

**IHE<sup>®</sup>**  
**EUROPE**

**EXPERIENCE**  
**SESSIONS**

15-17 JUNE 2021



Tuesday, June 15th

## VIP Tour

This tour will focus on global vaccine initiatives; how does IHE support health IT suppliers to achieve interoperability in COVID-19 related data exchange?

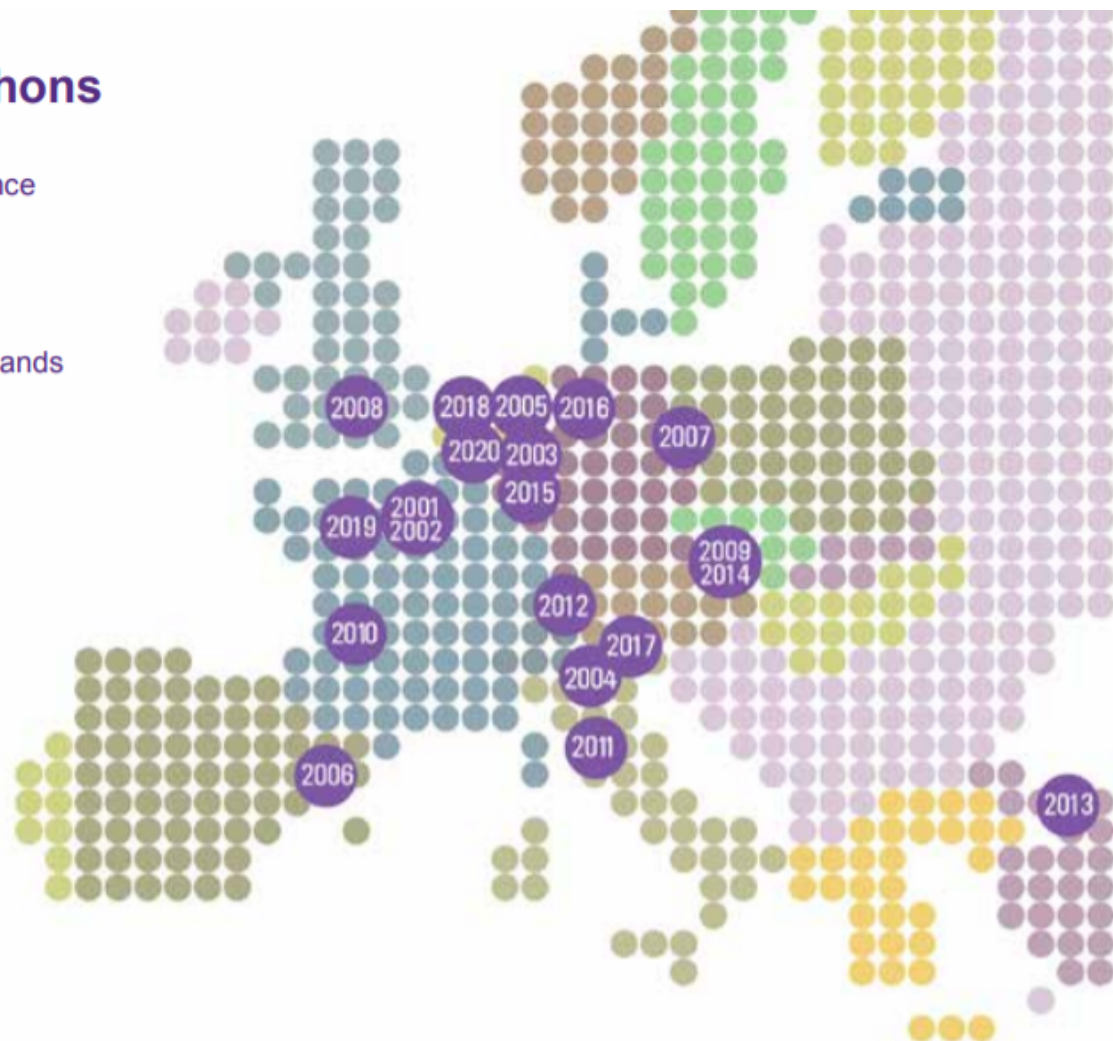


**Charles Parisot**  
IHE Services



## European Connectathons

**2001:** Charenton-le-pont Paris, France  
**2002:** Villejuif in Paris, France  
**2003:** Aachen, Germany  
**2004:** Padova, Italy  
**2005:** Noordwijkerhout, The Netherlands  
**2006:** Barcelona, Spain  
**2007:** Berlin, Germany  
**2008:** Oxford, UK  
**2009:** Vienna, Austria  
**2010:** Bordeaux, France  
**2011:** Pisa, Italy  
**2012:** Bern, Switzerland  
**2013:** Istanbul, Turkey  
**2014:** Vienna, Austria  
**2015:** Luxembourg  
**2016:** Bochum, Germany  
**2017:** Venice, Italy  
**2018:** The Hague, The Netherlands  
**2019:** **Rennes, France**  
**2020:** **Brussels, Belgium ONLINE**  
**2021:** **ONLINE**





# The secrets behind the IHE Connectathon

## Use case centric:

It all starts with an **interoperability problem** faced by **users** (clinicians, health authorities, provider organisations) and **engaging the vendors**

## IHE Profiles centric:

**Use case(s)** are transformed by IHE Domains Committees (IHE International) into one or more IHE Profiles, a *standards based detailed specification*

## Real-world implementation centric:

Connectathon  
Participants have to bring an implementation of one or more **IHE Profiles**.

*It is not about evaluation of emerging standards (e.g. HL7 FHIR Connectathon) nor a hack-a-thon (invent as you implement).*

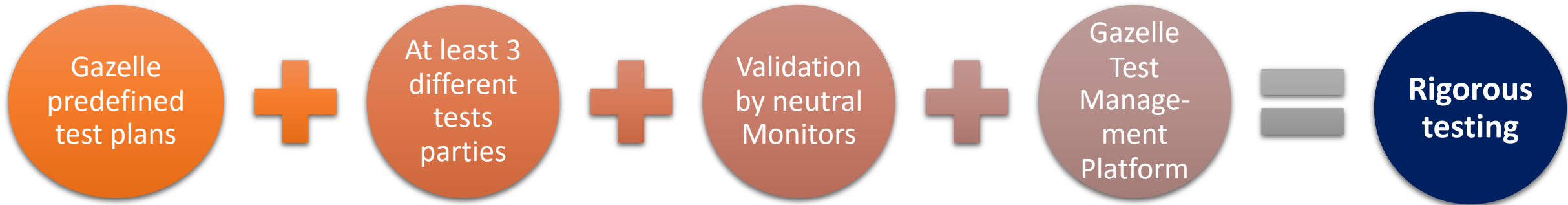
## Rigour:

Participants have to **(1)** pass “pre-connectathon tests” before showing up, **(2)** have to follow test plans set by IHE, **(3)** that are monitored for correct execution



# Quality in Interoperability is strategic

- **Testing rigour is driven by:**

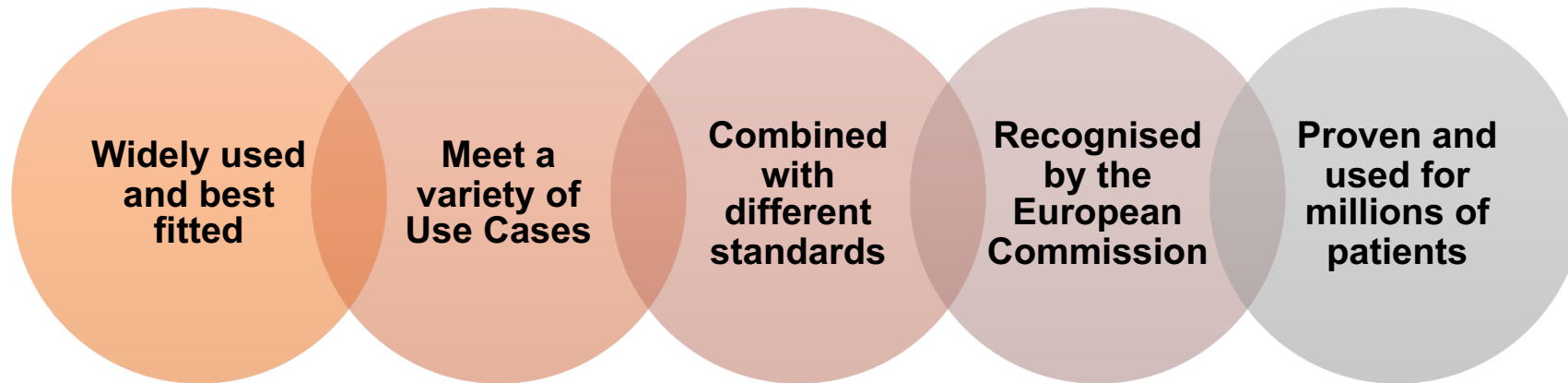


- **Culture change by IHE Connectathon Participants:**

- You can only succeed if you collaborate with the other vendors
- Others can help you to better understand IHE Profiles and underlying standards
- Convinced of higher effectiveness to comply with a profile to address your customers needs (while keeping some flexibility)



- IHE Profiles are **international in scope** → **ensuring reuse** (rather than reinvent) across many projects/countries.
- IHE Profiles come **with test tools** (Gazelle test tools) → accelerating deployment
- IHE Profiles **minimise deployment risks** and offer robustness leveraging already proven & stable standards).
- IHE Profiles are specified based on standards that are:





# Interoperability is much more than just “standards”

**The myth:** a “good” or “better” standard needed to solve interoperability (technical and semantic)

What you see here is the fruit of a **20 years proven IHE process:**

## Robust standards

- A first and necessary step, but they are too generic and/or too narrow

## Fit to Use case

- To address the real-world interoperability “use case” needs to restrict and complement (even true with HL7 FHIR) as well as combine with existing standards (a clean plate is the enemy of progress).

## Profiled

- Quality tested IHE Profiles (and therefore standards) adoption by deployments and vendors brings interoperability to the real world



20 plus years of experience with face-to-face IHE Connectathon continues to evolve with the support of an ***online testing process***:

## Trust and collaboration

- Usually by **face to face** exchanges
- **Online** with online social events and online exchanges/meetings

## New challenges

- Connectivity challenges
- Interaction between testing participant, monitors and systems
- Personalise online support on Gazelle tool

## Communication

- By blending the power of **IHE Gazelle Test Platform** with video conferencing and chat tools of today



- 106 participants supporting...
- 30 registered systems, from...
- 11 European Countries, testing...
- 45 IHE Profiles, covering...
  - Hospital centric use cases
  - Regional/national health information sharing
  - Personal Health devices
  - Public Health use cases
  - International information sharing
- Overseen by 31 Monitors from 7 European countries plus the USA, Turkey and Gabon.





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Monitor for Connection



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- IHE Connectathon Introduction
- The strategic role of the IHE Gazelle test management platform
- A vendor's Experience testing the International Patient Summary
- Using the results of Connectathons in designing and procuring interoperability
- Question and answers throughout the VIP tour



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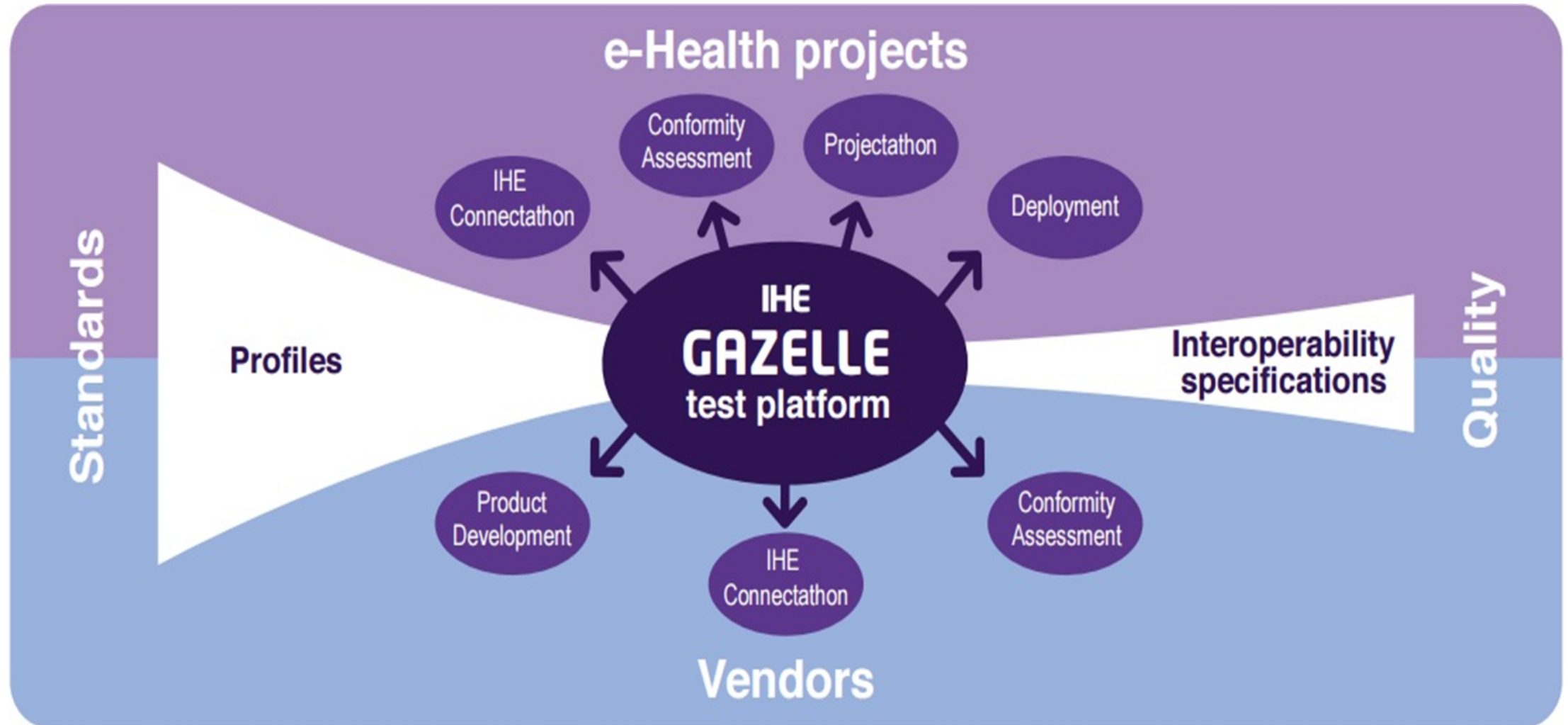
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## The strategic role of the IHE Gazelle test management platform



# Strategic role of the IHE Gazelle test management platform





# General Test Cycle

- Technical Project Manager
  - Reads IHE profile (in this case, IPS)
  - Extracts requirements
  - Defines test strategy / cases and enters in **Gazelle Master Model**
- Connectathon Participant
  - Finds worklist in **Gazelle Test Management** (see next slide)
  - Works through the tests cases for all registered profiles. IPS is one example.
  - Completes each test and marks it complete
- Connectathon Monitor
  - Also has a worklist in **Gazelle Test Management**
  - Reviews test evidence entered by participants and/or reviews in person
  - Enters assessment of individual test case
- Technical Project Manager
  - Grades each Profile / Actor combination for each participant



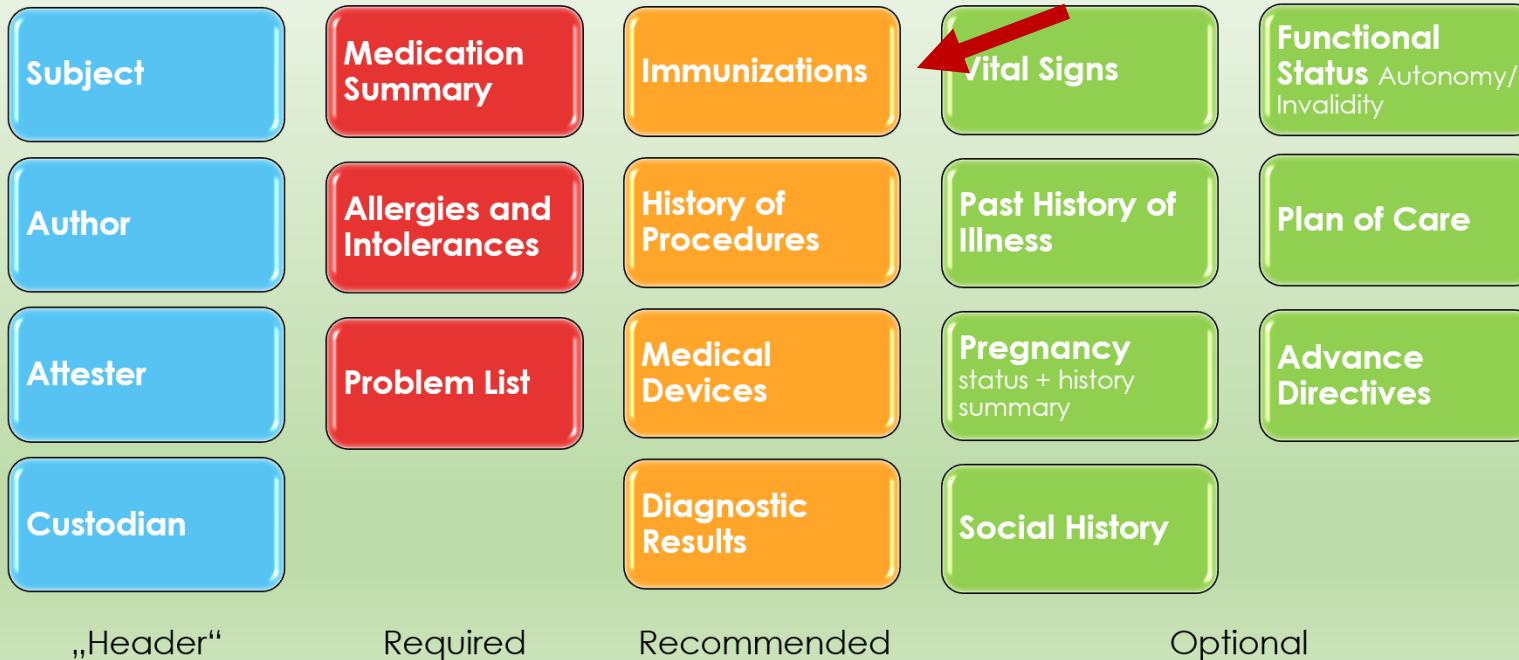
NO test											
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	IPS_CREATOR_FHIR	T	5/7		80%	100%	?	0%	Please Select... <div></div>
Test		Meta test									
00_FHIR_R4_Testing_Overview				+	R / 1		70559				
01_DoThis1st_CapabilityStatement				+	R / 1		70575				
IPS_30a_DocumentCheck_FHIR				+	R / 1		70615				
IPS_30b_DocumentCheck_FHIR				+	R / 1			70791			
IPS_30c_DocumentCheck_FHIR				+	O / 1						
IPS_30d_DocumentCheck_FHIR				+	O / 1						
IPS_30e_DocumentCheck_FHIR				+	O / 1						
IPS_40a_ExportImport_FHIR				+	O / 1	1/3	70773				
IPS_40b_ExportImport_FHIR				+	R / 1	1/3	70612				
IPS_40c_ExportImport_FHIR				+	O / 1	0/3					
IPS_40d_ExportImport_FHIR				+	O / 1	0/3					
IPS_40e_ExportImport_FHIR				+	O / 1	0/3					
12 tests											
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	IPS_CREATOR_FHIR_COMPLETE	T	0/0		?	?	?	?	Please Select... <div></div>
Test		Meta test									
No test											
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	NONE	T	2/0		100%	?	?	0%	Please Select... <div></div>
Test		Meta test									
IPS_10_Read_This_First				+	R / 1		70601				
IPS_20_Create_Patient_Records				+	R / 1		70629				
2 tests											



Sys ▾	Profile ▾	Actor ▾	Option ▾
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	CDA_OCCUPATIONAL_DATA_HEALTH
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	NONE
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	IPS_CREATOR_FHIR_COMPLETE
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	IPS_CREATOR_FHIR
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	IPS_CREATOR_CDA_COMPLETE
PHR_Gnomon_eHealthPass	IPS	CONTENT_CREATOR	FHIR_OCCUPATIONAL_DATA_HEALTH



## IPS Composition



The International Patient Summary (IPS), with the initial focus upon unplanned care across national borders, describes the required Minimum Data Set needed for the continuity of care for a person and the coordination of healthcare.



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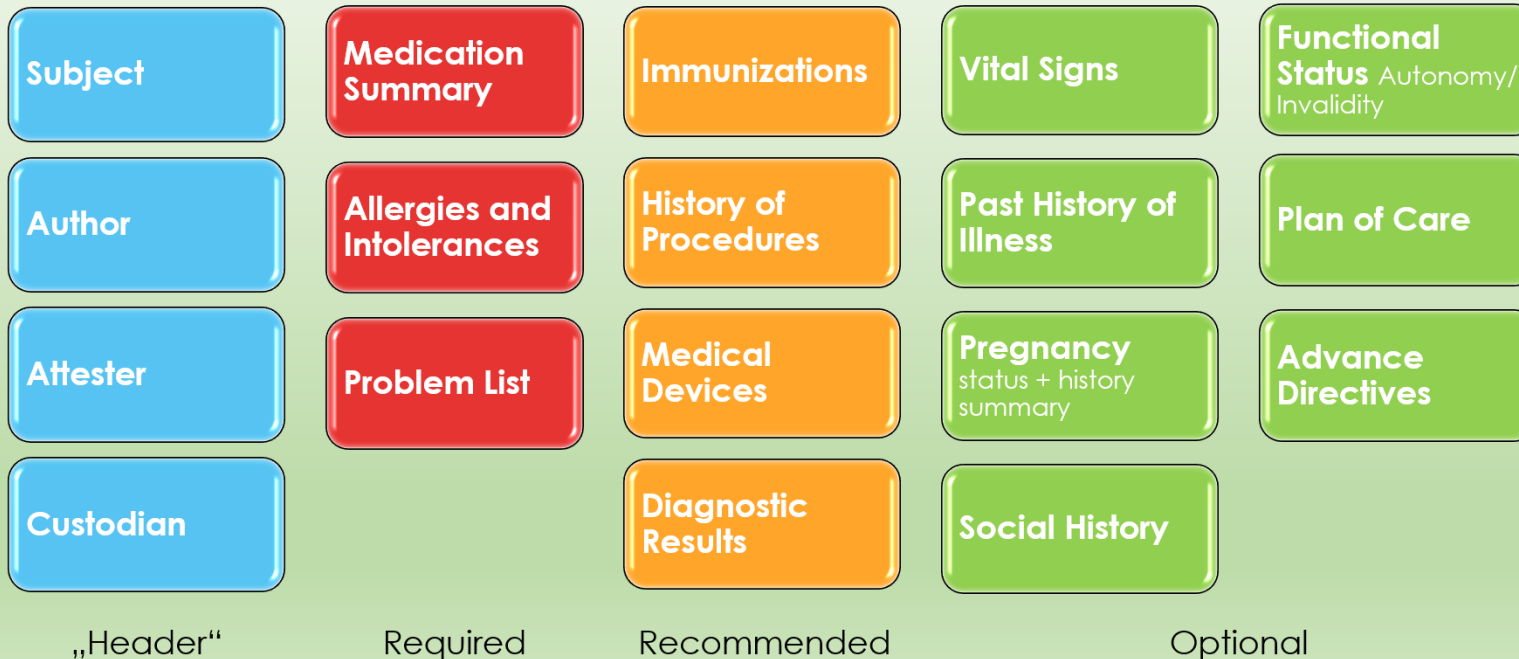
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## A vendor's Experience testing the International Patient Summary



## IPS Composition



The International Patient Summary (IPS), with the initial focus upon unplanned care across national borders, describes the required Minimum Data Set needed for the continuity of care for a person and the coordination of healthcare.



**IHE IPS Profile** supports multiple international use cases (planned and unplanned care) based on both HL7 IPS Implementation Guides (CDA and FHIR). Removes variations to ensure testing and deployment in commercial products and set continuity of care requirements..



IHE Profile encourages implementation and testing among vendors to provide additional feedback and real-world use of the standard.

First tested at the June 2021 European Connectathon



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Using the results of IHE Connectathons  
in designing and procuring interoperability



# Using the results of IHE Connectathons in designing and procuring interoperability

<https://connectathon-results.ihe.net>

**IHE** Integrating the Healthcare Enterprise

**Connectathon Results Browsing**

Simple browsing  
Advanced browsing  
www.ihe.net  
www.ihe-europe.net

-- Select a connection --

-- Select a vendor --

Or

-- Select an actor --

Or

-- Select an integration profile --

Simple browsing  
Advanced browsing  
www.ihe.net  
www.ihe-europe.net

Consultation date: Sat, 12 Jun 2021 22:26:41 GMT  
Last modified: Mon, 19 Feb 2018 18:22:34 GMT

## Result Matrix For integration\_profile : "Cross-Enterprise Clinical Documents Share (XDS.b)"

[\[New Search\]](#) [\[Save as xls\]](#)

Result with:

- All Actors
- Integration Profile is "Cross-Enterprise Clinical Documents Share (XDS.b)"
- All Connections
- All Companies

	Document Administrator	On-Demand Document Source	Patient Identity Source	Document Registry	Document Repository	Embedded Repository	Document Source	Document Consumer
Adaptive TechSoft				*	*		*	*
AEGIS.net, Inc.				*	*		*	*
AGFA Healthcare			*	*	*	*	*	*
ALERT Life Sciences Computing	*	*		*	*		*	*
Allgeier Medical IT GmbH			*	*	*	*	*	*
Allscripts Healthcare Solutions			*	*	*		*	*
Apixio				*	*		*	*
Asseco Poland S.A.			*	*			*	*
athenahealth, Inc.			*	*			*	*
A-thon S.r.l.	*	*		*	*		*	*
Atlas							*	*
Aware, Inc.				*	*		*	*
Axcelit Corp.				*	*		*	*
AxSys Health Corp				*	*		*	*
Axway			*	*	*		*	*
AT&T GmbH				*	*		*	*
BIT Computer Co., Ltd.							*	*
BlueWare, Inc.				*	*		*	*
Bridgehead Software				*	*	*	*	*
Burnbank Systems Ltd				*	*		*	*
Candela				*	*		*	*
Can Ergülü Bilgi Sis.İns.San.ve Tic.Ltd.Şti				*			*	*
Canon-Nuance				*	*		*	*
CARADIGM				*	*		*	*
CareEvolution, Inc.	*	*	*	*	*		*	*
Carefx				*	*		*	*
Carestream Health (formerly known as Kodak)				*	*		*	*
CDC NPCR							*	*
CEGEDIM							*	*
Centers for Disease Control and Prevention							*	*
Cerner Corporation		*	*	*	*	*	*	*
Certify Data Systems				*	*		*	*
CGM Clinical Österreich (formerly known as systems)	*						*	*
CGM Clinical Österreich	*						*	*
Change Healthcare					*	*	*	*



# Using the results of IHE Connectathons in designing and procuring interoperability

The screenshot shows the IHE Europe website. The header includes the IHE Europe logo, navigation links (Home, About Us, For Governments, For Users, For Vendors, Log in), a search bar, and a main menu (Specifications, Testing, Deployment, Participate, IHE and Europe, News, Publications). A sub-menu under 'IHE and Europe' includes EU Policies, EU Projects, Use Case Implementation (highlighted), and Success Stories. The main content area features the heading 'How to use IHE for interoperability in your ehealth Project?' and a 'Subscribe' button with the text 'Sign up to our newsletter and keep up-to-date with IHE-Europe'.

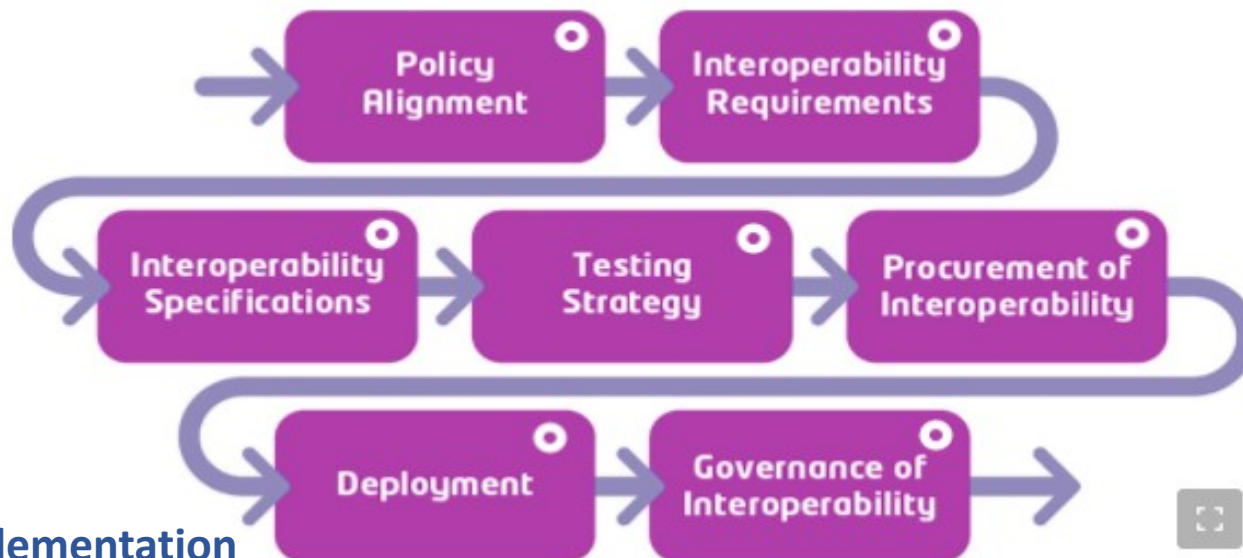
## How to use IHE for interoperability in your ehealth Project?

Interoperability in Digital Health is one of the key **challenges** for a successful deployment of an eHealth or health IT project.

Robust interoperability allows interactions between systems in a standardized way to ensure that the systems understand each other and **foster the quality of exchanges**. This is not so obvious to understand why interoperability in eHealth project needs to receive special attention to achieve success. This is why IHE has been developing a structured and now proven methodology that leads to support the implementation of IHE Profiles and underlying **standards in your eHealth** or health IT project.

IHE with its 20 years of experience in interoperability and successful support to various eHealth projects across Europe and beyond, offers expertise in interoperability. It enables the diversity of eHealth projects operating at different levels from **local such as hospitals, regional/national and cross border**.

These resources are presented in the following pages as accelerators and guidance for realising interoperability in your project. They are organised along the various phases of eHealth projects, where information exchange between IT systems and devices needs to be achieved:



[https://www.ihe-europe.net/ihe-in-europe/use\\_case\\_implementation](https://www.ihe-europe.net/ihe-in-europe/use_case_implementation)



# Question and Answers