The need for standards in digital pathology

12th European Congress on Digital Patholog

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Onafhankelijk advies in de Zorg

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Background

- **Consultant @ MedicalPHIT**
- **Representing “focus group” consisting of about 20 laboratories**
- **Representing workgroup IHE Pathology Netherlands**
- **Previously ICT manager and researcher at a pathology lab in the UMC Utrecht**

Three things you need to know first..

- **In the Netherlands there are many early adaptors of digital pathology**
  - *Some labs are using WSI for primary diagnostics*
  - *All academic institutions have scanners*
  - *Scanner penetration is increasing*
  - *Biannual conference on developments in digital pathology*
- **PALGA foundation: national database of pathology, mandatory for labs to submit reports**
- **Start of collaboration between laboratories to discuss standards to be able to share WSI: “focus group”. Joining up with Dutch Society for Pathology (NVVP)**

Standards are all around us

- **Electricity plugs**

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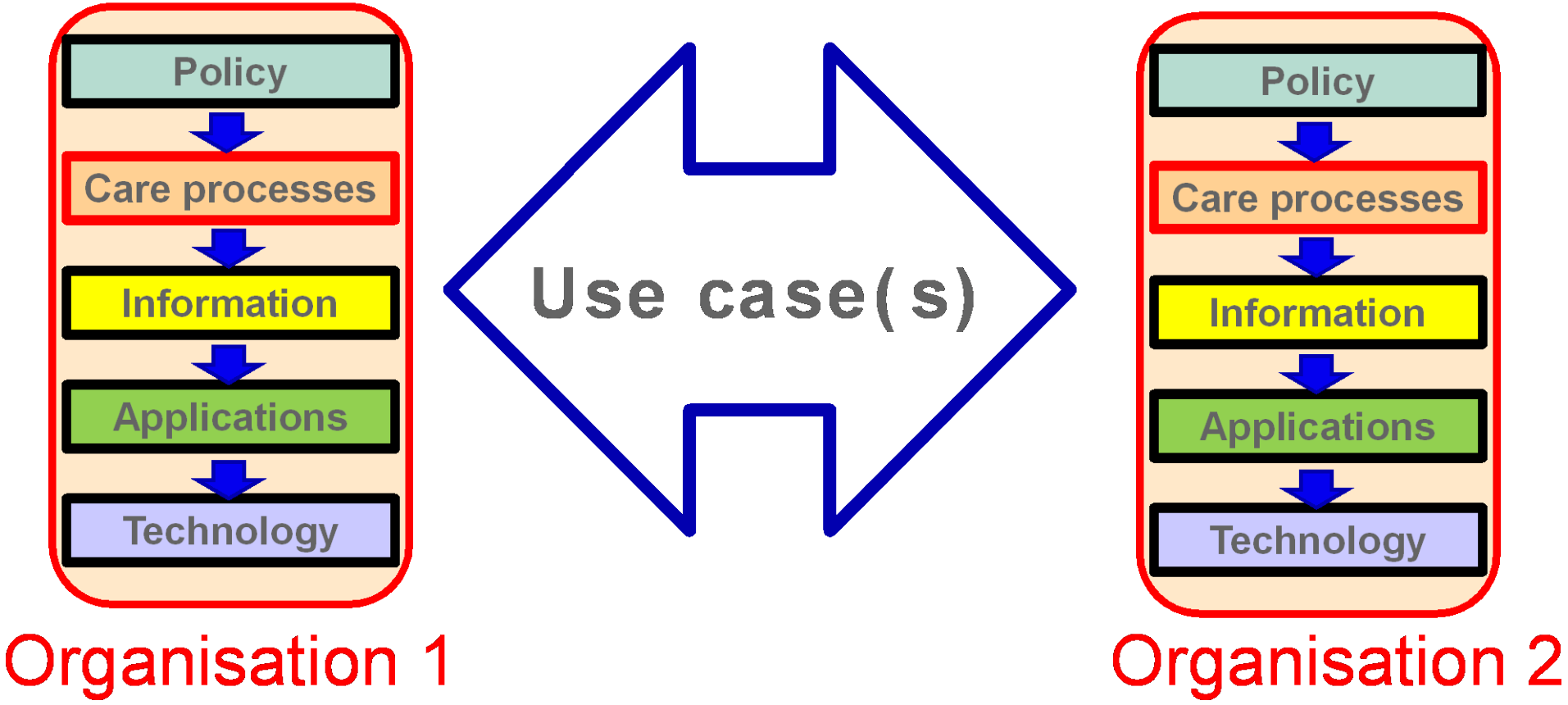
Interoperability levels



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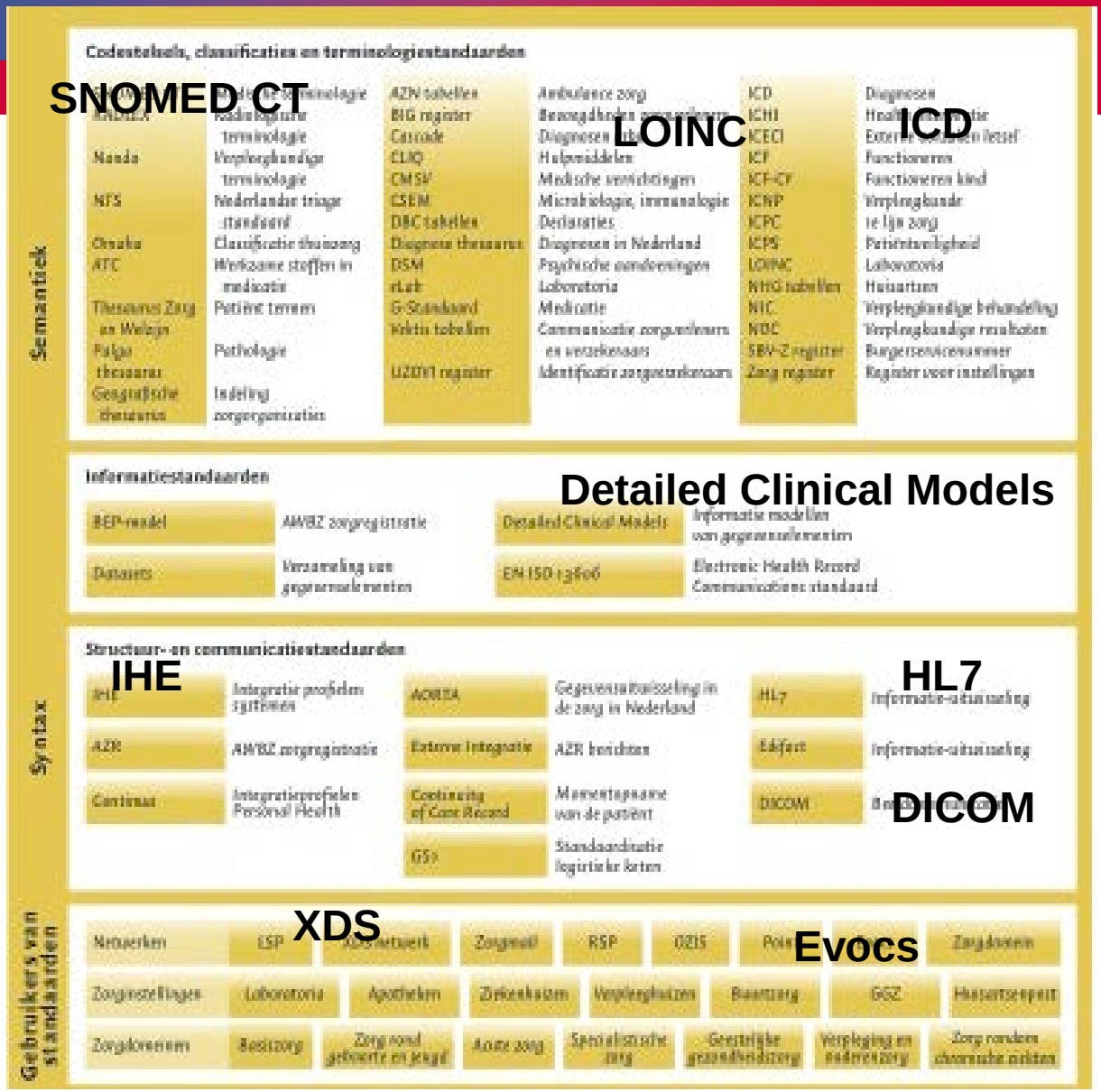
Overview of healthcare standards



What is IHE?

- **IHE is a global initiative of health care professionals and IT vendors to improve the way health care IT systems exchange and share medical data**
  - *intramural, extramural, regional, national*
  - *“user-led, vendor-driven”*
- **IHE promotes the coordinated use of global standards e.g. DICOM, HL7, SNOMED CT, XML, SOAP to address the specific health care needs, to optimally support patient care**
- **Systems developed in correspondence with IHE, communicate better with each other, are easier to implement, and allow health care organisations to use information in a more effective manner**

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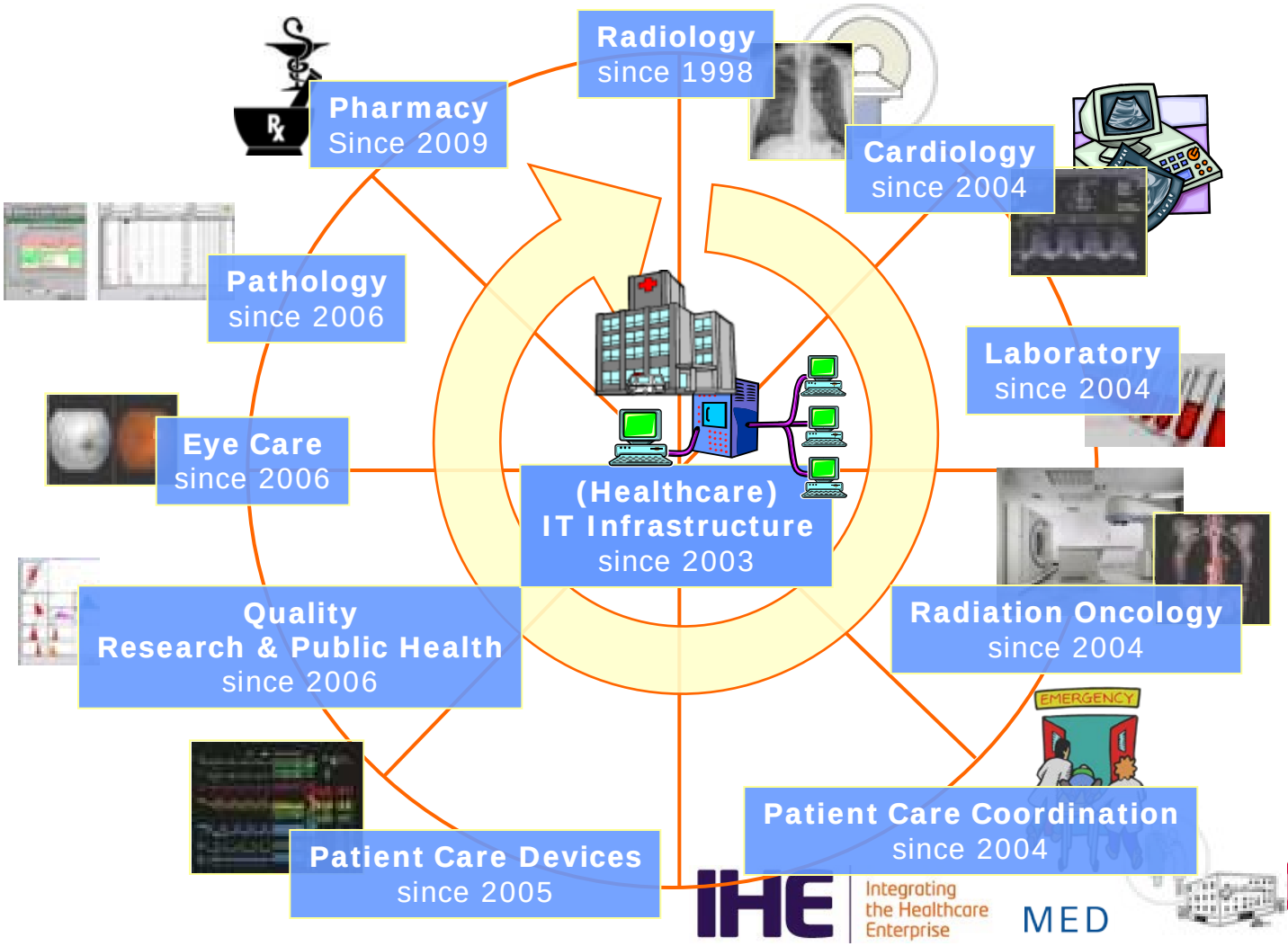
IHE Domains



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The IHE process

Document requirements and *use cases*

Information availability

Easy integration

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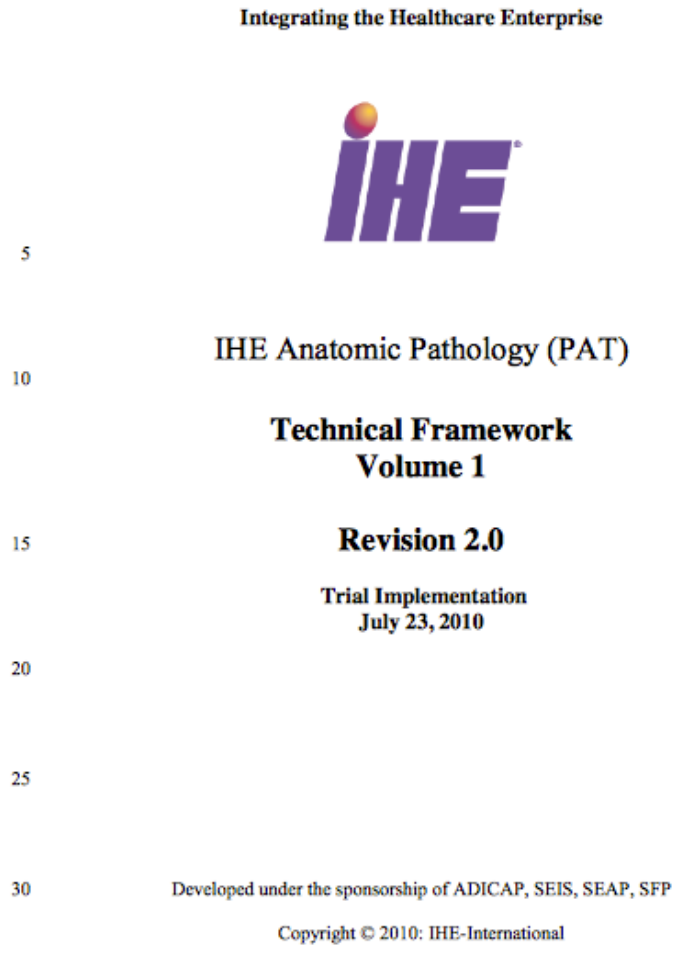
Examples of deliverables from IHE



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IHE Anatomic Pathology (PAT)

Technical Framework
Volume 1

Revision 2.0

Trial Implementation
July 23, 2010

Developed under the sponsorship of ADICAP, SEIS, SEAP, SFP

eworks/#anatomic

port (APSR)

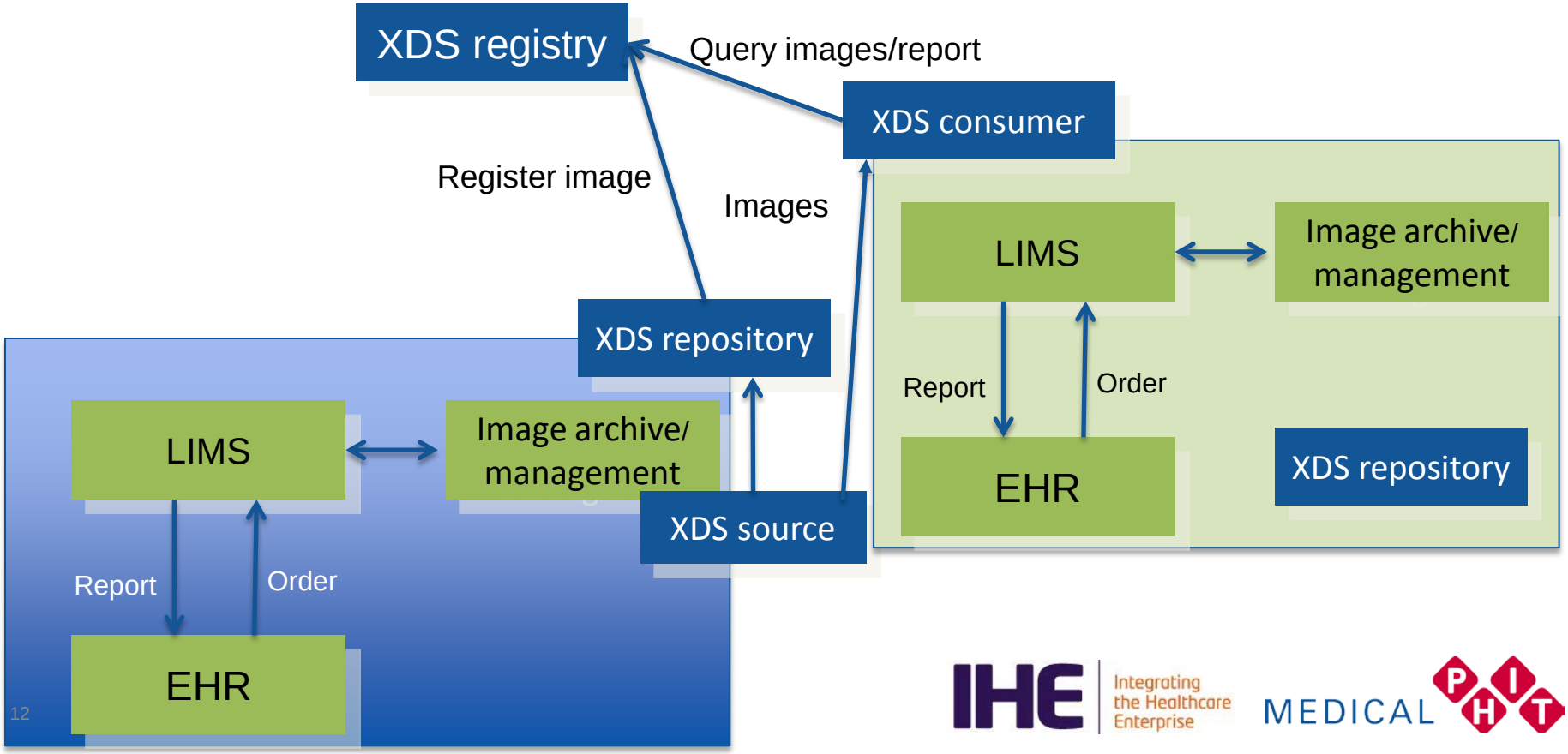
terprise Document Sharing (XDS)

w to implement other standards

Example of success stories

- **Emerging regional networks in the Netherlands**
  - *Exchange of reports and images*
  - *Based on IHE XDS profile*
  - *No vendor lock-in (central components can be replaced)*
- **The use of XDS for image exchange on referral from breast mammography screening for hospital follow up**

Infrastructure image exchange based on XDS-i



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DICOM

- **Besides infrastructure it is needed to agree on the image format**
- **DICOM = Digital Imaging and Communications in Medicine**
- **DICOM Workgroup 26**
  - *Supplement 145 (and 122)*
  - *No workflow support yet, only image format*
  - *Issue: vendors might use different proprietary (compressed) image formats causing the inability to exchange DICOM images*
- **At the moment:**
  - *No implementations known to be used in practice*
  - *Couple of vendors have software that support multiple file formats*
  - *Open source library (OpenSlide)*
- **June 18th: face to face meeting together with IHE Pathoogy**

Take home message

- **Require your vendors to support open standards in their products**
- **Pathologists and vendors: join standardization organisations like IHE and DICOM**

Digital pathology training @ IHE Academy Netherlands

- **Subjects:**
  - *Core components of digital pathology*
  - *How to setup a digital pathology infrastructure*
  - *Introduction to international standards*
  - *Document exchange according to international standards*
  - *What IHE has to offer to the domain of pathology*
  - *Synoptic reporting and uniform terminology*
  - *Lessons learned from other domains (e.g. radiology)*
- **Date: September 25th, 2014**
- **Location: Utrecht, the Netherlands**