

State-of-play on the implementation of the Austrian EHR system ELGA

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www.elga.gv.at/en

Brussels, May 15th 2018

Facts & Figures about the Austrian Health Care System



■ Expenditure: 10,4% (OECD)

■ Population: 8,8 Mio

■ Hospitals: 271 (65.000 beds)

■ Medical Doctors in hospitals: 24.700 (include 7.200 doctors in training)

■ Medical Doctors in practice: 20.300 (include 10.400 doctors with contract to any social insurance)

■ Outpatient clinics: 850

■ Nursing homes: 1.050

■ Pharmacies: 1.400

- Financed by MoH, federal states and social insurances
 - Contracted doctors: financed by social insurance
 - Public hospitals: shared financing, but operations by federal states

About ELGA



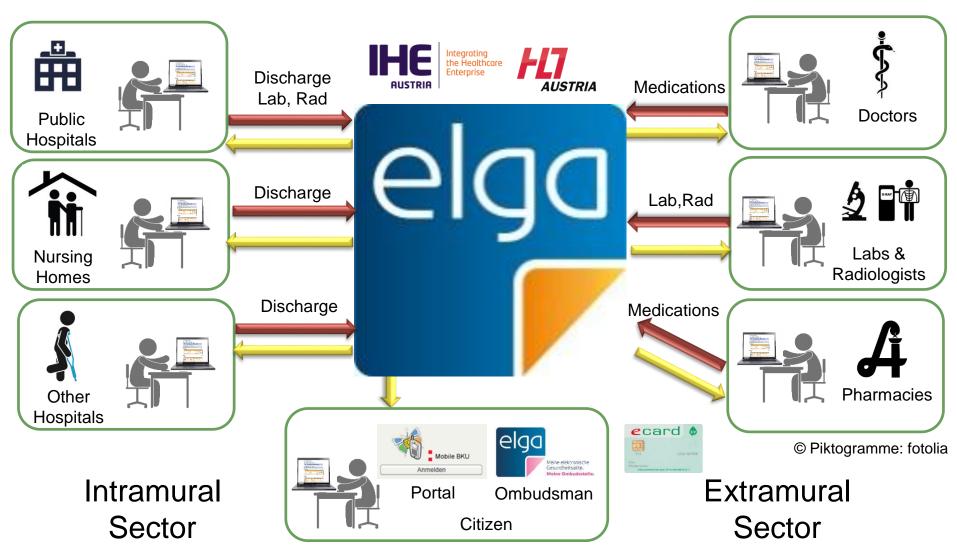
- ELGA stands for "Elektronische Gesundheitsakte"
 - is a political decision (joint forces for national EHR)
 - ELGA as main e-Health "backbone infrastructure"
 - Shared financing (MoH, social security, federal provinces)
- Patient-centered vs. HCP-centered communication
 - Improvement of patient safety and provider collaboration
 - Re-use of existing documents & public IT-infrastructure (ecard)

■ Timeline

- 2006 Feasibility study, 2009 founding of "ELGA GmbH"
- 2010 start master patient Index, 2011 eMedication pilot
- 2012 ELGA act (Opt-out), 2015 Go-live first Hospital

How does ELGA work?





Legal Framework - The "ELGA Act"



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

Standardized Content IHE







- 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

Bei Zustand nach Gelenksempyem im linken Knie (2/08) durch Fremdkörper neuerlicher Fieberanstieg und Gelenksschwellung. (OP am 12.2.2008: ASK li. Kniegelenk, Gelenksspülung und Synovektomie, FK-Bergung aus der li. Quadrizepssehne, Spülung, antimikrobielle Therapie mit Dalacin 300 mg als Kl 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

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

OP in AN am 16.3.2009: ASK, Gelenksspülung; 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.

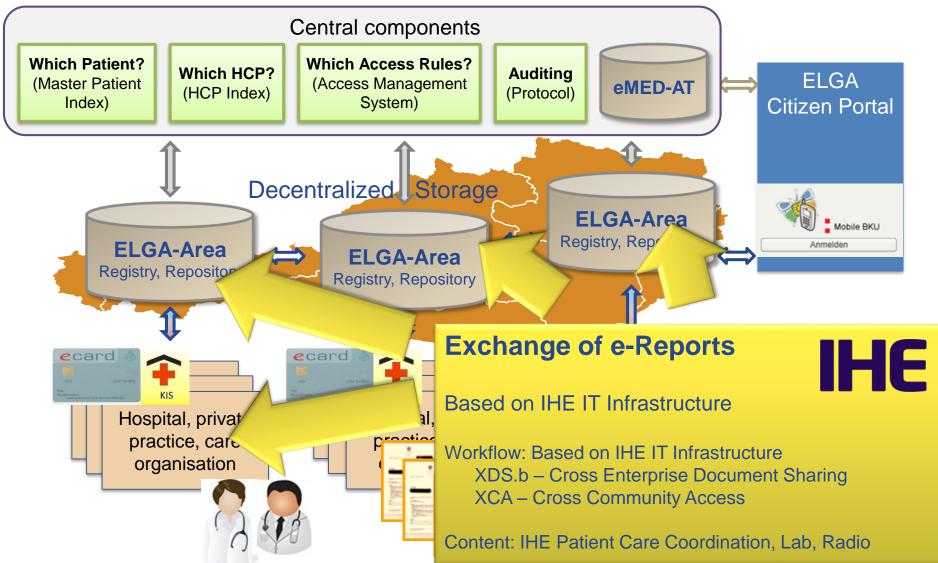
Empfohlene Medikation

[†]

[1]

ELGA Overview architecture





ELGA Governance Structure during implementation



General assembly (=sponsors, board level)

Austrian Minister of Health and Women's Affairs

- 9 Federal States' Minsters of Health ("Gesundheitslandesräte")
- CEO Main Association of Austrian Social Security Institutions ("HVB")

Coordination committee

(broad, board minus one)

- Strategic steering committee (slim, selective board and board minus one of sponsors, board level of strategic suppliers)
- Division Head of the Ministry of Health and Women's Affairs
- Two IT Directors of Federal States' Healthcare Funds
- Deputy CEO Austrian Workers'
 Compensation Board (AUVA)
- IT-Director Main Association of Austrian Social Security Institutions (HVB)
- CEOs or Division Heads of strategic suppliers

- Strategic steering committee
- PLUS all IT Directors of 9
 Federal States' Healthcare
 Funds + Deputies

Operative steering committee (PM level)

- CEO ELGA GmbH
- Project Managers
- Chief IT-Architects
- Chief IT-Test
- IT-Operations Coordinator
- Programme Managers

PM
Project

Project

PM
Project

Agile task forces solve specific problems

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ELGA GmbH



- Founded on Nov. 2009
 - **Currently 22 employees**
 - Shareholders: Ministry of health, social security, federal provinces
- **■** Responsible for
 - **■** Architecture
 - Definition of document structures (CDA-Documents)
 - Implementation,
 - Integration testing
 - Rollout
 - Strategic coordination of operations
 - **■** Development of future e-Health applications

Financing Table



Group	Component	Implementation	Operations	Advancement	
Architecture Components	Patient identicifaction		Social Insurance		
	Provider identification		Minietry		
	Web-Portal for patients	Shared Ministry		Shared	
	Acces Control System		Shared	Snareu	
	Logging/Auditing System		Shared		
Applications	e-Medikation	Social Insurance	Social insurance		
	Vaccination pass	in discussion			
Organisational units for operations	Testcenter				
	Serviceline	Shared	Shared	Shared	
	Clearing	Shared			
	Security]			
Organisational units for legal requirements	Profession of patient declarations ("opt out") ELGA ombudsman	Ministry Ministry		Ministry	
	Terminologies				
ELGA GmbH	Company expenses	Shared	Shared	Shared	
ELGA-Domains	Data Storages	Federal States	Federal States	Federal States	
HCP Software	HIS	Federal States	Federal States	Federal States	
	HCP Software Funding Programme	Ministry	Social Insurance	-	

Shared expenses from 2010 to 2020 about **100 Mio. €**

Rollout e-Medikation





Rollout Status per May 8th 2018



Individuals

- 8,8 Mio. indivduals in MPI
- 4,7 Mio. citizens with ELGA-contact
- 273.000 (3,1%) generic Opt-Out

Providers

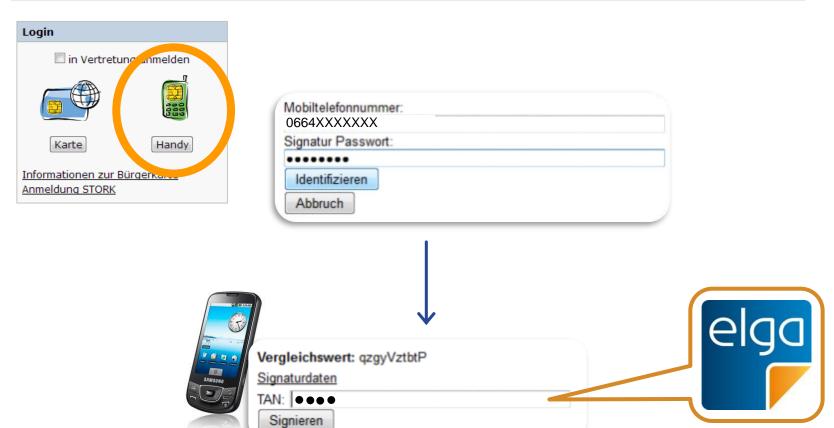
- 13 ELGA-Domains are online (8 federal provinces, 5 others)
- 128 connected hospitals (80% of hospital beds)
- 200 connected pharmacies (out of 1.400)
- 1.100 connected physicians (out of 20.300)

Documents

- 3,4 Mio. Discharge summary
- 7.8 Mio. Lab report
- 3.7 Mio. Radiology report
- 2,1 Mio. e-Medications (prescriptions and dispenses)

ELGA login via mobile phone

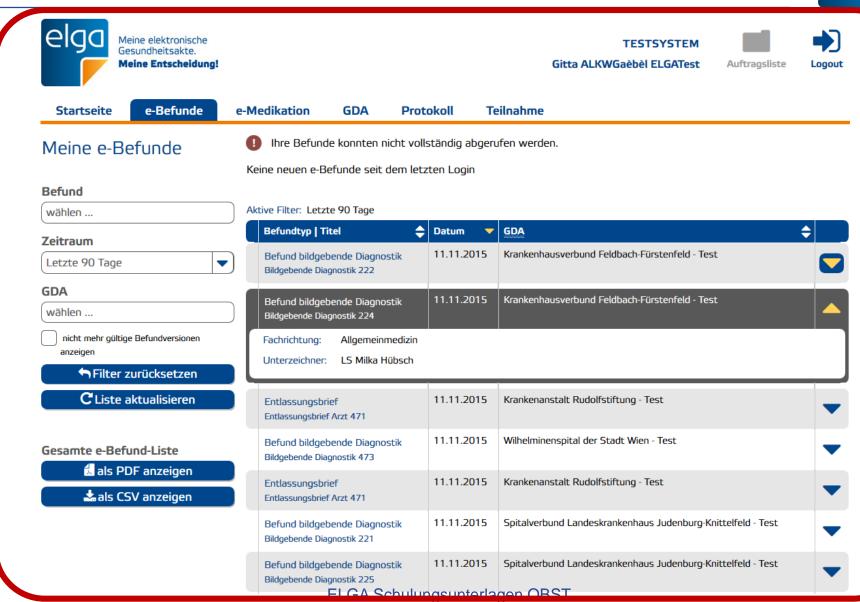




- Advantage: Known system (like e-banking TAN system)
- works with e-government registers

ELGA-Portal: Document overview





ELGA-Portal: Document display



Befund bildgebende Diagnostik

Bildgebende Diagnostik 222 11.11.2015











Bildgebende Diagnostik 222

Erzeugt am 14. Oktober 2015 um 11:42 Uhr | Version: 1



▼ Inhaltsverzeichnis ausklappen ▼ Alle Inhalte ausklappen

Patientin:

Dr.pharm. Hofrat Gitta Eckart ALKWGaèbèl ELGATest, BSc, MBA

Geschlecht: weiblich | geboren am: 17. Juni 1943 | SVN: 8959171543 |

Gesetzlicher Vertreter vorhanden

Besuch: Pflegeeinrichtung Abtenau - Pneumologie Ambulant von: 14. Oktober 2015 bis: 15. Oktober 2015 | Fallzahl: 222

Erstellt von:

Pflegeeinrichtung Abtenau -Pneumologie

An: Ordination Dr. Empfänger

Sehr geehrte Herr/Frau Kollege(in)

Dies ist ein Beispielbefund. Bei den Inhalten handelt es sich um synthetische Mustertexte und keinesfalls um personenbezogene Echtdaten oder realistische Befunde. Das Beispiel veranschaulicht die technischen Möglichkeiten unter Verwendung eines Maximums der erlaubten Optionen.

Anforderung

MRT der LWS

Anamnese

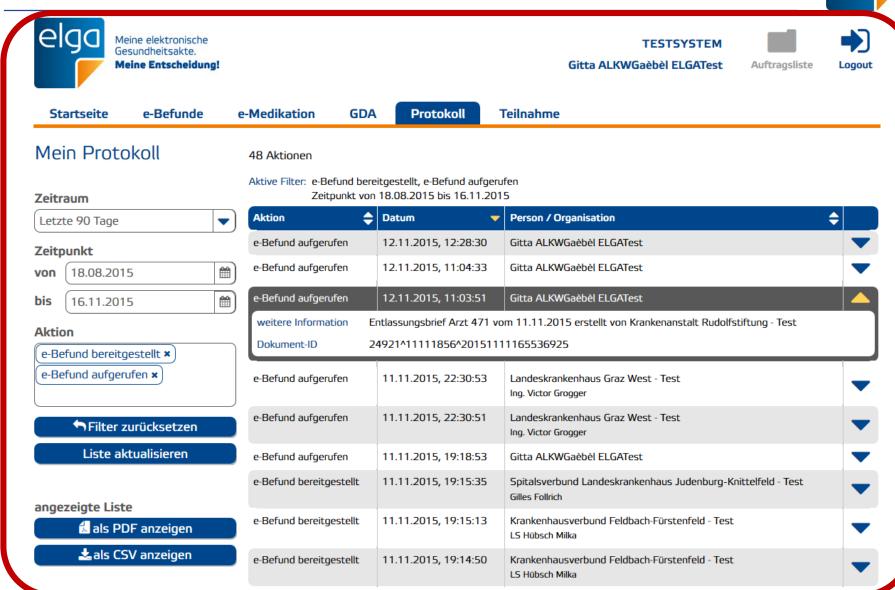
Akute Lumboischialgie, Laseque hoch positiv bei 30 Grad

Indikation

Verdacht auf Bandscheibenvorfall

ELGA-Portal: Access logs





Negative campaigns by doctors chamber

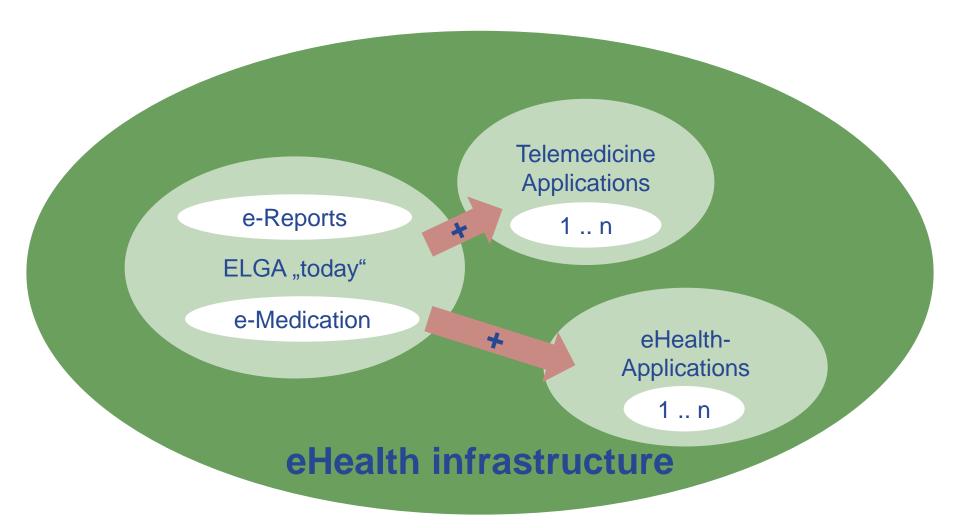






ELGA "today" and "tomorrow"





Transition Project to Product-Management



Stabilize

- Rollout e-Medication
- Improve e-Documents (Usability, Processes)
- Financing Labs, Radiologists, Private-Hospitals, etc.
- AcceptanceManagement(ELGA is not an APP)

Where to invest?

Who pays what?

eHealth Roadmap

- ELGA as national e-Health Infrastructure
- Virtuelle Networks (PHC, tumor boards)
- New eDocument classes
- App Container (Vaccination Pass, Mother-Child-Pass)
- Aggregationservice (Patient Summary → Cockpit)
- Include medical registries
- Secondary Use of data



Thank You!

More: www.elga.gv.at/en