



EMBASSY OF ESTONIA
IN PRAGUE

Estonian Presidency
of the Council of the
European Union



Estonia's digital transformation

April 10, 2018

**Sten Schwede
Ambassador**

Digital society

- E-voting
- E-tax returns
- E-prescription
- E-school
- E-health record
- E-business
- E-ticket
- and HUNDREDS more:
<https://www.eesti.ee/eng/services>

- **1994**
 - Information policy law passed
- **1996**
 - Tiger Leap Project. The goal - to get all schools online
- **1999**
 - Data Protection Department created
- **2000**
 - Digital Signatures Act
 - e-Tax filing begins
 - Population Registry Law passed

This meant that...

from 1994 to 2002 the Estonian State budget included a separate expenditure item (budget line) "Information technology" to cover the investments, purchase of hardware and software, the costs of maintenance of ICT infrastructure, and the contracting of development projects for information systems outside the public sector, i.e. the outsourcing of projects to ICT companies.

By 1997 97 per cent of Estonian schools were online

In 2000 cabinet meetings went paperless

- **2001**
 - Introduction of X-Road
 - Population Registry opens
- **2002**
 - ID Card introduced
 - Law on e-Election passed
- **2003**
 - Launch of ID bus ticket
- **2005**
 - First e-Elections
 - e-Police system comes on line
- **2007**
 - First Mobile-ID system comes on line
- **2008**
 - Launch of e-Health system
- **2010**
 - e-Prescription introduced
- **2011**
 - Smart Grid introduced in Energy Sector

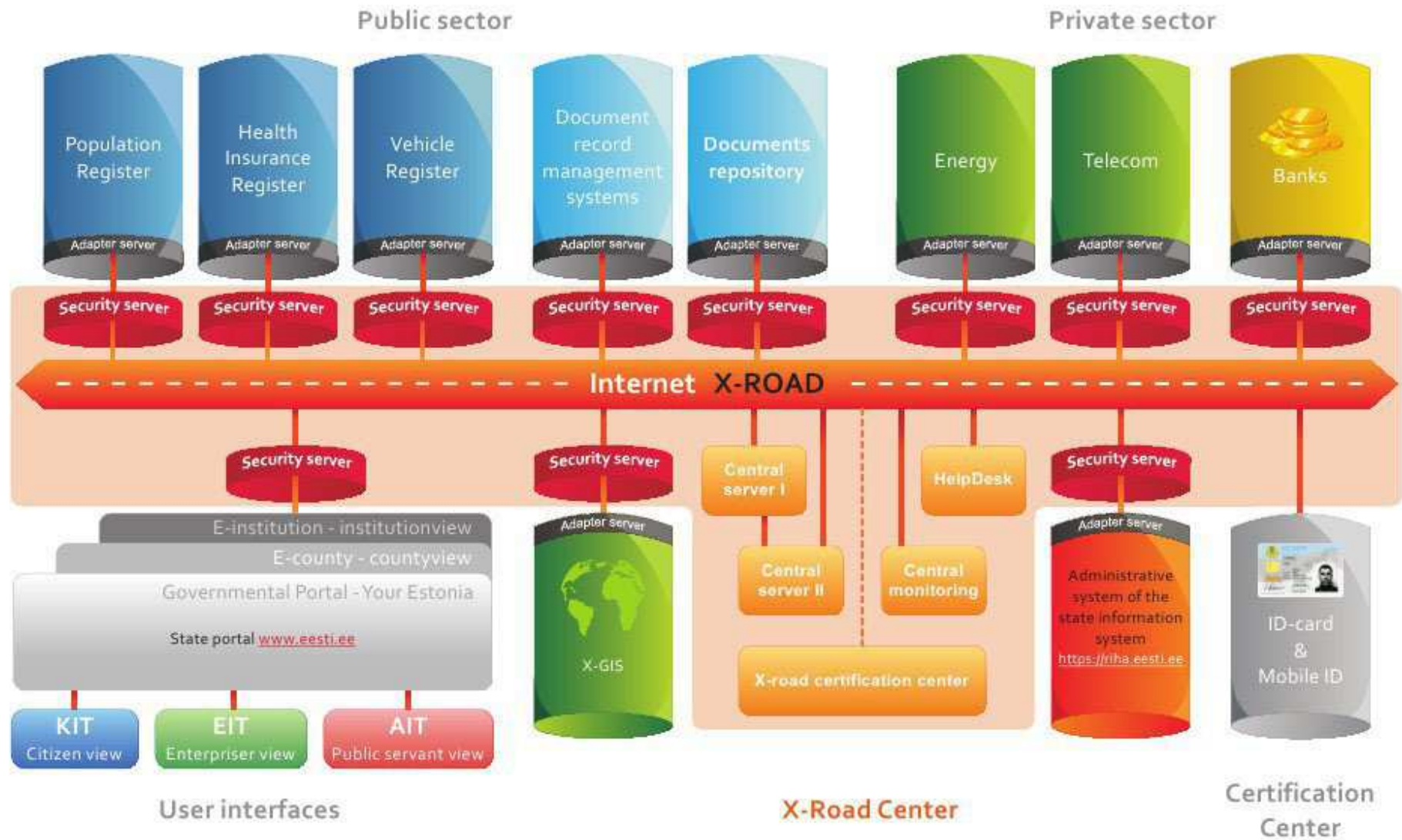
Estonia's digital infrastructure

In the late 90's Estonian political leadership together with local IT-gurus decided on certain principles:

- **Decentralization.** There's no central database, and every stakeholder, a ministry or a company, gets to choose its own system in its own time.
- **Interconnectivity.** All the elements in the system have to be able to work together smoothly.
- **Open platform.** Any institution can use the public key infrastructure.
- **Open-ended process.** As a continuous project to keep growing and improving organically.



Estonian information system



X-Road - the backbone of e-Estonia

- Infrastructure of secure data exchange; allows the nation's various e-services' databases, both public and private, to link up and operate.
- **All outgoing data from the X-road is digitally signed and encrypted. All incoming data is authenticated and logged.**



EU-presidency and digitalisation

We think the EU should focus on:

- On rules of access to non-personalized data and the removal of unjustified data localization requirements;
- Promoting once only principle for e-Government services and making the services available cross-border, so that EU citizen will receive services anywhere in the EU despite location;
- Providing answer to the question on who owns the data and create clear rules on data access and portability.

E-residency

There is a high international demand for government e-services already. We have reacted to it by offering e-residency, a digital ID that allows you:

- **Digitally sign documents and contracts**
- **Verify the authenticity of signed documents**
- **Encrypt and transmit documents securely**

EESTI VABARIIK
REPUBLIC OF ESTONIA

DIGITAALNE ISIKUTUNNISTUS
DIGITAL IDENTITY CARD



**LUCAS
EDWARD**

KEHTIV KUNI / DATE OF EXPIRY

30.11.2017

DOKUMENDI NUMBER / DOCUMENT NUMBER

N0100001

ISIKUKOOD / PERSONAL CODE

36205030034

AINULT ELEKTROONILISEKS KASUTAMISEKS
ELECTRONIC USE ONLY

But why?

- To establish a company online (with address in Estonia)
- Administer the company from anywhere in the world.
- Conduct e-banking and remote money transfers.
- Access online payment service providers
- Declare Estonian taxes online. NB! e-Residency does not automatically establish tax residency.

E-residency statistics

- 35,335 e-residents
- From 156 countries
- 3,444 new companies established

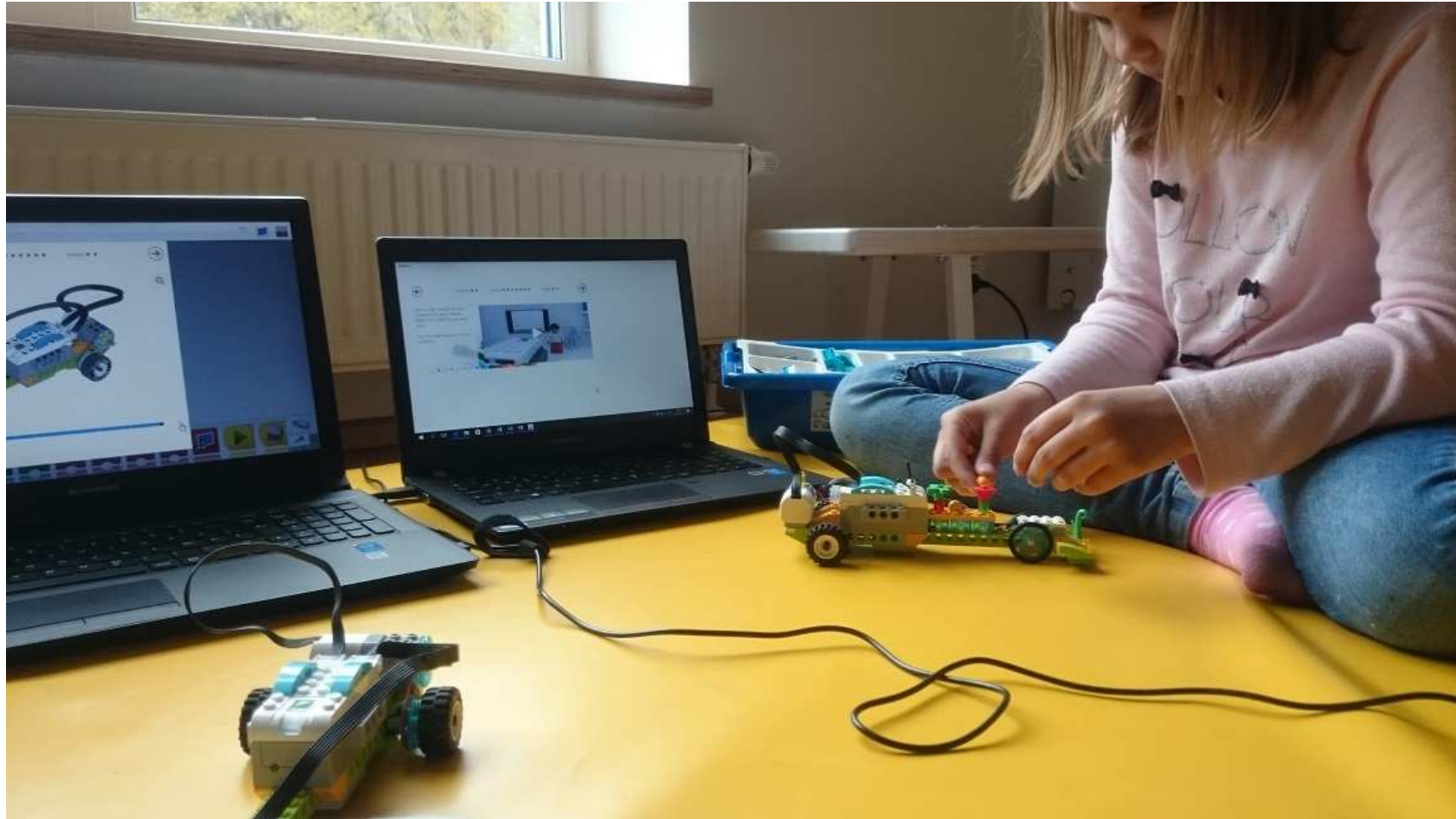
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- 240 Czech nationals have become Estonian e-residents
- They have created 34 companies

ProgeTiger Programme

ProgeTiger was launched in 2012 and is aimed to integrate technology education into school curriculum, offering teachers educational resources and training opportunities.

+ supporting financially kindergartens and schools in acquiring different programmable devices.







Robotika

Are we happy with teaching programming in Estonian schools?

No. University of Tartu Institute of Computer Science says we are not able to prepare enough teachers for all the schools who can teach coding, technology, web design or robotics or include these elements in their regular subjects.

They suggest that free on-line basic programming courses are the solution, both for teachers and students. The University has started with them. So far around 10,000 have completed the courses. More is needed.

Thank you!

In case of questions please contact us



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tel. (420) 257 011 180

embassy.prague@estemb.cz