



Health Level 7 and ARDEN-Syntax

e-Health Summit 2017, Wien – Stefan Sabutsch

- What is HL7?
 - A standard to **exchange clinical data**
 - Widely known and used for interoperability between health IT systems

- What is the Arden Syntax?
 - A markup language used for representing and **sharing medical knowledge**

- So – what has HL7 to do with Arden?

„Arden Syntax“ for CDSS

- First Draft 1989 developed in the „Arden House“ – at that time independent from other standards
- Version 1.0 1992 published by ASTM (USA)
- 1998 the sponsorship moved to **HL7 Inc.**

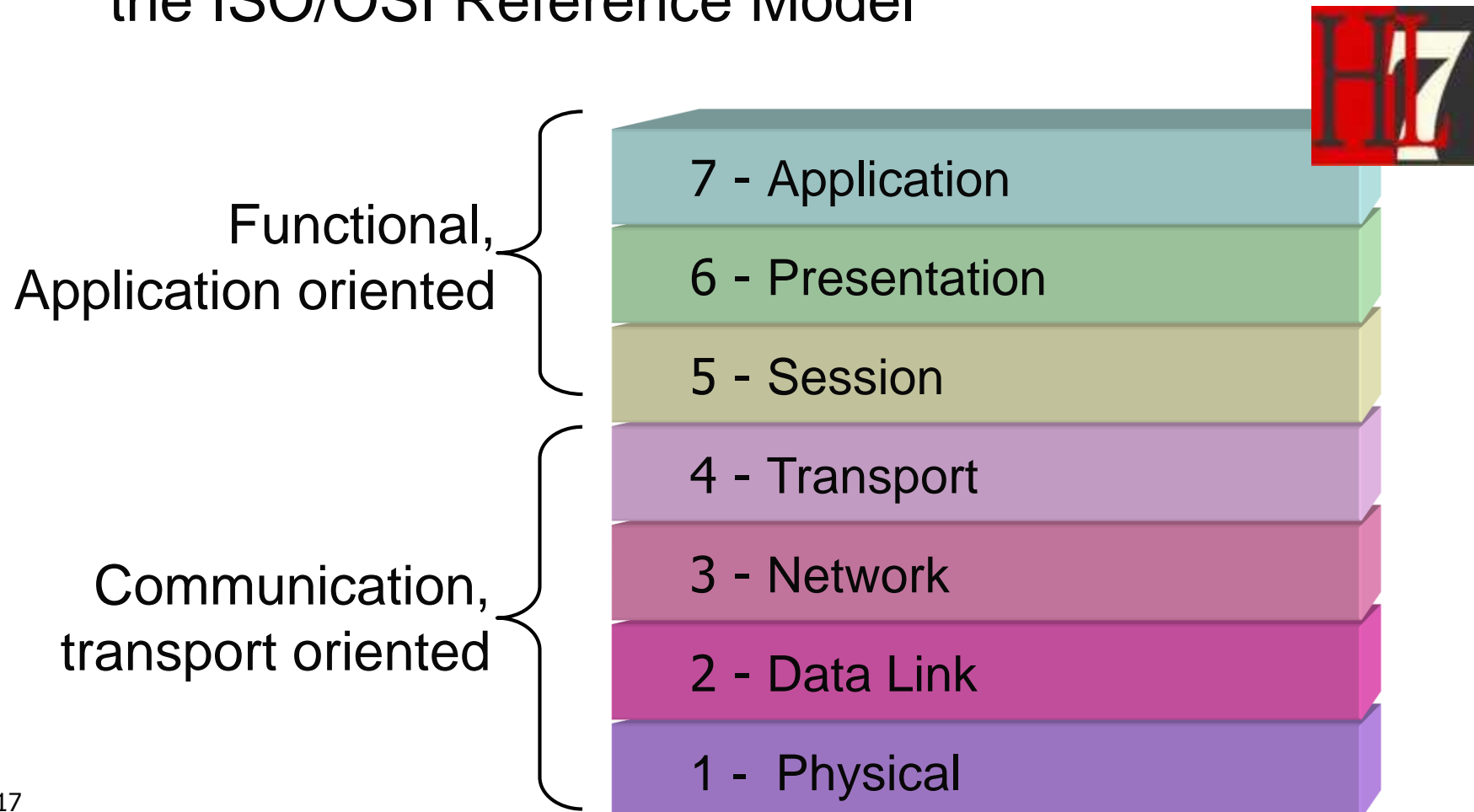
„HL7 Arden Syntax Working Group“

- HL7 publishes and further develops the Arden Syntax as HL7 Standard
- Version 2.0 1999 approved by HL7 and ANSI
- Current Version 2.10



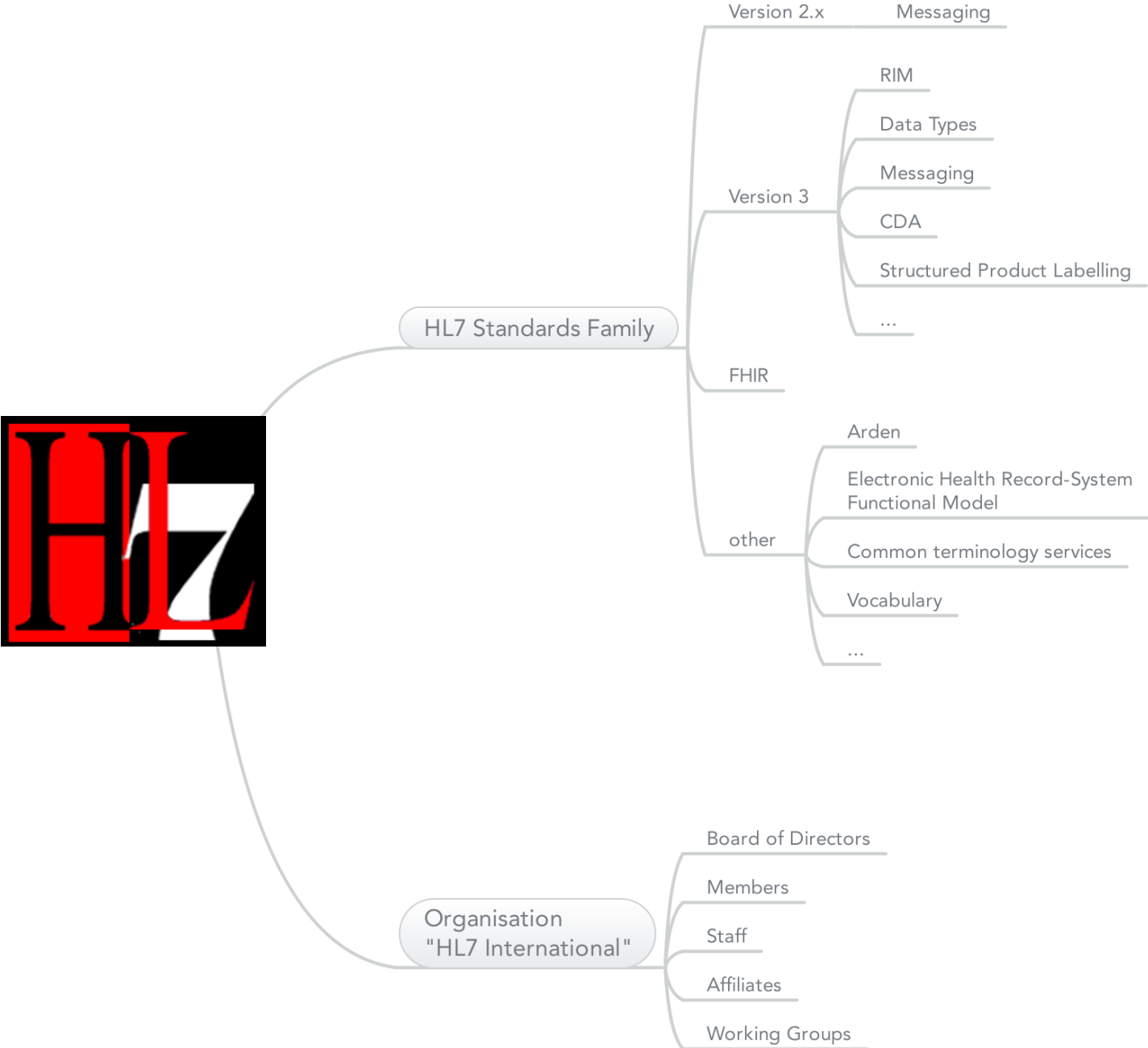
Arden Villa, Orange County, New York

- „Health Level Seven“:
 - „*Health*“: global interoperability standards for healthcare
 - „*Level Seven*“ is a reference to the seventh layer of the ISO/OSI Reference Model



- HL7 provides a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services, e.g.
 - Communication
 - Data Model, Data Types
 - Vocabulary
 - Clinical Documents
 - **Decision support** & knowledge management
 - Medical devices & personalized health devices
 - Disease management

- Well known Standards: **V2 Messaging, CDA, FHIR**



□ HL7-Standards

- Used globally, most important and implemented standard
 - Standards are developed by specific working groups with a defined consensus based harmonization process („ballots“)
 - Collaboration with other relevant SDO, (ISO TC21, CEN TC251, ASTM, DICOM, IEEE, IHE, IHTSDO, GS1,...)
 - Joint ISO-HL7 Standards
- Basis for IHE
→ ELGA uses HL7

□ Intellectual Property

- Protected IP, owned by HL7 International
- Standards are free available (registration needed without additional costs)
- Members of HL7 may reproduce and distribute the standards and create customized constraints

- A Standardization Organization. Domain: clinical and related administrative data
 - ANSI-accredited
 - Collaborates with other SDO: ISO, DICOM, IHE, ...
- Not-for-profit volunteer organization
 - Headquarter in Ann Arbor, Michigan, USA
 - Members: providers, vendors, payers, consultants, government groups, universities and other interested parties
 - A well-defined set of operating procedures ensures consensus, openness and balance of interest
 - >1.600 members worldwide
 - >35 national affiliates

- **Affiliate HL7 Austria established 2007**
 - Official Affiliate of Health Level Seven International
 - Organization as „private club“, not-for-profit
 - Fully financed by membership fees
 - „Open membership“: 89 members total

- **Activities**
 - Standardization, Ballots (CDA IG , HL7 V2 / Z-Seg, codelists, document nomenclature...)
 - Conceptual Work: OID, Terminology-Server
 - Annual Meetings (March 2-3 day)
 - Education: Workshops, Tutorials, eLearning
 - Conferences, e.g. IHIC2012 Vienna, pHealth2014 Vienna, IHIC2015 Prague, ...
 - Interoperability Forum Meetings

- ❑ **Chair („Präsident“):** Stefan Sabutsch
- ❑ **Vice-Chair:** Herlinde Toth
- ❑ **Treasurer:** Christoph Unfried
- ❑ **Vice-Treasurer:** Peter Schöttel
- ❑ **Secretary:** Peter Seifter
- ❑ **Vice-Secretary:** Barbara Franz
- ❑ **Chair of
Technical Committee :**
Alexander Mense
- ❑ **Chair TC FHIR:**
Reinhard Egelkraut



□ Meetings

- Annual Meeting (2-3 d) → 90-100 participants
- Interoperabilitätsforum 3x p.a. with other SDO

□ Education

- HL7 Fundamentals (eLearning course with int. certificate)
- ELGA CDA Implementation Guides
- ARDEN Syntax Schulung (Workshop)
 - Cooperation with Medexter GmbH (last: 22 May)
- FHIR Workshops (upcoming: eLearning)
- Workshops on current issues (upcoming: Art-Decor 30.May)

□ Journals

- D-A-CH-L: HL7 Mitteilungen (printed, 2x p.a.)
- HL7 International & Europe News
- eMail-Newsletter
- Twitter: https://twitter.com/HL7_Austria

- HL7 Austria actively contributes to the international working groups
 - Collaboration with other Affiliates
 - Participation in Working Groups
 - Security (Co-Chair Alexander Mense)
 - Arden Syntax (Adlassnig)
 - Clinical Decision Support (Adlassnig)
 - FHIR (Egelkraut, Schuler, Krauss ...)
 - ePharmacy
 - Etc.

- Arden Syntax – powered by Austrian Know How