

:: X-ROAD EUROPE ::

Ideas for Today and Tomorrow

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(Estonian Information System's Authority)

Responsibility areas:

- Cybersecurity
- Common IT platforms
- Administering funds



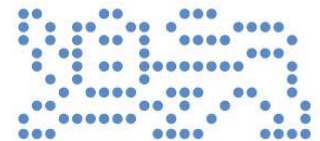
Common Challenges



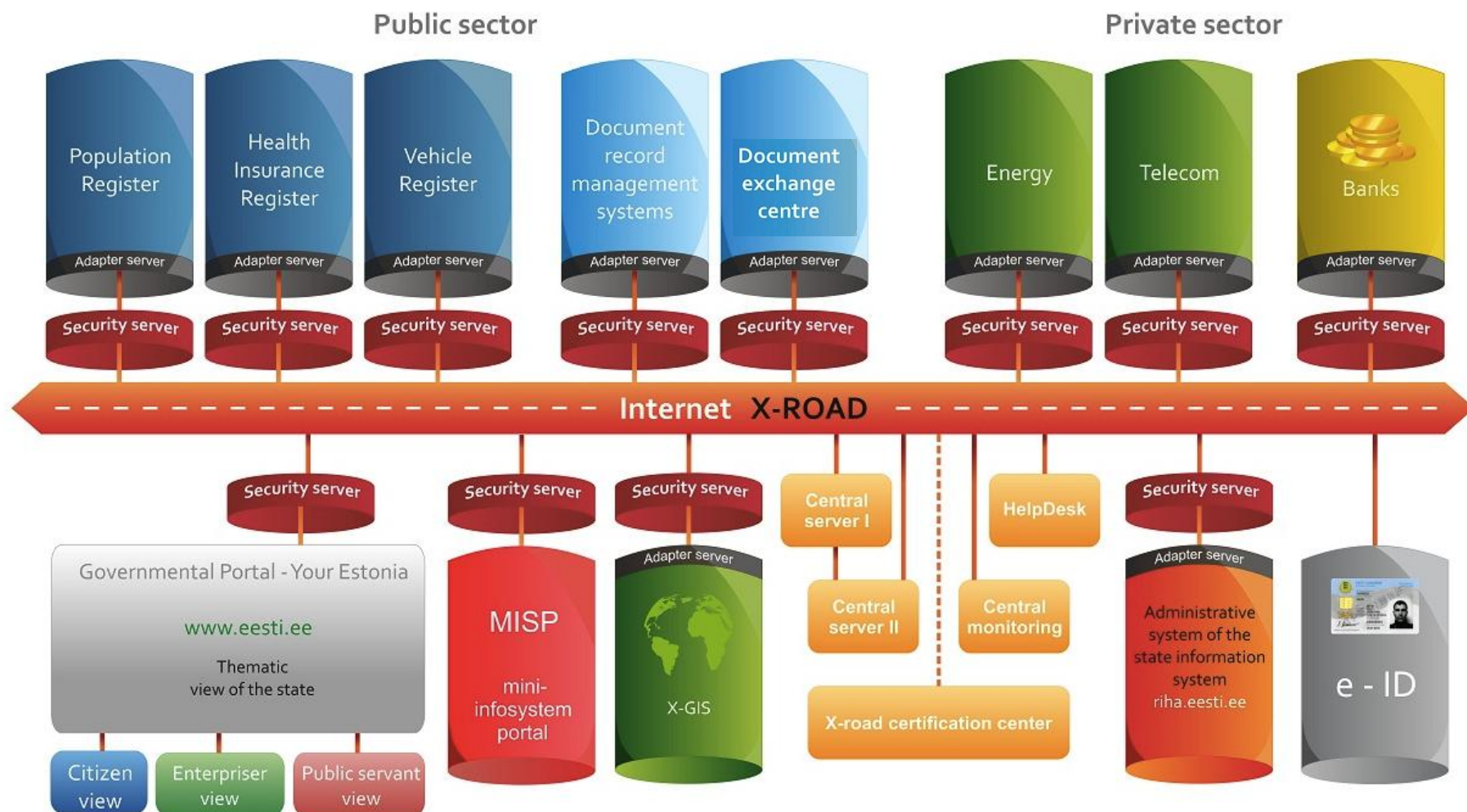
• **Authentication and authorization** of people in digital environment + **digital signature – eID**



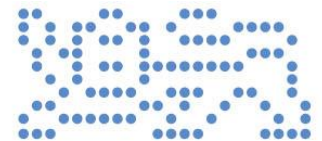
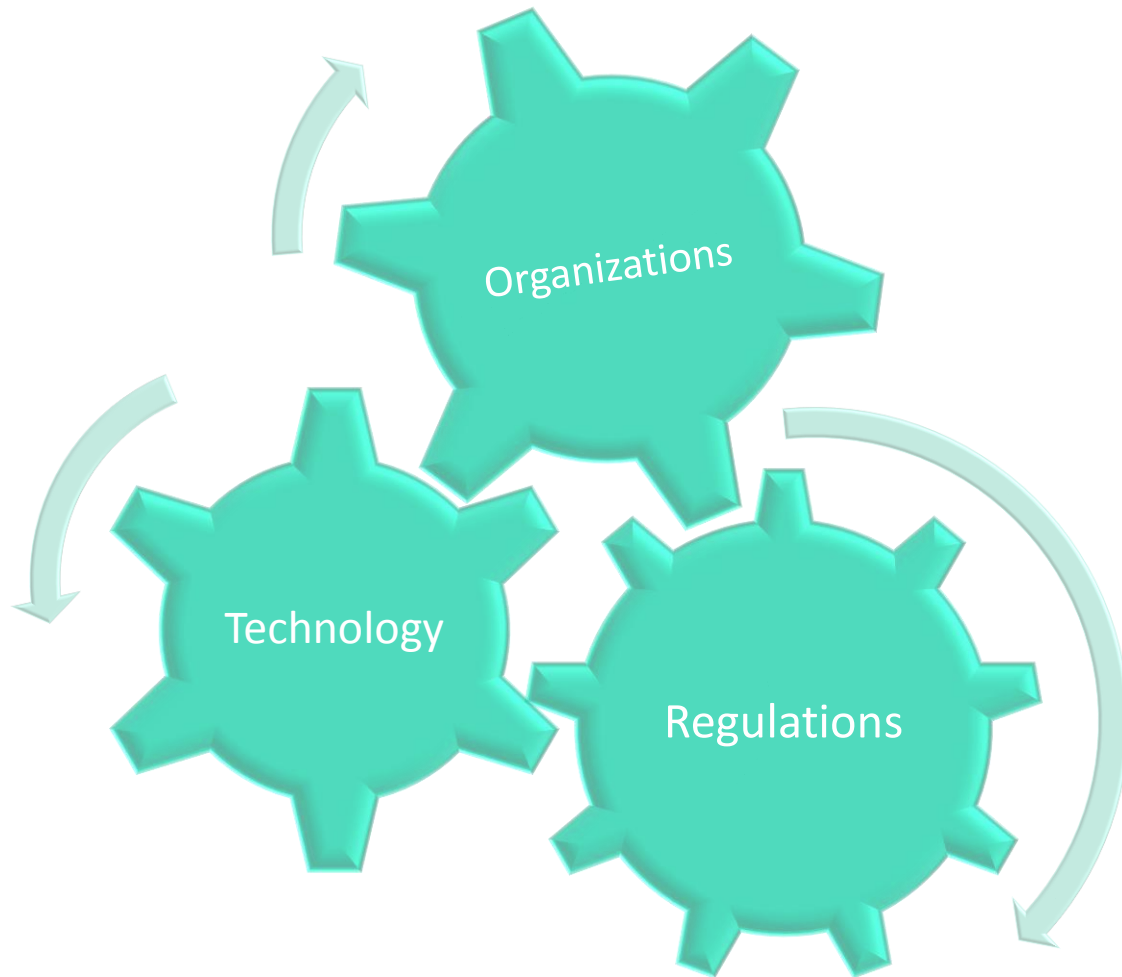
• **Secure/standardized** identification and **data exchange** of information systems – **X-Road**



Principle schema of architecture



X-Road is not only technology



Some solutions



eHealth

eTickets

eTax-Board

ePolice

eAgriculture

eCompany registration

M-Parking

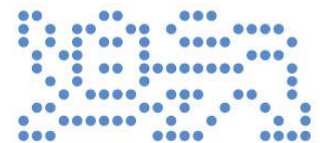
eCar registration

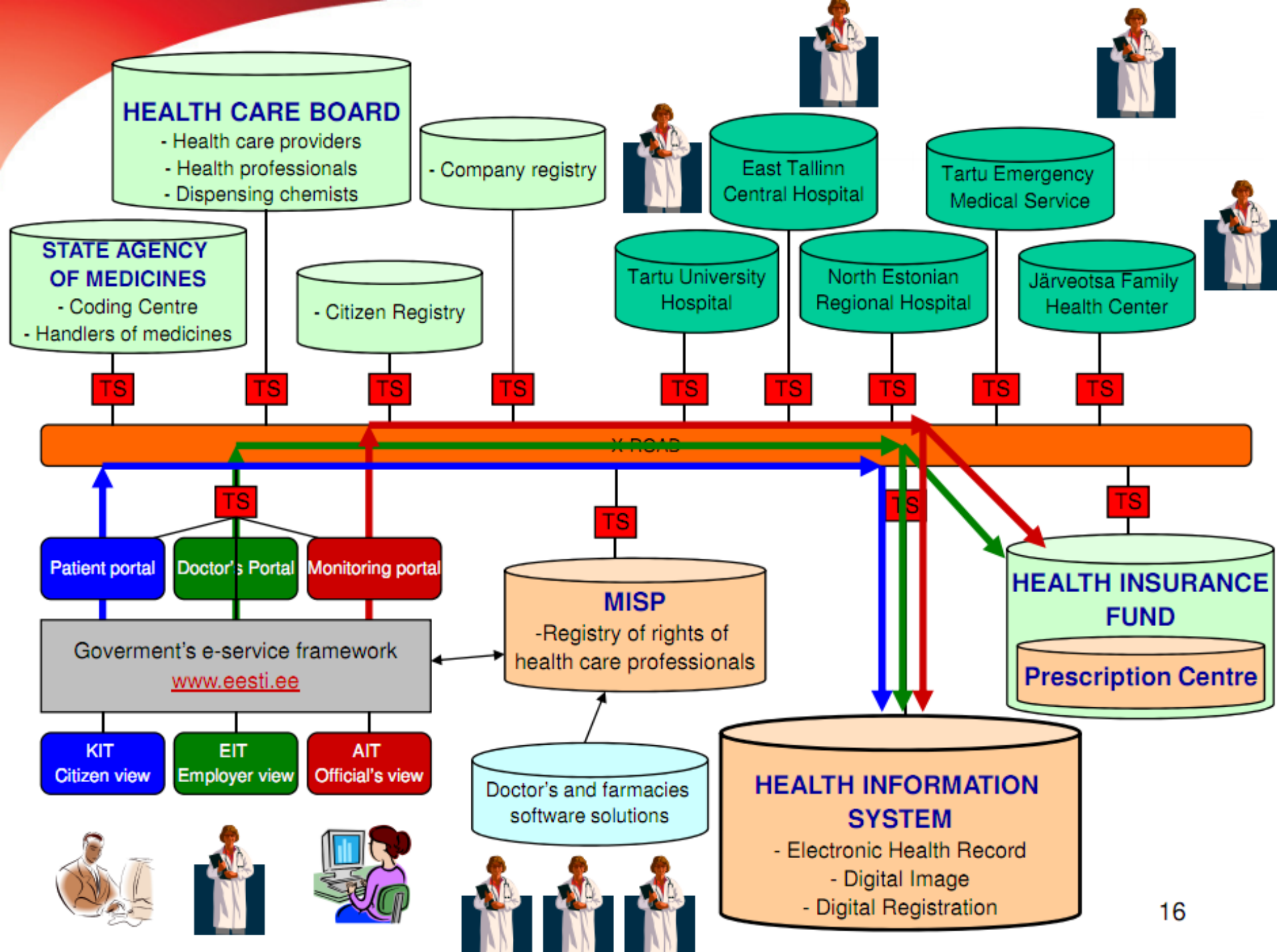
eFile

eSchool

...

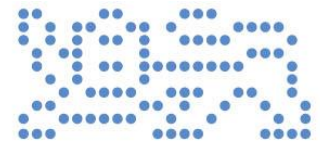
eParental benefits



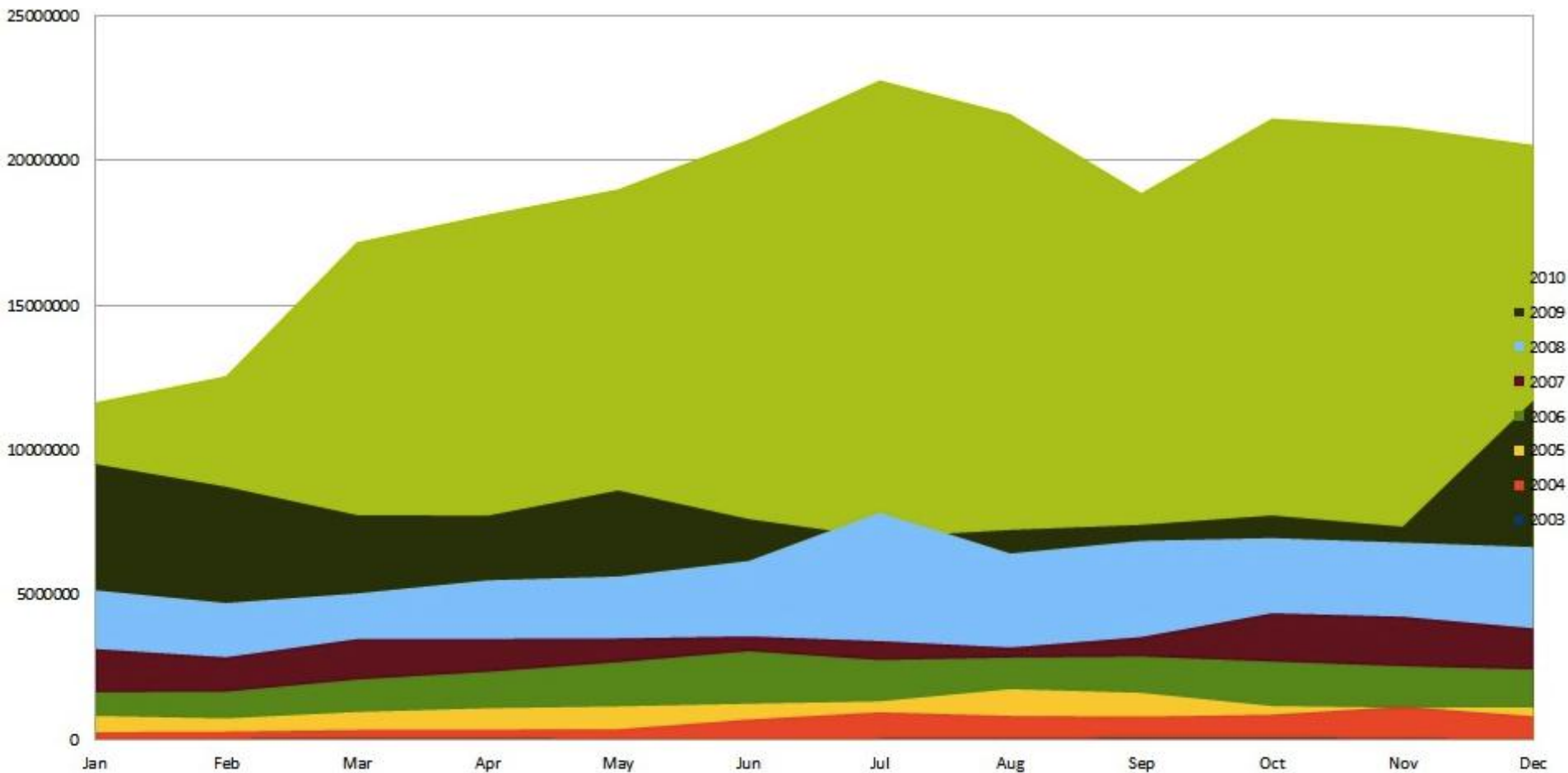


Today's Situation

- X-Road launched in Estonia in **2002**
- More than **160 databases** are offering services via X-Road (producer certificates)
- More than **3000 services** are available
- More than **800 organizations** are using X-Road daily (consumer certificates)
- More than **50% of citizens** are using X-Road via Citizen portal
- **Most of companies (~160 000)** are used X-Road via Entrepreneur portal



X-Road



Example (one modernized process on X-Road):

Before – 3 police officers – 30 minutes – 1 car

Today – 1 police officer – 2 seconds – 1 car



X-Road Europe

Development environment

(unreal organizations – unreal data)



Test environment

(real organizations – unreal data)



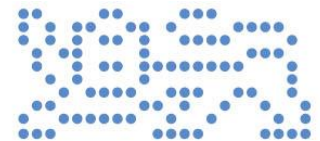
Production environment

(real organizations – real data)



Future goals

- Modular freeware
- The European Union's requirements for digital signatures and for time stamping
- Compatible X-ROADs
- Consortium





How to join?

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Estonian Information System's Authority



The consumer can:

- Use data from different databases (in a secure and standardized way)
- Integrate services to her business model or information system
- Create complex services (many databases in one place)
- Offer e- and m-services to his clients
- Manage access of different individuals to his services in the information system
- Avoid dependence on technological platform of the service providers
- Have one interface for using different services
- Use an existing security solution
- Use an existing logging system
- Use an existing local monitoring
- Use an existing MISP portal solution
- Avoid collecting data that is already collected by someone else
- Belong to a centrally managed group
- Scale the solution



The provider can:

- Make his data visible to others in a secure and standardized way
- Avoid using his own web environment to offer services
- Avoid managing users on a personal level
- Improve the quality of data: using data improves their quality
- One interface to offer services
- Use an existing security solution
- Use an existing logging system
- Use an existing local monitoring
- Avoid dependence on technological platform of the consumer
- Open services to a group
- Re-use services
- Scale solutions

