

IHE

Integrating
the Healthcare
Enterprise

IHE

AUSTRIA

Integrating
the Healthcare
Enterprise

IHE-Day 2018

Globale Entwicklungen



Jürgen Brandstätter

Gemini Steering Committee

Co-chair, IHE Europe

Co-chair, Pharmacy Planning committee

Co-chair, Global Deployment Coordination Committee (GDC)

Member, IHE International Board

Himss AsiaPac18

CONFERENCE & EXHIBITION

5-8 November 2018
Brisbane Convention
& Exhibition Centre
Brisbane, Australia

www.himssasiapacconference.org



MELBOURNE CUP

3 - 9 NOV 2018

Departing Sydney, Returning Sydney



House analogy



Developed in
collaboration with



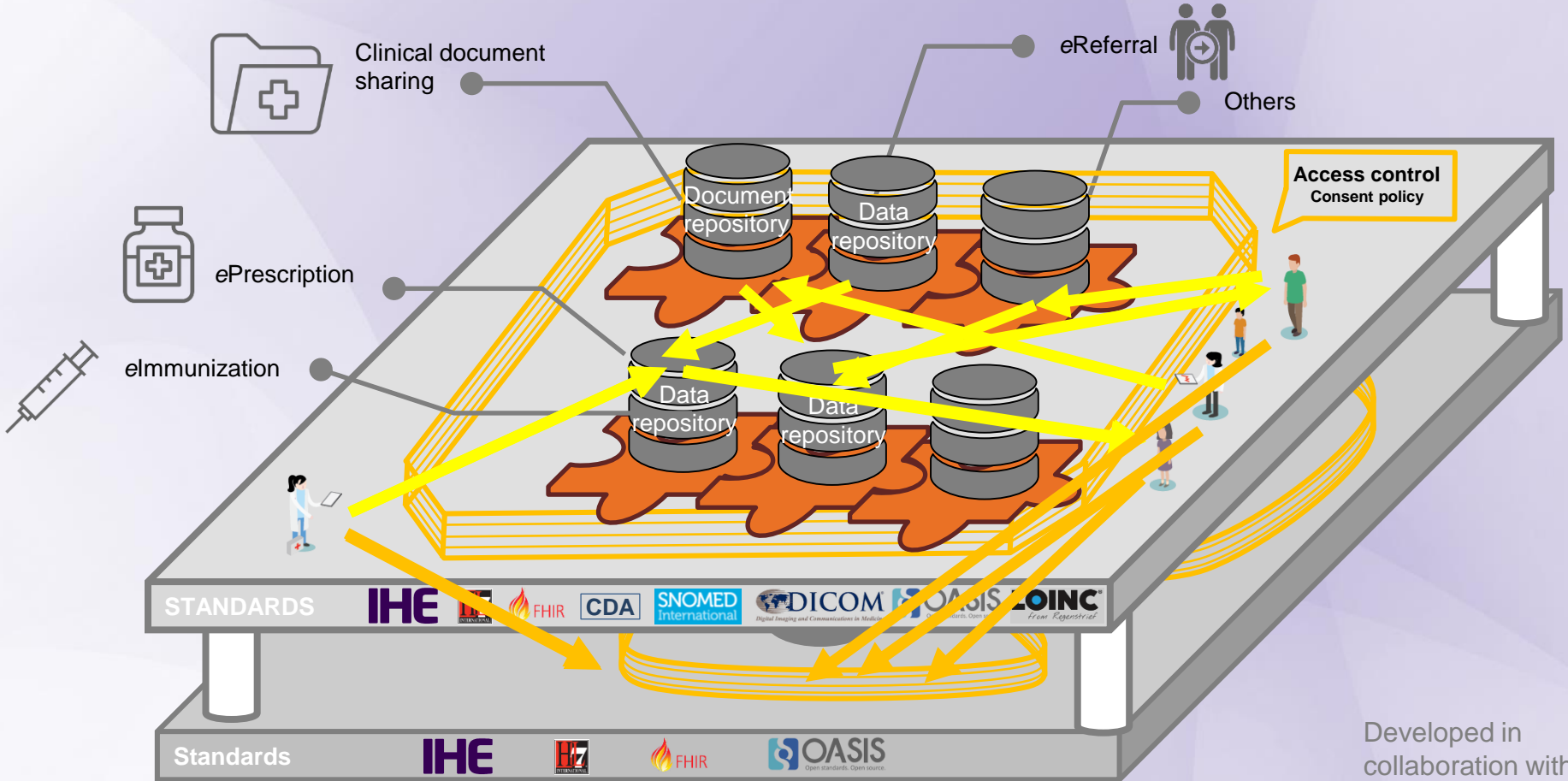
Basement: The Groundwork



Developed in
collaboration with



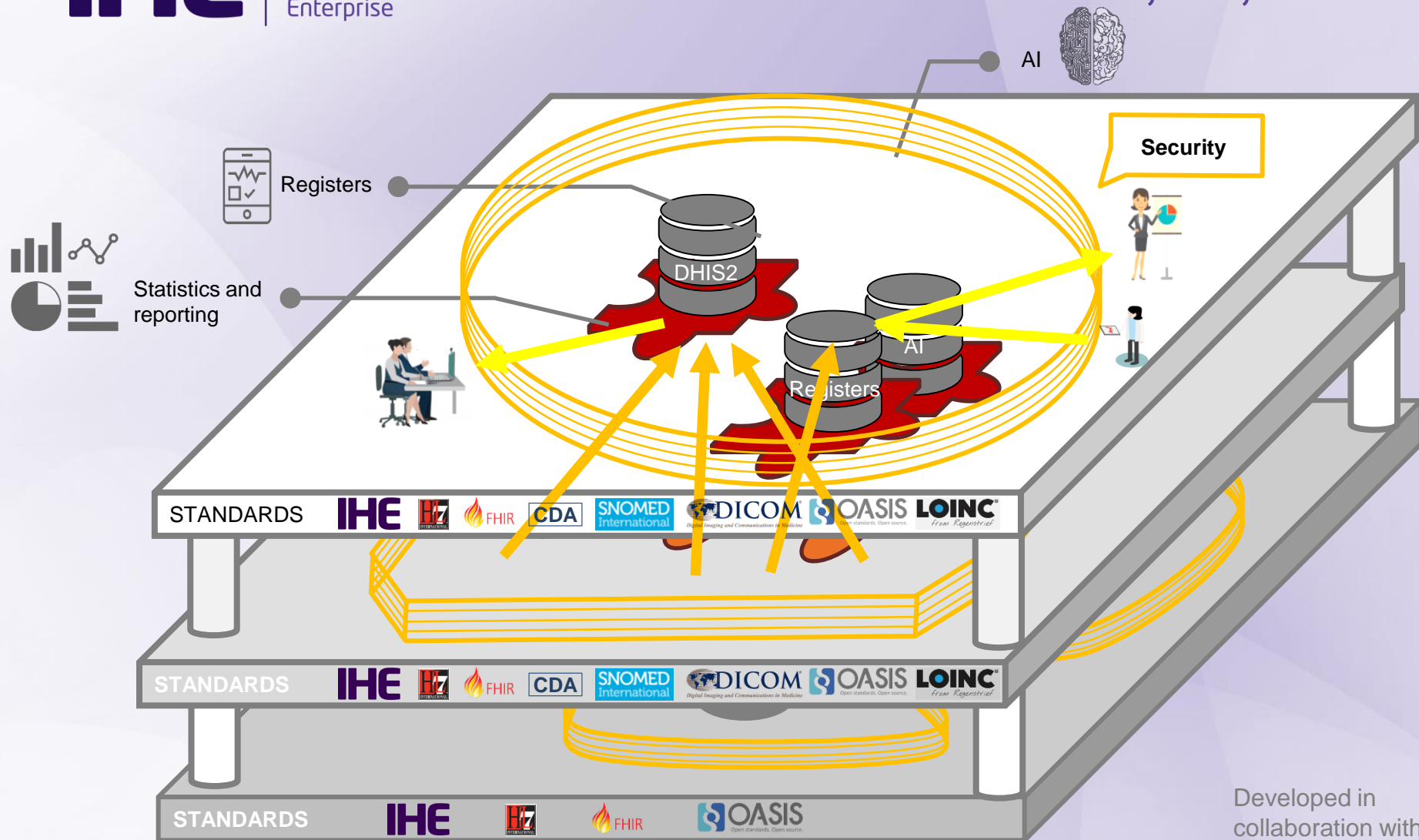
Ground level: e-Health applications



Developed in
collaboration with



1.Floor: Dashboards, AI, etc.



Developed in
collaboration with



Don't forget the other work

Governance

Political
work

Legal
framework

Content quality
and harmonization
(semantic interoperability)

Stakeholder
engagement

Organizational
interoperability

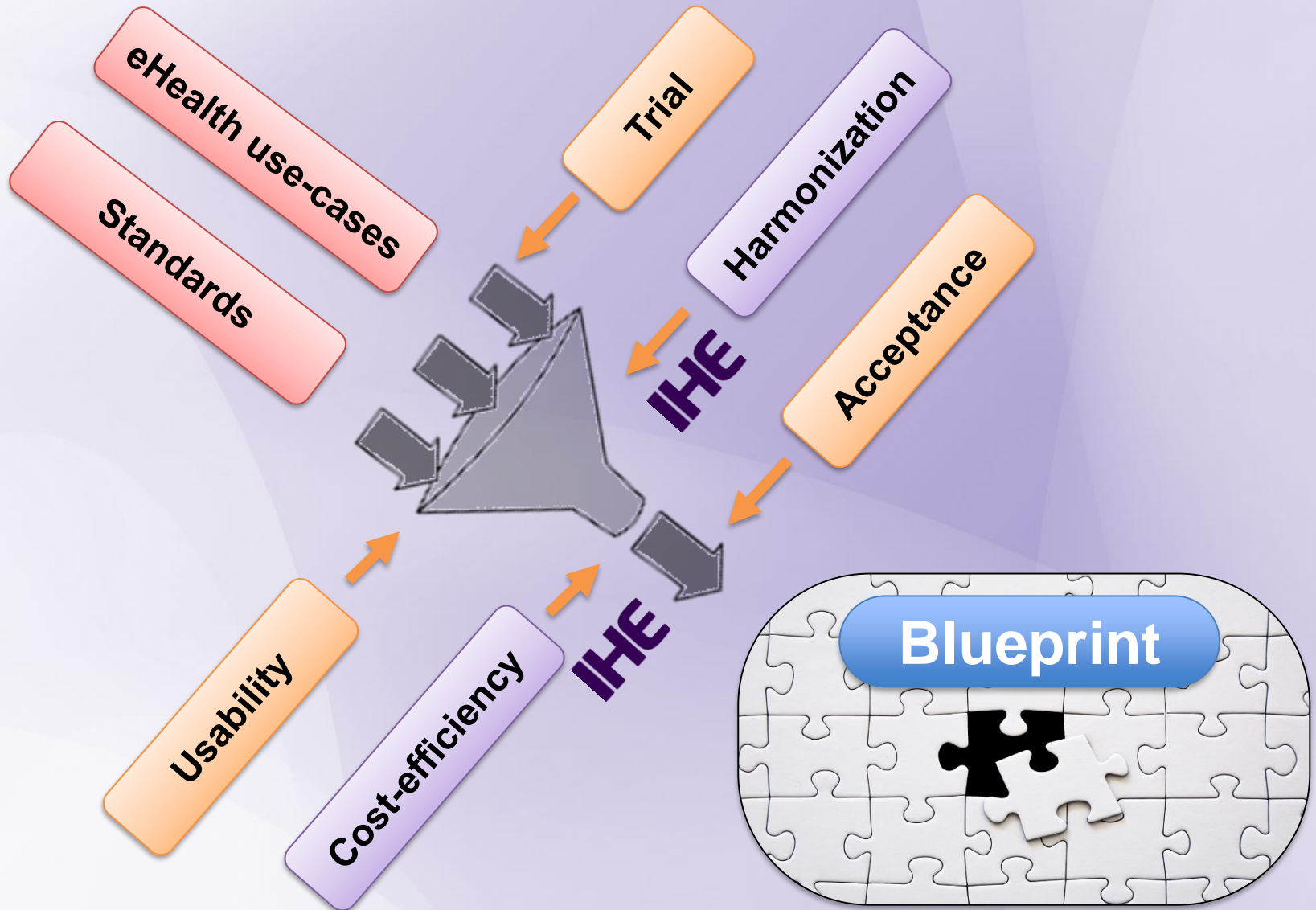
The
Interoperable
House

Developed in
collaboration with



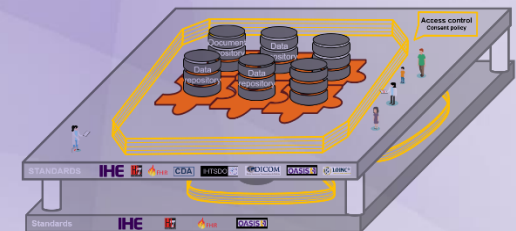
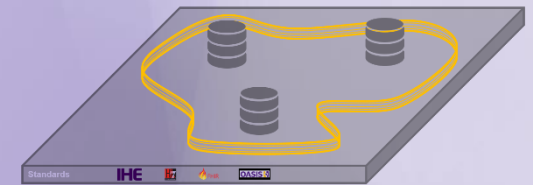
The Global Blueprint

What is a „global“ blueprint?

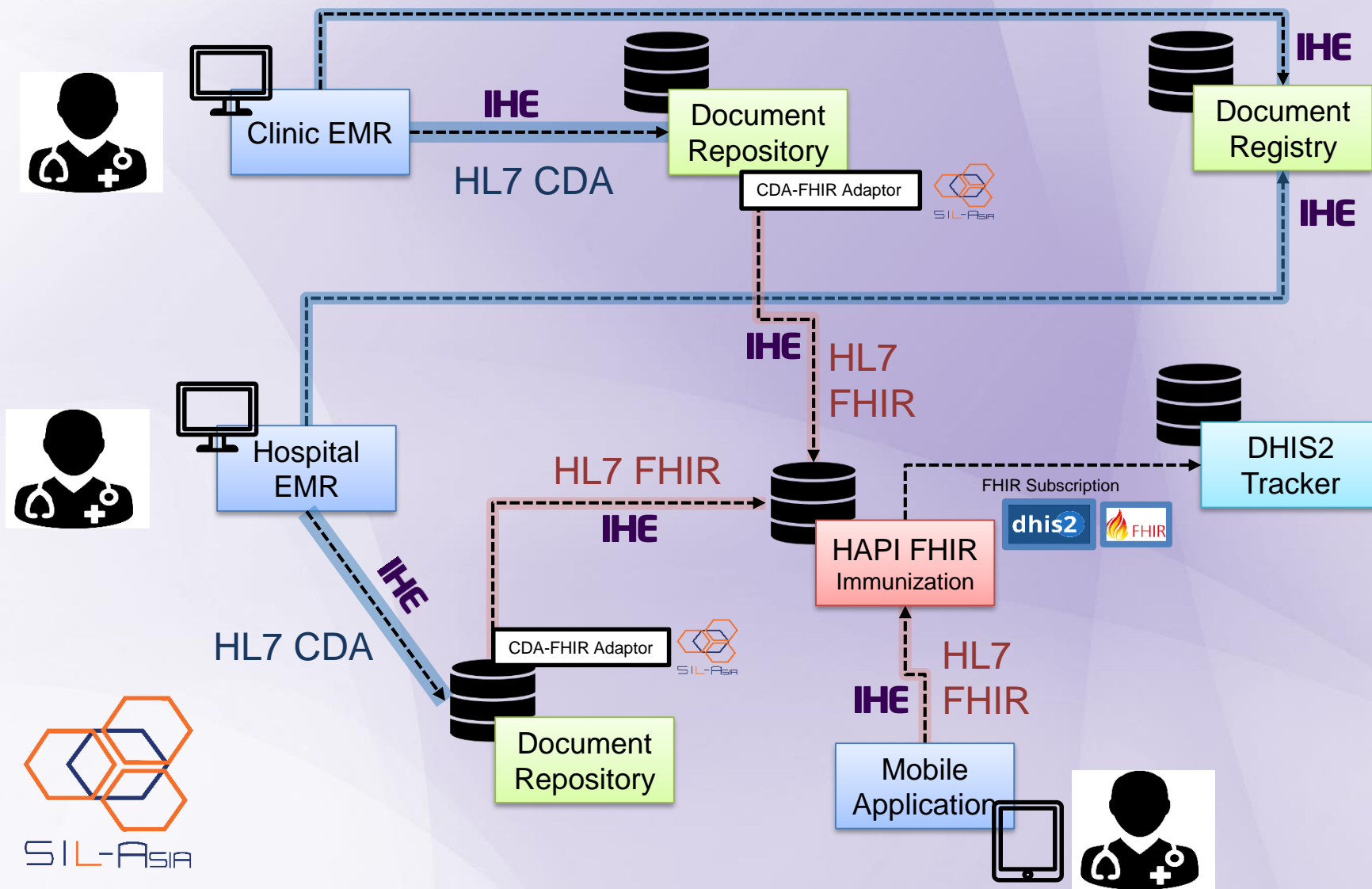


- **For the basement ...**
 - **Patient Identity** (PIX/PIXm, PDQ/PDQm)
 - **Healthcare Provider Identity** (HPD)
 - **Audit and Logging** (ATNA)
 - **Access Control**

- **For the ground floor ...**
 - **Document Sharing** (XDS/XCA)
 - And mobile access to them (MHD)
 - **Sharing of Medical Images** (XDS-I)
 - And mobile access to them (WIA)
 - **ePrescription** (CMPD, PRE, DIS, ...)
 - And mobile medication administration (MMA)

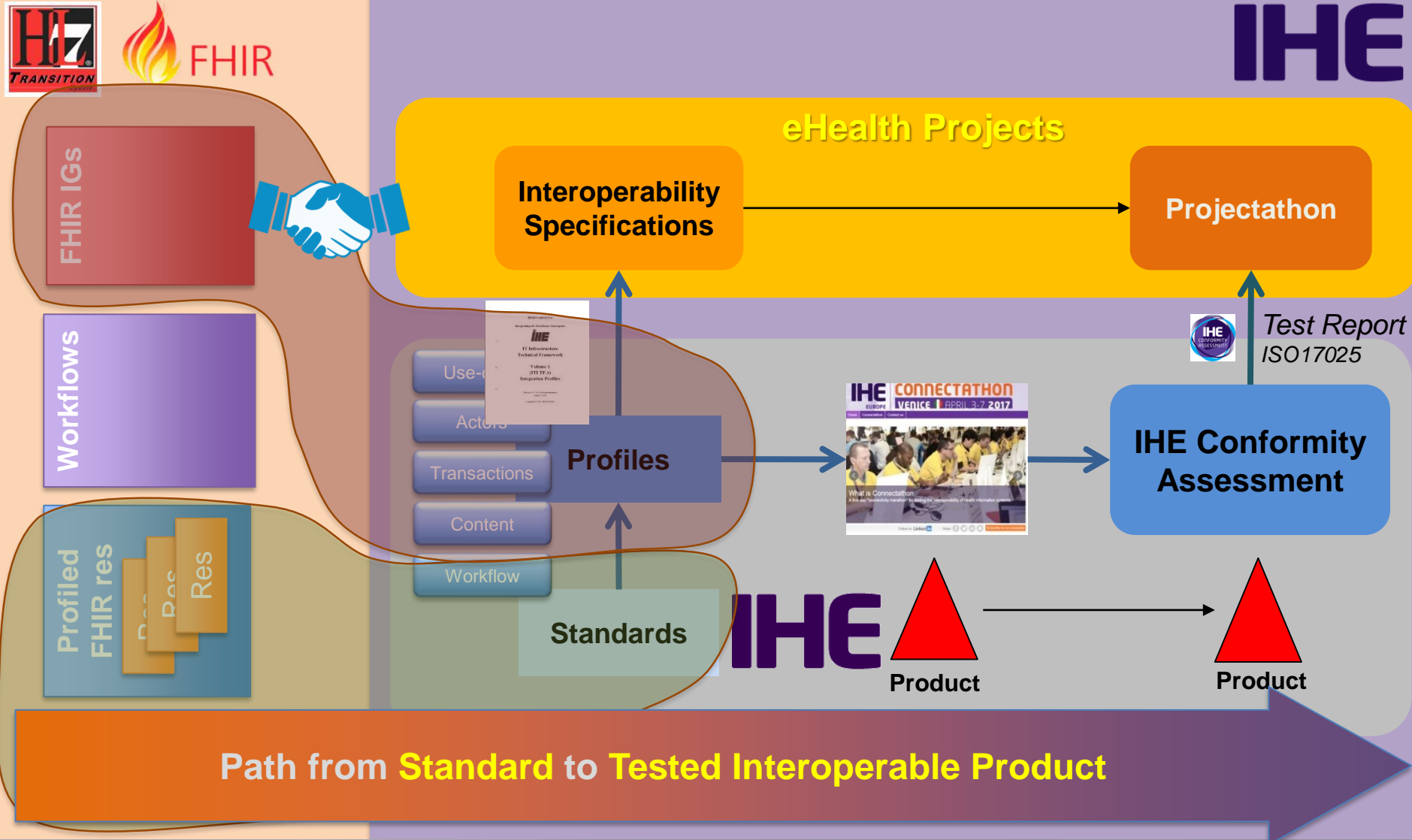


Demo architecture „virtual country“





Gemini - A Joint Initiative of IHE and HL7 to Advance Use of FHIR for Interoperability



- **FHIR** entered the market with **great speed** and **promises**
- **But some problems were arising out of this:**
 - **The market was confused**
 - Competitive assumption: FHIR or IHE?
 - Purpose and role of IHE was not understood
 - **The dynamics of FHIR needed to be governed**
 - Individual specifications should be channeled
 - Needed to bring to a deployment maturity level
- **This was perceived by strategic individuals in the two organizations**
 - as „**problems needed to be fixed**“
- **Informal talks resulted into an „idea“**
 - **This „idea“ was formulized as „Gemini“**

- **Mandate**

- Project GEMINI operates under the Statement of Understanding between IHE and HL7

- **Mission**

- Tighten collaboration between IHE and HL7 in the context of FHIR

- **Parity**

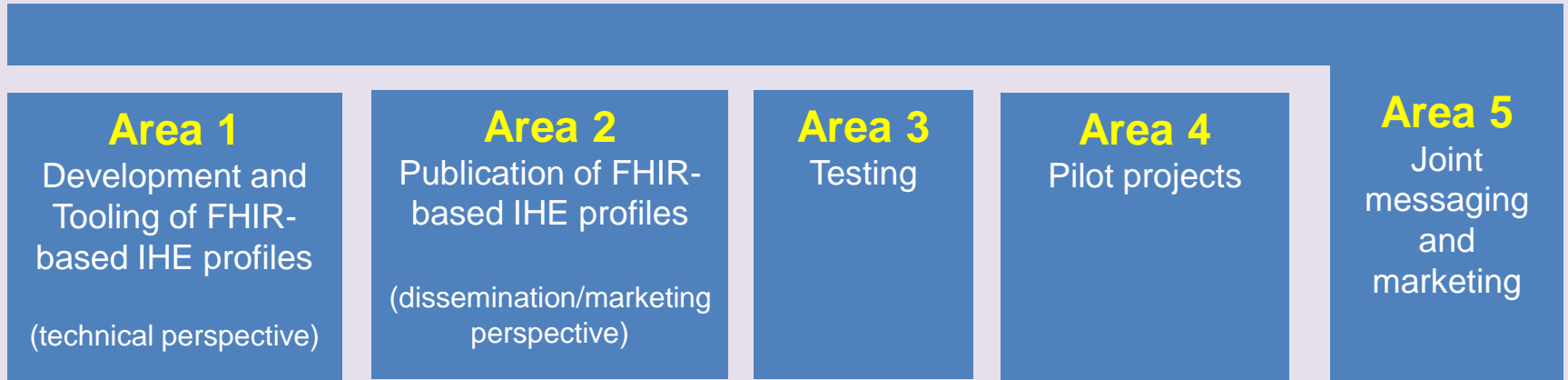
- **GEMINI is a „Joint“ IHE / HL7 project**
- Joint ownership and steering under equal parity
 - IHE: Chris Carr, Didi Davis, Jürgen Brandstätter
 - HL7: Wayne Kubick, Ed Hammond, Ewout Kramer
 - Coopted: Grahame Grieve

- **Area 1: Development and Tooling of „FHIR-based IHE profiles“**
 - FHIR-based IHE profiles remain under IHE governance, but participation and contribution of HL7 shall be encouraged (as well as participation of IHE in HL7)
 - This includes collaborative work, alignment of tooling, mutual notification of new work-items, etc.
- **Area 2: Publication of „FHIR-based IHE profiles“**
 - Align publication of FHIR Implementation Guides and FHIR-based IHE profiles by referencing FHIR-based IHE profiles on fhir.org
- **Area 3: Testing**
 - Positioning of the current testing initiatives, such as HL7 FHIR Connectathons, IHE Connectathons, IHE Conformity Assessment and coordination of the test tooling ecosystem across both organizations
- **Area 4: Pilot projects**
 - Identify, agree and execute joint IHE/HL7 pilot projects and demonstrations
- **Area 5: Joint Messaging and Marketing**
 - Maintain joint messaging/marketing/education on HL7 FHIR and FHIR-based IHE profiles on fhir.org

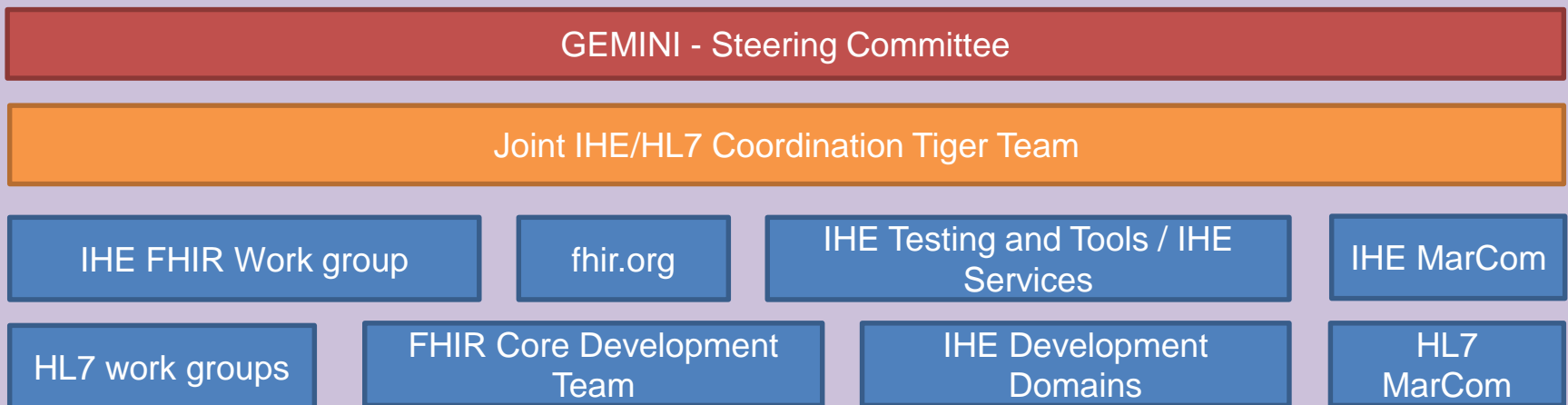
Under the mandate of the **IHE/HL7 Statement of Understanding**

Filled with life by:

SCOPE



TEAMS



A Joint effort

for

**emerging HL7 FHIR
and**

DICOMweb standards

- ***“Coordinated use of imaging and other diagnostic data for cancer care”***
- **Players for potential engagement**
 - SMART on FHIR/Sync for Science
 - HL7 Imaging Integration WG/DICOM WG20
 - FHIRcast
 - Clinical Interoperability Council/Clinical Information Modeling Initiative
 - ACR-RSNA Common Data Elements Steering Committee
 - IHE Radiology
 - IHE-USA and IHE-Europe

- **Project lead: Chris Carr**
- **Gemini shall coordinate ...**
 - Specification development
 - Progressively more rigorous interoperability testing
 - Implementation activities
 - Appropriately timed communications and public demonstrations

A Joint effort

to develop a

“best-of-breed”
interoperability
standard for e-Immunization

based on  FHIR

- **Project lead: Jürgen Brandstätter**
- **Globally needed, thus needs investigation ...**
 - ... what are the globally common use-cases?
 - ... for each use-case: what's globally common?
- **Use-cases identified so far:**
 - ***Electronic recording of vaccinations administered***
 - including natural immunizations
 - ***Get Immunization status of a patient / citizen***, including
 - National Vaccination Plans,
 - Personal Vaccination Plans
 - Actual vaccinations and immunizations
 - ***Notify a patient / citizen on pending vaccinations***

← WRITE

← READ

← NOTIFY

Purpose of this project: Profiling of each use-case on the basis what's globally common

- Using the HL7 FHIR standard (and in parallel: CDA)

A pending interoperability issue, because ...

- ... many countries/regions still without e-Immunization
- ... some implementations exist, but they are all different
- ... lots of them based not on international standards, but on propriety specifications
- ... if based on international standards, they still are different

Without the presence of „FHIR-based IHE profiles“, no product testing can take place

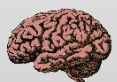
-> the entire cost-effectiveness can NOT be leveraged!

Country A

Requirements



Requirements
& Review



Country B

Experiences



Country C

Contributions



Expertise



IHE

Joint
working
group
within IHE
PHARM

Coordination
& Main work



Coordinator
(bearing the foot work)



BID INITIATIVE
Better data. Better decisions.



Country A

Requirements

Country B

Experiences

Country C

Contributions

Requirements
& Review



Expertise



IHE

Joint
working
group
within IHE
PHARM

Integrating the Healthcare Enterprise

IHE

IHE IT Infrastructure (ITI)
Technical Framework

Volume 1

**FHIR-based IHE
Profile**
(by IHE and HL7)



- **Early phase**
 - Informal publicity and contact making
 - Great interest globally
- **So far, interested parties out of**
 - Asia, Africa, Latin America, Europe and US
- **Funding needed to start the project**
 - Customers of the standard?
 - National HIE projects
 - Donors?

IHE

Integrating
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Enterprise

Changing the Way Healthcare CONNECTS

<http://www.ihe.net>



Jürgen Brandstätter

j.brandstaetter@codewerk.at

juergen.brandstaetter@ihe-europe.net

LinkedIn: <https://www.linkedin.com/in/jbrandstaetter>

Twitter: JuBrandstaetter