Collaboration for a better society

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Verdikt Conference
Oslo, 1 November 2010

Background

Motivation, problem area

In most countries it is an important goal is to provide a public sector which is

- Open
- Transparent
- Accessible (e-inclusion)
- Accountable
- User-friendly
- Service-oriented
- Efficient and effective
- Innovative
- Adaptable to change
- Satisfying rule of law principles

One important element
- Increased interoperability

# National budget 2010

The Government emphasises:

- *To modernise public sector*
    - Services of good quality are vital for the acceptance and support of public service solutions
    - Public service production needs to be more efficient due to ageing of the population and the ability to meet increased demands and expectations to public services

- *To support innovation in businesses and public sector*

- *Simplification of public law and regulations*
    - Simplification and electronic services contributes to the reduction of administrative costs, to increased predictability for the users and to more efficient execution of public activities

Semicolon

Semicolon idea

Semantic and Organisational Interoperability in Communicating and Collaborating Organisations
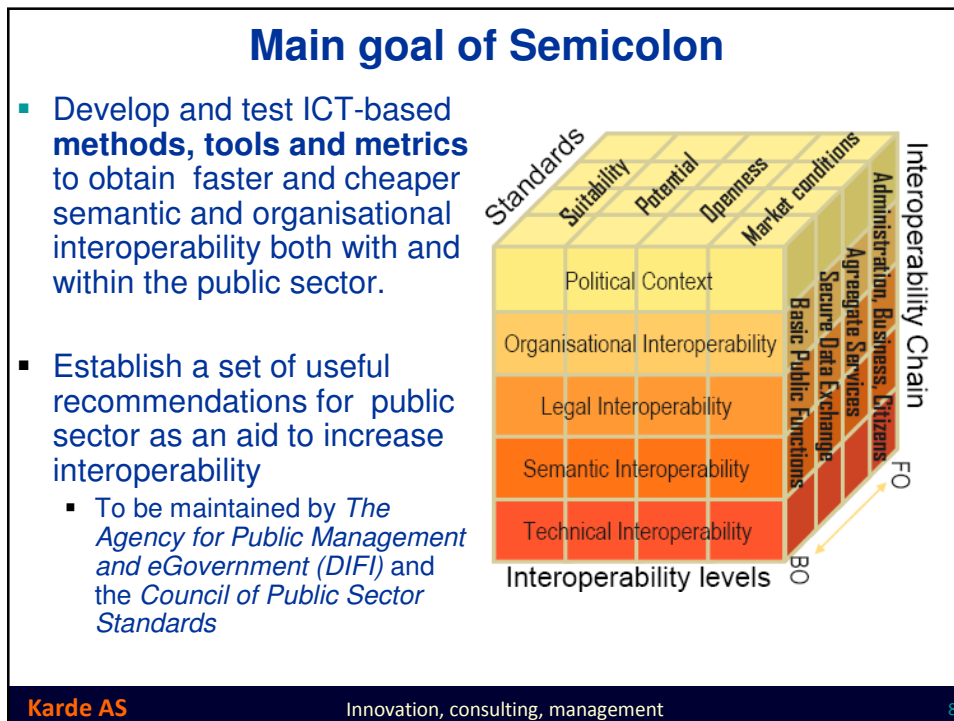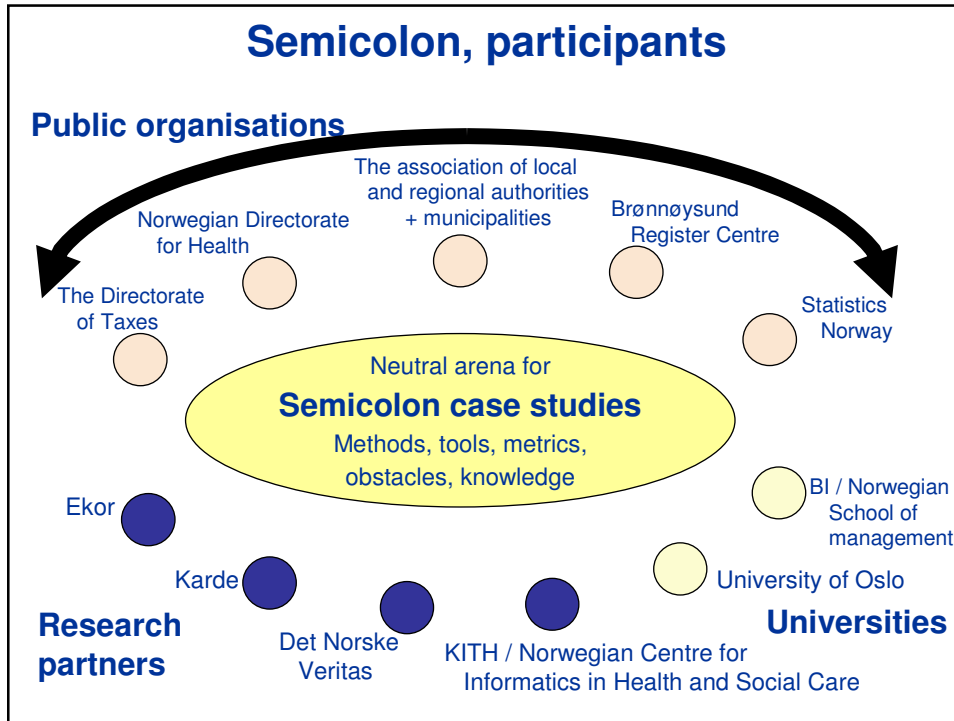
Interoperability
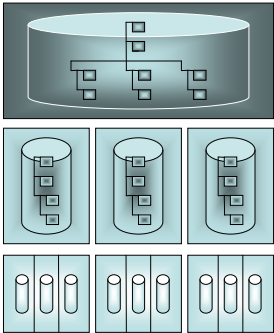
Collaboration between public sector organisations

Collaboration inside public sector organisations

Fragmented public sector: isolated information models

Public sector organisations

Semicolon, participants

Public organisations

The association of local and regional authorities + municipalities

Norwegian Directorate for Health

Brønnøysund Register Centre

The Directorate of Taxes

Statistics Norway

Neutral arena for
Semicolon case studies
Methods, tools, metrics, obstacles, knowledge

Ekor

BI / Norwegian School of management

Karde

University of Oslo

Universities

Research partners

Det Norske Veritas

KITH / Norwegian Centre for Informatics in Health and Social Care

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Main goal of Semicolon

- Develop and test ICT-based **methods, tools and metrics** to obtain faster and cheaper semantic and organisational interoperability both with and within the public sector.

- Establish a set of useful recommendations for public sector as an aid to increase interoperability
  - To be maintained by *The Agency for Public Management and eGovernment (DIFI)* and the *Council of Public Sector Standards*

Standards — Suitability — Potential — Openness — Market conditions

Administration, Business, Citizens

Interoperability Chain

Political Context

Organisational Interoperability

Legal Interoperability

Semantic Interoperability

Technical Interoperability

Basic Public Functions — Secure Data Exchange — Aggregate Services

FO

BO

Interoperability levels

4

Facts

- User directed innovation projects (BIP)
- Verdikt-programme in the Norwegian Research Council
- Web-site: www.semicolon.no
- 3 years, Oktober 2007 – December 2010
- 3 postdoctors, 2 from UiO and 1 from BI
- Total budget: 60 million NOK (project proposal 50,4 MNOK)

- Financing from Research Council: 17,65 mill NOK - 35%)
- Contributions from public sector (money):   9,8   mill NOK
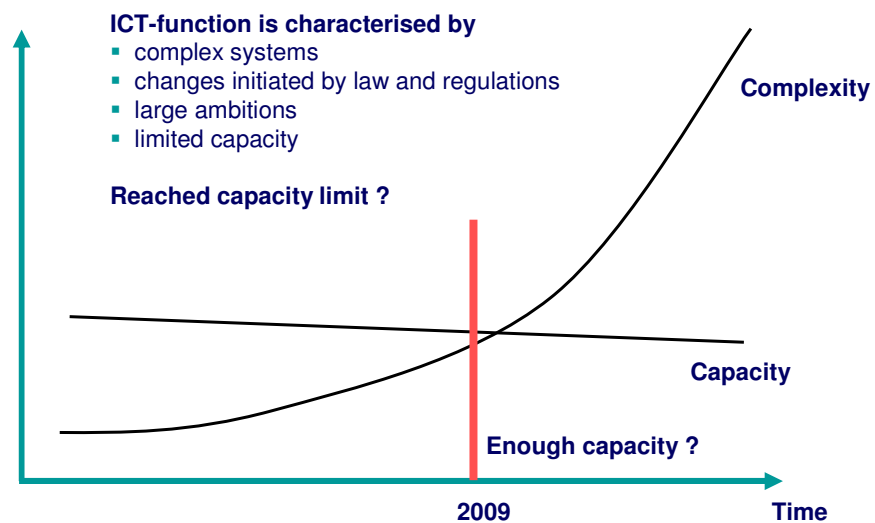- Contributions from public sector (labour):   32,0   mill NOK

- Contact person:
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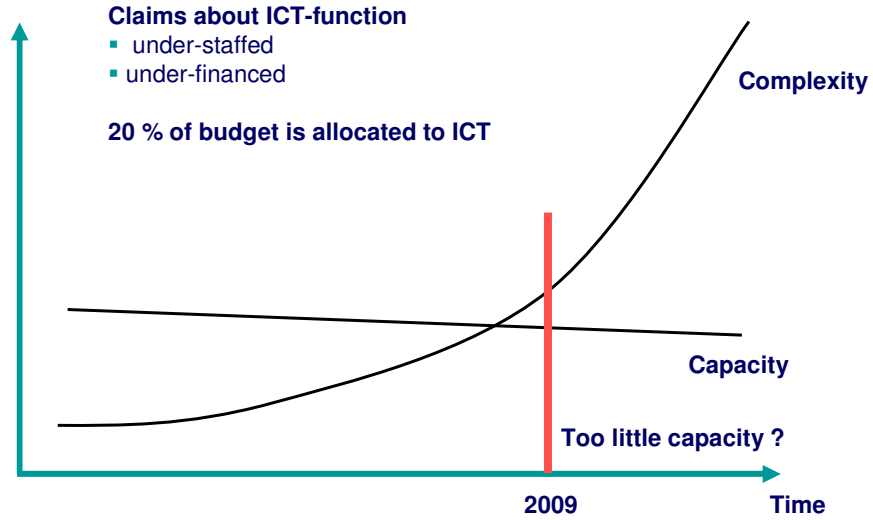

Public service organisations

Characteristics of a public organisation

- Strategies are also about collaboration with others, national and international
- In practice – Rather poor collaboration with others
  - Documented by The Office of the Auditor General (Riksrevisjonen)
- Quality challenges in the production
- Capacity challenges (claim: ICT is under-staffed and under-financed)
- Huge maintenance costs
- Stove-pipes inside large public organisations and externally between organisations
- Not adequate overview of own systems and information

Complexity and capacity

ICT-function is characterised by
- complex systems
- changes initiated by law and regulations
- large ambitions
- limited capacity

Reached capacity limit ?

Complexity

Capacity

Enough capacity ?

2009   Time

Complexity and capacity

Claims about ICT-function
- under-staffed
- under-financed

20 % of budget is allocated to ICT

Complexity

Capacity

Too little capacity ?

2009

Time

Semicolon results

Obstacles for collaboration

Semicolon findings

1. Competency gap.
2. Lack of measurables
3. Money talks
4. The absence of national joint efforts
5. Archipelago of small uncoordinated project islands
6. Disharmony in legislation
7. Anaemic arenas
8. Invisible best practice
9. People and their leaders; some people do not want to cooperate
10. Ubiquitous heterogeneity; unequal levels of competency in general and digital literacy in particular

Cure (examples)

- Competency measures within process modelling and uses of ICTs.
- Development of indicators and barometers for measuring organisational interoperability.
- Fiscal measures for dedicated funding of interoperability projects.
- Establishment of large ICT-projects with cross sector participation.
- Catalogue/database on previous and current ICT-projects and appointment of coordinating project officer(s).
- Catalogue/database on best practice within formal contracts, project management, design of interoperable systems and services.
- Actions for organisational alignment (organisation development projects).
- Governmentally organized and financed innovation projects.
- Financial support for interoperability actions (governmental financing).

Semicolon results

Build an infrastructure for collaboration

Information Governance and Metadata

There is a need for Excellent Information Governance (SKD, BR, SSB)
- National metadata strategy
- National metadata repository
- Information Governance and Metadata models for public sector organisations
  - The use of meta data for internal and external purposes
  - Establishment and use of a common component for semantics for service development, systems development and modernisation of systems

Reuse Directive (SSB, BR, SKD)
- Open data and metadata i eGovernment
- Reuse of PSI (Public Service Information)
  - Which organisations in Public sector has what information
  - To ensure the reuse of Public Service Information (PSI), both for internal cross sector purposes, but also for commercial purposes
    - Market value of PSI in Europe is €27 billion, huge value
- Prototype: The use of Cambridge Semantics
  - Infrastrukture provided by the UiO
  - Statistical data combined with private data, semantic annotations

Cross sector services building stones

- **Long lasting cross sector services to citizens and businesses (SKD)**
  - E.g. in life cycle situations for persons
    - Birth, death, move to another country, the never ending taxing regime
  - E.g. in life cycle situations for companies
    - Foundation of a new company, the never ending taxing regime
  - Important: user in control of the service process
  - Interconnection of services from different organisations
  - No predefined sequence of services

  - Tools and methods to build cross sector services
    - A forum to discuss
    - Harmonised budgets at the same time
    - Ownership and maintenance of the service
    - Harmonised metadata

Measurements and metrics

What you measure can be improved

- Measurements and metrics
  1. Organisational stage and growth model
  2. Organisational obstacles and drivers
  3. Semantic growth model, obstacles and drivers
  4. Cost/benefit analysis and metrics

- Measure the effect of several dimensions of services

- Measure societal effects of common components in the public ICT infrastructure

Future research

Semicolon II
2010 - 2013

Necessary enabling foci

Social sciences, politics and macro economy
- The development of society as a function of the development of public sector or vice versa
- The identification and impact of key enablers on the development of public sector and society as a whole

Legal aspects
- The emphasis of laws and regulations on interoperability inside public sector and interoperability between public and private sector. There is a need for tools support to increase the ability to make a coherent set of laws and regulations.

Measurements and metrics
- Develop measurement indicators and measure different effects of cross sector and cross national services.

Necessary enabling foci

Organisational issues
- The importance of organisational aspects, governance, competence and understanding, strategies and leadership, since organizational interoperability can be seen as an important enabler of all interoperability, semantic as well as technical. Common goals and practical agreements have to be in place before any collaboration can take place.

Obstacles and drivers
- Analyses of organizational, semantic and legal obstacles to interoperability in order to improve methodologies for interoperability.

New social media
- The role of new social media such as Google wave, Twitter, Facebook, Youtube, Linkedin (Web 2.0) etc. for professional use, and in this context arising interoperability issues.

Thank you for your attention.