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# Process Strategies

## Flexible generification

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# Standardization strategies

- Standardization: formal, de facto
- The formal model (telecom, ...)
- De facto – «the market»
- “A regime in crises”
  
- SAP: Generifization
- Flexible standards

# The Internet model

- – « -- we believe in rough consensus and running code»
- Maturity levels
  - Proposed standard
    - resolved known design choices
  - Draft standard
    - at least two independent and interoperable implementations from different code bases
    - sufficient successful operational experience
  - Full standard
    - significant implementation
    - successful operational experience

# Research question

- Which standardization strategies support service innovation in the health care sector?
- I.e. which strategies are most successful in terms of, first, leading to the **settlement of new standards** which are **implemented** in ICT solutions which eventually are widely **adopted**, at the same time as the adoption and use of the solutions based on these standards enables and contributes to **service innovation**?

# The beginning

- 1987: Fürst's lab report transfer solution
- 1988: Telenor (Telemedicine in Northern Norway)
- Lab report transfer solutions
- Standardizing
- Statskonsult's Infrastructure programme: EDI
  - Physicians' invoices
- CEN TC/251, KITH
  
- **Consensus: EDI**

# Anticipatory standardization

- 90-ies:
  - Lab reports & orders, prescriptions, physicians and out-patient clinics' invoices, admission and discharge letters, ..
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  - Lab reports & orders, prescriptions, physicians and out-patient clinics' invoices, admission and discharge letters, ..

# Integrated solutions

- ELIN projects
  - Overall requirements
- The message effort (meldingsløftet)
- ePrescription
  
- Status: Modest successes, coordination problems, always someone not doing as promised

# Flexible generification

- Fürst
  - Lab report transfer solution, 1987, 3 man weeks + 1 evening
  - Lab ordering solution, interactive ordering
- Northern Norwegian Health Network
  - Generification, \$-format
- Well/Dips Interactor
  - General interactive ordering
  - Interactive admission letters
  - Experimental standardization, flexible standards
  - Platform



# Summary Care Record Systems

- Scotland:
  - 3 MGBP (4M Euros, 4 M USD)
- Denmark:
  - Official, top-down
    - 10 M Euros,
    - Faded out after about 4 years, officially cancelled after 8
  - Unofficial, bottom-up
    - Great success
- UK
  - Started 2004, early adoption 2007, further deployment is frozen
  - Spent 240 MGBP

# Architecture & governance regime

- AP: INA, complex organization
- IS: INA, complex organization
- FG: SPA, simple organization

**Table 2. Standardization strategies**

Standardization strategy	Description	Cases
1. Anticipated standardization	Top-down process, worked out as detailed compromises	1. CEN TC/251, KITH 2. ePrescription (1)
2. Integrated solutions	User driven projects, standards part of requirements specifications	3. The Elin project 4. ePrescription (2)
3. Flexible generification	Work processes and actual use determine standards, adapted pragmatically	5. Fürst 6. NNHN 7. DIPS Interactor

# Service innovation

- Anticipatory standardization
  - Replicating paper based services
- Integrated applications
  - Replicating paper based services
- Flexible generification
  - New and improved services

**Thank you!**