



TERVEYDEN JA HYVINVOINNIN LAITOS

EHR Strategy in Finland - The National EHR Archive

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BASICS OF HEALTH CARE ORGANIZATION IN FINLAND

Public sector covering about 85 % of HC

Specialized health care

- 21 hospital districts
 - provided by federations of municipalities
 - about 70 public hospitals

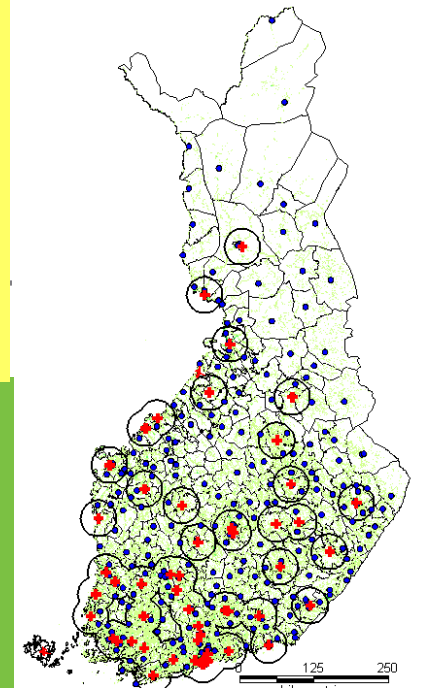
Primary health care

- 229 health care centres
 - provided by municipalities

Private sector covering about 15 % of HC

Basic and specialized health care

Somatic hospitals and health care centres with beds



- **eArchive legislation in effect since 1.7. 2007**
- **ePrescription legislation in effect since 1.4. 2007**
- The law makes mandatory the incorporation of all public health care units into the electronic archiving system, as well as private health care units that do not use paper-based archives.
- All providers except single private physicians and all pharmacies have to join the ePrescription system



Organisations will, with patient consent, be able to share EHRs.

**THIS MEANS NEED FOR NATIONAL STANDARDISATION
OF MAIN EHR STRUCTURES**

The very first organizations are producing ePrescriptions since April 2010

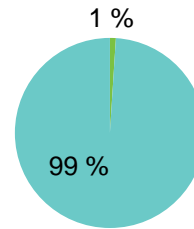
But some problems have emerged in the adaption of the National eArchive



Coverage of the EPR in Finland

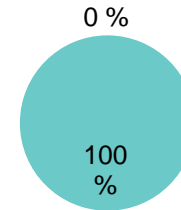
Health centres

2007



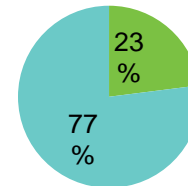
Hospitals

2007

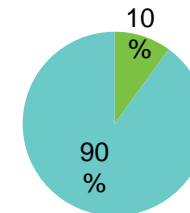


Coverage of the eReferrals in Finland

2007



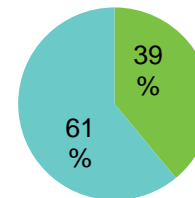
2007



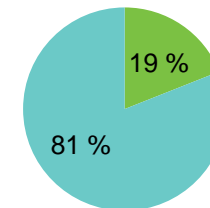
All regions share data on regional basis

Coverage of Teleradiology/ shared images

2007



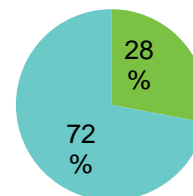
2007



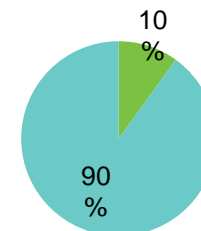
The national architecture is under construction

Coverage of Telelaboratory

2007



2007



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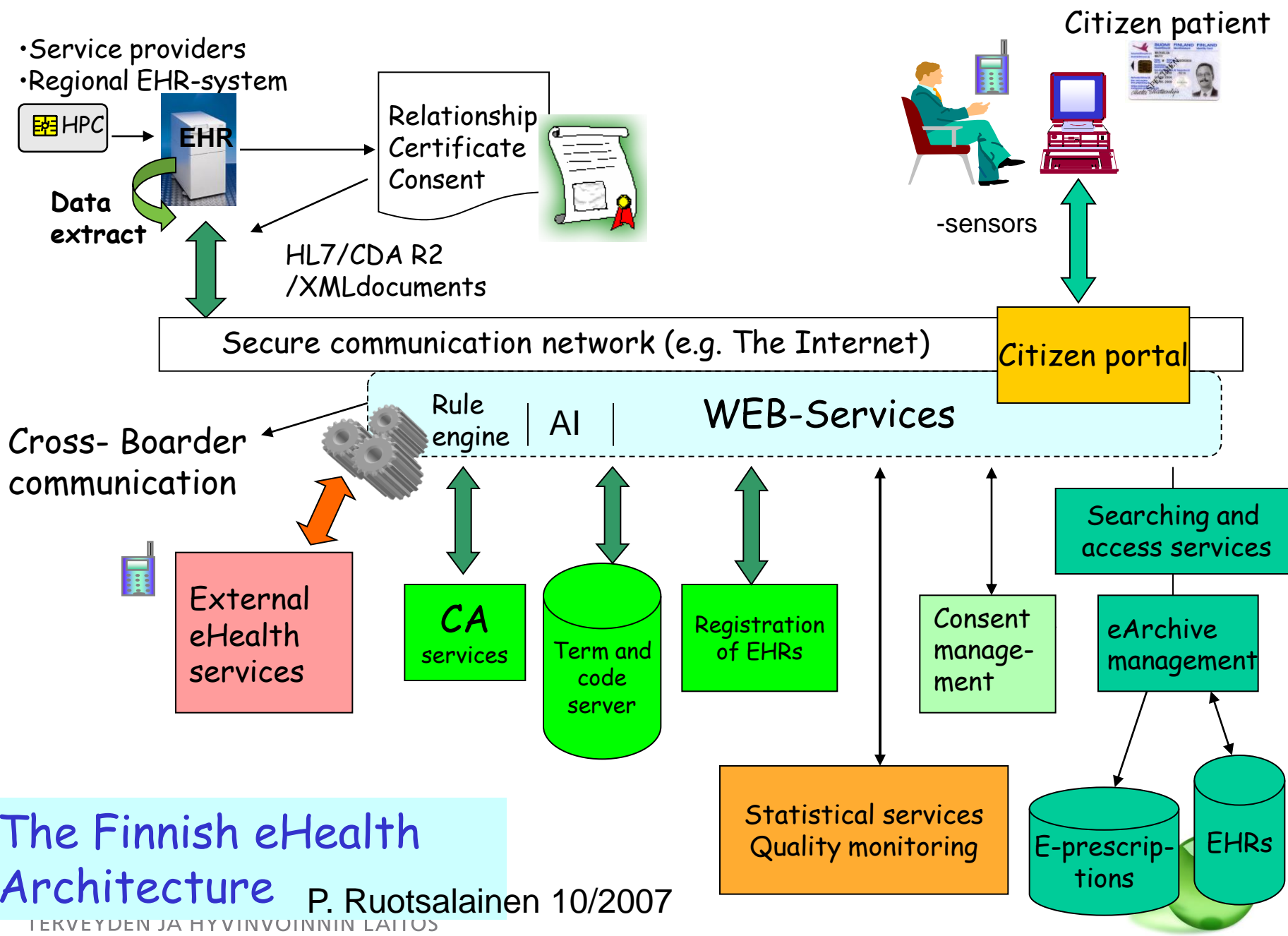


Today the exchange of patient data (EHRs, images, laboratory etc.) is operating but *regional*, mostly within the hospital districts

The main elements of the Finnish eHealth architecture (2007)

- Shared structured (standardized) electronic patient records
- National eArchive for the EPRs
- Central consent management
- eView for the patients
- ePrescription system



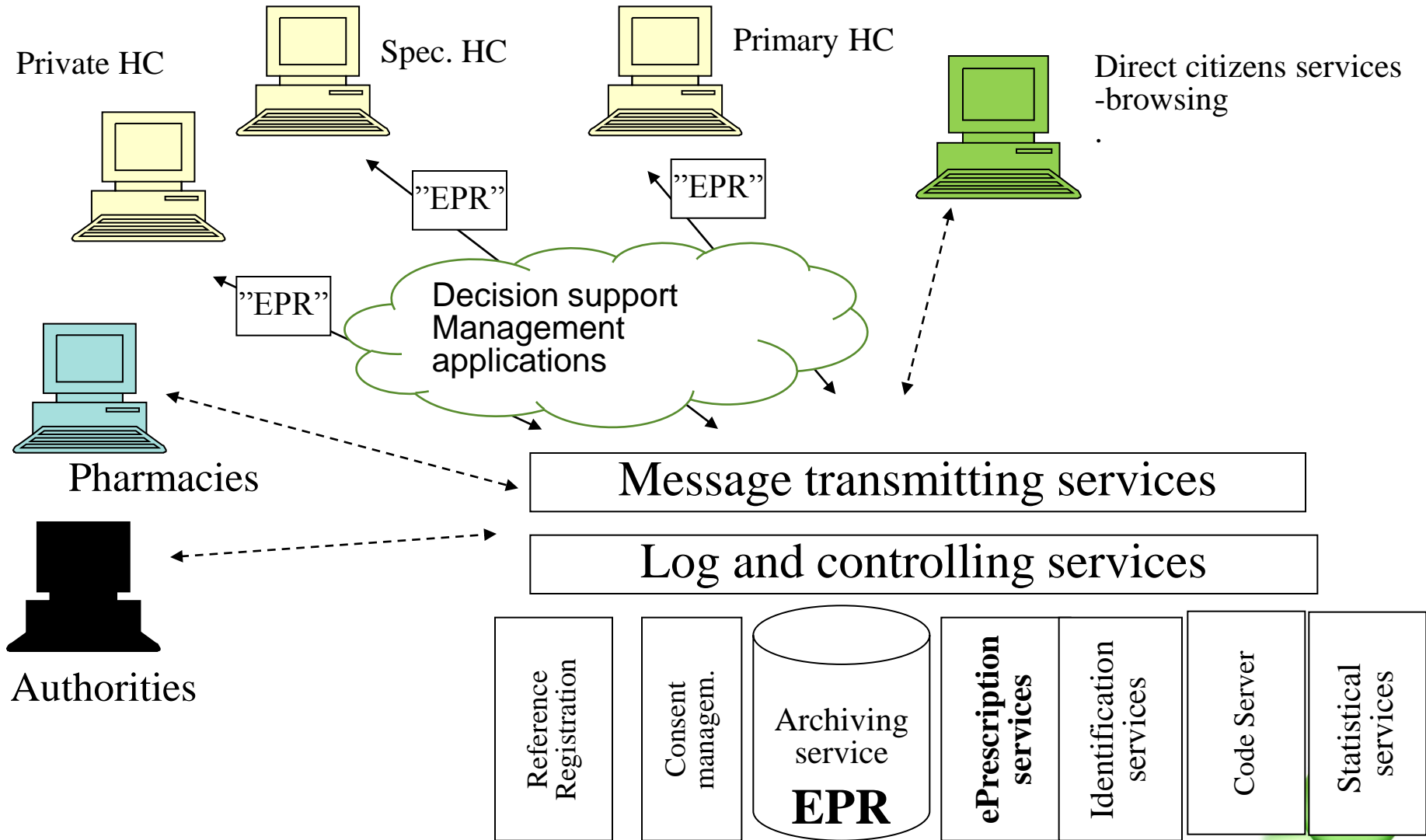


The Finnish eHealth Architecture

P. Ruotsalainen 10/2007

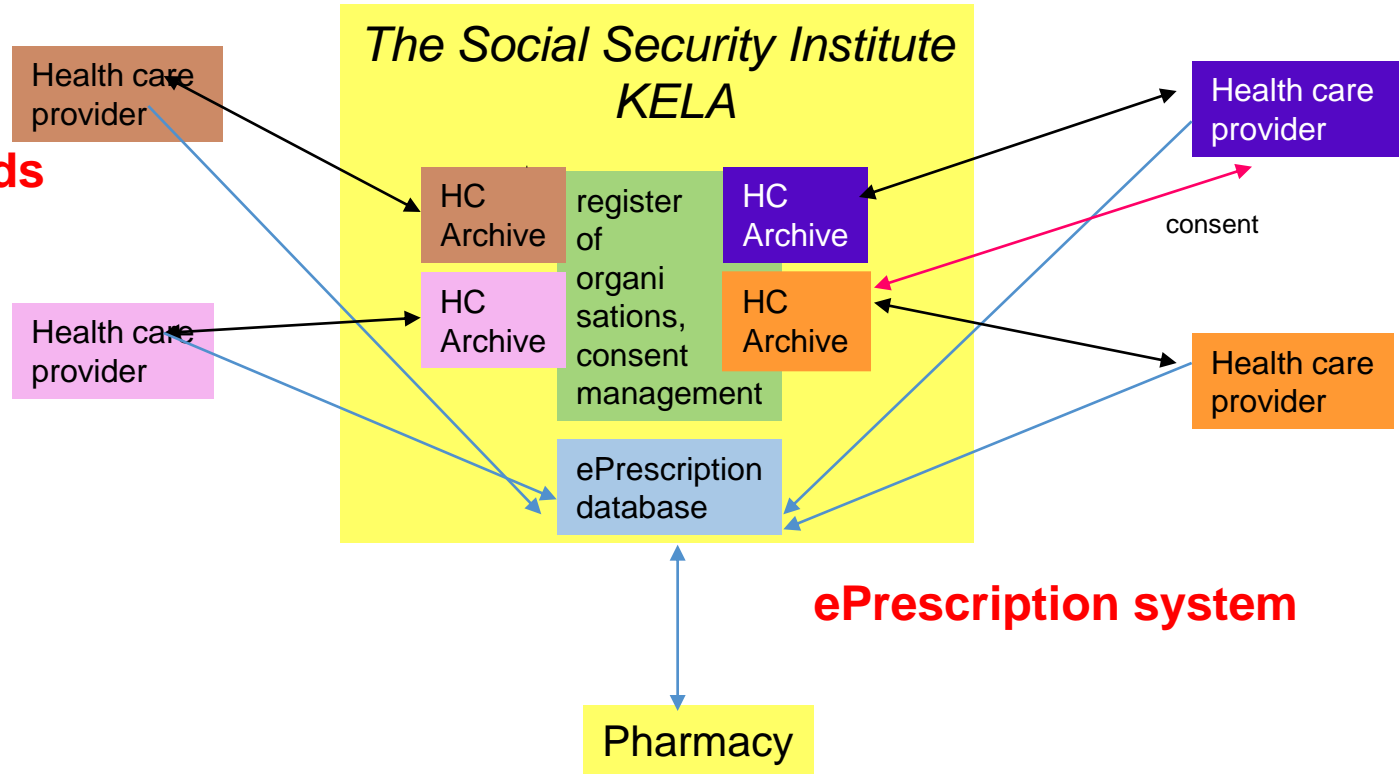
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NATIONAL eARCHIVING AND ePRESCRIBING

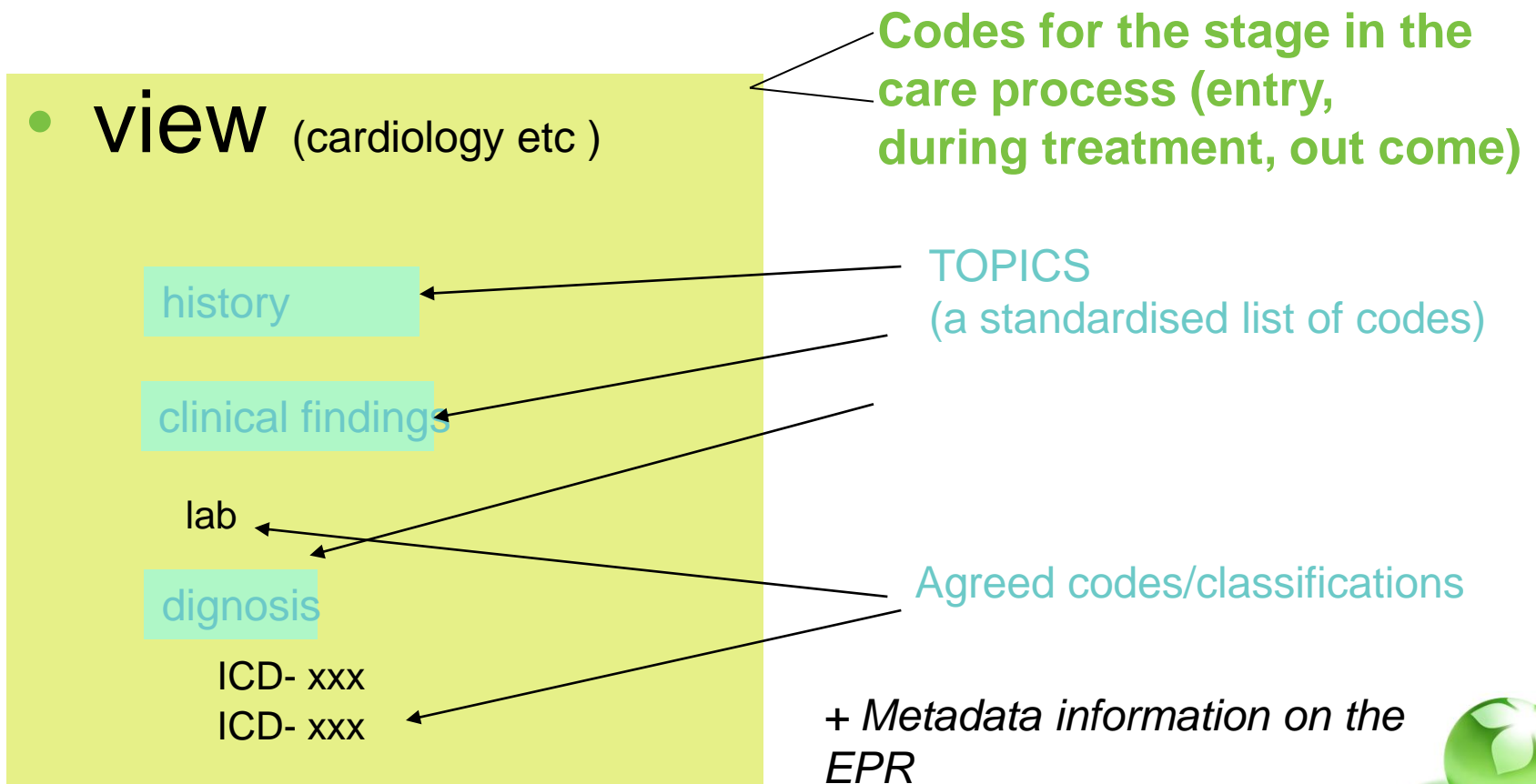


eArchive

**Standardized
Electronic
patient records**



Finland has agreed on a list of structures in the heading and in the body sections of EHRs that have to be used so that they are readable by all the products of different vendors that connect to the National EHR Archive



The situation today

- Slow progress: The National Health Information system project will be re-scheduled. The ministry will give a proposal to the Parliament next week.

The EPR has to be standardized when joining in

to be suggested:

Full implementation ePrescription 2011 → 2012

All public health care to join eArchive 2011 → 2014

Private health care to join eArchive 2011 → 2015

What are the reasons for the delay?

Will the eArchitecture plans be changed?

*National EPR standardization since 2002
eArhcive work since 2006
ePrescription work since 2002*

What are the reasons for the delay?

- ePrescription - Difficulties in the modernisation of the pharmacy systems is the main reason for the delay. Pharmacies in Finland are private and *investing in ICT is difficult for the owners* because return of investment is uncertain, many owners are near retirement etc.
- Other aspects of the ePrescription system and its architecture seem sound. First health care providers and pharmacies have joined and operating, no major technical problems have emerged

The ePrescription system will be OK



What are the reasons for the delay?

- eArchive; The central eArchive has been constructed in KELA, but changing the EPR systems of different health care providers and the products of different vendors to become interoperable, is slow.
- The systems seems complicated and defining different elements has been difficult.
- The municipalities and hospital districts are not so willing to invest in the needed change, because the business case is vague since the regional systems work ok, and they are also afraid that the concept will not stand.
- The health care systems in Finland is changing and many regions reorganize. They do not want to invest before the local administrative structure is stable
- There is a parliamentary election in Finland in spring 2011. It is possible that a new government will introduce new elements in to the structure of the health care system and/or the Health information system architecture



The positive progress

- There is progress in implementing the structured EPR. The vendors are taking more and more standardized core elements of the national structured EPR in to their products
- Some innovations such as the decision supports systems are promoting the structured EPR (in local/regional use)
- The code server has been functioning since 2004 and is delivering the standardized codes for the EPR systems
- The eView system has been constructed because patients have a right to see their ePrescriptions
- New national projects on services to citizens via the eView system have been launched (national system for eBooking, different kinds of safe patient-provider electronic communication/sharing data) **SADe-projects**
- The new health care legislation has been given to the parliament. It will give more possibilities for sharing electronic patient data on regionally
- The patients will have more choice on providers. This means a new business case for shared records



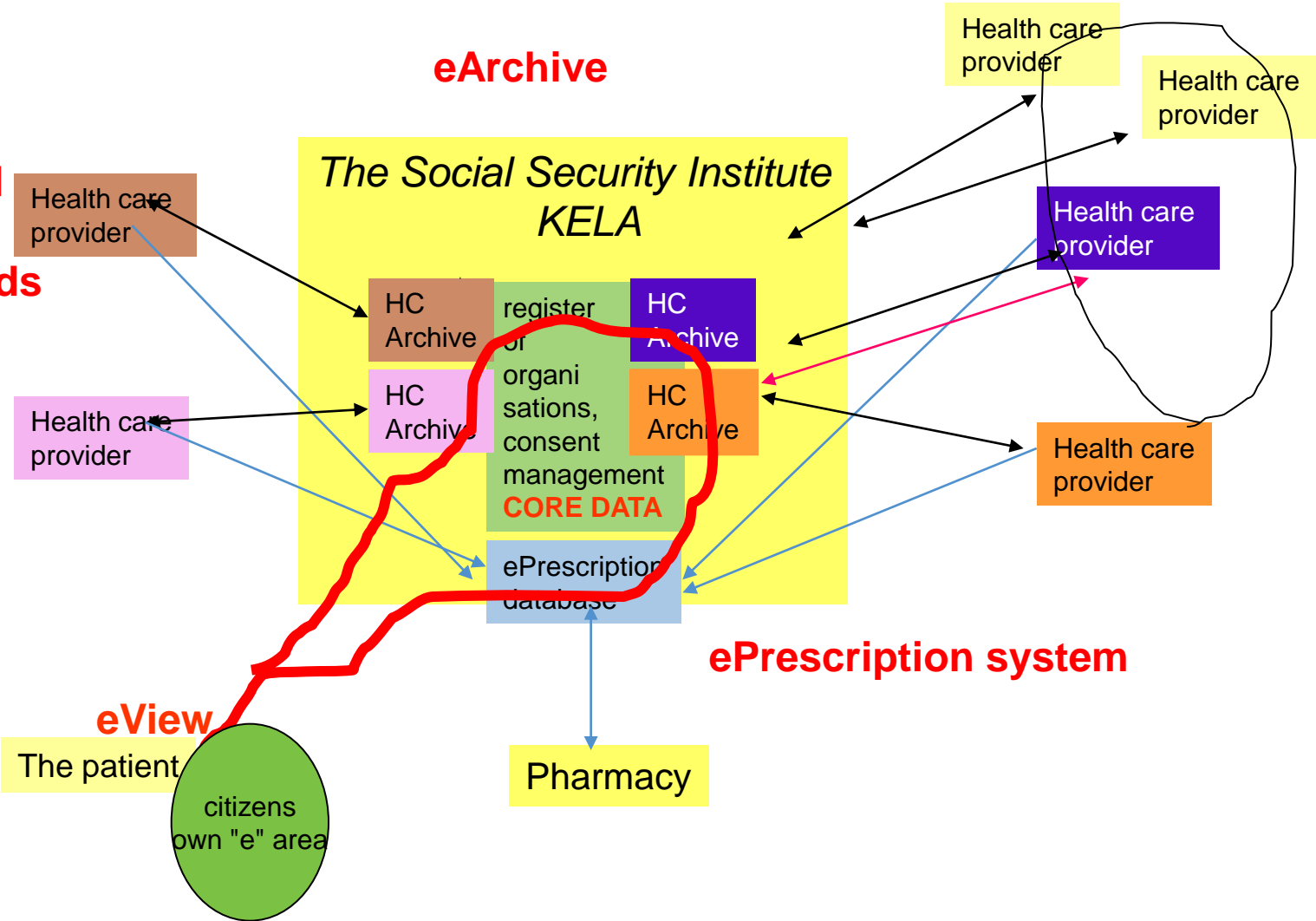
Will the eArchitecture plans be changed?

- Some core data from the EPR will be lifted from the local (eArchive) EPR:s in to a new central register. (not defined yet - medication - allergy etc)
- The patient will opt-out instead of opt-in
- The patient will manage his/her consents (opt-outs) via the eView and can also save other decisions there (opt-out from the organ transplant system)
- There will be new legislation to reinforce interoperability of products that are used in public health care (and other public services as well)
- The organisation that provides the National PKI system for professionals will change (VALVIRA - VRK)
- The responsibility to lead the operational tasks needed and promote/follow up the developments will change from the ministry to THL



Standardized Electronic patient records

eArchive



ePrescription system

eView

The patient
citizens own "e" area



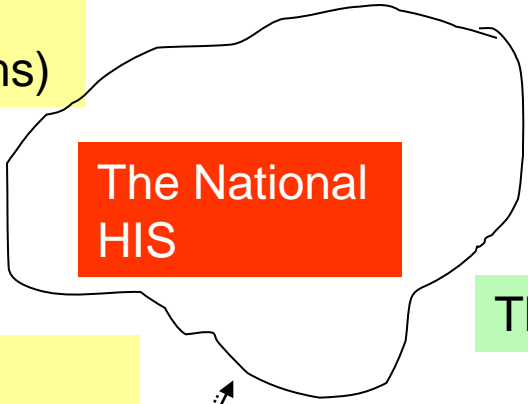
The Ministry of Social Affairs and Health

Local governments (municipalities)

The National Institute of Health and Welfare (THL)

Hospital Districts
Health Care centres

The National Social Security Institute (eArchive, ePrescription eView systems)



The National citizen register (PKI-system)

Pharmacies

The private health care

The National medicolegal Institute (VALVIRA) authorization of professionals

The State owned health care institutions

VENDORS of the eArchive and ePrescription
The national PKI
Code server



The patient
The citizen

VENDORS
3 specialised care EPR products
6 PHC EPR products
about 4-5 other EPR products
2 Pharmacy ICT systems

What happens next?

- The ministry will give the changes of the eHealth legislation to parliament next week.
- Changes will most likely come to effect 1.1. 2011
- The Health information system construction of will be rescheduled and the new system is to be in full operation by 2015
- THL will be in charge of the operation. The ministry will still have the final responsibility of the architecture and legislation. This means that a new unit will be built. The planning has started. The budget for the new unit + the full budget of the Finnish eHealth development project has been suggested by the government for the year 2011 +

THL will become the Finnish competence centre

