Integrating the Healthcare Enterprise
IHE Pathology
Planning & Technical Committee meeting

Dr Christel Daniel
Saturday May 17th, 2008
Toledo, Spain
Agenda

- IHE Pathology
- How to be involved
  - Pathology Representatives election
  - IHE New governance
- Relationships with IC604 COST Action
- Road map
  - 2009-10 time line and brief proposals
  - 2nd-3rd year proposals
Scope

- Quality assessment studies in anatomic pathology
  - Each of the different steps from specimen collection and processing to report editing may be source of errors
  - Information systems integration supports error reduction
- IHE provides a standard process for implementing multiple standards to meet specific healthcare needs
- Main contributions of IHE Pathology
  - Analysis of workflow & dataflow
    - Specificity of the anatomic pathology workflow & needs for patient care and research
    - Consistency of cases, orders, image folders and reports
  - Implementation guide of transactions using existing healthcare informatics standards
The IHE Adoption Process: Implementing Integration Profiles of Domain Technical Frameworks

1. Identify available standards (e.g. HL7, DICOM, IETF, OASIS)
2. Develop technical specifications
3. Testing at Connetiathons
4. IHE Demonstrations
5. Products with IHE

Document Use Case Requirements
Timely access to information
Easy to integrate products
IHE Technical Frameworks

- Supplement to the current stable version of the Technical Framework is published for “Public Comment”
  - Stable body of the Technical Framework from the preceding cycle & newly developed supplements

- Updated version of the Technical Framework is published for “Trial Implementation”
  - Used by vendors in developing trial implementation software for the annual Connectathon.

- Updated version of the Technical Framework is published for as “Final Text”
  - Resolution of all change proposals received within 60 days of the Connectathon
IHE Pathology process

...THE PAST : Pathology Technical Framework

- IHE Europe (launched in September 2005, Paris)
- First Integration Profile : Pathology Workflow (PWF) addressed by the 2007-2008 cycle
  - Establishes the continuity and integrity of basic pathology data
  - Ordering and reporting aspects of the workflow
    - Transactions maintaining the consistency of ordering information, specimen management information and report items.
  - Imaging aspects of the workflow
    - Acquisition, storage and distribution processes of images among multiple systems, enterprises and remote workstations.
- A common specimen identification and description module coherent across standards.
Standard developing organization HL7 & DICOM

- **HL7 : Health Level 7**
  - Accredited Standards Developing Organization (SDO) operating in the healthcare domain
  - Members: Healthcare experts and information scientists
  - HL7 Pathology Special Interest Group (January 2006)
    - Specimen model, orders and reports aspects of the pathology workflow.

- **DICOM : Digital Imaging and COmmunication in Medicine**
  - Create standards for integration of electronic healthcare information in medical imaging
  - Network communication protocols between informatic modules in medical imaging
  - DICOM WG26 for pathology (October 2005)
    - Specimen model, Whole slide imaging
Standards (HL7, DICOM) & IHE

IHE
(ITI, Laboratory, etc)

IHE Pathology
Integration Profiles
White Papers

HL7 Pathology SIG

HL7 (Orders, RCRIM, etc)

DICOM WG26

DICOM (WG6, WG13)

OMG, W3C

9th congress of Telepathology - Toledo - IHE Pathology/COST WG2 meeting
Pathology Technical Framework

Users

- ADICAP (Association pour le Développement de l’Informatique en Cytologie et Anatomie Pathologique) (France)
- AP-HP, paris (France)
- Charité Universitätsmedizin Berlin (Germany)
- GMSIH (Groupement pour la Modernisation du Système d’Information Hospitalier) (France)
- SEAP (Spanish Society of Pathology) (Spain)
- Servicio de Salud de Castilla-La Mancha (Spain)
- SEIS (Spanish Health Informatics Society) (Spain)
- SFP (French Society of Pathology) (France)

- DICOM and its affiliate organizations (DICOM WG26, DICOM WG6)
- HL7 and its affiliate organizations (HL7 pathology SIG)
- IHE organization in each participating country: IHE-France, IHE-Spain.
- IHE-J (IHE Japan)
Pathology Technical Framework

Vendors

- **EHR**
  - MEDASYS (Gif sur Yvette, France)

- **Acquisition modality**
  - TRIBVN (Châtillon, France)

- **Pathology Information System (PIS)**
  - TECHNIDATA (Montbonnot Saint Martin, France)
  - INFOLOGIC (Valence, France)

- **PACS**
  - GE Healthcare (US)

- **ETIAM** (Rennes, France)
Integration Profile: Pathology Workflow (PWF) - Actors & Transactions
Integration Profile : Pathology Workflow (PWF) - Actors & Transactions

- 6 actors
  - For order management
  - For image management
  - For report management

- 10 transactions for interaction between actors

- Specimen model in relation to DICOM & HL7
THE FUTURE...
New IHE Governance Model

- IHE International is a non-profit organization
- Board with broad representation from user and vendor organizations
- Committee structures, procedures and voting rules
- Clearly defined sponsorship rules
- Member organizations required to formally apply for membership
IHE International Board

- The IHE International Board is the primary governing committee for all IHE development activities.
- It is composed of representatives from each of the IHE Domains, National and Regional IHE Initiatives, and IHE Sponsor Organizations.
- The membership roster of the Board and many of its working documents are maintained on the IHE Wiki, http://wiki.ihe.net.
IHE International

- **Domain Committees**
  - These committees develop and maintain the IHE Technical Frameworks addressing interoperability in their respective clinical and operational areas of healthcare.

- **National/Regional Deployment Committees**
  - Deployment committees based in a given country or group of countries promote the appropriate use within their respective geographic areas of the specifications defined in the IHE Technical Frameworks.
Welcome to Integrating the Healthcare Enterprise

IHE is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information. IHE promotes the coordinated use of established standards such as DICOM and HL7 to address specific clinical need in support of optimal patient care. Systems developed in accordance with IHE communicate with one another better, are easier to implement, and enable care providers to use information more effectively.

Learn More:

- **Developers of Healthcare IT Systems**
  - IHE Process
  - IHE Profiles
  - Technical Frameworks
  - Getting Involved
  - Connection

- **Users of Healthcare IT Systems**
  - IHE Process
  - IHE Profiles
  - Integration Statements
  - User Handbooks
  - Presentations
How to Participate

- **Mailing list**
  - ihe-pathology@listes.univ-rennes1.fr
  - (ihe-f-anapath@listes.univ-rennes1.fr (IHE-pathology France))

- **IHE :** [www.ihe.net](http://www.ihe.net)
  - Collaborative work : [http://wiki.ihe.net](http://wiki.ihe.net)
  - Pathology TF :
How to Participate

- As domain representative for the international board
  - Dr Marcial GARCIA & Dr Thomas SCHRADER
- As a Planning/Technical Committee Member
  - Formally apply for Organization membership
- As an Interested Observer
  - Provide Public Comments and/or Change Proposals on Technical Framework Supplements
  - Attend Demonstrations, Educational Events and Workshops
IHE Member Organization

Healthcare Professional Associations
- American Academy of Ophthalmology (AAO)
- American Academy of Physician Assistants
- American Association of Physicians in Medicine (AAPM)
- American College of Cardiology (ACC)
- American College of Clinical Engineering (ACCE)
- American College of Obstetricians and Gynecologists (ACOG)
- American College of Physicians (ACP)
- American Society for Therapeutic Radiology and Oncology (ASTRO)
- American Society of Cataract and Refractive Surgery
- Association for Healthcare Documentation Integrity (AHDI)
- Association of Medical & Bio Informatics Singapore (AMIBS)
- Association pour le Développement de l'Informatique en Cytologie et Anatomie

Healthcare Provider Organizations
- CERR Grup Medic AIE
- Diagnostic Medical Imaging University Associates (DMUA)
- Internortheast Healthcare, Inc.
- Montefiore Medical Center
- Saint Vincent Health Center
- Sydney Interhospitalier de Bretegde (SIB)
- University Health Network
- Washington National Eye Center

Healthcare Education and Research Organizations
- Collaborative Centre for eHealth
- CPM Resource Center
- Florida Cancer Data System
- Louisiana Tumor Registry
- National Institute of Radiology, Washington
- Eversen Solutions LLC.
- Fesca B.V.
- Gartner
- GC Healthcare
- Greenway Medical Technologies, Inc.
- Guardian Technologies Intl. Inc.
- Health Solutions International
- Haldelberg Engineering Inc.
- Hitlogic, Inc.
- Hiptools
- ITS Healthcare
- IHiS
- IHI Corporation
- ICAD, Inc.
- IMPAC Medical Systems, Inc.
- Improvement Technologies, LLC
- Interact Systems
- InterPlan Solutions Inc.
How to Use IHE

- As a Vendor Implementer
  - Implement IHE Integration Profiles
  - Test systems through Connectathon process
  - Publish an IHE Integration Statement for products

- As a User Implementer or Consultant
  - Use IHE Integration Profiles to develop interoperability strategy
  - Use Connectathon Results and Integration Statements to evaluate vendors
  - Demand IHE Integration Profile compliance in RFPs
The IHE Adoption Process

1. October
   Document Use Case Requirements

2. TF Final Text
   August
   Develop technical specifications

3. January
   Testing at Connectathons

4. IHE Demonstrations

5. Products with IHE

Identify available standards (e.g., HL7, DICOM, IETF, OASIS)

Timely access to information

Easy to integrate products
COST IC604: Anatomic Telepathology Network (EURO-TELEPATH)

- **WG2 – Informatics Standards in Pathology**: Collaboration with standardisation bodies & initiatives
  - IHE Pathology
  - DICOM WG26
  - HL7 Pathology SIG
  - Jpeg2000
  - IHTSDO (SNOMED)
  - CEN (MG)

- Support of COST: attend DICOM WG6, WG26, IHE Pathology and HL7 Pathology SIG Meetings
COST IC604: Anatomic Telepathology Network (EURO-TELEPATH)

- **WG1 – Pathology Business Modelling**
  - Global vision of the business processes
  - Identification of the key business processes

- **WG2 – Informatics Standards in Pathology**
  - **IHE Planning committee**
    - “Business-driven” IHE integration profiles and white papers
  - DICOM, HL7 road maps
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<thead>
<tr>
<th>Timeframe</th>
<th>Activity</th>
<th>Scheduled</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>2008</strong></td>
<td></td>
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<tr>
<td>Sep</td>
<td>Submit Brief Profile Proposals to Planning Committee (PC)</td>
<td>wiki-email</td>
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<tr>
<td>Oct</td>
<td>PC Selects &quot;Short List&quot; of Profiles</td>
<td>Oct. 2-3</td>
<td>Evora, Portugal</td>
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<td>Oct</td>
<td>Short listed Profile Proposal Authors to submit Detailed Proposals to PC</td>
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<td>wiki--mail</td>
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<td>Oct</td>
<td>PC Finalizes scope of profiles for Technical Committee (TC)</td>
<td>Tcon</td>
<td></td>
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<tr>
<td>Nov.</td>
<td>TC Evaluates &quot;Short List&quot; of Profiles</td>
<td>Nov. 5-6</td>
<td>Warsaw, Poland</td>
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<td>Nov.</td>
<td>TC Reports back to PC on &quot;Short List&quot;</td>
<td>Tcon</td>
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<tr>
<td>Dec.</td>
<td>PC &amp; TC Discision for 2009 work</td>
<td>Tcon</td>
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### 2008-10 - Time line

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Details</th>
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<tbody>
<tr>
<td>2009</td>
<td>PC review of scope of White Papers</td>
<td>January 11-16, 2009</td>
<td>Orlando, FL</td>
<td>HL7 Working Group Meeting</td>
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<td>Profile development kickoff meeting (TC Meeting)</td>
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<td></td>
<td>Profile development meeting: finalize supplements for Public Comment (TC)</td>
<td>March 12 and 13, 2009</td>
<td>Paris</td>
<td>COST MC, WG 1234</td>
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<td></td>
<td>Prepare Profiles for Trial Implementation (TC Meeting)</td>
<td>June 2009</td>
<td></td>
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<td></td>
<td>Publication of Trial Implementation Supplements</td>
<td>July 21-25</td>
<td><a href="http://www.ihe.net">www.ihe.net</a></td>
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<td></td>
<td>Publication of Final Text Technical Framework (if appropriate)</td>
<td>Aug. 15</td>
<td><a href="http://www.ihe.net">www.ihe.net</a></td>
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<td>2010</td>
<td>Test implementations at Connectathon</td>
<td></td>
<td>Chicago</td>
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<td></td>
<td>Test implementations at Connectathon</td>
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<td>Europe</td>
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IHE Planning Committee
Road map for Patient Care – 2009-10

- **Enhanced imaging & post-processing workflow IP**
  - Statuses management, etc
  - Editor: Thomas Schrader

- **Contribution (use case) to Sharing Value Sets IP(ITI)**
  - Using standard terminologies to code reports and image contents in anatomic pathology
  - Editor: Vincenzo Dellamea

- **Enhances reporting workflow IP & structured reports white paper**
  - Editor: Thomas Schrader & Christel Daniel
IHE Planning Committee
Road map for Patient Care (>2010)

- **Integrating automatons IP** (with LAB)
  - Contributor: John Gilbertson

- **Inter-departments workflow IP** (with LAB)
  - Relationships between Pathology departments
  - Relationships between pathology/radiology/endoscopy
  - Contributor: Jacques Klossa

- **Cross enterprise documents/images sharing (XDS, XDS-I)(ITI)**

- **Telepathology** (2 Business Processes)
IHE Planning Committee
Road map for Research (>2010)

- Integrating PIS to tissue banks or Tissue Micro Arrayers (with LAB)
  - Contributor John Gilbertson

- Sharing anatomic pathology data for clinical research (with PCC)
  - Contributor: Thomas Schrader, John Gilbertson
IHE wiki : Collaborative workspace
More Resources

- Mailing list
  - ihe-pathology@listes.univ-rennes1.fr
  - (ihe-f-anapath@listes.univ-rennes1.fr (IHE-pathology France))
- IHE: www.ihe.net
  - Collaborative work: http://wiki.ihe.net
    http://wiki.ihe.net/index.php?title=Pathology
  - Pathology TF:
    http://www.gmsih.fr/fre/ihe/documents_de_reference/cadre_technique_pathologie
- DICOM 3 Standard, NEMA and Global Engineering Group
  - http://www.nema.org
  - http://www.dclunie.com/