

Advancing eHealth Interoperability

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# Quality and quality assurance

- Quality in manufacturing
  - A measure, stating that a product is free from defects and significant variations
- Quality in information technology products and services
  - Meeting the requirements of the customer
- Quality Assurance
  - Any systematic process for ensuring quality
- Quality and Quality Assurance for Interoperability Testing
  - An immature professional discipline







#### Cornerstones in Quality Management

- Customer value
  - Based on customer requirements
  - Focus on the most important
  - Indicators for performance (measurable)
- Value adding processes
  - Chain of activities
  - End-to-end definition
- Feedback processes
  - Identify how well we are creating value
  - Supporting processes for measurements, assessments and improvements



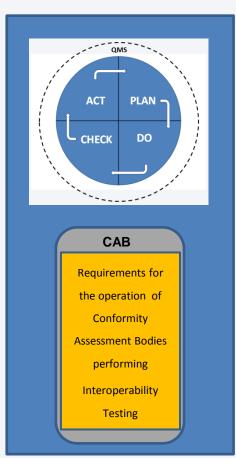




# Quality Manual for Interoperability Testing



Part I D2.1 Quality Management System



Part II D2.2 Interoperability Testing Processes









## QMS for Interoperability Testing Part 1: Requirements for organisations

- Organisation
- Management system
- Document control
  - General procedures
  - Approval and issue
  - Changes
- Review of requests, tenders and contracts
- Complaints
- Control of nonconforming testing work

- Improvement
- Corrective action
- Preventive action
- Control of records
- Internal audits
- Management reviews
- Personnel
  - ensure the competence
  - formulate the goals with respect to the education, training and skills
  - maintain job descriptions for managerial, technical and key support personnel involved in tests







### QMS for Interoperability Testing Part II: Nine interconnected processes

- 1. Quality Planning
- 2. Test Plan Definition
- 3. Design Tests
- 4. Develop or Select Test Tools
- 5. Validation
- 6. Prepare Test Session
- 7. Test Plan Execution
- 8. Test Management
- 9. Test Management Update







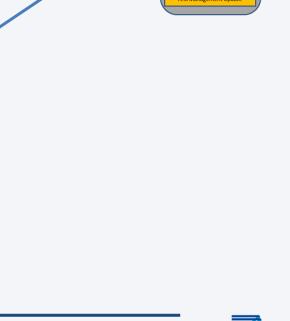


# A generic template for each process

IT-P:

- Why?
- Objective
- Work to be done
- Risk planning
- Roles and responsibilities
- Checklist: How to adjust and localise the process description





IT-P Quality Plannin

Design Test

Validat

Test Managemer

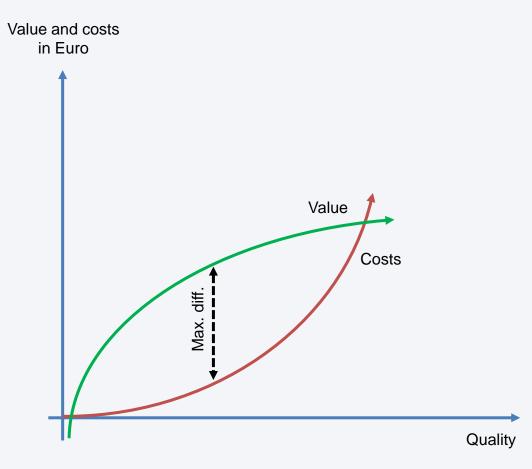


- IHE
  - Connectathon
- MedCom
  - Danish Health Care Network mandatory test of vendor systems
- Region of South Denmark
  - Digital Highway for Telemedicin services







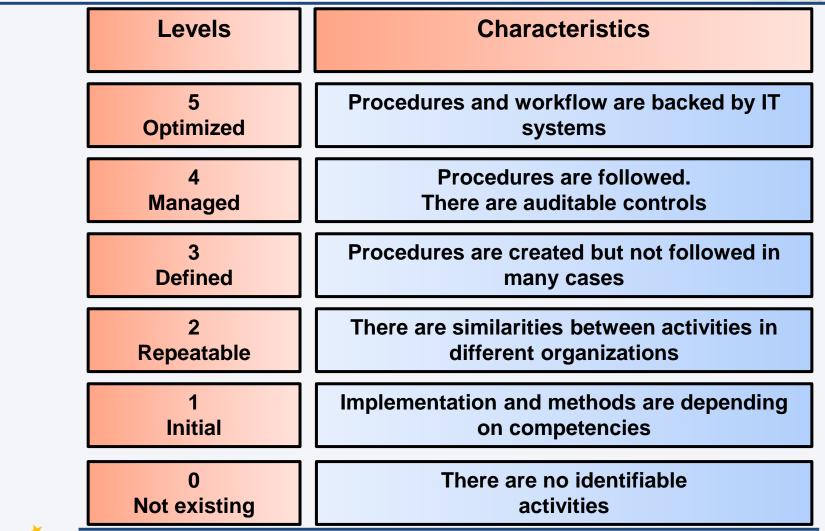








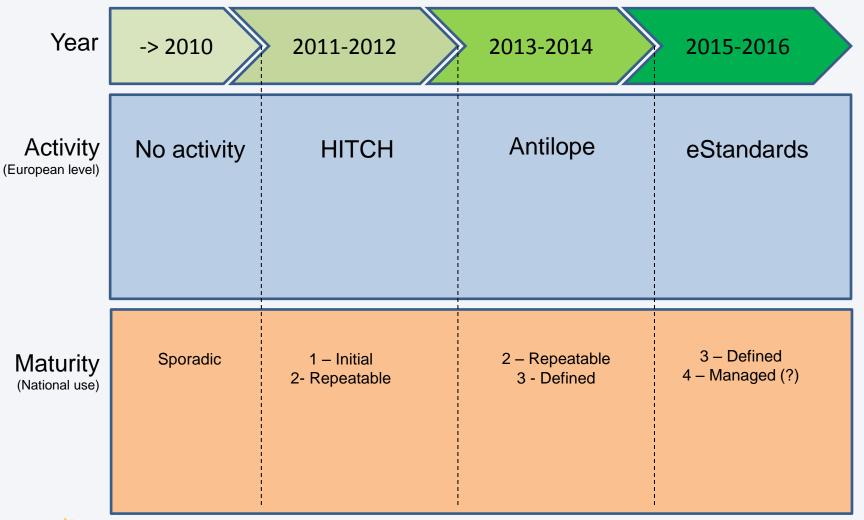
#### Maturity of processes















- Quality Management System for Interoperability Testing
  - Is based on "good practice" for Interoperability Testing
  - Is compliant with selceted IEEE and ISO standards
  - Is very welcome
  - Is validated by 10 summits and experts (including SDO´s)
  - Is already in use sporadic in some sites
  - Is agreed to be adopted by more sites
  - Will be further improved (eStandards project)



