

AeHIN #DigitalHealthAP

IHE Integrating the Healthcare Enterprise

Laying the Foundations for Digital Health

Jürgen Brandstätter, MSc
 Co-chair, IHE Europe
 Co-chair, Pharmacy Planning committee
 Co-chair, Global Deployment Coordination Committee (GDC)
 Member, IHE International Board
 CodeWork Software GmbH, Austria

AeHIN Asia Health Information Network

Digital Health Conference in the Asia-Pacific and 5th AeHIN General Meeting

IHE Integrating the Healthcare Enterprise

Interoperability „large“

National / regional HIEs require interoperability in large scale

Source: Presentation, Austrian Health Record ELGA
 03/08/2017 Laying the Foundations for Digital Health 2

IHE Integrating the Healthcare Enterprise

Interoperability „large“

National / regional HIEs require interoperability in large scale

Source: Presentation, Austrian Health Record ELGA
 03/08/2017 Laying the Foundations for Digital Health 3

IHE Integrating the Healthcare Enterprise

Layers of Interoperability

ORGANISATIONAL INTEROPERABILITY
 legal framework, policies, standards and profiles, common workflows, Standards and profiles

SEMANTIC INTEROPERABILITY
 standards and profiles, Terminologies, Medical

TECHNICAL INTEROPERABILITY
 Interoperable protocols, Services and messages, Health, metadata

ORGANISATIONAL INTEROPERABILITY is the will and ability to work together and exchange information. It depends on the operating environment (composed of laws, policies and organisational agreements). It allows the sharing of the digital end.

SEMANTIC INTEROPERABILITY allows the sharing of the digital end.

TECHNICAL INTEROPERABILITY enables the exchange of information from a technical point and guarantees the security and privacy of data integrity + access to relevant data associated with an identified patient.

eHealth Stakeholder Group Report "Perspectives and Recommendations on Interoperability", March 2014
http://ec.europa.eu/easroom/doc/document.cfm?doc_id=1188&app=AFQCNESGJH84TyyvR8FmD0ITTYFAAq2WbQC4uRm0kaXIVY3M1A

03/08/2017 Laying the Foundations for Digital Health 4

IHE Integrating the Healthcare Enterprise

Challenges of HIE

- Multi-stakeholder, multi-systems**
 - Paradigm change needed towards cooperation and collaboration
- Significant investment needs to be channelled**
 - Maximum sustainability needed, multi-vendor approach
 - Avoid stranded costs
- Commonly accepted Interoperability specification needed**
 - Based on international standards
 - Stable guidance needed
 - Best-practise needed
- Procurement and testing procedures must be created**
 - Extensive specifications raise efforts and costs (not only in the beginning)

03/08/2017 Laying the Foundations for Digital Health 5

IHE Integrating the Healthcare Enterprise

What HIE parts do you have to establish

- What shall be exchanged/shared/operated?**
 - Administrative**
 - Patient ID, Patient information, Healthcare Provider Information
 - Security and Privacy**
 - Access Control, Audit and Logging, Consent
 - Clinical**
 - Documents, Images, Medication information, Immunizations, ...
 - Other**
 - Advanced directives, Birth, Death, Cancer-Registers, ...

Interoperability use-cases

03/08/2017 Laying the Foundations for Digital Health 6

IHE Integrating the Healthcare Enterprise

What is IHE?

Standards

Interoperability use cases typically require „combinations“ of base standards
- but how to compose?

eHealth Projects

03/08/2017 Laying the Foundations for Digital Health 7

IHE Integrating the Healthcare Enterprise

What is IHE?

Standards

Profiling and Testing

IHE

IHE is a *non-profit* SDO which uses „existing“ standards to profile Interoperability use-cases

eHealth Projects

03/08/2017 Laying the Foundations for Digital Health 8

IHE Integrating the Healthcare Enterprise

The IHE Domains

03/08/2017 Laying the Foundations for Digital Health 9

IHE Integrating the Healthcare Enterprise

IHE methodology (ISO TR 28380-1 to 3)

03/08/2017 Laying the Foundations for Digital Health 10

IHE Integrating the Healthcare Enterprise

Conformity and eHealth Projects

03/08/2017 Laying the Foundations for Digital Health 11

IHE Integrating the Healthcare Enterprise

Austria

Based on **IHE**

Consequence: Strong commitment and engagement of Austria in IHE to ensure coverage of our needs

03/08/2017 Laying the Foundations for Digital Health 12

IHE Integrating the Healthcare Enterprise Europe

- Commission Decision 2015/1302, published on 31 July 2015, identifies **27 IHE Integration profiles for referencing in public procurement**
http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ.LOL_2015_199_R_0011
- These IHE profiles have the potential to increase interoperability of eHealth services and applications to the benefit of patients and medical community
- The 27 IHE profiles should therefore be identified as ICT technical specifications eligible for referencing in public procurement

Profiles assessed for conformity

IAW - Laboratory Analytical Workflow
 IAM - Patient Administration Management
 PDQ - Patient Demographics Query
 PIQV1 - Patient Demographics Query I I I V1
 PIQV2 - Patient Demographics Query I I I V2
 PIQV3 - Patient Demographics Query I I I V3
 PDK - Patient Identity Cross-Reference
 PIQV3 - Patient Identity Cross-Reference I I I V3
 KCA - Cross Community Access

The IHE profiles identified by the European Commission are already included in the IHE Conformity Assessment

03/08/2017 Laying the Foundations for Digital Health 13

IHE Integrating the Healthcare Enterprise IHE as framework for HIE

IHE's philosophy **stimulates cooperation** on organizational, strategic and political levels
 Users and Vendors work together!
 Engagement in IHE results in benefit for yourself

IHE **supports the paradigm change** needed nowadays
 Stakeholders **have to** work together to solve the challenge

IHE is a **stable guidance**
 By profiles, best-practices, others doing the same, etc.

IHE is a **solid basis** for the Interoperability specification
 Open, free, vendor-neutral
 Typical use-cases already profiled: Patient identification and demographics, Sharing clinical documents, eP/eD, ...

IHE **cuts costs on every edge**
 Specification, Procurement, Testing

Bet on IHE as early as possible to leverage maximum benefits

03/08/2017 Laying the Foundations for Digital Health 14

IHE Integrating the Healthcare Enterprise Get in touch with IHE



MARINA BAY SANDS SINGAPORE
11 September 2017

In conjunction with **HIMSS AsiaPac17**







03/08/2017 Laying the Foundations for Digital Health 15

IHE Integrating the Healthcare Enterprise Links

- IHE Homepage
 – <http://www.ihe.net/>
- IHE International Social Media
 – YouTube channel: <https://www.youtube.com/user/IHEIntl>
 – IHE Webinars: <http://www.ihe.net/Webinars/>
 – Twitter: <https://twitter.com/IHEIntl>
- IHE Wiki
 – <http://wiki.ihe.net/>
- Google groups
 – <http://groups.google.com/>



03/08/2017 Laying the Foundations for Digital Health 16

IHE Integrating the Healthcare Enterprise

Changing the Way Healthcare CONNECTS

<http://www.ihe.net>



Jürgen Brandstätter, MSc
juergen.brandstaetter@ihe-europe.net
j.brandstaetter@codewerk.at

03/08/2017 Laying the Foundations for Digital Health 17