

# Development of eServices in Health on Social Care

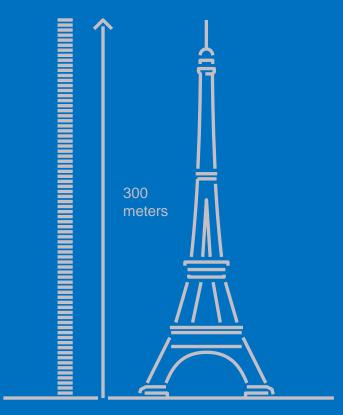
"Smart solutions for sustainable and inclusive societies " EESC | Tallinn | 12.09.2017

Ain Aaviksoo, MD MPH deputy secretary general for e-services and innovation (CIIO)

# Estonia is a digital society

- digital signature saves 5 days a year
- 99% of prescriptions are digital
- 99% state services are online





A stack of paper saved each month





### **E-services in Estonia**

Internet banking (99%)

E-school

E-health record (99% population)

E- Business registry

Digital signature

E-pensions account

E-land Registry

**ID-ticket** 

E-court & justice

E-residency (135 countries)

M-parking

**E-voting (30%)** 

E-state service portal

E-tax and customs service (97% income tax)

E- self-services

E-police

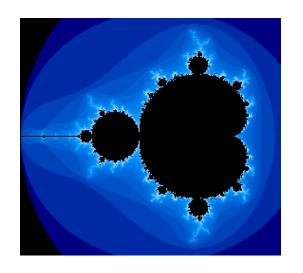
E-prescription (99% population)

### It takes ....

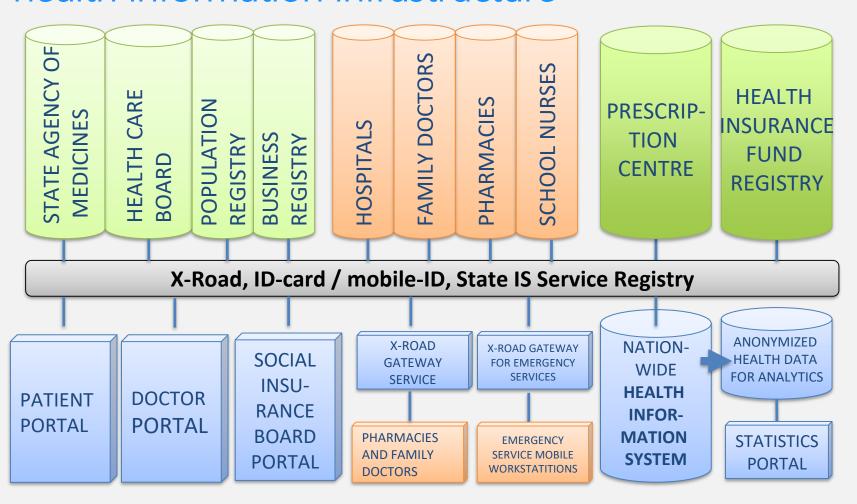
- ✓ lots of information from various sources
- ✓ powerful information systems to process the data
- ✓ smart people to find the meaning from noise or random (though sometimes beautiful) patterns

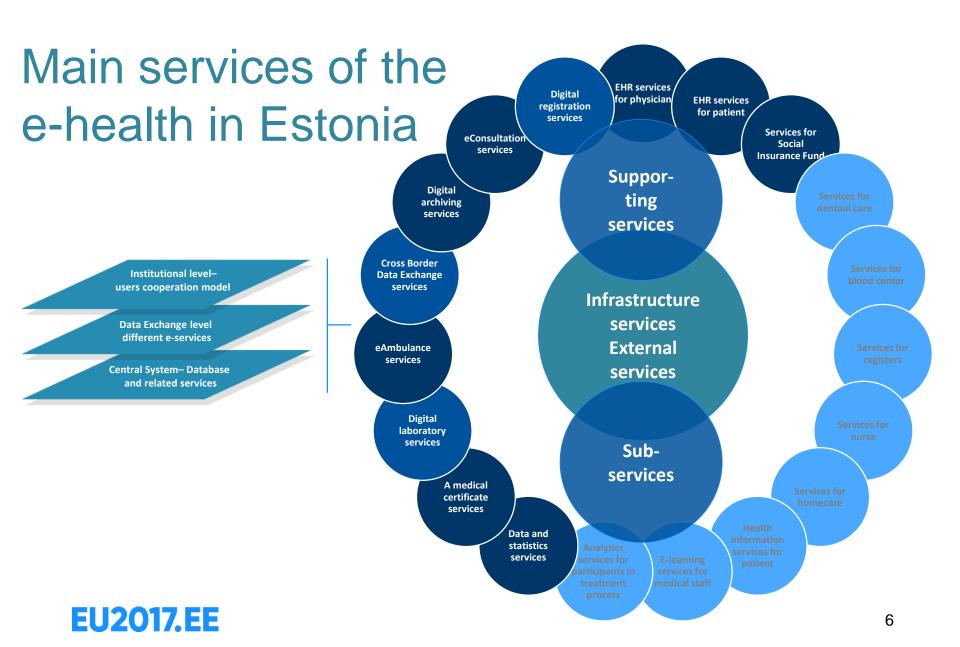
and ...

... a lot of **trust** (from data subjects)



## Secure data exchange – cornerstone of Estonian health information infrastructure





## EU General Data Protection Regulation facilitates better use of personal data



The new Regulation will also guarantee free and easy access to your personal data, making it easier for you to see what personal information is held about you by companies and public authorities, and make it easier for you to transfer your personal data between service providers – the so-called principle of 'data portability'.

Privacy means that

personal data

should not be secured from being used, but to be used securely

### **Authentication & Authorisation**

#### Who are you?

**Constant** anywhere & anytime

Solution = **Unique ID**(plus robust technology: ID-card, mobile-ID)

#### What can you do?

(read, write, delete etc)

**Dynamic** in space & time (same individual can have multiple roles)

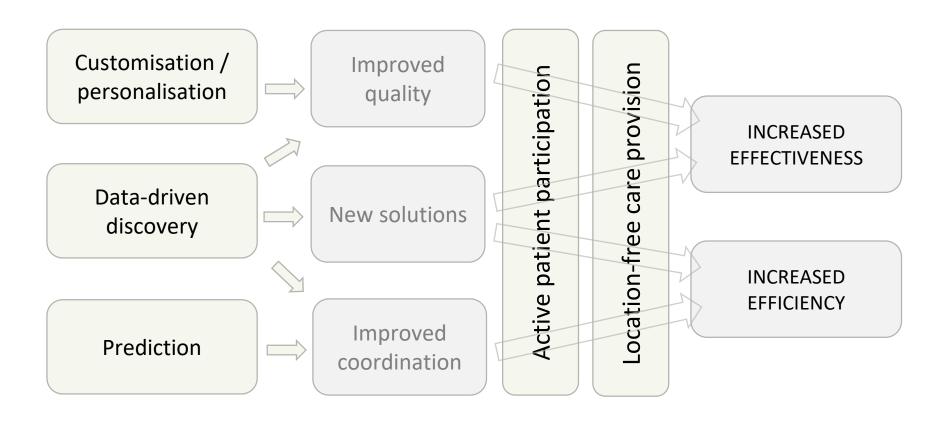
Solution = **classification or roles** by profession, facility, service etc

## Identification in healthcare Estonia (no difference btw digital or physical identification)

#### **Authorisation Authentication** Personal Provider Professio-+ + + Service role Identity identity nal role Individual/unique Unique **Company ID Personal ID** Individual/unique (legal entity) (pshysical entity) **Professional ID Service** Managed by classification State nationally (coded) Specialty Individual/unique classification **Health Care** (coded) **Service Provider ID** (legal entity) Managed by Managed by Managed by Managed by State nationally **Health Board Health Board** provider locally



## Future healthe and care is strongly influenced by digital approach





## EVERYBODY loves WELL-DESIGNED eServices targeting a NECESSARY problem

" 98 % of patients
with average age 68a
used actively
patient-education tools
on iPad
after heart surgery"

Source: D.Cook jt "Patient Education Self-Management During Surgical Recovery: Combining Mobile (iPad) and a Content Management System" (Telemedicine and e-Health. April 2014, 20(4): 312-317. doi:10.1089/tmj.2013.0219)



**EU2017.EE** 

### From "health data" to "digital health services"

Русский

**Eesti** 

## My e-Health 🤏



VANANENUD TARKVARA KASUTAMINE ON OHTLIK

 $\rightarrow$ 

#### My data

Ain Aaviksoo 37406146510 INSURED Family doctor: Katrin Ollikainen

#### Update



#### Represented persons

HANS OSKAR AAVIKSOO 39812310225

HANNA MERILYN AAVIKSOO 49812310237



#### **DIGITAL HEALTH SERVICES**

#### Ugalth data

Time critical data

Dental care documents

Dental care charts

Dental status chart

Passport of Immunization

Ambulance charts

Prescriptions

Referrals

Invalid referrals

Valid referrals

All referrals

Referrals related to anappointment

Health declarations

Health certificates

#### Case summaries

Out-patient case summaries

Day-care case summaries

In-patient case summaries

Birth case summaries

#### Notifications

Development assessment notifications

Immunisation notifications

Growth notifications

**Examination notifications** 

Counselling notifications

#### **Examination results**

Image references

Referral responses

#### Health related information

Starting from October, you will find information and materials important to the patients and their family members here

#### **Important** updates

Data is updated about your prescriptions.Possibility is developed to see and print out your Passport of Immunization in the future



### Just an example ...



ABOUT US

PARTNERS

RESEARCH

CONTACT US

## A Comprehensive Rehabilitation Platform for the Continuum of Care







**est**onishing – dare to fulfill your desires safely!

further inquiries: <a href="mailto:ain.aaviksoo@sm.ee">ain.aaviksoo@sm.ee</a>

### Estonian EU Presidency on digital health



EU has already several important legal acts to support eGovernment across all MS, but these must be implemented for the benefit of all European Citizens fully making use of the opportunities and advantages of the single market

## Free movement of data in healthcare makes difference through hitting the triple aim



Increased access and safety in healthcare can be achieved through empowered citizens and adequate data availability at the point of care



Sustainability of health systems will be supported by value-based approach.



New economic opportunities, jobs and investment will be created using data-driven health care innovation.

Health data should be used securely, not to be secured from being used!

# eHealth focus areas for Estonian EU presidency

- 1. The right of citizens to control the processing of their health data comfortably and electronically should be realized in practice
- 2. Wider use of health data for research and innovation

Citizens truly in control of their health and the data + system that support it



Health care as an asset not cost item for public budgets



### Conclusions

- ✓ citizens should fully control their (health) data this is the key to privacy
- ✓ Data integration from various sources leads the way to economic growth
- ✓ Digital Single Market principles should be put into work for the benefit of all EU citizens

Tallinn 2017
high level eHealth conference
"Health in the digital society
Digital society for health"

October 16-18, 2017 | Tallinn, Estonia



- ✓ Real-world experience of the benefits and value of digital tools for health, care and prosperity of the societies
- ✓ State-of-art and practical solutions for advancing, implementing and funding health into digital society

Digital Health Society
Tallinn Declaration on eHealth