed in the table below:

No.	Strategic and specific objectives and indicators	Baseline value (2023)	Interim target (2025)	Final year target (2027)	Outcome
II.	Strategic objective: Digital competencies in the public sector are sufficient to develop, govern and use public digital services				
1	Indicator: Share (%) of filled positions in the new IT structure in the government.	N/A; Methodology and tools must be developed to be used in all public services	+30%	+60%	Public sector is a reputable employer and provides digital competencies training for public sector officials to drive digital transformation.
II.1	Specific objective: Mechanisms to attract, recruit and keep IT personnel in the public sector are developed and implemented				
1	Indicator: Rate of voluntary turnover in public sector IT personnel.	N/A; baseline to be measured	-5%	-15%	Voluntary turnover decreases among IT personnel.
2	Indicator: The average number of job applications based on the IT category.	N/A; baseline to be measured	TBD	TBD	Increased number of applications for IT jobs.
II.2	Specific objective: The professional skills in the public sector are sufficient for driving digital transformation				
1	Indicator: % of participants from the target group who completed the training.	N/A	100%	100%	The specific target group has obtained the needed professional skills.
II.3	Specific objective: Public officials have basic digital skills				
1	Indicator: The share of participants from the target group who passed the e-Learning training.	N/A	70%	90%	The public official target group has obtained basic digital skills.

The mapping between the identified problems and this strategic objective and its indicators is provided in the table below:

Prob. #	Problem	Obj. #	Strategic objective	Impact indicator
3	Digital competencies in the public sector in Kosovo are outdated or missing:	II	Digital competencies in the public sector are sufficient to develop,	- Share (%) of filled positions in the new IT structure in the government.

			govern and use public digital services	
	Sub-Problem	Obj. #	Specific objective	Outcome indicator
	The public sector is not attractive to IT personnel.	II.1	Specific objective: Mechanisms to attract, recruit and keep IT personnel in the public sector are developed and implemented	- Rate of voluntary turnover in public sector IT personnel. - The average number of job applications based on the IT category.
	Public officials lack basic digital skills to use digital services and advise citizens how to use them.	II.2	Specific objective: The professional skills in the public sector are sufficient for driving digital transformation	- % of participants from the target group who completed the training.
	Public sector officials driving digital transformation (IT specialists) do not have enough professional skills to lead digital transformation.	II.3	Specific objective: Public officials have basic digital skills	- The share of participants from the target group who passed the e-Learning training.

6.3 Interoperability

The interoperability of government systems ensures that valuable information across the government systems is shared to collectively support the delivery of more useful and productive services and the integration of government business processes.

Interoperability makes systems and organisations operate together (inter-operate) and **reduces the administrative burden** on citizens and businesses. A citizen-centered and service-oriented state needs to ensure that different organisations and information systems can work together and exchange information following principles like “**digital by design**” and “**once only**”. Interoperability can be established only if a sufficient overview exists - an overview of information assets, level of digitalization, and data management feed in for well-governed interoperability.

It is important for a citizen-centered and service-oriented state to make sure that different organisations and information systems can work together while understanding their role in public sector digitalization. Therefore, public administrations should agree on a standard scheme to interconnect loosely coupled components and implement the necessary infrastructure.

Digitalization happens evolutionary, and although different components and technical enablers exist, their functionality requires re-alignment to establish good insight into digital government components, functions, stakeholders, and relationships between them. Digitalization is achieved through defining enterprise architecture and interoperability framework.

When the model has been defined for digital government, it is essential to ensure that technical enablers that empower e-services must meet requirements specified by public service providers. In addition to public services, the back-office services of the public sector must also be digitized. Establishing and using these administrative support tools (for example, document management, HR, inventory management, project management, and procurement) will provide good oversight and the ability to plan and govern changes for efficient and effective e-government. In addition, a digital back-office prepares all public sector institutions to improve their services with digital capabilities.

Strategic objective III: "Whole of government" enterprise architecture, supported by standards and technology frameworks, is ensured

Specific objectives:

Government enterprise architecture and interoperability framework are established

Technical enablers in use meet the public sector needs and support digitalisation

Administrative support tools are established and used

Outcome: Public information systems are interoperable and well structured, which ensures good oversight and ability to plan and govern changes for efficient and effective public services empowered by digitalisation

The indicators for this strategic objective are listed in the table below:

No.	Strategic and specific objectives and indicators	Baseline value (2023)	Interim target (2025)	Final year target (2027)	Outcome
III.	Strategic objective: "Whole of government" enterprise architecture, supported by standards and technology frameworks, is ensured				
1	Indicator: percentage of governmental sector systems following the enterprise architecture of the government of Kosovo.	N/A	5%	15%	Government information systems are interoperable and well structured, which ensures good oversight and ability to plan and govern changes for efficient and effective public services empowered by digitalization.
III.1	Specific objective: Government enterprise architecture and interoperability framework are established				
1	Indicator: Share (%) of government institutions information systems compliant with the interoperability framework.	N/A	05%	70%	Government information systems are interoperable and well structured, which ensures good oversight and ability to plan and govern changes for efficient and effective public services empowered by digitalization.
III.2	Specific objective: Technical enablers in use meet the public sector needs and support digitalisation				
1	Indicator: % of governmental institutions that use cloud	baseline measurement	30%	50%	Usage of government cloud services has increased.
2	Indicator: % of government institutions information systems that are connected to Government Gateway	baseline measurement	30%	70%	Usage of the Government Gateway has increased.
3	Indicator: % of government institutions that expose services on eKosova	baseline measurement	30%	70%	Usage of eKosova has increased.
4	Indicator: electronic identity and electronic signature enabled through e-kosova	baseline measurement	Yes	Yes	Usage of government digital identity services has increased.
III.3	Specific objective: Administrative support tools are established and used				
1	Indicator: number of central administrative shared systems used by the government institutions	baseline measurement	50%	70%	Increased number of non-critical information systems using the centrally offered infrastructure.

The mapping between the identified problems and this strategic objective and its indicators is provided in the table below:

Prob. #	Problem	Obj. #	Strategic objective	Impact indicator
4	The "whole of government" architecture is missing in Kosovo:	III	Strategic objective: "Whole of government" enterprise architecture, supported by standards and technology frameworks, is ensured	- Percentage of governmental sector systems following the enterprise architecture of the government of Kosovo.
	Sub-Problem	Obj. #	Specific objective	Outcome indicator
	Government enterprise architecture and interoperability framework are missing or outdated.	III.1	Government enterprise architecture and interoperability framework are established	- Share (%) of government institutions information systems compliant with the interoperability framework.
	The managing of technical enablers of the e-government (for example, digital identity, government gateway, e-Kosova, and data center) is dependent on outside partners. It increases the risk that critical know-how is missing in the public sector.	III.2	Technical enablers in use meet the public sector needs and support digitalization	- % of governmental institutions that use cloud. - % of government institutions information systems that are connected to Government Gateway. - % of government institutions that expose services on eKosova. - Electronic identity and electronic signature enabled through e-kosova.
	-Establishing and using centrally managed administrative support tools in the public sector (for example, document management, HR, inventory management, project management, and procurement) needs additional coordination.	III.3	Administrative support tools are established and used	- Number of central administrative shared systems used by the government institutions.

6.4 Digital services

Citizens and businesses should be able to access public services online to benefit from the advantages of a digital society. These should be available and easily accessed on different devices and platforms, inclusive and user-friendly.

To communicate with the public, the administration should establish **a device and technology-neutral digital information channel**, such as a government portal, operating on different devices and providing online payment options. This information channel should provide both information services and procedural services. A well-functioning and managed digital information channel will transform government services into a single entity and improve the availability of public services. In addition, with constant awareness-raising campaigns and training, citizens become aware of the services and can use them.

Strategic objective IV: Public digital services are user-centric, inclusive and actively used

Specific objectives:

Preconditions are set for digital services in the public sector

Service (re)design framework and good practices in the public sector are developed

Public digital services are actively used

Outcome: Citizens trust digital channels and choose digital services

The indicators for this strategic objective are listed in the table below:

No.	Strategic and specific objectives and indicators	Baseline value (2023)	Interim target (2025)	Final year target (2027)	Outcome
IV.	Strategic objective: Public digital services are user-centric, inclusive and actively used				
1	Indicator: Percentage (%) of central and local services in public administration that have been digitalized.	baseline measurement	40%	65%	Citizens trust digital channels and choose digital services.
2	Indicator: % of cost savings for citizens and businesses.	N/A	TBD	TBD	Increased cost savings.
IV.1	Specific objective: Preconditions are set for digital services in the public sector				
1	Indicator: Rate of digitalization in services related to the core registries.	baseline measurement	50%	70%	Manual procedures in back-office activities for the key services have diminished.
IV.2	Specific objective: Service (re)design framework and good practices in the public sector are developed				
1	Indicator: Percentage of services that are designed using established certain criteria.	baseline measurement	70%	100%	Awareness of the updated service design rules has spread to all relevant stakeholders in the public sector.
IV.3	Specific objective: Public digital services are actively used				
1	Indicator: Rate of satisfaction with digitalized services.	baseline measurement	+30%	+60%	Raised satisfaction with digital services.
2	Indicator: Number of citizens that use the Integrated Service Centre in Prishtina.	baseline measurement	+30%	+60%	Raised usage of ISC.

The mapping between the identified problems and this strategic objective and its indicators is provided in the table below:

Prob. #	Problem	Obj. #	Strategic objective	Impact indicator
5	Public services don't take full advantage of digitalization opportunities	IV	Strategic objective: Public digital services are user-centric, inclusive and actively used	- Percentage (%) of central and local services in public administration that have been digitalized - % of cost savings for citizens and businesses

	Sub-Problem	Obj. #	Specific objective	Outcome indicator
	Digitalization principles (for example "data driven" and "once-only") are only partially recognized and implemented.	IV.1	Preconditions are set for digital services in the public sector	- Rate of digitalization in services related to the core registries
	Process and service (re)design practices in the public sector are not implemented.	IV.2	Service (re)design framework and good practices in the public sector are developed	- Percentage of services that are designed using established certain criteria.
	The uptake of public digital services is low.	IV.3	Public digital services are actively used	Rate of satisfaction with digitalized services
				Number of citizens that use the Integrated Service Centre in Prishtina

6.5 Cybersecurity

The growing cyber threats in the world require public administrations to focus on cybersecurity measures - **it is essential to be aware of the threats posed to digital governance.**

Cybersecurity ensures the protection of individuals, organisations, and the state in cyberspace. Therefore, adequate cybersecurity is crucial for the healthy functioning of digital society. Cybersecurity is a collection of tools, policies, guidelines, risk management approaches, actions, training, best practices, assurances, and technologies used to protect assets' availability, integrity, and confidentiality in connected infrastructures. These assets include connected computing devices, personnel, infrastructure, applications, services, telecommunication systems, and data in the cyber-environment. Cyber protections should consider the entire system and service lifecycle from its design and deployment to its operation, use, and management.

Strategic objective V: Government organisations and systems are resilient to cyber threats

Specific objectives:

Common cybersecurity requirements are defined and implemented

Incident response plans and capacities for government systems are established

Resources have been reallocated for cybersecurity in government organisations & specialised domains

Outcome: Government is more resilient to cyber security attacks

The indicators for this strategic objective are listed in the table below:

No.	Strategic and specific objectives and indicators	Baseline value (2023)	Interim target (2025)	Final year target (2027)	Outcome
V.	Strategic objective: Government organisations and systems are resilient to cyber threats				
1	Indicator: Score of the government cyber security	-1.8 (in 2021)	- 1.0	-0.5	Government is more resilient to cyber security attacks

	capacity index (by Varieties of Democracy)				
V.1	Specific objective: Common cybersecurity requirements are defined and implemented				
1	Indicator: Percentage of government organizations with implemented unified cybersecurity requirements	0%	50%	75%	Govt orgs more aware of necessary cybersecurity requirements to fulfil
2	Indicator: Percentage of government organizations with comprehensive cybersecurity assessments completed	0%	50%	75%	Govt organizations better prepared for cyber incidents
V.2	Specific objective: Incident response plans and capacities for government systems are established				
1	Indicator: percentage of government organizations with cyber incident reporting processes and criteria and crisis response plan	0%	50%	75%	Improved capacity for cyber incident response and mitigation
2	Indicator: percentage of government organizations participated in cyber crisis exercises	0%	50%	75%	Improved capacity for cyber incident response and mitigation
V.3	Specific objective: Resources have been reallocated for cybersecurity in government organizations' & specialized domains				
1	Indicator: percentage of government organizations with a distinctive cybersecurity budget	0%	50%	75%	Improved materiel resources for cybersecurity
2	Indicator: percentage of government organizations with CISO appointed	0%	50%	75%	Improved human resources for cybersecurity

The mapping between the identified problems and this strategic objective and its indicators is provided in the table below:

Prob. #	Problem	Obj. #	Strategic objective	Impact indicator
6	The public IT infrastructure is vulnerable to external cyber-attacks and technology risks	V	Government organizations and systems are resilient to cyber threats	- Score of the government cyber security capacity index (by Varieties of Democracy).
	Sub-Problem	Obj. #	Specific objective	Outcome indicator
	-The government lacks a current cyber threat and risk overview concerning its infrastructure and services. Government agencies are missing procedures to assess cyber risks concerning their digital infrastructure and the provision of governmental functions and services. -There is a lack of consistent cybersecurity requirements in the public sector, and security aspects have not been planned in parallel with infrastructure architecture. -No "security by design" principle is applied to digital infrastructure and service design.	V.1	Common cybersecurity requirements are defined and implemented	Percentage of government organizations with implemented unified cybersecurity requirements Percentage of government organizations with comprehensive cybersecurity assessments completed
	Cybersecurity incident prevention and response plans, processes and capacities for government systems are not set.	V.2	Incident response plans and capacities for government systems are established	- Percentage of government organizations with cyber incident reporting processes and criteria and crisis response plan. - Percentage of government organizations participated in cyber crisis exercises.
		V.3	Resources have been reallocated for	- Percentage of government organizations

	There is a shortage of funding dedicated to cybersecurity and skilled cybersecurity experts.		cybersecurity in government organizations & specialized domains	with a distinctive cybersecurity budget. - Percentage of government organizations with CISO appointed.
--	--	--	---	---

6.6 Innovation

Creating a **culture of innovation** in the public sector can directly contribute to a country's economic growth and prosperity by reducing the cost of delivering public services and managing risks from emerging technologies. In addition, a push towards innovation in the public sector helps promote openness in society by working closely with different stakeholders - academia and the private sector - nationally and internationally. Innovation helps to drive technology opportunities into the public sector.

Innovation in the public sector brings benefits in several ways, including adopting new technologies and processes, learning from pilot programs and other initiatives aimed at improving services and efficiency, and the overall impact on the community. Ultimately, the goal of measuring innovation in the public sector is to identify and support successful efforts in driving positive change and improving the lives of citizens (for example, for the better customer experience of digital services).

Strategic objective VI: e-Government innovation is supported by public-private partnerships at the national and international level

Specific objectives:

Establish a cooperation format focusing mainly on research-intensive activities

Foster broader innovation within public administration and pilot projects using emerging technologies

International cooperation in the field of e-Government is coordinated and effective

Outcome: Emerging technologies (blockchain, AI, etc) are piloted for futureproofing e-Government and public digital services

The indicators for this strategic objective are listed in the table below:

No.	Strategic and specific objectives and indicators	Baseline value (2023)	Interim target (2025)	Final year target (2027)	Outcome
VI.	Strategic objective: e-Government innovation is supported by public-private partnerships at the national and international level				
1	Indicator: the number of innovative projects developed by joint national and international partnerships	N/A, methodology must be developed	+15%	+30%	Emerging technologies (e.g., blockchain, AI, IoT) are piloted for futureproofing e-Government and public digital services
VI.1	Specific objective: Establish a cooperation format focusing mainly on research-intensive activities				
1	Indicator: Number of cooperation projects with academia	Baseline value (2023)	+10	+20	Both the public sector and academia benefit from the raised number of cooperation projects in the field of e-Government

VI.2	Specific objective: Foster broader innovation within public administration and pilot projects using emerging technologies				
1	Indicator: Innovation cell in the public sector created	No	Yes	Yes	Innovation capacity in the public sector increased
VI.3	Specific objective: International cooperation in the field of e-Government is coordinated and effective				
1	Indicator: Number of e-gov bodies memberships	To be measured (baseline) and depends on the methodology	+20%	+50%	Increased number of memberships

The mapping between the identified problems and this strategic objective and its indicators is provided in the table below:

Prob. #	Problem	Obj. #	Strategic objective	Impact indicator
2	Innovation is missing a coordinated approach in the public sector.	VI	e-Government innovation is supported by public-private partnerships at the national and international level	- The number of innovative projects developed by joint national and international partnerships.
	Sub-Problem	Obj. #	Specific objective	Outcome indicator
	Cooperation between the public sector, private sector, and academia in innovation is irregular (academia has a minimal role in the digitalization process, and the private sector is simply a service provider).	VI.1	Establish a cooperation format focusing mainly on research-intensive activities	- Number of cooperation projects with academia.
	Emerging technologies (AI, blockchain, internet of things) are not tested in the public sector.	VI.2	Foster broader innovation within public administration and pilot projects using emerging technologies.	- Innovation cell in the public sector created
	Opportunities for international cooperation in innovation are not used sufficiently.	VI.3	International cooperation in the field of e-Government is coordinated and effective.	- Number of e-gov bodies memberships.

7. Implementation, monitoring and reporting arrangements

There needs to be a straightforward coordination process and division of responsibilities for implementing the e-Government Strategy and action plan.

Leading bodies

Office of the Prime Minister (OPM) is primarily responsible for setting the vision for the e-Government Strategy and leading the consultation process with stakeholders. For this, the **Digital Transformation Unit (DTU)** within the Office of the Prime Minister has been established. Its purpose is to support the Office of the Prime Minister (OPM) in the coordination of digital government initiatives led by ministries, departments, and agencies (MDAs). In addition, DTU will coordinate the implementation, monitoring, evaluation and amending of the e-Government Strategy and its action plan.

A Digital Transformation Commission (DTC) is established for a high-level overview of digitalization within the government. Chaired by the Prime Minister, the commission's responsibility is to review and approve strategic priorities and new policy initiatives and financing of the government in the field of ICT and digitalization. It reviews the implementation of relevant strategies and provides strategic direction and inter-institutional

coordination in important projects. Considering interrelation of the e-Government strategy with the PAR strategy, the DTC will align and coordinate its activities with the PAR Council.

The DTC can establish working groups to deal with specific issues and fulfil the above-mentioned responsibilities. **A technical committee for digital transformation is established by the DTC** with the primary responsibility to implement and complement the coordination process of digitalization projects in the public sector.

Executive bodies

Agency for Information Society (AIS) is an executive agency within the Ministry of Internal affairs. Its duties include coordinating technical policies related to ICT in the institutions of the Republic of Kosovo, managing and supervising the implementation of the projects related to ICT in institutions, supporting the development of ICT infrastructure, expansion of internet services, accumulation, administration, dissemination, and storage of data in the State Data Electronic Centre and so on.

An **innovation cell** is planned to be established within AIS that could be supported by outside sourcing (development partners and donations). It will mainly look into using the newest technology to be applied within the government, for example, cryptography, artificial intelligence, and big data.

Kosovo Institute for Public Administration (KIPA) is a governmental institution, currently within the Ministry of Internal Affairs, through the merger with the Ministry of Public Administration. It was established for civil servants training and Kosovo civil service (KCS) sustainability increase to develop and enhance the quality of civil services provided by the public administration in the country. KIPA training activity is based on short-term courses and long-term training programs focused on increasing public administration employees' knowledge and skills in management, administration, legislation, human resources, budget and finance, information technology, local government, and the European Union. KIPA aims to develop into a modern training center, which will be the generator of the new professional, and intellectual capacities that help create a modern and functional public administration to build a civil service that will be efficient, accountable and serve the citizens.

Besides the organisations and bodies mentioned above, more stakeholders in the public sector engage with the digitalization of the public sector. These include the Ministry of Finance, the Ministry of Economic Development, the Ministry of Trade and Industry, the Ministry of Internal Affairs and other ministries depending on the more specific aspects of digitalization that are addressed.

The e-Government Strategy covers 2023-2027, with the action plan setting budgetary implications and actions until 2025 with a three-year perspective. Therefore, the responsible body for implementing the strategy will have the opportunity to make any needed adjustments for the last two years based on the regular review of the actions.

7.1 Risk Assessment and Mitigation

The successful implementation of the e-government strategy requires careful consideration of potential risks and the development of effective mitigation measures. This section aims to identify and evaluate the potential risks and vulnerabilities associated with each specific and strategic objective.

Risk assessment provides a structured approach to systematically identify, analyze, and prioritize potential threats and vulnerabilities. By conducting a comprehensive risk assessment, the e-government strategy can take into account the evolving threat landscape and ensure the effective allocation of resources towards mitigation efforts.

The table below outlines the initial assessment of risks, their likelihood and impact and the mitigation measures. Risk Assessment and Mitigation of the e-government strategy requires continuous monitoring and evaluation. The threat landscape is ever-changing, and new risks may emerge over time, so regular monitoring and evaluation allow for the detection of emerging risks, the adaptation of mitigation measures, and best practices to address potential vulnerabilities.

Strategic objective	Specific objective	Risks	Impact & Likelihood	Risk mitigation measures
I.The e-government organization in Kosovo is not sustainable in the long term.	I.1.Stakeholder roles are agreed upon, understood and accepted at the government level	-Stakeholder roles in the e-government are unclear and there are overlapping areas - Strategic coordination efforts are not being followed by certain institutions	High / Moderate	- Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	I.2.Information & data policy is established in the public sector	- Established data policy is not being implemented in some of the institutions due to a lack of financial resources - Established data policy is not being implemented in some of the institutions due to a lack of capacities - Established data policy is not being implemented in some of the institutions due to low prioritization within those institutions	High / High	- Awareness-raising, communication and training activities are carried out for all institutions - Data Governance Body works closely with all the institutions in implementing data policy, focusing in particular on institutions that lack internal resources - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	I.3.Registers and information systems in the public sector are well managed	- Governance of registers and information systems can not be implemented due to lack of resources	High / Moderate	- Awareness-raising, communication and training activities are carried out for all institutions - AIS and DTU work closely with all the institutions in implementing governance principles for registries and information system, focusing in particular on institutions that lack internal resources - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
II.Digital competencies in the public sector are sufficient to develop, govern and use public digital services	II.1.Mechanisms to attract, recruit and keep IT personnel in the public sector are developed and implemented.	- Limited budget and resources challenge the implementation of mechanisms - The implemented mechanisms are not sufficient to attract and retain IT professionals - Slow and bureaucratic recruitment processes hinder recruiting of professionals	High / High	- Mechanisms are evaluated and reviewed continuously - Issues are escalated to the digital transformation commission if needed

	II.2. The professional skills in the public sector are sufficient for driving digital transformation.	<ul style="list-style-type: none"> - Limited budget hinders the implementation of the capacity-building framework and training programs - Capacity building framework does not address the needs of digital transformation 	High / Moderate	<ul style="list-style-type: none"> - Capacity-building framework is evaluated and reviewed continuously - Development partners are engaged to support the implementation of the capacity-building framework - Issues are escalated to the digital transformation commission if needed
	II.3. Public officials have basic digital skills.	<ul style="list-style-type: none"> - Limited budget hinders the implementation of the capacity-building framework and training programs - Capacity building framework does not address the needs of digital transformation 	High / Moderate	<ul style="list-style-type: none"> - Capacity-building framework is evaluated and reviewed continuously - Development partners are engaged to support the implementation of the capacity-building framework - Issues are escalated to the digital transformation commission if needed
III. "Whole of government" enterprise architecture, supported by standards and technology frameworks, is ensured	III.1. Government enterprise architecture and interoperability framework are established.	<ul style="list-style-type: none"> - Established enterprise architecture and interoperability framework are not being implemented in all the institutions due to a lack of financial resources - Established enterprise architecture and interoperability framework are not being implemented in all the institutions due to a lack of capacities - Established enterprise architecture and interoperability framework are not being implemented in all the institutions due to low prioritization within the institutions - Established enterprise architecture and interoperability framework can not be implemented in legacy systems 	High / High	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and DTU work closely with all the institutions in implementing enterprise architecture and interoperability framework, focusing in particular on institutions that lack internal resources - Development partners are engaged to support the implementation of enterprise architecture and interoperability framework - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	III.2. Technical enablers in use meet the public sector needs and support digitalization.	<ul style="list-style-type: none"> - Technical enablers are not being used by all the institutions due to a lack of financial resources to make the necessary integrations - Technical enablers are not being used by all the institutions due to a lack of capacities in the institutions to make the necessary integrations - Technical enablers are not being used by all the institutions due to low prioritization within the institutions - Technical enablers are not being used because integration is not possible with legacy systems 	High / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and DTU work closely with all the institutions in the integration and usage of technical enablers, focusing in particular on institutions that lack internal resources - Development partners are engaged to support the usage of technical enablers - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed

	<p>III.3. Administrative support tools are established and used.</p>	<ul style="list-style-type: none"> - Shared platforms are not being used by all the institutions due to a lack of capacities in the institutions - Shared platforms are not being used by all the institutions due to low prioritization within the institutions - Institutions prefer using their own platforms rather than the shared platforms 	<p>Moderate / Moderate</p>	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and DTU work closely with all the institutions in the integration and usage of shared platforms, focusing in particular on institutions that lack internal resources - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
<p>IV. Public digital services are user-centric, inclusive and actively used</p>	<p>IV.1. Preconditions are set for digital services in the public sector.</p>	<ul style="list-style-type: none"> - Core registers and fully digital back-office service processes are not being implemented by all the institutions due to a lack of financial resources - Fully digital back-office service processes are not being implemented by all the institutions due to a lack of capacities in the institutions - Fully digital back-office service processes are not being implemented by all the institutions due to low prioritization within the institutions 	<p>Moderate / Moderate</p>	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and DTU work closely with all the institutions in the implementation of missing core registers and fully digital back-office service processes, focusing in particular on institutions that lack internal resources - Development partners are engaged to support the implementation of missing core registers and fully digital back-office service processes - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	<p>IV.2. Service (re)design framework and good practices in the public sector are developed.</p>	<ul style="list-style-type: none"> - Service design frameworks are not being implemented by all the institutions due to a lack of financial resources - Service design frameworks are not being implemented by all the institutions due to a lack of capacities in the institutions - Service design frameworks are not being implemented by all the institutions due to low prioritization within the institutions 	<p>High / Moderate</p>	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and DTU work closely with all the institutions in the implementation of service design frameworks, focusing in particular on institutions that lack internal resources - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed

	IV.3. Public digital services are actively used.	<ul style="list-style-type: none"> - Digital service usage is low - Inadequate user support and assistance - Inconsistent service quality - Insufficient financial resources to implement integrated service centers 	Moderate / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - Awareness-raising, communication and information activities are carried out for citizens - Service quality and Contact center services are continuously evaluated and reviewed - Development partners are engaged to support the implementation of integrated service centers - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
V. Government organisations and systems are resilient to cyber threads	V.1. Common cybersecurity requirements are defined and implemented.	<ul style="list-style-type: none"> - Cybersecurity requirements are not being implemented by all the institutions due to a lack of financial resources - Cybersecurity requirements are not being implemented by all the institutions due to a lack of capacities in the institutions - Cybersecurity requirements are not being implemented by all the institutions due to low prioritization within the institutions 	High / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and CSA work closely with all the institutions in the implementation of cybersecurity requirements, focusing in particular on institutions that lack internal resources - Development partners are engaged to support the implementation of cybersecurity standards - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	V.2. Incident response plans and capacities for government systems are established.	<ul style="list-style-type: none"> - Cyber incident management plans are not being implemented by all the institutions due to a lack of financial resources - Cyber incident management plans are not being implemented by all the institutions due to a lack of capacities in the institutions - Cyber incident management plans are not being implemented by all the institutions due to low prioritization within the institutions 	High / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - AIS and CSA work closely with all the institutions in the implementation of Cyber incident management plans, focusing in particular on institutions that lack internal resources - Development partners are engaged to support the implementation of Cyber incident management plans - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed

	V.3. Resources have been reallocated for cybersecurity in government organizations & specialised domains	<ul style="list-style-type: none"> - Insufficient budget allocated to Cybersecurity within government institutions - Insufficient human resources allocated to Cybersecurity within government institutions - Cybersecurity is given a low priority in government institutions 	High / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - Development partners are engaged to support cybersecurity in the government institutions - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
VI. e-Government innovation is supported by public-private partnerships at the national and international level	VI.1. Establish a cooperation format focusing mainly on research-intensive activities	<ul style="list-style-type: none"> - Insufficient budget allocated to cooperation in research-intensive activities within government institutions - Insufficient human resources allocated to cooperation in research-intensive activities within government institutions - Lack of capacities within government institutions to engage in cooperation in research-intensive activities - Lack of interest from academic institutions to engage in cooperation in research-intensive activities with government institutions - Research-intensive activities are given a low priority in government institutions 	Moderate / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - Awareness-raising, communication and outreach activities are carried out with academic institutions - Development partners are engaged to support cooperation in research-intensive activities in the government institutions - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	VI.2. Foster broader innovation within public administration and pilot projects using emerging technologies.	<ul style="list-style-type: none"> - Insufficient budget allocated to innovation within government institutions - Insufficient human resources allocated to innovation within government institutions - Lack of capacities within government institutions to engage in innovation - Innovation is given a low priority in government institutions - Difficulty in maintaining sustainability of innovation initiatives 	Moderate / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for all institutions - Innovation projects are evaluated and reviewed continuously - Development partners are engaged to support innovation in the government institutions - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed
	VI.3. International cooperation in the field of e-Government is coordinated and effective.	<ul style="list-style-type: none"> - Insufficient budget allocated to International cooperation in the field of e-Government - Insufficient human resources allocated to International cooperation in the field of e-Government - Lack of capacities within government institutions to engage in International cooperation in the field of e-Government - International cooperation in the field of e-Government is given a low priority in government institutions - Political issues hinder membership in international bodies and indexes 	Moderate / Moderate	<ul style="list-style-type: none"> - Awareness-raising, communication and training activities are carried out for relevant institutions - Development partners and friendly countries are engaged to support innovation international cooperation and membership in international bodies and indexes - Issues are addressed in the technical committee for digital transformation - Issues are escalated to the digital transformation commission if needed

7.2 Monitoring and Reporting

Monitoring should be understood as an ongoing process that aims to provide information to DTC and stakeholders on progress towards achieving strategic objectives. Reporting is an integral part of monitoring, with the aim of providing essential information in a systematic and timely manner at regular intervals.

The e-Government Strategy monitoring will be done at two levels:

1. **Monitoring of activities** by which it is determined whether the activities have been carried out at the right time and in the right quality. The main tool for monitoring activities is the action plan, which sets out the implementation calendar for each activity. Whenever different activities deviate from their schedule, it should be checked whether there are consequences for other activities and resources. The reasons for such deviations should be analyzed, while the implementation plan should be corrected in terms of time. If the delay of activities affects the schedule of implementation of other activities, then DTU should respond by adapting the plans and redistributing existing resources. Resources must be available at the right time, and be of appropriate quality and quantity. The time required to secure resources is often underestimated. This has to do with human and physical resources. To ensure the liquidity of the implementation, the amount of funds available should be constantly monitored, including the situation in the public budget, etc. If other partners contribute to the financing of the e-Government Strategy activities, we must ensure that they meet the financial requirements. The e-Government Strategy management should ensure that activity planning reflects the time required for resource mobilization.
2. **Monitoring of objectives** is based on their indicators. The indicators have the base value, the intermediate target and the target for the last year in accordance with the period of the strategic document. For monitoring to be effective, intermediate goals must be set on an annual basis, becoming part of the annual work plan. The conclusion is then drawn by comparing the present value with the intended purpose. However, the exact definitions and methodologies for calculating the indicators have not been finalized before the approval of this strategy. So, all the indicators provided in the e-Government strategy 2023-2027 and its action plan should be considered draft suggestions. The exact list and description of indicators, their measurement methodology, baseline values and targets will be defined in the Passport of Indicators, which shall be finalized within 3 months from the approval of this strategy.

Good monitoring means the continuous collection of data related to the e-Government Strategy, whether through field visits, meetings with relevant parties or analysis of available documentation and reports.

DTU will collect data from AIS and all other stakeholders and compile 2 reports which shall be sent to the Digital Transformation Commission for approval:

- Semi-annual report on the implementation of the e-Government Strategy action plan
- Annual report on the implementation of the e-Government Strategy.

1. **The semi-annual report** is prepared to follow the implementation of the action plan. It is prepared by the end of the month following the reporting period. The first half-yearly

report covers the first 6 months of the year, while the second half-yearly report covers the period of 12 months. The report focuses on the completion of actions as set out in the action plan, the reasons for the delays, the risks associated with implementing the actions and the next steps.

2. **The annual report is** prepared to give an account on the implementation of the strategic document. It is prepared by the end of the first quarter of the following year. The focus of the annual report is as follows:
 - Achieving the objectives compared to the objectives of the indicator (at least for the last two years);
 - Timely completion of actions taken;
 - Use of financial resources;
 - The main obstacles in implementation; and
 - Improvement measures.

7.3 Evaluation

Evaluation is the most detailed process of analyzing the success of strategy implementation, identifying what went wrong, examining the reasons behind what went wrong, and then re-adapting the strategic direction accordingly. The design and execution of the evaluation phase is usually independent of the regular monitoring and reporting framework. Evaluation involves compiling evaluation questions, collecting and analyzing data to obtain answers to these questions, and gathering evidence to formulate conclusions and recommendations.

DTU will seek the assistance of development partners to conduct three external evaluations of e-Government Strategy, after the end of the second, fourth and fifth year of the Government Strategy. The dimensions of the estimates will be as follows:

- 1) **Relevance** - compliance of the goals and objectives of the program with the needs of citizens and the priorities of the Government;
- 2) **Effectiveness** - matching the achieved results of the strategy with the planned results as well as the needs of direct and indirect beneficiaries;
- 3) **Efficiency** - achieving results with the lowest costs (the ratio of results to costs (resources) required or used to achieve them, must be determined);
- 4) **Implementation** - the quality of the implementation process and structures;
- 5) **Impact** - intentional and unintentional influences;
- 6) **Sustainability** - long-term results and impacts on strategy.

An important source of information for such evaluations will be the semi-annual and annual progress reports produced by DTU.

8. Budgetary impact of strategy implementation

The accompanying action plan for the implementation of the strategy has been composed for the period from 2023 to 2025. The action plan includes a detailed budget for this period. The budget for the following period 2026-2027 is an estimated one.

The total amount for the strategy implementation is estimated to EUR 48,463,625 in total, of which EUR 26,996,625 (55.7%) is State Budget and the World Bank loan, while EUR 21,467,000 (44.3%) is Donor Budget. The budget gap is EUR 14,075,000.

The following table summarizes the funding needs for the whole period of the strategy broken down by strategic objectives and funding source.

e-Government Strategy budget by strategic objectives		Budget in EUR (€)			
		Action plan period 2023-2025	2026-2027	Total (state/donor)	Total (€)
Strategic objective 1	State budget	1,664,375	1,439,750	3,104,125	5,460,625
	Donor budget	1,362,500	994,000	2,356,500	
Strategic objective 2	State budget	220,000	772,500	992,500	4,162,500
	Donor budget	1,870,000	1,300,000	3,170,000	
Strategic objective 3	State budget	10,441,250	3,693,750	14,135,000	23,603,000
	Donor budget	2,568,000	6,900,000	9,468,000	
Strategic objective 4	State budget	2,185,000	3,232,500	5,417,500	6,460,000
	Donor budget	402,500	640,000	1,042,500	
Strategic objective 5	State budget	720,000	1,920,000	2,640,000	6,450,000
	Donor budget	1,285,000	2,525,000	3,810,000	
Strategic objective 6	State budget	336,250	371,250	707,500	2,327,500
	Donor budget	910,000	710,000	1,620,000	
Total (€)					
Capital expenditures		13,658,750	14,956,250	28,615,000	48,463,625
Recurrent expenditures		10,306,125	9,542,500	19,848,625	

Funding sources

Two sources will secure funding for the activities:

1. State Budget including the World Bank loan
2. Donors or development partners:
 - USAID
 - World Bank grants
 - GIZ
 - IPA and other EU funds
 - Western Balkan Investment Framework (WBIF)
 - UNDP
 - IFC
 - other donors and partners

9. Appendix: Action plan