Policies and Strategies on eHealth in Denmark

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Introduction to Danish health care: foundational principles and goals

- ☐ Equal and free access to healthcare
- ☐ High quality of care
- ☐ Freedom of choice
- ☐ Expenditure 2008:

    Public 125 mia. Dkr.

    private 22 mia. Dkr.

Danish Health Care

☐ **Regional health care**
- ■ Somatic and psychiatric hospital services
- ■ Public Healthcare Reimbursement Scheme
  - ☐ General practitioners (3400)
  - ☐ Practising Specialists (1200)
  - ☐ Physiotherapist, chiropractors, dentists

☐ **Municipality health care**
- ■ District nursing
- ■ Rehabilitation
- ■ Health promotion and prevention
- ■ Children's health

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IT in Danish health care today

Denmark has come far ...

☐ **National infrastructure of communication between primary and secondary healthcare**
  ■ Dissemination of the use of IT in primary care – 98% of GPs, 85% of specialists, all pharmacies, 100% of municipalities and all publicly owned hospitals exchanges point to point **structured patient specific messages** in a closed network
  ■ Main areas of communications are: referrals, discharge letters, prescriptions, laboratory request and results, notifications
  ■ 40+ different IT-systems involved

☐ **Sundhed.dk - The national Danish ehealth portal**

... but can improve ...

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Central components in the information backbone

- [ ] Unique identifiers at national level:
  - ■ Persons -CPR
  - ■ Companies -CVR
  - ■ Buildings -BBR
- [ ] National registres maintained by central authorities
- [ ] In operation for more than 30 years
- [ ] Cancerregister
  - ■ Established 1943
  - ■ Modernasized 1978

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National initiatives

- ☐ Danish Health Data Network
- ☐ EDI standards
- ☐ Common standards, concepts and classification
- ☐ Communication hospitals and home care
- ☐ National Personal Medicine Profile
- ☐ Prescription Server

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Danish Health Data Network

Danish Health Data Network

- 99% of GP's
- 85% of specialists
- all pharmacies
- all municipalities
- all publicly owned hospitals

☐ Medcom

☐ Sundhed.dk - The national Danish e-health portal

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Danish IT strategies for the Health Sector

- **1995**: IT political action planHealth Care Network

- **1996**: Action plan for EHRDecentralized initiatives, central funding

- **1999: National strategy for IT 2000-2002**
  - Electronic Health Record
  - Communication of patient related data
  - Technical and organizational challenges
- **2003: National IT strategy for the Health Sector 2003-2007**
  - Electronic Health Record
  - Clinical infrastructures
  - Standardization and interoperability
- **2008: National Strategy for the digitalization of Health Care**
  - Governance
  - Stakeholder involvement
- **Business orientation**

Strategic focus profiles
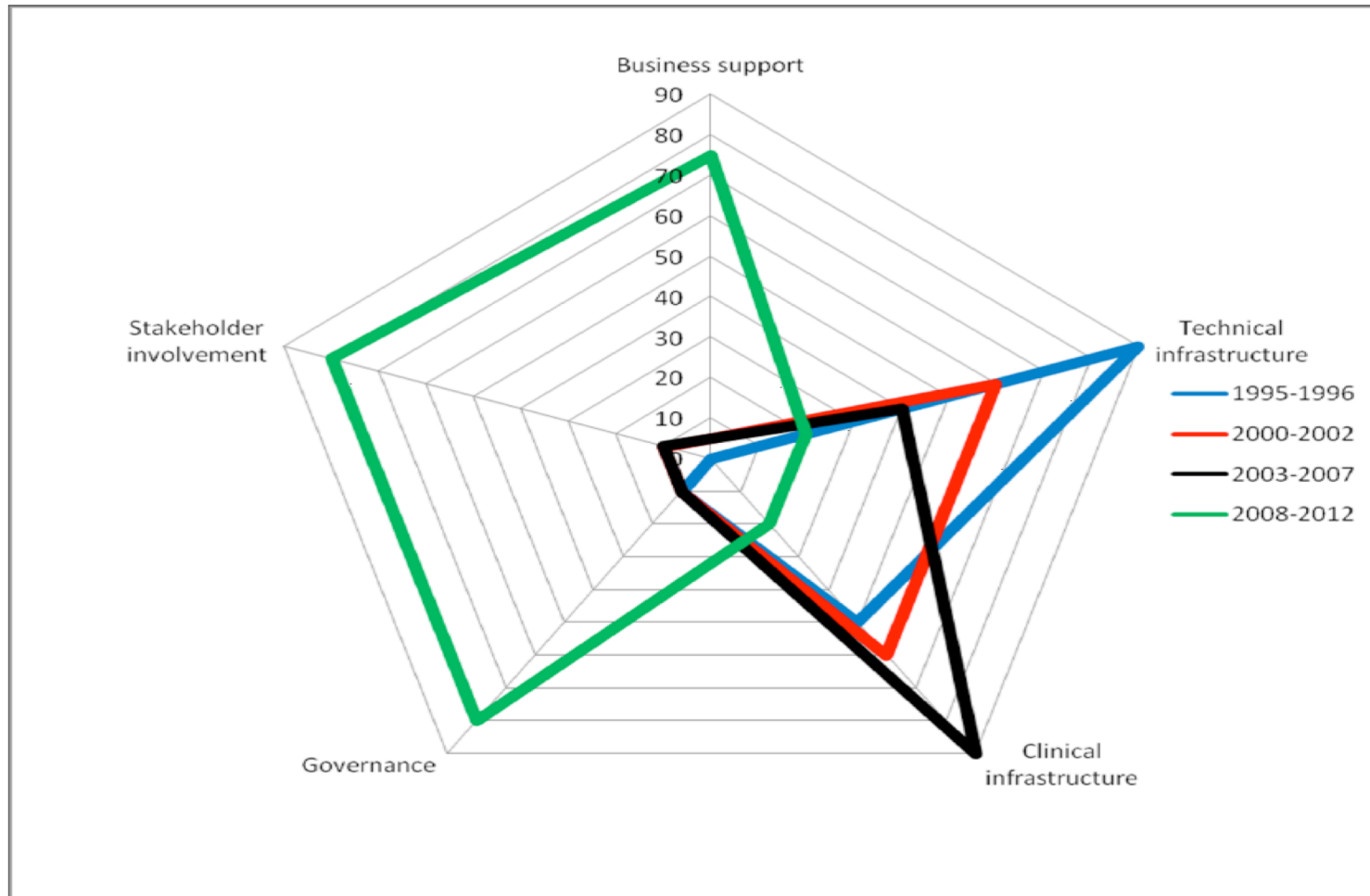
Principles

- ☐ Enhanced cooperation through management, administration and coordination
- ☐ Stepwise development of digital communication
- ☐ Stepwise convergence of local solutions
- ☐ Clear projects and development based on demands
- ☐ IT for the entire health care system
- ☐ Utilization of the international dimension
- ☐ Continuous development and adaption

Strategy Three Main Elements

- ☐ An instrument for the employee to create quality and productivity
- ☐ Better service to and involvement of citizens and patients
- ☐ Cooperation and connection

1: An instrument for the employee to create quality and productivity

- ☐ **Use of data and technology**
  - ■ User friendliness, minimization of manual input, reuse of data, access and sharing across time and place

- ☐ **Development of quality and research**
  - ■ Monitoring by use of quality indicators, support of the Danish quality model, support of research

- ☐ **Management and administrative information**

- ☐ **Efficient implementation and secure IT**

2: Better service to and involvement of citizens and patients

- ☐ Easy accessible, connected and efficient channels of communication
- ☐ Involvement – forwarding and maintenance of own health data
- ☐ Access to services for everyone
- ☐ Secure and safe handling of data

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3: Cooperation and connection

☐ In the health care system

- Binding cooperation at all levels
- Binding decisions for all participants
- Division of labour between state, regions and municipalities
- Cooperation across sectors on standards
- Suppliers
- Private suppliers of health services

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Plans of action

An instrument for the employee to create quality and productivity

- Programme 1: National Patient index
- Programme 2: Joint Medical card

Better service to and involvement of citizens and patients

- Obtained indirectly through Patient index and Medical card
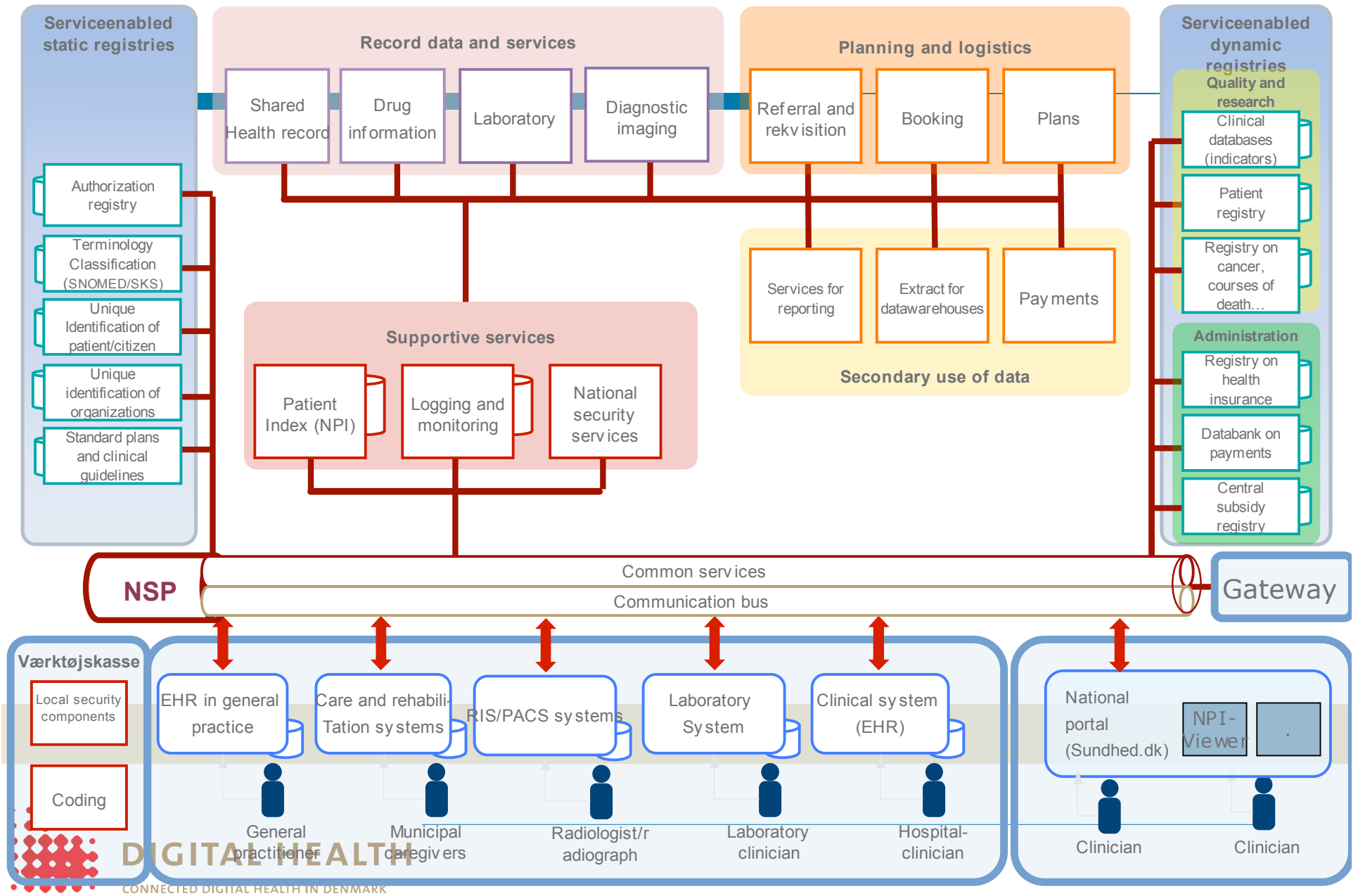- Telemedicine

Joint infrastructure

- Programme 3: IT Architecture and security
- Programme 4: Standardization

Monitoring of the digitalization at each participant

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Illustration of the national eHealth infrastructure

Serviceenabled static registries
- Authorization registry
- Terminology Classification (SNOMED/SKS)
- Unique Identification of patient/citizen
- Unique identification of organizations
- Standard plans and clinical guidelines

Record data and services
- Shared Health record
- Drug information
- Laboratory
- Diagnostic imaging

Supportive services
- Patient Index (NPI)
- Logging and monitoring
- National security services

Planning and logistics
- Referral and rekvisition
- Booking
- Plans

Secondary use of data
- Services for reporting
- Extract for datawarehouses
- Payments

Serviceenabled dynamic registries

Quality and research
- Clinical databases (indicators)
- Patient registry
- Registry on cancer, courses of death…

Administration
- Registry on health insurance
- Databank on payments
- Central subsidy registry

NSP

Common services

Communication bus

Gateway

Værktøjskasse
- Local security components
- Coding

- EHR in general practice
- Care and rehabili-Tation systems
- RIS/PACS systems
- Laboratory System
- Clinical system (EHR)

- General practitioner
- Municipal caregivers
- Radiologist/radiograph
- Laboratory clinician
- Hospital-clinician

National portal (Sundhed.dk)
- NPI-Viewer

- Clinician
- Clinician

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Agreement on e-health 2010 (1)

- ☐ Overall development has to be coordinated and prioritised on national level
- ☐ Clear division of labour, connexion and progress
- ☐ New advisory board to the ministry
- ☐ Digital Health closing down

Tasks on state level

- ☐ Consolidate national health registers
- ☐ Increase services for participants in e-health
- ☐ Common and effective exchange on information about patients

Task on regional level

- ☐ Consolidating e-heath on hospitals
- ☐ Establish an common it regional unity (RSI)
- ☐ convergence to common e-health solutions
- ☐ common purchase and tender
- ☐ coordinate regional data through the national infrastructure and standards

Milestones (1)

- ☐ Total consolidated HER and connected it-work of place including common log-in before end of 2013

- ☐ IT support of panning of productions in hospitals for example acute functions before end of 2011

Milestones (2)

- National Patients index
  - Common Medical information end of2011
  - Information on patients (e-healthrecords in hospitals end of 2010
  - Information on vaccinations medium 2011
  - Information on imaging on a common scale 2012
  - Access to information in the national patient register

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Milestones (3)

- All communication on patients in a digital way 2012
- Patients interpretation on video conference in all hospitals 2012
- Common model to send and receive data from national registers
- Review juridical barriers to effective chairing of relevant data

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