Continua Guidelines: Aktueller Stand und Ausblick
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CONTINUA ARCHITECTURE


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TELEMONITORING IN AUSTRIA...

Link: Rahmenrichtlinie_IT-Infrastruktur_Telemonitoring_Messdatenerfassung

Status:
• Published 2018
• as guideline for implementation in the public services
• With strong stakeholder involvement
NEW in 2018: Has HL7 FHIR as „to consider“!!

For interfaces 2,3, see PCHA CDG 2017
ORGANISATIONAL ROLES FOR TELEMONITORING

Patient support telemonitoring

Telehealth Platform

HCP Environment
TELEMONITORING IMPLEMENTATIONS IN AUSTRIA ON THEIR WAY TO NATIONAL COHERENT SERVICES

- Diabetes Mellitus Type II
- Heart failure
- Implant follow up

- COPD next candidate

- Using a committed IT architecture, including selected medical devices, apps, software, …
- Providing quality, safety, security, interoperability, …
- Support patients with multimorbidities
A WIN-WIN SOLUTION FOR THE PATIENT

• Telehealth services will support specific Disease Management Programs (DMPs)

• DMPs define
  – Who is doing what, roles, rights, duties, …
  – Processes: Medical, administrative, regulatory, technical, …

• Infrastructure is needed
  – able to support all possible DMPs
  – covers basic legal, financial, organisational issues
ONGOING ACTIVITIES IN AUSTRIA

• Regional pilots extend the existing disease management programs:

• Tyrol to further develop the existing disease management program for cardiomyopathy
  – Already uses telemonitoring

• Styria to further extend DMP for diabetes
  – Also building on existing telemonitoring experience

• Work is ongoing to specify and add IT infrastructure on the feral level
  – In cooperation with ELGA

• We have final touches on eHealth structures after elections. The regions are progressing with motivation.
  – (See Alpbach 2018)
CURRENT SITUATION – USE OF CONTINUA, IHE, …

Question from users:
- „How do we share the data within our healthcare provider organisation!!??“
- „HELP!!!!“

Answer from the „interface expert“:
- „Continua, IHE have the HRN interface“
  - „use CDA e.g. via XDS“
- „You get machine readable data – perfectly coded – fit for processing and workflow support!“
- „These are stable technologies – It is feasible NOW!“

On the long run:
- „Lets introduce standardised interfaces at this end first – this is feasible“
- „We can then stepwise standardise the other interfaces to the medical device“
- „There still is some polishing to do there“
- „This better be aligned with international approaches“
AND NOW WHERE MIGHT WE GO

• Take this further, and put the detail in
  – Safety, security, mobile platforms, missing links in the standards, …
  – European regulations: GDPR, EIDAS, MDR, …

• This is big.
• We must do it with the international community.

• So we had a look …
• And built a „How to“ page:
  – https://mahara-mr.technikum-wien.at/group/integrating-the-energy-systems/elf-getting-started

• Renewed old and made new contacts within Europe and international
  – Spain, Germany, Czech Republic, Austria, Ireland, …
  – IHE, PCHA, HL7, IEEE, …
  – To take this further in cooperation
The new European Interoperability Framework (EIF) is part of the Communication (COM(2017)134) from the European Commission adopted on 23 March 2017. The framework gives specific guidance on how to set up interoperable digital public services.

https://ec.europa.eu/isa2/eif_en
EIF OBSERVATIONS, RECOMMENDATIONS

- “A major obstacle to interoperability arises from legacy systems”
- “Historically, applications and information systems in public administrations were developed in a bottom-up fashion, trying to solve domain-specific and local problems. This resulted in fragmented ICT islands which are difficult to interoperate. “
- “Recommendation 33 Use open specifications, where available, to ensure technical interoperability when establishing European public services”

THE EU ON INTEROPERABILITY

These are activities of considerable size

ISA²: 2016-2020
https://ec.europa.eu/isa2/isa2_en

https://ec.europa.eu/cefdigital
CEF EHEALTH BENEFITS & MILESTONES

The European Commission, Connecting Europe Facility CEF Digital
https://ec.europa.eu/cefdigital/wiki/display/CEFDSIS/eHealth+Benefits
Image: eHealth Milestones:
https://ec.europa.eu/cefdigital/wiki/display/CEFDSIS/eHealth+Milestones

- Benefits (in line with the objectives of Directive 2011/24)
  - providing immediate clinical information needed in an emergency situation abroad
  - ensuring continuity of care across borders
  - collecting and consolidating clinical data across borders to support public health and research.

- Patient Summary
- ePrescription
CEF EHEALTH DSI SERVICES
FOR PATIENT SUMMARY , E PRESCRIPTION (AND E DISPENSATION)

CEF Digital DSIs Home:
https://ec.europa.eu/cefdigital/wiki/display/CEFDSIS/eHealth+2.0
CEF Digital DSIs Services:
https://ec.europa.eu/cefdigital/wiki/display/CEFDSIS/eHealth+Services
## CEF EHEALTH DSI SPECIFICATIONS

### eHealth DSI Operations
- Home > eHDSI Service Offering > Specifications


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### Organisational
- Test Framework
- Audit Framework
- Monitoring Framework
- Support Framework

### Semantic
- CDA Display Tool Specification
- CDA Implementation Guides
- Master Value Sets Catalogue

### Technical
- Audit Trail Profiles
- BPPC Profile
- Cryptographic Algorithms
- Messaging Profile
- SAML Profile
- Service Location and Capability Lookup Profile
- X.509 Certificate Profiles
- XCA Profile
- XCPD Profile
- XDR Profile

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11.-12. September 2018
@eHealthSummit
EUROPEAN INTEROPERABILITY REFERENCE ARCHITECTURE EIRA AND THE CARTOOL

Models available for eDelivery, eHI (Human Interface), eID, Open Data, Interoperability testing, e-Prescription in DK

Contact the EIRA team.
Contact the Interoperability Unit of DG Informatics (please use the subject line ‘European Interoperability Reference Architecture’).

WHY DO WE NEED EUROPE: THIS IS BIG!

- **eHealth Network**

- **ISA2, CEF**

- **eTranslation**
  - [https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation](https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation)
  - Vocabulary Server: [https://elrc-share.eu/](https://elrc-share.eu/)

- **CEF DSIs for eHealth, ePrescription and eDispensation**
  - [https://ec.europa.eu/cefdigital/wiki/display/CEFDISI/eHealth+2.0](https://ec.europa.eu/cefdigital/wiki/display/CEFDISI/eHealth+2.0)
  - Heavy use of HL7 CDA and IHE.

- **EMA, Pharmacovigilance in the EU**

- **ELGA CDA for medication**
  - [https://www.elga.gv.at/fileadmin/user_upload/Dokumente_PDF_MP4/CDA/Implementierungsleitfaeden/Implementierungsleitfaeden_2.06.1/HL7_Implmentation_Guide_for_CDA_R2_-_e-Medikation_V2.06.1.pdf](https://www.elga.gv.at/fileadmin/user_upload/Dokumente_PDF_MP4/CDA/Implementierungsleitfaeden/Implementierungsleitfaeden_2.06.1/HL7_Implmination_Guide_for_CDA_R2_-_e-Medikation_V2.06.1.pdf)

• **Is it aligned? Does it fit seamlessly?**  Who knows??!!
HOW TO PROGRESS – COOPERATE!

- Approach the DGs in ISA2 and CEF
- Suggest to use EIRA to map and then better align interoperability efforts
- For eHealth DSI, and telemonitoring
- Use Personal Connected Health Alliance PCHA and Continua as platforms
- Cooperate with other SDOs (IHE, HL7, …)
PROJECT INNOVATE

Innovation Lab for medical engineering and eHealth

Support for users, industry, SMEs, …

**Software libraries** and **Guidelines** for integrating mobile eHealth applications safely

**Developer kits**
- Interoperability
- Open Data
- Security
- Usability & Accessibility

**Innovation Lab**
- Test and demonstration lab, integrative

Cooperation: Integrating pollen data
Cooperation: Integrating medical device data

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Summer School partners

http://healthy-interoperability.at/HealthConnect/

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