

e-Governance Academy Yearbook 2023/2024

## Unlocking digital success

#### Organisers:





Republic of Estonia Ministry of Foreign Affairs







# Unlocking Digital Success

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e-Governance Academy Yearbook 2023/2024

## Unlocking Digital Success

© e-Governance Academy 2024 Chief editor and project manager : Anu Vahtra-Hellat Editor: Liis Linn Authors: Riina Kallas, Marit Lani, Elsa Neeme, Arvo Ott, Birgit Podelsky, Piret Saartee, Milan Sekuloski, Heiko Vainsalu, Anton Yermakov, Annela Kiirats, Tõnis Mäe, Kristina Mänd, Federico Plantera, Radu Serrano Proofreading: Refiner Design: Dada AD Photos: eGA, Egert Kamenik, Oleg Mindru, Marko Mumm, Raigo Pajula, Adobe Stock Cover photo: Argo Argel Illustrations: Karel Rahu, Kuulo Vahter

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# Increasing the prosperity and openness of societies

The e-Governance Academy (eGA) is a centre of excellence for increasing the prosperity and openness of societies through digital transformation.

Driven by our mission, eGA experts have, since 2002, worked with more than 290 organisations and 143 countries around the world to build successful digital societies that improve their citizens' lives, strengthen their economies and deliver transparent, democratic and effective public administrations.

> eGA has a subsidiary: eGA for the Caribbean Ltd (EGA4C)

ISO 9001 BUREAU VERITAS Certification

eGA's management system for project management, study visits and consulting services has been independently certified to the ISO 9001:2015 standard.



#### **Trusted partner**

eGA has completed the European ora Commission Pillar Assessment and US. is now able to implement largescale digital projects supported by oth the European Union in the fields of with smart governance, cybersecurity har and e-democracy.

eGA has successfully collaborated with donors such as USAID, the World Bank, UNDP, SIDA, EBRD, ESTDEV and many others. eGA also works together with ENISA and GFCE to enhance countries' cybersecurity.

# eGA at a glance

## DT4UA

the largest project by activities and funding, which totals 17,4 M euros

#### The Turks and Caicos

the farthest undertaking

## Ukraine

the most supported country with three running projects

# 19 M

euros in turnover

## 9,900

**government leaders** have participated in our training programmes from 2002–2023

## 26,000

**downloads** of Digital Government podcast episodes since 2020

547

**participants** from 94 countries at the e-Governance Conference in Tallinn days of consultations onsite by 40 eGA experts in 2023

904

290

**partner organisations** eGA has collaborated with since 2003

## 116

**procurements** conducted for a total of 23,5 M euros in 2023

40

**study visits** and e-courses in 2023 for 882 participants

### 98

employees working in Estonia, Chile, Kyrgyzstan, Moldova, Portugal, Serbia, the United Kingdom and Ukraine

**5** Competence Centres created to assist governments with digital transformation: Cybersecurity, Data and Services, Digital Architecture, Infrastructure and Solutions, and Governance and Engagement 50

**projects** implemented in 30 countries in 2023

# 3.0

the National Cyber Security Index (NCSI) was relaunched with its updated methodology

# Unlocking digital success

Digital services help significantly reduce corruption and red tape in Ukraine.

Hannes Astok



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#### Hannes Astok

Executive Director of the e-Governance Academy



By relying on eGA's 20 years of experience and international expertise many government organisations have found the keys to unlocking digital success for their society. In 2023, the world did not become a better place to live. Russia's aggression against Ukraine continued and the war in Gaza broke out. The world economy showed signs of cooling and the climate showed signs of warming. In these trying times, unlocking digital success transformed from an aspiration into a necessity to overcome the challenges we face.

Despite the challenges, eGA team remained committed to working with government organisations to build more open digital societies for everyone, everywhere. By relying on eGA's 20 years of experience and international expertise many government organisations have found the keys to unlocking digital success for their society.

In 2023, our focus was on Ukraine. The eGA team takes the war in Ukraine and our support for the country very personally because 31 members of our team live and work in Ukraine. In 2023, with the support of the European Union, eGA team contributed 9 million euros towards cyber defence and the development of building a digital society. These efforts are especially important during wartime. While paper-based data and documents may have been destroyed during the war, properly recorded and stored digital data ensure the functioning of the Ukrainian state and services. Digital developments enable both citizens living in Ukraine and those who live abroad to access services through digital channels. In addition, digital services help significantly reduce corruption and red tape in Ukraine. A notable achievement is also Ukraine's digital signature as the first third-country digital signature recognised by the European Union, thus deepening Ukraine's integration with the European Union.

Hannes Astok

Also, **Moldova** has chosen a clear course to join the European Union. The eGA team is actively strengthening Moldova's cybersecurity and resilience with the support of the European Union to facilitate the journey of integration.

The e-Governance Academy places significant emphasis on the global importance of **digital engagement**. We believe that digitally empowered people are just as important as digitised government services. The project DRIVE -Digital Research and Impact for Vulnerable E-citizens, implemented in Ukraine and Georgia with financing from Luminate, is a pioneer in the design and implementation of new digital inclusion methodologies. The eGA intends to use the same methodology in various other countries in the near future.

Within **Team Europe**, together with France, Spain and Germany, eGA experts are promoting the European Union's digital dialogue with countries in **Latin America and the Caribbean**. We are proud that Carlos Vargas is our first employee on the American continent.

Cooperation with African countries is rapidly gaining momentum. In 2023, our experts collaborated with **Egypt, Togo, Djibouti, Uganda, Zambia, Madagascar, and Namibia**, paving the way for future vigorous cooperation. A good example is the collaboration with the Government of Madagascar, aimed at improving data exchange for public service development.

The Western Balkans countries are the focus of European Union cooperation in cybersecurity. This cooperation also engages the eGA cyber experts and will continue in 2024. The highlight in the region was the cyber exercise involving three countries - Albania, North Macedonia, and Montenegro - in Tirana, which was visited by President of Estonian Alar Karis and President of Albanian Bajram Begaj. Furthermore, the e-Governance Academy continues to support the digital transformation of Kosovo so that the institutions of our partner become stronger and more capable.

A two-year European Union twinning project in **Kyrgyzstan** with Piemonte CSI, Italy, and HAUS, Finland, was also accomplished. This project enabled Kyrgyzstan to make a long step forward in implementing e-government solutions and services, enhancing digital skills, but also introducing its first data protection activities.

The economic results of the e-Governance Academy in 2023 were excellent. Our turnover increased from 17 million to 19 million euros reflecting our growing infuence and reach. Additionally, our team expanded from 62 to 93, indicating our growing impact and scope of activities.

Such growth requires changes in the organisation. Starting from July 2023, eGA introduced a new leadership model that focuses on growing the competence of experts and developing the e-Governance Academy as a globally recognised employer.

#### Looking to 2024, we believe that better times are ahead.

#### Hannes Astok

As of February 1, 2024, Dr. **Arvo Ott**, a longterm member of the Management Board of the e-Governance Academy, will resign from the Management Board, and he will continue to work as a senior expert. We thank Arvo for his 19 years of contribution to the development of the e-Governance Academy. Arvo's work as manager will be taken over by **Ingrid Toonekurg**, who has long-term international IT business experience.

Looking to 2024, we believe that better times are ahead. eGA continues digital transformation cooperation in almost every continent. New partners await us in Georgia, Ukraine, and Madagascar, to name a few. These countries are eager to collaborate with eGA, united by the common desire to unlock the digital challenges and create a better world for everyone.

But most of all, we hope that the year 2024 will bring Ukraine a complete victory over the aggressor. And peace. Слава Україні!

# Highlights of the year 2023



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## Start of the largest support project of Ukraine's digital transformation

The European Union (EU) supported project Digital Transformation for Ukraine (DT4UA) continues to improve the efficiency and security of public service delivery and their access to citizens and businesses in Ukraine, provides rapid response to the needs caused by the war, and empowers daily governance. eGA leads the implementation of a total budget of 17,4 M euros. The eGA team is excited to continue its joint efforts with the European Union and the Ministry of Digital Transformation of Ukraine to make Ukraine one of the most digitised societies in the world and help Ukrainian society remain functional in the face of the full extent of Russian aggression. eGA has been managing the EU-supported digital transformation projects in Ukraine since 2016, with an overall budget of over 51 M euros.



Photo: Hannes Astok, Executive Director of e-Governance Academy, handing the prize over to Yevhenii Gorbachov, Head of Diia Company, at the e-Governance Conference networking event.

#### The Partner of the Year 2023 is the Ministry of Digital Transformation of Ukraine

The e-Governance Academy's award for Partner of the Year 2023 went to the Ministry of Digital Transformation of Ukraine for its excellent collaboration with respect to developing a Ukrainian digital signature that is recognised in the EU, paving the way for Ukraine to be the first non-EU country to join the EU Digital Single Market. At the beginning of 2023, Ukraine became the first non-EU country to have its trust services, that is, e-signatures and seals, fully meet EU standards and be recognised by the European Union. This was accomplished – despite the challenges caused by the war – through close collaboration between the Ministry of Digital Transformation, the local State Enterprises, the European Commission and the e-Governance Academy's experts from the EU4DigitalUA project team.



#### The e-Governance Conference set a new record!

Over the last nine years, the e-Governance Conference has become the go-to meeting place for representatives of transforming countries, Estonian e-government developers and international donors. In 2023. the conference set a new record by hosting 547 participants from 94 countries in Tallinn. The 9th e-Governance Conference, Digital Innovation as Catalyst for Social Change, focused on how to implement digital innovations more efficiently, prevent digital vulnerability and be prepared for the increased use of artificial intelligence in the public sector. The conference showcased the digital transformation processes and lessons of 16 countries and regions. The conference was held physically in Tallinn, Estonia, and online at egovconference.ee



#### The Tallinn Summer School of Cyber Diplomacy brought together participants from 43 countries

The week-long Tallinn Summer School of Cyber Diplomacy hosted 53 cyber diplomats from 43 countries. Cyber diplomats gathered together to learn from 40 fascinating speakers and discuss how to uphold a free, open, safe and secure cyberspace. The event was funded and co-organised by the EU Directorate-General for International Partnerships (INTPA), the Ministry of Foreign Affairs (MFA), the e-Governance Academy (eGA), and the Estonian Center for International Development (ESTDEV).



#### The Presidents of Estonia and Albania observed a Cybersecurity Exercise

The President of Albania, Bajram Begaj and the President of Estonia, Alar Karis, observed the live fire cyber drill exercise as part of President Karis's official working visit to Albania in June. The exercise was organised by eGA and Cybexer Technologies within the EU-funded Rapid Response Project to improve cyber resilience in the Western Balkans, which focuses on enhancing the abilities of Albania, Montenegro and North Macedonia to respond to cyberattacks.





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# **NCS** national cyber security index



Moldova established the National Cybersecurity Agency with the help of e-Governance Academy expertise

In 2023, eGA's experts collaborated closely to analyse and shape the necessary legal framework for Moldova's National Cybersecurity Agency. The collaboration between eGA and the National Agency for Cyber Security is positioned to significantly enhance Moldova's ability to counter cyber threats and ensure a safer digital landscape for its citizens. The newly formed Agency will be responsible for implementing state policies on cybersecurity, acting as CERT-MD, leading and managing international collaboration, and contributing to increasing citizens' awareness and education in cybersecurity.

## Re-launch of the NCSI

The National Cyber Security Index (NCSI) re-launched its updated methodology, NCSI 3.0. To keep up with the evolving best practices in cybersecurity, the NCSI's methodology was upgraded with 11 new indicators, a new structure, and a detailed explanation for all the components of the NCSI. "The launch of NCSI 3.0 marks a significant step in our ongoing efforts to increase global digital safety. We encourage nations and cybersecurity professionals to adopt this updated index to strengthen their cyber defences," said Merle Maigre, Head of the Cybersecurity Competence Center at the eGA.

#### **Eight locations**

As of the end of 2023, eGA employees are working in eight countries around the world to assist government organisations in increasing their societies' prosperity and openness through digital transformation. eGA employees can be met in Estonia, Ukraine, Kyrgyzstan, Mexico, Moldova, Portugal, Serbia and the United Kingdom.

## **Publications**



By Peeter Vihma

Purchase your copy to find insights and inspiration for building the future of your country! Find out more: https://ega.ee/publications/

Author: Peeter Vihma

#### Twenty years of building digital societies: Thinking about the past and future of digital transformation

This book is a roadmap for future digital governance, including practical tips and lessons accumulated by eGA experts over 20 years of building digital government in Estonia and championing digital transformation in more than 140 countries.

For politicians, public servants and experts going through digital transformation, this book provides insight into the systematic approach that eGA advocates and practices. Twenty case studies from Estonia to Ukraine to Tonga illustrate how it has been applied. The book represents four cornerstones of the eGA approach:

- Think big: Understand how systemic change in digital transformation goes beyond just technology and services
- Think sustainable: Learn about the importance of building internal capacities for longterm digital transformation
- Think people: Discover the impact of digitalisation on citizens and how it can foster or hinder societal equality
- Think Secure: Grasp the critical need for security in digital solutions, especially in times of global uncertainty.



#### Montenegro Elections Cybersecurity Report

Montenegro has suffered numerous cyber incursions aimed at public-sector institutions. Therefore, examining election-management information technology readiness and cybersecurity resilience is of the utmost importance. This report offers an overview of the election-management ICT infra-

Find out more: https://ega.ee/publications/ Author: Priit Vinkel structure in Montenegro and proposes recommendations for risk mitigation. In addition, it provides useful insights for every government organisation that is responsible for cybersecurity incidents, risk management, and election management.

This report was compiled as part of the project Cybersecurity Rapid Response for Albania, Montenegro, and North Macedonia, funded by the European Union.

# Memoranda of Understanding

## Georgia

14

The Cyber Security Bureau of the Ministry of Defence of Georgia and the e-Governance Academy signed a Memorandum of Cooperation as part of the European Peace Facility assistance measure to strengthen the cybersecurity capabilities and resilience of the Georgian Defence Forces.

Moldova 📕

The Ministry of Defense of the Republic of Moldova and the e-Governance Academy signed a Memorandum of Understanding to empower the cybersecurity capabilities and resilience of the Moldovan Armed Forces within the European Peace Facility assistance measure.





#### Mongolia Mongolia

The Memorandum of Understanding with the Ministry of Digital Development and Communications underscores the Ministry's commitment to advancing e-governance, with a strong focus on digital identity, e-business and e-residency. The memorandum outlines critical areas of collaboration, including promoting institutional cooperation to enhance e-governance capacity building and cyber security and sharing best practices in innovative e-governance solutions.

## 🔀 North Macedonia

The Memorandum of Understanding with the Ministry of Interior of the Republic of North Macedonia paves the way for enhancing the cyber resilience of the Ministry and other stakeholders in the country that are responsible for national cybersecurity in compliance with the EU acquis and best practices. The collaboration includes various cybersecurity exercises, workshops and training programmes to enhance prevention, preparedness and response strategies.



# Trends of Digital Transformation

# Prerequisites for achieving success in digital transformation



Marit Lani Head of the Competence Centre

Countries around the world are looking at how best to leverage digital transformation to benefit their economies and societies. While some are counting the number of digital services available and others are tracking their rankings in various international indices, the ultimate aim of digital transformation should be the well-being of the country's citizens and residents.

The prerequisites for achieving success in digital transformation include a combination of people, processes and technology. From the governance and engagement standpoint, this includes setting ambitious yet achievable strategic objectives, designing proper governance structures and ensuring meaningful engagement with a wide range of key stakeholders.

If there is a lack of trust in the state or public sector, no digital solution alone can solve this issue.

#### Marit Lani

Digital transformation requires a suitable setup for providing integrated digital services in a secure and whole-of-government manner. There should be no distinction between digital services and non-digital (manual) services; there are simply services that are also provided through digital channels. Similarly, the national digital agenda should not be separate from all other strategic documents – digital principles and solutions should be embedded into all policy fields as a horizontal topic. There is no need for a specific legal framework for digital services, as the implications of technologies should be integrated into any affected existing legislation.

# The journey starts with clear political will

Digital transformation requires a stable political will and an interest in raising trust towards the state. Yet, political will and ambitious strategies must be complemented by an effective governance structure that not only specifies the necessary roles for advancing digital transformation but also defines clear implementation plans with metrics and responsibilities, as well as ensures proper capacity building so that these plans can be implemented.

In 2023, our experts led the process of inclusive digital governance strategy building in Kosovo, analysed the digital maturity of several countries in Africa and the Arab States region, and supported the formulation of strategic e-government priorities for Iraq. In addition, eGA experts guided the formulation of capacity-building frameworks and supported the implementation of digital skills in Namibia and Moldova. In Latin The ultimate aim of digital transformation should be the well-being of the country's citizens and residents.

Marit Lani

America and the Caribbean region, we helped accelerate digital transformation by leading high-level policy dialogues on digital governance within the EU-LAC Digital Alliance.

# Engagement is crucial for change

Digital transformation, enabled by connectivity and access to the Internet and data, creates aware and competent societies. It is crucial to recognise that the mere implementation of digital technologies will only enhance the well-being of individuals if citizens and residents actively participate in decisions that shape their lives. Moreover, if there is a lack of trust in the state or public sector, no digital solution alone can solve this issue. Any technological advancements must be aligned with the needs and expectations of the people. Those in charge of digital transformation need to tackle barriers such as limited awareness, technological access and digital skills that hinder vulnerable groups from engaging in political decisions and e-services.

Last year, our experts contributed to digital democracy by

 Developing and implementing collaborative methods of crowdsourcing legislation on air quality in Europe

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- Raising awareness of digitally vulnerable groups and promoting their engagement in political decision making and service provision in Georgia and Ukraine
- Organising service design, open governance and digital capacity development workshops
- Analysing election management information technology readiness and cybersecurity resilience in Montenegro.

Many of these digital adventures will continue in 2024, but we are also looking forward to new challenges where we can make use of our expertise and build on good practices from Estonia and the wide range of countries we have worked with. We want digital transformation to bring prosperity and openness to all societies to help build a world of aware and competent societies where people have equal opportunities to be heard and pursue their dreams.

# **Key projects** in 2023-2024

#### e-Governance Roadmap for Iraq

02/2022-06/2023



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The project's objective was to develop five roadmaps to fur-

ther digitalisation in Iraq. In parallel, a capacity needs assessment report was drafted to review the to develop the digital skills of public officials, followed by five e-courses for public officials.

Funded by UNDP

#### **Reducing the Digital Divide in Namibia**

11/2021-11/2023



The project focused on strengthen-

ing digital skills and inclusion to address the digital divide. eGA experts organised stakeholder workshops in Wind-

hoek as well as digital skills training in Katima Muilio, Ondangwa and Omaruru. The project is part of the African Union-European Union (AU-EU) Digital for Development (D4D) Initiative that aims to decrease the digital divide and leverage digital innovations for inclusive, sustainable development in Africa.

Funded by Enabel

#### **Increasing Civic Engagement** in the **Digital Agenda**

02/2020-04/2023

engagement of civil society

organisations in the shaping



The ICEDA project increased the



and implementation of the Digital Agenda in the Western Balkans to integrate the region into the European Union.

The most positive outcome of the ICEDA project was the reshaping of the responsible institutions' mindset to include civil society in the process of decision making and increasing their openness to the contribution of civil society expertise. The project has made people more aware of the digitalisation process and how to keep the data safe in this process.

Funded by the European Union

#### **Co-Deciding Europe: Civic Tech for Good Governance and Active** Citizenship

01/2021-12/2023

powered citizens to co-create policies with decision makers

CODE Europe em-

through crowdsourcing. This democratic mechanism allowed

them to learn from each other, collaborate and participate in decision making. The CODE Europe project piloted crowdsourcing on air quality in six European cities. We chose this topic because of its transnational nature and associated problems.

Funded by Iceland, Liechtenstein and Norway through the EEA and Norway Grants Fund for Regional Cooperation

#### Digital Maturity Assessments for Arab States

12/2020-09/2023

16 PEACE JUSTER AND STRONG INSTRUMENT INSTRUMENTI INSTRUMENT INSTR

e-Governance Academy experts conducted pubar digital maturity

ASSESSMENT N Q -

lic-sector digital maturity assessments in two Arab States:

Lebanon and Kuwait. The assessments aimed to evaluate the current digital maturity of the public sector in these countries, draw general findings and offer suggestions for further activities in 14 e-government focus areas. The Digital Maturity Assessment report can be used as the foundation and inspiration for strategic national documents on digital transformation. In addition, the e-Governance Academy organised seven webinars for public officials responsible for digital transformation in the Arab States, in which a total of 179 delegates took part.

#### DRIVE: Digital Research and Impact for Vulnerable E-citizens

09/2021-08/2023

10 REDUCED REQUALITIES The aim of the DRIVE project was to change the quality

of life for digitally vulnerable citizen groups in Ukraine and Georgia by facilitating their becoming digitally engaged in political decision making (advanced policy development) and services and developing the necessary conditions, awareness and skills for that. The project increased recognition and awareness of digital vulnerability and brought together and trained public authorities and civil society organisations to work effectively on designing and implementing smart, transparent and accountable solutions to address the digital divide.

Funded by Luminate

Facts & Figures

Funded by UNDP

#### EU-LAC High-Level Policy Dialogue on Digital Policy and Regulations

01/2023-11/2025



The action aims to accelerate digital transformation by

leading high-level policy dialogues on digital governance within the EU-LAC Digital Alliance in Latin America and the

Caribbean region. The overall objective of the action is to accelerate digital transformation in Latin America and the Caribbean by building strong, comprehensive and mutually beneficial engagement between the EU and LAC with respect to digital issues and strengthening the EU's role as a key partner and player in the digital area. eGA's work in this project focuses on four key areas: ICT governance, interoperability, e-identity and digital signatures, and digital citizen engagement.

# EULAC DIGITAL ALLIANCE Induced 2023, Bogota





# High-quality data is essential for reliable digital services

прямуємо РАЗОМ



Piret Saartee

Head of the Competence Centre

The most essential element of successful digital transformation is the effective organisation of data and the digitalisation of public services. Maintaining high-quality, accurate data is essential for informed decision-making and establishing reliable digital services.

Maintaining high-quality, accurate data is essential for informed decision making and the establishment of reliable digital services.

#### **Piret Saartee**

Maintaining high-quality, accurate data demands a precise approach to managing information, particularly in registers, databases and archives. In the digital era, the sheer volume and complexity of data necessitate advanced tools, frameworks, principles and guidelines to ensure that information is well-organised, readily accessible, accurate and secure.

Modernising public services requires a comprehensive strategy that utilises technological solutions to streamline administrative processes and provide citizens with convenient online access to essential services. This includes the digitalisation of records to enable the secure storage and retrieval of vital information. Tools, frameworks and guidelines become instrumental in shaping the structure and standards for reliable digital services and ensuring a consistent and trustworthy experience for users.

By focusing on the efficient organisation of data and the digitalisation of public services, countries pave the way for a more interconnected and accessible government, setting the stage for a successful digital transformation.

#### Shift in mindset

Transformation is not, however, merely technological – it requires a corresponding shift in mindset among those responsible for public services. This shift is towards a user-centric design philosophy, recognising the end users as central to the design and delivery of services.

Capacity building appears as a crucial component of this paradigm shift. This goes beyond technical competence and is also a matter of cultivating the skills necessary for effective user-centric design implementation. Achieving this involves training public servants to understand the details of user behaviours and preferences.

It is crucial to emphasise the significance of improving data analytics skills. By equipping the public sector with the ability to analyse data, the transformative power of information is harnessed. This synergy between user-centric design and data analytics helps ensure that public services are not only tailored to user needs but also optimised through data-driven insights.

#### Addressing change management

The implementation of new technologies and processes can encounter resistance and challenges. Therefore, providing the necessary support, guidance, and expertise becomes essential to a smooth transition. Change management strategies are deployed to address resistance, foster a positive organisational culture and ensure that the benefits of the transformation are realised.

Fundamentally, digital transformation in the public sector must be underpinned by a holistic approach. From organising data and digitising public services to shifting mindsets, building capacity, aligning legislation and managing change, each aspect plays a crucial role in shaping a more connected, responsive and citizen-centric government for the digital age.

#### The most significant trends to consider when shaping digital strategies

- Ethical AI development and responsible data use: AI plays an increasingly prominent role in service development and is becoming a part of our daily lives. The integration of machine-readable data is on the rise, enhancing the efficiency and compatibility of information systems. People expect responsible handling of their data. Responsible data use helps alleviate concerns by ensuring that only data necessary to provide services is collected.
- Increasing adoption of open data: Countries are increasingly opening data, fostering transparency and innovation. The use of anonymised big data contributes to the creation of better services, which is evident in solutions like Smart City initiatives. The expectation of personalised services is rising, driving the increasing sophistication of data-driven decision making and predictive modelling. People anticipate services tailored specifically to their needs.
- Increasing popularity of remote service delivery: Remote service delivery is gaining popularity, particularly in interactions with healthcare providers and local government authorities.
- Permanent presence of citizen engagement platforms: Citizen engagement platforms have become integral, bridging data and democracy and fostering connections between government entities and citizens at both national and local levels.

The goal is to empower public service owners with the ability to create solutions that genuinely address the needs of citizens.

**Piret Saartee** 

#### Key focus areas for government organisations in achieving digital success

- Financial sustainability: Governments should prioritise financial sustainability, taking ownership and acting as responsible supervisors and owners rather than relying solely on donors.
- Public/private sector collaboration: In the digital era, partnerships between the government and private entities drive innovation and efficiency.
- Citizen-centric mindset: Cultivating a citizen-centric mindset should be central. It ensures that government services are designed and delivered with the primary focus on meeting the needs and expectations of the people. This ultimately contributes to the overall well-being of the community.
- Capacity building: Ensuring that the public sector possesses the necessary skills and knowledge is fundamental to the successful implementation of digital initiatives.
- Change management is the key: Governments need to navigate transitions smoothly, addressing resistance and ensuring that the workforce is equipped for evolving digital landscapes. Acknowledging the shift from traditional paper-based processes to digital data is imperative; this change in mindset can be supported by change management.

# Key projects in 2023–2024

#### Kosovo e-Government Strategy

08/2022-03/2023

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

eGA experts consulted the government of Kosovo,

which was developing a strategic framework for public administration; the e-government



strategy was a key component in this framework. The strategy included the development of a service framework and the DigiCamp workshop in Kosovo to raise awareness of service design. The outcomes of this process will have strategic importance for Kosovo's ICT future, as the decisions made over the course of it will have a long-lasting influence over the coming decadess.

Funded by GIZ

# Awareness raising in service design

2023



eGA experts conducted several worknars to raise



shops and seminars to raise awareness of service design in Madagascar, Iraq, Georgia,

Kuwait, Lebanon and the Netherlands.

#### Analysis of the education ICT system in Uganda

11/2021-11/2023



The main objective was to provide



recommendations for improving

data exchange processes in the Ministry of Education of Uganda to raise data exchange and data-driven decision making to the next level. Improving data exchange processes included the introduction of the principle of single data collection. The project is part of the African Union-European Union (AU-EU) Digital for Development (D4D) Initiative.

Funded by Enable and the European Union

Facts & Figures

# Data and Services<br/>Competence Centre in 202313projects21consultations in<br/>beneficiary countries11workshops677procurements244reports19experts

#### EU4DigitalUA: Interoperability, E-services and Cybersecurity for Ukraine

10/2020-03/2024

EU4DigitalUA is part of the broader e-government-related support of the European

Union to Ukraine to continue the digital transformation of



**INTUITIVENESS** 

• 100%

Ukraine and its harmonisation with the EU Digital Single Market. eGA's team in the EU4DigitalUA project is focused on further development of digital government infrastructure, interoperability, public digital services and cybersecurity-related tasks. To accelerate the development of digital services eGA experts created a Service Competence Centre model in Ukraine. The work included describing processes, frameworks and guidelines.

Funded by the European Union



MPLICITY

# Strong ownership paves the way to digital success



Heiko Vainsalu

Competence Centre

Experts on digital government infrastructure and solutions are those who step out of the shadow when there is an understanding that a digital solution must be put in place. Besides technology, the attention should be rather on organisational questions and capacity building.

While supporting the deployment of new solutions there is a significant amount of work also to understand what the problems of existing solutions are. The bottlenecks could be either in the domain of identity, data exchange, trust services, or baseline networking. Thus, as the first step we must understand are the existing solutions good enough or does they need fixing.

eGA experts have often met government officials who would like to adopt some new bleeding-edge solution. They turn to us for advice is the introduction of a new solution worth the recourses. Will it make the digital transformation

In 2024, the real challenge for governments is to recognise what new solutions and approaches are just temporary and what are there to stay.

Heiko Vainsalu

Sreak

1.30

successful? Unfortunately, too often we have witnessed that the technology itself does not solve the problems. Ignoring the true problems and fixing aspects of digital transformation that are not broken does not deliver success.

Our recent experiences confirm it. In Madagascar, after an assessment of the local X-Road platform eGA experts recommended focusing on fixing organisational and capacity problems. In Mongolia, eGA experts studied the situation with the digital identity ecosystem and found that there are far too many alternative solutions - a cleaning and stronger coordination is needed.

#### Facts & Figures

Competence Centre of Infrastructure and Solutions

> countries worked with projects participated



pours for provid

21

hours for providing workshops

onsite consultancy

experts

Ignoring the true problems and fixing aspects of digital transformation that are not broken does not deliver success.

Heiko Vainsalu

While we also help to bring new technology into the government landscape, we make sure that it would not only be a "technology works, work done" approach but rather an approach where strong ownership and long-term plans are considered. Any solution and digital infrastructure is only as good as its owner. Thus, strong ownership is one of the most vital keys to unlocking the doors to digital success. So, in 2024 the real challenge for governments is to recognise what new solutions and approaches are just temporary and what are there to stay. We will be looking specifically at how the identity wallet - that is to be announced in the EU - will change the game and how will it impact other world regions and solutions provided on the market.

# Key projects in 2023–2024

#### Technical Assistance for the Implementation of X-Road





2023

Secure data exchange is the backbone of digital

government and service provision. The digital governance unit of the Madagascar Government (Unité de Gouvernance Digitale, UGD) has made efforts to introduce the Estonian-origin secure interoperability solution X-Road in Madagascar as part of their initiative PRODIGY (Project de Gouvernance Digitale et de Gestion de l'Identité Malagasy). Within the project, eGA experts assisted UGD in speeding up the adoption of the X-Road in Madagascar.

Funded by the World Bank

#### e-ID upgrade for Mongolia





eGA experts consulted the Government of Mongolia on developing and implementing an electronic identity (eID) solution with high rollout and security. eID with a strong digital signature allows micro, small, and medium enterprises to increase significantly the speed of their business and strengthen transactions with the government. Moreover, it facilitates both businesses and the government to develop secure online services. Within the project, eGA experts conducted a feasibility analysis of the main business model options for eID and proposed their findings to the Government.

Funded by the EBRD

#### Consultancy for a National Identification System

10/2023-07/2024

The project supports the rollout and delivery of

e-government services for the Turks and Caicos Island Government. Due to that, the



first steps towards the launch of the National Identification System will be made. The National Identification System provides a comprehensive and secure structure to enable the capture and storage of personal identity information. By the end of the project, eGA has provided a business model for unique, reliable and secure National Identification System.

Funded by the Government of Turcks and Caicos

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Gega

# Keys to success: An integrated approach and well-established basic components



Arvo Ott Head of the Competence Centre

Digital transformation can fundamentally change the operation of governments and organisations, emphasising innovative working methods and rule-setting. Central to this transformation is effective change management, which involves establishing and implementing interoperability principles for efficient information sharing.

Navigating slow-paced government bureaucracy and regulations can make adopting these principles challenging. Support in aligning these principles with various technological solutions is crucial for successful transformation. Additionally, the well-established basic components of supporting digital transformation are still vital.

# The essence of digital transformation

A significant global challenge is the need for an integrated approach to digital transformation. In response to this, eGA stresses the importance of improving coordination within organisational and legal systems.

Success in digital transformation is based on a Whole-of-Government (or Whole-of-Enterprise) approach. This strategy is crucial for digital government initiatives to foster multi-level, multi-disciplinary collaboration. It ensures smooth cooperation between government entities, providing citizens with a consistent and satisfactory experience. Institutionalising this approach through a central body under strong leadership is essential for shaping the future of digital government architecture.

eGA adopts a structured approach to facilitate digital transformation, encompassing four key components of the digital government architecture process:

- Context and Situation Analysis (As-Is and To-Be Gap Analysis)
- Vision of the Future

multi-sectoral and

- Digital Government Transformation Strategy and Roadmap
- Implementation.

This approach goes beyond just technological upgrades; it's also about transforming organisational structures, semantic understandings and legislative frameworks. It involves change management and the implementation of interoperability principles, requiring commitment across various government sectors.

# Interoperability at the forefront

At the core of this transformation is interoperability. The focus on interoperability principles and their implementation at different government levels is crucial. The Digital Architecture Competence Centre at eGA plays a vital role in guiding these efforts, emphasising the practical application of these interoperability principles.

eGA's expertise has proven instrumental in assisting countries like Benin, Kyrgyzstan, Ukraine, Uganda and Djibouti in developing digital strategies and systems that enhance governance. Notable outcomes that showcase the successful outcomes of these collaborations include Ukraine's implementation of its Trembita data exchange platform upgrade, Kyrgyzstan's Tunduk data exchange upgrade, Uganda's e-government interoperability framework development and Benin's secure data exchange platform implementation.

# Advanced technologies and leadership

A critical aspect of successful digital transformation is addressing the basic components of governance systems. While integrating advanced technologies like blockchain and AI is often seen as a great innovation, it is essential to ensure that the foundational aspects of digital governance are well-established. This approach suggests governments should focus on getting the basics right before showcasing innovation.

Key to this process is a coordinated whole-of-government approach, ensuring that all parts of the government work together efficiently. With visionary leadership at the helm, this approach lays the groundwork for integrating advanced technologies meaningfully.

Ultimately, the e-Governance Academy guides governments in merging technological advancements with these foundational reforms, leading to more effective and forward-looking digital governance.

#### Keeping focus on Ukraine

In recent years, our focus has been on Ukraine. In 2023, the eGA team focused on advancing the digital infrastructure and interoperability of the Government of Ukraine and aligning them with European Union standards. The work included the development of the roadmap for the development of public electronic registers and integration with relevant systems in the EU. Also, eGA experts designed, developed and launched the Trembita system catalogue, which gives an updated overview of connected electronic information resources and published services in the system.

One of the highlights of our activities was optimising the data update process of Ukraine's Unified State Register of Conscripts by integrating it with the Trembita data exchange platform. Due to this integration, conscripts' data became more accurate and securely manageable for the Ukrainian government. Additionally, the project established a personal data monitoring subsystem within Trembita. This allows citizens to monitor information on the facts of access to personal data by government entities. A similar system has been in use in Estonia for a decade.

These developments improved the efficiency of Ukraine's digital systems, brought them closer to EU best practices and fostered a more interconnected and secure digital governance environment.

Success in digital transformation is based on a Whole-of-Government approach. This strategy is crucial for digital government initiatives to foster multi-level, multi-sectoral and multi-disciplinary collaboration.

Arvo Ott

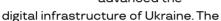
# **Key projects** in 2023-2024

#### **EU4DigitalUA**

2020-2024



The project significantly advanced the



work included a detailed analysis and development of a strategic roadmap to enhance the country's public electronic registers as well as streamlining and securing the data management processes of Ukraine's Unified State Register of Conscripts. Additionally, the project established a new subsystem within Trembita to monitor personal data access, enhancing data security and increasing transparency for Ukrainian citizens. The EU4DigitalUA project is part of the broader e-government-related support provided by the European Union to Ukraine to continue its digital transformation and harmonisation with the EU Digital Single Market.

Funded by the European Union

#### **Digital Legislation** Consortium of the **Kyrgyz Republic**

2023



eGA experts developed a framework of architecture and



interoperability for digital government for the Government of Kyrgyzstan. Besides

this, the experts analysed the legal framework of the Kyrgyz Republic from the perspective of digital transformation and compiled recommendations for improving the existing framework and developing new legislation to remove gaps and shortcomings.

Funded by the public foundation Civil Initiative on Internet Policy (PF CIIP)

#### **Twinning Project:** Support to Digitalisation Agenda in Kyrgyzstan

10/2021-10/2023

This European Union twinning project supported the digital development of Kyrgyzstan by increasing the capacity of the



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Ministry of Digital Development of the Kyrgyz Republic, to manage and guide the development of e-government and to improve governance transparency and accountability. In the project, eGA digital architecture experts consulted Kyrgyz authorities (Tunduk, Infocom, etc.) in the enhancement of access to public services by strengthening the e-governance systems and solutions. As a result, the Tunduk data exchange platform was improved and upgraded to the newest version, 94 stakeholders were trained to ensure secure public service development and delivery, and recommendations to improve the data quality of the Sanarip Aimak system were developed.

Funded by the European Union

#### **Enterprise Architecture** for the Government of Zimbabwe

09/2023-2024

eGA experts will create an Enterprise Architecture for the Government of Zimbabwe and a



supportive mechanism to start with implementation activities. The activities include situational analysis, a legal and regulatory review and recommendations, and Enterprise Architecture development and implementation. To support the government with implementation, a change management strategy, communication plan, and digital literacy strategies will be developed.

# Building a resilient digital future: A strategic blueprint for tomorrow's security



**Elsa Neeme** 

Senior Expert

The past year witnessed a change in the cybersecurity landscape, marked by a surge in the diversity and intensity of cyberattacks. The relentless war of aggression against Ukraine cast a long shadow over cybersecurity, influencing its contours and dynamics.

#### Surging diversity and intensity of cyberattacks

Key trends in the threat landscape highlight the prominence of ransomware and the top-ranked threats to availability for last year, which show no signs of abating. However, according to reports by ChainAnalysis<sup>1</sup>, ransomware revenues,

To navigate cybersecurity challenges for a resilient digital future, coordinated action across all levels is no longer optional – it is imperative.

#### Elsa Neeme

<sup>1</sup> https://www.chainalysis.com/blog/ crypto-ransomware-revenue-down-as-victims-refuse-to-pay/ although substantial, went down - an effect that can be associated with increased awareness and improved maturity within organisations. At the same time, the rise of hacktivism brought forth new groups and ransomware incidents. One of the biggest malware threats is information stealers, such as Agent Tesla and Redline Stealer. Over the last few years, there has been a surge in the cybercrime market, particularly in the Initial Access Broker (IAB) sector, which has witnessed significant yearon-year growth in the number of groups and the volume of credentials available for sale, as reported by multiple sources. Google attributes this expansion to the rise in threat actors targeting Ukraine, some exhibiting activities closely aligned with those supported by the Russian government.

#### The importance of addressing cybersecurity

The increase in cyberattacks, rising costs of cybercrime and widespread online disinformation have transformed cybersecurity into an all-encompassing concern that transcends traditional borders. Security isn't merely an \*\*\*\*

Creating a national cybersecurity law is a crucial strategic measure for effectively protecting the nation's critical infrastructure, security interests and individual rights.

Elsa Neeme

administrative checkbox – it is a prerequisite for a seamlessly functioning state. Failing to recognise the need to invest in security exposes governments to unfortunate incidents and successful attacks and erodes trust in governance.

The success of digital services like e-Tax administration and digital-identity applications hinges on ensuring their smooth functionality and the confidentiality of digital data. Without a robust security foundation, digital services become ineffective and untrustworthy. Acknowledging this, eGA's expertise focuses on the combined importance of governance, data, technical solutions and cybersecurity. The eGA team is glad to see the EU and other donors increasing support for international security and stability in cyberspace by continuing their contribution to third countries' cybersecurity capacity building.

#### What the future holds

Exploring new technologies like AI brings uncertainties, requiring us to be cautious and strengthen safeguards. It is crucial to use technology and manage its risks for humanity's benefit. In addition to cutting-edge technologies, the focal points of the contemporary cybersecurity ecosystem include national strategies and a strong legal framework. The legislation supports achieving the country's objectives and is an instrument for implementing the cybersecurity strategy.

Creating a national cybersecurity law is more than just a formality or bureaucratic process; it is a crucial strategic measure for effectively protecting the nation's critical infrastructure, security interests and individual rights. Identifying critical national information infrastructure is a major part of the legal framework, highlighting key assets needing extra protection. A national cybersecurity law is a proactive step to strengthening digital resilience and national security based on principles of fairness, transparency and accountability.

# A collaborative approach is vital

Amidst war and ongoing geopolitical instability, active engagement in international cooperation efforts becomes vital to foster trusting collaboration and facilitate the seamless cross-border exchange of information, intelligence and

Failing to recognise the need to invest in security exposes governments to unfortunate ncidents and successful attacks and erodes trust in governance.

Elsa Neeme

# Key projects in 2023–2024

#### Twinning project: Support to Digitalisation Agenda in Kyrgyzstan

2021-2023



Under the cybersecurity compo-

nent, the project strengthened national operational capacity to prevent, respond to and address cyberattacks



and accidental failures. Within the project, eGA and Estonian experts contributed to the improvement of cybersecurity-related legislation and national information security standards. Additionally, expert support was provided in drafting the Cybersecurity Strategy for the period of 2024–2028. technical support. This may include CERT/ CSIRT cooperation, law enforcement and judicial cooperation, besides developing diplomatic relations focusing on the rights and duties of states in cyberspace while ensuring Internet freedom and security.

A crucial factor for ensuring a secure digital future for the country is a competent workforce and a knowledgeable society. In enhancing the overall security posture, regular security awareness and training are essential tools to build a culture of vigilance and responsibility that reduces the likelihood of falling victim to cyberattacks. At eGA, we look forward to tackling the challenges with our clients based on their unique situations while following the best international cyber resilience practices.

#### Moldova Cybersecurity Rapid Assistance

a loading

2022-2024



The twoyear project enhances

the Republic of Moldova's cyber resilience, focusing primarily on protocting aritig

primarily on protecting critical infrastructure. The primary achievement of the

project so far has been the creation of the cybersecurity law that has since been adopted by the Moldovan Parliament. The law created a solid foundation for the establishment of a competent authority in the field – the National Agency for Cyber Security of Moldova. In addition to this, numerous capacity-building activities were carried out. These included, for example, the regional Cybersecurity Symposium in November 2023, a cybersecurity boot camp for young people, and the Women in Cyber Forum to amplify women's role in cybersecurity. Moreover, a cyber hygiene campaign (www.sigurantadigitala. md) with e-learning opportunities has been created for awareness raising.

Funded by the European Union

Funded by the European Union

#### **EU4Digital: Improving** Cyber Resilience in the **EaP Countries**

2019-2023



The main objective of the EU4Digital initiative was to improve cyber resilience in the countries of the East-



ern Partnership (EaP) region. eGA experts consulted Georgia and Armenia in developing frameworks for the protection of operators of essential services and critical information infrastructure in line with the EU's norms and frameworks.

Funded by the European Union

#### **Tallinn Summer School** of Cyber Diplomacy

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2023



The fourth Tallinn Summer School

of Cyber Diplomacy was organised from 12–16 June 2023. The five-day event was intended for diplomats shaping

the challenging agenda of international cyber policy and for government officials interested in cyber topics.

Funded by the EU Directorate-General for International Partnerships (INTPA), the Ministry of Foreign Affairs of Estonia, and ESTDEV

#### Facts & Figures

Cybersecurity **Competence** Centre

projects

memoranda of understanding

experts

# Training is expensive, but not getting trained is more expensive



**Annela Kiirats** 

Head of Training and Events

A few years ago, a digital leader from one of our partner countries remarked, "Training is expensive, but not getting trained is more expensive." This mindset is pivotal to digital success, and it's a strategy that other countries should consider adopting.

The past year has mainly involved giving logical explanations for digital government decisions and procedures and providing functionality support for existing technological solutions to countries from one side of the world to another.

Training is the most important thing when kicking off the creation of your concept, but it is only the beginning of the longer journey. Due to that, it is wise to choose an experienced partner who could provide you with long-term practical know-how and the readiness to keep supporting you with all the next steps you might need to take when building a truly digital government.

#### What's missing?

What makes sense to us might be something new to others, so finding out what is missing from the path of development our beneficiaries are on is a small mission of its own. To best guarantee a sustainable, practical implementation and not have to start again in a few years' time (which often happens due to political changes), we believe it is important that we become

We would like to express our gratitude for the excellent organisation of the programme and the warm welcome extended to the entire Moldovan delegation. It was a great pleasure to meet you in person and get inspired by the Estonian reforms, case studies and digital journey.

Daniel Serban, Chief of Party/ Comunitatea Mea Program funded by USAID, Moldova

influencers ourselves by creating lines of direct contact with decision makers via our missions to the beneficiary countries.

It is also a positive challenge to develop close links with a country when it is not yet ready for innovation but is open, at least, to listening and envisioning possibilities that might suit them in the future - to being visionaries themselves until that future comes.

What makes eGA experts' work interesting is that any interaction improves us as trainers for instance, when we find ourselves describing a topic from a different angle since no other person in the audience has asked such a question before.

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#### **Topics for all levels**

eGA training can involve explaining the basics of digital and generating high-level discussions about making good and meaningful decisions and creating good policies. Yet, it can also involve technical evaluation and hands-on work to improve technical procedures. Or it can be sharing experiences on how civil society could be a better partner to the public sector by giving ideas on engaging citizens and building awareness about digitalisation. Thank you for a very wellorganised visit. We appreciated the openness and commitment of all presenters and your team to share experiences and lessons learned. It was extremely informative and very practical to see it translated into our work.

Lia Sanikidze, UNDP in Georgia

In order to provide meaningful training that leads to successful actions, we communicate directly, share experiences, discuss and debate to create options for moving forward. To ensure that we provide maximum support for achieving digital success, we explain and advise, meet with the respective authorities in beneficiary countries and try to understand the local context as much as possible before we make our suggestions. Together, we need to decide how to realise the desire for "digital government to improve public administration" – a phrase that could describe various procurement and application processes wordlwide. So, we keep Training is the most important thing when kicking off the creation of your concept, but it is only the beginning of the longer journey.

#### Annela Kiirats

working full sail with all countries that need digital government, always aiming to improve the quality of life for their people by delivering the service in a logical and straightforward manner. All on board?! Let's set sail – we have a goal to reach!

#### Facts & Figures

9,900 882 government leaders have participated in our training programmes from 2002–2023

882 participants in 40 study visits and e-courses in 2023, including:

> **34 study visits** for **482** government leaders and experts from **26** countries to



 6 e-courses for 400 government leaders and experts from three countries.

- Countries that participated in eGA trainings:



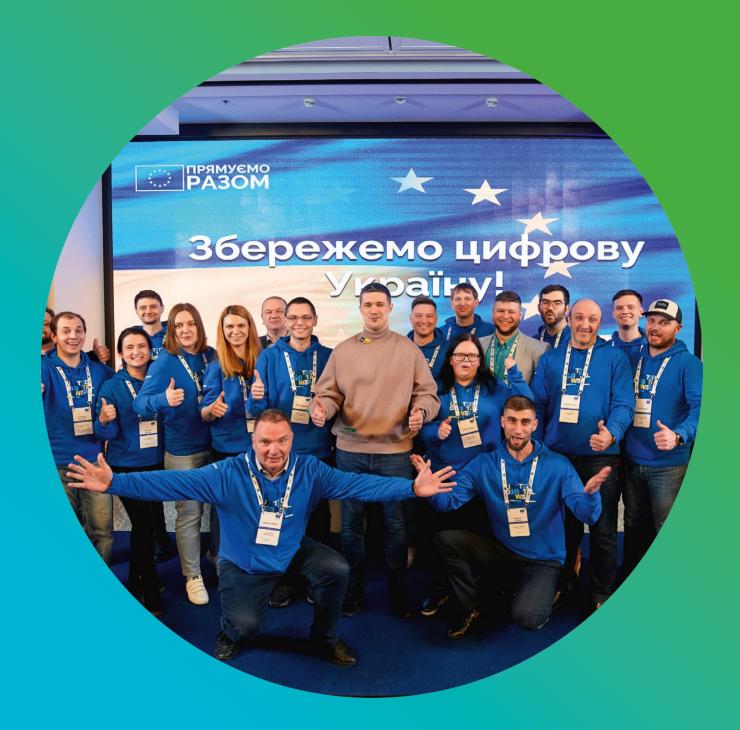
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workshops and seminars in **22** partner countries conducted by **77 eGA experts**.





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Work around the world: What did we achieve?

# Turning challenges into digital successes during the war



Anton Yermakov

Communication Expert

For the second consecutive year, the eGA team in Ukraine has operated under challenging wartime conditions. As the entire country stoically repels the unjustified and cruel Russian war of aggression, everybody is contributing to the impending victory, including our team. thanks to EU-supported and eGA-implemented activities, this year, has seen Ukraine become more efficient and accessible digitally, turning challenges into digital successes.

### Electronic identification of Ukrainians in the EU is now a reality

One of the biggest achievements of our Ukrainian team this year is connected to the country's digital EU accession process. Ukraine has become the first non-EU and currently the only state whose public digital tools are compatible with the EU's eIDAS infrastructure.

Ukraine has become the first non-EU and currently the only state whose public digital tools are compatible with the EU's eIDAS infrastructure. In spring, the European Commission adopted a list of TC AdES LOTL countries, which contains information on electronic signatures and seals of non-EU states. It means that authorities in the EU countries can identify Ukrainian citizens via interaction between Ukrainian and European electronic systems. Thanks to the new signature, Ukrainian businesses working with EU counterparts will be able to use electronic document flow and speed up their operation processes.

Within the EU4DigitalUA project, eGA participated in the preparation of the Ukrainian legislation on the mutual recognition of qualified, trusted services and implementation of EU legislation in electronic identification.

Along with the legislative changes, our project was also involved in technical work. The eGA experts successfully deployed – as part of the Integrated e-Identification System (id.gov.ua) - an eIDAS node that technically belongs to the EU eIDAS infrastructure and enables electronic identification through electronic exchange. This is a gateway through which identification data from Ukraine is transmitted to the EU countries if a data owner needs to be identified electronically.

Anton Yermakov

# Document Recovery goes digital

With the full-scale war, many Ukrainians lost their important documents, i.e., university diplomas or marriage certificates. They were lost when people had to save their lives, leaving everything behind, left in temporarily occupied cities or just destroyed by the enemy's missiles. Traditional document recovery is known for its lenghty, bureaucratic process. However, now, Ukrainians can effortlessly request duplicate copies of these vital documents with just a few taps on their smartphones. Thanks to this newly launched e-service, citizens can avoid countless bureaucratic procedures, saving both time and effort. In the first month of its launch, over 30,000 Ukrainians used this service, indicating its high popularity and effectiveness.

Digital extract of non-conviction became the second most popular and best-rated digital service.

Anton Yermakov

### Supporting digitalisation of services for war veterans

Supporting Ukrainian war veterans is of the utmost importance for our team, reflecting gratitude and recognition of their sacrifices. In this spirit, the eGA, alongside the Ministry of Veterans Affairs and the Ukrainian Red Cross Society, launched a joint project to provide financial aid to war veterans with a first or second-group disability. The application process was completely digitalised by our experts and now takes only 2-3 minutes to complete. The effectiveness of this digital solution is evident in the immediate response it received, with over four thousand applications submitted in the first week alone. As the service progresses, by the end of 2023, it has already provided financial aid to 24,929 veterans, demonstrating the significant impact and reach of this project.

### One of the most frequently used public services went online

Our e-services team has supported the digitalisation of extract of non-conviction. According to the Ministry of Digital Transformation, approximately 1 million citizens receive it annually. This certificate is required to get a job, adopt a child, participate in a tender, obtain or renew documents, etc. Today, Ukrainians can obtain the certificate within minutes through the Diia application. According to the Ministry's survey, this service became the second most popular and best –rated service, withevaluations from over a million users, 94% of whom expressed satisfaction with the process.



### Supporting Ukrainian economy: entrepreneurship went online

A comprehensive business service, e-Entrepreneur, on which eGA team has been working for a long time, is ready to be launched in Diia app. One application will provide eight unique services, allowing Ukrainians to open the three most common types of small businesses - a cafe, a salon, and a retail outlet. Previously, you had to go to government agencies to start a business in Ukraine and collect permits. The whole process took about a month and a half. With e-entrepreneurs, it is enough to fill out an application on the Diia portal in 20 minutes without leaving home. During the December Diia Summit, a beta test of e-Entrepreneur, was launched, so the first businessmen are already using e-entrepreneur, and our team is working on further development of this service.

## uResidency enters the world stage

Another essential service, developed by our team, is now making its way into closed beta testing - Ukraine's uResidency. This initiative opens doors for citizens from other nations, enabling them to register and operate businesses while contributing taxes to Ukraine.

uResidency is aimed at small business owners from Asia and Europe. To obtain the status, it is enough to undergo a one-time offline verification at the Ukrainian consular office in the country of residence. All other steps, from applying for the programme to opening a bank account, can be done online. Following the beta testing, the programme will be available to citizens from the initial four countries - India, Pakistan, Thailand, and Slovenia, with plans for further expansion in the future.

Marriage registration application went online Ukraine is catching up with Estonia and has launched the e-marriage application. eGA team

### Facts & Figures

**1 Million** digital extracts of non-conviction

will be delivered annually

### 30,000+

Ukrainians have used the Document Recovery service

<mark>24,9</mark>29

war veterans have applied digitally forfinancial aid

16 000 couples have used digital marriage

The effectiveness of digital services for war veterans is evident in the immediate response it received, with over four thousand applications submitted in the first week alone.

#### Anton Yermakov

provided technical support in implementing a new electronic service, so now, Ukrainians can do all the formalities for marriage registration without leaving their home. The process takes only 10-15 minutes on the Diia portal, where future families apply for state registration of marriage and immediately choose the location, time, format, and hall where the ceremony will take place. After this, the prospective newlyweds only need to sign the application with electronic signatures and not forget to show up for a ceremony.

Ukrainian team is proud that thanks to our efforts, in the first year of this service launch, more than 16 000 new families have been formed in a hassle-free and loving way.

# Trembita in 2023: scaling up and building digital Ukraine



Oleh Burba

Senior Expert

Imagine the situation: in the daily routine of a government agency, there is a need to verify data with the register of another agency. The civil servant takes a flash drive and sets off on a long journey to the other side of Kyiv. There, he downloads gigabytes of data to the flash drive and takes the same long journey back. Then, this data is processed, or even worse, the civil servant checks it manually in a specially equipped windowless room. Doesn't this sound like a horror story in the context of the modern digitalised world? Only a few years ago, this was the reality of many government institutions in Ukraine. It all started to change when the data exchange platform Trembita system (Trembita) was developed jointly by Cybernetica (EE) and eGA experts and launched in 2020. So, let us look at the insights of Trembita's work in 2023, and you can see its impact on citizens and the state.

### Trembita breakthrough

Since 2020, more than 4 billion transactions have been carried out in the system. However, 2023 was a record year. The number of transactions doubled over the year: while in 2022, 1.5-2.5 million data exchanges were made daily, in 2023, this figure was already 6-7 million. The record number of daily transactions - about 14.5 million - was recorded in December, immediately after the update of the state app Diia. These figures prove that the demand for digital services among citizens and businesses is constantly growing, even under martial law. The large volume of transactions indicates a change in the culture of using electronic services among Ukrainians. They have become an integral part of their lives. In addition, the system has already gained the trust of government agencies – more and more registers are being connected to it. Trembita, initially an innovation for pioneers, became the standard for most government agencies in 2023.

### Overcoming the challenges of war

Trembita has proven to be an effective tool for governance and interaction under martial law. This year alone, almost 28 million transactions with the Internally Displaced Persons (IDP) Database and almost 12 million with the State Register of Damaged and Destroyed Property were conducted through the system. Both registries are among the top ten most popular in Trembita in terms of the number of requests. This allows Ukrainians to apply online to restore their damaged property and obtain an IDP status or receive benefits. In addition, the Ministry of Defence has recently started using Trembita to improve the data quality in the register of persons liable for military service. The system is used to verify and align information with other registers. According to the Ministry of Defence, this process has already increased the data quality in the register from 27% to 88%, as duplicate and irrelevant data have been removed.

### Fighting with corruption

Trembita provides fast and secure data exchange for anti-corruption digital initiatives, for example, in the construction sector. The data exchange platform has accelerated the processing of documents on the portal and made it possible to obtain construction permits without bribes, as 100% of construction services can be obtained online. For example, to check whether a property is listed in the State Register of Real Property Rights. In 2023 alone, more than 6.4 million transactions in the construction sector took place through Trembita. This allows the industry to operate transparently and efficiently.

The Ministry of Finance also uses Trembita to monitor and verify social payments. This includes benefits, subsidies, and social scholarships. Trembita transactions help prevent fraud in the social sphere and ensure the efficient use of budget funds. The data exchange automatically compares data from state registers and databases. This eliminates the human factor and corruption risks. As a result, the Ministry can detect the concealment of real income, fictitious divorces, or falsification of documents and then notify the relevant authorities of potential fraud. In total, the Ministry of Finance conducted 442.6 million exchanges in 2023. This is a record figure.

The large volume of transactions indicates a change in the culture of using electronic services among Ukrainians. They have become an integral part of their lives.

# Improving the efficiency of government agencies

Trembita plays a key role in improving tgovernment agencies' internal work and ensuring transparency and efficiency of management at all levels. For example, Trembita is the only way for government agencies to make inquiries into the State Register of Individual Taxpayers, which is the most popular among institutions. While in 2022 there were 204 million such interactions, in 2023, it increased by three times. This was achieved thanks to the State Tax Service team, which ensured the verification of citizens' personal data in other state registers through interactions in Trembita. Inquiries to the registry are increasing, which significantly reduces the administrative burden and optimises the resources of government agencies.

# What is in store for Trembita in 2024?

In 2024 Trembita will become even more powerful and more visible to citizens. As part of the DT4UA project, the eGA team plans to expand the system's capabilities and develop Trembita 2.0. This will increase the speed of interaction between various government agencies. At the same time, the Trembita subsystem for monitoring personal data access will be launched. This innovation will notify citizens if someone requests their personal data. This feature will significantly increase the transparency of data processing and allow people to control the use of their personal information more actively.

### Facts & Figures

Trembita's impact on Ukrainians' lives

44 304

78 660

newborns registered thanks to e-Baby service

Ukrainians have received their first ID and tax ID

17 797 couples applied for marriage online

Oleh Burba

### Key projects in 2023–2024

### EU4DigitalUA

2020-2024





For the second s

eGA's team is focused on further developingdigital gov-

ernment infrastructure, interoperability, public e-services and cybersecurity-related tasks. The project is implemented by the e-Governance Academy (EGA, Estonia) and the International and Ibero-American Foundation for Administration and Public Policies (FIIAPP, Spain) in close collaboration with the Ministry of Digital Transformation of Ukraine.

Funded by the European Union

### EU Support to Strengthen Cyber Security in Ukraine

2022-2023





curements to provide rapid response to Ukrainian cybersecurity and data security needs. Technical support pro-

Funded by the European Union

vided by the project ensured further functioning of the digital state during the war. It secured state registers and created backups, ensured the functioning and, in some cases, the resuming of provision of public e-services, improved the security and stability of internet connection, and improved the capacity to tackle cyber threats and secure data confidentiality, integrity, and availability.

### European Peace Facility Assistance Measure on Cyber defence Capacity Building

2022-2024



The project, funded by the Europe-

an Peace Facility, enhances Ukraine's overall resilience and helps strengthen the capacities

of the Ukrainian Armed Forces. For that purpose, the project has procured security software and hardware, conducted online

cyber threat hunting exercises, and opened a cyber lab and cyber class for onsite training, strengthening the capacities and improving practical skills in detecting and responding to cyberattacks.

Funded by the European Union

### EU Support for Digital Transformation of Ukraine (DT4UA)

2022-2025



The project aims to improve the effi-

ciency and security of public service delivery and their access to citizens and businesses in Ukraine, in line with EU require-

ments, and provide rapid response to the needs caused by the war. Additionally, the e-Case management system will be developed to empower governance and enable a more effective, efficient and transparent processing of criminal cases.

Funded by the European Union



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# Unlocking digital success in the Western Balkans



### Milan Sekuloski

In 2023, the EU reaffirmed its commitment to the integration of the Western Balkans with the EU and continued to support the region's cybersecurity development. Empowered by eGA cyber expertise, a more cyber-resilient Western Balkans continues to be built.

Senior Expert

In the context of rapid digitalisation and the exponential growth of cyberattacks, strengthening the cyber resilience of the EU's Western Balkans partners, as well as its cooperation with the same, has become an essential enabler of sustainable growth and an urgent precondition for security in the European continent.

During 2023, eGA continued to facilitate the EU's commitment to helping Western Balkans' governments increase their cyber resilience and establish effective regional and European cooperation in cybersecurity. Most notably, this was done by implementing two regional projects: Cybersecurity Rapid Response for Albania, Montenegro and North Macedonia, and Cyber Balkans.

## Practicing real-time incident response

One of the highlights of our work was the regional live-fire cyber drill exercise, where teams from three countries (Albania, Montenegro and North Macedonia) had a chance to practice real-time incident response and cooperation at both national and regional levels. The importance of the exercise was further heightened by the visit of the presidents of Estonia and Albania to the premises in Tirana, where the central exercise coordination took place.

As Montenegro has suffered numerous cyber incursions aimed at public-sector institutions, examining election management information technology readiness and cybersecurity resilience was of the utmost importance. Due to that, eGA experts assessed the election management ICT infrastructure in Montenegro and proposed recommendations for risk mitigation.

Acknowledging that building cyber resilience requires systematic and long-term efforts, the EU-supported cybersecurity capacity-building project Cyber Balkans was instituted. The project will last three years and engage six IPA III Beneficiaries in the Western Balkans: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia.

So far, the project has involved the organisation of numerous national multi-stakeholder meetings, culminating in a regional workshop in Podgorica focused on legislative and governance reforms. The outcomes of this workshop have defined how the project will support the governance reforms in the coming year and shown the invaluable benefits of direct cooperation between regional experts and their EU counterparts. In 2024, eGA will continue to contribute to building a more cyber-resilient Western Balkans. This will enable the region to safely pursue development through digital transformation for the benefit of its people, economies and Europe

as a whole.

### **Digital Government** for Kosovo

The second direction of our work has been to support the modernisation of public administration in Kosovo. In 2023, eGA experts consulted the Government of Kosovo when developing the digital government strategy that was a key component of this framework. With the support of eGA experts, the draft of the e-Government Strategy was officially launched in April 2023.

The outcomes of this process will have strategic importance for Kosovo's ICT future, as the decisions made over the course of it will have a long-lasting influence over the coming decades. In upcoming years, eGA will also assist with the implementation of the proposed strategy, focusing on interoperability, capacity building and service management.

### Key projects in 2023-2024

### Cybersecurity **Rapid Response**

2022-2024





contribute to improving cyber resilience in compliance with

EU acquis and best practices for the public-sector cybersecurity stakeholders in Albania, Montenegro and North Macedonia. In June, a regional live-fire cyber drill was conducted jointly with CybExer Technologies to provide the participants with practical experience defending IT systems under intense cyberattacks.

Funded by the European Union



### **Cyber Balkans**

2023-2026



The project aims to enhance

the cyber resilience of the

Western Balkans in compliance

with EU acquis and best practices by improving cybersecurity prevention, preparedness and response among relevant public and private stakeholders in the Western Balkans partners: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia.

Funded by the European Union

### Kosovo e-Government Strategy

2022-2023



eGA experts consulted the Government of

Kosovo on the development of its e-government strategy. The outcomes of this process

will have strategic importance for Kosovo's ICT future, as the decisions made over the course of it will have a long-lasting influence over the coming decades.

Funded by GIZ





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# Digitalisation cooperation across Africa



**Birgit Podelsky** 

Communication Expert

Digital innovation has moved to the centre of attention for many governments across Africa, with considerable momentum in the continent to build inclusive and resilient digital ecosystems. In 2024, eGA worked with various stakeholders from the continent and with partners in Europe and Estonia to share guidelines for digitalisation.

One example of eGA's work was the African Union-European Union (AU-EU) Digital for Development (D4D) Hub project (2021–2023). In 2024, the project involved projects and seminars in 9 countries: Namibia, Uganda, The Gambia, Egypt, Cabo Verde, Tanzania, Botswana, Zambia and Zimbabwe. The project was jointly led by the Estonian Ministry of Foreign Affairs, eGA and the Estonian Association of Information Technology and Telecommunications (ITL). The main emphasis was on building mutually beneficial partnerships and applying multi-stakeholder expertise, as well as increasing the focus on human-centred design and data security.

Team Estonia, comprising experts from various fields and organisations, worked on several projects, including re-shaping data interoperability in Uganda's educational information systems, assessing Tanzania's and the Gambia's digital readiness, and developing digital skills strategies to reduce the digital divide in Namibia. AU-EU D4D Hub project has built real synergies from the trust and coordination between Member States, complementing each other's expertise and helping to grow long-term relationships with partner countries.

Mariin Ratnik

**Uganda** leads East Africa in deploying e-governance solutions and digital tools in public services, including education. However, the country still faces several challenges related to efficient education policy design and implementation that can be addressed through the digital transformation of services. To overcome these challenges, the Ugandan Ministry of Education and Sports initiated a project to improve the interoperability of educational information systems. eGA experts recommended enhancing interoperability among educational information systems to advance data exchange and data-driven decision making.

In **Namibia**, The Ministry of Information and Communication Technology sought cooperation with eGA under the sponsorship of the AU-EU D4D to address the country's digital divide. eGA's two-week programme in Namibia focused on strengthening digital skills and inclusion through various workshops and train-the-trainer seminars. The programme was successful, with around 200 participants showing a great desire to learn and teach others in the community.

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In **The Gambia**, eGA experts analysed the general level of digitalisation for a Digital Readiness report. The report provided input for the National Digital Economy Master Plan, compiled jointly with the Ministry of Communications and Digital Economy. The Gambia's digital transformation journey began in 2005. Since then, the country has made significant strides in digitising processes and converting records from analogue to digital formats. "We are in between

digitisation and digitalisation," Serign Modou Bah, Director of Telecommunications and Postal Services at the Ministry of Communications and Digital Economy of The Gambia, says, adding that the country is making progress in striving for more established and advanced stage in digital development. In Bah's words, "The Gambia recognises that harnessing technology is crucial for our development and competitiveness in the global arena."

### Building synergy and trust

The keywords of these projects are collaboration, a beneficiary-centric approach and donor coordination. "The AU-EU D4D Hub project has built real synergies from the trust and coordination between Member States, complementing each other's expertise and helping to grow long-term relationships with partner countries," explains Mariin Ratnik, Undersecretary for Economic and Development Affairs of the Ministry of Foreign Affairs of Estonia.

The programme was successful, with around 200 participants showing a great desire to learn and teach others in the community.

#### **Birgit Podelsky**

Tiina Viiderfeld, manager for D4D Hub projects at eGA, says that one of the challenges was understanding the current levels of digitalisation and the preferred methods of communication and collaboration, especially when starting the project and working online. She notes that the project activities became easier once the partners got to know each other better and formed personal connections.

### The first digital dividends

Digital transformation does not happen overnight, but years of focused work produce results. Uganda's Permanent Secretary at the Ministry of ICT and National Guidance, Dr Amina Zawedde, says that 71% of their government agencies now use some form of e-services. "As a result, we have calculated that over 5 million working hours have been saved to date over the last ten years, and the country has improved its positioning in international rankings on digital government development," he noted on eGA's Digital Government Podcast.

## Secure data exchange for Madagascar

eGA experts consulted with the digital governance unit of the Madagascar Government (Unité de Gouvernance Digitale, UGD) on the implementation of their secure data exchange platform. The Estonian-origin platform, X-Road, was launched several years ago and needed advice on how to speed up its adoption. In 2024, eGA experts provided UGD with technical assistance, legal framework recommendations and capacity-building training for the team and stakeholders.

All in all, the projects and seminars in Africa succeeded in building trust and connections between partners and opened the door for future collaboration on digital transformation.

> 71% of the Ugandan government agencies use some form of e-services.

Dr. Amina Zawedde

# Cybersecurity must go hand in hand with digitalisation in Moldova



Radu Serrano

Project Manager, NCSI Data Lead

For the past 15 years, Moldova has focused on digital transformation with successful results, including the digitalisation of multiple public services. However, such advancement has come hand in hand with cyber risks and threats, as evidenced, among other things, by the war being waged next door, which caught Moldova as unprepared as others.

As the country reached out for international assistance, the EU answered with the Moldova Cybersecurity Rapid Assistance (CSRA) and European Peace Facility (EPF) Assistance on Cyber Defence projects. The former covers the civil government, including parts of the private sector, while the latter reinforces Moldova's military sector.

## Focus on cyber resilience

As Moldova aims to ensure the delivery of high-quality public services and aspires to harmonise its legal framework with the EU, the CSRA project seeks to strengthen the capacity building of Moldovan stakeholders, enabling them to compile cybersecurity legal frameworks and bring those in line with the EU's approach, standards and relevant legal and policy frameworks. During the past two years, eGA experts have provided advice on how to adjust the governance and normative-legislative framework for cybersecurity, which has resulted in the adoption of the new national cybersecurity law and the governmental decision establishing the National Cyber Security Agency. Governmental and institutional capacities for quick responses to cyber and data security threats have been developed through multiple courses focused on technical skills and delivery of equipment to specific institutions. The project has provided assistance to the development of the country's Secure ICT Product Lifecycle and Business Continuity Planning guidelines. A cyber awareness campaign, 'Siguranța Digitală', was launched to increase cyber awareness and hygiene across all layers of society, in conjunction with more than 80 events across the country. Furthermore, the project has attempted, wherever possible, to synchronise and cooperate with other international endeavours to avoid the duplication of efforts and to multiply positive results.

A cyber awareness campaign, 'Siguranța Digitală', was launched to increase cyber awareness and hygiene across all layers of society, in conjunction with more than 80 events across the country.

### Focus on cyber defence

The EPF project, on the other hand, aims to increase the ability of the Moldovan Armed Forces to detect intrusion into their information systems and to counter cyberattacks. To achieve this, several procurements for equipment have been initiated, and multiple cyber defence training and live fire exercises for 29 members of the Armed Forces of Moldova were conducted this year.

### Lessons learned and the future

While Moldova is eager to improve its cybersecurity, human resources in this field must be expanded and enhanced. Projects focusing on equipment should especially consider this and plan accordingly. Additionally, constant coordination to strengthen bonds with the beneficiaries of any such projects is highly recommended. Moreover, coordination between donors is important for creating greater synergy between the various supporting measures and activities.

### Key projects in 2023–2024

### Moldova Cybersecurity Rapid Assistance

2022-2024



The two-year project enhances the

Republic of Moldova's cyber resilience, focusing primarily on protecting critical infrastructure. The primary achievement of the project so far has been the creation of



a new cybersecurity law that has since been adopted by the Moldovan Parliament. This law creates a solid foundation for the establishment of a competent authority in the field – the National Agency for Cyber Security of Moldova. In addition to this, numerous capacity-building activities were carried out. These included, for example, the regional Cybersecurity Symposium in November 2023, a cybersecurity boot camp for young people and the Women in Cyber Forum to amplify women's role in cybersecurity. Moreover, a cyber hygiene campaign (www.sigurantadigitala.md) with e-learning opportunities has been created for awareness raising.

Funded by the European Union

### European Peace Facility Assistance on Cyber Defence in Moldova

2022-2025







of the EU's European Peace Facility assistance measure

in Moldova aims to increase the ability of the Moldovan Armed Forces and the Ministry of Defence to detect intrusion into information systems and counter cyberattacks. The project covers cyber defence training and exercises and preparing for and delivering cybersecurity equipment. In November, eGA and CybExer Technologies conducted training and a series of cybersecurity exercises for 29 Moldova Armed Forces members to improve their cyber defence skills to effectively prevent, detect and respond to cyber threats.

Funded by the European Union

#### Facts & Figures

ongoing projects in Moldova

6,7 M euro

euros total budget for ongoing projects The National Cyber Security Agency established

pieces of cybersecurity
 legislation passed,
 and two bills that would
 amend 20+ other laws
 currently being drafted

study visits (to Estonia, Finland, Latvia, Netherlands, Belgium and Germany) for 77 Moldovan government officials

80+ cybersecurity awareness-raising events were held in Moldova, with over 2,300 participants, of wh approximately 46% were

# Data exchange makes things happen in Kyrgyzstan



Tõnis Mäe Resident Twinning Advisor



Almost a decade since the inception of its first plans, Kyrgyzstan's public services are now available online for citizens, and data exchange is happening between government agencies. Over the last two years, eGA led an EU twinning project to support Kyrgyzstan's digitalisation agenda and contribute to capacity building of the national authorities to manage and lead the digital transformation.

### Putting data exchange to work: A foundational shift

One of the key moments in Kyrgyzstan's digital transformation journey was the introduction of a data exchange layer in 2015. The Estonian X-Road was identified as a fitting solution for improving the trafficking of information from and to government agencies.

The path ahead for Kyrgyzstan involves continuing to build reliable data sources, redesigning service delivery and ensuring that the digital transformation aligns with the needs of its citizens. Federico Plantera <sup>WordsMatter OÜ</sup>

Despite initial setbacks, including political changes and funding challenges, persistent and collaborative efforts led to the successful implementation of X-Road in 2018. The national data exchange platform, as often happens in the case of open-source technology, takes a local name – Tunduk. Tunduk has already revolutionised the way data is shared and used within the government. There, as elsewhere, it is the backbone of digitalisation, enabling the provision of digital services and breaking down of data silos.

The integration of 185 organisations into the system, supporting over 1,000 e-services, signifies a monumental step towards a cohesive digital ecosystem – a step that was made possible thanks to international support from the European Union and partner organisations, as well as the support from the US in overcoming the early challenges.

### Citizen services become available on mobile: A paradigm shift

If the story may sound familiar so far, similar to Estonia's own even, there is a big difference in the last mile, so to say, of service delivery. One key difference is how people first access and use public services. In Kyrgyzstan, there is a

Tõnis Mäe

For two years, there has been successful cooperation between Kyrgyzstan and the countries of the European Union. Thanks to this cooperation, there has been an exchange of best world-class practices and experience in the development of digital skills, government services, data protection and cybersecurity. And this is exactly what we need to continue Kyrgyzstan's digital journey.



**Nuriya Kutnaeva** Minister of Digital Development of Kyrgyzstan

shift from computer-based to mobile-based citizen services. The change significantly affects the way people interact with the government. This transition is supported by the widespread accessibility of mobile devices compared to computers. Furthermore, adopting a mobile-first approach from the beginning allows for the further democratisation of access to government services, making them more accessible and convenient for the general populace. But beyond the tangible benefits and positive public reception of mobile-based services, this approach aligns Kyrgyzstan with global digital trends, showcasing a commitment to user-centric design and accessibility in digital governance.

### The challenges of data quality and collaboration

However, there is always room for improvement, as we all know. Despite the strides made in digital transformation, Kyrgyzstan faces ongoing challenges, particularly in the realms of data quality and inter-organisational collaboration. 53

There is a critical need for reliable and trustworthy data sources to support effective and efficient digital processes. The state of digital registers, especially, needs constant maintenance and improvement. And the general deep-seated reluctance to share data across organisations poses significant barriers to further advancements. This is the case in Kyrgyzstan, but also in other countries that are going through similar paradigm shifts.

The path ahead for Kyrgyzstan involves continuing to build reliable data sources, redesigning service delivery and ensuring that the digital transformation aligns with the needs of its citizens.

But beyond the tangible benefits and positive public reception of mobile-based services, this approach aligns Kyrgyzstan with global digital trends, showcasing a commitment to user-centric design and accessibility in digital governance.

Tõnis Mäe

### Key projects in 2023

### Twinning project: Support to Digitalisation Agenda in Kyrgyzstan

#### 2021-2023

The project supported the digital development of Kyrgyzstan by improving digital skills, facilitating access to public e-services, enhancing citizen privacy and data Support to Digitalı. Agenda in Kyrgyzs.

Twinning pr

protection, and increasing national cybersecurity. Improvement of digital skills was accomplished by the Haus (Finland) and the Innovation Centre of Digital Competencies. Improvement of access to public e-services was carried out by the e-Governance Academy (Estonia) and the Ministry of Digital Development. The enhancement of citizen privacy and data protection was accomplished by the CSI Piemonte (Italy) and the Data Protection Agency. The improvement of national cybersecurity was carried out by the e-Governance Academy, the Cybersecurity Coordination Centre under the State Committee for National Security and the Ministry of Digital Development.

Funded by the European Union

### What did we achieve?

- The Innovation Centre of Digital Competencies has the knowledge and skills to develop and conduct training programs and enrol certified trainees.
- 5 data analytics courses for 147 people were conducted; 61% of participants were women.
- The Tunduk data exchange platform was upgraded to the newest version, and 94 IT administrators were trained to ensure secure public service provision.
- An online public awareness platform on data protection, data privacy, and citizen's rights was launched jointly with the Data Protection Agency. Additionally, an on-site cybersecurity course was developed.
- Recommendations to improve data protection standards in line with GDPR were developed.
- Cybersecurity-related legislation, security standards and information security requirements were improved.
- Recommendations on how to collaborate with other national cybersecurity units were delivered to help the government cope with cyber-attacks.

### Facts & Figures

905 days of consultations in total
86 digital governance experts from Estonia, Finland and Italy involved
370 officials engaged
5 study visits to Estonia, Finland and Italy

# The NCSI: A fresh reset



### Radu Serrano

Project Manager, NCSI Data Lead, e-Governance Academy

Initially piloted in 2016, the National Cyber Security Index (NCSI) included 177 UN member states and territories as of August 2023. Now, the methodology of the NCSI has been updated, ensuring that the NCSI remains the most consistent and transparent live index in the field.

This meant that throughout the years, the NCSI team and more than 120 contributors from more than 90 countries continuously submitted approximately 780 information datasets, making the NCSI the most consistent and transparent live index in the field. In December 2023, the methodology of the NCSI was updated, and the task of filling up the index according to the new indicators is once again upon us all.

# Why did the methodology change?

Technology, processes and knowledge are constantly evolving. So are the threats and problems that stem from them. The e-Governance Academy periodically revises the NCSI indicators and criteria to align with the latest global best practices. The methodology was introduced in January 2018 as version 2.0 received an update in February 2019 with fresh descriptions. The latest iteration, methodology 3.0, launched in December 2023, includes updated maturity indicators. In addition, it takes into account developments in technology and the evolving risk environment, as well as the maturation of countries' cybersecurity practices. Chile, Georgia, and Finland are some examples of countries that have routinely used the NCSI to boost their national cybersecurity.

Radu Serrano

### What's new in the methodology and website?

The previous methodology had 46 indicators, while the NCSI 3.0 has 49. These are still grouped into 12 capacities under three main categories: strategic, preventive and responsive cybersecurity. Eleven new indicators are roughly similar to parts of the previous version, eleven others are entirely new, and the rest have received updates to their criteria and descriptions. Some of the changes to showcase include:

- Political leadership, commitment to international law in cyberspace and cybersecurity research and development (Strategic category)
- Cybersecurity of cloud services and the supply chain, and cybersecurity awareness raising coordination (Preventive category)
- Cyber incident reporting tools, participation in international incident response cooperation, procedural law and military cyber doctrine (Responsive category)
- The updated NCSI also includes revised indicator scores and weights.

The NCSI 3.0 includes revised maturity indicators, taking into account developments in technology and the evolving risk environment, as well as the maturation of countries' cybersecurity practices.

The website's (ncsi.ega.ee) format has remained the same, with new subsections added to the navigation bar. The methodology subsections have been updated, with the Description of Indicators sub-section presenting additional information on every indicator of the NCSI 3.0. Secondly, a new Frequently Asked Questions section has been introduced, which will be continuously updated to reflect the most common inquiries about the NCSI and its methodology. And finally, all data from the previous methodology has been archived in the NCSI 2016–2023 section.

The previous methodology was frozen at the beginning of September 2023, and the rankings and data of all the countries and territories in the NCSI up to that point have been saved in this section for all to use and see. While the methodology might have been updated, the country data present in the archives might still be up to date with respect to the previous methodology's indicators.

### How can you benefit from the NCSI?

The NCSI is a free live global index that doubles as a cybersecurity reference, assessment and capacity-building tool. Anyone interested can visit the website ncsi.ega.ee and view its contents. In addition to presenting country-focused views, the platform also allows users to make comparisons among countries to see where deficiencies or areas of improvement might exist and use the evidence from third countries to improve their own cybersecurity profile. Chile, Georgia and Finland are some examples of countries that have routinely used the NCSI to boost their national cybersecurity.

We also invite you to assist us in updating and keeping up to date with the NCSI. Since the revision of the methodology, we have been endeavouring to display the 170+ countries and territories we had in September 2023. With your help, we can achieve this goal faster and keep the evidence in the country pages correct and timely.

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### Contact us

- 🗹 Update your country's data, write ncsi@ega.ee
- Visit the page ncsi.ega.ee



Digital Government Podcast: Best talks of 2023

Casting light on the past, present and the future of the digital transformation

# 20 years of change in managing digital transformation



Federico Plantera <sup>WordsMatter OÜ</sup>

The rapid pace of technological development opens new opportunities for governments, but it also introduces challenges, risks, and new factors to consider in strategy papers – as well as calls for different ways of delivering services to citizens. has witnessed many changes in the last two decades. First, as the first Government CIO of Estonia until the early 2000s, then later in his role at the e-Governance Academy. In conversation with Chairman Hannes Astok, he reveals how managing digital transformation has changed throughout the years in Estonia and beyond.

### The evolution of terminology and the technological landscape

Terminology is often a good place to start. Shifting terminology mirrors the changing nature of digital government, too. In this light, Ott reflects on the era where electronic governance or e-governance focused on simply integrating computers and networks within government infrastructures.

But over the years, these metamorphosed into a more comprehensive approach marked by discussions surrounding e-Estonia, the information society and digital transformation. Where Start small with manageable steps and agile goals.

Arvo Ott

did the complexity lie? In driving collaboration and change across different ministries, emphasising the need for a shift from technology-centric to collaboration-centric strategies.

Ultimately, this all marked the progression of the government's engagement with technology. As a result, Estonia is now seen as an example of a digital society, illustrating a story of social and economic growth. While not straightforward, this journey has involved continuous change, adaptation and the optimal utilisation of available resources.

### Political will, pragmatic implementation

Perhaps, however, one of the strongest drivers of digital transformation is not tech-related. Political will and its influence in driving digital government initiatives certainly hold a vital role. But while this matters in shaping budgets and strategy, pragmatic needs and motivations in the public sector also set the tone for successful implementation.

For the most part, as an example, that has been the case in Estonia throughout two decades of digital transformation initiatives. ComplementCult influ of a Arve

ed by practical problem-solving approaches, a balanced environment arose in which officials and politicians could collaborate effectively.

Throughout the years, this has sounded like a unique experience to many outside observers. Irreplicable, perhaps. And still, no one says that every country should do the same – or that the Estonian way, and its way only, is how we bring about digital transformation.

### Different models to lead and execute digital development

As Ott explains – and has seen in his multi-continental experience – diverse countries adopt diverse models to realise their digital development strategies. "Cultural factors, for example, are pivotal influencers in the way digital governance is thought of and what it shall look like," he points out.

For this reason, transferring one country's model directly to another is unlikely to work. Instead, each government should seek and adopt specific approaches to creating a digital society or even just make the first steps towards increasing efficiency in the public sector through technology.

Cultural factors, for example, are pivotal influencers how digital governance is thought of and what it shall look like.

#### Arvo Ott

Within this diversity of approaches, a distinction emerges between coordination and management and what they entail, respectively, with respect to the significance of agreements and cooperative frameworks in steering progress. It is a matter of focus.

According to Ott, coordination revolves around achieving agreements and fostering collaboration among different ministries, often relying on mechanisms of cooperation. In contrast, management focuses on setting rules and leading projects directly, primarily at the ministry level.

# Small steps and soft sides in far-reaching transformation

After two decades of learning about and implementing digital transformation, we understand that technology, though crucial, isn't the only factor in revolutionising government processes. Ott's experience underscores the critical need for starting small with manageable steps and agile goals rather than monumental projects with monolithic approaches. In Ott's words, all without forgetting about the soft side of digital transformation: change management, cooperation and attitudes toward adopting new technology. A mix of factors has proven successful in Estonia's experience so far and in that of countries worldwide, too.

After two decades of learning about and implementing digital transformation, we understand that technology, though crucial, isn't the only factor in revolutionising government processes.

Arvo Ott

# Developing digital skills today and tomorrow



Federico Plantera <sup>WordsMatter OÜ</sup>

"Digital skills feel like a superpower because if you can use computers and the Internet, the world opens in front of you," says Kristi Kivilo, Senior Expert at the e-Governance Academy, while discussing with Kristina Mänd the relevance of developing digital skills, how that went in the past couple of decades and what lies ahead.

Digital skills are, indeed, the perfect example of something relatively small but which may have a tremendous impact on people's lives. That holds true in rapidly growing countries, in nations tackling digital and media literacy issues or day-to-day standard cyber hygiene practices.

### Digital skills: Beyond just technology

Digital skills today go far beyond basic technological know-how. They encompass a comprehensive understanding of how to navigate and utilise the digital world effectively. As Kivilo emphasises, these skills are not limited to high-level technical expertise but include basic functionalities like operating smart devices and using digital applications. Increasingly so, these skills are fundamental to participating in various aspects of life, including work, education and social interactions. Understanding one's digital skill level is key. It's not about categorising skills into basic or advanced levels but rather about recognising those necessary for personal and professional life. Kivilo and Mänd stress that while not everyone needs to reach an expert level, having a foundational understanding and staying updated with digital advancements is crucial.

Awareness-raising initiatives are one way to improve digital literacy. Tailored approaches, such as workshops for parents and school programs for children, help embed digital consciousness across different age groups. Such initiatives improve skills and encourage a proactive attitude towards digital security and responsible online behaviour.

### Collaborative responsibility in skills development

The responsibility for cultivating digital skills is a collaborative effort shared among individuals, technology creators and the public sector, Kivilo points out. While individuals must take the initiative to learn and adapt, technology producers are responsible for ensuring their products are user-friendly and accessible. This collaboration is pivotal in building a digitally inclusive society. This was well-proved in Estonia by the public-private partnership initiatives of the Look@ World Foundation.

What are governments supposed to do on their part? By integrating digital skills into educational curricula and public policies, governments can ensure that digital literacy is not an afterthought but a fundamental aspect of citizens' development. Such an approach paves the way for societies that are better equipped digitally and more digitally resilient.

### Two decades of training and advancing digital skills – with more to come

The evolution of digital skills over the past two decades reflects technological advancements and changing societal needs. Twenty years ago, the focus was on understanding essential computer functions and hardware. Today, the emphasis has shifted to more sophisticated concerns like online safety, data management and the utilisation of advanced digital services.

The responsibility of cultivating digital skills is a collaborative effort shared among individuals, technology creators, and the public sector.

Kristi Kivilo

Digital skills have evolved from simply knowing how to operate devices to becoming part of a continuous journey of learning and adaptation.

#### Kristi Kivilo

The progression of digital skills in Estonia, as Kivilo and Mänd observe, showcases this shift. Initially, the focus was on basic computer literacy. However, the emphasis has now widened to encompass vital elements such as cybersecurity, information literacy and proficiency in navigating complex digital environments. This evolution marks a transition from just understanding technology to using it as a tool for empowerment and engagement in various aspects of life.

The integration of artificial intelligence and other emerging technologies will require new forms of literacy.

### Kristi Kivilo

Looking to the future, digital skills are set to encompass an even wider array of competencies. As Kivilo points out, integrating artificial intelligence and other emerging technologies will require new forms of literacy. The ability to interact with smart devices, understand AI-driven processes and maintain online safety will be essential skills for future generations.

Digital skills have evolved from simply knowing how to operate devices to becoming part of a continuous journey of learning and adaptation. As technology progresses, it is essential to how we understand and use it that we advance as well. The nature of digital skills is continually changing, and there is a shared responsibility to promote digital literacy within society. The examples from Estonia and eGA's initiatives in Georgia, Ukraine, Namibia and Estonia underline the importance of adapting to technological changes and the need for a mindset that embraces continuous learning in the information age.

# Two decades of lessons in digital engagement and new horizons



Federico Plantera <sup>WordsMatter OÜ</sup>

Twenty years of digital engagement and participation have deepened ties between governments and citizens but also raised new challenges and digital societal risks to address. Certain questions are becoming more and more topical: What fell through the cracks of this transformation? Who, if anyone, has been left behind? And how to get them back on track.

Two of e-Governance Academy's top e-democracy senior experts – **Kristina Mänd** and **Kristina Reinsalu** – came together to discuss the most influential digital developments of the last two decades and shed light on how they are shaping the topics and priorities of digital transformation.

### The promises, successes and setbacks of digital engagement

Participation and e-democracy are among the areas of government-to-citizen interaction that, for a long period, were seen as destined to be changed the most by increasing technological development. However, even in countries with high levels of digital penetration and adoption, certain of the anticipated outcomes of this digital evolution have yet to be fully realised. "There were hopes that technology would transform completely the way citizens participate in decision making, but we can say now that this obviously hasn't happened," Reinsalu begins. "At the same time, we cannot say that technology hasn't changed anything. It may not have increased the number of active citizens, but it made it much easier for them to contribute."

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Technology may not have increased the number of active citizens, but it made it much easier for them to contribute.

#### Kristina Reinsalu

Citizen engagement in digital form does not happen overnight. "This depends on various factors, political and social, individual and contextual. But local governments who engage citizens using digital tools report ending up with better decisions and better service development," says Reinsalu. Not a result to be dismissed.

### Participatory budgeting: The practice of involvement and participation

Engagement and participation shouldn't be seen as a one-way relationship. The two terms create a complementary dynamic – one that participatory budgeting, a ten-year-old custom in Estonia, helps describe pretty effectively.

"Participation and engagement are not the same thing. Yes, at first, one might say that engagement, as a word, stands for a larger framework within which participation takes place," explains Mänd. But it's also a matter of angles and points of observation. "In engagement, we rather take the lawmaker perspective, while participation focuses more on the citizens' viewpoint," Mänd highlights. "And participatory budgeting is clearly a very good learning-by-doing exercise where both sides are valued and represented," Reinsalu adds.

Speaking of engagement, it often appears as if the initiative – and credits for it – lie solely in the public sector. Effective and good participation, however, goes beyond the simple question of who initiated the process. "To work out engagement, regardless of the type of actor that gives it a start, is also a matter of responsibility – making sure that organisations set the right aims – why are we doing this? – and the right tools – how to get the right stakeholders involved," Mänd says.

### Crowdsourced expertise to tackle digital vulnerability

Engagement practices bring clear benefits. But when this becomes a recurring, systematic approach to co-creating solutions and services, a better society is in sight. To that end, "we have to make sure that we don't leave people behind, that we don't create or increase digital vulnerability. We must make sure to work on systems and approaches that deal with the issue of people's digital skills and access to tools," Mänd warns.

Participation opens up the box of crowdsourced expertise. "Nobody is smart enough on their own," as Reinsalu puts it. "I can be an expert in one field, but I cannot claim to know the perspective of people living in different neighbourhoods and geographical areas or dealing with disability. It is smarter to involve these groups from the get-go, signalling problems that matter to them, and encouraging them to participate in the design of appropriate, shared solutions," Reinsalu says. Or paraphrasing: Nothing for me without me.

"The more digital and connected we are, the more societies are exposed to new types of vulnerability," Reinsalu points out. Tackling digital vulnerability means preventing people from falling through the cracks of the new digital societal risks that stem from accelerated development – something that only effective engagement can support "because engagement makes us bigger, as a nation, culture, society." The point of engagement "is not to find a solution that makes everyone happy but to make decisions that solve particular problems in the best way," Mänd concludes. "And it's not just the result that you can be happy with, but the process too – how we get there."

The point of engagement is not to find a solution that makes everyone happy but to make decisions that solve particular problems in the best way.

Kristina Mänd

# Resilience, protection, freedom: What the future holds for cybersecurity



Federico Plantera <sup>WordsMatter OÜ</sup>

How long do 20 years of cybersecurity actually feel like? Quite intense and intensive, for sure. It's unlikely that anyone thought that the Internet and ICTs would come with no risks, no maliciousness, and no actors aiming to exploit vulnerabilities in digital systems.

Two of e-Governance Academy's cybersecurity senior experts – **Kadri Kaska** and **Merle Maigre** – remind us how far we've come. But they also recap the events and lessons learned on safeguarding digital spaces from over two decades of training, planning and practising.

### Do you remember computer viruses?

The times of computer viruses seem to be long gone – by now, a vintage memory of pop-ups frantically appearing on your computer screen or movie scenes of heists with tech from an earlier era. "I like saying that cybersecurity, at its very core, is simply about the security of interconnected devices," Kaska begins. "Those viruses were mainly something amusing. Sometimes they cause problems, but they hardly disrupt business continuity or service delivery." In 2007, many realised that cyber threats could become matters of national security and sovereignty, as in the way countries behave and arrange internal matters.

#### Kadri Kaska

"But as digitalisation advanced and penetrated every aspect of our lives, cybersecurity became a matter of sustaining and protecting what we consider our normal, habitual way of life in this modern society," Kaska says.

Cybercrime – since we mentioned movie heists – is when things began to change a bit. "Around the early 2000s, cybercrime started to be more and more of an issue, to the point of becoming recognised as worthy of being a public security concern. So governments started to pay more attention to it."

### How far we've come: From spam emails to critical infrastructure

Alongside cybercrime, threats in the digital sphere took on a political dimension and expanded, too, in scope and range. "For example, Estonia got its early shock, a wake-up call: the 2007 cyberattacks against the country, which brought public cybersecurity into the media Cybersecurity matters, but countries must strike the right balance between safeguarding their digital space and protecting fundamental rights and freedoms on the Internet.

#### Merle Maigre

spotlight. That was the moment when many realised that cyber threats could become matters of national security and sovereignty, as in the way countries behave and arrange internal matters," Kaska continues.

Then came Russia's war in Georgia one year later, where cyber attacks served to complement kinetic military action on the ground, showing us how the cyber dimension had entered the world of warfare. "Ransomware campaigns then brought to public attention how attacks aimed at manipulating critical state infrastructure can affect the provision even of essential services – such as in the case of healthcare in the United Kingdom, to mention one among many," says Kadri. Then came the 2016 presidential elections in the United States, in which there were known cases of meddling and influencing targeted at distorting public opinion and changing votes.

"All these examples show that we've gained awareness – awareness that cybersecurity is something that countries should keep in mind and properly address in their national security agendas," Kaska points out.

### Resilience on the Internet: Between protection and freedom

Twenty years of cybersecurity, though, have not simply exposed a collection of potential threats. They have also seen the development of different approaches, from protection to resilience. "One of the fundamental shifts that took place over the past 20 years, as you [Kaska] have written elsewhere too, is the move away from attempting to shield against everything. This shift towards resilience, instead, strongly resonates with me," Maigre adds.

"It ultimately underlines the importance of two tracks to work on. Building firewalls and working on preventive measures is still a good and useful course, but it shouldn't be the only one. Next to it, assuming that a breach has happened, we must build resilience to take us through and past it," Maigre says.

This point indicates that there isn't one way of thinking and doing cybersecurity. There isn't only one relevant pillar to consider in national cybersecurity agendas. But according to Maigre, "Internet freedom must be in the picture too. Cybersecurity matters, but countries must strike the right balance between safeguarding their digital space and protecting basic rights and freedoms on the Internet." To not lose its value, "cybersecurity should be regarded as an enabler rather than something that constrains people's rights and freedoms. When that mindset becomes part of how national strategies and agendas are defined, security and Internet freedom seem less in conflict." Kaska concludes.



# 20 years of technological change and transformation



Federico Plantera <sup>WordsMatter OÜ</sup>

eGA Senior Experts Heiko Vainsalu and Mark Erlich take us through the technological changes of the past 20 years, from popularising tech talk in government and society to novelties and black boxes to unpack. What's changed in digital development worldwide, and what hasn't? What's coming up next?

"The core is pretty much the same as 20 years ago," says Mark Erlich. "From niche products in some specific business areas to technology getting out to the public. It was something only true techies knew about. People in general didn't know about cryptography or anything else like that," Erlich says.

"Moving away from the core, a lot has happened regarding technological applications. We see many new technical solutions that are part of our daily life. All kinds of smart gadgets, from smartphones to household appliances. That has evolved indeed, and the benefits from such developments are not just on the expert side but also for common people."

Just buying technology does not answer the question posed by digitalisation.

**Mark Erlich** 

### Applications making tech popular beyond the buzz

The question is: Has there been an acceleration in development or adoption in the past few years? "If I think back to the past five years, everyone talked about building an economic system using blockchain. Then, scrolling back even more, there were heavy discussions on how to use the cloud. This phenomenon is both amusing and impactful at the same time. Those were buzzwords, still stick around," Heiko Vainsalu begins.

And perhaps, there needs to be – like it or not – a moment of salesmanship in tech talk. "Buzzwords are, indeed, rather related to sales or marketing arguments. Take the cloud: the technology has existed for a long time, even before the Internet was invented. Technically, it's not something too complicated. But explaining its use and applications to regular consumers, users, or even decision makers is not straightforward. The same happened with the blockchain," Erlich continues. In many instances, that could be what turns them from niche products into more widely known terms.

"I would agree that there has been rather little technical innovation in core technologies in the

Digitalisation means, instead, a change of societal mindset, an upgrade in rules and regulations. Essentially, accepting that all we see in a digital format has the same value as what we see on paper.

#### Mark Erlich

comes to mind as the first place where taxpayers' money can be saved and injected instead into other sectors of the national economy," Erlich says.

But if every country today officially says they're working towards digitalisation, as Vainsalu asks, what exactly do they mean by it? "Even countries we wouldn't canonically consider highly digitalised are using the most recently emerging gadgets. The only difference is that some governments have been digitalising just some parts of society or just some of their functions. But, to achieve full digitalisation, we need a transformation process," Erlich explains.

Such transformation would need "a process that does not involve only technology. Technology is something you buy when you need it. Digitalisation means, instead, a change of societal mindset, an upgrade in rules and regulations. Essentially, accepting that all we see in a digital format has the same value as what we see on paper," says Erlich.

"Just buying technology does not answer the question posed by digitalisation. When efficiency is the goal, governments must also look into processes and procedures. To identify what can be made simpler, and the unnecessary steps or oversight that can be automated and made more secure," Erlich points out. To get there, governments are called to grow with technology, and societies to develop together with them. As Vainsalu concludes, "technological innovation, even if minimal, is still very important to bring about wider acceptance and adoption".



past 20 years. But wording and marketing have been fundamental in highlighting the values of technology to a wider audience, not solely composed of tech-savvy people, as well as making more of the general public understand its benefits and be at the receiving end of useful applications that make life more convenient," Vainsalu explains.

### Government's path from digitalisation to digital society

Governments and public administrations, however, must also reap the benefits of technological change and its applications. "As it consumes an enormous amount of budget in running the state, in every country, public administration

# The 10<sup>th</sup> e-Governance Conference explores the keys to digital success



Kristina Mänd Programme Director of the #egov2024

In its 10th year, the e-Governance Conference (#egov2024) transforms Tartu, Estonia, into a hub of digital innovation and discussion. This time, we are diving into "Unlocking Digital Success," a theme that is about how we think about and work with people, technology and processes in digital transformation. It is the perfect platform for learning, networking, and real-life insights, tailored for everyone interested in shaping the future.

The theme of the 2024 conference reflects our core belief at eGA: digital transformation (what we do) is good for prosperity and openness (why we do it) because prosperity and openness make the world a better place. We want to build a world where everyone has equal opportunities, chances to express themselves, and pursue their dreams.

We have chosen topics that are key to understanding and managing the change that comes with digital governance successfully. From designing services and developing a digital business environment to exploring digital innovations for green transition and unveiling the benefits of cyber security, these discussions are designed to address both the current and future challenges and opportunities in our digital world.

## Exchange of practices and ideas

As every year, the conference gathers experts worldwide, each contributing unique insights and experiences. Our guests will hear from a mix of international leaders and practitioners of driving digital change.

This exchange of real-life stories and discussion of creative solutions offer valuable ideas and practical framework for taking action and adapting to different contexts in digital governance. Whether you are involved in policy development or tech innovation or simply passionate about the evolution of governance in the digital age, the insights are designed to inspire and guide practical applications. The environment and factors of success change. With our international experts, we will explore the timeless factors for success as well as those that will shape our future.

### Meeting point at the European Capital of Culture 2024

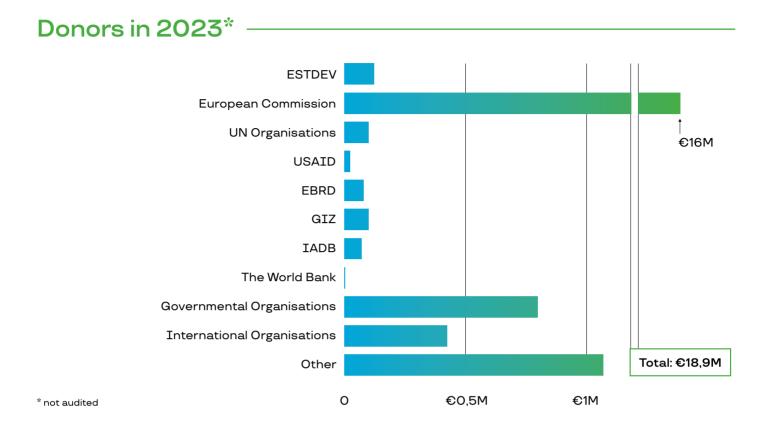
This year, the conference takes place in Tartu – the European Capital of Culture 2024 - where you may also explore Estonia's rich cultural backdrop. The events of the #egov2024 are held in the most outstanding places as the Estonian National Museum - one of the most modern and stylish museums in both the Baltics and Europe, AHHAA Science Centre or Emajõgi Barge Society complex.

Join us to shape discussions on digital governance's future. Let's find the next keys to digital success! Together.

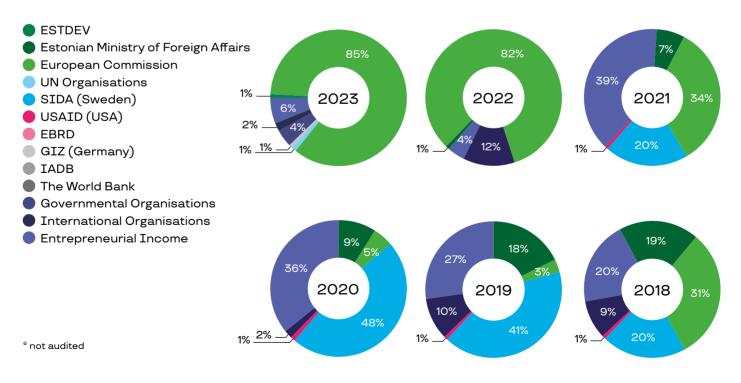
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eGA's activities in figures 2002–2024



### Income by source in 2018-2023\*



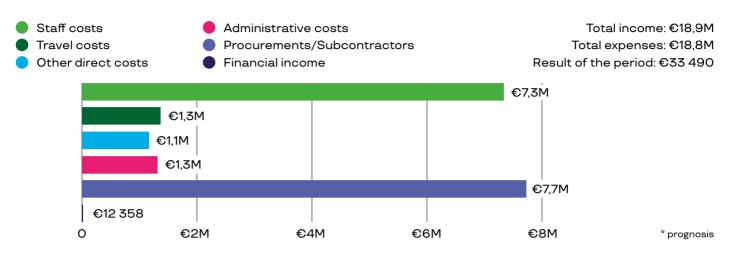


### Beneficiary countries/regions in 2023

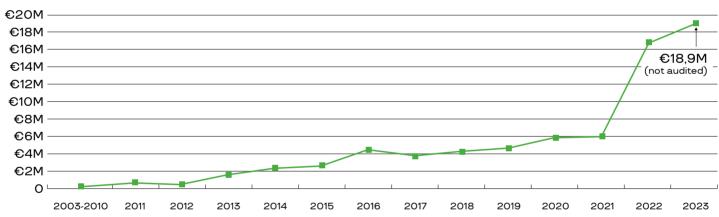
### Top 10 collaboration countries by funding ( $\in$ ) in 2018-2023



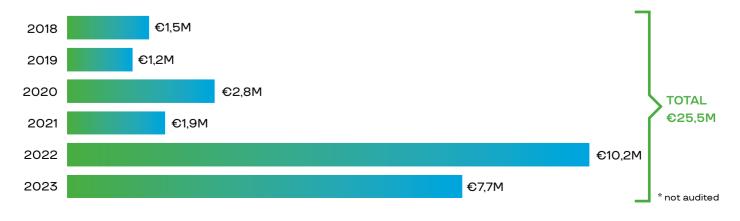
### Income and expenditure 2023\*



### Income in 2003-2023



### Procurements and sub-contracts in 2018-2023 and total\*



73



Organisation at a glance

# We are the e-Governance Academy!

1 in the United Kingdom

56 in Estonia 31 in Ukraine 1 in Kyrgyzstan 1 in Mexico 1 in Moldova 1 in Portugal 1 in Serbia

### Education



### Division by gender **46 57**

### Time worked in eGA





35%

We are ready to meet our partners. Everywhere!

Expert missions 2023 904 days in total

increase

in the number of

employees within

the year 2023

by **240** employees

### Most consultancy days



# eGA outstanding colleagues in 2023

### Employee of the Year 2023 – Piret Saartee



Piret is a colleague who has contributed significantly and purposefully to the achievement of eGA's goals during the year. The quality of her daily activities shines out, embodying eGA's values at every step. She is a dedicated colleague

who approaches her work with immense passion and a clear sense of purpose. For Piret, no mountain is too high to climb – she views every problem as an exciting challenge. Her commitment to her work ensures that everything planned is accomplished with excellence.

### Newcomer of the Year 2023 – Veronika Pikk



Veronika is a friendly and cooperative team player, always ready to take on challenges with an optimistic attitude. She manages the eGA office efficiently and creates a positive atmosphere with her contributions to events. As a newcomer,

Veronika quickly adapted to her role and has become an indispensable part of the team. Her invaluable help and friendliness make the day-to-day tasks in the office run much more smoothly.

### Colleague of the Year 2023 – Mari Pedak



Mari is an exceptional individual who demonstrates care, broad thinking and outstanding human and professional qualities. Always friendly and cooperative, she is a true motivator within the team. Mari's positive attitude and behaviour cre-

ate a welcoming atmosphere, and everything she does reflects her consideration for others. Mari sets an example for the entire team with her expertise and work ethic.

### Team of the Year 2023 – EU4DigitalUA



The EU4DigitalUA team is a highly dedicated team with a strong spirit, professionalism and a positive work attitude. Their strong spirit also stands out to others, and the results of their work are impressive, characterised by professionalism, effi-

ciency and long-term positive impact. The team is fully committed to the project, facing numerous challenges together and demonstrating strong teamwork. Despite external difficulties, such as Russia's war against Ukraine, the EU4DigitalUA team shows strength and has achieved extremely positive results within the project so far.

# Liia Hänni: e-Democracy requires commitment from both governments and citizens



Riina Kallas Communication Expert

For two decades, eGA has been privileged to work with Liia Hänni, a former minister and member of Parliament (the Riigikogu). Also known as the "mother" of the Estonian constitution and pioneer of i-voting best practices, Liia has been a driving force in promoting e-democracy. Her extensive experience and dedication have greatly contributed to eGA's mission. According to Liia, technology opens up new communication channels, but harnessing the potential of technology requires the commitment of public authorities as well as citizens.

As you contemplate retirement after twenty years with eGA, could you share your early experiences and the initial themes you encountered?

Liia: I was invited to join eGA by Ivar Tallo, one of its founding members, back in 2004 to develop an e-democracy programme at eGA. It was a time of significant global changes, with ICT impacting fundamental rights and freedoms and culminating in the transformation of political processes. Technology opened gateways for accessing public information, augmenting governance transparency and enhancing citizens' awareness of political affairs. The primary aim of the e-democracy programme was to enlighten society about the participatory democracy opportunities emerging from technological advancements. We recognised that technology can open up new ways for people to communicate, but for it to truly make a difference, both government bodies and citizens need to be ready to use it effectively. Therefore, our efforts focused on building this readiness, not only in Estonia but also in the countries partnered with eGA.

### How have the focus areas of the e-democracy programme changed over time?

Liia: Democracy is akin to a multifamily dog often overlooked by many. In 2011, the International Open Government Partnership (OGP) signalled a hopeful shift. This initiative urged governments to leverage technology for transparent, participatory and accountable governance. Now, 76 countries and 106 local governments are part of the OGP. Estonia joined the initiative in 2012, and eGA has since played a key role in the preparation and implementation of Estonian OGP action plans. eGA also offered training and knowledge to Estonian local authorities, including knowledge sharing on open and inclusive governance using ICT. These projects were extended to various countries like Georgia, Moldova and several Balkan nations.

In recent years, the e-democracy programme's pivotal focus has been on citizen engagement, aiming to ensure that the advantages of the digital society reach as many people as possible.

#### Estonia introduced i-voting in 2005, making up over half of all votes. How has this affected society?

Liia: When i-voting was legalised, expectations arose that this convenient voting channel would substantially elevate voter turnout. However, this anticipation was not met as expected. People's electoral behaviour is influenced more by other factors, including interest or even disillusionment with politics. Nonetheless, the increasing popularity of i-voting in Estonia indicates people's shift towards the use of digital channels, even in direct democracy.

We recognised that technology can open up new ways for people to communicate, but for it to truly make a difference, both government bodies and citizens need to be ready to use it effectively. E-democracy often becomes a priority for governments when there is a strong demand from civil society. 77

Liia Hänni

### In your opinion, which country stands as the model for e-democracy and why?

Liia: Ideally, I'd nominate Estonia – a compact, well-educated nation with a wide use of technology. However, the weak point in this chain is political leadership, which does not take democratic innovation as seriously as it deserves. Regrettably, I cannot draw upon personal experiences to designate any country as the benchmark for global democracy. Instead, I rely on the UN e-governance review published in 2022, in which Japan holds the highest e-participation index, followed by Australia. Estonia and Singapore share 3rd and 4th positions.

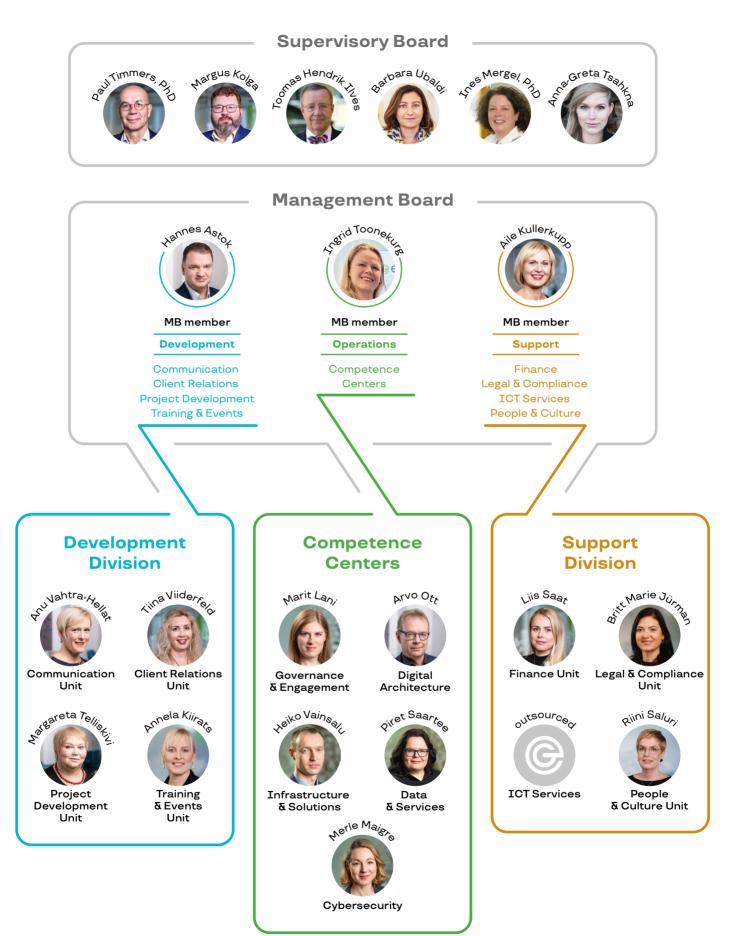
E-democracy often becomes a priority for governments when there is a strong demand from civil society. The extent to which citizens embrace and engage with technological solutions in the political arena will shape the future of democracy in our increasingly digital society.

#### Looking ahead, how do you envision the evolution of e-democracy in the coming decades?

Liia: As we move forward, the distinct concept of e-democracy might gradually become less prominent as technology becomes increasingly integrated into all aspects of social processes. I am eager to witness the impact of artificial intelligence (AI) on society and democracy, an aspect humanity is only beginning to comprehend. The crucial factor remains to ensure that general human morality guides and regulates the actions of AI.

### As you look forward, what are your plans or aspirations?

Liia: For me, democracy has never been just a job; rather, it is a mission that requires constant commitment. I hope to stick with it.



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- Digitalising Public Service
- Digitalising Registers and Managing Data Quality

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### Cybersecurity

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- Cyber Risk Management and Capacity Building

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Digital Government Podcast



