IHE EUROPE EXPERIENCE DAY 13 SEPTEMBER 2022

IHE Profile development
within ITI Committee

IHE CONNECTATHON 2022 BUILDING THE BRIDGE MONTREUX+ATLANTA SEPTEMBER 12-16

Oliver Egger, IHE ITI Technical Committee Co-Chair

Oliver Egger

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2015 - founder ahdis
2003 - 2014 visionary AG, docbox
2002 - 2003 Ecofin Research & Consulting AG
1994 - 2001 SPEAG

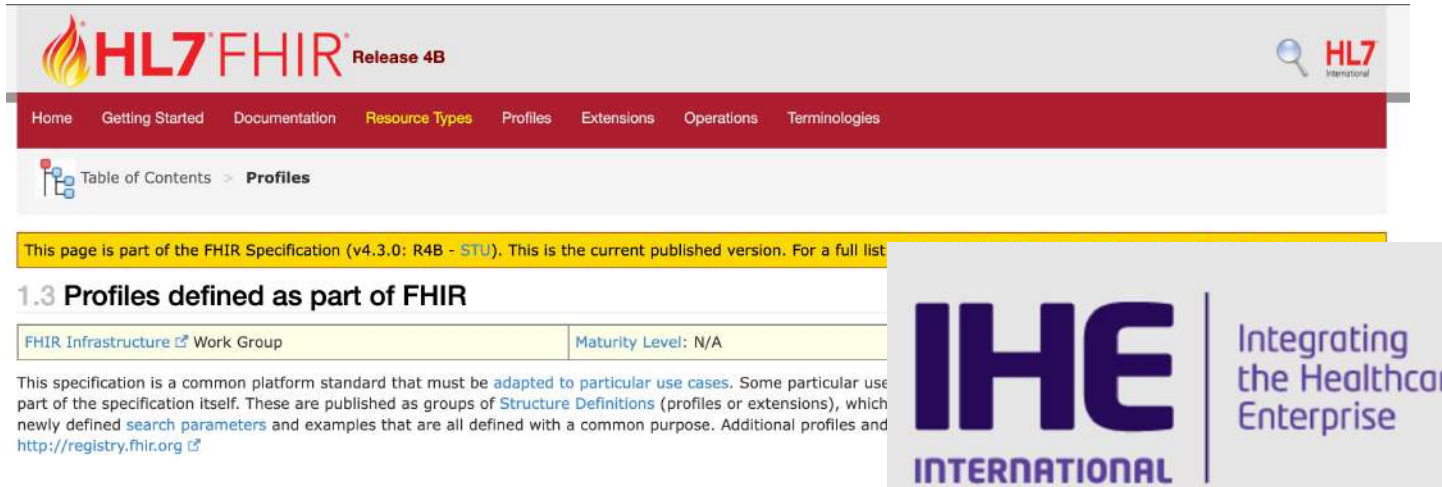
2016 - Dozent BFH Bern, ZHAW Winterthur
Medizininformatik, Interoperabilität

HL7.ch
Technical Manager, Member hl7 since 2009

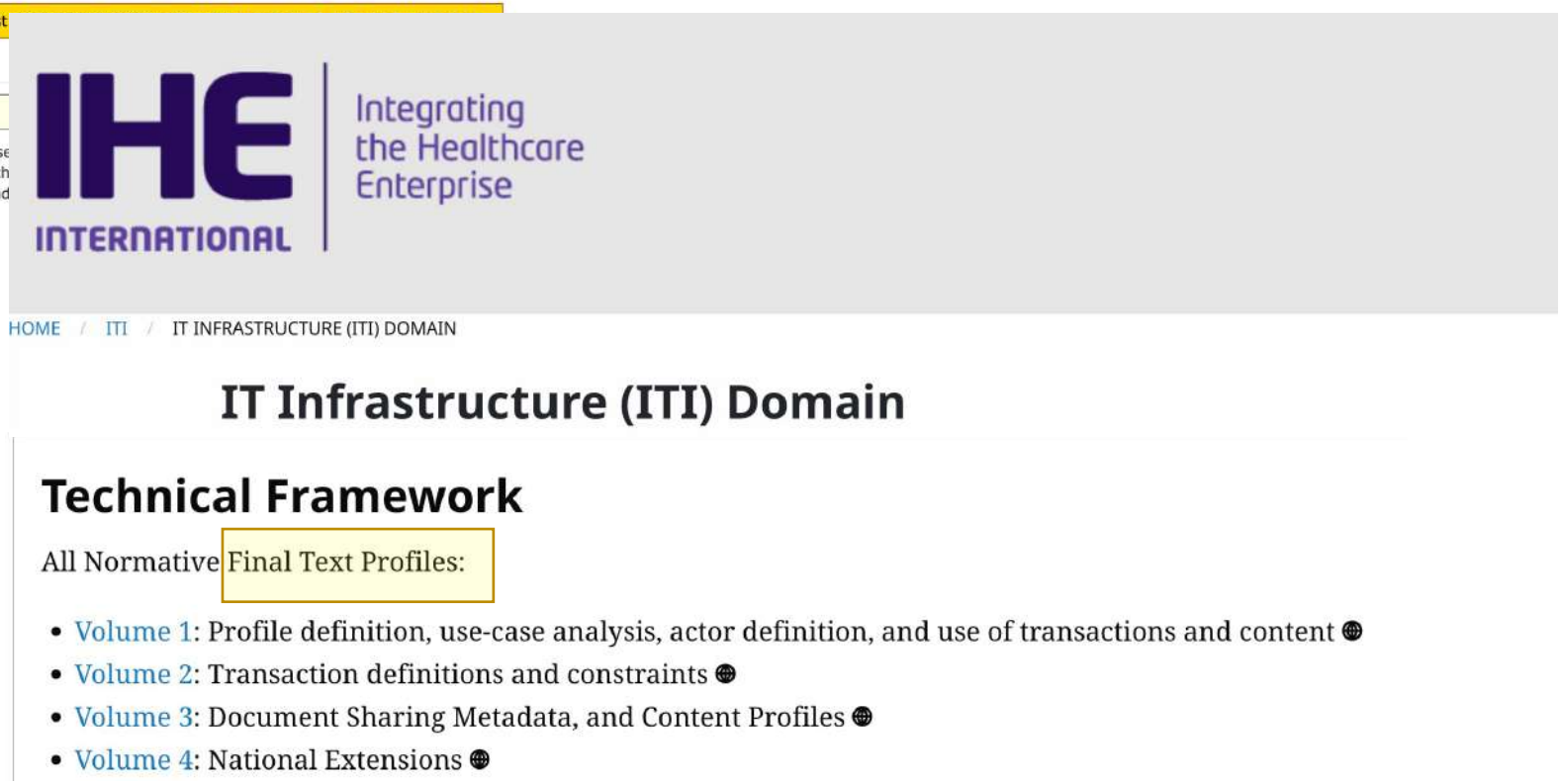
IHE Suisse Member since 2015
IHE International ITI Technical Committee Co-Chair

Dipl. Inf. ETH, ETH Zürich, 1996
IHE XDS Advanced Training, 2015
Certified HL7 CDA Specialist, 2015
Certified Scrum Master, 2014
NDK eHealthcare, Nottwil, 2009

Profiles …

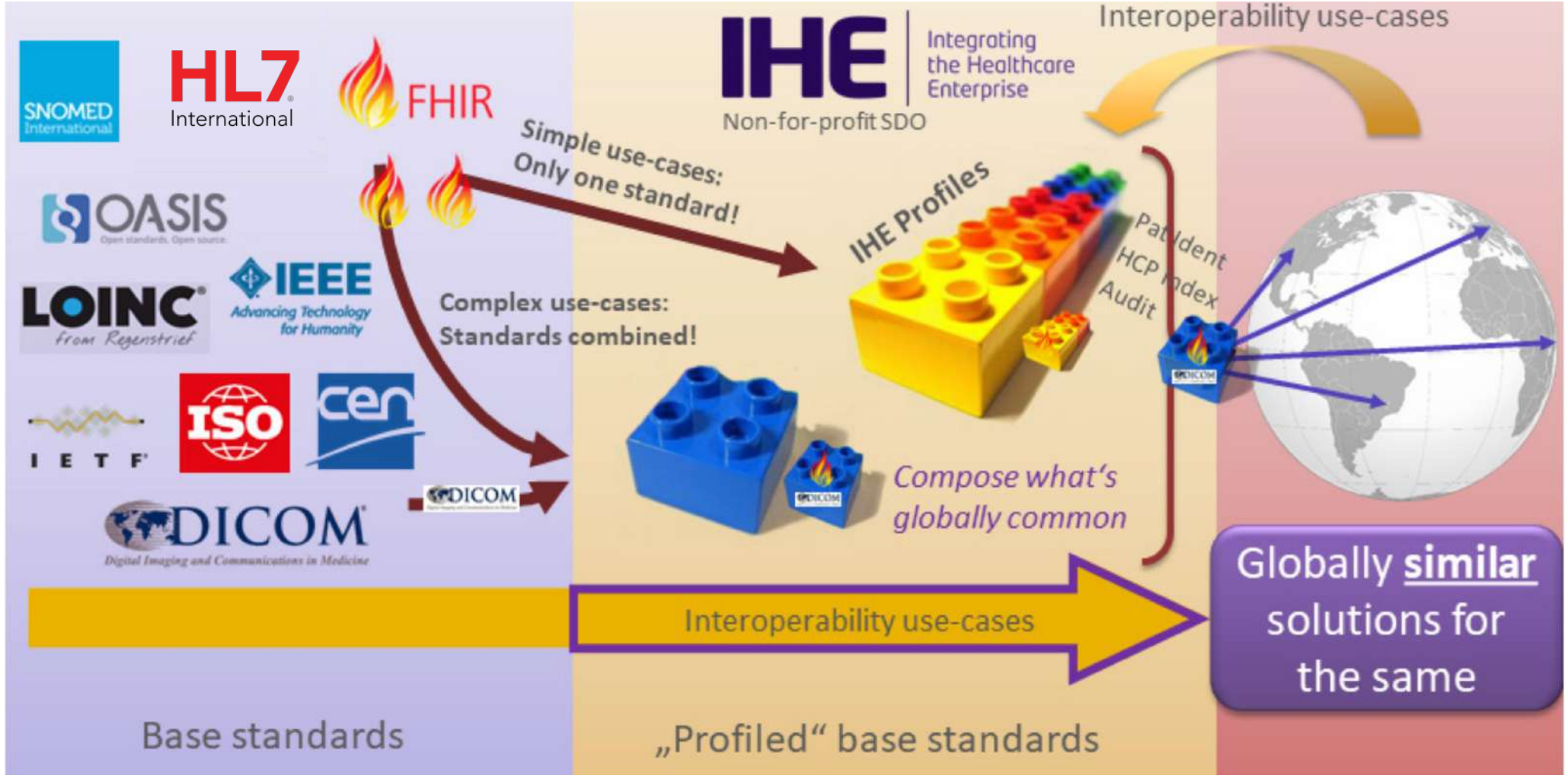


https://www.hl7.org/fhir/profilelist.html



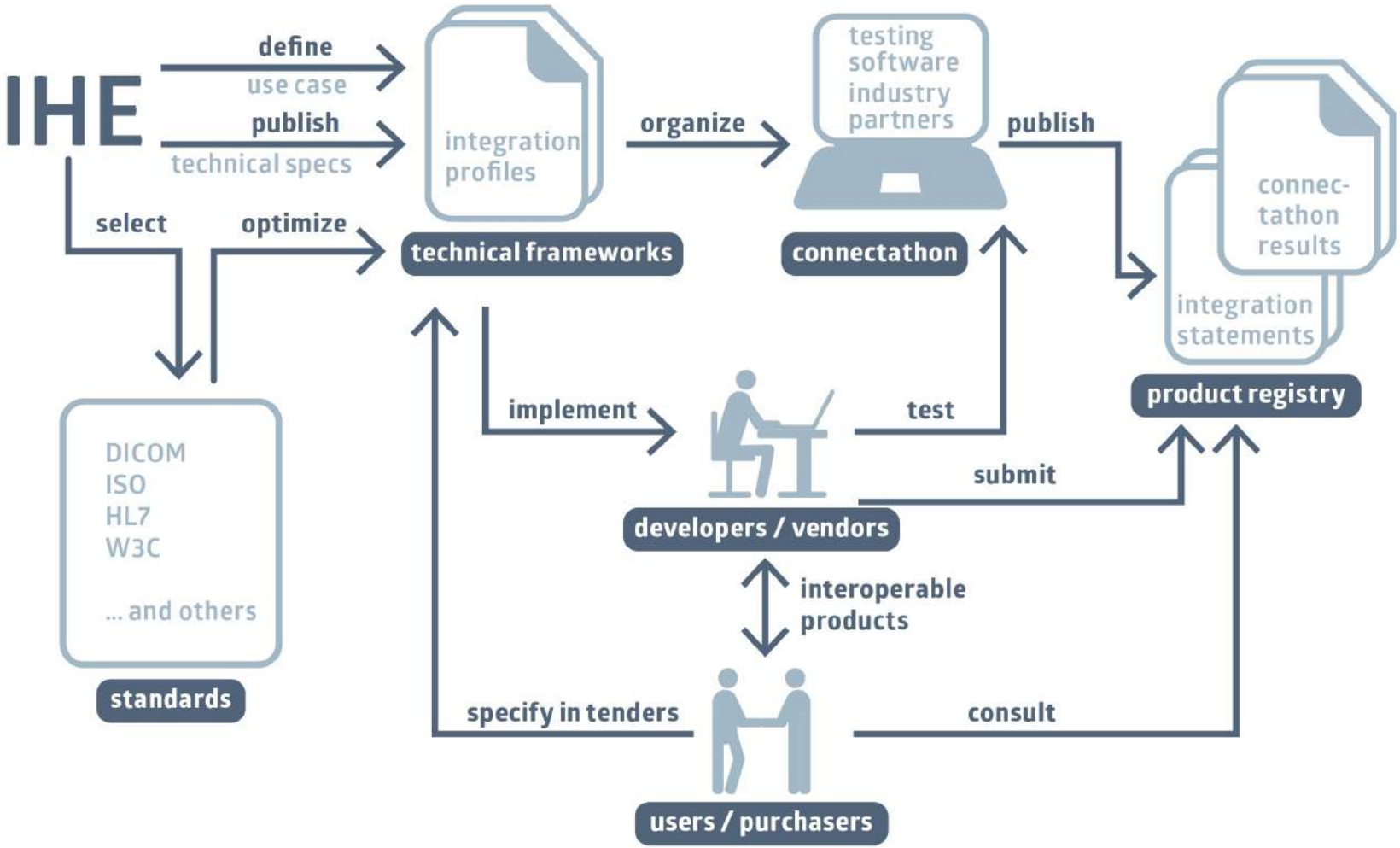
https://profiles.ihe.net/ITI/

IHE Profile Development



Jürgen Brandstätter, IHE / HL7 / FHIR Auslegeordnung für eHealth Suisse
https://www.e-health-suisse.ch/fileadmin/user_upload/Dokumente/D/auslegeordnung-ihe-hl7-fhir.pdf

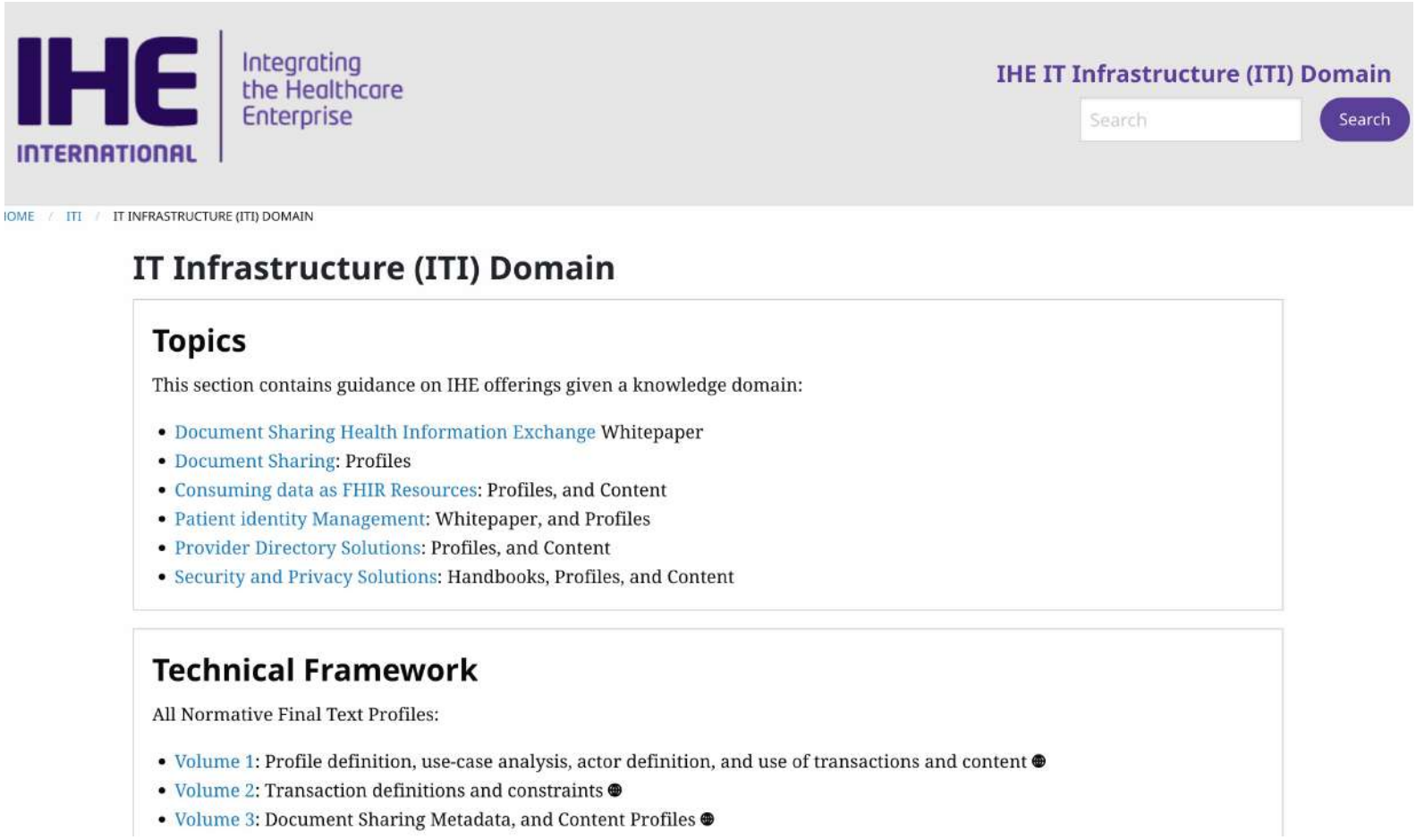
From standards to a solution



IHE Domains

- Cardiology
- Dental
- Devices
- Endoscopy
- Eye Care
- **IT Infrastructure (ITI)**
- Pathology and Laboratory Medicine
- Patient Care Coordination
- Pharmacy
- Quality, Research and Public Health
- Radiation Oncology
- Radiology

IHE ITI Technical Framework



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IHE IT Infrastructure (ITI) Domain

Search Search

HOME / ITI / IT INFRASTRUCTURE (ITI) DOMAIN

IT Infrastructure (ITI) Domain

Topics

This section contains guidance on IHE offerings given a knowledge domain:

- Document Sharing Health Information Exchange Whitepaper
- Document Sharing: Profiles
- Consuming data as FHIR Resources: Profiles, and Content
- Patient identity Management: Whitepaper, and Profiles
- Provider Directory Solutions: Profiles, and Content
- Security and Privacy Solutions: Handbooks, Profiles, and Content

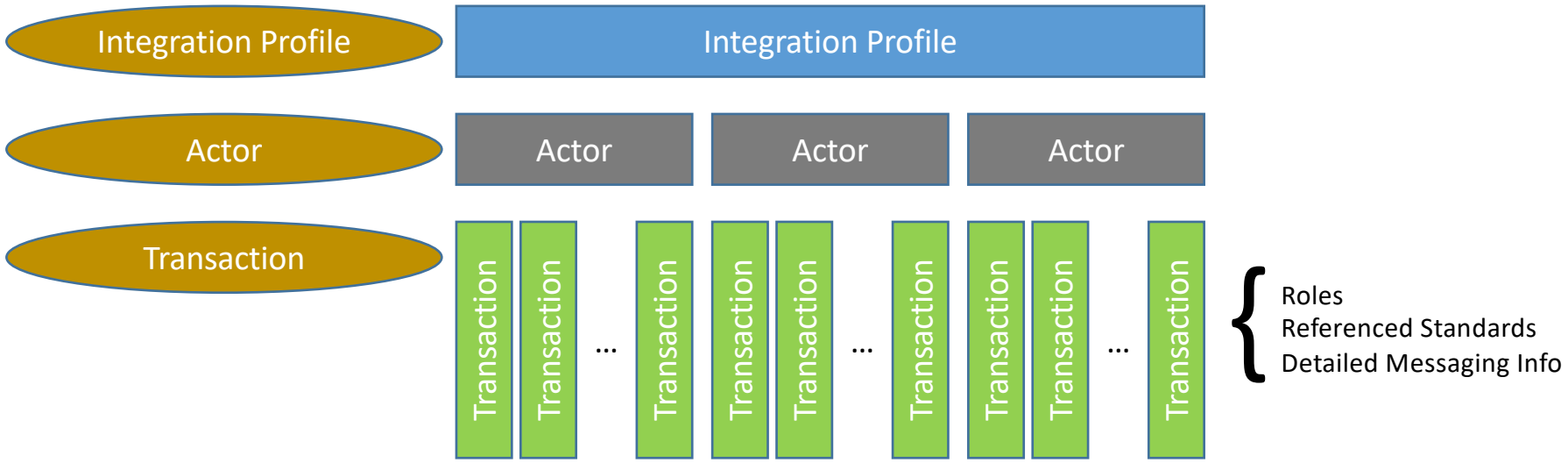
Technical Framework

All Normative Final Text Profiles:

- Volume 1: Profile definition, use-case analysis, actor definition, and use of transactions and content
- Volume 2: Transaction definitions and constraints
- Volume 3: Document Sharing Metadata, and Content Profiles

https://profiles.ihe.net/ITI/

IHE Framework for Interoperabiilty



Source: https://www.ihe.net/FAQ/#What_is_the_IHE_Technical_Framework?

IHE Profile Secure Retrieve

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IHE HIE Whitepaper

Search Search

Sections

- Introduction to This Supplement
- Open Issues and Questions
- Closed Issues
- IHE Technical Frameworks General Introduction
- IHE Technical Frameworks

Integrating the Healthcare Enterprise

IHE

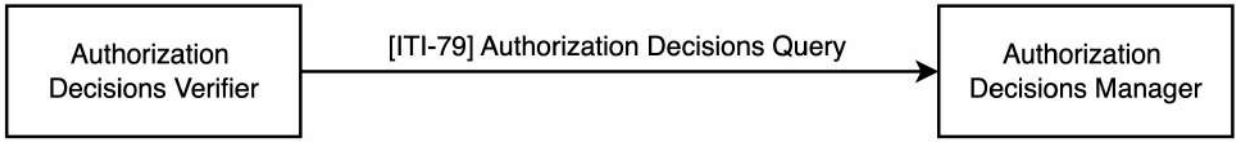
IHE ITI

Technical Framework Supplement

Secure Retrieve (SeR)

Revision 2.0 - Public Comment

https://profiles.ihe.net/ITI/SeR/index.html



IHE Profile MHD

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Mobile access to Health Documents (MHD)
4.1.0 - Trial-Implementation

FHIR

MHD Home | Volume 1 | Volume 2 | Volume 3 | Test Plan | Artifact Index

Table of Contents > **MHD Home** <prev | bottom | next>

This page is part of the IHE Mobile Access to Health Documents (v4.1.0: Trial Implementation) based on FHIR R4. This is the current published version. For a full list of available versions, see the Directory of published versions

MHD Home

Official URL: `https://profiles.ihe.net/ITI/MHD/ImplementationGuide/ihe.iti.mhd`	*Version*: `4.1.0`
Active as of 2022-03-01	*Computable Name*: `IHE_ITI_MHD`
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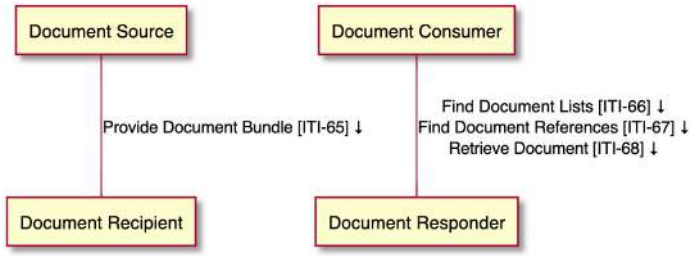
Applications specific to resource-constrained and mobile devices are an emerging platform for healthcare-enhancing software. The MHD Profile is not limited to mobile devices, using the term "mobile" only as a grouping for mobile applications, mobile devices or any other systems that are resource and platform-constrained. These constraints may drive the implementer to use simpler network interface technology. There are numerous deployed implementations of Document Sharing Health Information Exchange that need a simpler network interface technology, for example those hosted by a Health Information Exchange (HIE), large health provider electronic health record (EHR), or personal health record (PHR).

The Mobile access to Health Documents (MHD) Profile defines one standardized interface to health document sharing (a.k.a. an Application Programming Interface (API)) for use by mobile devices so that deployment of mobile applications is more consistent and reusable. In this context, mobile devices include tablets, smart-phones, and embedded devices including home-health devices. This profile is also applicable to more capable systems where needs are simple, such as pulling the latest summary for display. The critical aspects of the "mobile device" are that it is resource-constrained, has a simple programming environment (e.g., JSON, JavaScript), simple protocol stack (e.g., HTTP), and simple display functionality (e.g., HTML browser). The goal is, in part, to avoid burdening the client with additional libraries such as those that are necessary to process SOAP, WSSE, MIME-Multipart, MTOM/XOP, ebRIM, and multi-depth XML.

The Mobile access to Health Documents (MHD) Profile defines one pair of actors and a transaction to submit or push new "document entries" from the mobile device to a receiving system. Another set of actors and transactions is used to query a list of "document entries" having specific metadata, and to retrieve a document.



https://profiles.ihe.net/ITI/MHD/index.html

IHE Profile Development Process

- Allmost all IHE «mobile» Profiles are now published as FHIR Implementation Guides with
  - Actors, Transactions defined
  - Conformance Resources (StructureDefinitions, ValueSets, CodeSytems, ConceptMaps, Extensions etc)
  - and with **examples**!
- Facilitates also testing because Implementation Guides can be used for validation during development.

https://profiles.ihe.net/ITI/MHD/index.html

IHE Profile Development Process

- IHE ITI Planning Committee and Technical Committee
- Work Item Proposal
- Monthly Planning Meeting
- Bi-weekly Telcos for Work Items
- 3 yearly F2F or virtual weekly meeting for work item development
- Public Comment Phase
- Trial Implementation

https://profiles.ihe.net/ITI/MHD/index.html

IHE ITI Profile Development

5 Under assessment by planning

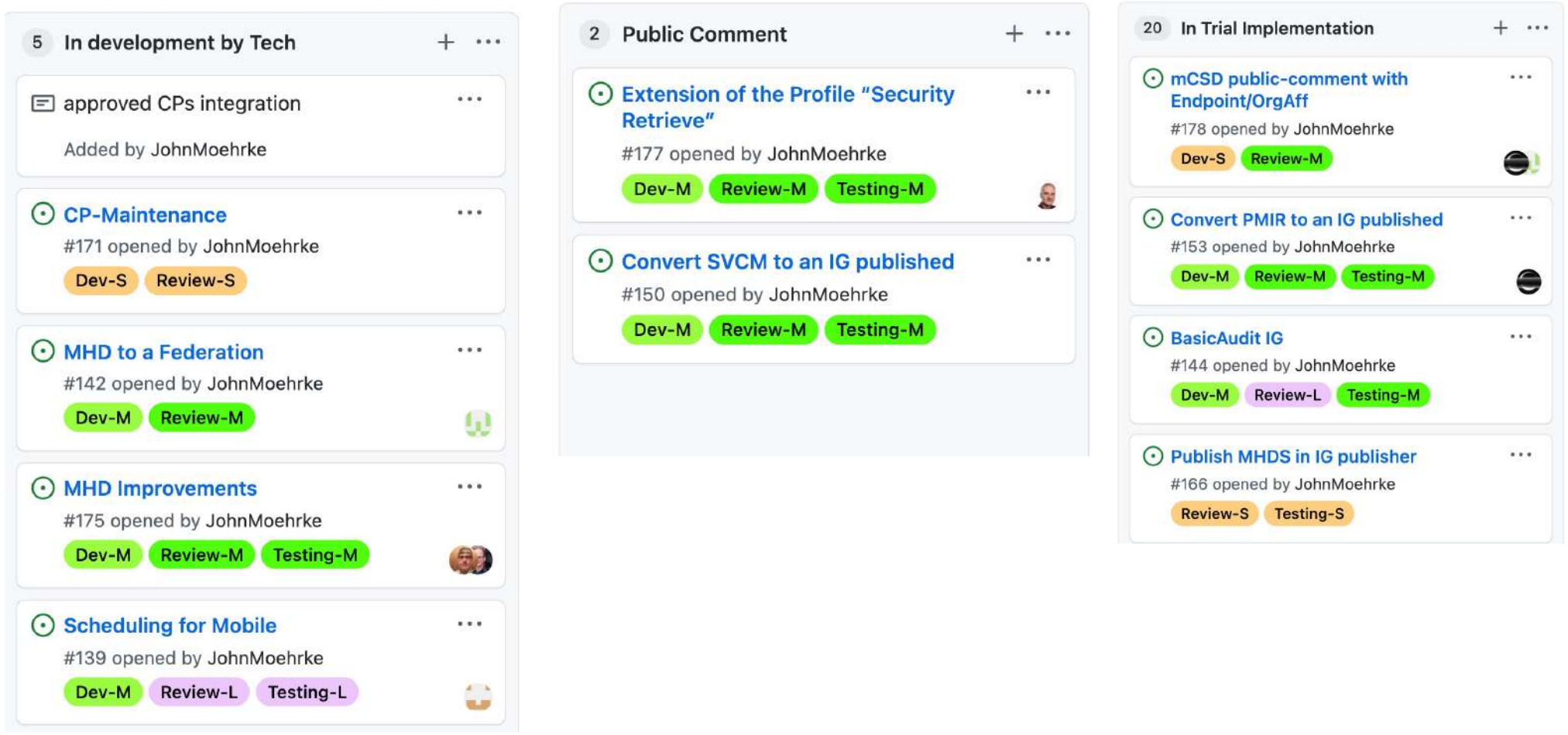
- **ITI sex and gender profiling**
  #187 opened by snichols001
- **mCSD Profile Directory alignment with Argonaut, Sequoia, and DirectTrust**
  #127 opened by JohnMoehrke
- **Convert NPFS to an IG published**
  #154 opened by JohnMoehrke
- **Convert mACM to an IG published**
  #155 opened by JohnMoehrke
- **Re-Document XDS Metadata Update**
  #124 opened by JohnMoehrke

9 Planning Assessed Work Items

- **Use $match in PDQm**
  #163 opened by JohnMoehrke
  Dev-M | Review-M | Testing-M
- **Whitepaper: multiple choices of Patient id/identifier to use with server queries**
  #168 opened by JohnMoehrke
  Dev-M | Review-M | Testing-S
- **Convert mXDE to html or IG**
  #173 opened by JohnMoehrke
  Dev-S | Review-S | Testing-S
- **Federate MHDS using FHIR including Patient and User federation**
  #126 opened by JohnMoehrke
  Dev-L | Review-L
- **XCA federation of MHDS community**
  #156 opened by JohnMoehrke
  Dev-M | Review-M | Testing-L
- **Basic Patient Privacy Consent for Mobile**
  #183 opened by JohnMoehrke
  Dev-L | Review-M | Testing-M
- **RESTful document subscription (DSUBm)**
  #123 opened by JohnMoehrke
  Dev-L | Review-L | Testing-L
- **Convert RESTful ATNA supplement to an IG published**
  #145 opened by JohnMoehrke
  Dev-L | Review-L | Testing-M

https://github.com/IHE/IT-Infrastructure/projects/2

IHE ITI Profile Development



https://github.com/IHE/IT-Infrastructure/projects/2

IHE ITI Profile Development

- participate in IHE (ITI) committees!
- test at IHE Connectathon

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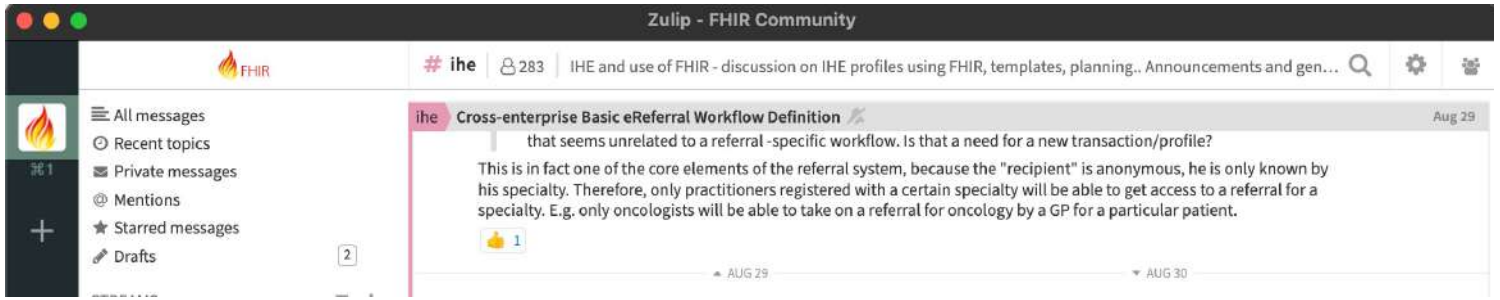
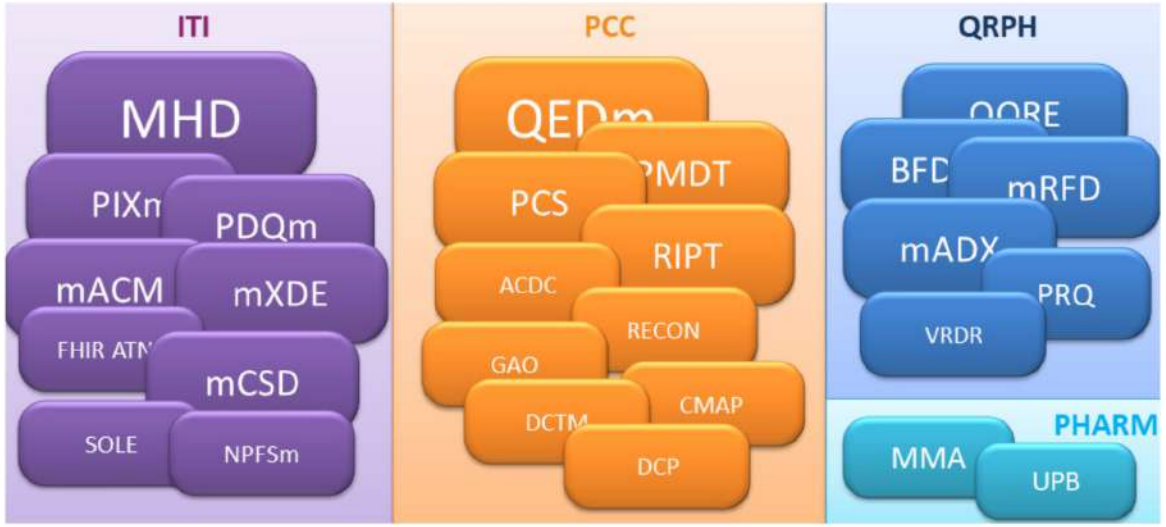
- … or provide feedback on chat.fhir.org in #ihe stream



more on

FHIR Based IHE Profiles

with José Costa Teixeira

IHE Pharmacy Vendor Co-Chair

HL7 Belgium Chair