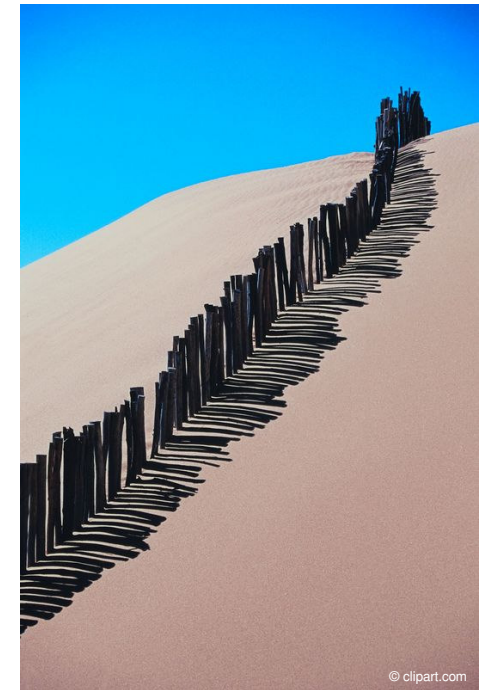# BARRIERS TO ORGANIZATIONAL INTEROPERABILITY – THE NORWEGIAN CASE

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Motivation

- eSociety & eGovernments strategies initiatives: advanced eServices to citizens, businesses and administrations

- Keynote speaker Professor Jeremy Millard:

    "**The promise of (e)governance: achieving balance**: Interoperability (top-down) vs. innovation (bottom-up) is the most difficult balance of all; it is not just technical but much more organisational and political…"

Definitions (example)

- Interoperability means, above the co-operation of systems, processes and people, in order to deliver seamless and customer-centric services.

- Organisational interoperability deals with modelling organisational processes, aligning information architectures with organisational goals, and helping these processes to co-operate.

Source: www.publicservice.co.uk/pdf/europe/autumn2003/manuelaf.pdf

Interoperability zone
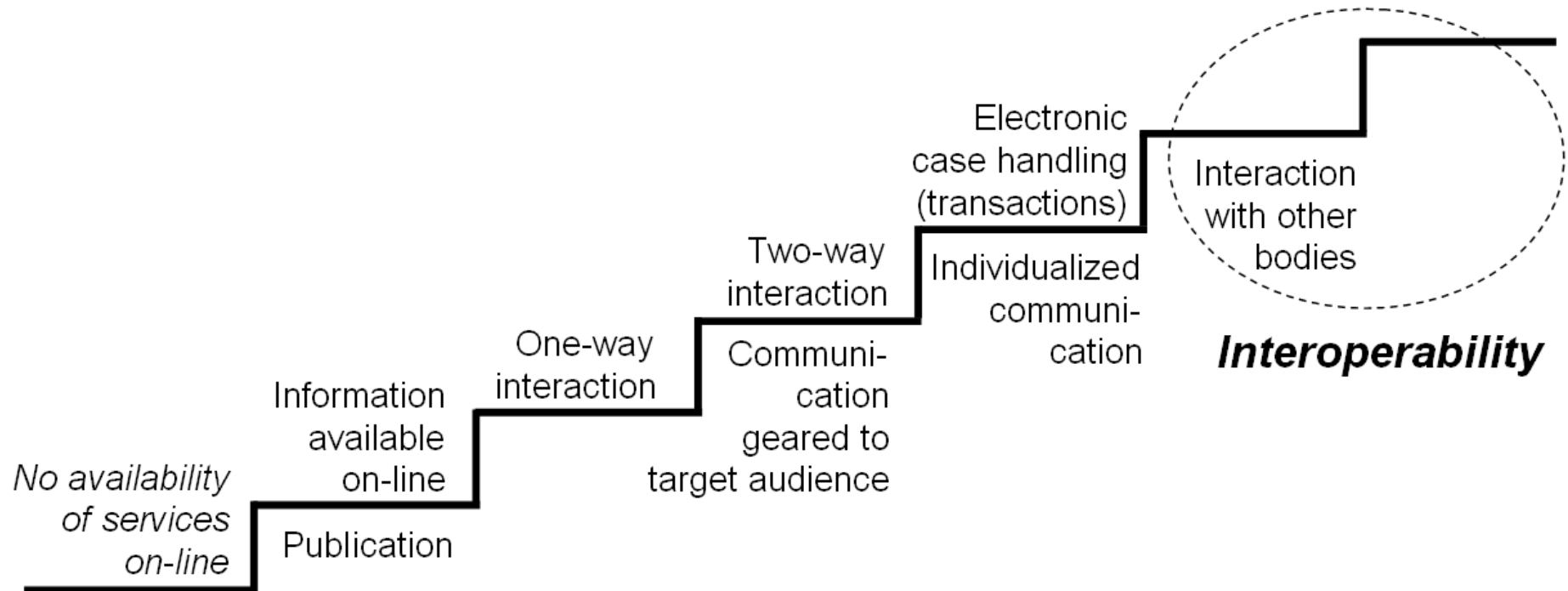
Above the stage-line, the sophistication stage model of (Wauters et al., 2006).

Below the stage-line, the service stages as described in the Norwegian white paper (STM17, 2006).

Semicolon-project (1)

Semantic and Organisational Interoperability in Communicating and Collaborating Organisations) is a R&D- project partly funded by the Norwegian Research Council.

The main goal of Semicolon is to 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.

Sub-goal:

To identify obstacles for interoperability and strategy/solutions to tackle these.

Semicolon-project (2)

Four large public bodies are

engaged in the Semicolon-project:

1. The Brønnøysund Register Centre
2. The Directorate for Health and Social Affairs
3. The Directorate for Taxes
4. Statistics Norway and The Norwegian Association of Local and Regional Authorities

www.semicolon.no

Barriers (Beckers)

1. Administrative interoperability, containing conflicting, exclusive or overlapping jurisdictions and accountability,

2. Legal interoperability, meaning different legal regimes with conflicting rights and obligations, e.g. in relation to privacy and safety regulations,

3. Operational interoperability, i.e. different working processes and information processing, routines and procedures, and

4. Cultural interoperability, addressing conflicting organizational norms and values, communication patterns, and grown practices.

5. … (and others)

Barriers (Eynon & Margetts)

1. Leadership failures.
2. Financial inhibitors.
3. Digital divides and choices.
4. Poor coordination.
5. Workplace and organizational inflexibility.
6. Lack of trust.
7. Poor technical design.

Method & data

15 personal semi-structured interviews in September-December 2008) with following main themes:

1. "What do you understand by organizational interoperability, or how would you describe it?"
2. "What promotes organizational interoperability in general?"
3. "What retards organizational interoperability in general?"
4. "Do you have any examples of best practice within organizational interoperability?"
5. "What kind of measures or what kind of initiatives would boost organizational interoperability?"

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1. Competency gaps

- Modelling of business processes has not taken place.

- ICT suppliers' knowledge of the business processes in public organizations is equally poor.

- Digital illiteracy and resistance against new applications of ICTs reduce the ICT potential including interoperability.
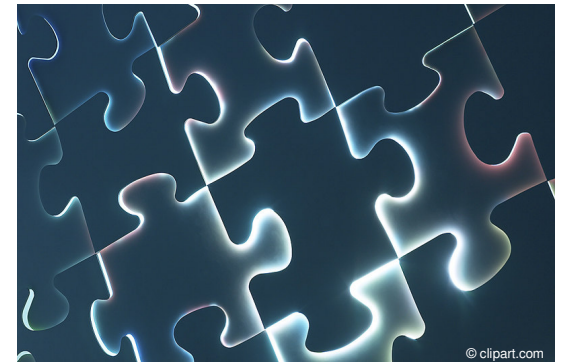
2. Lack of "measurables"

- Instruments for measuring organizational interoperability are missing.
  (This has negative impact on both planning, execution and evaluation of organizational interoperability.)

- Economic indicators that describe the effects of successful interoperability are also called for.

3. Money talks

- Governmental departments and agencies operate according to a strict fiscal sector principle (interoperability issues are not part of this enterprise).

- The letters of allocation from the government to the sector departments do not instruct the departments or the governmental agencies to spend money on interoperability actions.

- Costs of initiatives for increased collaboration are placed in one department or agency, and if the immediate benefits appear in another.
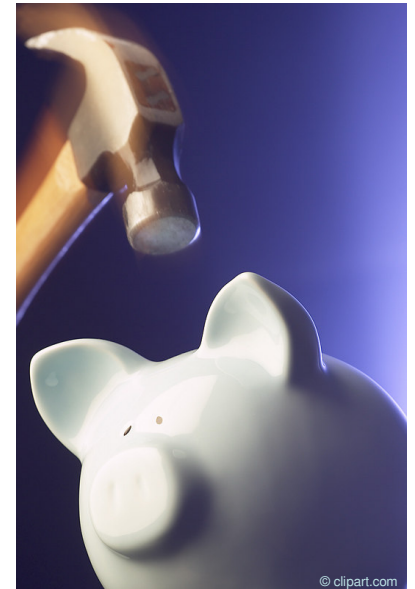
4. Absence of national joint efforts

Too few large technology projects involving several influential organizations:

- They would enhance knowledge of other organizations and their business processes
- They would offer a practical arena for integration and interoperability efforts, and they make progress because of the project organization as such.


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5. An archipelago of small project islands

- There is myriad of small, uncoordinated projects and project initiatives, continuously being initiated without anchorage points in overall strategies for cross-sector development.

- No counterpart in other organizations, simply because the other organizations already have given priority to other projects.

- Scarce resources are used sub-optimally and cannot be fed into the financial portfolio of larger initiatives with ambitions of interoperability.

- No catalogue or database with an overview of current and past projects small and large, for continuity and possible reuse of existing results.

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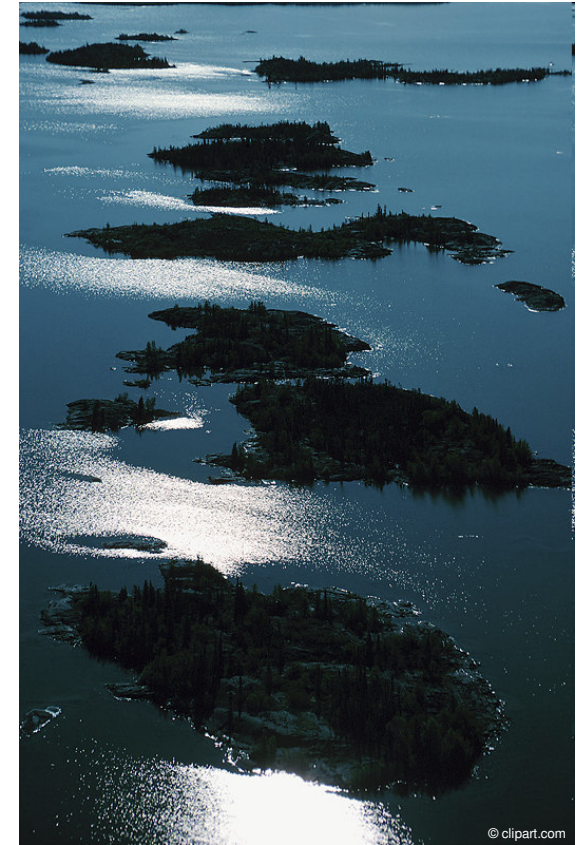
6. Disharmony in legislation

- New laws or amendments to an Act bring about uncertainties with respect to the total body of laws and the total area of impact:
    - Are there unintended consequences of the new law or amendment to other areas of jurisdiction?
    - Does the new law, rule or regulation prevent collaboration, (e.g. provision of information from one public body to another)?
- Double reporting of information to public registers.
- One department have no authority to retrieve information from another department.
- The law prohibits merging information from different sources for security or privacy reasons.
- No use of information for other purposes than what the concession permits.

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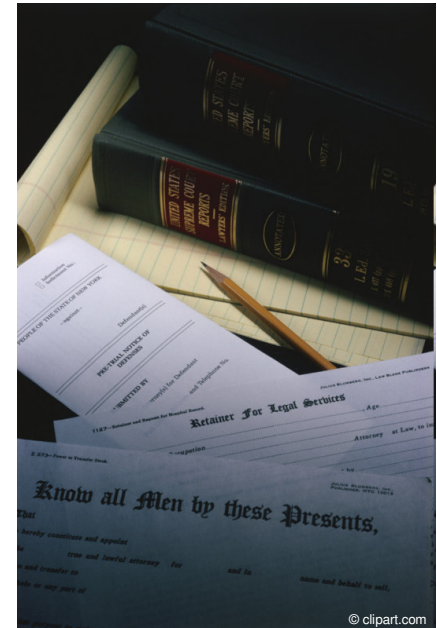
7. Anaemic arenas

- Too few up-to-date collaborative arenas or meeting-places for decision makers.

- Vertical participation.

- Some arenas do exist, but these have a tendency to turn into enervated meeting places.

8. Invisible best practice

- Too few or well-hidden show-cases of best practice within:
  - formal agreements on collaboration
  - practical approaches to organizational interoperability
  - tools for process modelling
  - management of organizational alignment
  - ICT-literacy

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9. People and their leaders (the people-factor)

- Negative attitudes.

- Non-collaborative working practices.

- People who simply do not like or want to work together with other people.

- Leaders who do not promote collaboration.

- Leaders who are afraid of losing existing positions if collaborations should lead to more rational distribution and organization of work.

- Authoritative leaders who simply do not ask anybody about anything.

- Trade unions that do not promote collaboration.

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10. Ubiquitous heterogeneity

- Unequal levels of competency in general and digital literacy in particular, continues through.

- Differences in strategic thinking and foresight, organizational cultures, phases in development processes and available technologies, and dissimilarities in available resources.

- Number of different actors:

  - 430 municipalities, counties and public enterprises under municipal or county ownership.

  - Large and rich municipalities vs. tiny and relatively poor ones.

  - The state vs. individual municipalities

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Cure (examples)

- **Competency measures** within process modelling and uses of ICTs.
- Development of **indicators and barometers** for measuring organizational 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 **organizational alignment** (organization development projects).
- Governmentally organized and financed **innovation projects**.
- Financial support for **interoperability actions** (governmental financing).

Thank you.