



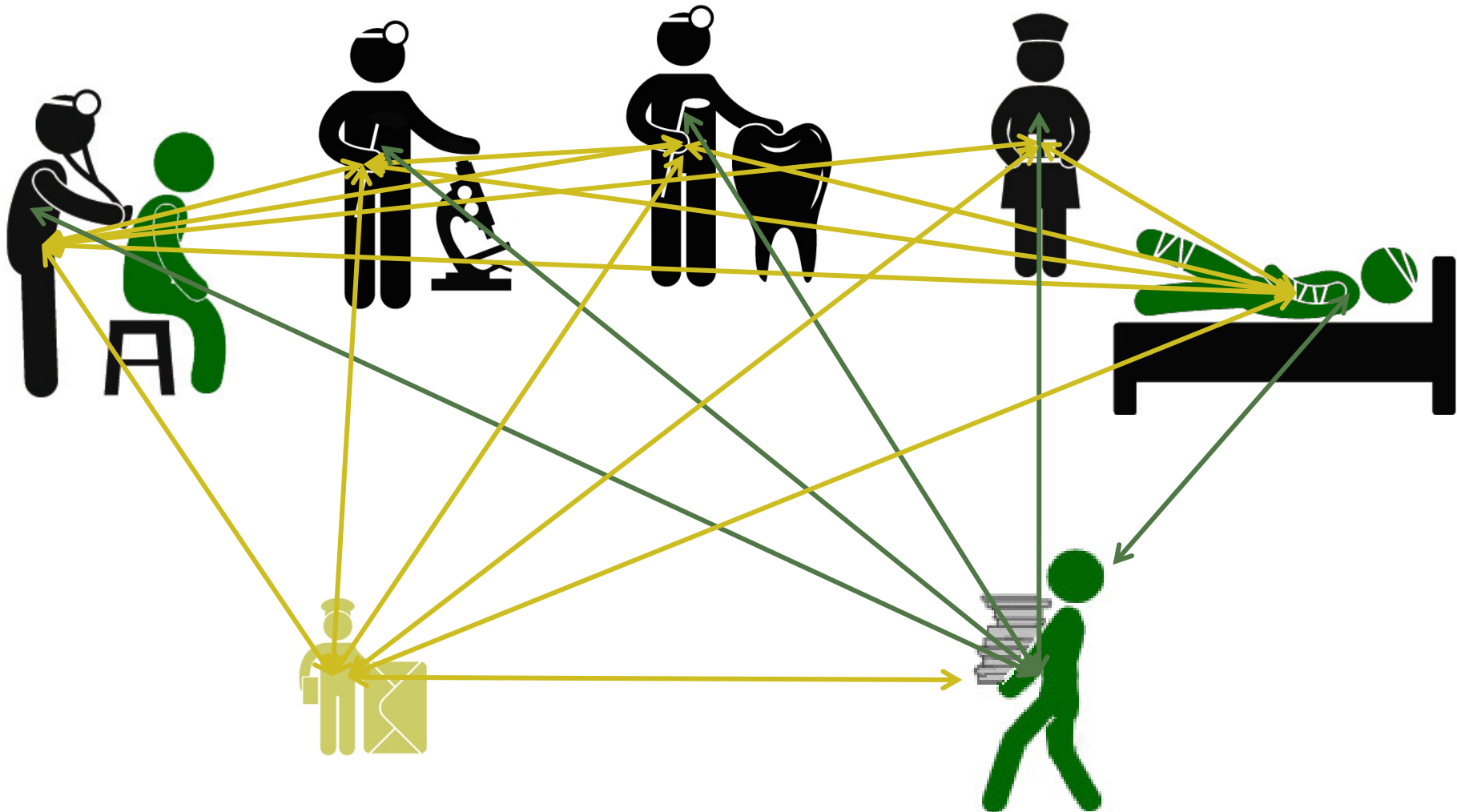
Meine elektronische
Gesundheitsakte

IHE is Deployed and Operational in Austria with ELGA

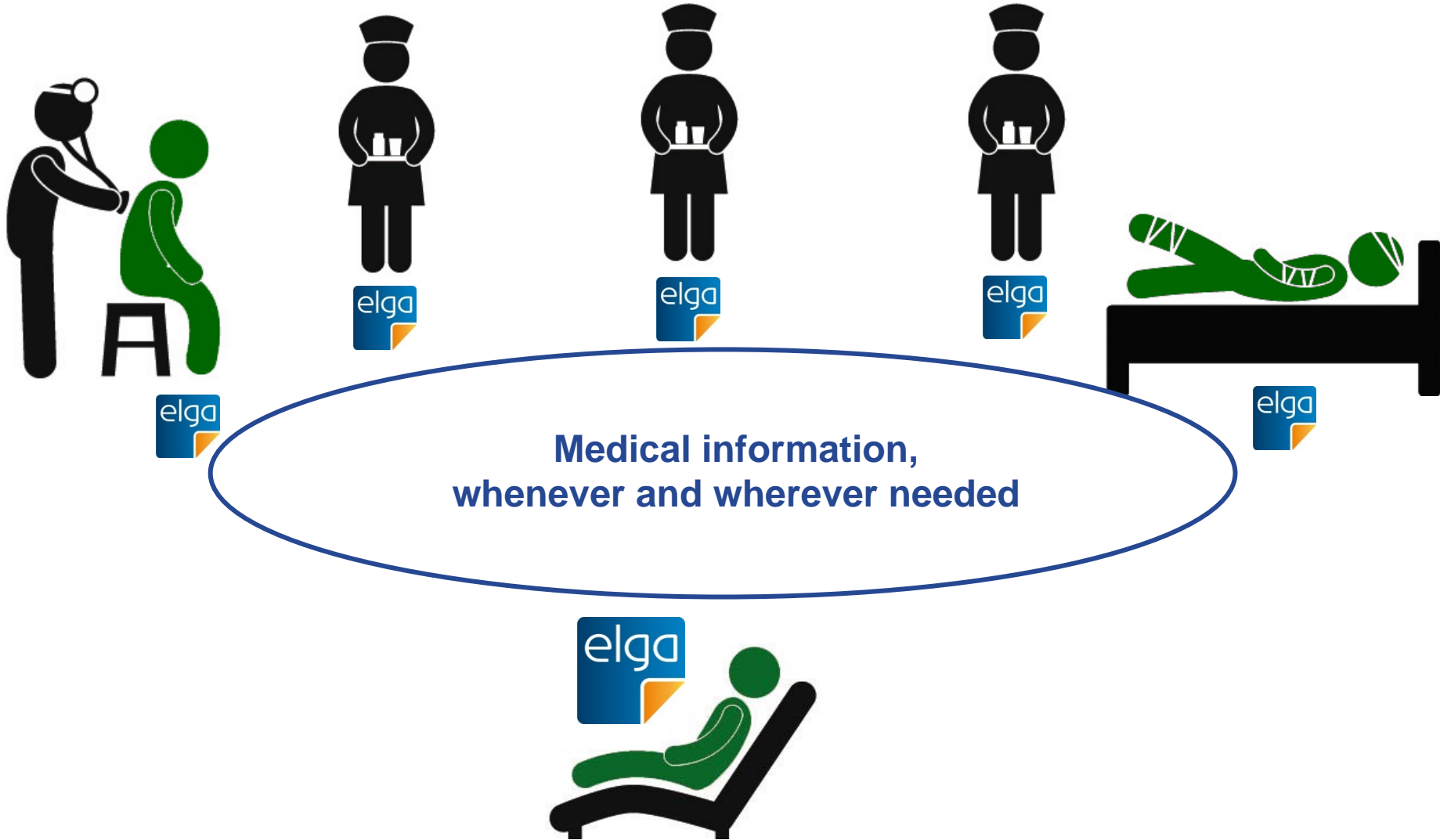
Günter Rauchegger

IHE-Symposium
The Hague, April 17th, 2018

Basic Principle I: Method of Communication



Basic Principle I: Method of Communication



- Usability – accessibility
- Common structure of reports
- Automated processing
- No scanned documents

- Publication in ELGA obligatory for
 - Physicians/nurse discharge summary
 - Lab results
 - Radiology reports
 - Medications

Entlassungsbrief



Erzeugt am 24. März 2008 um 08:20 Uhr | Version: 1



[\[+\] Inhaltsverzeichnis ausklappen](#) [\[+\] Alle Inhalte ausklappen](#) 

[+] Patient: Dipl. Ing. Hofrat Herbert Hannes Mustermann, BSc, MBA
 Geschlecht: männlich | geboren am: 24. Dezember 1949 | SVN: 1111241249 | Sachwalter vorhanden
Aufenthalt: Amadeus Spital - Chirurgische Abteilung
 Stationär von: 2. März 2008 um 08:20 bis: 25. März 2008 um 11:30 | Aufenthaltszahl: Az123456

[+] Erstellt von: Amadeus Spital - Chirurgische Abteilung **An:** Ordination Dr. Empfänger

 [Allergien oder Medikamentenunverträglichkeiten](#)
 [Patientenverfügung vorhanden](#)

Sehr geehrte Herr/Frau Kollege(in)

Aufnahmegrund [1]

Bei Zustand nach Gelenksempyem im linken Knie (2/08) durch Fremdkörper neuerlicher Fieberanstieg und Gelenkschwellung. (OP am 12.2.2008: ASK II. Kniegelenk, Gelenkspülung und Synovektomie, FK-Bergung aus der II. Quadrizepssehne, Spülung, antimikrobielle Therapie mit Dalacin 300 mg als KI 4x1 i.v. für 6 Tage, danach ab 19.2. Fucidin 250 g 3x1 p.o. und Rifoldin Saft 3x 1 ½ ML p.o.)

Diagnosen bei Entlassung [1]

Diagnose	Datum Von	Datum Bis	Status
Z00.0, Meniskus: Empyema gen. sin. post corpus alienum ligneum operat.	11.01.2008	11.02.2008	Abgeschlossen

Durchgeführte Maßnahmen [1]

OP in AN am 16.3.2009: ASK, Gelenkspülung; Antimikrobielle Therapie mit Augmentin 3 x 2g i.v. von 16. 3.2008 bis 20.3.2008, nach Erhalt des mikrobiellen Befundes (Enterobacter aerogenes) Wechsel auf Ciproxin 400mg 2 x tgl. i.v. (Eltern wurden über den off label-use von Ciproxin aufgeklärt und erklärten sich mit der Therapie einverstanden), weiters Fosfomycin 3 x 2g i.v. von 16. 3. bis 28. 3.2008; Analgetisch-antiphlogistische Therapie

Letzte Medikation [1]

Ciproxin 400mg 2 x tgl. i.v.

Empfohlene Medikation [1]

Transition to undirected
communication

Standardization of
communication content

Aim: Ensuring the cross-organizational flow of information for optimal treatment and care of patients

Facts & Figures about the Austrian Health Care System

(Die österreichische Sozialversicherung in Zahlen, 38. Ausgabe)



- Population: **8,6 Mio**
- Hospitals: **278** (containing 65.000 beds)
- Medical Doctors in hospitals: **24.000**
- Care personnel: **90.100**
- General practitioners: **14.300**
- Specialists: **23.400**
- Dentists: **4.900**
- Doctors in training: **6.300**
- Midwives: **2.100**
- Pharmacies: **2.200** (Public pharmacies and pharmacies in hospitals and with general practitioners)

- Financed by federal entity, provinces and social insurances

- **ELGA is a health-politics decision**
 - It is part of the healthcare-reform in Austria
 - Implementation of the National Electronic Health Record ELGA as main e-Health “backbone infrastructure”
- **Financed by the**
 - Ministry of health,
 - Association of Austrian social security institutions
 - Federal provinces
- **Strengthen the cross-sectoral collaboration of health care service provider**
 - Improving the quality of diagnostic and therapeutic decisions as well as the quality of processes and results along the treatment work-flow
- **Improvement of patient safety**
 - avoiding redundant tests, examinations and prescriptions
 - Patient no longer “information carrier”

- 2000 – First Ideas about a national eHealth Network incl.
- 2006 – Feasibility study about ELGA
- 2007 – ELGA mentioned in the government programme
- 2009 – Founding of the company “ELGA GmbH”
- 2010 – Start of first infrastructure project (master patient Index)
- 2011 – Evaluation of eMedication pilot implementation
- 2012 – ELGA Health telematics act as legal Basis enacted
- 2014 – Go-live of ELGA-Portal for opting-out
- 2015 – Go-live of first ELGA Hospital
- 2017 – Friendly-user rollout at GPs
- 2018 – Extensive rollout at GPs and pharmacies

■ Organisational Interoperability

- ELGA Legislation and accompanied regulations
- Committees and decision-making structures
- ...



■ Semantic Interoperability

- Common Terminologies and Identifiers
- Implementing Guidelines for ELGA-Documents (CDA)
- ...



■ Technical and Process Interoperability

- Standardized Interfaces and Workflows
- Common Data Security and Privacy
- ...





Sie werden daher ersucht, die von Ihnen repräsentierten oder vertretenen Personen bzw. Mitglieder in geeigneter Form über den Beschluss vom 4. Mai 2007 zu informieren und einzuladen, die im Folgenden genannten Standards bzw. das technische Framework jeweils auch im eigenen Wirkungsbereich umzusetzen bzw. zu berücksichtigen:

Integrating the Healthcare Enterprise (IHE), Technical Framework

IT Infrastructure Technical Framework Revision 3.0, December 9, 2006, Final Text Version

Patient Care Coordination Technical Framework Revision 1.0, Final Text

Laboratory Technical Framework, Revision 1.1, August 10, 2004, Draft for Public Comment

Radiology Technical Framework, Revision 7.0, May 15, 2006, Final Text Version

Health Level Seven, Version 3, RIM

ISO/HL7 21731:2006(E), Health informatics – HL7 version 3 – Reference Information Model – Release 1

Health Level Seven, Clinical Document Architecture, Release 2

ANSI/HL7 CDA, R2-2005

Logical Observation Identifiers Names and Codes (Laborteil)

LOINC® 2.19:2006-12-22

DICOM 3.0 und WADO

ISO 12052:2006(E), Health informatics – Digital imaging and communication in medicine (DICOM) including workflow and data management

ISO 17432:2004(E), Health informatics – Messages and communication – Web access to DICOM persistent objects



Bundesgesetzblatt 111/2012

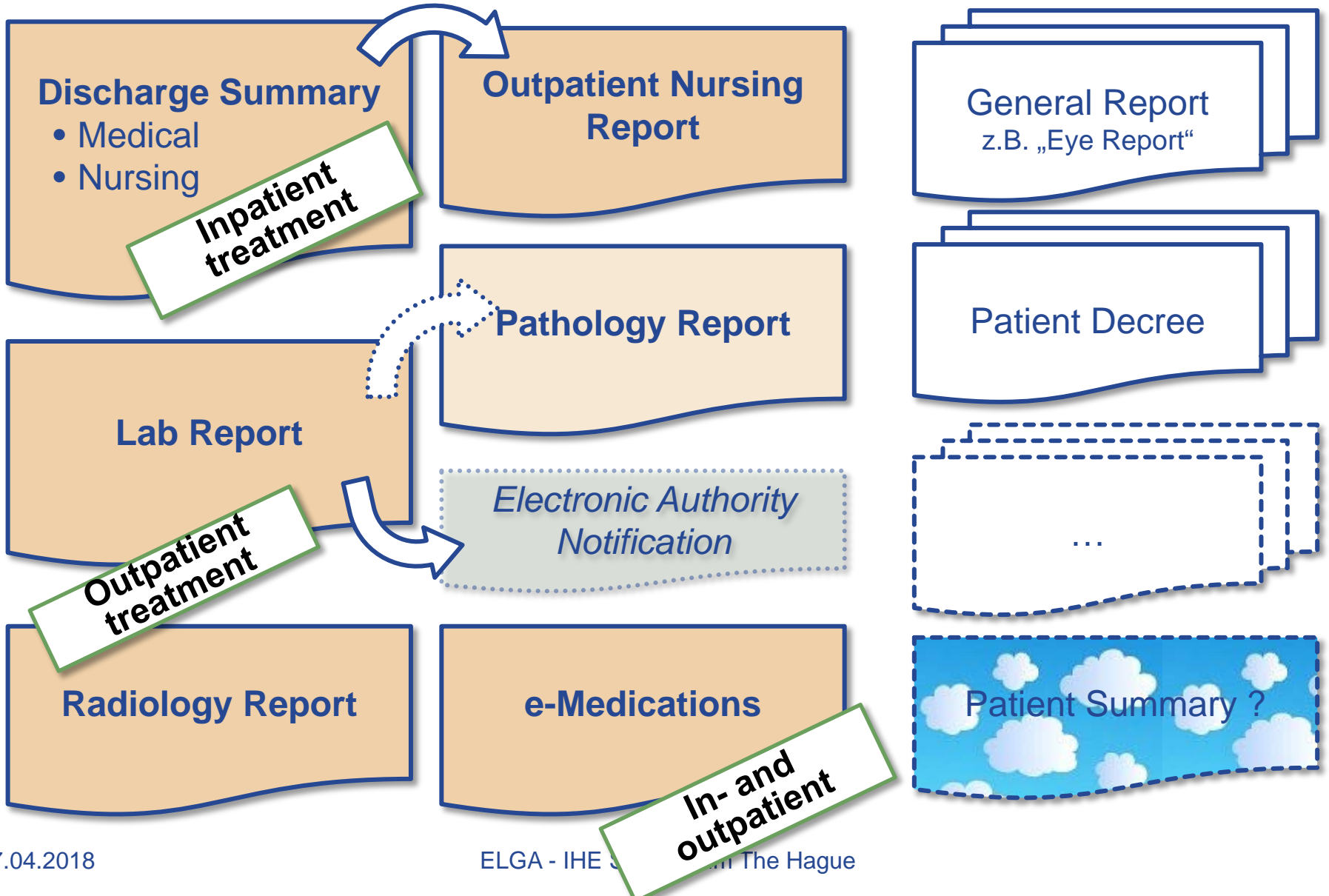
„Elektronische Gesundheitsakte-Gesetz“ (ELGA-G)

- <http://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20008120>

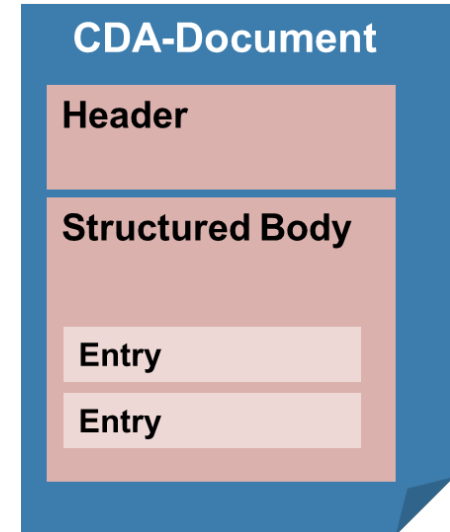
■ Content:

- Participation of citizens in ELGA is voluntary (opt-out)
 - Participation of healthcare service providers in ELGA is mandatory
 - Data protection and security
 - No access to ELGA-health data without electronic registration and identification of the citizen (technically enforced!)
 - Regulation of the quality of documents in ELGA
 - Definition of document structure requirements
 - Ban on use for (physicians of) insurances, government, employers, etc.
 - Penal provisions in case of abuse
 - Timeline for stepwise implementation
- Enacted by the Austrian parliament Nov. 2012, coming into effect 2013

e-Documents within ELGA



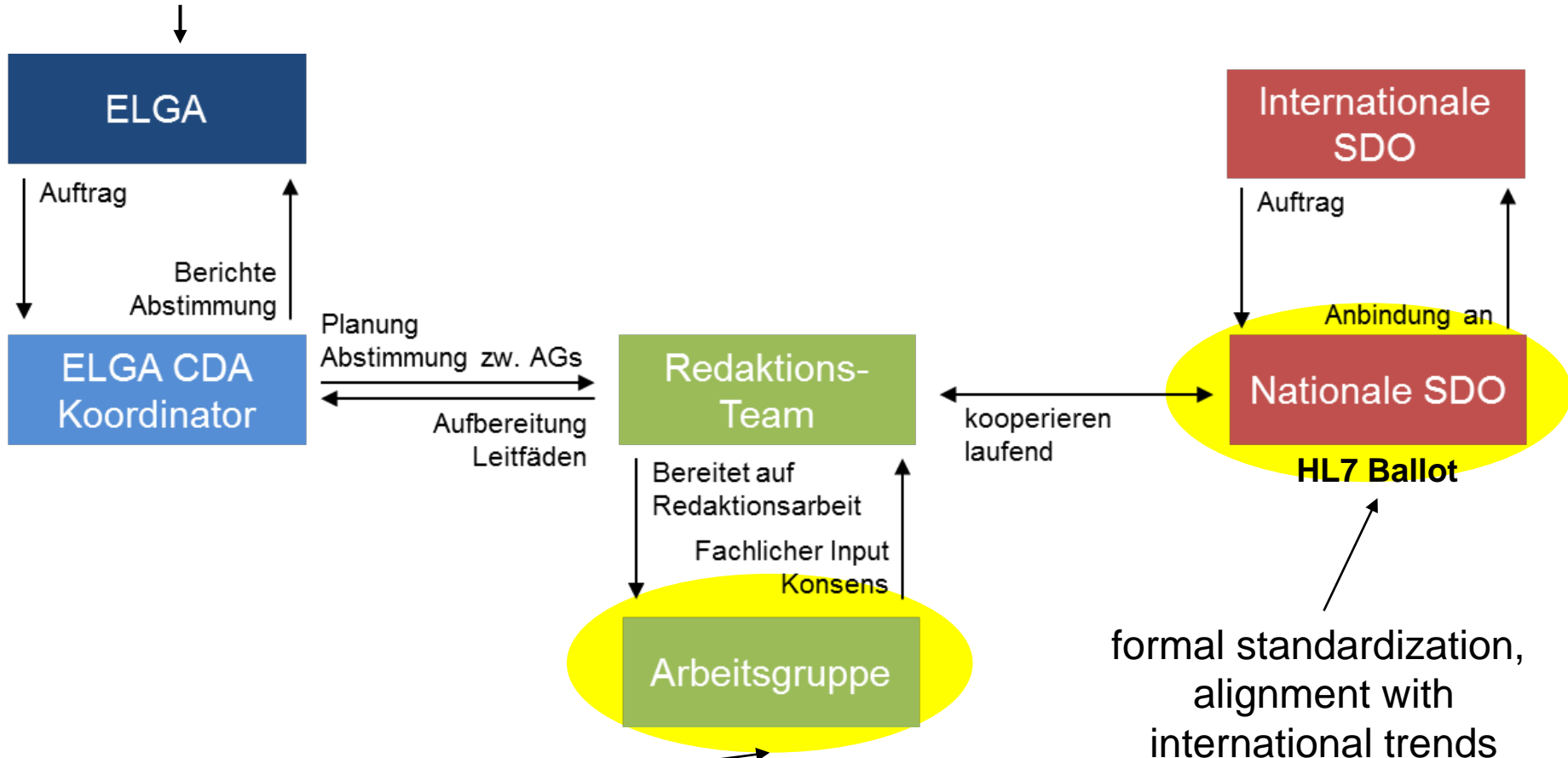
- Blueprint for ELGA-Reports **defining content, structure and format**
- **Metadata („basic“)**
 - set of common metadata and coding
- **medical content („enhanced“)**
 - mandatory und optional sections
 - visual content elements (tables, lists)
- **Information and data coding („full support“)**
 - Specifications & conformance criteria (e.g. diagnoses - ICD-10)



Cooperated IG development

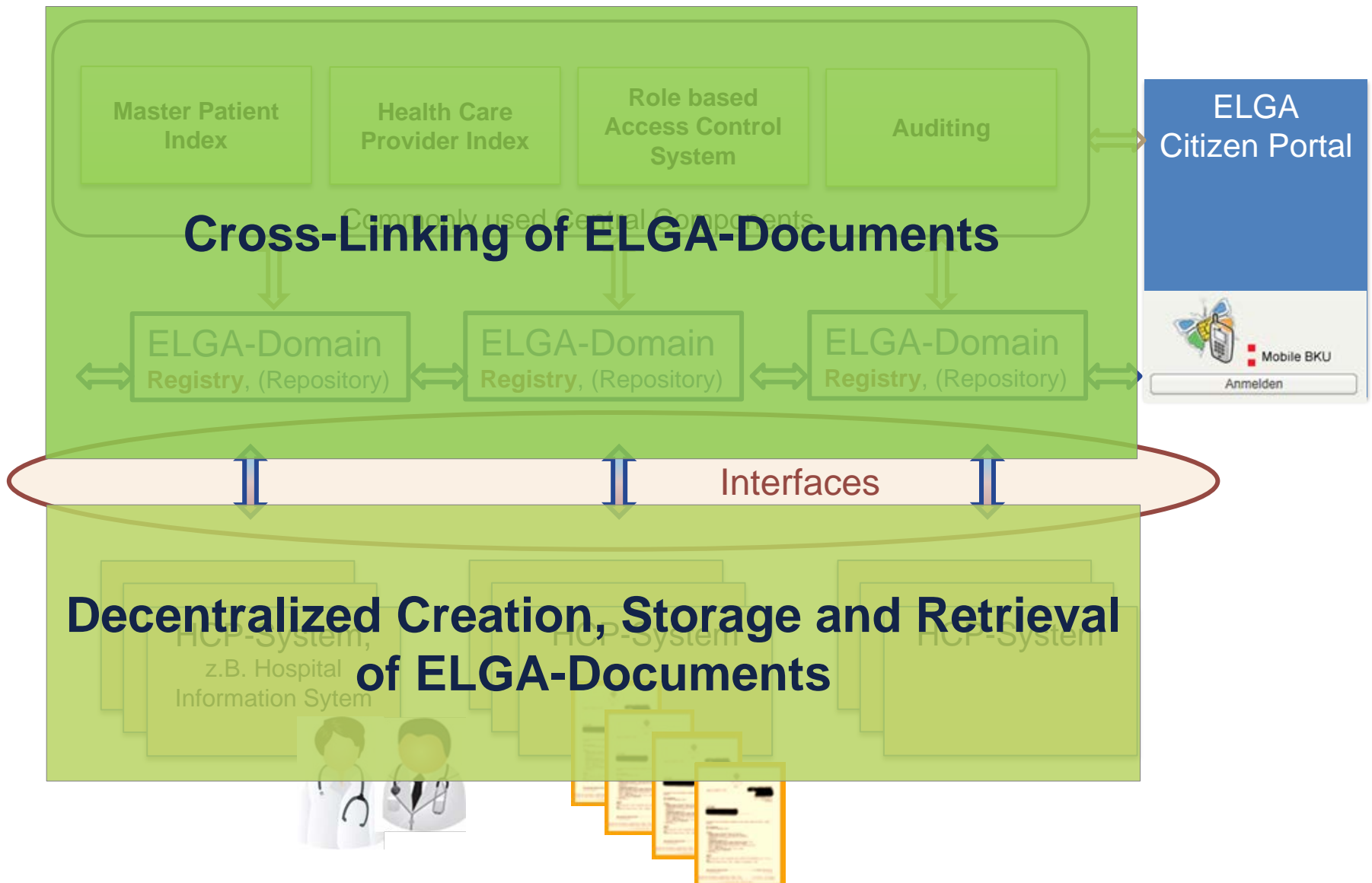


Task for harmonization

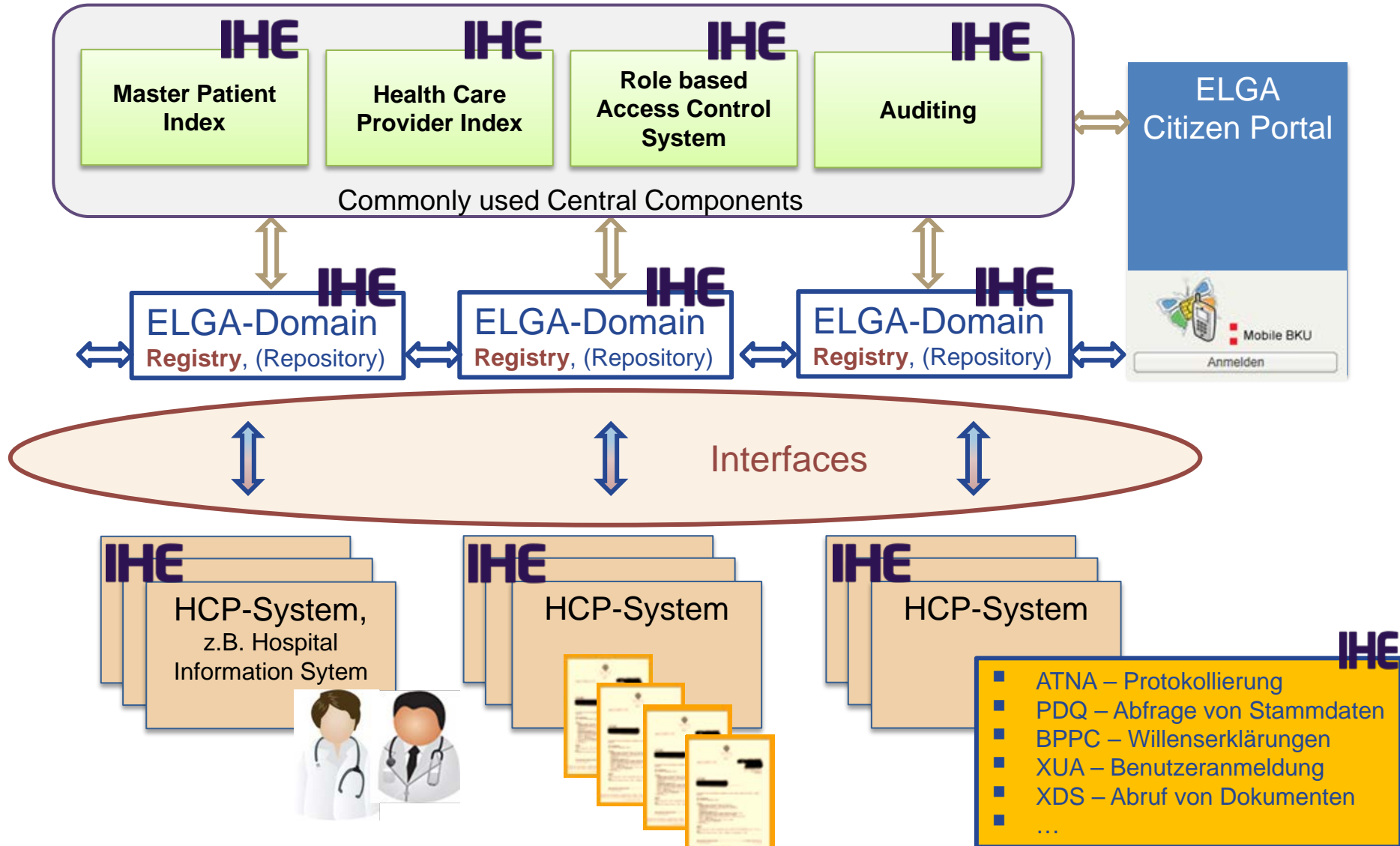


subject matter experts
„definition, content“

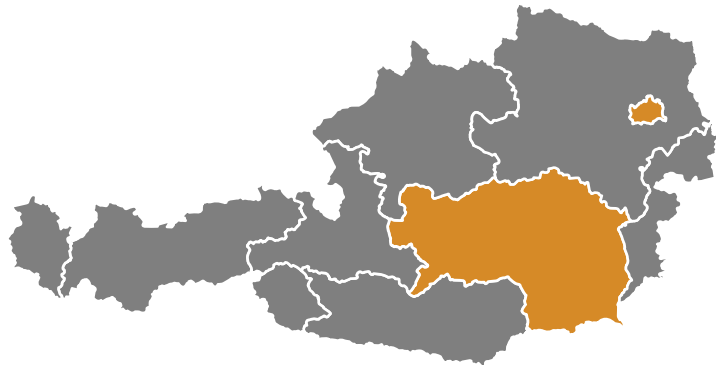
formal standardization,
alignment with
international trends



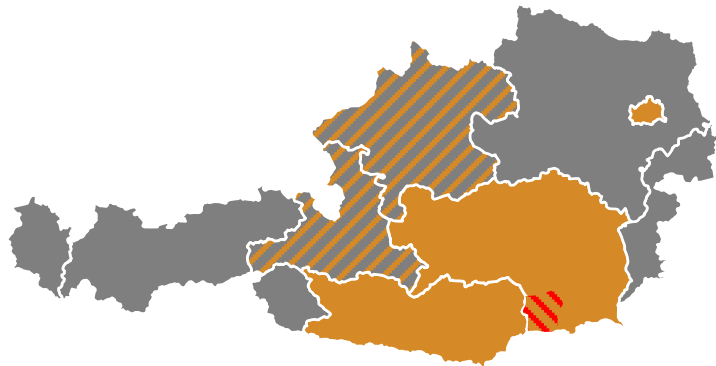
ELGA Architecture at a glance



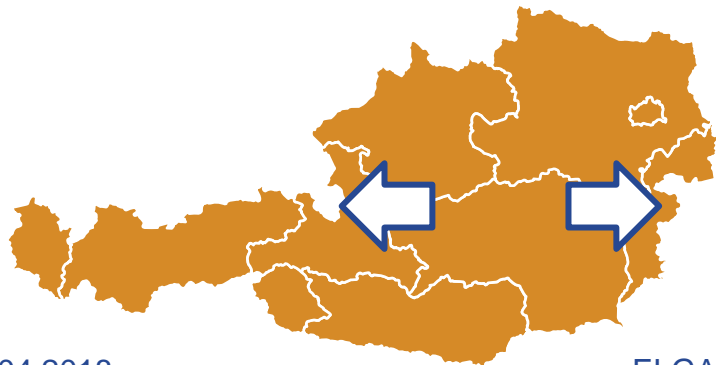
Rollout of ELGA-Domains



- Go-Live 12/2015
- 1st Wave: Public Hospital in Vienna and Styria



- Go-Live 1. Spring 2016
- 2nd Wave: Public Hospitals in Carinthia and Hospital of AUVA (Austria's national accident insurance institution)
 - e-Medication trial run in Deutschlandsberg



- Go-Live since Autumn 2016
- Another nine ELGA-Domains

	Not yet connected
	ELGA-domains of federal provinces
	ELGA-domain of AUVA
	E-Medication trial region

Performance indicators by March 31st, 2018



Documents (Total 14.2 Mio)

- Discharge summary medical: 2.6 Mio
- Discharge summary nursing: 0.7 Mio
- Lab report: 7.4 Mio
- Radiology report: 3.5 Mio

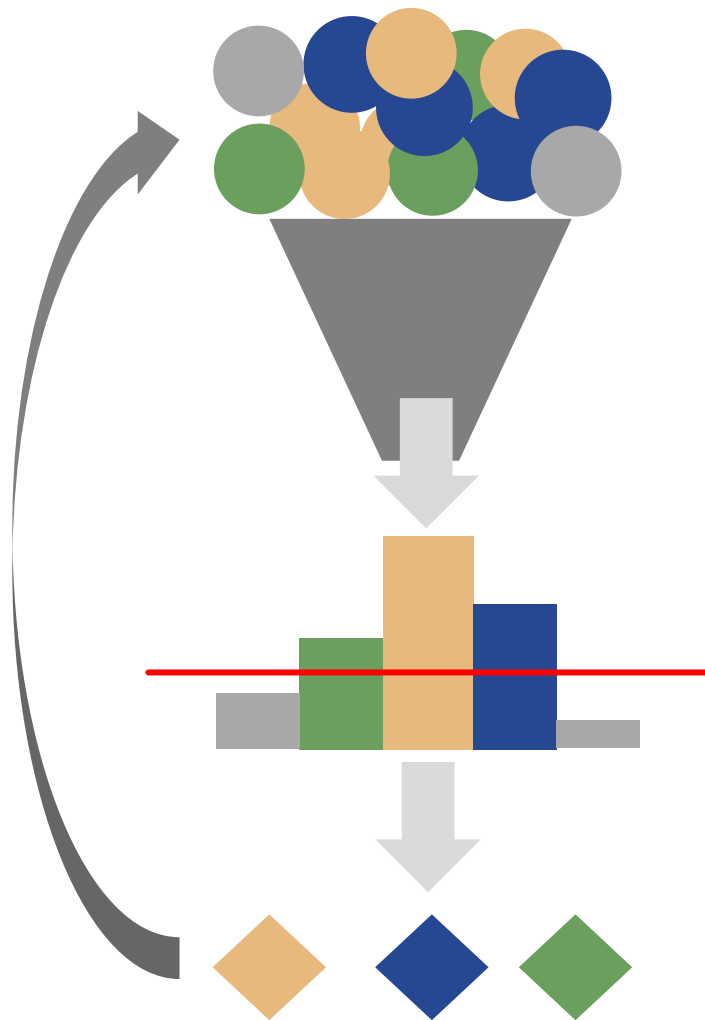
Contacts

- Citizens with ELGA-contact: 4.7 Mio. (out of 8.8 Mio)

Opt-Out

- Generic Opt-Out: 266.000 (3,0%)

→ ELGA reached routine operation

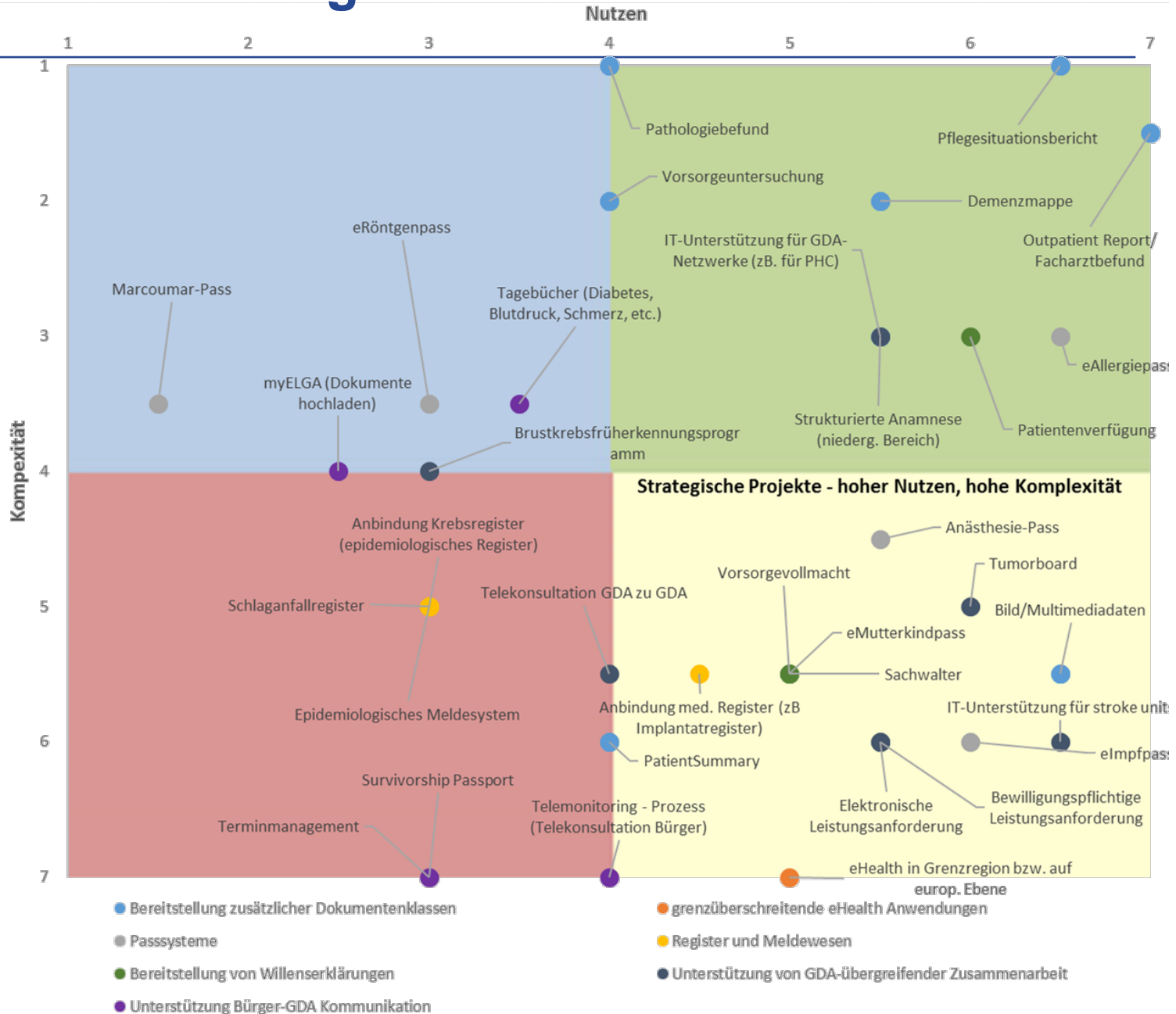


1. eHealth Applications

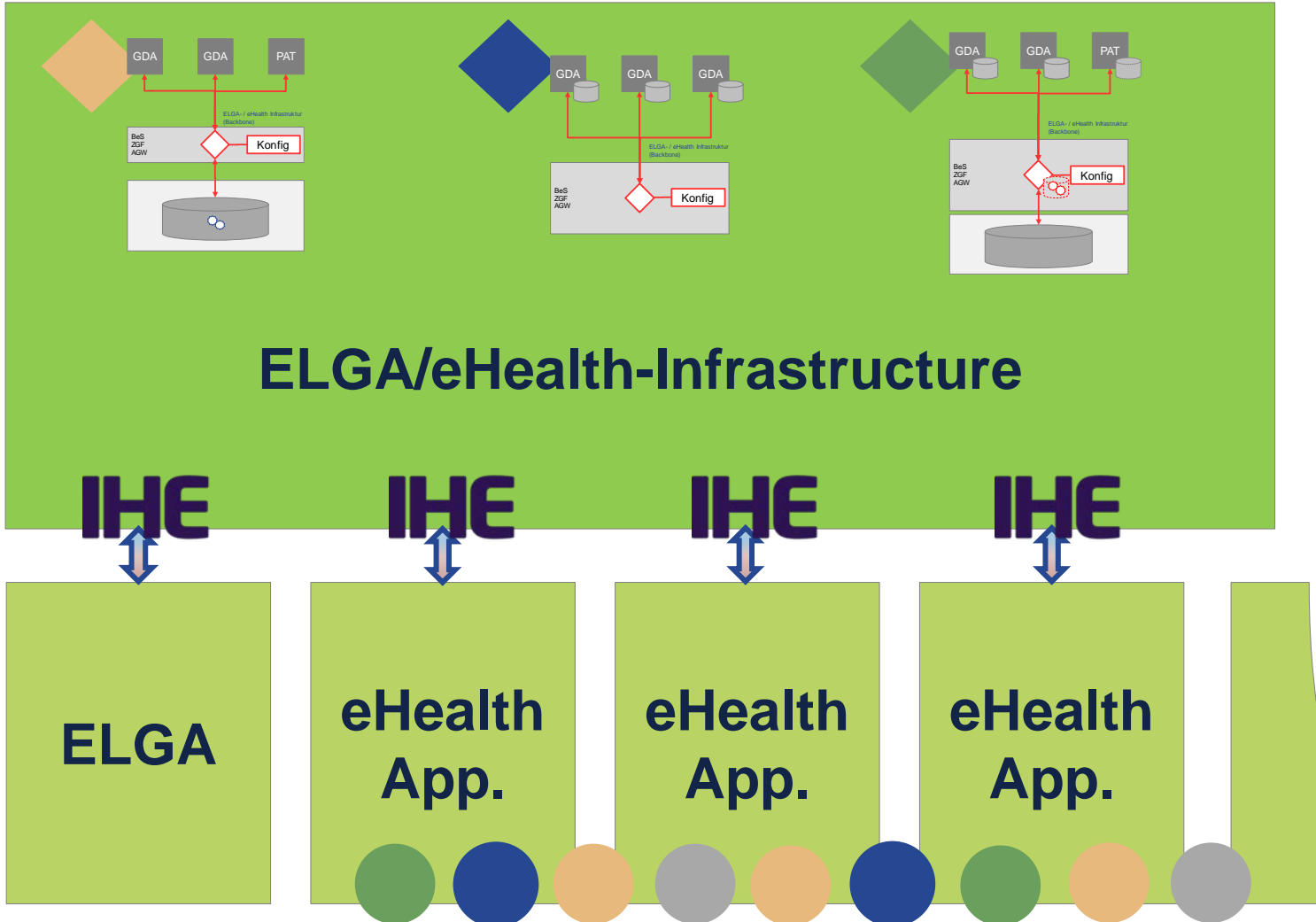
2. Classification / Clustering

3. e-Health Infrastructure

ELGA towards a generic eHealth infrastructure



ELGA towards a generic eHealth infrastructure



- **Less specification efforts**
- **Simplification for heterogeneous Infrastructures**
- **Product availability**
- **Proven compatibility of different products**
- **Definition of national extension possible**

→ Basis for ELGA-Architecture und Processes