



How eHealth is organised in Finland and other Nordic countries

PIRKKO KOURI PhD, PHN, RN

Principal Lecturer in Healthcare Technology, Savonia University of Applied Sciences, Finland

Coordinator for the Master programme development group in Savonia UAS

International Society for Telemedicine and eHealth, Member of Board of Directors

Finnish Society of Telemedicine and eHealth Board member and secretary

International Medical Informatics Association/Nursing Informatics Education Working Group Member

Chair of Regional Cancer Association

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Contents

- Nordic countries in brief
- eHealth in Finland and in Nordic countries
 - Guiding decisions related to eHealth
 - National eHealth development
- Future

Nordic countries

Population

26 million altogether

Life expectancy:

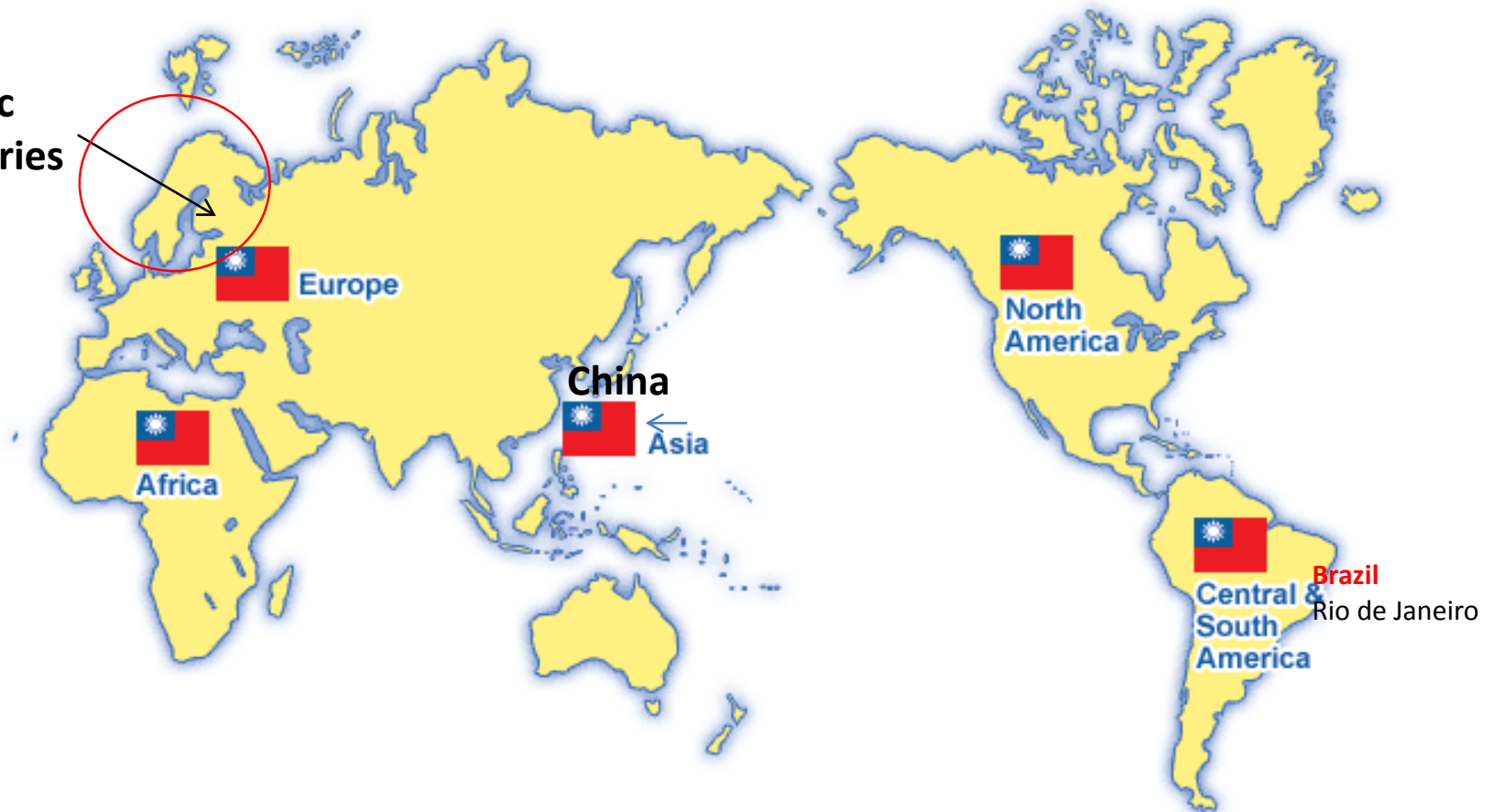
Men 79,9 years, women 83.9 years

Key features:

High standard of education, well-established systems of primary health care and hospital services with advanced specialist treatment. Nordic countries have been in the forefront of the ICT penetration and use.

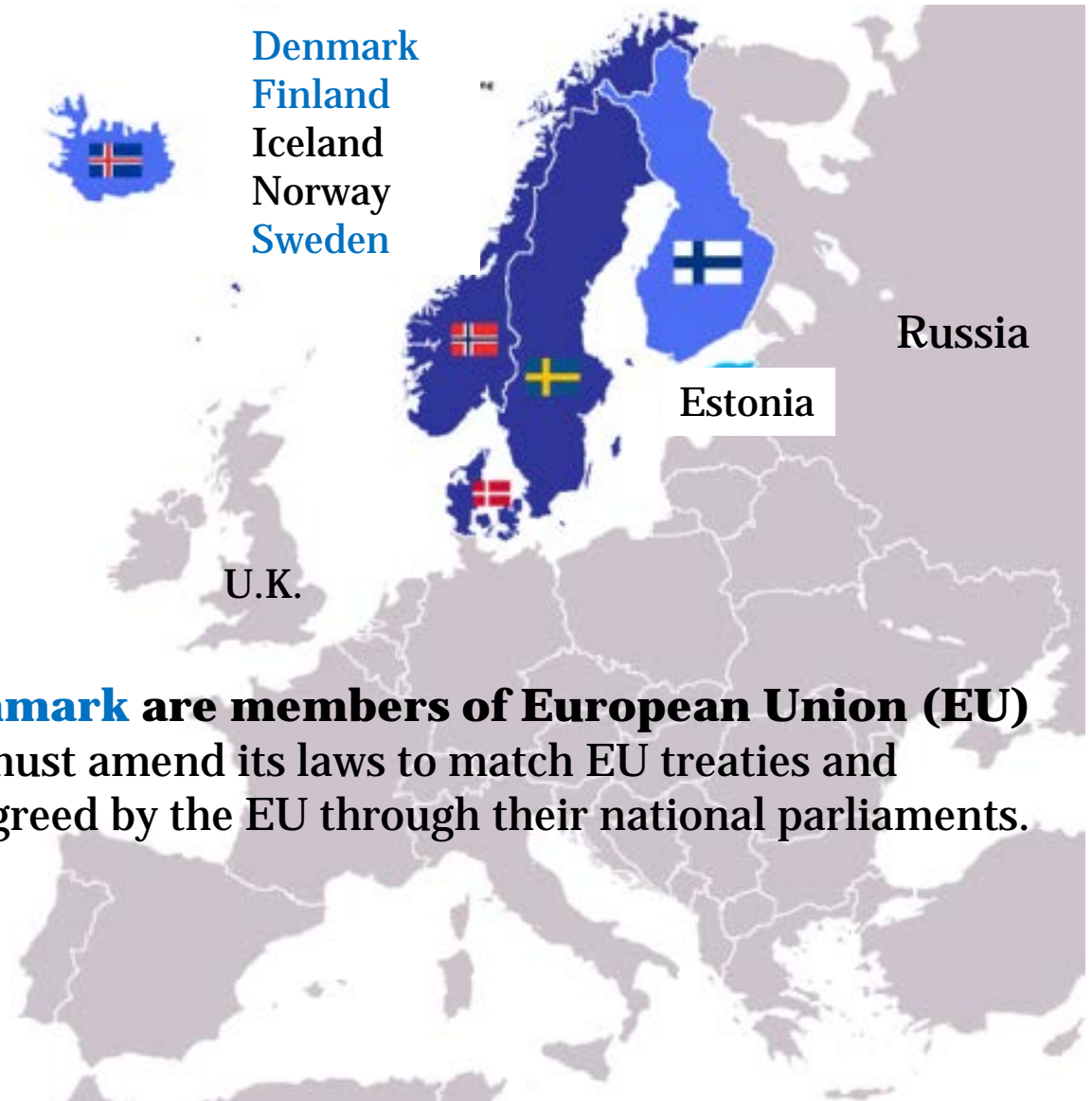
Source: Nordic Statistical Yearbook 2014.

Nordic countries





SAVONIA Nordic countries and European Union



Finland, Sweden and Denmark are members of European Union (EU)
Before joining, every nation must amend its laws to match EU treaties and incorporate new legislation agreed by the EU through their national parliaments.

Principles of Nordic Welfare Model e.g.

- A strong government role in all policy areas
- Comprehensive public responsibility for basic welfare tasks
- A welfare system based on a high degree of universalism
- Income security based on basic security for all
- Gender equality is a guiding principle
- Well-organised labour market and a high level of work participation in which tripartite cooperation is key
- Funding from taxation and redistribution

Source: Kautto M. et al. 1999, Nordic Social Policy

eHealth in Finland and in Nordic Countries

Finnish National development

Guiding Decisions related to eHealth

1/2

- First ministerial strategic document in 1996
- Government decision in 2002: Finland should have a nation wide interoperable EHR system by end of 2007
- National eHealth Road Map 2007
 - Availability of patient information regardless of time and place, both in public and private sector
 - Participation of patients and citizens
 - access to own patient information and log data
 - access to high quality health information
 - development of eServices

Guiding Decisions related to Finnish eHealth 2/2

Today's development work:

Agreement on the **National archive for health information (KanTa)** comprising three nation wide services

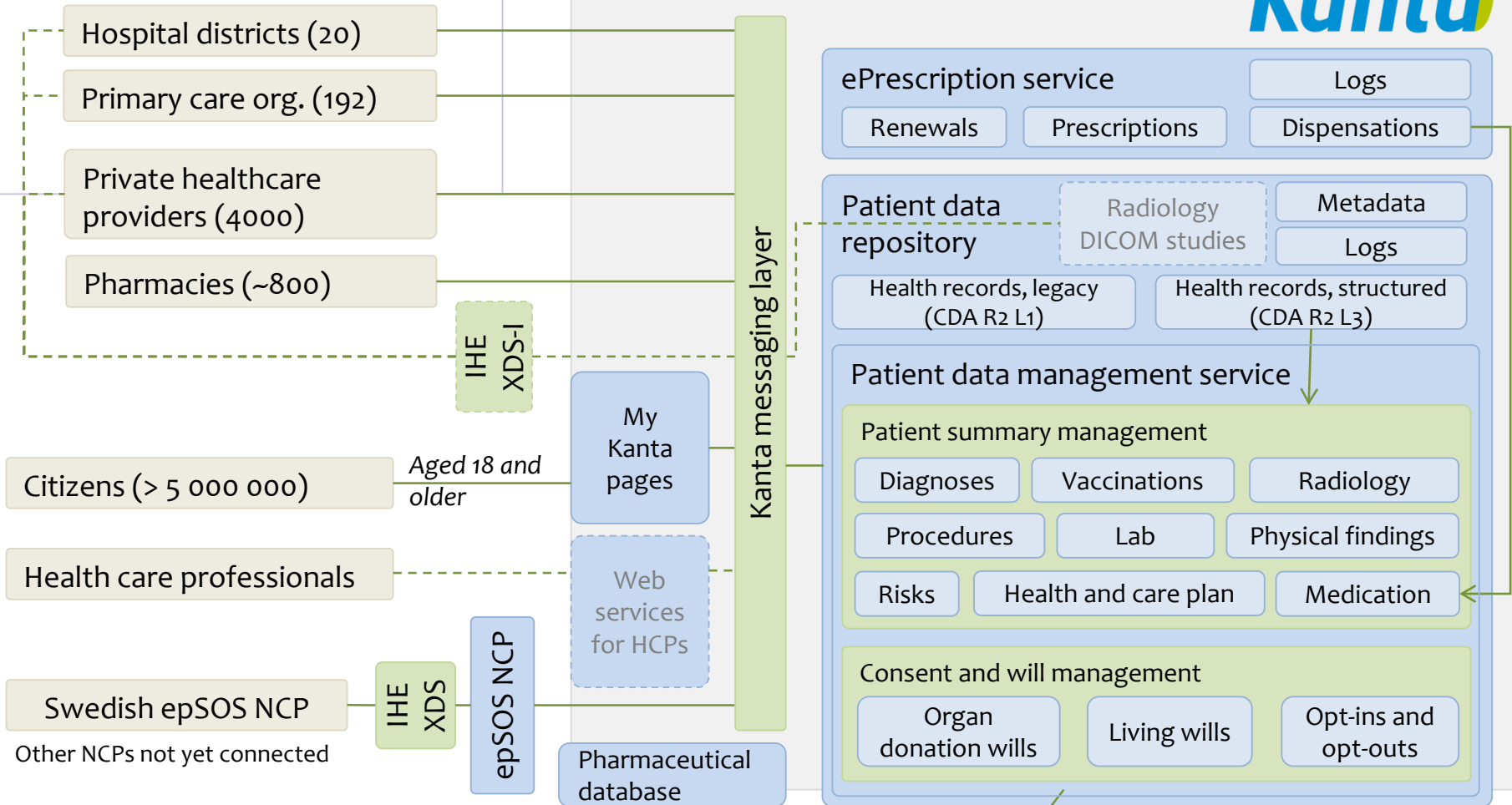
- ePrescription
 - eArchive
 - For citizens: eView and Patient Information Service
- New legislation was needed to allow the new features
 - Placing the centralized service to national insurance system (Kela)
 - Consent management, privacy & security aspects

eSocial services for Social care

- National Data warehouse and archiving solution for social care (in definition phase, local pilots 2011)
- legislation to be done

Public healthcare providers

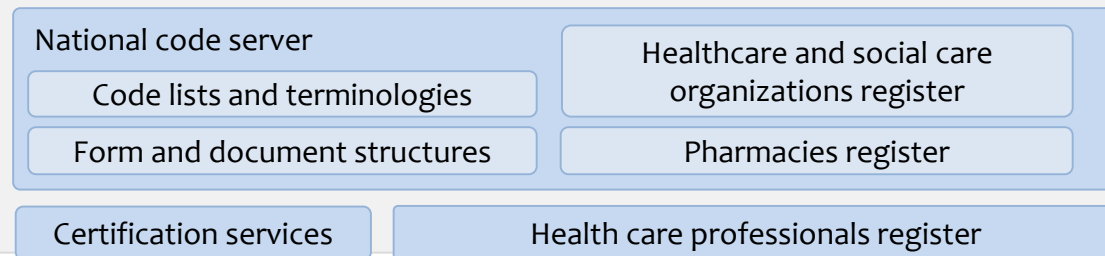
Structure of KanTa services



Main standards in eHealth tech

- HL7 V3: CDA R2 Level 3 and Medical Records
- IHE IT-I Profiles
- W3C XML DSig
- WS Addressing, WS-I
- TLS, X.509

Other national services



KanTa - experiences this far

- The elephant is big
 - It has to be eaten bite by bite
- Using common standards is mandatory
 - Freedom makes systems incompatible
 - Not only systems, but health care staff too
- Improving an existing system is difficult
 - The new national system must be fit in an almost ready puzzle
 - The requirements are high



Local and regional eHealth situation in Finland by 2015

Delights

Strong base for further development

- Electronic Health Record (EHR) coverage 100% (public prim and sec healthcare), 80% (private)
- EHR information exchange 90% (public, hospital districts)
- Electronical referrals and discharge letters 95%
- **Wide use of national solutions (KanTa-system: ePrescription, eArchive, eAccess)**

Drawbacks

- **Forerunners dilemma: old EHR systems, usability**
- Interoperability problems
- Slow adaptation of citizen eServices

Future

Challenges

- aging population and health care professionals
- increasing costs

We need

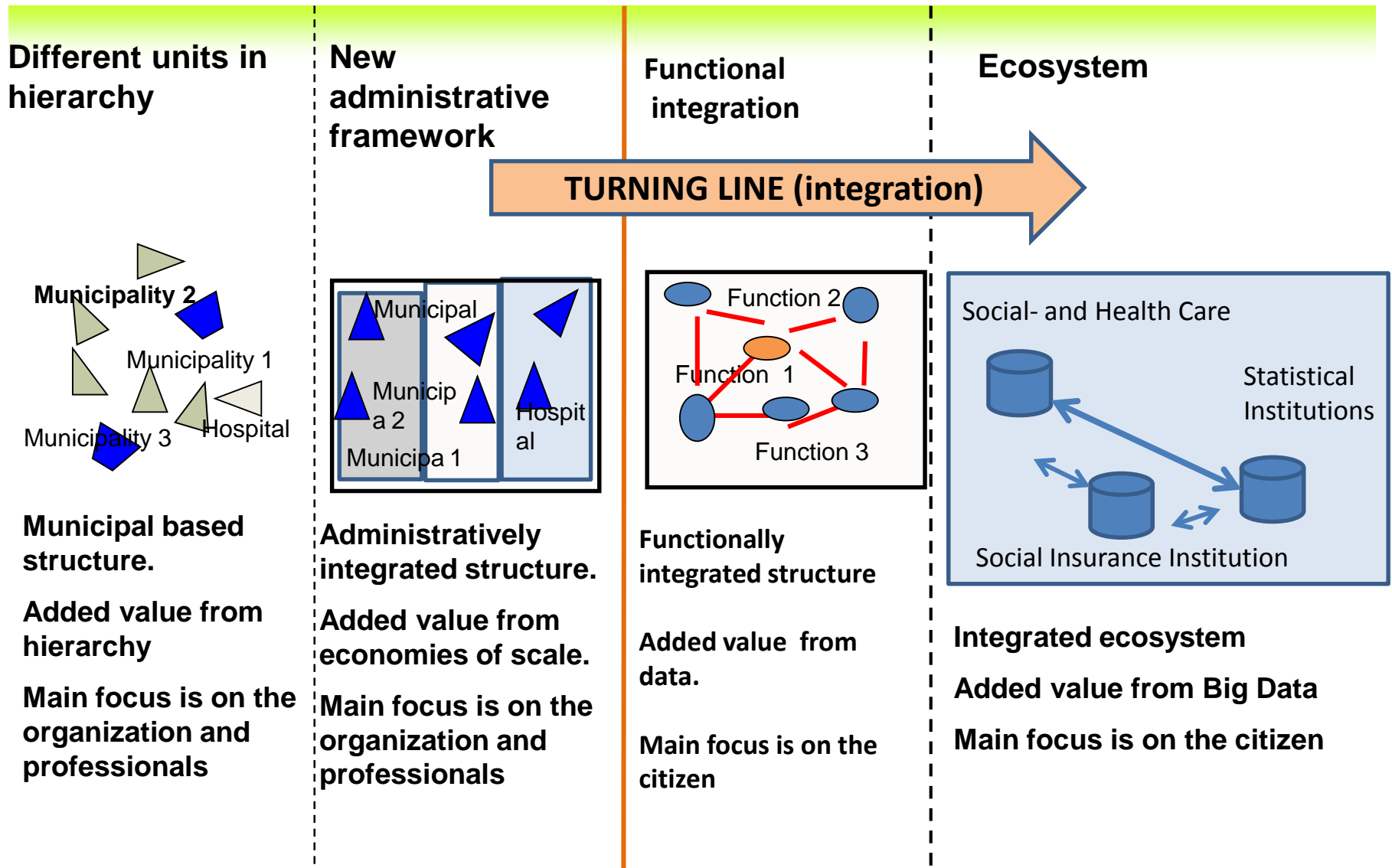
- new ways of thinking
 - structural changes
 - new ways to deliver care
 - better usage of eHealth opportunities
- to empower our people
 - help people to help themselves
 - better preventive care



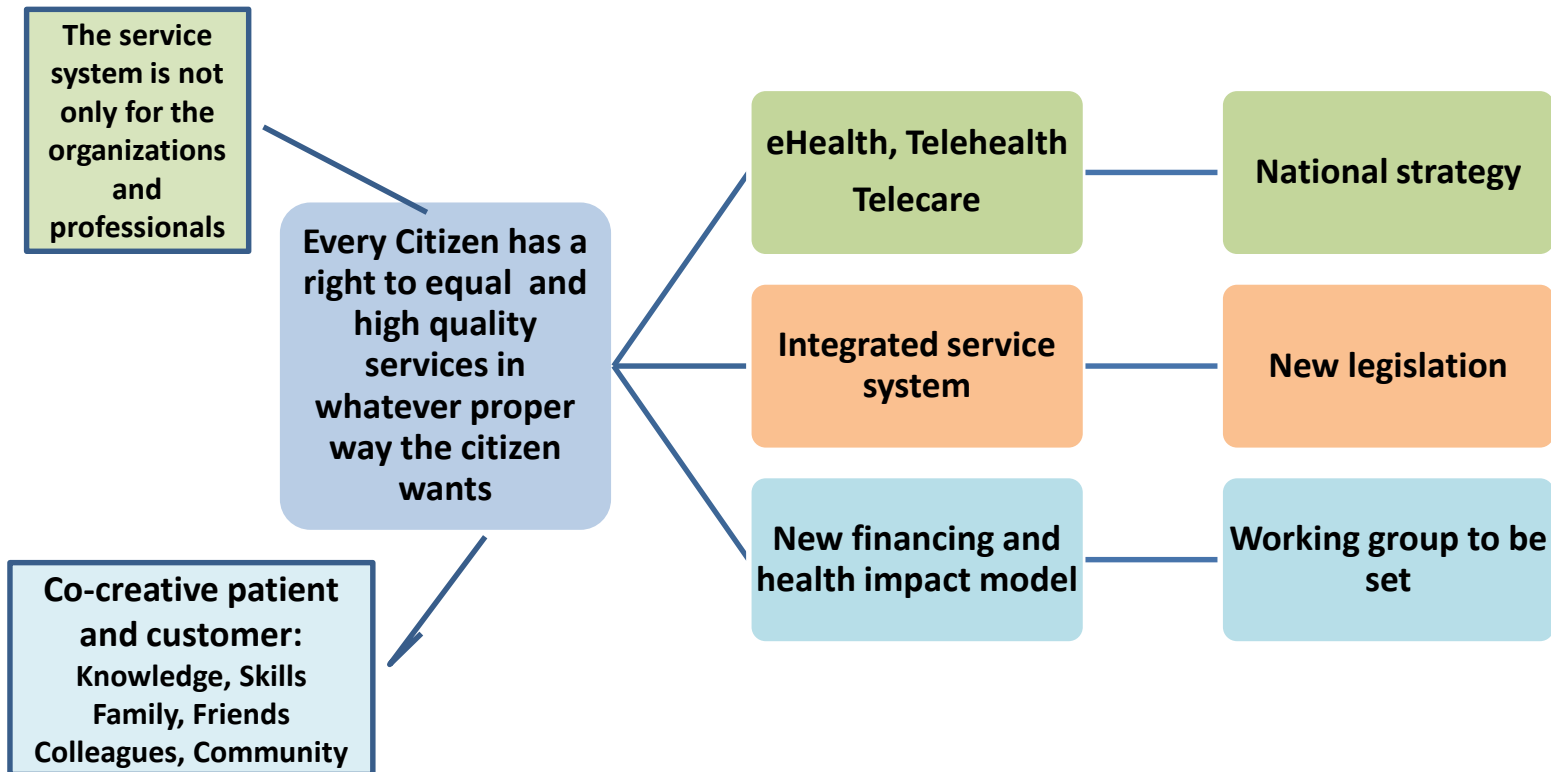
National Finnish eHealth and eSocial Strategy 2020

Citizens:	Taking own responsibility - doing it yourself national platform
Professionals:	Smart systems for capable users
Service system:	Effective utilisation of limited resources
Information use:	
(Refinement of information and knowledge management)	Knowledge-based management
Steering and co-operation:	From soloists to harmony

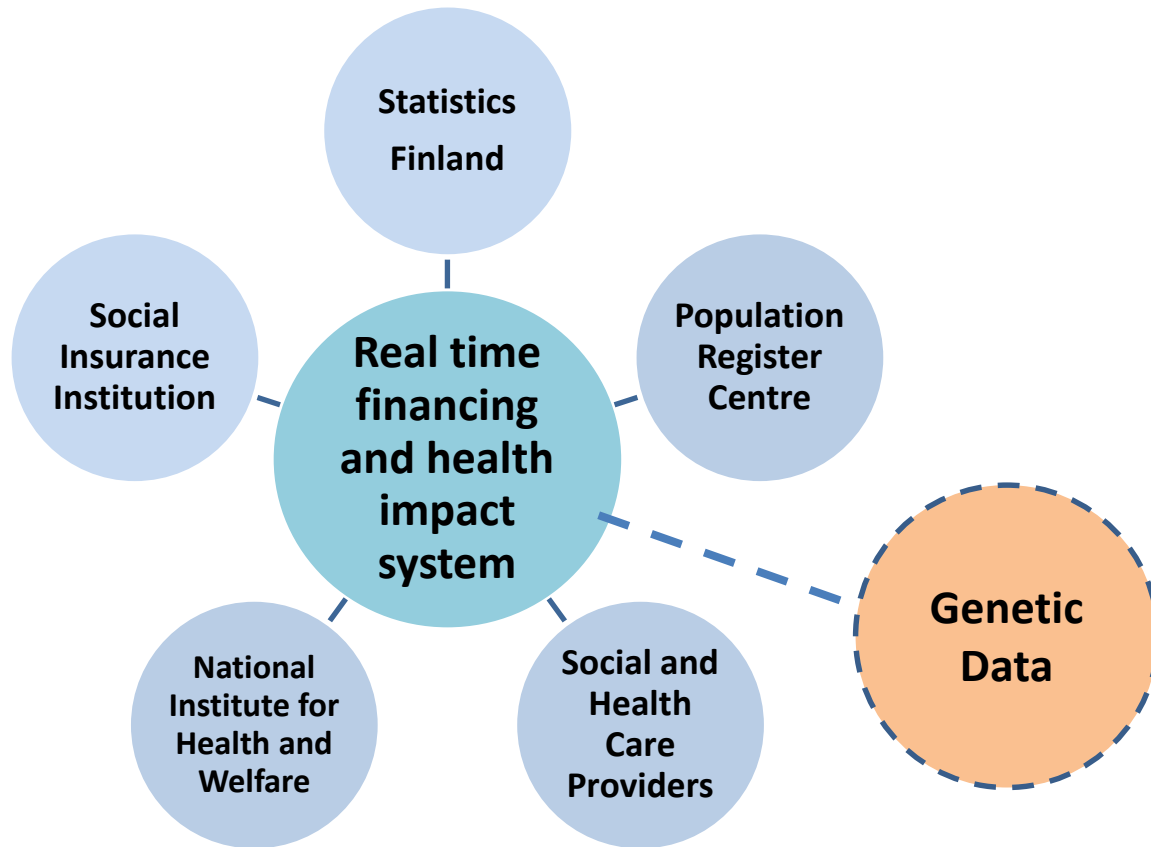
The evolution of the service system – from hierarchy to ecosystem



The main parts of the Finnish Social- and Healthcare reform – total integration of services



BigData in Social and Health Care



Slide adapted from Health Tuesday 4.3.14, Pentti Itkonen (Eksote)

eHealth in Nordic Counties

EU commission eHealth Benchmarking 2012-2013:
Nordic countries are the leading countries in EU
(European Union)

Brief history Nordic telemedicine

→ eHealth

- First Nordic telemedicine project was in 1993 – 1995, teleradiology between Oulu, Reykjavik, Tromsøe.
- Teleradiology/telemedicine conferences arranged by Swedish SPRI in early 1990 –ties.
- 1996 First Nordic Conference for Telemedicine” in Finland
- 1998 Nordic Council of Ministers financed Dr Thomas Steengard from Greenland to write *a Report of Telemedicine in the Nordic Countries*
- 1999 ”**Nordic Telemedicine Association**” was founded 7.9.1999 in Ilulissat in Greenland as a **federation** of the national telemedicine associations and respective organisations.

Collaboration

- In 2012 the Nordic Council of Ministers set up a Nordic eHealth group to bring eHealth higher on the Nordic agenda.
- The eHealth group established 15.2.2012 the Nordic eHealth Research Network (**NeRN**) and Nordic team focused on Health Information Exchange (HIE) and Patient Portal functionalities

References:

Nordic eHealth Benchmarking. Status 2014. TemaNord 2015:539. <http://dx.doi.org/10.6027/TN2015-539>

Nordic eHealth indicators. Organisation of research, first results and the plan for the future. TemaNord 2013:522. <http://dx.doi.org/10.6027/TN2013-522>



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Nordic countries strategies eHealth communication

Overview of e-Health Communication in Sweden

Strategy targets

National Patient Overview

All care providers publish patient Information. Healthcare staff can access if the patient consent. Not so much used—shared EMR systems in the counties/regions reduces the need

- Decision support Systems
- Structured Documentation
- User friendly EHR systems
- Patient Summary Service
- Alert information
- Education and eLearning

Support for
**HEALTH
PROFESSIONALS**

**PATIENT
EMPOWERMENT**

- Personal e-services for all citizens
- Interactive services for patient participation
- Web based support for free choice of care provider

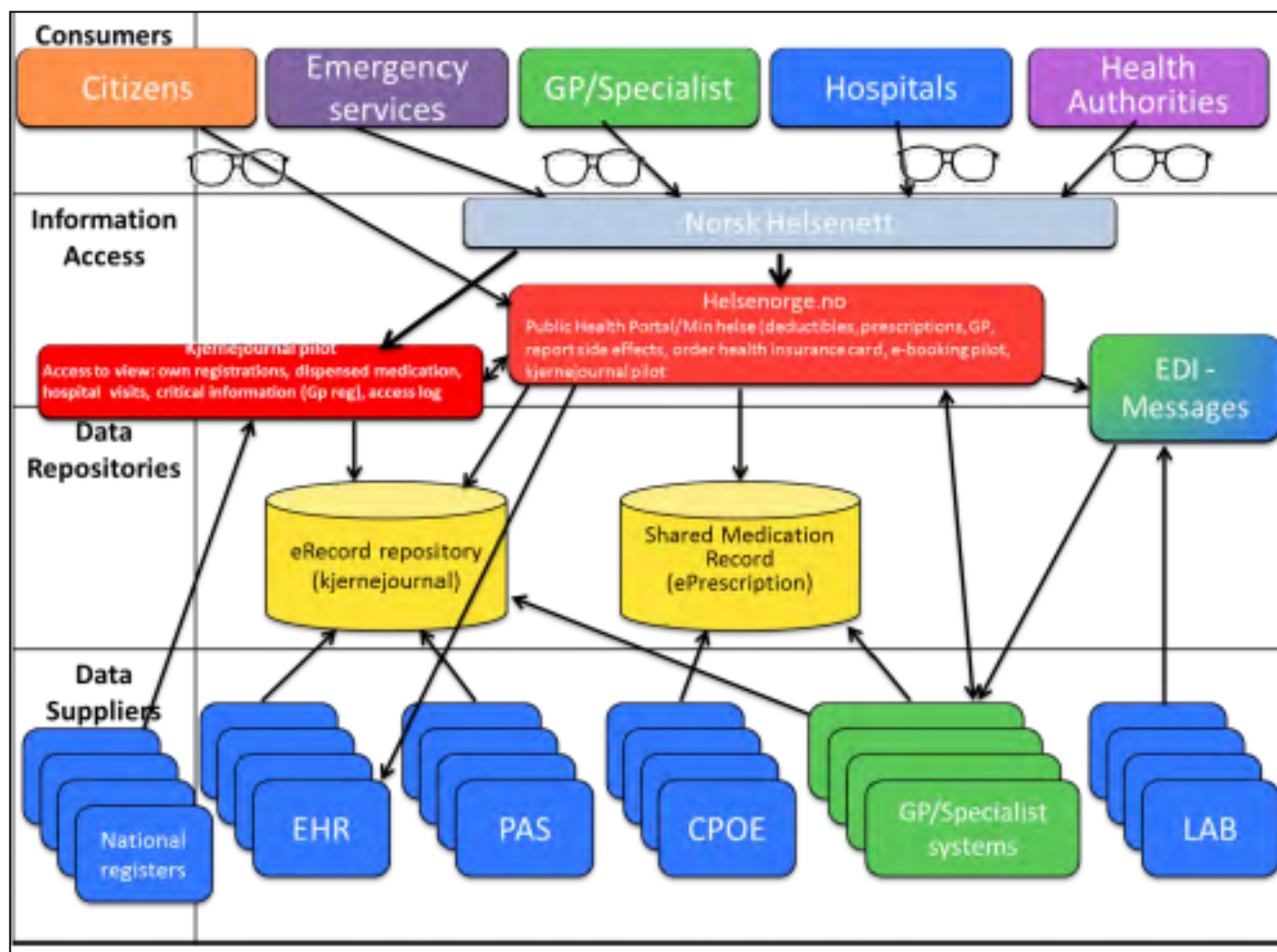
INFRASTRUCTURE Laws
and Regulations
Information Structure
Technical Infrastructure

Support for
**POLICY
MAKERS**

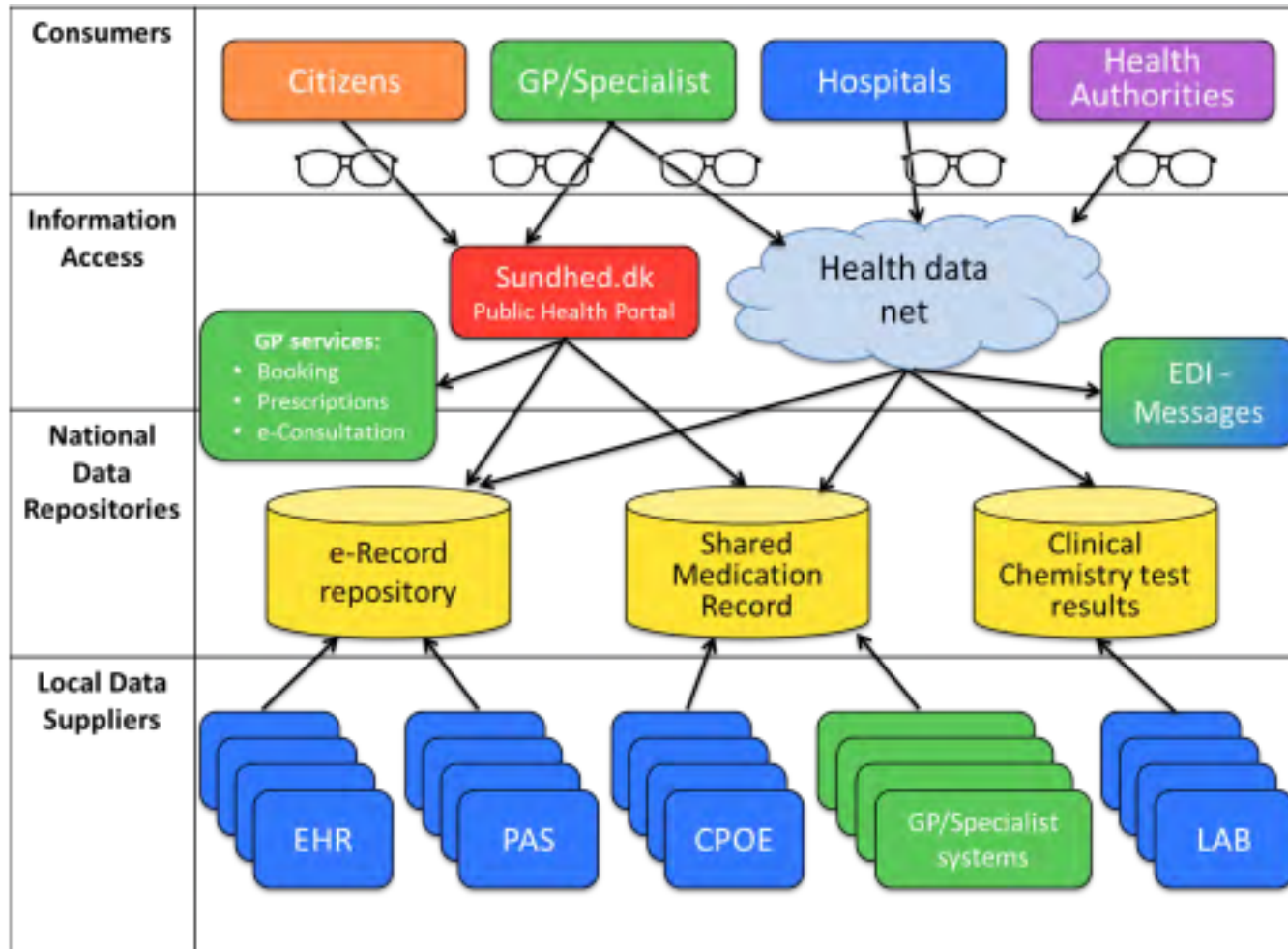
- Open comparisons of quality and outcomes
- Development of Quality Registries
- Follow-up and monitoring

My Healthcare Contacts e.g My Care (secure login) lets citizens request, cancel, or reschedule healthcare appointments, renew prescriptions, and request contact with a specific clinician or hospital. **1177.se – The Care Guide**, national phone number and website for questions and guidance about symptoms, diseases, and healthcare. Decision support for nurses giving advice on the phone. (Available in different languages)

Overview of e-Health Communication in Norway



Overview of e-Health Communication in Denmark



Citizens (Orange), GP/Specialists (Green), Hospitals (Blue) and Health Authorities (Purple) can see different information through the portals.

Two access portal: **Sundhed.dk (Red)**, which is for citizens and professionals, and the **Health Data Net (Cloud)** which gives access to a variety of systems for professionals.

Analysis of Nordic National eHealth Strategies

- Strong adherence to **standards, public funding** and **centralized governance**.
- The emphasis is on improving **information security and patient privacy**
- Policy documents contain affirmations about increasing the quality, statements of **empowerment and activation of patients/citizens to access information**, and effectiveness of healthcare services through the use of IT within healthcare, especially in Denmark
- ICT as a tool and support for the **healthcare organisations' change processes was** important in Sweden and in Denmark
- The make better processes with ICT was important too to Sweden and Denmark. (*eHealth tools to doctors in Sweden and in Norway, and eHealth tools for the patients in Sweden & Finland*)
- The infrastructure of well functioning ICT was emphasized in Finland
- Plans for standardization were in Finland, Sweden and in Norway.
- To make better **access health information** and importance of using health IT to improve access to relevant health information to promote continuity of care and increase patient safety was mentioned mainly in Icelandic, Swedish and in Norwegian strategic plans.

References:

Nordic eHealth Benchmarking. Status 2014. TemaNord 2015:539.

<http://dx.doi.org/10.6027/TN2015-539>

Features - eHealth in Nordic Countries

- All the Nordic countries have implemented or are in a **process of implementing a National Health Information System (NHIS)**, and Finland and Sweden also have regional repositories.
- **Patient Portal** functionalities are either local or national e.g. *”mediating prescriptions electronically to be dispensed from any pharmacy”* and *“viewing list of patient’s prescriptions”* were available in 100% of public organisations in all the Nordic countries. The *proportion of ePrescriptions of all prescriptions* made in 2014 exceed 60% in all the Nordic countries
- In *Finland prescription data* and in *Iceland immunization data* were also viewed relatively frequently

References:

Nordic eHealth Benchmarking. Status 2014. TemaNord 2015:539. <http://dx.doi.org/10.6027/TN20126539>



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eHealth strategy for Nordic Nurses

Finland

- Finnish Nurse Association will launch it's strategy Nov 2015
 1. Technology supporting **patient/client** participation
 2. eHealth services as part of **nurse's daily work**
 3. **Ethical** guidelines and working models in eHealth services
 4. eHealth services and nurse **competences / capacity**
 5. eHealth services and nurse **leadership**
 6. eHealth, digitalisation, **research and** nurse developers

Sweden

Content areas:

The strategy and concept of eHealth – areas of application

What is eHealth?

Development of eHealth

eHealth for **nurses**

Areas targeted for eHealth

Information management

Communication and **collaboration**

Core **ethical** values

Learning and competence

Leadership and management

Technical support

Research and **development**



Norway

NNO'S Strategy: The Nursing Profession in Development Through eHealth 2013 – 2016

Content

About eHealth

Correlation between NNO's principles programme and eHealth

NNO goals for eHealth

Driving forces for change

eHealth policy

Trends in eHealth

ETHICS

TARGET area 1 - strengthened **user participation**

TARGET area 2 - Improving **competence and knowledge** development

TARGET area 3 - Strengthening processes and health-related **coordination** within the nursing profession

TARGET area 4 - Service innovation and new tasks for the nurse

Politisk plattform for e-helse (available only in Norwegian), NSF 15.10.2014

- link: <https://www.nsf.no/vis-artikkel/2196180/17036/Politisk-plattform-for-e-helse>

Denmark

Danish have a policy paper on Nursing and Health/Welfare Technology with five main recommendations:

1. Focus on **patients** coping with their health challenges through welfare technology solutions
2. **Quality** of care must be ensured by increasing **research** in welfare technology
3. Health personnel must be involved in the **development**, implementation and further development of technology
4. Technology solutions to be disseminated throughout the **health system**
5. Important to create **partnerships** with industry as well as the community.

Available in Danish: <http://www.dsr.dk/Artikler/Sider/Fag/Velfaerdsteknologi%20og%20innovation/DSRs-udspil-om-velfaerdsteknologi.aspx>

Danish also have some recommendations and guidelines for nurses regarding the opportunities for influence on the new technology, demands and safety legislation as well as what you can expect of your workplace when introducing new technology.

Document available in Danish:

<http://www.dsr.dk/Artikler/Sider/Fag/Velfaerdsteknologi%20og%20innovation/Indflydelse-paa-den-teknologiske-udvikling.aspx>

Iceland

Policy of the Icelandic Nurses' Association on Nursing and Health Care 2011-2020: **Nursing Knowledge for Your Benefit** which has a chapter Nursing Informatics, includes eHealth issues.

Content emphases:

- nurses take an **active** part in the implementation of EPRs and adopt a unified system of electronic nursing records based on recognized classification standards
- international IT **standards** (for recording, storing and disseminating data)
- electronic data utilised for the collection, recording, storing, handling and dissemination of nursing data and should support the clinical decisions of nurses
- electronic data utilized to define **quality** indicators and for the assessment of the quality, cost and benefit of the care provided; similarly, electronic data and information on nursing intensity and staffing should be **accessible** at all times.
- hardware and software should be up-to-date and meet current requirements at all times

<http://hjukrun.is/library/Skrar/Fagsvid/NursingPolicy2011%20loka.pdf> (chapter 3.6)

Thank you – Obrigada – Kiitos



President Dilma Rousseff, Brazil, and President Sauli Niinistö, Finland, met in Finland Oct 20th 2015 and agreed on bilateral collaboration