

Advanced Aspects of Hospital Information Systems



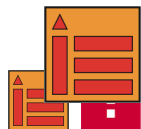
Advanced Aspects of Hospital Information Systems

WS 2012/13

Stakeholder Overview / Sample Project

Dr. Wolfgang Schramm

Vorname.Nachname@inso.tuwien.ac.at



INSO - Industrial Software

Institut für Rechnergestützte Automation | Fakultät für Informatik | Technische Universität Wien

Agenda

- Project Stakeholder?
- Developing a Hospital IT Infrastructure ...



Project Stakeholder

E-Health Project

Any sufficiently large IT infrastructure project on a regional, national or international level can be cognitively described along four major abstraction levels:

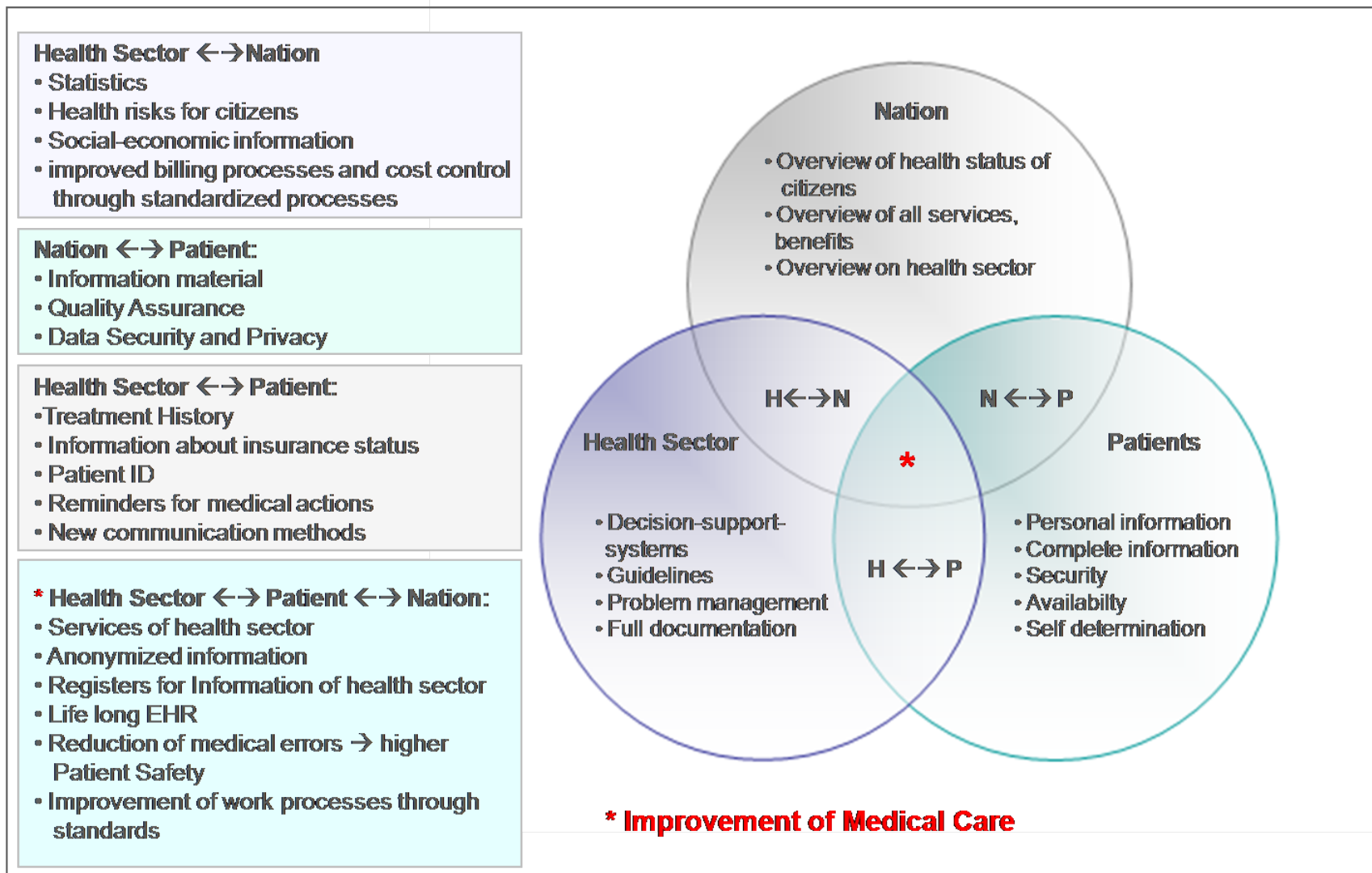
1. Political/Public Level – Political/Public Criteria (PC)
2. Institutional Level – Institutional Criteria (IC)
3. Operative/Process Level – Operational Criteria (OC)
4. Technical Level – Technical Criteria (TC)

A project can only be successful by dealing with all four levels!

Applications in Healthcare – Examples / Brainstorming

Level	Nationwide electronic health record system	Hospital Information system	Mobile Home Care Record System	„Netdokter.at“	Fitness-App on Smartphone
Political	Parliament, Citizens	Health Ministry for Budgeting	Health Ministry, Gov. Institutions for Budgeting	Citizens?	Citizens?
Institutional	Ärztammer, Hauptverband der SVT, Hospitals, Doctors, Pharmacies,	Hospital, Hospital Staff	Ärztammer, Hauptverband der SVT, Hospitals, Doctors, Pharmacies,	Platform Owner	Depending on Integration. HCPs, Hospitals
Operational	Institution/ Company for operation	Hospital IT Department	Home Care Providers	Content Management	App Providers
Technical	Implementer, Operator	Hospital IT Department	Implementer, Operator	Technical Development, Implementer	Developers

Expectations on Applications in Healthcare



Developing a Hospital IT Infrastructure

Project Setup

- **Groups of 3 – at least one needs a Laptop or Tablet/ Smartphone**
 - Everybody take on a role:
- **Deliver all Deliverables in time (approx 10min. / Deliverable)**
- **Write on either paper or laptop – if you want feedback write a digital document if possible.**
- **Not part of your grade, but valuable exercise.**

Project Description

- **New Hospital**
 - No IT infrastructure
 - Goal paperless hospital
- **Stakeholder are not yet clear what to buy**
- **Deliver:**
 - Stakeholder description
 - What subsystems are required?
 - Project Timeline & Resources
 - System & Integration architecture
 - Operational aspects (Networks, availability, ...)

Deliverable 1 – Stakeholder Description

- **Each group has 3 roles:**
 - Hospital IT Manager
 - Hospital Manager
 - Enduser representative

- **Describe:**
 - Individual goals
 - How are you seeing this project?
 - Expected problems - discussion

Deliverable 2 – Required (Sub)Systems

- **Hospital**
 - Describe expected departments
 - How big is it going to be (#beds)
- **Systems**
 - Clinic wide applications
 - HIS, ...
 - Specialized applications

Deliverable 3 – Project Timeline & Resources

- **Initial Projectplan**
 - Milestones (short description)
 - Project duration
- **Resources**
 - What personnel will you require?
 - Describe the individual skillsets
- **How do you handle the vendor integration at each milestone?**

Deliverable 4 – Systems Integration

- **How are you connecting the various applications ?**
 - Hint: Look at the products' datasheets
- **Describe two workflows**
 - What systems will be involved?
 - Who will be involved?
 - Workflows:
 - Patient Admission / Discharge
 - Ordering, performing and reporting a CT examination

Deliverable 5 – Operational Aspects

- **Network Infrastructure**
 - Est, cabling?
- **Hardware Redundancy**
 - Server
 - Network equipment
- **Asset Management**
 - Monitoring
 - Incident Management