IHE AUSTRALIA | Integrating the Healthcare Enterprise

RCPA/RCPAQAP/IHE Workshop

Implementation of NPAAC Electronic Communication Standards

Dr Vincent McCauley Chair, IHE Australia

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www.ihe.net

Outline

- What is the mission?
- Introduction and Overview of IHE
- IHE International and Standards
- IHE Australia Profiles and Implementations
- Testing and Conformance

The Mission

My Health Record

RCPAQAP
The Royal College of Pathologists of Australasia
Quality Assurance Programs

FHIR

eRequest

eResults

cc e-results

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Implementing and verifying NPAAC Communication Standards

- Support implementation of
  - ACQSHC/NPAAC Requirements for information and Communication 5th edition
  - HL7 V2 Australian Normative Standard ADRM 2021.1
  - RCPA SPIA Terminology
  - National Health Identifiers
  - Messaging workflows to support safety
- Collaboration with:
  - Laboratories
  - lab IT systems
  - Communication services
  - Clinical information systems
  - Clinicians

MSIA MEDICAL SOFTWARE INDUSTRY ASSOCIATION

AIDH AUSTRALASIAN INSTITUTE OF DIGITAL HEALTH

RCPA The Royal College of Pathologists of Australasia

ASBMB Australian Society for Biochemistry and Molecular Biology

RACGP

ACRRM

IHE AUSTRALIA

IHE International and Standards

About IHE

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 needs 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.

The IHE Vision

Enable seamless and secure access to health information that is usable whenever and wherever needed.

Provider led, vendor driven, conformant “plug and play” interoperability

The IHE Mission

IHE enables health systems and care delivery networks to adopt interoperable digital workflows that support evidence- and value-based health services. IHE develops workflow-based interoperability specifications and provides testing and validation capabilities that support the governance of health IT ecosystems as the foundation for health systems, care delivery networks and industry to improve health outcomes.

Who are IHE International?

- 1200 plus organisational members (including ADHA) across more than 40 countries - USA, Canada, USA, UK, 23 European nations, China, Japan, Korea
- Standards Development Organisation (SDO) 2012
- Liaison A status ISO TC215 Health Informatics
- MOU with HL7 International to ballot profiles at HL7
- Member ISO TC215 Joint International Council (JIC)

IHE International and Standards - Resources

Resources

IHE has created a set of information resources and tools for vendors and users of healthcare information systems to help them integrate systems and share information more effectively.

Integration Profiles

Understand the standards-based integration capabilities defined in the IHE Technical Frameworks, in plain language.

User Handbooks

Learn how to use IHE to improve the way systems are selected, specified, purchased and deployed.

Case Studies

See projects that have made use of IHE to integrate systems within a healthcare institution.

Technical Frameworks

See detailed reference documents that guide systems developers and integrators in implementing standards.

Public Comment

View and submit comments on Technical Framework documents.

Webinars

View educational webinars to help your organization develop and implement HIT systems.

What IHE solves

Processes involving complex and/or multi-party workflows e.g. Pathology laboratory instrumentation

Processes requiring integration of standards from multiple SDOs e.g. RIS/PACS scheduled workflow integration (HL7/DICOM)

Cross Enterprise, Cross Community and National interoperability (XCA, XCPD) – eHealth Exchange Network, The Sequoia Project

Interoperability between heterogenous systems

Interoperability based on independently verified and openly published Standards conformance testing and tooling – Gazelle and the IHE product register

Implementation international certification

Complex Tenders and specifications

Plug and play interoperability – IHE Showcase

Interoperability demonstrations – visualisation tools

Open standards freely available as a Technical framework

“Everything should be as simple as it can be, but not simpler”

- *attributed to Albert Einstein*

- The closer the standards processes are to users and suppliers the more likely the results will be fit for purpose
- Standards development is **not** greenfield – that occurs internationally and that is where we need to participate e.g. IHE, HL7 FHIR, SNOMED-CT, LOINC, OMG – BPM+
- Standards implementation is **not** greenfield - IHE’s methodology has been published as an ISO technical report
- ISO TR28380 Health Informatics Standards global standards adoption
  - ❖ Part 1: Process
  - ❖ Part 2: Integration and Content Profiles
  - ❖ Part 3: Deployment

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ISO Health Informatics – IHE Global Standards Adoption – Part 2. Integration and Content Profiles

ISO TC 215/SC

Date: 2013-08-10

N/A

ISO TC 215/SC /WG 2

Health informatics — IHE Global Standards Adop
Integration and Content Profiles

Élément introductif — Élément central — Partie 2: Titre de la partie

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IHE Connecthaton – short video

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IHE Australia Profiles and Implementations

IHE Australia Developed profiles

HL7 V2 Diagnostic results reporting profile – ATS 5201-2010.

- An IHE implementation profile of AS 4700.2-2004

Secure Message Delivery – SMD – ATS5822-2010

- Development of specifications, conformance requirements, testing engine and Connectathon

HL7 V2 Referral Profile – AS5338 – An IHE profile of AS4700.6-2010

- Recently implemented for HealthDirect

Implementing and verifying NPAAC Communication Standards using IHE

Develop a localised IHE implementation profile. Inputs:

NPAAC Standard - Requirements for information and Communication 5th edition	RCPA SPIA Terminology	IHE International Pathology and Laboratory Medicine Profiles (PALM)	HL7 V2 Australian Normative Standard ADRM 2021.1

Fast-track implementer development with online conformance testing, FAQs, workshops and peer group support

Conformance testing and interoperability certification of production systems at an IHE Plugathon/Connectathon

Demonstrate success – IHE Showcase at HIC 2025

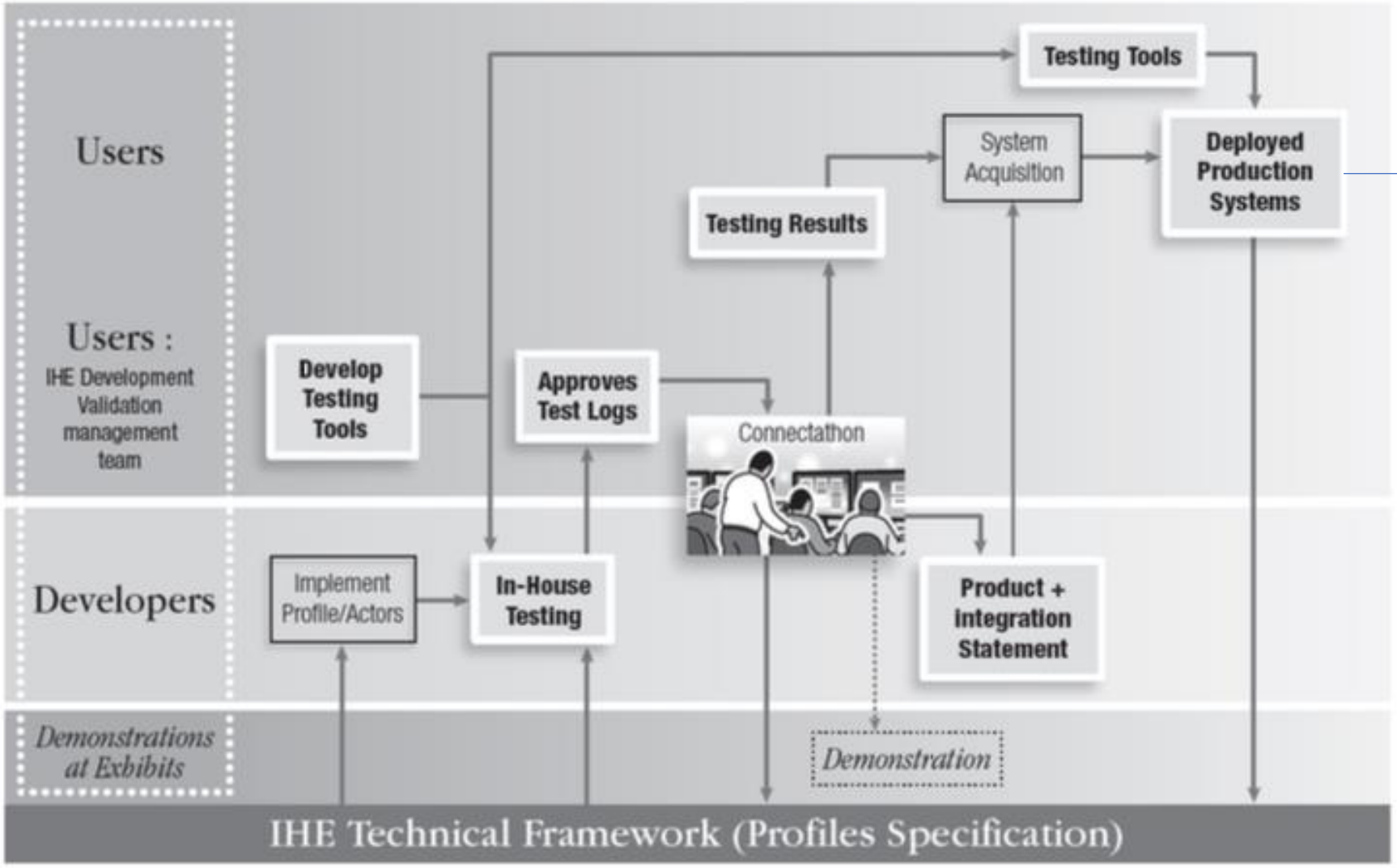
What next?

Email admin.australia@IHE.net to:

- Join the IHE Australia newsletter mailing list – no more than 1 email per month
- Join the IHE Pathology Advisory committee
- Join the IHE Pathology Technical Committee – vendor implementers and health informaticians
- Sign-up for the Implementation stream:
  - ✓on-line conformance testing
  - ✓implementation workshops
  - ✓Connectathon – LIS vendors, GP and Specialist CIS vendors, Pathology laboratories.

Testing and Conformance

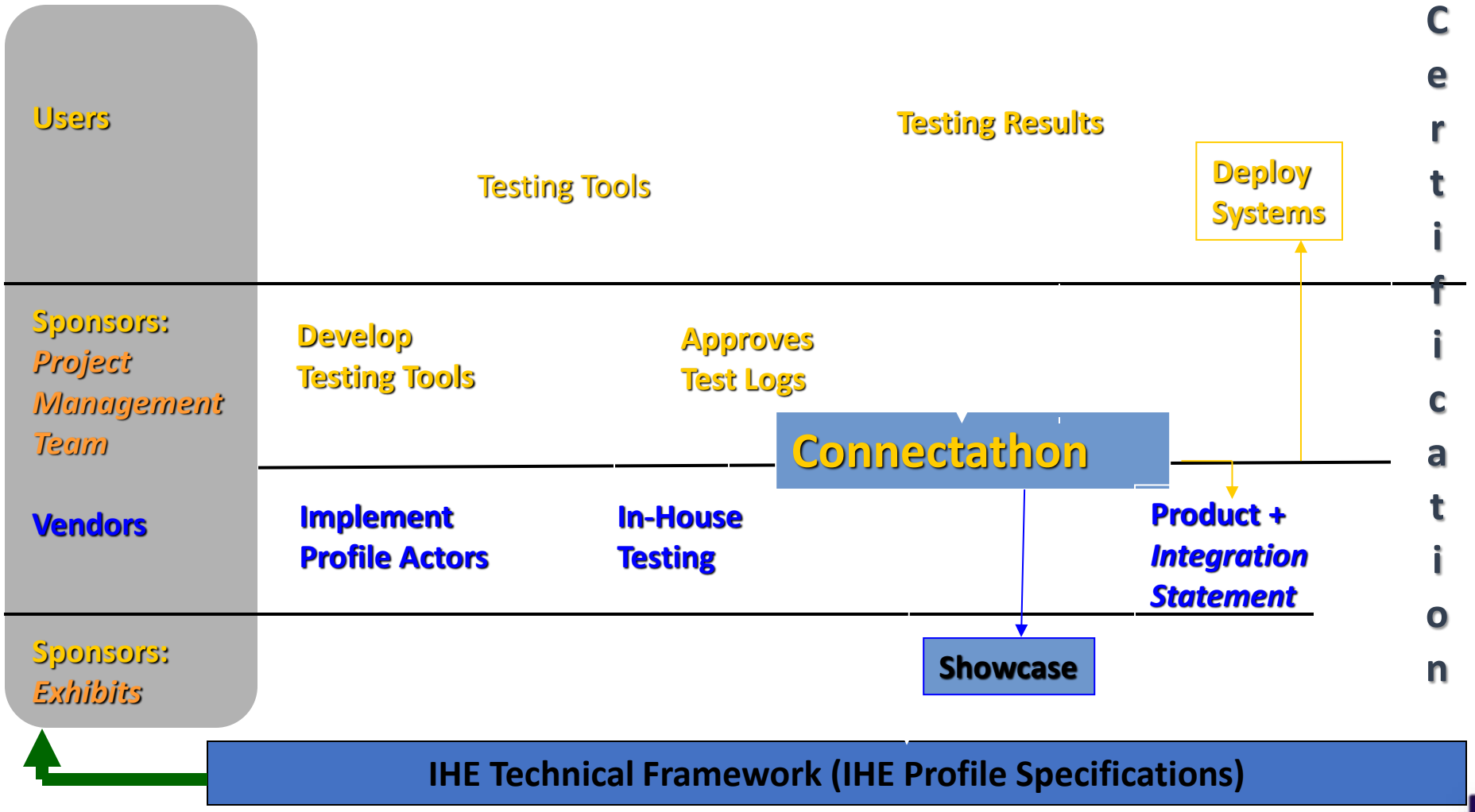
Testing and conformance



IHE Conformance Testing

Figure 5 — Overview of the IHE Testing Process

IHE Testing Process



What is an IHE Connectathon?

Cross-vendor, live, supervised, structured tests using a sophisticated test harness (Gazelle)

All participating vendors' products tested together in the same place/time

Experts from each vendor available for immediate problem resolution… fixes are done in minutes, not months!!

Each vendor tests with multiple trading partners (actual product to actual product – at least 3 independent vendors)

Testing of real-world clinical scenarios using IHE Integration Profiles

IHE Chicago Connectathon

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