ANTILOPE -
HOW TO REACH
INTEROPERABILITY
IN E-HEALTH
Adoption and take up of standards and profiles for e-Health Interoperability
“Project presentation”

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http://www.antilope-project.eu/
Interoperability (one definition)

The ability of two or more systems or components to exchange information and to use the information that has been exchanged.

*Source: Institute of Electrical and Electronics Engineers.*


Why need for interoperability

- Quality and efficiency cost savings
- Sharing and reuse of clinical data – better patient treatment
  - Requires Interoperable systems
  - Interoperable data exchange services
    - eEIF - Interoperability identified by the eHealth European Interoperability Framework as a priority.
ANTILLOPE

• Thematic network
• To promote use of standards and profiles for e-Health interoperability and
• To foster their adoptions across EU
Antilope a thematic network:
Drive adoption and take up of profiles for e-Health Interoperability

- Develop documentation and educational materials related to existing standards and profiles for eHealth interoperability from eEIF
- Define Quality Assurance testing guidelines for interoperability
- Identify Testtools for Interoperability
- Propose a labelling and certification process (EU level and national level)
• **To agree** that
  - interoperability is essential for care safety and cost containment
  - interoperability of eHealth systems should never be taken as given.
  - To achieve interoperability use of appropriate standards and profiles supported by appropriate testing is needed.
  - interoperability testing should be based on a Quality Management System using testing tools
  - the eHealth European Interoperability framework is the first step in harmonising interoperability efforts over Europe (at country, region or local level).

• **To bring the audience to the point to**
  – include in your regulatory framework the concepts of proven and certified functional quality requirements, to reach national as well as cross border interoperability

• **To partner towards interoperability**
Common approach to achieving interoperability through testing and certification based on:

1. **WP1: Refined Interoperability Use Cases from eEIP**
   implementation guidance specification

2. **WP2: Quality manual – Quality management system - QMS**
   It allows Conformity Assessment Bodies e.g. testing laboratories, to provide high quality test reports when the QMS is implemented

3. **WP3: Interoperability testing Tools Inventory**
   A portfolio of testing tools that would be sufficient for testing the recognized profiles from the eEIF.

4. **WP4: Interoperability Labelling and Certification**
   Antilope provides organizational models, concrete examples and guidance that can be implemented to preserve consistency at each level. Specific recommendations based on the reusability of the testing plan, test cases and test tools.
Antilope,
Interoperability – some figures

**Denmark** 5, 5 mill inhabitants

> **60 mill** documents shared / year

> **> 75 IT** systems / > 60 vendors tested and approved by MedCom

**120 profiles/standards**

### Primary
- GP – EMR (8)
- Private specialists (12)
- Physiotherapists (5)
- Psychologists (10)
- Podiatrists (4)
- Dentists (5)
- Chiropractors (9)
- Pharmacies (3)
- Shared Care (3)
- Homecare (3)

### Secondary
- Health Insurance (3)
- Hospital EHR (5)
- X-Ray (6)
- Laboratories (9)
### Denmark

- e-Prescriptions: (100%)
- E-Lab test orders: (100%)
- E-lab test results: (100%)
- E-Referrals: (100%)
- E-Discharge summaries: (100%)
- E-Home care: (98%)
- E-Reimbursement: (100%)
- E-Tele Monitoring: (Developing)

**Savings > 200 mill €/year**
Interoperability example

• An on-line example
• http://www.medcom.dk/default.asp?id=111643
Interoperability in real life

LAB test ordering

12 GP / PRIV spec. EMR
3000 clinics

Webservices XREQ

REQ01

35 Biochem laboratories
3 IT Vendors

14 Blood Banks/IMM
2 IT Vendors

REQ02

16 Microbio labs
3 IT vendors

REQ03

12 Histo/CYTO Labs
2 IT vendors

MedCom®
Godkendt
Approved
Interoperability in real life

12 GP / PRIV SPEC EMR

12 Biochem laboratories
3 IT Vendors

32 Biochem laboratories
3 IT Vendors

16 Microbio labs
3 IT vendors

14 Blood Banks/IMM
2 IT Vendors

16 Microbio labs
3 IT vendors

12 Histo/CYTO Labs
2 IT vendors

HOSPITALS (1200 wards)

LAB orders Hotel

LAB test ordering

WS- REQ01

WS- REQ02

WS- REQ02

Webservice
Interoperability in real life

12 GP / PRIV SPEC EMR

32 Biochem laboratories
3 IT Vendors

14 Blood Banks/IMM
2 IT Vendors

3 IT vendors

16 Microbio labs
12 Histo/CYTO Labs

2 IT vendors

LAB test results
Interoperability in real life

12 GP / PRIV SPEC EMR

16 Microbio labs
3 IT vendors

12 Histo/CYTO Labs
2 IT vendors

14 Blood Banks/IMM
2 IT Vendors

32 Biochem laboratories
3 IT Vendors

LAB test results

RPT01

RPT02

RPT03/04

WS-XRPT01

WS-XRPT02

WS-XRPT03/04

PHMR-/HL7
XRPT01

National- LAB Portal

Patient homemonitoring
Interoperability in real life

National-LAB Portal

12 GP / PRIV SPEC EMR

HOSPITALS (1200 wards)

Down/upload RPT01

WS-XRPT0x

SUNDHED.DK
Interoperability some figures

- Lab Test Orders: 7.5 mill/year
- Lab test results: 20 mill/year
- Labtest orders at “Hotel” – 2.0 mill/year
- Access to Labportal: 1.5 mill/year
THANK YOU QUESTIONS?

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