

CEF-funded xBorder ePrescription

openMedicine, Stockholm

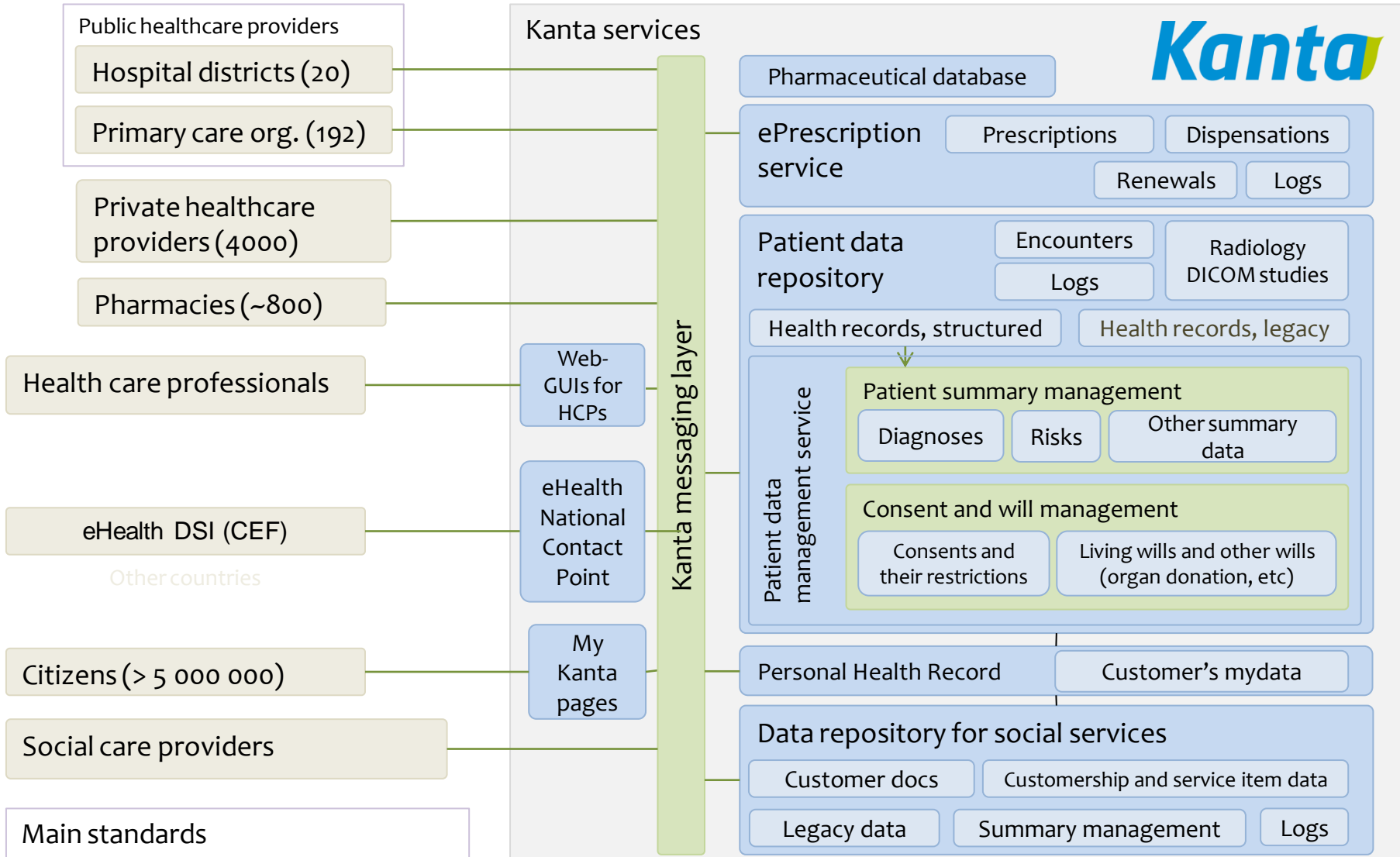
20/12/2016



NATIONAL INSTITUTE FOR HEALTH AND WELFARE, FINLAND



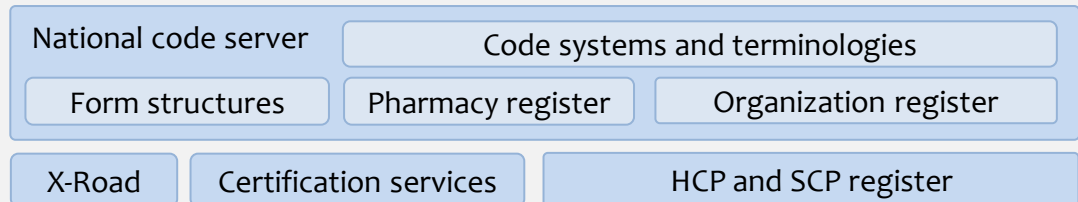
Kanta services



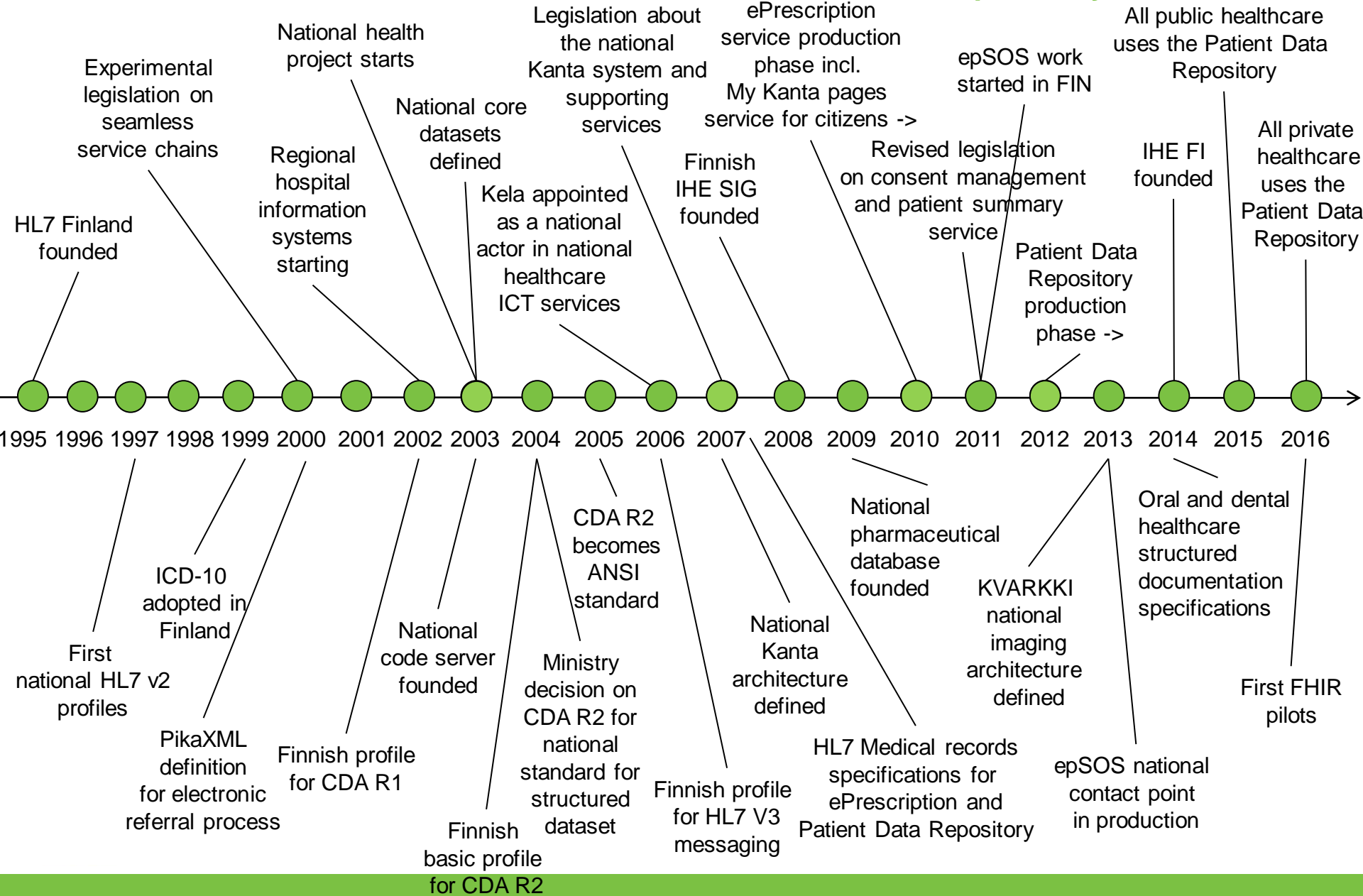
Main standards

- HL7 V3: CDA R2 L3 and Medical Records
- HL7 FHIR DSTU2 (PHR)
- JSON, XHTML (PHR and social services)
- PDF/A (legacy data and social services)
- IHE IT-I Profiles (Imaging and epSOS)
- W3C XML DSig
- WS Addressing, WS-I
- TLS, X.509

Other national services

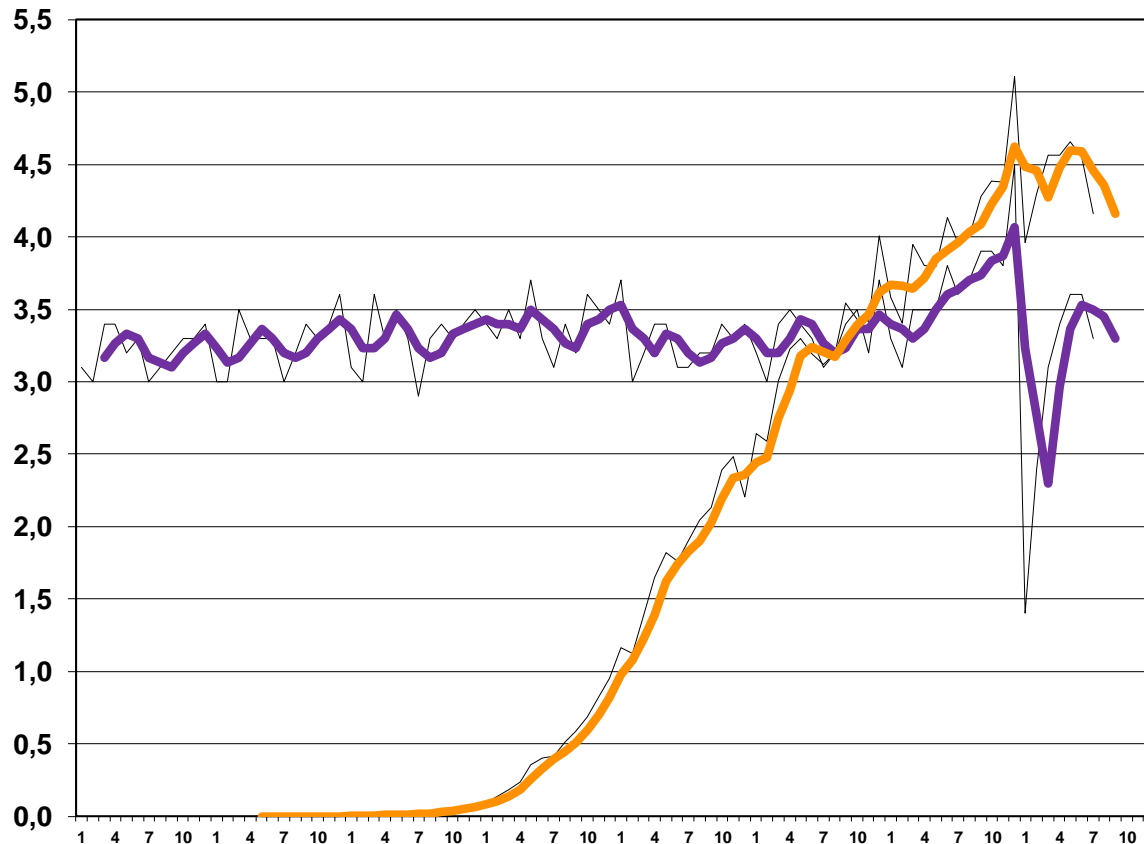


Timeline of Finnish Healthcare ICT Standardization for Interoperability

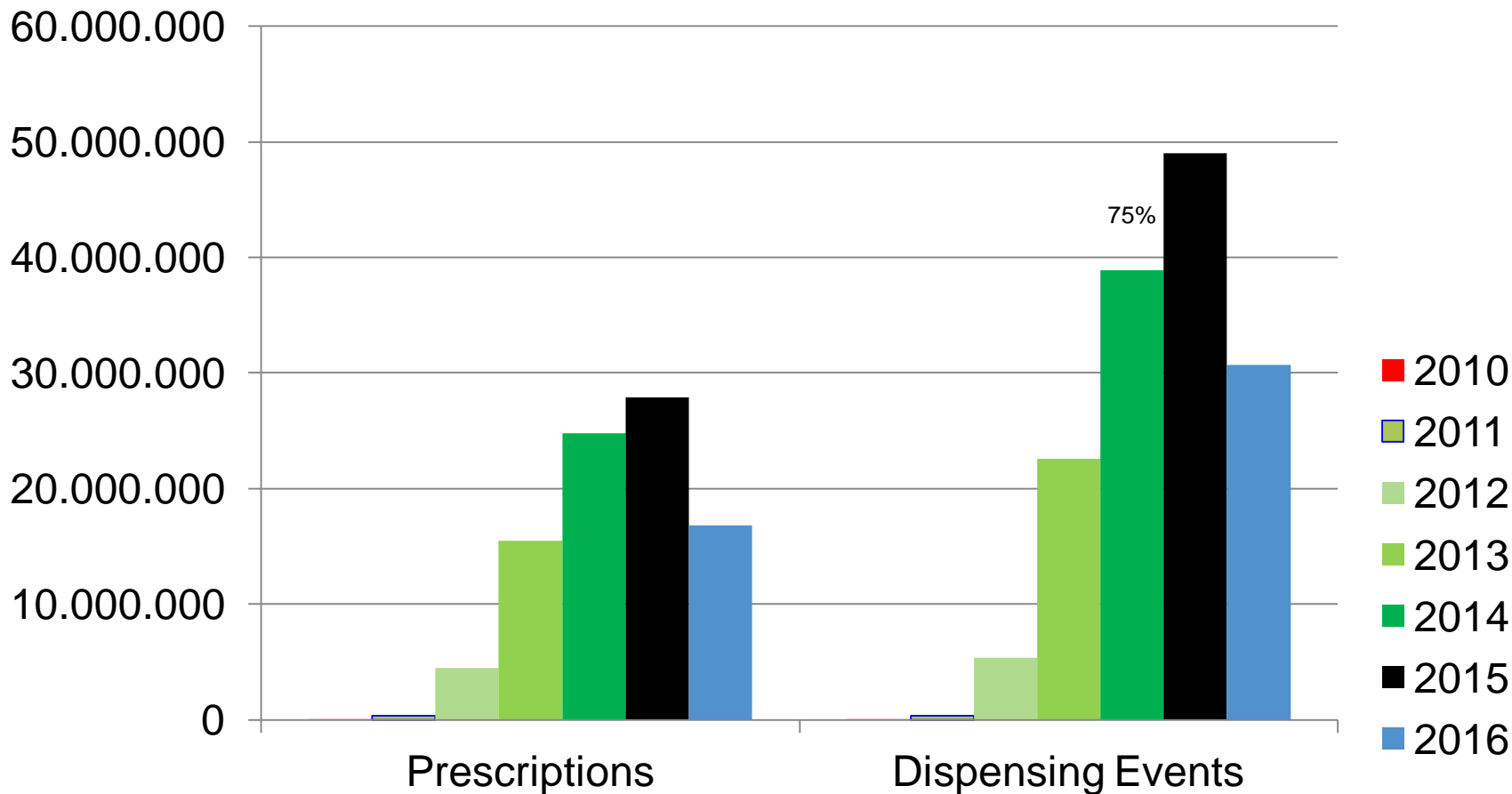


Electronic Prescriptions Dispensed by Pharmacies Compared to Prescriptions Reimbursed Directly at Pharmacies by Month 01/2009–07/2016

(3 month moving average in bold)



Number of Electronic Prescriptions and Medicine Dispensing Events 05/2010–07/2016



Electronic Prescription

10.08.2016

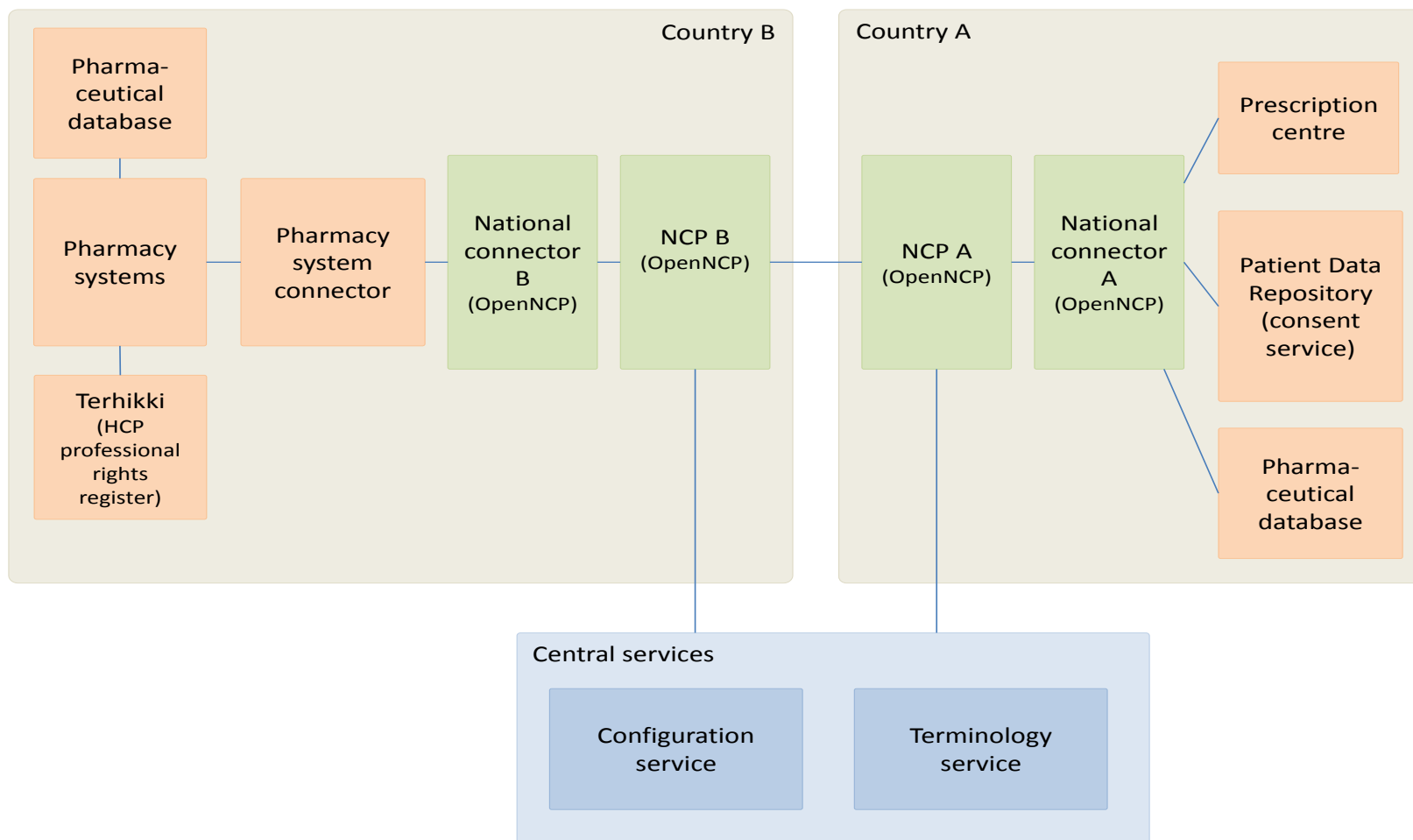
20	Patient and Pharmacy Data Systems
2	Data Systems in Joint Testing
815	Pharmacies (100%)
177	Public Healthcare Subscribers (100%)
268	Private Healthcare Subscribers
>90%	Of All Dispensing Events with eRx (2015)
49.0	Mill. Medicine Dispensing Events (2015)
27.9	Mill. Prescriptions Issued (2015)

Most Respected Finnish Network Brands 2015–2016

(Taloustutkimus Oy)

2016	2015
1. Yle Areena	Yle Areena
2. Kanta.fi	Ilmatieteen laitos
3. Ilmatieteen laitos	Kanta.fi
4. HelMet	Yle
5. Yle	HSL Reittiopas
6. HSL Reittiopas	HelMet
7. Vero.fi	Vero.fi
8. Foreca	Poliisi.fi
9. Kela.fi	Foreca
10. OP	OP

Finnish eHealth cross-border data exchange architecture



Differences to epSOS-architecture

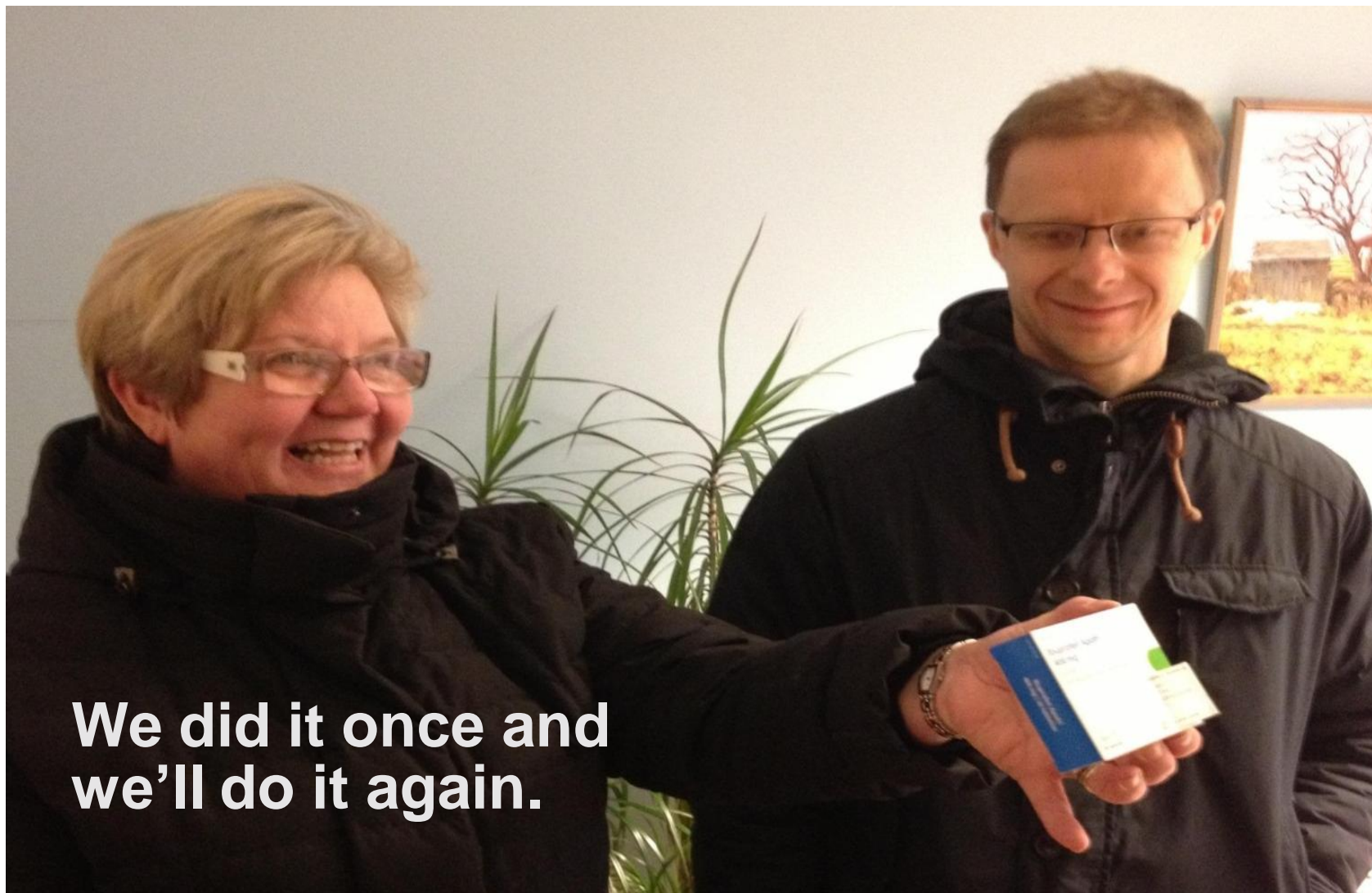
- **Codeservice HealthTerm to be replaced**
 - Possibly a hybrid solution with part of properties in national infrastructures
 - Architecture is being planned
- **Centralized configuration server replaced with a hybrid solution**
 - Replaced by SMP/SML-solution developed in eSENS based on OASIS Service Metadata Publishing -standard
 - Under development
- **Better solution for Non-repudiation**
 - Non-repudiation Building Block from eSENS
- **VPN-connections to be replaced possibly by TESTA-NG-network**
 - VPN-connection caused a lot of problems during epSOS pilot
 - TESTA-NG-network is being deployed also in EESSI (Electronic Exchange of Social Security Information)
 - Planning not started
- **Changes in contents of documents**
 - In epSOS pilot there were a lot of prescriptions out of scope
 - There is a aim to bring into scope at least combination medications and base creams

Prescriptions "out of scope", case Finland

No	Description	Reason	Suggestion with regards to pivot
1	central nervous system drugs	Difference in classification (what is a CNS drug and what is not) in different countries	No change
2	drugs with potential for recreational use (narcotics)	Out of scope of epSOS in general	No change
3	drugs to be prepared in the pharmacy	Preparation instructions only in Finnish/Swedish	No change
4	base creams	No ATC code or strength, which are mandatory in pivot	Include → make ATC code and strength optional in pivot
5	clinical nutritional preparations	No ATC code or strength, which are mandatory in pivot	Include → make ATC code and strength optional in pivot
6	care accessories, dietary supplements and bandages	No ATC code and some other information which is mandatory in pivot	No change
7	prescriptions valid for defined time periods	No information on package size and number of packages	No change. Some countries are able to send suitable info (amount to be dispensed at once).
8	iterated prescriptions	Difficult to calculate the remaining amount. Iteration rules vary among countries.	No change. Some countries are able to send suitable info (amount to be dispensed at once).
9	combination medications	ATC code system not designed for this use case. Text-based strength not allowed.	Allow providing non-structured strength information (text)
10	combination packages	Package size is difficult to structure.	No change
11	the prescription is in held state	National rules	No change
12	the prescription is in reservation state	National rules	No change
13	package size is not in structured form	Package size is difficult to structure.	No change

Issues

- Timetabling: building country B –functionality, new Pharmaceutical database and eMedication simultaneously. The changes have similar timetable (spring 2019), but delays can happen. Changes affect especially country A side.
- It is still unclear what code systems are used in 2019 (EDQM, EUTCT etc.) Old code systems cannot be made obsolete at once so they will be used side by side
- Consent management. Opt-in or opt-out. Old law has opt-in and new one probably opt-out, but it is still unclear when the new law is in place. In epSOS law changes stalled changes
- Restricting certain medicines and prescription from the service and informing citizens and professionals



**We did it once and
we'll do it again.**