



# e-Governance Academy

## YEARBOOK 2019

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# e-Governance Academy – Facilitating the digital transformation of governments

## e-Governance Academy

eGA is a nonpartisan think tank and consultancy organisation founded in 2002 for the creation and transfer of knowledge and best practice concerning e-governance, e-democracy and national cyber security.

## Mission

eGA helps governments increase their governance efficiency and improve their democratic processes. For this purpose, we analyse and create information about e-governance and transfer Estonian and international best practices around the world.

# 2019 at a glance

**6,500**

**e-governance leaders**  
trained in digital  
transformation

**400+**

**e-Governance Conference**  
participants from  
110 countries around  
the world in Tallinn

**208**

**organisations**  
collaborated  
with eGA

**130**

**countries**  
used eGA in e-government  
policy planning  
and implementation

**150+**

**countries**  
listed on the National  
Cyber Security Index

**44**

**courses** given in Estonia  
for e-governance officials  
responsible for digital  
transformation in their country  
and **15 e-governance seminars**  
organised in other countries

**35**

**employees** working  
in Estonia, Ukraine and Serbia  
and an additional **280**  
e-governance **experts**  
involved in eGA's activities

**39**

**projects**  
eGA has successfully  
conducted

**Aruba, Japan,  
and Ukraine**

sent the most  
delegations to attend  
study visits in Estonia.

**Ukraine**

hosts the **largest eGA  
project**, which improves  
public service provision  
and makes governance  
more transparent  
and effective

**5**

**memoranda of understanding**  
signed with five institutions  
of Mongolia, Brazil, Costa Rica,  
Eswatini and Sierra Leone

**4.62 m**

**euros turnover**

# A giant leap starts from small steps

**Arvo Ott**  
*Executive Director*

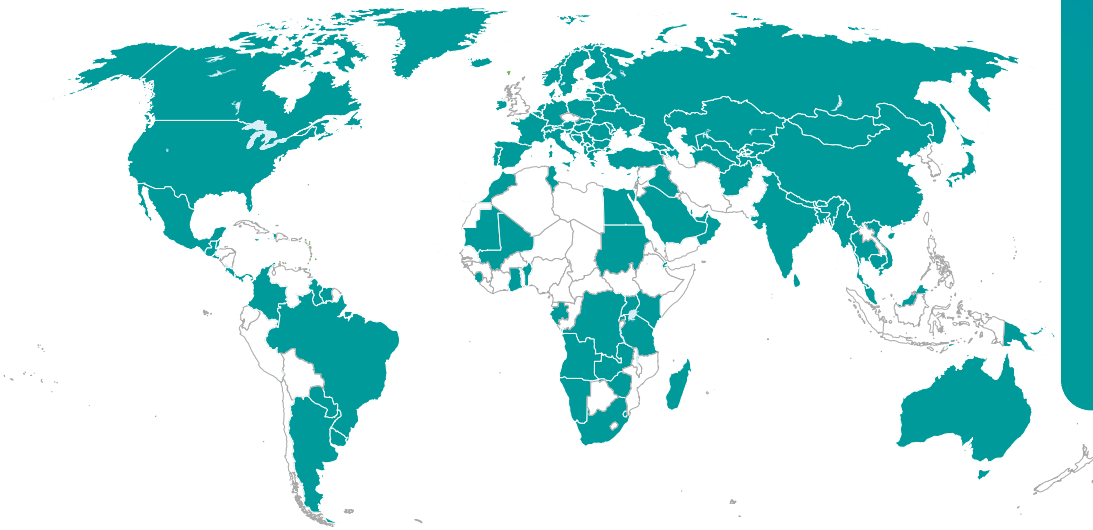
Last year the world celebrated the 50th anniversary of the first walk on the moon by humans – Neil Armstrong and Buzz Aldrin. As we know, this giant leap for humankind started from small steps: meetings, research, programming, technology development, etc. The same principle applies to digital transformation and e-governance development. Great stamina, meticulous planning, timely decisions, continuous actions and patience are needed to be able to look back years – or sometimes decades – later and realise what a giant leap has been achieved. Hence every government needs to lead its innovations and ensure progress is made, one small step at a time, with many small steps amounting to a giant leap. And of course stability and patience are needed, to convince citizens and build trust in society toward the use of new technologies and new possibilities.

And not surprisingly, the same principle describes also the year 2019 for eGA. We continued to take steps towards digital transformation in our collaboration countries. Since its establishment, eGA has worked with **208** organisations from **130** countries. In 2019, we continued our collaboration with the **European Commission, the Ministry of Foreign Affairs of Estonia, UNDP, USAID, the World Bank** and other international organizations. We launched our first project with the **Rockefeller Foundation** and continued our project with **Australian Government** foreign aid support. Moreover, we signed five memoranda of understanding to enhance cooperation with e-government organisations from **Brazil, Costa Rica, Eswatini, Mongolia** and **Sierra Leone**.



In 2019, we further developed our tools of government consultation, such as the **digital maturity model** and the **digital transformation roadmap**. Both of these tools help governments set their focus on digital transformation to continue development towards **efficient, sustainable, and transparent** public administration. On the way forward, our technology implementation experts assist governments in dividing the overwhelming vision of digital transformation up into various activities and achieving long-term goals with continuous innovation. Small steps every day, keeping in mind the broader vision and having good partners available for advice and mentoring – this has been the successful formula for the countries that eGA has collaborated with.

In 2019, eGA's biggest projects were conducted in Ukraine and Benin. In **Ukraine**, we are assisting the government in its decentralisation reform by developing and implementing a secure data-exchange



Every government needs to lead its innovations and ensure progress is made, one small step at a time, with many small steps amounting to a giant leap.

Arvo Ott

platform and information system. Both developments make public service provision and governance more transparent, corruption-free and effective. In **Benin**, we are working on launching a secure data-exchange framework, a catalogue of interoperable solutions (CatIS) and an online portal for public services. Moreover, in Benin our work aims at the same goals, even if the solutions we implement are different.

The big developments also need a good team to work with. We are glad to collaborate in Ukraine with **Cybernetica AS** and **SoftXpansion** and in Benin with Cybernetica AS, **UpMind AS**, and a local partner, **Open SI**.

In the field of e-democracy, in 2019 we paid attention to skills and (e)-tools that empower the community. Last year we launched the new **e-platform to fight corruption** and increased **young Europeans'** awareness of and motivation for political participation. We believe that in these times, which are so turbulent and uneasy for so many countries in the world, the vibrancy, energy and power of civil society has become even more crucial. Civic energy, combined with collective wisdom and supported by the smart use of digital tools, has the potential to rejuvenate democracy.

The eGA cyber security team took a big leap forward by ranking the cyber security capacities of more than

150 countries in the **National Cyber Security Index (NCSI)** in 2019. The NCSI currently includes approximately three-quarters of the world's countries, making it the most consistent and transparent index in the field.

Last year was very successful for our e-governance training courses too. eGA set a new record by conducting 44 courses for e-governance officials responsible for digital transformation in their country. The countries sending the most delegations were **Aruba**, **Japan** and **Ukraine**.

Last year the e-Governance Conference, our largest annual event and our biggest networking opportunity, attracted 400 participants from 110 countries around the world. We focused on digital transformation roadmaps and presented case studies from Africa, the Eastern Partnership, and EU countries and beyond. This year we move further and concentrate on the practical aspects of how governments can achieve their long-term goals with actionable small steps and continuous innovation. You are invited to join us in May in Tallinn, Estonia!

With the small steps, the volume of operations also increased, which is reflected in eGA's sales turnover. Sales for 2019 reached 4.6 m euros.

# The trends that will shape e-government in 2020

**Linnar Viik**

*Programme Director of Smart Governance*

**The turn of the decade brings new trends shaping the way governments deal with innovation. It is time to shed a light on the underlying dynamics setting the agenda for public digital development in the next 10 years: what will drive an ever-pervasive innovation, and how governments can tap into these trends to distribute the dividends of a truly digital society.**

In the next decade, governments are called upon to **take a new role in this advantageous convergence** and not to passively submit to the winds of innovation any longer. Governments should look into enabling people and particular sectors of the economy to become digitally savvy, and to reach full ICT adoption in those sectors. To do so, governments need to **refine the best practices in understanding and handling technological change**. States can (and should) act as **mature entrepreneurs**, foreseeing fruitful social investments and adopting strategies of process management from the best private-sector experiences. However, the many myths about the infamous “digital leapfrogging” should be treated with caution. Decision makers should keep in mind that **innovation is not a rat race**.



Not all states will be talking about the same e-governance topics in 2020, as not all of them have yet achieved the desired levels of digital maturity. However, once the **key digital enablers of e-governance** are in place, the public sector can take on the challenges of the decade to come.

The key digital enablers are:

Digital identity;  
Population register;  
Business register;  
Land and real estate register;  
Availability of digital financial services and tools for digital payments.

# Four recommendations for effective e-governance in 2020

The trends that will change the relationship between states and digital transformation in the coming years:

## 1 GOVERNMENTS AS INNOVATORS

Governments must support and prepare the necessary conditions for the development of a digital society – in terms of **education and skills** and also through **measures to make the digital economy flourish**.

Every country has certain centres of gravity, certain sectors of excellence driving digitalisation in the national economy. This might be banking and finance, or industrial production, or even culture and tourism, depending on the nation. In this sense, governments should **make it possible for this competitive edge to translate into spillover effects** to foster widespread digitalisation in other sectors.

States should shift their focus from internal IT development to targeted investments, and fair rules for market competition. And as innovators themselves, public sectors can assume a crucial role in creating better ecosystems for digital transformation.

## 2 THE EMERGENCE OF A HYBRID MODEL AND PUBLIC-PRIVATE PARTNERSHIPS (PPPS)

We see **a new, hybrid model for digital transformation** taking shape, where states increasingly engage the private sector – and not only through public procurements. When problems are jointly identified from the beginning, developing and managing the solutions is easier. Furthermore, in a context where **equality of opportunity and access to investments** are ensured, cooperative projects of digital development enhance the competitiveness of a country's private sector.

## 3 AN ACCELERATOR FOR PUBLIC DIGITAL TRANSFORMATION

Perhaps not so surprisingly, **common challenges** can make different nations stronger when they join forces. When the approach is collaborative and highly result-oriented, digitalisation can be made painless and cheaper – just as it happens with **accelerators** in the private sector. Jointly, the countries can benefit from external technical advice and mentoring, and **achieve amazing results much faster and with smaller investments**. To this end, to facilitate roadmap development and implementation, this year, e-Governance Academy is **launching a digital transformation accelerator for governments**. In this way, countries obtain the most benefits from superb expertise and coaching to intensify institutional and regulatory development, as well as capacity-building.

## 4 RETHINKING SOVEREIGNTY IN THE DIGITAL AGE

International organisations are growing, and **borderless digital tools** are developing. What would it mean, for example, for a group of countries to rely on **public cloud solutions**? Currently, the laws state that data and operations need to take place within a country's territory. But rethinking certain aspects of sovereignty, in the era of ICTs, could prove particularly **useful for highly connected or small countries**, such as those in the South Pacific or the Caribbean.

New talking points in governments' digital agendas might shake up established practices. But e-Governance Academy will keep supporting and helping public organisations and policy makers to **make the most of the digital transformation**.



# Highlights of 2019

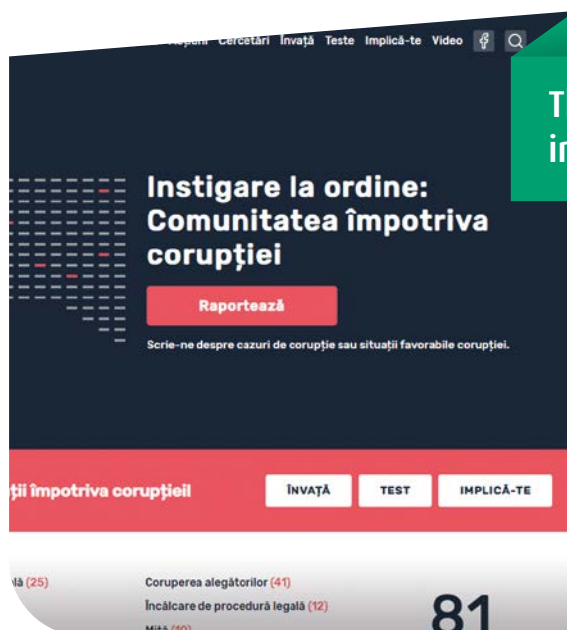
## Large-scale IT systems implementations in Ukraine

Within the EGOV4Ukraine project run as part of the U-LEAD with Europe programme, eGA, in collaboration with the Ministry of Digital Transformation and IT companies, implemented the Trembita, a national secure-data exchange system, and the Vulyk, a modern information system in Ukraine. Both systems will improve public service provision and make governance more transparent and effective. Trembita makes government databases securely and digitally accessible to other government institutions and empowers e-services development. Vulyk will improve the availability and quality of services provided by local municipalities. As of the end of 2019, 15 organisations have made its databases digitally accessible to other government institutions via Trembita, and the first



administrative e-services were launched by the Ministry of Interior, the National Health Service of Ukraine and the State Drugs and Drug Control Service. Vulyk was implemented in up to 50 administrative service centres around Ukraine.

Find out more at [https://ega.ee/project/u\\_lead](https://ega.ee/project/u_lead)



## The Anticorruption Platform in Moldova

A new e-democracy tool – a community platform to fight against corruption (the Anticor Platform) – was launched in Moldova. The platform allows its users to test their understanding and perception of corruption, to learn more about the most common types and characteristics of corruption, and to report on concrete corruption cases they are aware of or have experienced. To date, the people of Moldova have submitted 81 reports. The platform was developed as part of the project “Educate. Engage. Empower. Community Tools against Corruption”.

Find out more at: <https://faracoruptie.md>

## More than 150 countries have been listed on the National Cyber Security Index

The National Cyber Security Index (NCSI) measures the level of cyber security in more than 150 countries and identifies the priority fields that need to be tackled in order to improve cyber security. The index also provides an overview of how prepared countries are to prevent and respond to cyberattacks and crimes. Find out more at <http://ncsi.ega.ee>



## More than 400 participants at the Fifth e-Governance Conference

The eGA's Fifth Annual International e-Governance Conference, "Same Goals, Different Roadmaps", held on 21-22 May 2019 in Tallinn, Estonia, focused on digital transformation roadmaps and presented case studies from Africa and the Eastern Partnership, as well as EU countries and beyond. In all, 400+ participants representing 110 countries attended the conference. Eight of these countries – Armenia, Aruba, Bangladesh, Brunei, Ghana, the Kurdistan Region of Iraq, Mauritius and Rwanda – were present at the ministerial level.

## New record: 44 study visits to Estonia

eGA set a new record in 2019 by providing 44 e-government study visits to Estonia. Delegations participated in training courses in Estonia in 2019 from the following countries: Afghanistan, Aruba, Bahama, Bhutan, Brazil, Cambodia, Democratic Republic of the Congo, Eswatini, France, Georgia, Guyana, Honduras, Hungary, India, Japan, Kenya, Kyrgyzstan, Lebanon, Mali, Mongolia, Palestine, Rwanda, Serbia, Sierra Leone, Ukraine, Uzbekistan, Turkey, Turkmenistan.



## Partner of the Year 2019

e-Governance Academy's award "Partner of the Year 2019" was presented to the Electronic Interoperability Centre of Kyrgyzstan for the most persistent implementation of the Tunduk data exchange solution at the government level and promotion of e-governance. The Tunduk national data exchange platform, based on the Estonian data exchange system X-Road and implemented by eGA and Aktors in 2016, has gained trust and support from Kyrgyzstan government organisations. By the end of 2019, 98 government organisations and business entities had interfaced, and 477 e services had been created.



Find out more at: <https://catalog.ordo.gov.kg>



## e-Estonia. e-Governance in Practice in Japanese

In cooperation with Nikkei Business Publications and Mitsubishi Research and Consultancy, the eGA handbook of e-governance, *e-Estonia: e-Governance in Practice*, was published in Japan. This title was the best-selling European business book on Amazon Japan in June. To date, eGA's e-governance handbook has been published in three languages: English, Russian and Japanese. This guide presents fundamental aspects of the Estonian digital society and explains how state-level technologies, legislation, and engagement systems for citizens and the private sector support e-governance.

Get your copy from the eGA webpage: [ega.ee](http://ega.ee)

## eGA has joined the Green Pledge

Thirty-three Estonian technology companies and organisations, including eGA, signed a Green Pledge at the Tallinn Digital Summit, promising to place their operations on a completely environmentally sustainable basis by 2030. The Green Pledge was created based on the scale of global climate and environmental challenges, and the signatory members shared a desire to find innovative solutions to these acute problems. More specific targets and an action plan to complement the pledge will be compiled by the end of 2020.



# Partnerships in 2019

## Cooperation with UNDP

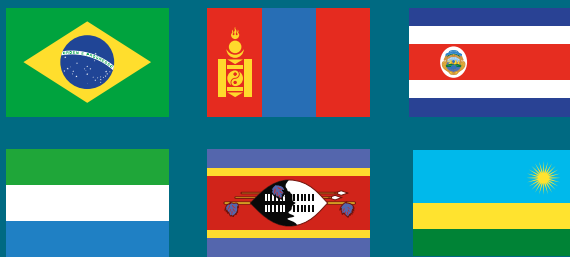
eGA contributed to the UNDP-Estonia collaboration, which employs digital transformation to help reach sustainable development goals. eGA helped develop and test a practical tool that helps governments and stakeholders better understand their country's digital capacities and gaps, and how these impact the achievement of the SDGs. The digital transformation tool will be finalised in 2020.



## Five Memoranda of Understanding

In 2019, memoranda of understanding were signed with five organisations/institutions:

- ① The Communications and Information Technology Authority of **Mongolia**
- ② The State of Rio Grande Do Sul, through the Department of Governance and Strategic Management and Department of Innovation, Science and Technology of **Brazil**
- ③ The Ministry of Science, Technology, and Telecommunication of **Costa Rica**
- ④ The Ministry of ICT of **Eswatini**
- ⑤ The Directorate of Science, Technology and Innovation of **Sierra Leone**



Moreover, eGA has been designated as one of the implementers of the MOU signed between the Ministry of Economic Affairs and Communications of Estonia and the Ministry of ICT and Innovation of **Rwanda**

# Digital transformation to empower the SDGs: 10 years left to achieve the goals



**Radu Serrano**

*Cybersecurity Expert and Project Manager*

The Sustainable Development Goals (SDGs) have set the overarching objective to achieve sustainability by 2030. Hence, we have only one decade left to accomplish this substantial goal with the benefit of information and communication technologies (ICTs). There is no doubt that digital transformation will be one of the hottest keywords of this decade.

eGA continuously empowers decision-makers at all levels of government to spearhead digital transformation programmes. The implementation of such endeavours directly or indirectly empower a number of SDG's. eGA's e-governance, e-democracy and cybersecurity projects have impacted one or multiple SDGs, as described in the following sections.

## 1. NO POVERTY



The **creation, implementation and/or development of a population register, electronic identity, ICT infrastructure**, and the subsequent **training courses** and **guidance** offered by eGA assists in the implementation of this SDG. Proper citizen identification is a necessary precursor to the effective implementation of all-encompassing social protection systems (Target 1.3), and of equal access rights to economic resources and basic services (Target 1.4).

## 3. GOOD HEALTH AND WELL-BEING



Similarly as with the previous SDG, eGA's assistance with ICT and organizational components (e.g. **population registries, electronic identities**, etc.) guarantees an important stepping stone towards the access to universal health coverage (Target 3.8).

## 5. GENDER EQUALITY



ICT solutions are also enablers of gender equality. X-Road (the Estonian **data exchange layer**), as the backbone of public and private **e-services**, ensures equal opportunities, full participation, and empowerment of women, regardless of their professional or domestic work status (Targets 5.4, 5.5, 5.6 and 5.B).

## 8. DECENT WORK AND ECONOMIC GROWTH



Any digital transformation in the public sector will resonate in the private sphere; thus, governments must carefully plan and take into account such disruptions. eGA's

**e-governance roadmaps** allow the development and implementation of infrastructure, components and services, which boost economic productivity and development-oriented policies (Targets 8.2 and 8.3). eGA also advocates the use and application of **open data**, which facilitates innovation in all sectors.

## 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE



eGA's expertise assures knowledgeable assistance in the development of **digital and physical, reliable, sustainable and resilient infrastructure** (Target 9.1) and components (e.g. **roadmaps, X-Road, electronic identity, interoperability catalogues, cybersecurity standards/processes**, etc.). The implementation of these enablers will increase the use of and access to ICTs, in general, and to the Internet (Target 9.C).

## 10. REDUCED INEQUALITIES



E-democracy tools and processes can aid in the reduction of inequality. eGA has developed such tools for specific countries (e.g. **participatory budgeting, VOLIS information system, KOVTP service portal, Internet voting**, etc.). These endeavours, the use of **open data**, and **access to public sector information and e-services**, bolster the social, economic and political inclusion of all (Target 10.2).

## 17. PARTNERSHIPS FOR THE GOALS



eGA's portfolio of solutions directly impact multiple targets of this SDG. **e-Tax services** and its components affect the domestic capacity for tax and revenue collection (Target 17.1). Targets 17.6, 17.7 and 17.8 profit from the successful implementation of an international **data exchange platform**. Technical, process-based, legal and administrative **capacity building** (Target 17.9) has been provided to more than 5,500 participants scattered around the globe. Finally, as a proponent of the **Open Government Partnership**, eGA encourages and promotes effective public, public-private and civil society partnerships (Target 17.17), and assists in implementing e-democracy tools, in order to improve interactions between governments and its citizens.

## 11. SUSTAINABLE CITIES AND COMMUNITIES



Digital transformation can facilitate human settlement planning and management (Target 11.3). eGA has had project-related experience with **digital engagement plans, smart city diagnostics and roadmaps, and document management systems**. The introduction and implementation of participatory budgeting can also strengthen national and regional development planning (Target 11.A).

## 16. PEACE, JUSTICE AND STRONG INSTITUTIONS



The reduction of corruption and bribery (Target 16.5), the development of effective, accountable and transparent institutions (Target 16.6), the guarantee of responsive, inclusive, participatory and representative decision-making (Target 16.7) and of public access to information (16.10), and/or the provision of legal identity to all individuals (Target 16.9) are the main outcomes of most, if not all, digital transformation activities and projects undertaken by eGA. These endeavours include, but are not limited to, **roadmap development, assistance in developing e-solutions, e-Cabinet implementation, e-services, e-democracy tools and consultations on legislation development and organisational set up of an e-government**.

The SDG's were adopted to improve the world and there are only 10 years left to achieve them. Digital transformation assists in their attainment, and eGA in turn can help in these endeavours. To beat the deadline, actions must be undertaken and changes must be implemented. The e-Governance Academy, with its track record of spearheading e-governance, e-democracy and cybersecurity projects, which boost a nation's level of accomplishment of the Sustainable Development Goals, is ready to work with you.

The e-Governance Academy is ready to work with you.

Radu Serrano

# The government is responsible for driving the sustainable digital transformation

**Linnar Viik**

Programme Director of Smart Governance



Global trends show a continuous increase in the dissemination of digital technologies around the world, making digital transformation a true opportunity in achieving development goals for any country and society. Most of the United Nations Sustainable Development Goals (SDGs) can benefit from the digital solutions, and countries that have higher digital adoption rates also perform well on their SDGs. In this process, governments play a key role, and e-governance solu-

tions need to be more closely correlated with broader economic and social benefit.

It is also notable that the majority of the goals and long-term development agendas in countries often overlap, but the roadmaps, as well as their digital transformation roadmaps, may differ. There are no regions that could be considered a homogeneous set of countries with a harmonised approach to the

## DIGITAL TRANSFORMATION ROADMAP:

**DIGITAL MATURITY**

*Where are we?*



*How do we get there?*

**DIGITAL TRANSFORMATION GOALS**

*Where do we want to be?*

*Roadmaps always start with a recognition of where you are and then a decision on where you want to go. All countries are at a different stage of their digital maturity, and an assessment of the present situation, in tandem with a country-specific digital maturity model that addresses social and economic opportunities,*

*is the starting point from which to ensure the goal-setting task. Digital transformation roadmaps are no exception, and a well-planned strategy with broader acceptance from partners and society builds trust in the process.*

*A vision of where you want to be is a great asset, and it fuels the*

*transformation process – but to get closer to your vision, you need to take steps every day. Small steps every day, keeping in mind the broader vision and having good partners available for advice and mentoring – this has been the success formula for the countries eGA has worked with.*

implementation of their development agendas with the help of digital tools. In most countries, the full potential of digital technologies has not yet been used, and digital maturity levels differ from country to country. Within countries there can also be differences between urban and rural areas, and often the cities are in a position to indicate which digital solution may soon be a reality.

The most important keywords for the work with central governments for eGA in 2019 were the country-specific **digital maturity model** and the **digital transformation roadmap**. The majority of our partner countries have recognised the importance and momentum of the digital transformation, and they are looking beyond the implementation of core e-governance components for public administration efficiency and transparency.

E-governance solutions need to be more closely correlated with broader economic and social benefit.

Linnar Viik

Governments are focusing on the full opportunity from digital solutions – making a sustainable social and economic impact, leading with digital solutions. These new goals also need to be addressed at the national digital strategy level, as well as the overall coordination of the implementation process. The focus and energy is increasingly placed on non-technological aspects to drive the expected impact and planning the overall process.

A vision of where you want to be is a great asset, and it fuels the transformation process – but to get closer to your vision, you need to take steps every day.

Linnar Viik



## MAIN PROJECTS

### Empowering administrative service delivery with IT solutions in Ukraine

11/2016 – 10/2020

The project contributes

to Sustainable Development Goals (SDG):



eGA improves public service provision in Ukrainian communities (*hromadas*) and cities by developing and implementing the Trembita government data exchange system and the Vulyk information system for administrative service centres (ASC). Both of these IT solutions make governance more transparent and effective at the national and municipal level and support the development of public e-services.

Trembita makes the EU once-only principle a reality in Ukraine by allowing authorities to reuse and exchange data with other authorities and ASCs. Moreover, it operates as a fundamental infrastructure for providing public e-services. Vulyk is a modern information system for ASCs. It helps to improve the availability and quality of services provided by ASCs by developing communication and work processes, and



by increasing the accuracy of data. By the end of 2020, Vulyk will be implemented in more than 400 ASCs in Ukraine.

The project tasks are conducted within the EGOV-4UKRAINE project as part of the U-LEAD with Europe support programme.

**Funded by** the European Union and its member states Denmark, Estonia, Germany, Poland and Sweden

## Data exchange platform and citizen portal for Benin

2018 – 2020

*The project contributes to Sustainable Development Goals (SDG):*



The aim of the two projects is to develop readiness for government interoperability and to launch the citizen portal in Benin. Within the projects, eGA is collaborating with Cybernetica AS and a local partner to implement a catalogue of interoperable solutions (CatIS) and to launch a secure data exchange framework and an online portal for public services. The secure data exchange framework is based on the Estonian X-Road model with the Unified Exchange Platform (UXP) software. eGA experts support the development of the organisational setup, regulatory framework, related guidelines, procedures and key standards related to the data exchange platform and the portal.

**Funded by** the Government of Benin



Workshop in Cabo Verde

## e-Government Accelerator Program concept

02/2019 – 07/2019

*The project contributes to Sustainable Development Goals (SDG):*



The project addressed the gap between theory and practice in e-governance development: how to translate the agreed-upon values and principles into the implementation process and technology solutions. To address the problem, the e-Government Master Class and Accelerator Program was developed, providing the participating governments with capacity-building assistance. The e-Government Master Class and Accelerator Program are applications and commitment-based rapid and lean development programs for a cohort of governments with common standpoints and goals. It will double the speed, triple the impact and secure the sustainability of the transition process.

**Funded by** the Rockefeller Foundation

## Blockchain integration into the Cabo Verde Factoring Portal

02/2019 – 08/2019

*The project contributes to Sustainable Development Goals (SDG):*



eGA provided technical and legal know-how to integrate blockchain technology into the Cabo Verde Factoring Portal and assisted the operational unit of the inter-ministerial commission for the Innovation and Information Society of Cabo Verde (NOSi) in developing the portal. As a result, IT architecture for the portal was designed, including test deployment of the blockchain solutions.

**Funded by** NOSi



Digital Summit in Australia

## Awareness-raising of Pacific Island Development Aid Countries

09/2018 – 12/2019

The project contributes to Sustainable Development Goals (SDG):



eGA raised awareness about the opportunities of digital service delivery among the governments of Papua New Guinea, the Solomon Islands, Vanuatu, Samoa, Tonga and Fiji in the Pacific region. The project encouraged the use of digital technologies by governments in the Pacific region, enhanced abilities to define, develop, implement and resource roadmaps on e-governance, and enabled governments to engage donors, investors and other service support providers by fostering public-private partnerships.

**Funded by** the Australian government and the Estonian Development Cooperation

## Digitalisation of economic diplomacy in Mauritius

05/2019 – 03/2020

The project contributes to Sustainable Development Goals (SDG):



The eGA project team is assisting the Ministry for Foreign Affairs, Regional Integration and International Trade of the Republic of Mauritius to use ICT solutions in daily organisational processes and communication. Within the project, the ministry implemented an electronic data management system, a knowledge management system, archives and video-based meeting software.

**Funded by** the Ministry of Foreign Affairs of Mauritius

## E-government technical and business systems advising

04/2019 – 03/2021

The project contributes to Sustainable Development Goals (SDG):



In this project, eGA is developing for the Ministry of Information, Communication, Transport and Tourism Development of Kiribati an e-government systems and communications network that links the government offices by establishing a basis for the staged introduction of e-government systems and facilitating improved internal government efficiency, including the delivery of government services to the business community and society.

**Funded by** the World Bank

## Vietnam e-Government action plan

06/2018 – 01/2019

The project contributes to Sustainable Development Goal (SDG):



eGA assisted the Government Office of the Socialist Republic of Vietnam in devising a credible and realistic plan to advance the e-Cabinet and e-Consultation processes and eventually move towards e-services development. The action plan also entailed how e-Cabinet, e-Consultation and e-services development will fit into a data exchange platform, which will be developed in the near future.

**Funded by** the World Bank



Workshop with representatives of Pacific Islands

# New programme: Technology Programme makes ideas into reality



**Tõnis Mäe**  
*Programme  
Director  
of Technology*

Technology is one of the main components of the digital society. Choosing the right technology and its systematic implementation are key issues in developing e-government. eGA's more than 17 years of consulting experience demonstrates that countries that have built a strong technological foundation at the start of their digital development can build a sustainable e-state faster. In order to pay more attention to technology issues and to help achieve the government's e-governance strategies and roadmaps, eGA established its Technology Programme in 2019.

The team of the Technology Programme at e-Governance Academy, in cooperation with external experts, helps governments and organisations develop and introduce the technological architecture needed for their digital development and implement its components.

The Technology Programme assists and consults governments in the following areas:

- development of an interoperability framework and implementation of technical solutions (mainly X-Road),



*e-Cabinet session in Estonia.*

- electronic identity frameworks and solutions (ID card, Mobile-ID, SMART-ID),
- creation of digital databases (registries) and provision of e-services (e.g., e-government portal),
- registration and management of e-government services and databases (using eGA products, the CatIS software),
- development of technical infrastructure (data networks, data centres, cloud solutions, etc.).

In addition, we offer **e-Cabinet, the electronic information system for government sessions**, created at e Governance Academy. This solution is based on the experience of the Estonian Government Session Information System; it uses modern technology and can be adapted to other countries. At the end of 2019, a prototype solution was completed, which we presented during the procurement of the government session information system for the Bahamas. In 2020, we will continue to refine the solution to offer it to any country that wishes to make government sessions paperless and efficient.

# E-democracy: new skills and e-tools to empower the community



**Kristina Reinsalu**

*Programme Director of e-Democracy*

As the health of democracy around the world grows increasingly fragile, more attention should be paid to skills and (e)-tools that empower the community. We believe that in these times, which are turbulent and uneasy in so many countries in the world, the vibrancy, energy and power of civil society has become even more crucial. Civic energy, combined with collective wisdom and supported by the smart use of digital tools, has the potential to rejuvenate democracy.

In 2019, we developed a new e-democracy tool – a **community platform to fight corruption** in Moldova. The platform enables users to test their perception of corruption and recognise corruption-prone situations, and to report on concrete corruption cases they are aware of or have experienced. Moldovan civil

society organisations will use the input to plan further anti-corruption advocacy activities.

However, developed countries can also experience corruption. Thus we have joined forces with Transparency International Estonia and trained Estonian municipalities to raise awareness and find new, innovative ways to use technologies to increase the transparency of decision-making processes and avoid corruption-prone situations.

Moreover, we have actively promoted the values and principles of the **Open Government Partnership** and assisted various municipalities in implementing **open governance** not only in Estonia but also in Latvia and elsewhere. We are happy to have some real OGP champions here like the municipality of Elva



Civic energy, combined with collective wisdom and supported by the smart use of digital tools, has the potential to rejuvenate democracy.

Kristina Reinsalu

and the municipality of Tartu, which have completely redesigned their governance practices and implemented many new innovative engagement actions. Due to our considerable practical experience, eGA was invited to attend the **OGP Local Design Workshop** and to be part of the process of operationalising the new **OGP Local Strategy**.

The year 2019 was the year of active citizenship in the world. In addition to the protests for greater democracy around the world, there was a new wave of awakening of the young generations to play an active role in raising and solving thorny global problems. In addition, one of our projects – **Empowerment of Mobile Youth in the EU (EMY)** – aims to increase young Europeans’ awareness of and motivation for political participation. The project aims to better understand the

willingness of young mobile EU citizens who study and live in Estonia or Austria to participate in the political life in their host country. EMY also identifies barriers for engagement of mobile youth. Discussions with mobile EU youth have taken place before and after the European elections to evaluate young voters’ perceptions and opinions about the 2019 EU election campaigns. The project is ongoing; nevertheless, we have already shared the preliminary findings of the EMY project at the European Public Communication Conference in Brussels.

The new year brings us new challenges and opportunities, and we are ready to expand both geographically and in terms of knowledge. For instance, we will start a new project on increasing civic engagement in the digital agenda in the Balkans.

## MAIN PROJECTS

### Educate. Engage. Empower. Community Tools Against Corruption

07/2018 – 03/2020

The project contributes to Sustainable Development Goals (SDG):



The general aim of the project is to make Moldovan society more aware of corruption at all levels and more active in confronting it by educating, engaging and empowering the population to act against corruption through the use of ICT tools. To that end, the **anti-corruption web platform** was developed. The platform allows its users to test their understanding and perception of corruption, to learn more about the most common types and characteristics of corruption, and also to report on concrete corruption cases they are aware of or have experienced.

Find out more at: <https://faracoruptie.md>

**Funded by** the Estonian Ministry of Foreign Affairs and the Open Society Institute

### Empowerment of Mobile Youth in the EU (EMY)

02/2019 – 02/2021

The project contributes to Sustainable Development Goal (SDG):



The main objective of the project “Empowerment of Mobile Youth in the EU” (EMY) is to support and enhance the inclusion and democratic participation of young EU citizens studying abroad, called “mobile EU youth”, in the political life of their host EU countries and during the European Parliament elections in May 2019.

In this project, the task of eGA is to raise awareness and conduct engagement activities with mobile EU youth in Estonia.

**Funded by** the European Commission



# National cyber security



**Epp Maaten**  
*Programme  
Director of  
National  
Cyber Security*

## The National Cyber Security Index ranks more than 150 countries

The National Cyber Security Index (NCSI) reached a new milestone at the end of 2019 by displaying the cyber security rankings, and corresponding evidence for more than 150 countries at [ncsi.ega.ee](https://ncsi.ega.ee).

In 2019, our main focus was on the collection of data and on finding contributors in the countries. With the help of new members in the NCSI team, information about most of the Latin American countries was added to the index.

A comparison of cyber security indices carried out by the International Telecommunications Union shows that the NCSI is one of the most detailed indices in use. The advantage of the NCSI is that it evaluates countries' digital security but at the same time helps governments to get a common understanding of their situation, identify capacity gaps and prove themselves.

Last year the NCSI's website was revamped, making it possible to see a given country's ranking history, and to sign up as a country contributor or submit evidence for a specific indicator. Country contributors also started to get automatic notifications when their datasets were accepted and published. Moreover, we released version 2.1 of the NCSI's methodology, which resulted in changes in the index ranking.



## Advising Turkey and the Moldovan government

Aside from the index, we have advised the governments of Turkey and Moldova on the development of cyber security. In Turkey we focused on the alignment of Turkey's regulatory framework and institutional capacity regarding network and information security with the European directive. The NIS directive prescribes measures for a high common level of security of network and information systems across the EU. The project's main results are not only the preparation of **gap analysis report** and **legislative proposals** but also the capacity improvement of the relevant staff of the Information and Communication Technologies Authority (ICTA) concerning implementation of the NIS directive and member state practices.

In Moldova we developed the country's institutional capacity in the digital security area. We organised training sessions on information security management known as "ISO 27001, Lead Implementer" and "ISO 27001, Lead Auditor", and cyber security exercises for cyber security specialists from various public institutions of Moldova. The high-level table-top exercise was organised in partnership with the company CybExer Technologies.



Cyber security experts at e-Governance Conference: Janne Järvinen, Kimmo Ruosku and Epp Maaten

## MAIN PROJECTS

### The implementation of the NIS Directive in Turkey

Time: 2019–2020

The project contributes to the alignment of Turkey's regulatory framework and institutional capacity regarding network and information security with NIS Directive 2016/1148. The directive prescribes measures for a high common level of security for network and information systems across the EU. The project includes the organisation of workshops, study visits, and preparation of the gap analysis report and legislative proposals.

**Funded by** European Union

**Leading partner:** KMO Information Systems



### National Cyber Security Index

Time: 2018–2020

The NCSI, launched in 2016 and improved in 2018, helps systematically measure and build countries' cyber security capacities. The project focused on developing a new website, improving the methodology, and evaluating the data. The National Cyber Security Index currently displays more than 150 countries' rankings with their corresponding evidence.

**Funded by** Estonian Ministry of Foreign Affairs through development cooperation



### Development of Moldova's cyber security capacity

Time: 2018–2020

Through the improvement of legislation, the development of a new national cyber security strategy, and the provision of training and advice, we will help the Moldovan e-Governance Agency develop a secure e-government.

**Funded by** Estonian Ministry of Foreign Affairs through development cooperation



Choose a region

1. Greece
2. Czech Republic
3. Estonia
4. Lithuania
5. Spain
6. France
7. Finland
8. Denmark
9. Netherlands
10. Germany

See all countries



# NCSI – How prepared is your country in the face of a cyberattack?



**Epp Maaten,**  
*Programme Director of National Cyber Security*

Safeguarding our digital way of life is a challenging task for both governments and businesses, but on what basis do we actually evaluate our success? How secure is our national cyber space, and what can we do to improve it?

These questions are regularly asked by many governments, yet there have been no tools for **developing and measuring cyber security on a national level.**



Although several different indices have been put forward, many publications do not reveal the whole methodology or the assessment criteria. That's where the **National Cyber Security Index** comes in.

The **National Cyber Security Index** (or NCSI) is based on e-Governance Academy's worldwide experience in cyber security capacity-building. The index presents a fundamental tool for **capacity-building on cyber security** and a transparent systematic assessment methodology on how national cyber security could be understood and managed.

Spanning more than 150 countries surveyed, NCSI focuses on cyber security aspects **that are implemented by the central government**. It measures on the national level a country's preparedness to prevent cyber threats and its readiness to manage cyber incidents, crime and large-scale crises. For example, Finland and Georgia have used the NCSI index as an official benchmark to assess and improve their national cyber security.

Analysing these fields helps to **identify the gaps in policies and strategies that should be tackled to improve the country's cyber security**. Good cyber security means also that a country has **effective procedures** in place to prevent, detect, and react to

cyber incidents. To limit disruption, countermeasures should be planned, discussed and agreed on before a cyberattack even occurs.

**The NCSI country pages serve as a database of hundreds of links and documents**, and they make it possible to see the materials on which our assessments are based. Thus NCSI is a **valuable free source** of shared information detailing how countries are handling their cyber security challenges.

Your knowledge is valuable to us. Would you like to help update your country's information in the NCSI? Do you have suggestions for improvements?

Please get in touch with the NCSI team via [ncsi@ega.ee](mailto:ncsi@ega.ee).

Visit [NCSI.ega.ee](https://ncsi.ega.ee) to explore it yourself!

- |   |   |   |
|---|---|---|
|  1. Greece         |  8. Denmark        |  15. Italy          |
|  2. Czech Republic |  9. Netherland     |  16. Switzerland    |
|  3. Estonia        |  10. Germany       |  17. United Kingdom |
|  4. Lithuania      |  11. Singapore     |  18. Malaysia       |
|  5. Spain          |  12. Slovakia      |  19. Romania        |
|  6. France         |  13. United States |  20. Latvia         |
|  7. Finland        |  14. Serbia        |   |

# E-governance study visits

**Annela Kiirats**

*Director of the e-Governance Trainings*

After 17 years of work with various countries, study visits continue to be one of the main areas of eGA.

**Our tailor-made e-governance study visits** are prepared for countries that need guidance in their digital transformation. Coming for a study visit to Estonia, or inviting Estonian experts to visit, is often the first step in understanding e-governance in practice, as very often, various organisations face dilemmas in how to begin the development of electronic solutions for the government.

In our study visit, we introduce **Estonian and international practices** in building electronic governments for countries that aspire to become e-states. Through mutual discussions and questionnaires, we analyse the country's current situation, identify its needs and, at the end of the course, map out possible solutions.

eGA set a new record in 2019 by providing **44 study visits in Estonia**, but in a typical year we organise about 30 such visits. The eGA study visit is usually a week long, allowing enough time for in-depth exploration of different topics. In collaboration with a contact person in the country, we adjust the content,



based on up-to-date information concerning the country's challenges and the participants' expectations of the outcomes.

eGA's team of experts have **hands-on experience** in e-government organisation-building, legislation development, change management and ICT architecture planning. Aside from our in-house experts, we involve external experts and lecturers from the government (ministries and their sub-institutions), the private sector (companies working under PPP with the government; start-ups, etc.) and academic fields to bring in different viewpoints (universities, research units, etc.).

eGA experts keep up with all the developments in e-governance by maintaining membership in various e-government-related roundtables and teams in Estonia and by attending various international events to compare different e-societies around the world.

If your country needs further advice on implementing e-governance, we encourage you to participate in our study visits. Let's build e-society together!

Our tailor-made e-governance study visits are prepared for countries that need guidance in their digital transformation.

Annela Kiirats



## STUDY VISITS IN 2019



Study visits contribute to SDG 17, which encourages partnership and knowledge-sharing



**44 study visits** in Estonia for **445 officials**



E-government seminars in **15 different countries** for **1000+ people**.



**Countries whose delegations participated in study visits in Estonia in 2019:**

Afghanistan, Aruba, the Bahamas, Bhutan, Brazil, Cambodia, Democratic Republic of the Congo, Eswatini, France, Georgia, Guyana, Honduras, Hungary, India, Japan, Kenya, Kyrgyzstan, Lebanon, Mali, Mongolia, Palestine, Rwanda, Serbia, Sierra Leone, Ukraine, Uzbekistan, Turkey, Turkmenistan.

## STUDY VISITS IN 2003-2019



**6500+** participants



**89 countries'** participants have visited Estonia



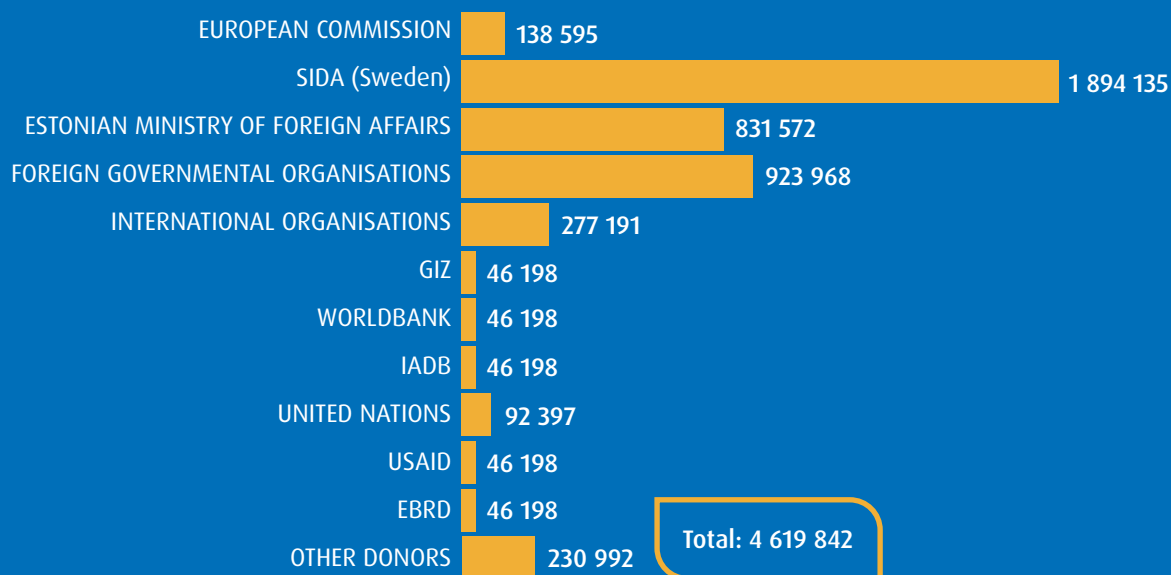
**328 study visits** and seminars



*Prime Minister of Aruba and IT Ministries of Armenia and Rwanda in Estonian e-Cabinet*

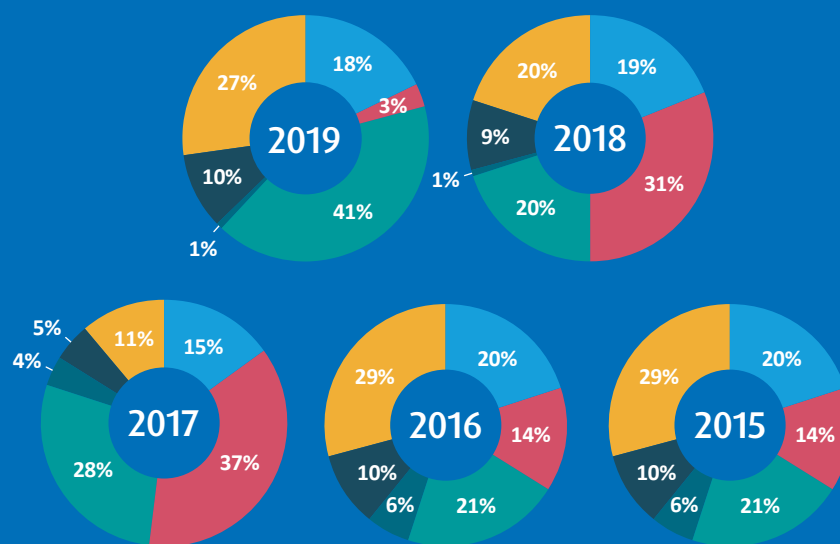
# eGA's activities in figures 2002–2019

## Donors in 2019

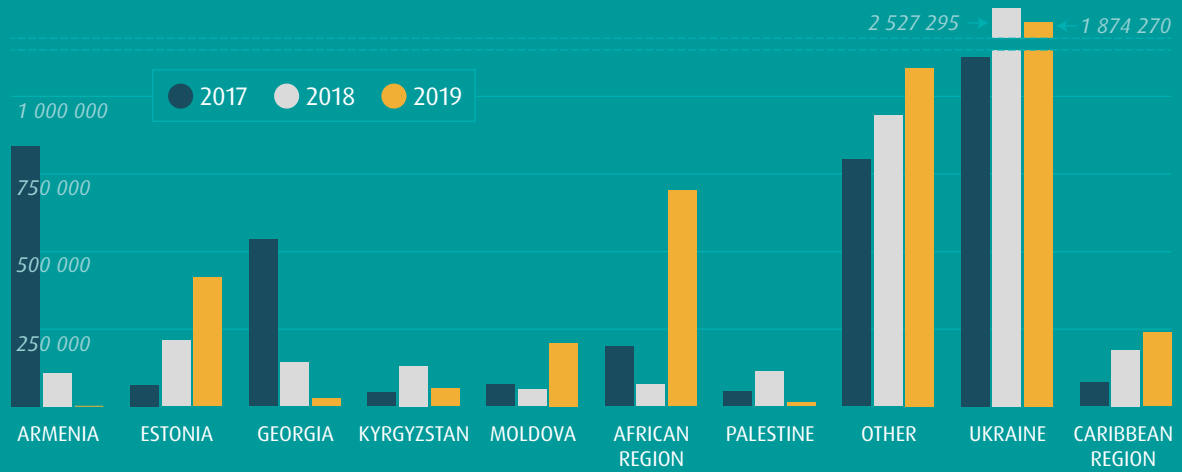


## Income by source in 2015–2019

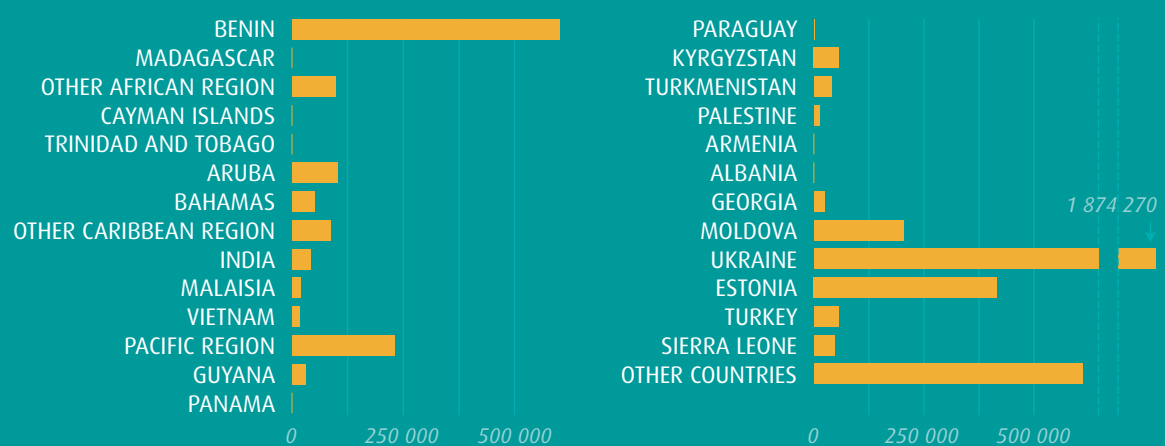
- Estonian Ministry of Foreign Affairs
- European Commission
- SIDA (Sweden)
- USAID (USA)
- Other donors
- Entrepreneurial Income



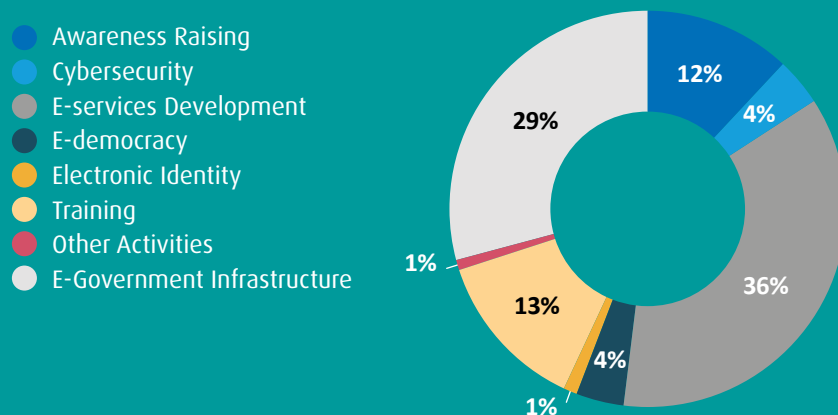
## Beneficiary countries in 2017–2019



## Beneficiary countries in 2019



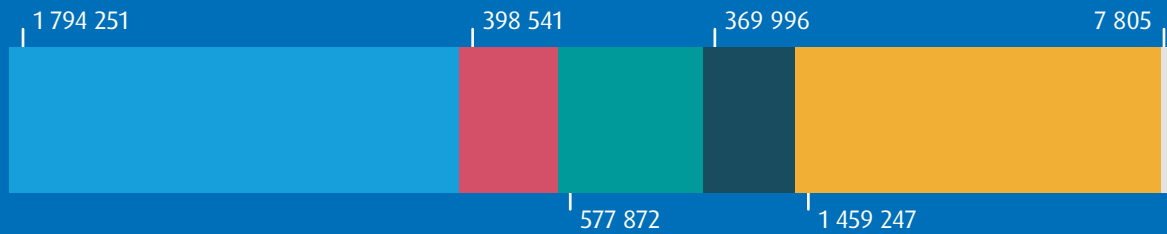
## Income by activities in 2019 (prognosis)



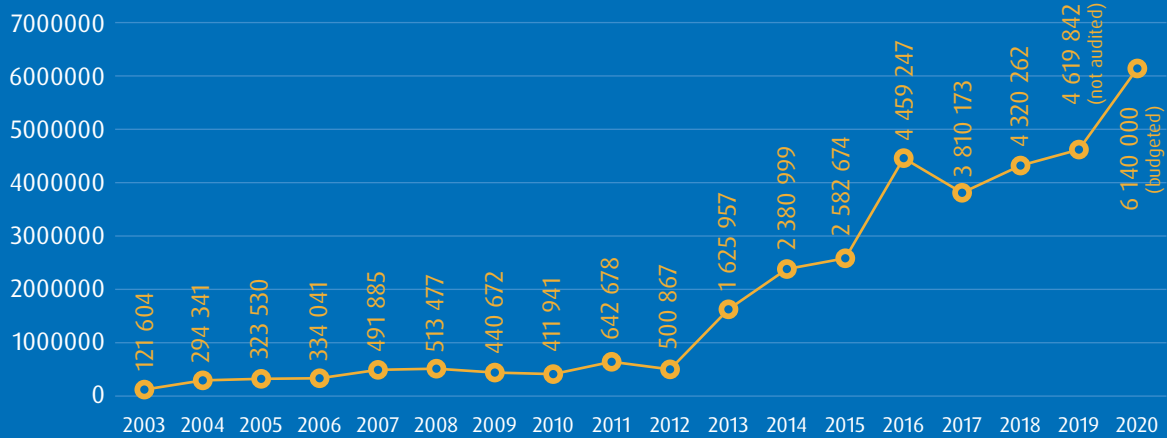
## Income and expenditure 2019\* (prognosis) .....

- Staff costs
- Travel costs
- Other direct costs
- Administrative costs
- Procurements/Sub contracting
- Financial income

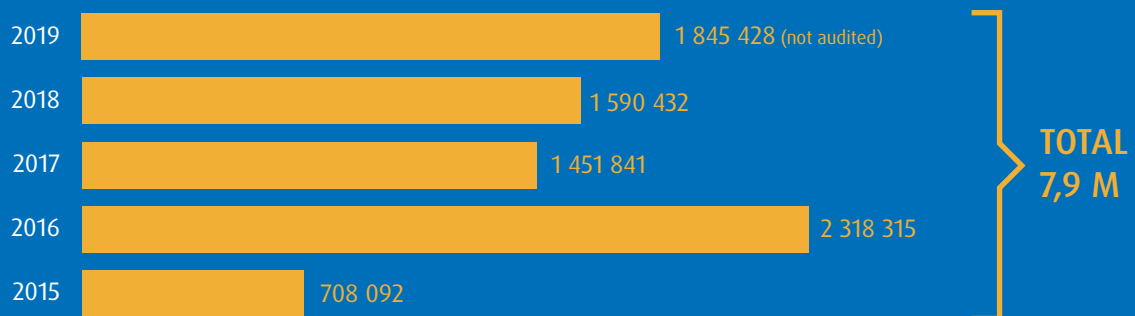
TOTAL INCOME: 4 619 842 €  
 TOTAL EXPENSES: 4 599 907 €  
 RESULT OF THE PERIOD: 27 740 €



## Income in 2003-2020 .....

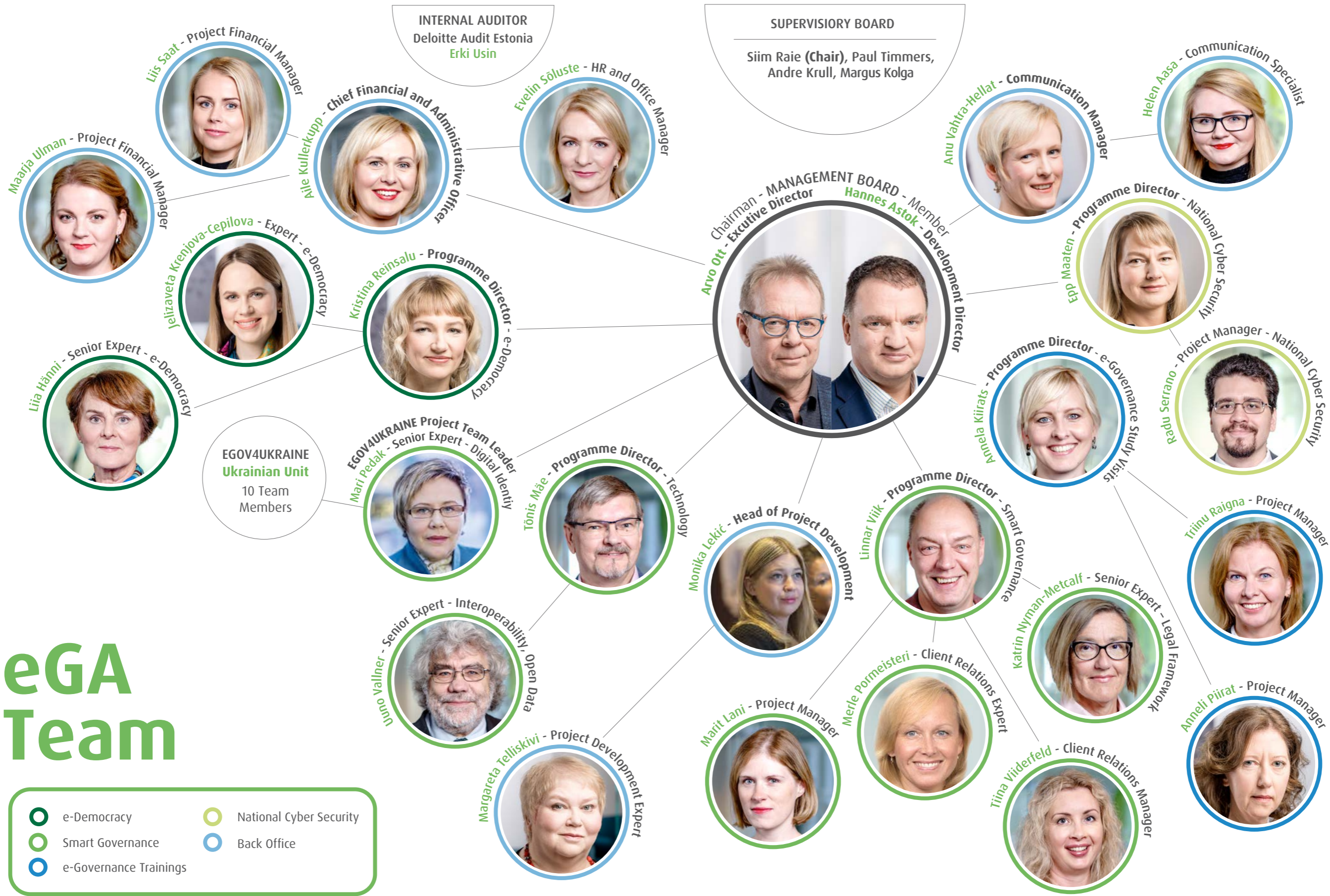


## Procurements and sub-contracts in 2015 - 2019 .....



# eGA Team

- e-Democracy
- Smart Governance
- e-Governance Trainings
- National Cyber Security
- Back Office



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