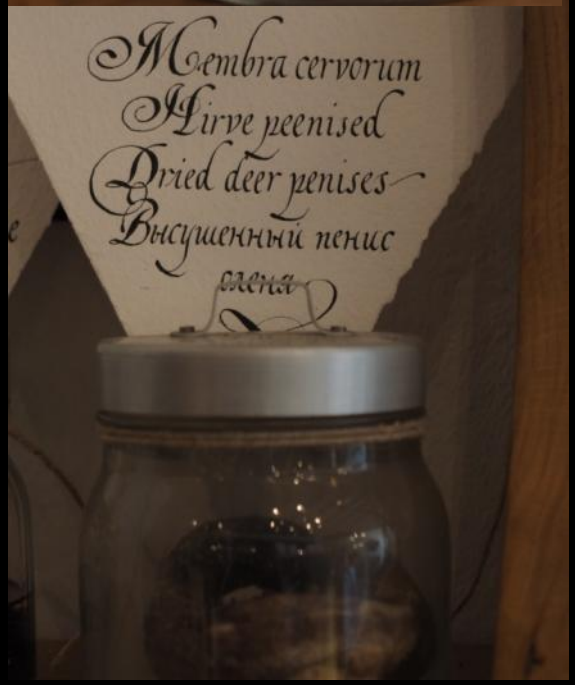
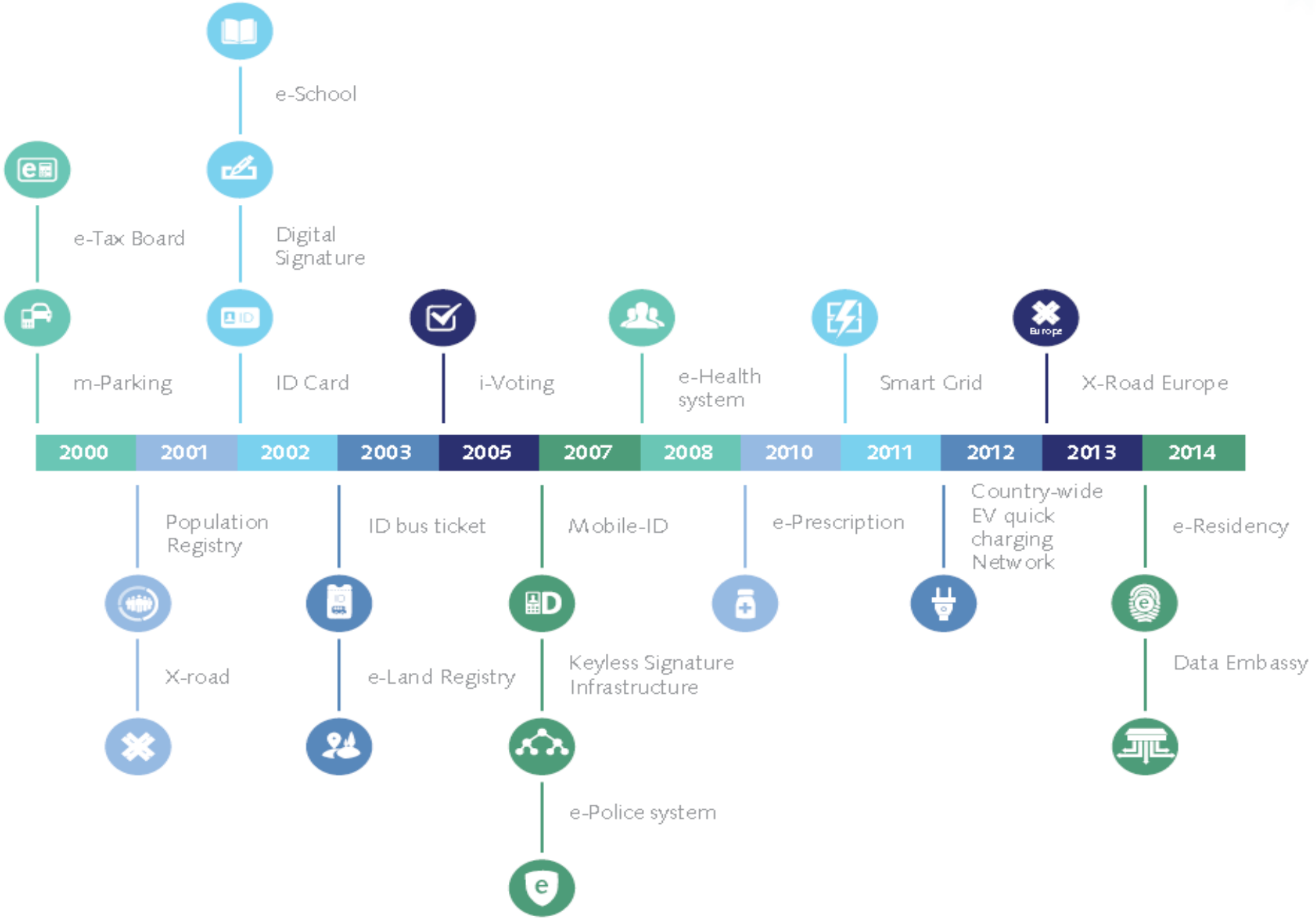
Innovation in Estonian healthcare

Steve Baguley, CCIO — Scotland
Svend Ulka Petersen, CIO — Denmark
Adrian Kobler, CIO — Switzerland

Merda sole decolorata canina
Pleegitatud koerasitt
Sun-bleached dog faeces
Выгоревшие на солнце-
фекалии собак


Membra cervorum
Hirve peenised
Dried deer penises
Высушенный пенис
оленя


e-School
e-Tax Board
Digital Signature
m-Parking
ID Card
i-Voting
e-Health system
Smart Grid
X-Road Europe
2000
2001
2002
2003
2005
2007
2008
2010
2011
2012
2013
2014
Population Registry
ID bus ticket
Mobile-ID
e-Prescription
Country-wide EV quick charging Network
e-Residency
X-road
e-Land Registry
Keyless Signature Infrastructure
Data Embassy
e-Police system

Faroe Islands
Sweden
Norway
Gulf of Bothnia
Finland
Helsinki
St Petersburg
Санкт-Петербург
Oslo
Stockholm
Tallinn
Estonia
Baltic Sea
Riga
Latvia
North Sea
Edinburgh
United Kingdom
Denmark
Lithuania
Vilnius
Minsk
Минск
Isle of Man
Dublin
Manchester
Ireland
Liverpool
Hamburg
Belarus
Amsterdam
Berlin
Poland
Warsaw
Netherlands
London
Brussels
Cologne
Germany
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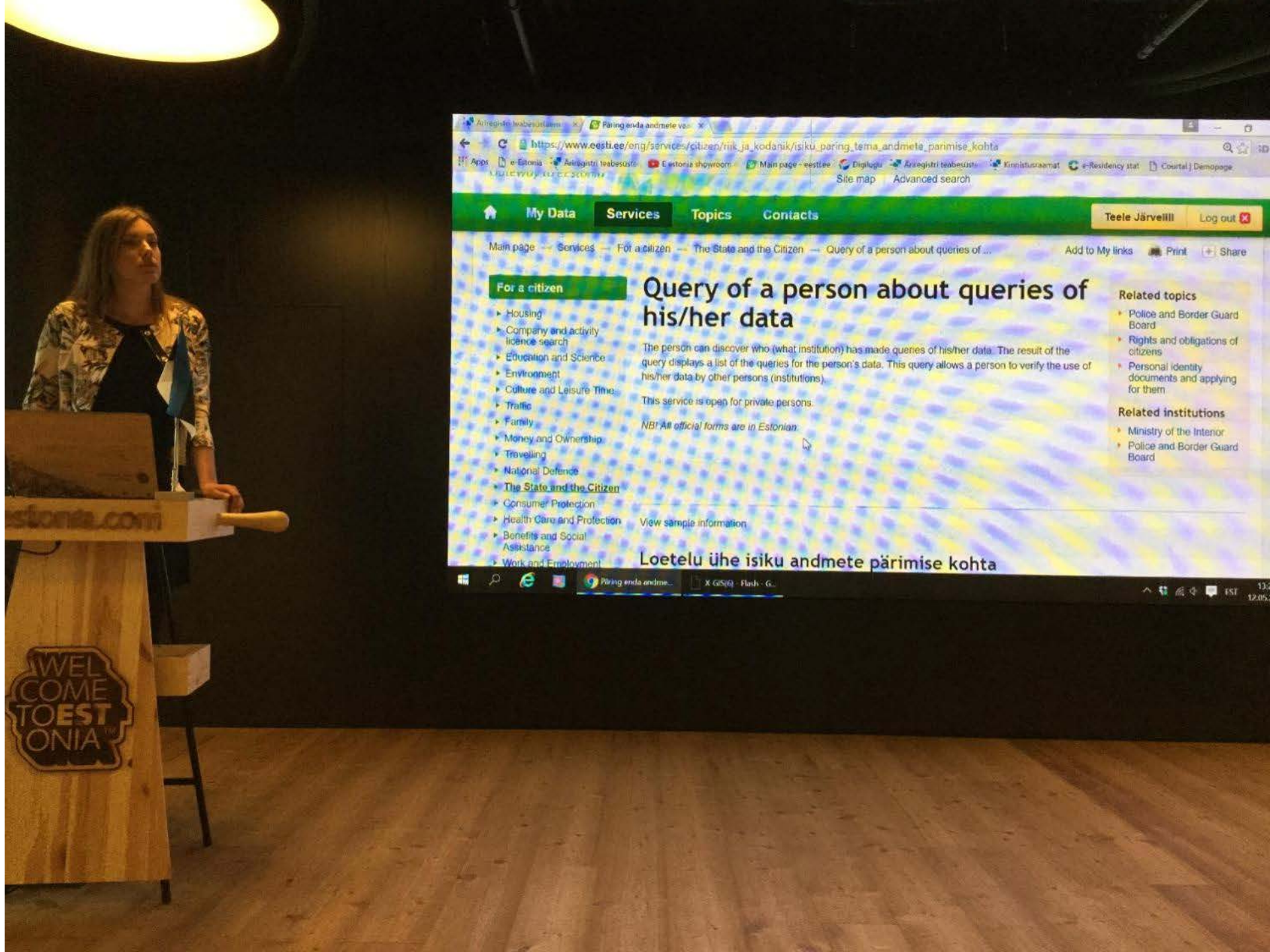
XXXV Tallinna Vanalinna Päevad


https://www.eesti.ee/eng/services/citizen/riik_ja_kodanik/isiku_paring_tema_andmete_panmise_kohta
Site map
Advanced search
My Data
Services
Topics
Contacts
Teele Järvelill
Log out
Main page — Services — For a citizen — The State and the Citizen — Query of a person about queries of ...
Add to My links
Print
Share
For a citizen
Housing
Company and activity licence search
Education and Science
Environment
Culture and Leisure Time
Traffic
Family
Money and Ownership
Travelling
National Defence
The State and the Citizen
Consumer Protection
Health Care and Protection
Benefits and Social Assistance
Work and Employment
Query of a person about queries of his/her data
The person can discover who (what institution) has made queries of his/her data. The result of the query displays a list of the queries for the person's data. This query allows a person to verify the use of his/her data by other persons (institutions).
This service is open for private persons.
NB! All official forms are in Estonian.
View sample information
Loetelu ühe isiku andmete pärimise kohta
Related topics
Police and Border Guard Board
Rights and obligations of citizens
Personal identity documents and applying for them
Related institutions
Ministry of the Interior
Police and Border Guard Board
WELCOME TO ESTONIA

WC
Erakorralise meditsiini registratuur
5336
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Erakorralise meditsiini registratuur
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Visiiditasu

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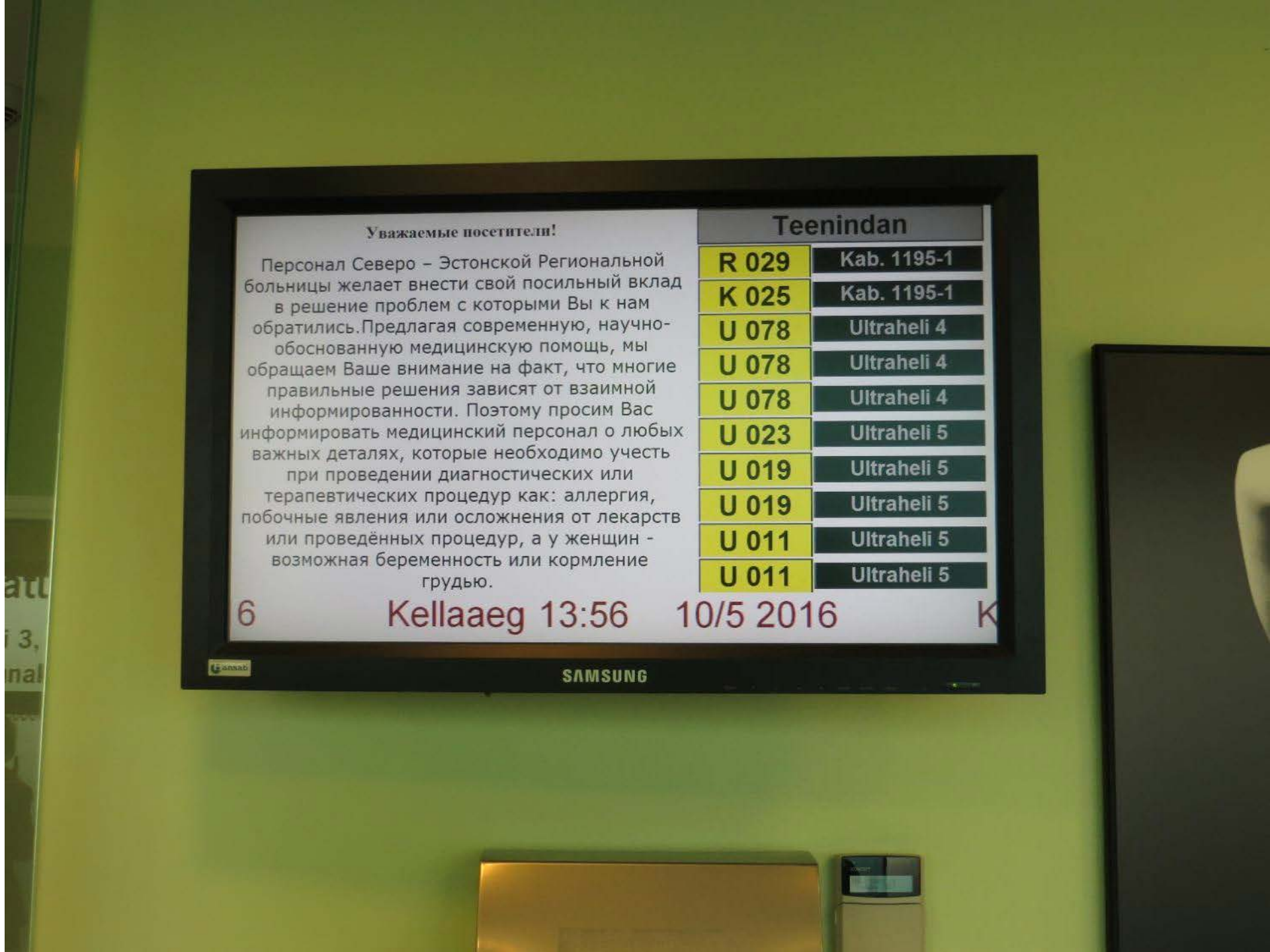
Уважаемые посетители!
Персонал Северо – Эстонской Региональной больницы желает внести свой посильный вклад в решение проблем с которыми Вы к нам обратились.Предлагая современную, научно-обоснованную медицинскую помощь, мы обращаем Ваше внимание на факт, что многие правильные решения зависят от взаимной информированности. Поэтому просим Вас информировать медицинский персонал о любых важных деталях, которые необходимо учесть при проведении диагностических или терапевтических процедур как: аллергия, побочные явления или осложнения от лекарств или проведённых процедур, а у женщин - возможная беременность или кормление грудью.
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R 029 Kab. 1195-1
K 025 Kab. 1195-1
U 078 Ultraheli 4
U 078 Ultraheli 4
U 078 Ultraheli 4
U 023 Ultraheli 5
U 019 Ultraheli 5
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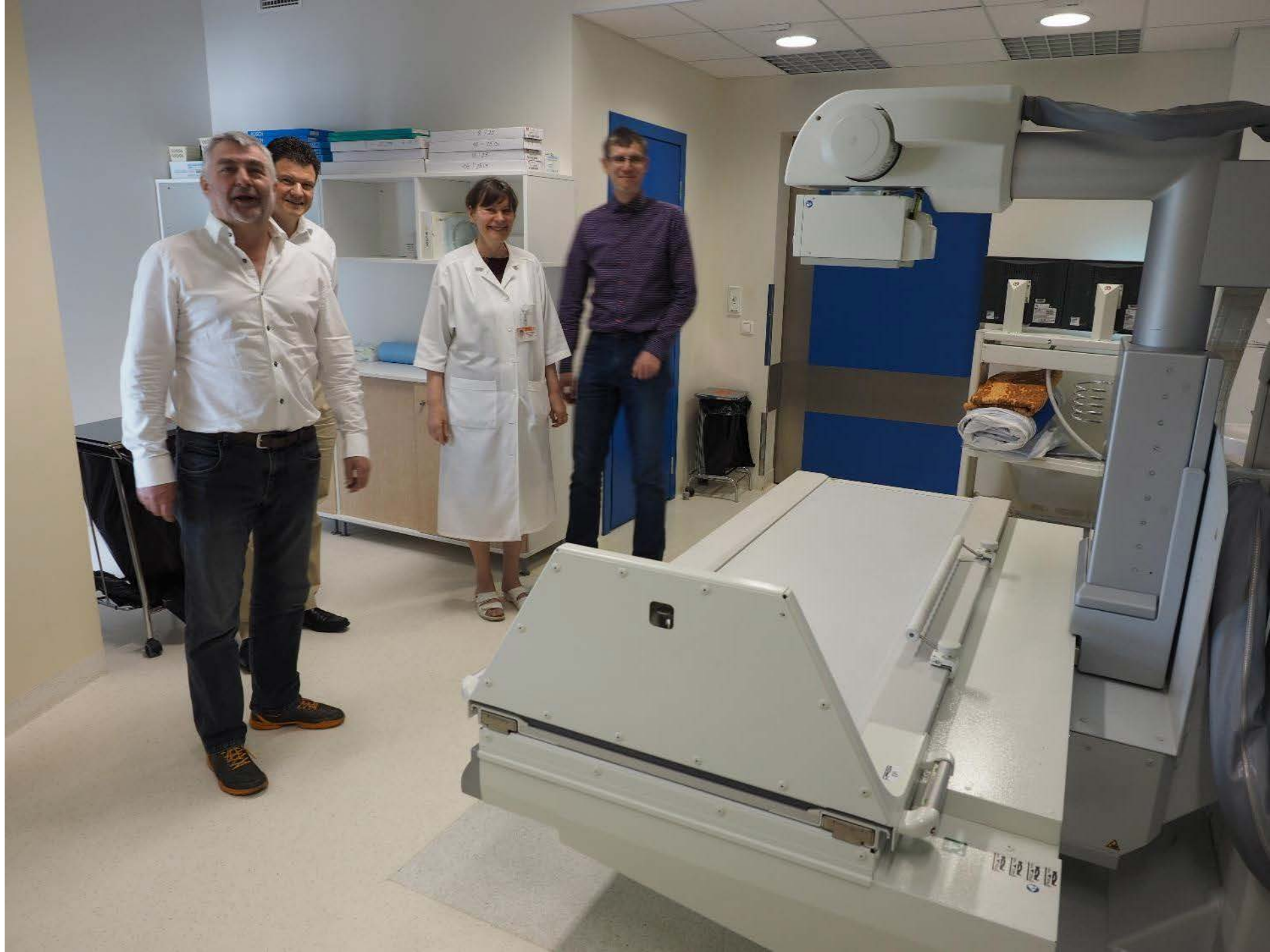
SAMSUNG

Anti-Gravity Treadmill



PÄRNU

06.00,12,00.16.00,19.00

Brasil

RG
MINERVA

Marta kuule, windooza pani täiega pange!
Ääh, pressi Ctrl+Alt+Del ja reboodi, dambjuuser!
Eesti külaelu 2050

rofi

Innovations

Many innovations but some already exist in Denmark, Switzerland or the UK.

So we settled on 4:

1. The X-Road
2. The Estonian Identity System
3. Citizen control of data sharing
4. Family doctors seeing hospital data

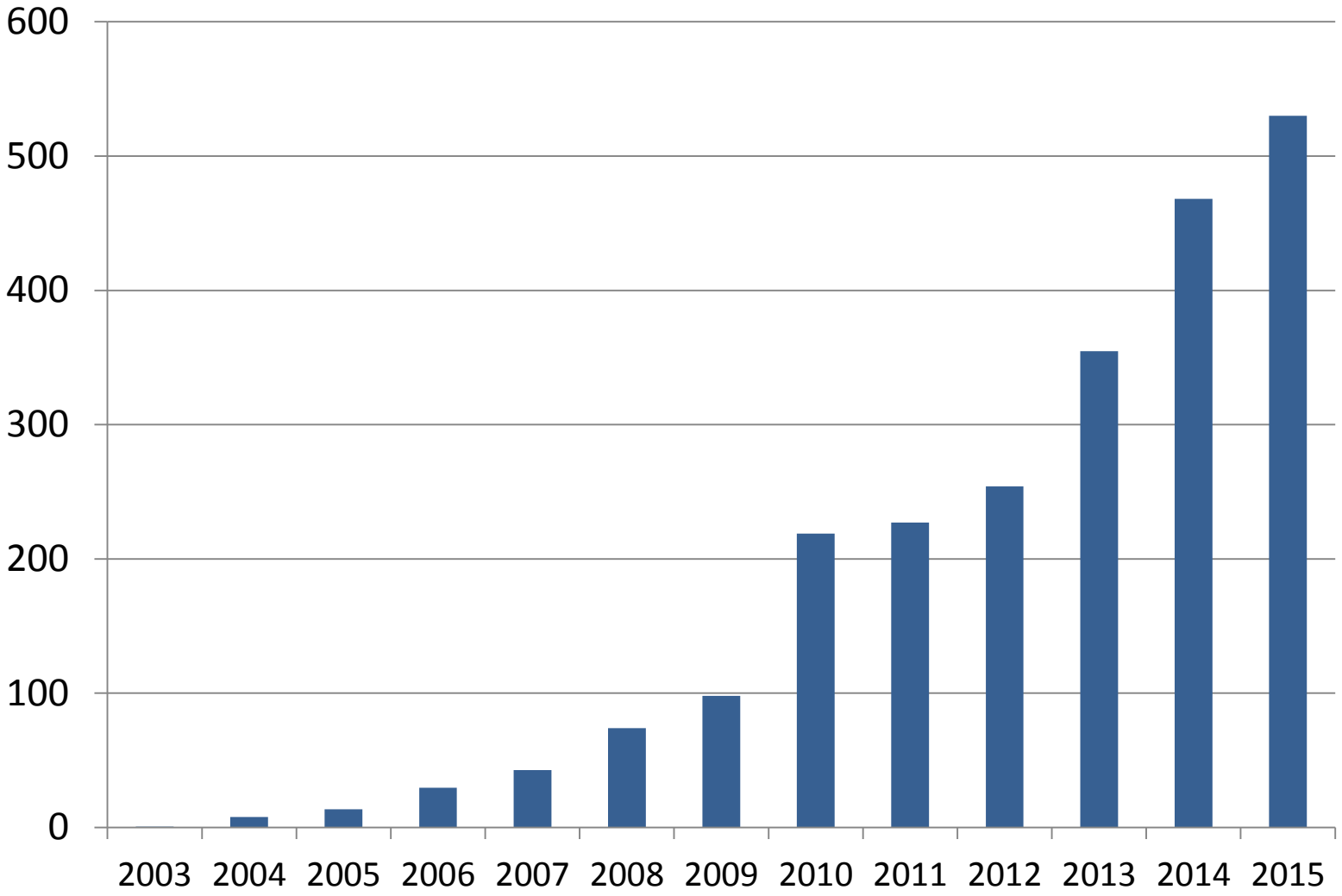
#1 The X-road

A system of encryption software and security servers that allows exchange of sensitive data across the public internet.

- Key enabler of healthcare integration
  - Links all state and private providers to the national clinical portal.
  - Each message is signed, authenticated and time stamped.
- Now moving to Blockchain-based encryption for even greater security.
- Finland planning to adopt the technology.

REPUBLIC OF ESTONIA
INFORMATION SYSTEM AUTHORITY

X-road messages per year (millions)



https://www.ria.ee/en/statistics-about-x-road.html

#2 Estonian identity system

The best developed ID system in the world:

- ID Card
- Mobile ID

Many functions including:

- Authenticating
  - The national health insurance card.
  - Accessing government databases eg patient clinical portal.
  - Picking up e-Prescriptions.
- Signing
  - legal equivalence to writing since 2000

- Aiming to move to SIM-free mobile ID
- Japan planning to adopt the same identity system

Japan to implement ID cards following Estonia's example

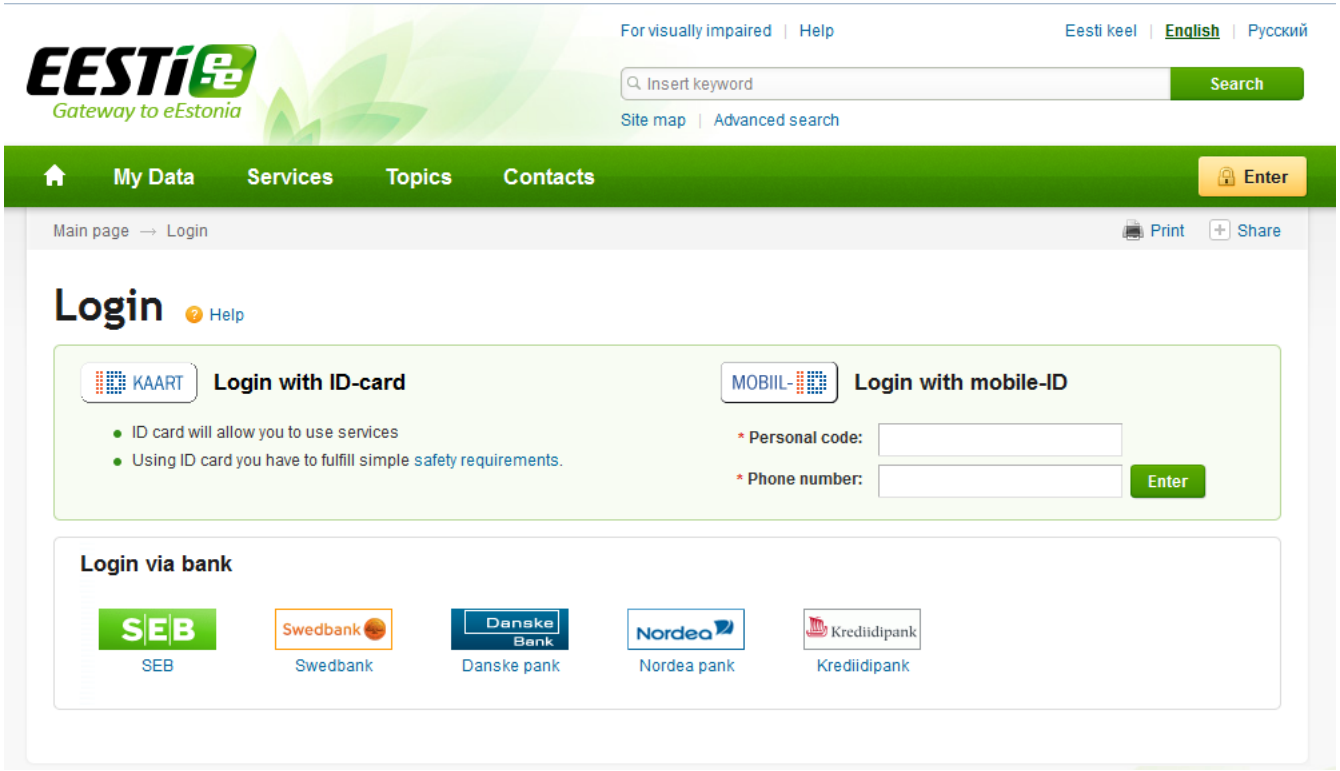
BY SILVER TAMBUR IN TECHNOLOGY · OCTOBER 24, 2015 · 12 COMMENTS

TAGS: E-ESTONIA, E-RESIDENCY, ESTONIANS IN JAPAN, JAPAN

#3 Citizen control over data sharing

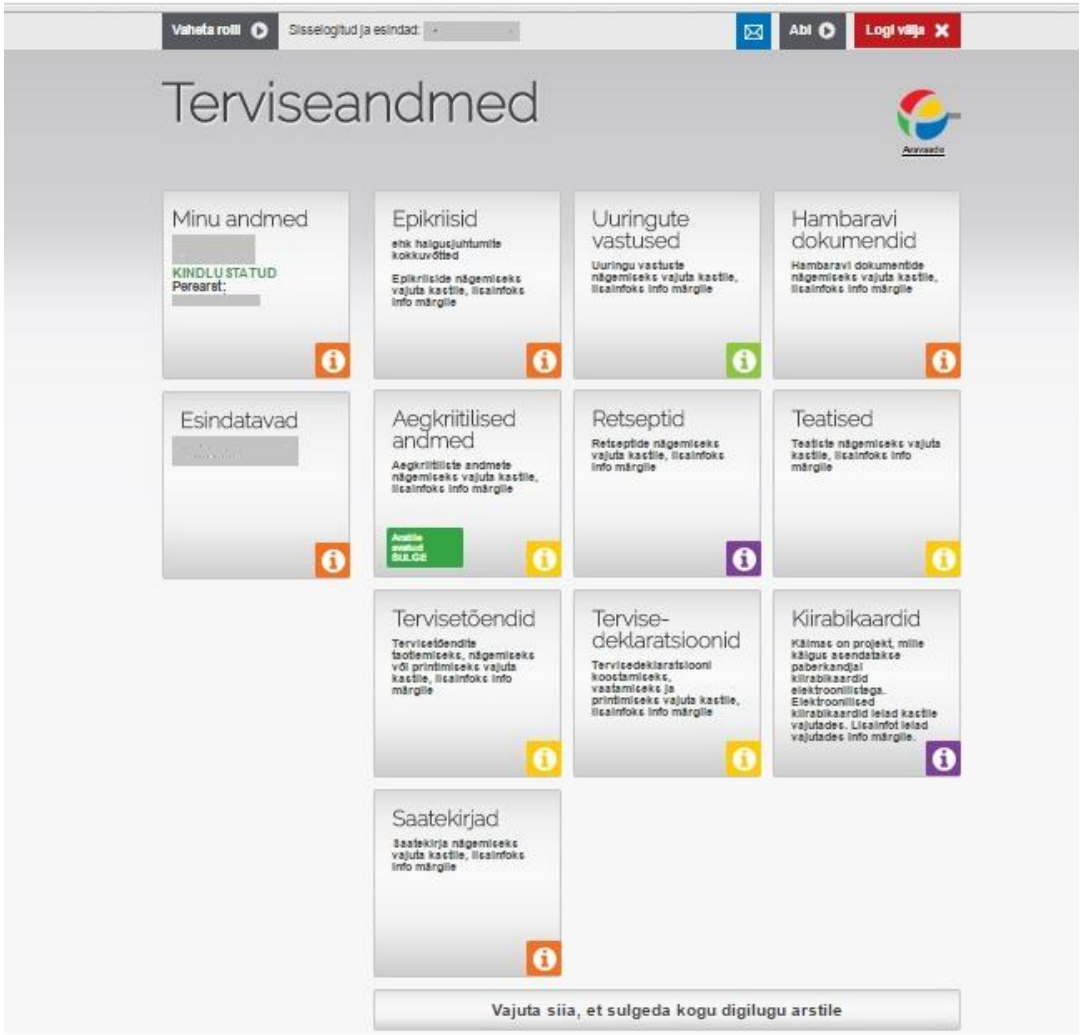
National portal shows the citizen some of the data that the state holds about them.

- Show's who's seen their data
- Allows citizen to mask and reveal data in various ways



Some options

- Can hide all data from all clinicians.
- Can hide specific documents from all clinicians.
- Can hide data from a specific clinician – eg a relative.
- Can allow other people to see your record – eg your spouse.



#4 Family doctors seeing hospital data

- Many hospitals have their own clinical portals.
- A family doctor can access hospital data on patients registered to them as an individual doctor.
  - If patient sees another doctor the name of the registered doctor can be changed.

Acknowledgements

A special thanks to Hedy Eeriksoo and the **Estonian Hospital Association**

Offices of the state for the insight to their plans and strategies

Hospital and community staff for their time

Patients and citizens for any inconvenience