



IHE Devices – *Profile Testing from Established to Emerging*

- Please keep your microphone muted
- Questions during the session?

Please use the chat box. We will address the questions in the second part of the webinar

- Slides will be available on IHE-Europe Connectathon 2026 webpage
- After the webinar, you can find the recording in IHE-Europe YouTube channel

- **IHE Patient Care Devices (PCD) – Established Profiles for Enterprise Integration**
- **HL7-IHE Gemini SDC/SDPi+FHIR – Emerging Profiles for Point-of-Care Integration**
- **Registration details (Nicole Veggiotti)**



IHE Devices Domain

Patient Care Devices (PCD) Program

Device Point-of-care Interoperability (DPI) Program

Personal Connected Health (PCH) Program

- ☐ Device-to-Enterprise Integration
- ☐ Acute Care Device-to-Device Integration
- ☐ Personal Health Device Integration

Webinar
Focus



CONNECTATHON®

BRUSSELS  **2026** MARCH 23/27



IHE Devices – Connectathon Testing of Established PCD Profiles for Enterprise Integration

Kurt Elliason

*Sr. Member Technical Staff - ICU Medical
IHE PCD/Devices Planning Committee Co-Chair
Pump Working Group co-lead
IHE International Board of Directors Devices Domain Rep.*



PCD Technical Underpinnings

- **HL7** version 2.6 baseline, with profile specifics drawing upon 2.7, 2.8, 2.9
- **ISO/IEEE** 11073 Standards (10101b)
- **IEC** 60601-1-8 standards
- Wireless Communication Transfer Protocol (**WCTP**) version 1.3
- **IHE ITI domain** Consistent Time profile – Network Time Protocol

NIST PCD Testing Resources

NIST HL7 v2 Resource Portal

<https://hl7v2tools.nist.gov/portal/#/tools>

NIST IHE Device Connectathon Testing Tool

<https://ihe-pcd.nist.gov/pcdtool/#/home>

NIST Rosetta Terminology

<https://rtmms.nist.gov>

DEC: Device to Enterprise Communication (DEC) profile

ACM: Alert Communication Management profile

WCM: Waveform support in observations and alerts (ACM and DEC)

MEM: Medical Equipment Management

PIV: Point of care Infusion Verification

PCIM: Point of Care Identity Management

IPEC: Infusion Pump Event Communications profile

Supportive efforts:

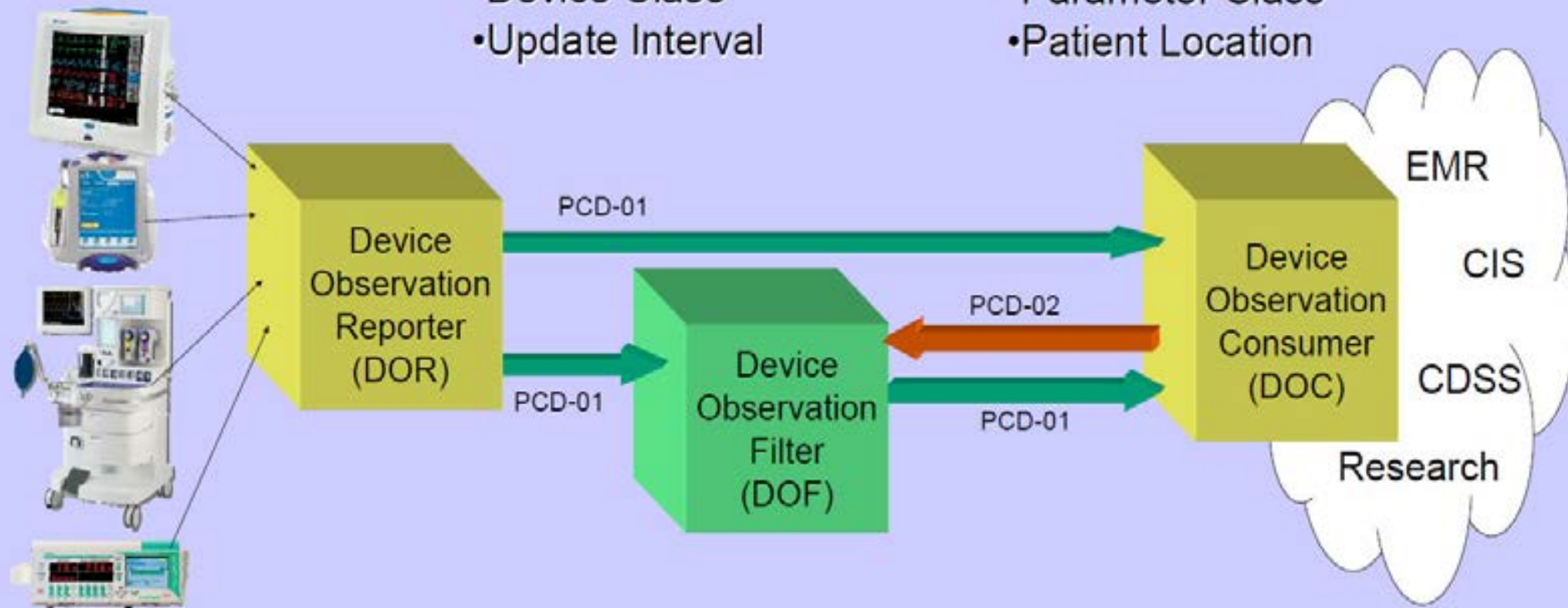
- **RTM:** Rosetta Terminology Management (RTM)
- **OMS:** Optimized Message Syntax (OMS)
- **NIST** Testing Tools

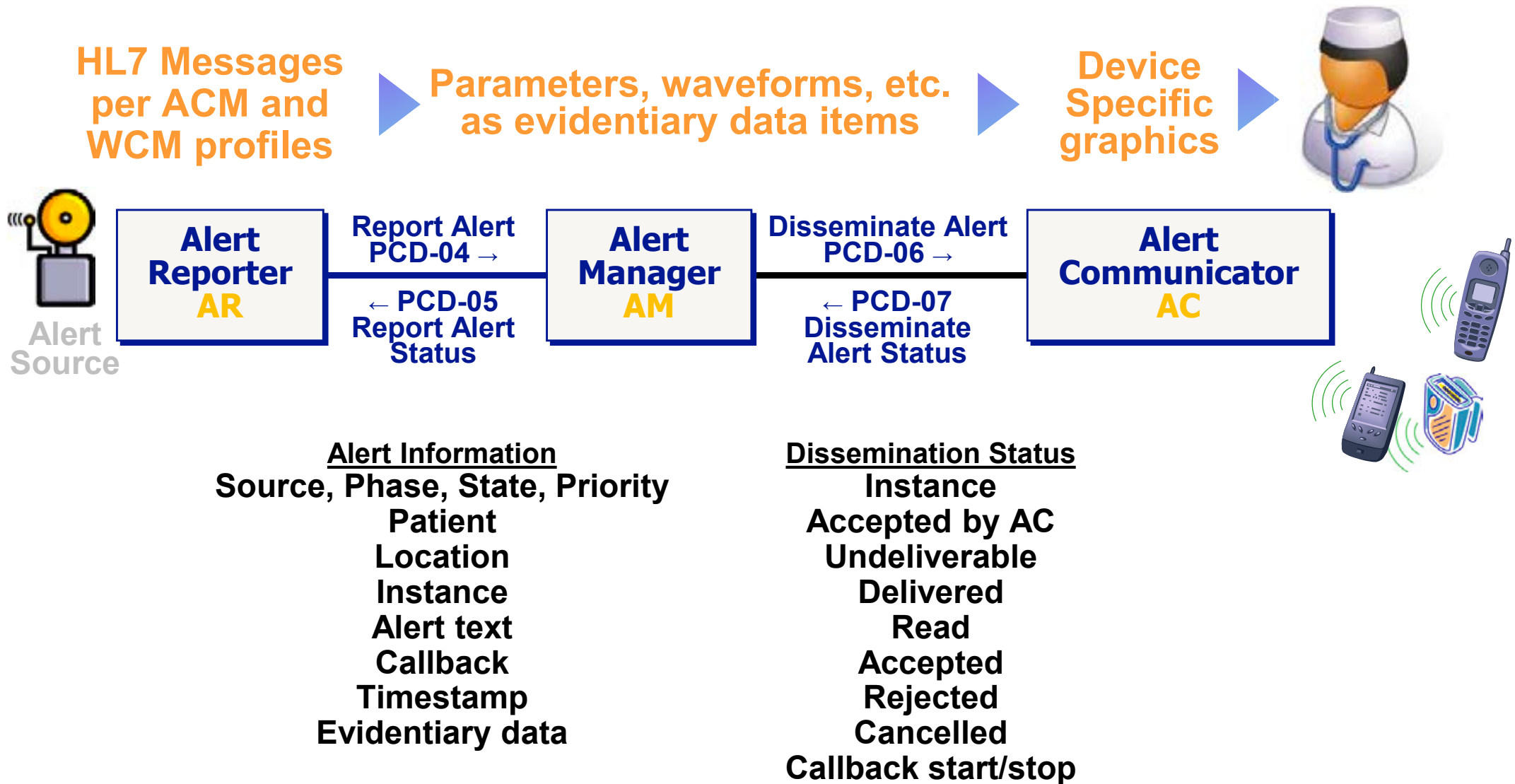
For more information: https://www.ihe.net/ihe_domains/devices/

The DEC profile allows a consuming system (DOC) to receive patient clinical information including vitals, demographics, settings, and location from a reporting device/system (DOR).

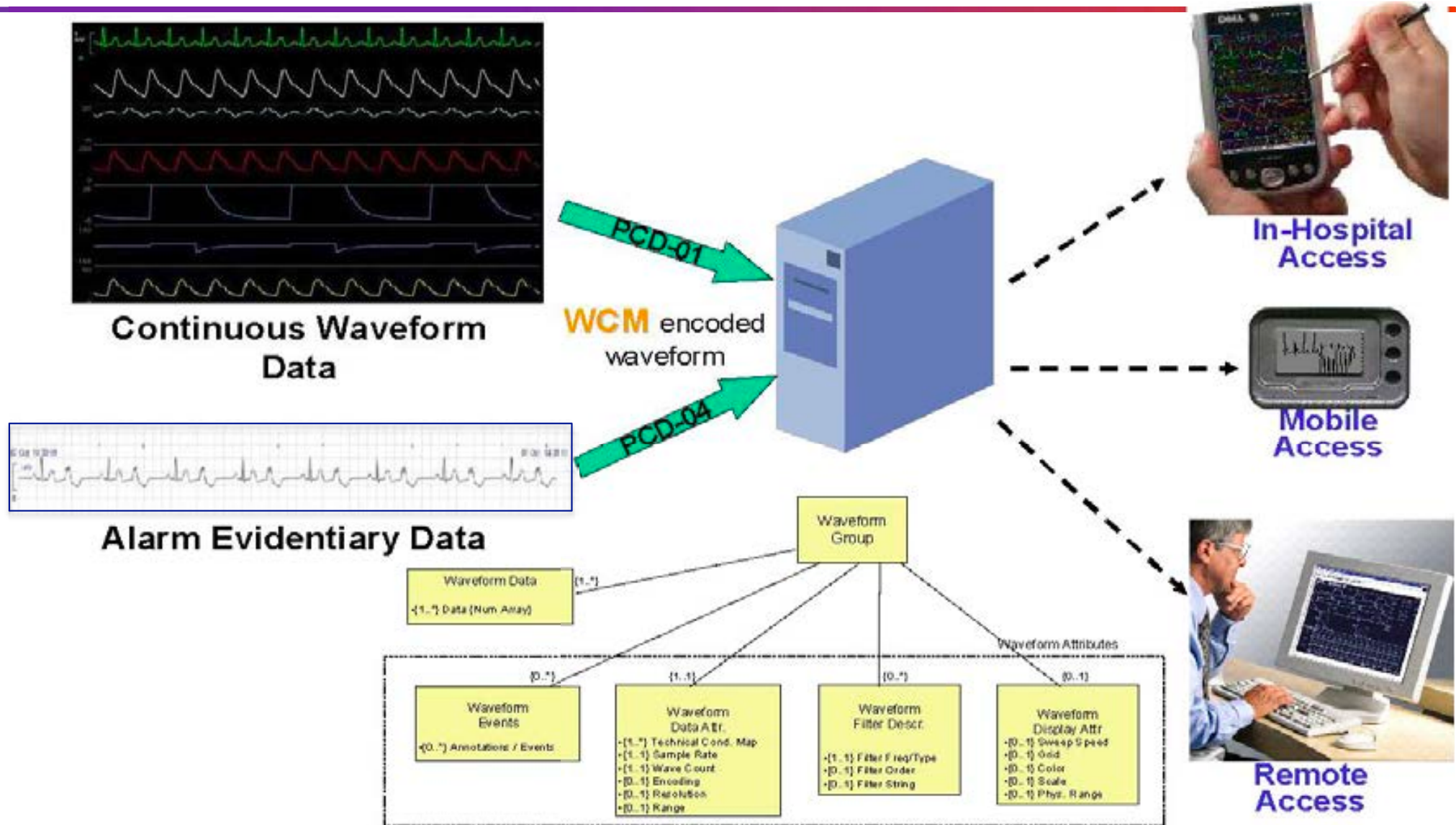
The Subscribe to Patient Data (SPD) option allows the consumer to filter the data by:

- Medical Record #
- Device Class
- Update Interval
- Start & End Times
- Parameter Class
- Patient Location



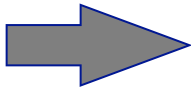


Waveform Content Module (WCM)

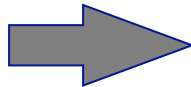




Physician's
Order



Nurse
Review



Pharmacist
Review

BCMA to
Pump
(PCD-03)

Pump
may
provide
data to
EMR
(PCD-
01/10)



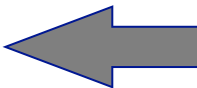
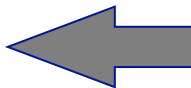
Medication
Administered



Nurse confirms 6 Rights:

- Right Patient
- Right Medication
- Right Dose
- Right Time
- Right Route
- Right Device

Infusion Pumps



Enables reporting of clinical and operational events from an infusion pump to a Bedside Computer-assisted Medication Administration (BCMA) system or EMR.

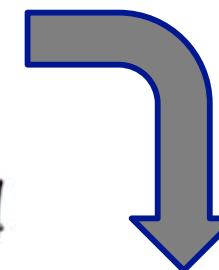
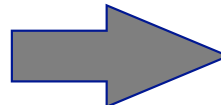
BCMA/EMR

Prior to medication administration, nurse confirms the 6 Rights of administration using BCMA/EMR:

- Right Patient
- Right Medication
- Right Dose
- Right Time
- Right Route
- Right Device

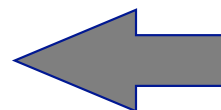
Infusion-related events are displayed, validated, and/or recorded by the clinician using the BCMA/EMR

Infusion order sent from BCMA/EMR to Pump (PCD-03)

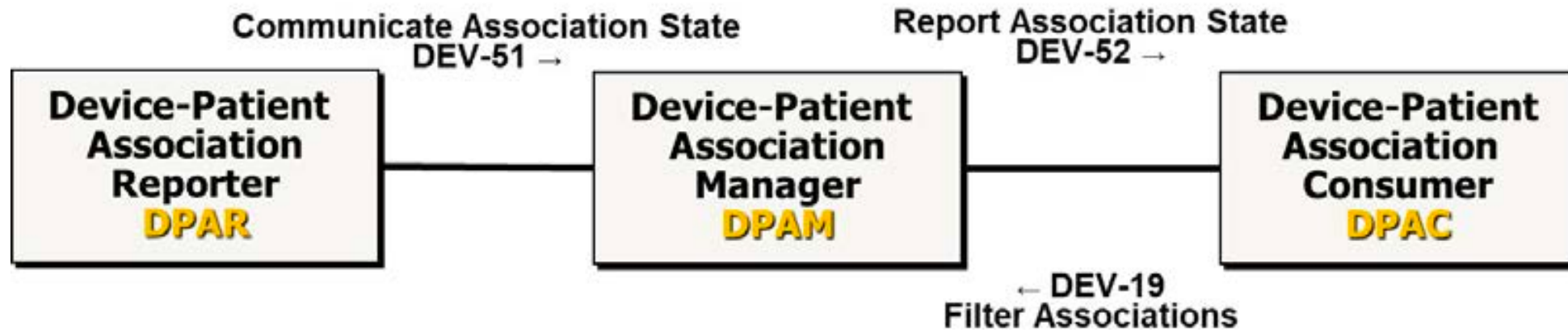


Pump provides information on infusion-related events to BCMA/EMR (PCD-10) such as:

- Delivery Start
- Delivery Stop
- Delivery Complete



Device data stamped with patient identity and location improves safety and effectiveness. End-result is a reliable and interoperable device patient association source of truth



Reporter Examples
EMR/PDMS (scanner)
Mobile app w scan
ability
RTLS
Bedside Device
Aggregator

Association Information
Patient
Device
Association or
Disassociation
Validation Status
Assigned Location
Association Location
Author/Observers
Timestamp

Consumer Examples
EMR/PDMS
Medical device
Reporter
Decision Support
Billing App
Other Apps

Device Management (MEMDMC) & Location Services (MEMLS)

Profile based messages relay IV pump status including:

- Infusing
- Stopped



RTLS uses location to interpret asset status:

- Biomed (PM / Repair)
- CS (Cleaning)
- Clean Utility
- Patient Room (In Use)
- Dirty Utility

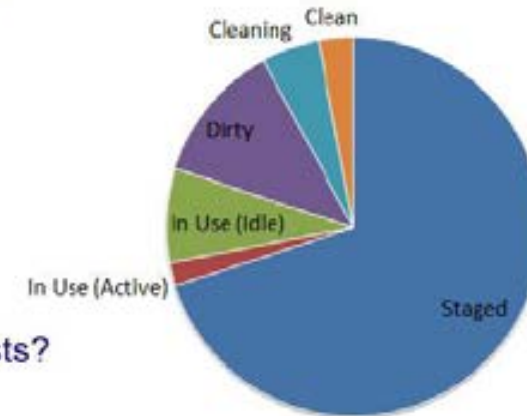


Combined data generates asset state:

- Available
- In Active Use
- Unavailable but Idle
- Unavailable (PM / Technical Assessment): *Future based on CMMS Data*

Drives workflow and analytics:

- Where can I find idle pumps to return to circulation and meet requests?
- How often are pumps sitting idle in patient rooms?
- What is my true utilization?
- Is the pump leaving the building running (with a patient) or idle (possible theft)?
- Do I have more inventory than I need? (And what is related maintenance cost? Replacement cost?)





IHE Devices – Plugathon Testing of Emerging SDC/SDPi Profiles for Point-of-Care Integration

Todd Cooper

IHE Devices, Co-Founder

HL7 Devices Evangelist

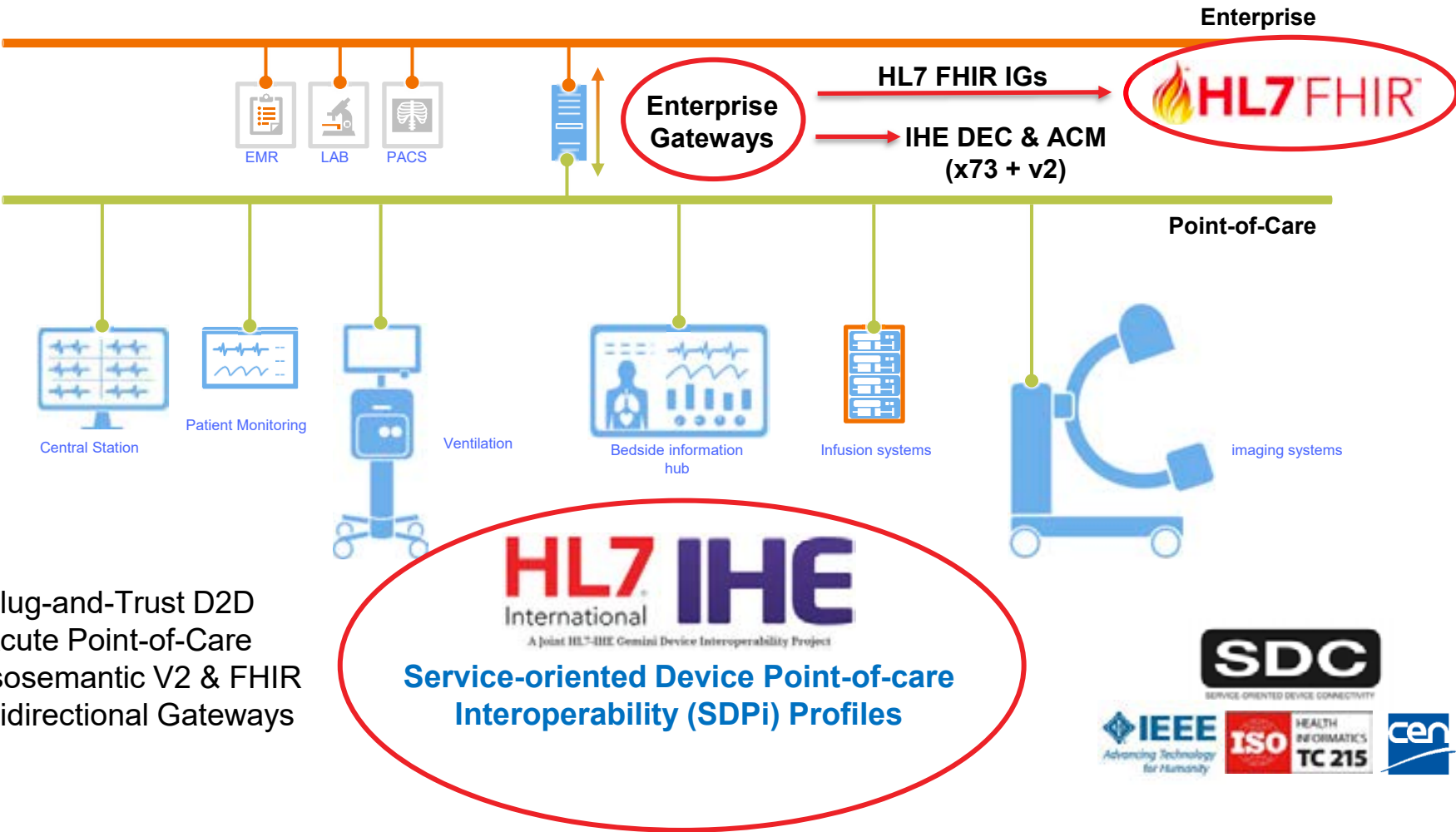
Joint HL7-IHE Gemini Device Interoperability Program, Director



HIMSS'25 Multi-Vendor SDC «Silent ICU» Demonstration



Similar
demonstrations
@ ESICM '25
in Munich!



- ☐ Plug-and-Trust D2D
- ☐ Acute Point-of-Care
- ☐ Isesemantic V2 & FHIR Bidirectional Gateways

Device Interoperability
Plug-and-Trust
Specification
Published for
Trial Implementation

Contents

Foreword

Introduction to this Supplement

IHE Technical Frameworks General Introduction

Volume 1 — Profiles

Volume 2 — Transactions

Volume 3 — Content Modules

→ profiles.ihe.net/DEV/SDPi

Service-oriented Device Point-of-care Interoperability
(SDPi) Technical Framework



IHE Devices

Technical Framework Supplement
Service-oriented Device Point-of-care
Interoperability (SDPi)

Revision 2.1.2 — Standard for Trial Use / Implementation

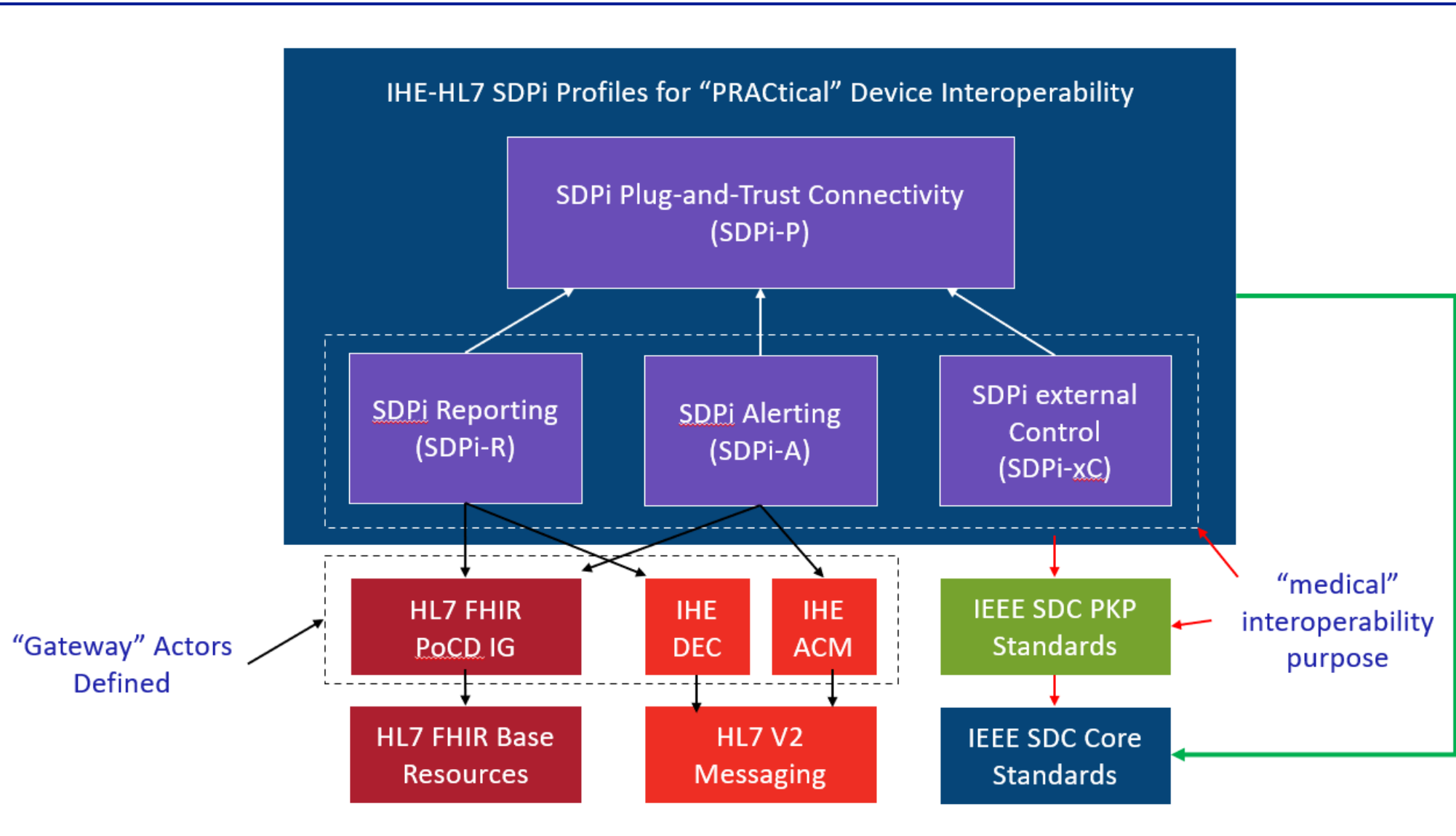
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General Volume 1 Volume 2 Volume 3 Top

SDPi – 4 Profiles for SES-MDI



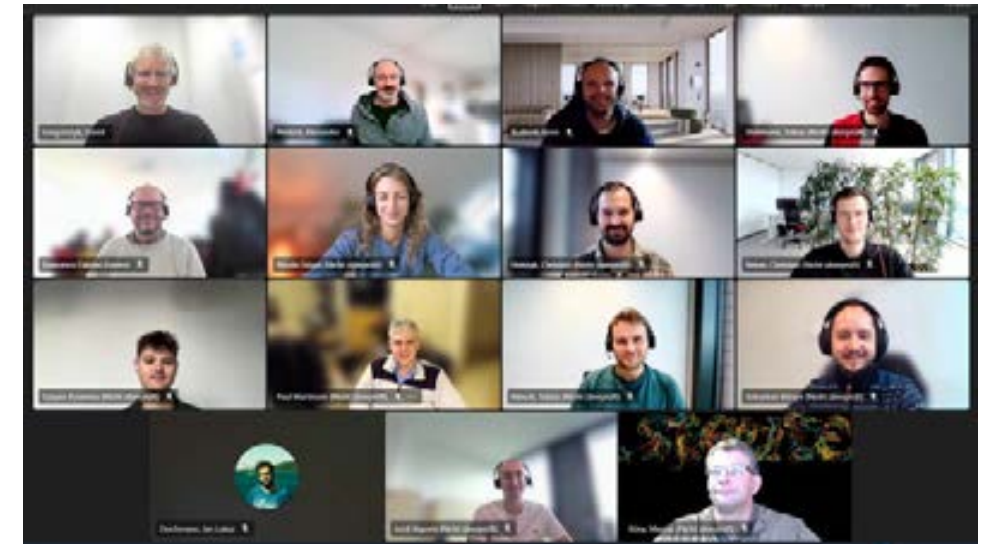
2020.10.20-21 IHE DE SDC/SDPi PAT #1



(Yes - actual picture from the IHE DE Plug-a-thon Event!)

2025.10.21-23 IHE DE SDC/SDPi PAT #21

*Established & continues to
evolve the foundations for
SDC/SDPi-based
interoperability testing in more
formal IHE Connectathons!*



Toronto
2025.02.03 to 07 IHE NA CAT - SDPi PAT Track

Vienna
2025.06.23 to 27 IHE EU CAT - SDPi PAT Track

Brussels
2026.03.23 to 27 IHE EU CAT – SDPi PAT Track

- ☐ Updated Gazelle Master Model with SDPi Actors, Transactions & 1st Test Case
- ☐ Continued updating Gazelle Master Model with SDPi Actors & Transactions & Options
- ☐ Developed test case definition approach
- ☐ Evaluated testing tool chain options
- ☐ Executed 1st tests between systems
- ☐ **“Dry run” for SDPi IHE CAT Testing!**
- ☐ Finalize 1st core set of test cases / plans
- ☐ Finalize 1st tool chain integrated with Gazelle
- ☐ Stretch goal: SDPi Gateway Testing

**Gemini
SDPi
Started
Early 2020**

**IHE Published
May '25**

Project Gemini
Created by Joshua Prociuous, last updated by Todd Cooper on Jul 23, 2025 • 2 minute read

GEMINI

A joint initiative of HL7 and IHE to advance the use of FHIR for interoperability

Gemini Steering Committee Members

- Jürgen Brandstätter, IHE (@Juergen Brandstaetter)
- Christopher Carr, IHE (@Christopher Carr)
- Aaron Goldmuntz, IHE (@AaronGoldmuntz)
- Dan Vreeman, HL7 (@Daniel Vreeman)
- Diego Kaminker, HL7 (@Diego Kaminker)

What is Project Gemini?

Project Gemini is a joint initiative of HL7 and IHE to advance interoperability. The goal is to identify and pursue pilot projects that focus the people, resources and processes of both organizations to accelerate the implementation of FHIR to address high value use cases. Pilot project activities may include coordinated development, testing and demonstration of standards specifications, including FHIR Resources and Implementation Guides and IHE Profiles.

The Gemini Steering Committee meets monthly to identify, prioritize, and pursue areas of collaboration where together we can accelerate the implementation of FHIR to address critical interoperability needs.

Contact us at gemini@fhir.org

The Latest

- ★ Featured Gemini spec: Service-oriented Device Point-of-care Interoperability (SDPi) Release 2.1.2

Release 2.2 October 2025!

HL7 Ed. 1 Publish Target December 2025 as ANSI TI Standard

Source: <https://confluence.hl7.org/display/GP>

HL7 Health Devices Accelerator Program Forming ...

- ❑ *Scope: Everything, Everywhere, Everyone!*
- ❑ **Steward Gemini MDI Program**
- ❑ *Implementation community will include integrated testing from IHE PAT to IHE CAT to Conformity Assessment*

[“Devices Accelerator Home” @ confluence](https://confluence.hl7.org/x/Y7EFCw)

<https://confluence.hl7.org/x/Y7EFCw>



Founding members onboarding now ...

Premier:



PHILIPS

Principal:



B | BRAUN

dexcom

OR.NET e.V.

Partner:



Dräger

TOPCON Healthcare

VECTOR

Collaborator:



Associate:

TBD based on Premier / Principal sponsorships

Q & A



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Todd.Cooper@devices.HL7.org



Registration details

Nicole Veggiotti

VENUE FOR THE 2026 IHE-EU CONNECTATHON

From Monday, 23 March to Friday, 27 March 2026
Brussels, Belgium

Where?

The EGG, Rue Bara 175, 1070 Brussels

About a 10-minute walk from Brussels-South Station (Gare du Midi)



The registration is officially opens for the 2026 IHE-Europe Connectathon in Brussels, 23-27 March.

The registration closes on 14 November.

Don't miss this unique opportunity to test against real systems, to network, and to learn a lot from everyone there.

Your first step is to register in Click-up:

<https://forms.clickup.com/4728722/f/4g9wj-9432/3QWSR0YD4WR6PNJ9IA>



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BRUSSELS  **2026** MARCH 23/27



Questions?



Please contact:

- Anne-Gaëlle Bergé, technical.manager@ihe-europe.net for general purpose questions
- Nicole Veggiotti, connectathonmanager@ihe-catalyst.net for organizational questions
- Todd Cooper

- [Join](#) Zulip to chat with the other participants and receive updates from the Connectathon technical project manager.
- Channels of interest to you (to ask question or to browse previous questions)
 - [2026 IHE-Europe Connectathon](#)
 - [Support with Gazelle tools](#)
 - [Support from TPMs](#)

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Thank you for your attention
Hope to see you in Brussels!!!

