

# e-Governance Academy

## YEARBOOK 2017

# **e-Governance Academy**

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# Contents

The past, present and the future of e-Governance Academy .....	4
2017: the year of new relationships and implementation of ISO .....	6
Highlights of the year 2017 .....	8
Publications 2017 .....	11
Activities around the world 2017 .....	12
Digital Transformation in e-Government .....	12
Digital Transformation in Municipalities .....	16
Open Governance: Participation and Engagement .....	17
National Cyber Security .....	20
e-Governance Training Courses .....	22
A Brief Overview of eGA's Activities 2002-2017 .....	24
eGA team .....	28
15 fascinating facts you probably didn't know about eGA .....	30

# Empowering e-governance around the world

Since starting its activities in 2002, the e-Governance Academy has trained more than 4,000 officials and has been involved in e-government policy planning and implementation, organisational setup, legal and technical frameworks and management in over 60 countries. It is now delighted to celebrate its 15th anniversary.



## The e-Governance Academy (eGA)

### Mission

**We build and develop open digital societies.**

We advise governments and organisations about increasing government efficiency and developing an open information society. We analyse and

create information on e-governance and spread the best Estonian and international practice over the world. We actualise our mission through consultancy, training, networking, research and assisting in the implementation of e-government technical solutions.

### Vision

eGA is the world's leading e-governance consultancy and development organisation.

# The past, present and the future of e-Governance Academy

In the final months of 2002, three men – Linnar Viik, Ants Sild and Ivar Tallo – turned their ideas into reality by establishing the e-Governance Academy: a think tank providing consultation for the creation of information societies. In 2017, eGA celebrated its 15th anniversary. In the upcoming interview we talk to Linnar Viik about the past, present and the future of the e-Governance Academy.



Ivar Tallo, Ants Sild, Linnar Viik

**Why did you decide to set up an academy, specifically?**

**Linnar Viik:** The ‘academy’ bit of our name is a doffing of the hat to the way knowledge and skills were passed on in ancient Athens, but it also refers to the way in which we approach our work. By the time we founded the academy (in 2002– Ed.) we’d realised that without skills and experience and knowledge on the ground, no one anywhere would ever

be able to build up a successful information society. We also felt, and I still feel, that the information society, and everything that comes with it, is still only taking its first steps. There aren’t any countries or regions that are light years ahead of everyone else, never to be caught. On that point, it’s worth adding that, concerning e-governance and the information society, there’s no roadmap that’s the only right one – we all have our own way of doing things. You have to bear in mind that the local social, cultural and legal aspects will always play a more important role than technology. Learning about the approaches different countries take, being motivated by them and absorbing new ideas from them, is the very thing that makes the global information society so fascinating.

**Have you made something of all of the ideas you had back then?**

**Linnar Viik:** There have been a few distinct stages in the way the e-Governance Academy has developed. At the outset its focus was on sharing Estonia’s experience with other transition countries. What this meant, for the most part, was mapping our experience and then providing loads of training and consultation. The next stage, a much longer one, was, and indeed still is, playing the role of strategic partner and consultant in the development of a number of countries and certain key areas within them. The latest stage is not so much passing on the knowledge and experience of Estonia or the e-Governance Academy per se, but sharing new partnerships and the successful initiatives that have been launched in lots of other countries with everyone who’s interested now. Our role in that is still guiding and managing long-term strategic cooperation, but experts and organisations from other countries are much more involved in activities than they were before. Just as it seemed to Ukraine and Moldova back in the day that they had more to learn from

The latest stage is not so much passing on the knowledge and experience of Estonia or the e-Governance Academy *per se*, but sharing new partnerships and the successful initiatives that have been launched in lots of other countries with everyone who's interested now.

Estonia than a developed country, because of the shared history, the situation is often similar to the one you find in Africa or Asia, where they have a lot to learn from one another at the regional level, frequently a lot more than from European countries with a different culture and a different social context.

#### **What has digital technology changed in public administration in the last 15 years?**

**Linnar Viik:** Compared to the turn of the millennium, quite a few changes stand out where digital solutions used for public administration are concerned. The majority of them are related to developments in technology and the attitudes of governments to using such solutions. Initial ignorance gave way to interest, and interest gave way to a desire to achieve something. In a lot of countries this has led to disappointment that the solutions don't spring up overnight or as part of a campaign. These days the use of digital solutions is becoming more and more of a through-line in government priorities for the long-term achievement of objectives. Of course, the abilities of the systems being used has grown, but so has their complexity, so having sufficient competence *in situ* has become unavoidable if you want to develop and administer complex information systems.

Another issue, that's gotten bigger in the last 15 years, are cyber-threats and taking them into account. And I suppose the last one that's worth highlighting is that computers connected to the Internet with a mouse and a keyboard and a monitor are no longer people's primary form of digital technology – smart devices are. We weren't able to predict the majority of these changes, especially those that have to do with developments in tech-

nology, and it's getting harder and harder to guess at the success of future generations of technology. In a situation like this, it's even more important that we set our long-term visions and goals in a way that we're not dependent on hype from the development cycle of technology.

#### **What do you hope to see happening with the academy over the coming years?**

**Linnar Viik:** Internationalisation and networking! The eGA team is an international one, having studied and gained experience in different parts of the world. But to share that experience even more – including with our partners to build up local, long-term capabilities – we need an even bigger and even more international team.

Knowledge of new areas will definitely add to the academy's portfolio. In a situation where ICT runs through every part of our lives and has linked them all together, the competence of the field and its ability to provide effective consultation need to run through a number of different areas as well.

In a situation like this, it's even more important that we set our long-term visions and goals in a way that we're not dependent on hype from the development cycle of technology.

# 2017: the year of new relationships and implementation of ISO



The year 2017 will be remembered in eGA's history for the increased cooperation that was had with African, Caribbean and Pacific countries. It culminated with the Tallinn e-Governance Conference in May and was followed by several visits, consultations and study training events with the Indian Ocean Commission and more directly with Mauritius and Caribbean countries. Moreover, eGA hosted study visits from Mali, Benin, Nigeria, Madagascar, and others. It also started a tight cooperation of developing e-governance with the Cayman Islands.

Estonia's Presidency of the Council of the European Union (EU) in the second half of the year enabled eGA to play an important role between EU and Eastern Partnership countries. The highlight of this was the e-Partnership Conference, which was organised by eGA and the Estonian Centre of Eastern Partnership (ECEAP). The conference featured a discussion on how best to use information technology to improve transparency in the decision-making process and to help guarantee cyberspace security, presenting a Situation Review of the safety and security of cyberspace and e-democracy's current state-of-affairs within Eastern Partnership countries.

The largest activities were conducted in Ukraine, where eGA also assisted in preparing for the implementation of the secure data exchange system, information systems and administrative e-services for administrative service centres in 2018. As a result, the public service delivery in the Ukrainian local governments will improve and the level of corruption should decrease.

In Georgia, the first twinning project, in which Estonia (represented by eGA) had the role of the leading



The year 2017 will be remembered in eGA's history for the increased cooperation that was had with African, Caribbean and Pacific countries. Also, a big step was taken to increase organisational capacity.

partner, was successfully conducted. The task gave us the confidence that eGA can successfully handle a leadership role within EU twinning projects and sustain all associated institutional, reporting and management challenges. In Armenia, eGA helped to improve government services by implementing the e-penitentiary system, modernising the business register of legal entities and the e-notary system. Cooperation also continued with Kyrgyzstan, Kazakhstan, Uzbekistan and Turkmenistan.

eGA also strengthened cooperation with international donors. Hannes Astok, member of the Management Board, worked for four months within the UNDP Head Office in New York, helping to develop digital governance programmes and projects. Moreover, eGA started cooperation with the Inter-American Development Bank, African Union, ACP Secretariat, Caribbean Telecommunications Union and International Republican Institute (IRI), among others.

eGA remarkably increased and shared our knowledge in deepening democracy and increasing citizen engagement. The Situation Review, which eGA conducted in six EaP (Eastern Partnership) countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine), enabled the identification of good showcases and the description of trends in two important cornerstones of up to date e-governance—e-democracy and cyber security. eGA found that the area of e-democracy in the EaP region is highly dynamic and has numerous new developments, constituting good

showcases, not just for the region, but also for the rest of the world.

Cyber security is a topic that received a lot of attention in 2017, with worldwide ransomware cases, like WannaCry and NotPetya, putting cyber security firmly in the spotlight. At the more local level, Estonia also had to deal with risks to its electronic ID card security. All of these cases indicated that cyber security management must be a systematic and comprehensive process. For this reason, eGA developed the National Cyber Security Index (NCSI), which measures a country's cyber security capacity. The NCSI methodology has also been used for creating a cyber security overview for EU Eastern Partnership Countries.

Also in 2017, a big step was taken to increase organisational capacity. eGA was awarded the ISO 9001:2015 certificate, which indicates that e-Governance Academy's project management, training and consulting services are in compliance with the requirements of the ISO standard.

As the volume of its operations grew, eGA recruited three new members of staff and new associated experts. By the end of 2017, the eGA employed a total of 26 people. Total sales for 2017 amounted to 3,8 M euros, 43 000 euros of which was taken as result of the period.

**Arvo Ott**  
Executive Director



# Highlights of the year 2017

The Tallinn e-Governance Conference, which hosted participants from 115 countries gathering in May in the Estonian capital, Tallinn, hoping to seek answers to the challenge of ensuring sustainable e-state development within their countries.



This was the first time Estonia acted as a leading partner in a twinning project of this magnitude working with Georgia e-Governance Academy between 2015 and 2017. The project gave eGA valuable experience in advancing the Georgian Data Exchange Agency's (DEA) knowledge base and amending Georgia's e-governance related laws to suit European Union legislation.

The e-Governance Academy completed its largest ever study of the safety of the information society and e-democracy and the current state-of-affairs in Eastern Partnership (EaP) countries. The study found that Ukraine and Georgia demonstrate the highest development in this field. Moreover, the study provided concrete policy recommendations for increasing safety and security in their cyberspace and further developing e-democracy initiatives. You can find the Situation Review on eGA's webpage (<http://ega.ee/publication/situation-review-safety-and-security-of-cyberspace-and-e-democracy-in-the-eastern-partnership-countries/>)



Between 2016–2019 the e-Governance Academy is working with the biggest country so far in leading the implementation of the interoperability system, Trembita, which is based on the improved Estonian X-Road system — UXP platform. Trembita is one of the main enablers of secure public e-services provision for more than 40 million citizens in Ukraine and helps to decrease corruption and queues in government offices. The work is part of Ukraine's decentralisation programme for more transparent and accountable governance and supports the activities of the European Union financed U-LEAD Programme.

Ukraine



Digital Africa: roadmap and recommendations



The overview of the e-governance status quo in African countries, made by the e-Governance Academy's expert team, stated that Africa is witnessing unprecedented growth in digital technologies and the role of the government in enabling and creating strong e-governance systems is more timely than ever. Three main recommendations were given to the supporters of e-governance development in Africa.

The National Cyber Security Index (NCSI) now contains the cyber security profiles of 50 countries. The NCSI shows the cyber security situation in these countries through 12 strategic capacities, forming a global database that provides links and documents regarding national cyber security. The NCSI can be consulted at <http://ncsi.ega.ee>.

50

	Country	NCSI Score	
1	 Germany	74.75	8
2	 Czech Republic	74.75	69.8
3	 Georgia	67.68	58.66
4	 United Kingdom	66.67	83.56
5	 Latvia	64.14	6
	 Spain	61.11	
	 Georgia		

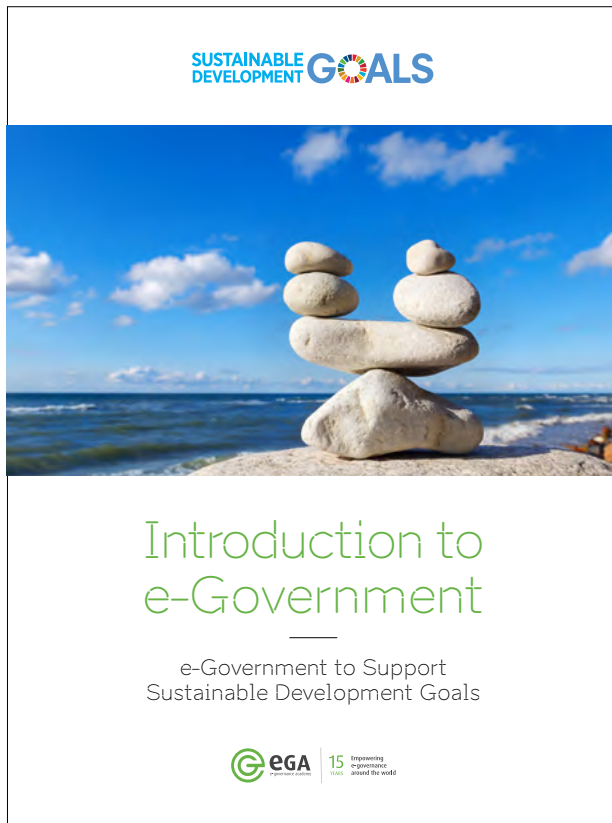


In October, the ministerial-level e-Partnership conference took place in Tallinn, gathering together over 150 participants, including civil society and government representatives from the six countries of the EU's Eastern Partnership (EaP) countries – as well as top experts from EU member states – to discuss how best to use information technology in improving transparency within the decision-making process and in guaranteeing the security of cyberspace. The conference was organised by the Estonian Center of Eastern Partnership (ECEAP) and the e-Governance Academy (EGA), in partnership with the European Commission and Estonian Ministry of Foreign affairs. It was part of the Estonian Presidency of the Council of the European Union and part of a series of events organised in preparation for the 5th Eastern Partnership Summit.

The e-Governance Academy meets the Quality Management Standard ISO 9001:2015. The certificate of the standard indicates that the e-Governance Academy's project management, training and consulting services are in compliance with the requirements of the ISO standard.

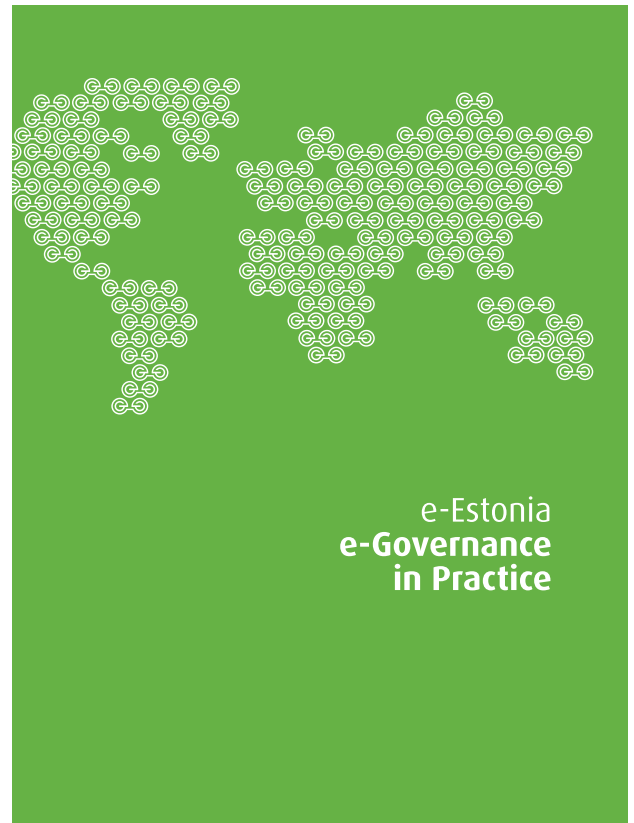


# Publications 2017



## Introduction to e-Government

The publication will help understand the elements and key challenges of e-government. Written for professionals of all levels dealing with governance projects, it provides guidance on setting up an e-government within a government. The text is based on the experiences of its contributors, who have participated in e-government projects around the world. Find the publication on the eGA web page: <http://ega.ee/publication/introduction-to-e-government/>



## e-Estonia: e-Governance in Practice (2017)

The updated second edition of our bestselling book provides an overview of the Estonian information society and how it is structured and managed. This guide presents fundamental aspects of the Estonian digital society and explains how state-level technologies, legislation, citizen and private sector involvement systems support e-governance. The publication was composed by e-Governance Academy experts, in cooperation with other experts and practitioners of cyber security and digital identity. Get your copy on the eGA webpage (<http://ega.ee/publication/e-estonia-e-governance-in-practice-2/>).

# Activities around the world 2017

A country can only create a long-term sustainable e-Governance environment through building and growing the expertise and experience of local experts. eGA is here to assist you.

- Arvo Ott, Executive Director

## Digital Transformation in e-Government



**Linnar Viik,**  
**Programme Director**  
**of Smart Government**

The Global Digital Revolution we are now experiencing is equally momentous to the Industrial Revolution of the 19th century that led to a radical transformation of our societies and the world. Increase of the speed of dissemination of digital technologies and the rapid innovation process of the underlying technologies makes digital transformation more accessible, affordable and impactful than the technologies that were driving the Industrial Revolution.

Digital transformation processes in countries, where eGA has acted as partner are no exception to this trend. Use of Internet by individuals, businesses and government is in rise, mobile internet penetration is becoming more affordable and services used by indi-

viduals create more value. Demand for fast broadband is increasing, usage is doubling in developing countries on annual basis and “always online” has become new normality.

This trend, accompanied with user centric innovations creates unique opportunities for economic growth, business transitions, productivity increase and service delivery. Taking this into consideration, the role of governments in creating strong, enabling digital governance systems is timelier than ever.

There are no regions that could be considered as a homogeneous set of countries with a harmonized approach to their development agendas. Quite the opposite – most of regions are extremely diverse with big regional variations. It is true in most countries that the full potential of digital technologies is not yet used. Within countries there are big differences between urban and rural areas, with many cities in different countries showing evidence of what may soon come.

There are two most important keywords for the work with central governments for eGA in 2017 – **impact** and **digital transformation**. Majority of our



The role of governments in creating strong, enabling digital governance systems is timelier than ever.

- Linnar Viik, Programme  
Director of Smart Government

partner countries have recognized the importance and momentum of the digital transformation and they are looking beyond the implementation of core e-Governance components in public administration efficiency and transparency. Governments are focusing to the full opportunity from digital solutions – making sustainable social and economic impact, lead with digital solutions. What we are about to witness is number of unprecedented innovations, based on new digital technologies that are supported with open, collaborative regulatory and governance framework. The future is now, every day.



## SMART GOVERNMENT PORTFOLIO



Vision of where you want to be is the biggest asset country could have. eGA Smart Government portfolio help countries to identify first the current situation to understand “Where we are?”. This exercise uses both external quantitative data as well as stakeholder interviews with expert seminars. During 2017 eGA carried out analysis on the diverse and dynamic regions such as continent of Africa and Caribbean region. As an output the key recommendations for international development cooperation community as well as the governments were defined.

Without clearly established vision the digital opportunities can remain blurry and holistic. Driven by local social and economic aspiration, based on

commitments by local thought leaders the visions for the country answer the question “Where we want to be?” These exercises have been carried out with the help of eGA in Armenia, Azerbaijan, Georgia, Belarus and Ukraine just to name few.

Based on the vision it’s much easier to set the goals and establishing digital transformation roadmap with clear targets for the government as well. These targets included advisory services of eGA for example to Kyrgyz Republic on the deployment of the secure data exchange solution Tunduk, implementing secure data exchange solution Trembita in Ukraine or helping Cyprus to set up digital identity and authentication infrastructure.

## MAIN PROJECTS

### E-governance research, analysis, guidelines and roadmap for African countries | 2017

eGA’s expert team analysed and evaluated the current state of the e-Governance deployment in different African countries. As a way forward eGA formulated key recommendations for a national, regional and pan-African roadmap towards deployment of e-governance. This roadmap would facilitate the preliminary work within Commission Services and discussions with African countries to determine possible pilot projects in line with the Staff Working Document “Digital4Development: mainstreaming digital technologies and services into EU Development Policy”.

**Donor:** European Commission

### e-Government for the Cayman Islands | 2017 -2018

Cayman Government has decided to take Estonian e-government as an example model in building its e-society and developing public e-services. Within the project, eGA assists the creation of the population registry; implementation of digital identity and implementation of Catalogue of Interoperability Solutions and data exchange solution X-road.

**Funded by** Cayman Islands Government



## Roadmap for Digital Governance in Serbia | 2017

The roadmap contained an overview of the current baseline, broader description of priorities at the activity level, coupled with envisaged measurable results and overall impact.

**Donor:** UNDP in Serbia

## Development of e-Governance Tools for Armenian Justice | 2015 - 2017

eGA helped Armenian Ministry of Justice to improve transparency and access to the government services by implementing the e-penitentiary system, modernising the business register of legal entities and the e-notary system.

**Donor:** European Commission

## Deployment of the secure data exchange solution in Kyrgyzstan | 2017 - 2018

The task includes upgrading Tunduk's version, training IT-specialists and technical support for the development of the public e-services.

**Donors:** Estonian Development Cooperation, OSCE

## Creating the eID for Cyprus | 2016 - 2018

eGA assists the creation the concept for electronic identity implementation in Cyprus based on the best practice of Estonia, which shall include Electronic Authentication and Qualified Electronic Signing. There will be developed the understanding on the organisational setup and roles of the parties involved, necessary regulatory framework and key standards related to the eID infrastructure compliant to the eIDAS regulation to be used by private and public sector institutions.

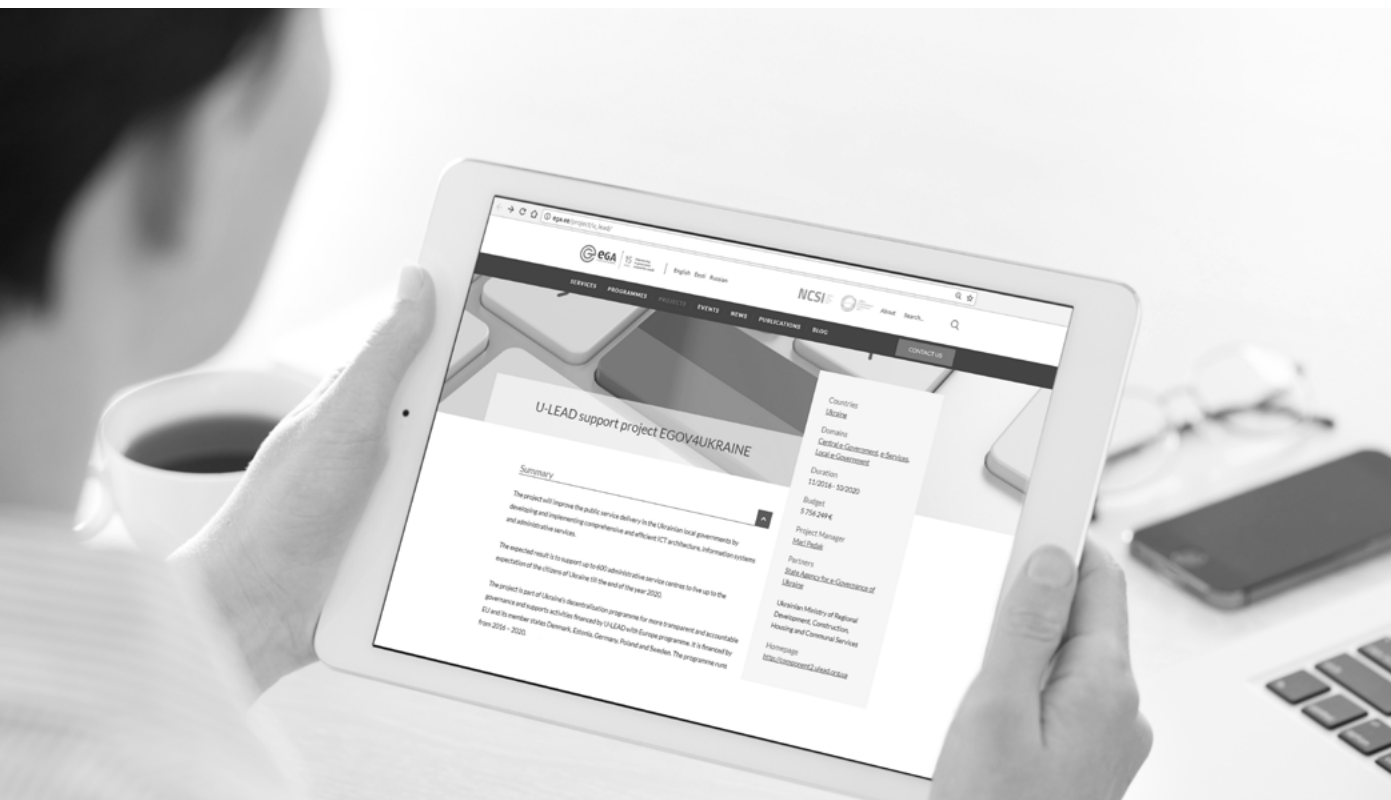
**Funded by** the Presidency of the Republic of Cyprus

## Strengthening e-Governance in Georgia II | 2015 - 2017

Within the twinning project, eGA strengthened the institutional set-up of the LEPL Data Exchange Agency (DEA) of the Ministry of Justice of Georgia and enhanced the necessary skills and knowledge of the Agency's staff on providing training, consultancy, benchmarking and promotion of e-government and information security in line with the European Union standards.

**Donor:** European Union





## Digital Transformation in Municipalities



**Hannes Astok,**  
Programme Director  
of Smart City and Regions

The Smart City and Region Programme activities were mainly focused on Ukraine. The EGOV4UKRAINE project, part of the European Union U-LEAD Programme, supports public service delivery in the Ukrainian local government by developing and implementing comprehensive and efficient ICT architecture, information systems and administrative services.

The expected result is to support up to 600 administrative service centres with sophisticated information systems, allowing them to provide electronic services for citizens and businesses, by also using data from the national registries and databases, until the end of 2020. As part of the project, the consortium of ICT companies (Cybernetica (Estonia) and SoftXpansion (Ukraine)) will implement a

The Smart City and Region Programme activities were mainly focused on Ukraine.

- Hannes Astok, Programme Director of Smart City and Regions

secure national data exchange gateway (Trembita) in 2017–2018.

The project is part of Ukraine's decentralisation programme for more transparent and accountable governance and supports activities financed by U-LEAD with Europe programme. It is financed by the EU and its member states: Denmark, Estonia, Germany, Poland, and Sweden, and will run from 2016–2020. To implement the project, eGA has expanded the project office in Ukraine, currently employing six staff members, five of them from Ukraine.

Also, Local Government Programme experts were involved in projects in Georgia, Serbia, Estonia and Moldova.

## Open Governance: Participation and Engagement



**Kristina Reinsalu,**  
Programme Director  
of e-Democracy

In 2017, eGA remarkably increased and shared our knowledge on the potential that technology has in deepening democracy and increasing citizen engagement. eGA has, in many ways, successfully played the role of intermediary between various actors.

**Firstly**, the Estonian Presidency of the Council of the EU, during the second half of the year, enabled eGA to play an important role between the EU and Eastern Partnership countries. The Situation Review which eGA conducted in six EaP countries enabled the identification of good showcases and describ-

It's now time for governments to understand that a focus solely on e-Services is not enough; citizen feedback, active e-Participation and co-creation should be the DNA of up to date e-Governance.

- Kristina Reinsalu,  
Programme Director of e-Democracy

ing trends in two important cornerstones of up to date e-governance – e-Democracy and cyber security. Never before has eGA carried out a study of similar scope – 35 interviews in 6 countries with representatives of governmental institutions, NGOs and journalists, presenting a broad spectrum and various perspectives on the topics of transparency of governmental decision-making, access to public information and the creation of opportunities for



At the meeting in the Georgian Ministry of Finance on how to raise the transparency of the national budget communication.

citizens to participate in decision-making processes. We found out that the area of e-Democracy in the EaP region is very dynamic and has numerous new developments, which constitute good showcases not just for the region, but also for the rest of the world. Estonia, too, has a lot to learn from Ukraine, where one sees this enthusiasm-based cooperation between civil society and the IT community. The same kind that Estonia had during the years immediately following the restoration of independence, but which, by now, has decreased significantly.

**Secondly**, the e-Democracy team was mediator between local governments and their communities. The local administrative reform in Estonia enabled us to test the Open Government Partnership methodology in merging municipalities. With the aim of increasing awareness and the capability to amalgamate municipalities to implement open governance principles during and after the reform, concrete action plans were prepared in collaboration with the local community within two new municipalities. One of the initiatives of open governance – Participatory Budgeting – often referred to as participatory

democracy innovation, was introduced by our team and implemented in more than 20 local governments in Estonia. In 2017, we shared our knowledge and lessons learned on this topic with many cities from Eastern and Western Europe and beyond.

**Thirdly**, one of the central questions of e-Democracy is how to reduce the administrative burden for citizens. The eGA has identified showcases from EU member countries explaining how to collect information from citizens only once and share this information among different government institutions to avoid duplication in the future. Thorough analysis on these showcases has enabled us to identify and describe legislative, organisational and technological barriers, which still exist in EU member countries and hinder the provision of user-friendly, innovative personalised e-Services. It is now time for governments to understand that a focus only on e-Services is not enough; citizen feedback, active e-participation and co-creation should be the DNA of up-to-date and effective e-Governance.

## MAIN PROJECTS

### Situation Review: Safety and Security in Cyber space and E-Democracy within the Eastern Partnership Countries and e-Partnership Conference | April-June 2017

The Situation Review examined two important aspects of e-Governance within the EU Eastern Partnership (EaP) countries: security of information society and e-Democracy. The Situation Review described the most important developments in the focus areas during the years 2015–2017; identified best practices that may be shared with other EU EaP countries and beyond; and drafted policy recommendations for each of the EU EaP countries to help in further developing their e-Governance.

**Donors:** The Estonian Development Cooperation funds, the Swedish International Development Cooperation Agency (SIDA).





## Open Governance in the Amalgamation Process of Estonian Local Government

| February–November 2017

The aim of this project was to increase the awareness and capability of amalgamating municipalities to implement open governance principles, both during and after local administration reform in Estonia. To attain this goal, the Open Government Partnership methodology has been implemented in two selected test-areas where municipalities were in the amalgamation process and showed readiness to prepare concrete action plans of open governance for the post-reform period. As a result of the project, new concrete actions for good and open governance were designed for newly starting municipalities. Many new commitments related to open governance were also written down in new coalition agreements.

**Donor:** The European Union Social Fund in the framework of activities “Local and regional development capacity”.



## How Good Governance Works in Practice: New e-Governance Initiatives to Meet OGP (Open Government Partnership) Principles in Georgia | 2016 - 2018

The project provides practical assistance on improving existing governance processes and solutions and design and implements the new methods and tools for the greater involvement of citizens in local decision-making processes within three Georgian pilot cities: Kutaisi, Batumi and Akhaltsikhe. Moreover, the project includes the assisting of two central level agencies, the Georgian Ministry of Finance and the Ministry of Health, Labour and Social Affairs of to use e-Governance techniques to increase transparency and citizen engagement in conducting their activities.

**Donors:** The Estonian Development Cooperation funds, USAID

## Stakeholder Community for the Once-Only Principle (SCOOP4C) | 2016 - 2018

The project SCOOP4C investigates, discusses and disseminates how the “Once-Only-Principle” (OOP) can be implemented in public service provisioning in order to significantly reduce the administrative burden and simplify administrative procedures for citizens, while reusing data among public administrations—with the control and consent of citizens. During the first half of the 2017, the eGA team contributed to the knowledge about the good cases of OOP: altogether, 66 cases and enablers of 14 domains—such as Health, Education and Taxation—have been identified, analysed and documented in an online knowledge base. This knowledge base is available on the project website and is freely accessible to registered users who are interested in understanding how the OOP can be implemented.

**Donor:** European Commission



## National Cyber Security



**Raul Rikk,**  
**Programme Director**  
**of National Cyber Security**

Cyber security is a topic that has received lot of attention over the past couple of years. We all know how the US presidential election at the end of 2016 is rumoured to have suffered from cyber incidents. The same kind of manipulation was organised during the French presidential elections in 2017, against the Emmanuel Macron campaign. Later, a ransomware, known as WannaCry, spread around the world, affecting hundreds of thousands of targets. A month after the WannaCry incident, another wave of ransomware (NotPetya) hit many victims worldwide. It is believed that the world's largest shipping company (Maersk) suffered approximately \$300m USD loss due to the impact of NotPetya.

At the end of 2017, Estonia had to deal with issues with its electronic ID card system after a security flaw was found in the ID card's chip. The chip was produced by German company, Infineon Technologies AG, and provided to Estonia by Gemalto. Over 50% of the Estonian population's ID cards contained this chip. The government of Estonia had to develop some new software for the card and change the certificates associated with it. This process will continue through-

out 2018. In general, this complicated security risk was well managed without any significant problems. In 2017, the ITU (International Telecommunication Union) ranked Estonia as the no. 1 country for cyber security in Europe.

This all shows that cyber security management must be a continuous, systematic and comprehensive process. Many countries have the capacity to manage this, but many others lack the necessary strategic capabilities. In order to understand how well countries deal with cyber security matters, the e-Governance Academy developed the National Cyber Security Index (NCSI). In the online environment, which can be found at [www.ncsi.ega.ee](http://www.ncsi.ega.ee), you can see a country's level of cyber security development and investigate the provided reference materials. The NCSI is a suitable tool for the measurement of the national cyber security capacity, as well as capacity building.

NCSI methodology was used in creating a cyber security situation review regarding the EU's Eastern Partnership Countries – Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. This review was compiled for the e-Partnership Conference that was part of the 2017 Estonian EU presidency programme. The review showed that most of the cyber security attention should be focused on systematic capacity development, particularly on cyber crisis management capacity. Digital development has been well adopted almost everywhere, but national-level cyber security capacity building clearly needs more attention.

## MAIN PROJECTS

### The National Cyber Security Index (NCSI) | 2016-2017

Offers the ability to assess a country's cyber security capacity and to compare such capacity to that of other countries. Provides clear public evidence materials. A suitable tool for national-level cyber security capacity development.

In 2017, the NCSI team modified the index methodology and collected data. By the end of the year, 50 countries were presented in the index. Data collection continues in 2018. A new NCSI website will be launched during the eGA Tallinn e-Governance Conference in May, 2018.

**Donors:** The Estonian Ministry of Foreign Affairs, The SecDev Foundation



### Situation Review: The Safety and Security of Cyberspace and e-Democracy in the Eastern Partnership Countries | 2017

The Situation Review gives a systematic overview about the cyber security situation and capacity of Eastern Partnership countries – Armenia, Azerbaijan, Belarus, Georgia, Moldova and Azerbaijan. The review showed that most of the cyber security attention should be focused on systematic capacity development, particularly on cyber crisis management capacity. In the review, the NCSI methodology, which included 3 areas, 12 main capacities and 60 indicators, was used.

Find out more on the eGA webpage: <http://www.ega.ee/publication/situation-review-safety-and-security-of-cyberspace-and-e-democracy-in-the-eastern-partnership-countries/>

**Donors:** The Estonian Ministry of Foreign Affairs, The Swedish International Development Cooperation Agency

Digital development has been well adopted almost everywhere, but national-level cyber security capacity building clearly needs more attention.

- Raul Rikk, Programme Director of National Cyber Security



## e-Governance Training Courses



**Annela Kiirats,  
Director of the  
e-Governance Training**

One of the main areas of eGA throughout the past 15 years has been the provision of e-Governance training for countries that need guidance in building up their e-Societies. eGA has passed the 65 countries' line of delegations, visiting Estonia. Outlining the decision behind becoming an e-State more than 20 years ago, showing the results two decades later and bringing parallels with other countries is only one side of the coin. eGA has undertaken its mission to not only introduce Estonian e-Society, but also understand the needs and map possible solutions for the countries that are still in the transition phase, or those that can only dream about constant power options in their cities, ATM-s on the streets, complete citizen records, etc...

The eGA has undertaken its mission to not only introduce Estonian e-Society, but also understand the needs and map possible solutions for the countries that are still in the transition phase.

- Annela Kiirats, Director of the e-Governance Training





Study tours to Estonia and seminars, conferences, workshops within beneficiary countries are usually the first steps and work as a kick-off engine for further cooperation. Subsequent activities can be either longer-term advisory or concrete technology projects to build up an electronic society.

eGA organises approximately 25 study tours to Estonia annually – the week-long courses offer the ability to go into more detail about specific solutions for digital data sharing and communication, approaches to development options, suggestions on regulatory frameworks for the electronic world, and lessons learned in cyber security, etc.

Our in-house experts can share stories from their own practical work while working within high levels of the public sector in the past, rather than being only academic, or theoretical. We involve external experts and lecturers who work in the government and private institutions, as well as in academic fields, in order to bring in different viewpoints. eGA team is up to date with all of the many differing developments within the e-Governance sector through its being a member of various e-Government related roundtables, teams, and workshops. Attendance at different international events, allowing them to draw parallels with different e-Societies all over the world and all in good partnership with government institutions within Estonia. Let's find your e-Highway together!

### Training courses in 2003–2017



4000+

4000+ participants



65

65 countries



200+

200+ training courses

### Countries that participated in training courses in Estonia 2017:



Madagascar, Switzerland, Ukraine, Japan, Turkmenistan, France, Paraguay, Hungary, Kazakhstan, Denmark, Kosovo, Moldova, Belarus, Tajikistan, Netherlands, USA, Norway, Iraq, India

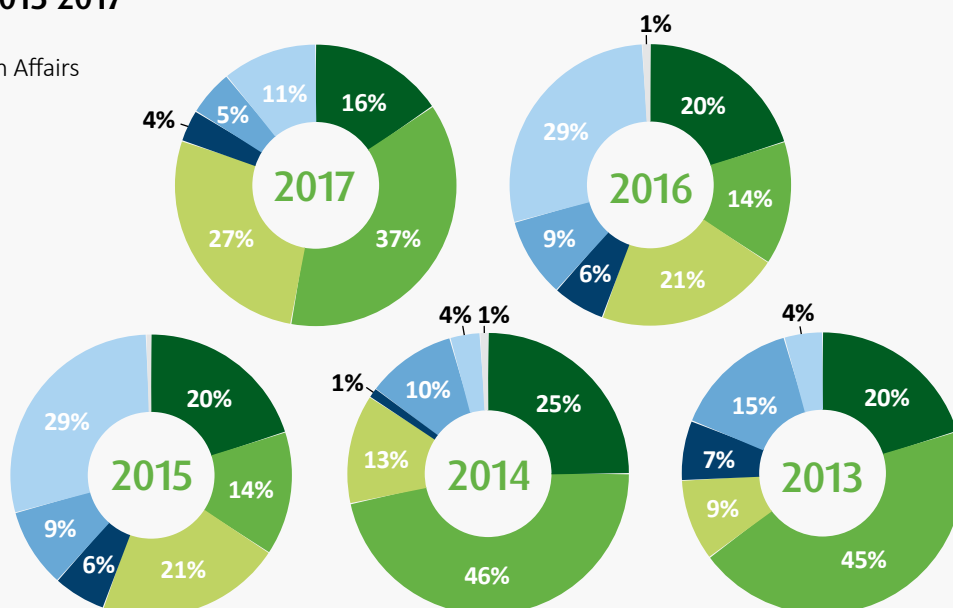
# A Brief Overview of eGA's Activities 2002–2017

## eGA's reach

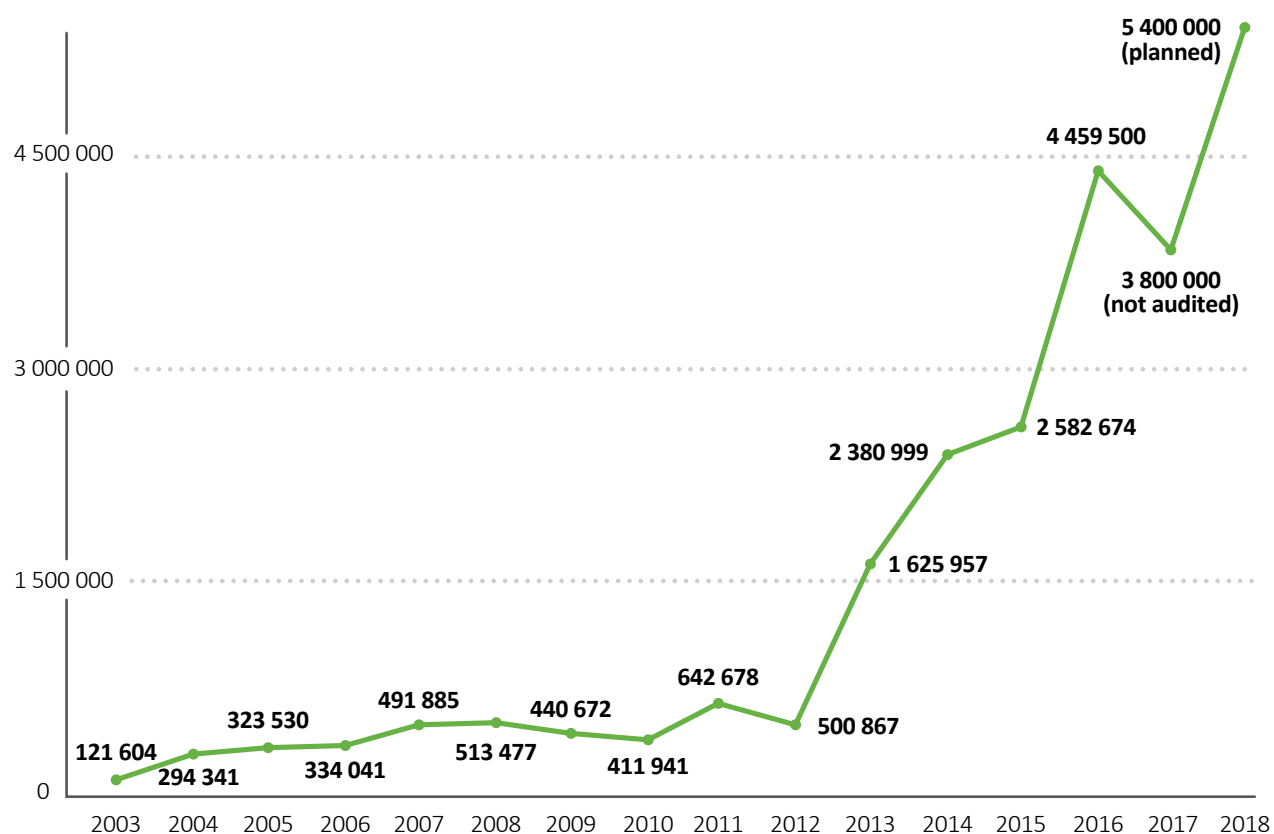


## Income by source in 2013-2017

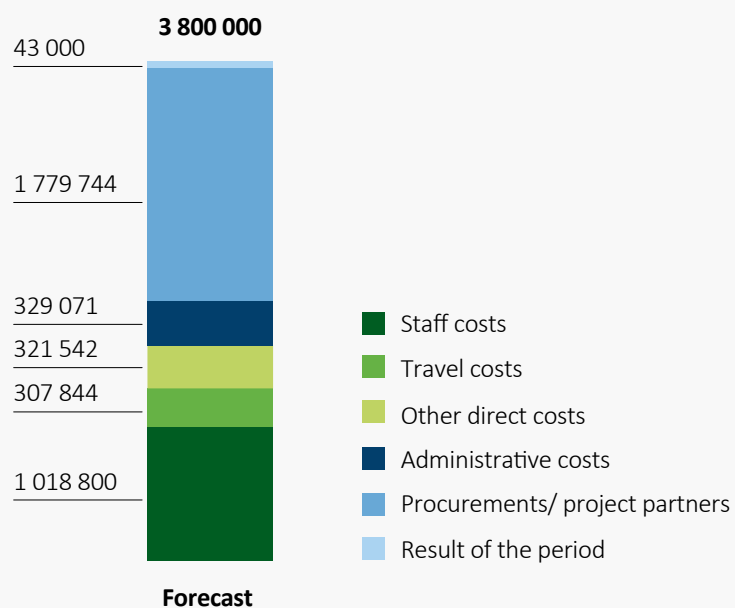
- Estonian Ministry of Foreign Affairs
- European Commission
- SIDA (Sweden)
- USAID (USA)
- Other organisations
- Trading activities
- Other income



## Income in 2003-2018

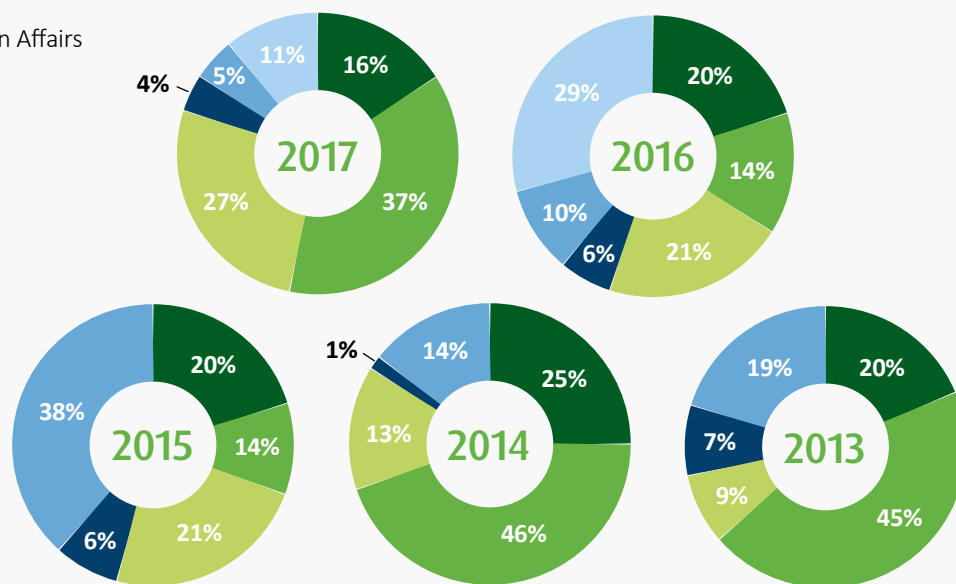


## Income in 2017

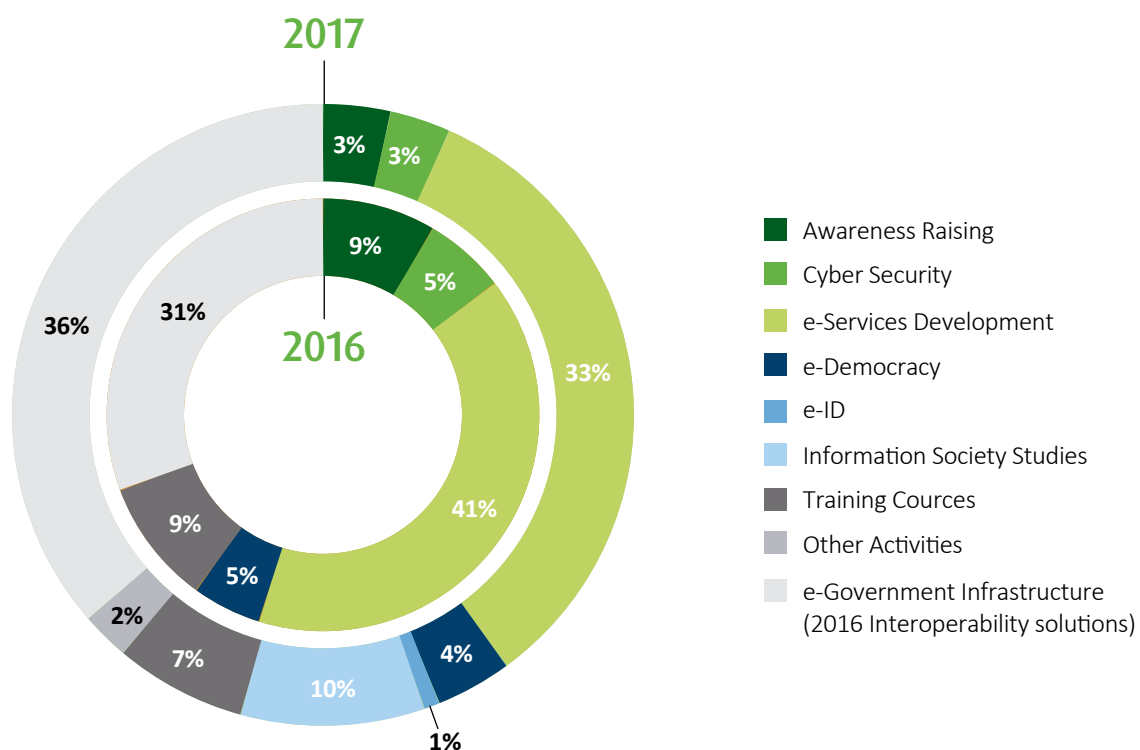


## Donors in 2013-2017

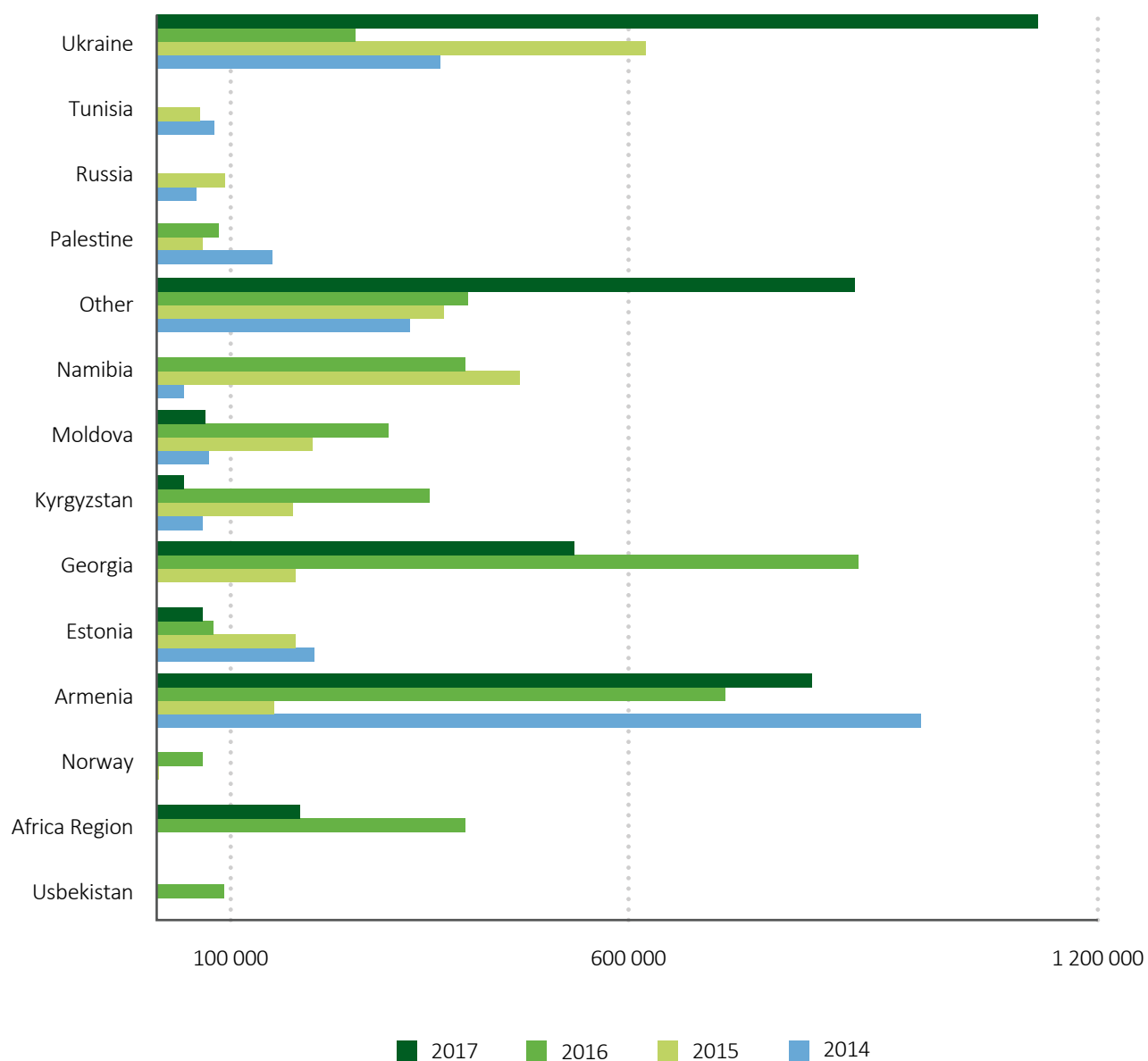
- Estonian Ministry of Foreign Affairs
- European Commission
- SIDA (Sweden)
- USAID (USA)
- Other donors
- Entrepreneurial Income



## Income by activities in 2016-2017



### Project scope by beneficiary countries in 2014-2017 (in euros)





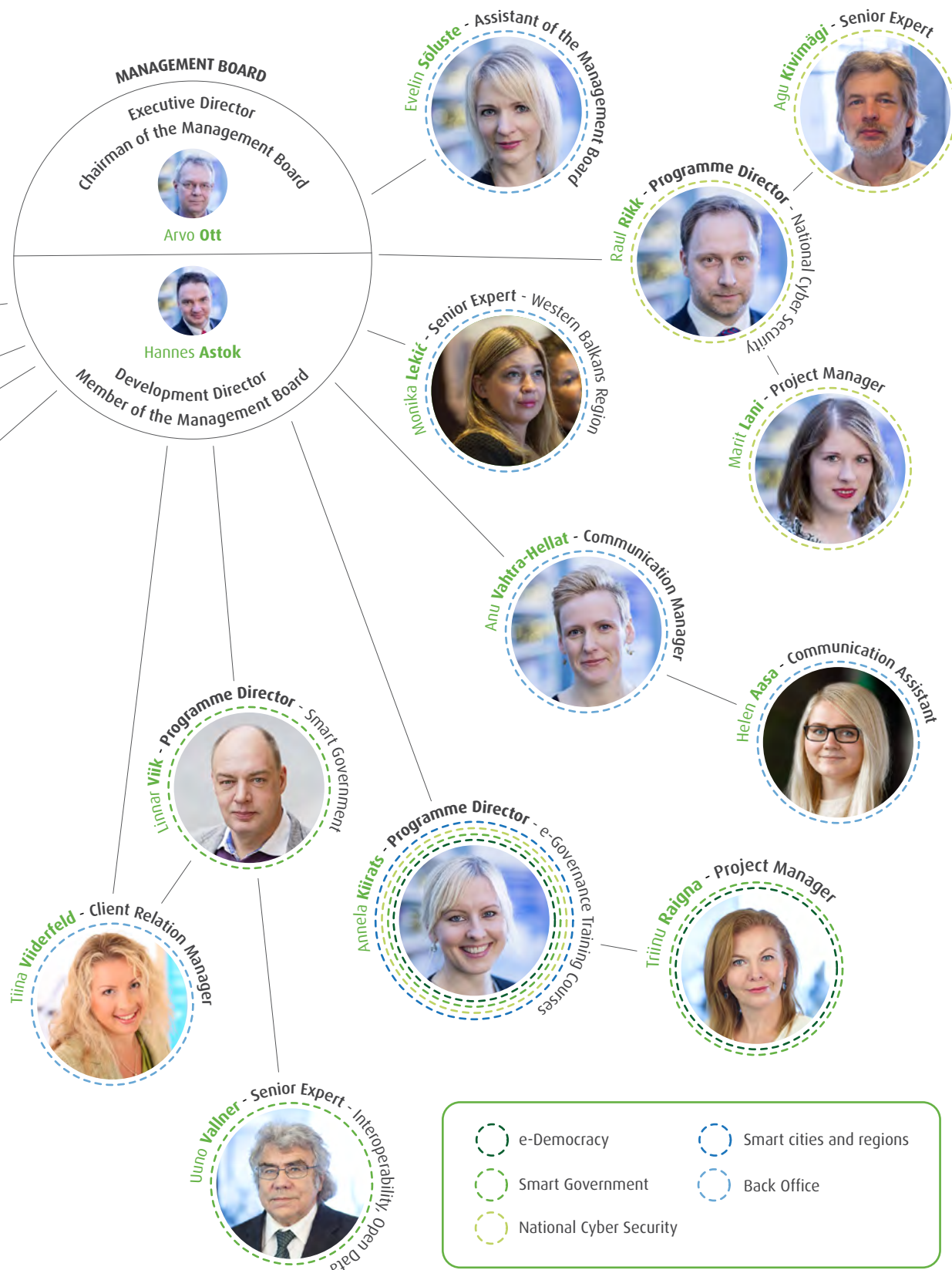
# eGA team



## Associated Experts







# 15 fascinating facts you probably didn't know about eGA

We speak **12 languages**: Estonian, English, Russian, Finnish, Swedish, German, Spanish, French, Ukrainian, Georgian, Bosnian, Serbian

**Australia** is the most distant state we have consulted.

Throughout 15 years, **Arvo** has consulted **81 states**.

**Three presidents** have visited eGA.

**61 Memorandums of Understanding** have been established.

Last year, **Ukrainians** were the most eager to learn about e-Governance – we facilitated training for 13 delegations.

The first robot employee: **Julius**

The most-interesting hobby of eGA's employees includes **learning Arabic and managing two orphanages** with houses as picturesque as in children's novels.



We have significant e-governance experience - **261 years**:  
27+27+27+27+27+27+20+17+16+14+13+10+9

The **interoperability of the X-Road platform** has multiple nicknames around the world: Nam-X, EHDIS, Trembita, Tunduk, Heldin, Palvelyväylä, Zinnar.

During last year, **Hannes** has visited **28 countries**.

The eldest employee: **Uuno, 72**; and the youngest employee: **Helen, 25**

During the last sports month "eGA in motion", as a collective, eGA was active for a total of **470 hours** and moved for **3,349 kilometres**.

We drank around **8,400 cups of coffee** a year

The most interesting pets among eGA's employees are **alpacas, Cameron Boer Goats**.

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