How to Introduce IT at Regional or National Levels

Interoperability in ICT
Challenges and Success factors

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imagination at work

Interoperability in ICT
Challenges and Success factors

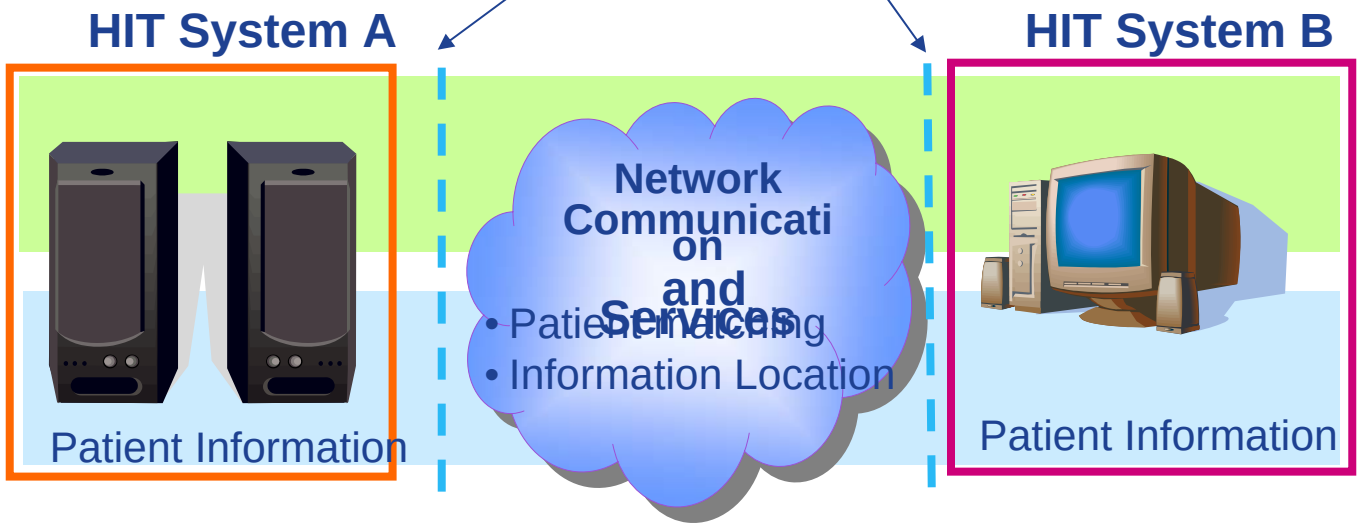
Why did we struggle so far ?

Are we now at a turning Point ?

- Infrastructure versus Point of Care/Edge
- Healthcare varied workflow environment
- Harmonization of Standards
- First Deployment Success: Examples

Interoperability in ICT
Infrastructure versus Point of Care/Edge IT Systems

Conformance to* interoperability standards *"out of the box" reduces communication costs



The challenge: an infrastructure to easily connect current and future care delivery systems and their healthcare professionals. Typical pitfalls:

- Heavy infrastructure: too complex and expensive to build/maintain. Connecting edge IT system and health professionals too costly/difficult.
- A Web portal: non-integrated health record is obstacle for physicians with clinical IT

Interoperability in ICT
Healthcare varied workflow environment

Key success factors in health information exchange:

- Source attestation by professional required by receiving professional
- Infrastructure needs to be as transparent as possible to clinical data
- Health data ultimately belongs to citizen/society: portability, confidentiality

Focus, focus. Start with one broad benefit use case but avoid creating an information silo:

- Share healthcare summary records: support both with human readability and a first level of coded structure (includes medication).
- Share laboratory results.
- ePrescription & medication history
- Share imaging information.

Interoperability in ICT
Harmonization of Standards: roadblock removing(1)

1. **Harmonization of Standards:**
   - More than 30 different IT and healthcare interoperability standards to assemble for solving an interoperability problem.
   - "Raw standards" are now available: Web Services, HL7CDA, DICOM, ebRS, LOINC/SOMED, etc. But these have many options and not aligned on specific interoperability problems.
2. **The right strategy, alternative:**
   1. Hire consultants: generally results in a regional/national specific "interoperability specification".

      ➔ *Full control, but expensive, slow, not sustainable even for a rich country.*
   2. Look for an "existing interoperability specification" with minor national adjustments.

      ➔ *Shared control, cheap, rapid/reuse, sustainable. A new culture.*
3. **A global marketplace for interoperability is a necessity:**
   - Typical healthcare IT product used on average in 3 countries and 15 regions.
   - A regional health information exchange network involves 5-20 different edge systems, a national one 10-200 edge systems.

Interoperability in ICT
Harmonization of Standards: roadblock removing(2)

Finding a good global interoperability specification with minor national adjustments.

Emergence of IHE (Integrating the Healthcare Enterprise) **as the credible approach:**

- Addresses interoperability specification & conformance testing
- Global collaborative of healthcare professionals (30+ societies), large and small vendors (200+). Open to any other stakeholders.
- Increased recognition by governments (Italy, Canada, France, USA, Austria, Japan, China, EU Commission).
- IHE Global standards adoption process adopted by ISO (TR28380)
- Austria MoH evaluation of IHE for national project.

➔ OECD should confirm IHE direction and integrate in strategic recommendation for adoption of this global, robust, standards based, conformance tested, interoperability specifications.

Interoperability in ICT
Deployment Success in Europe and World-wide

- Regional projects in **Italy** (Veneto, Genoa) in operation with 5 IHE profiles since 2006.
- Seven **Canadian** imaging information sharing projects under implementation with 5 IHE profiles (National requirement set by Canada Health Infoway).
- Dossier Medical Personnel, National **French** Project, under implementation with IHE.
- **USA** National Health Info Network-HIT Standards Panel has approved 14 IHE Profiles. Accepted by HHS Secretary in 2006, to be recognized Dec 2007. Three health information exchange projects under implementation.
- **Austria** MoH has adopted IHE interoperability profiles country-wide following success in lower Austria region (in operation since mid-2007).
- **Japan**, has one operational regional image sharing network and a MITI/MoH sponsored pilot in Kobe Region about to start operations.
- **China** MoH EHR Committee select IHE profiles for lab reports sharing in 2007. Pilot project planned to start in 2008.
- **EU Commission** just launched Large Scale eHealth Project. 12 European countries plus IHE-Europe with support of 32 vendors responded.