

APEHRC 2019

in collaboration with **GDHP**

16 – 19 Oct 2019 | Hong Kong Science Park

The Next Big Thing
in eHealth



Meine elektronische
Gesundheitsakte

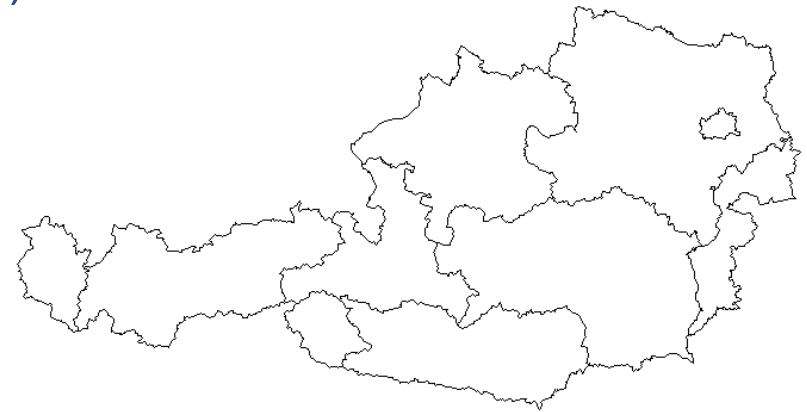
Austrian country perspective

**National eHealth Infrastructure ELGA
Use-cases, Policies and Architecture**

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GDHP representative of Austria

- Population: **8,36 Mio** (equipped with e-card)
- Hospitals: **262** (containing 63.763 beds)
- Medical Doctors in hospitals: **21.700**
- Care personnel: **82.600**
- General practitioners: **6.400**
- Specialists: **19.200**
- Dentists: **4.600**
- Doctors in training: **6.900**
- Midwives: **1.800**
- Pharmacies: **2.250**
 - (Public pharmacies and pharmacies in hospitals and with general practitioners)



**The 3 owners
of ELGA**

- **Financing by Federal entity, Provinces and Social insurances**

- **Federal ELGA law created in 2013 as legal basis ([Link to ELGA law](#))**
- **Participation in ELGA of citizens is voluntarily by „Opt Out“ („in“ by default)**
 - Objection against the **creation** of data
 - generally or
 - within the individual case of treatment and care (“situative opt-out”)
 - Objection against **access** to data
 - generally or
 - concerning individual applications or
 - for specific HCPs or documents
 - View documents: **Patient can view/download** own documents and medication list
 - View access log: **Patient can view who has accessed** which data at which time
- **Participation in ELGA of healthcare service providers is **mandatory****
- **Provisions to the quality of documents in ELGA**
 - **Only nation-wide harmonized document-types are allowed!**
- **Ban on use for (physicians of) insurances, government, employers, etc.**
- **Timeline:** Decision: 2006 - Planning: 2007- 2014 - Rollout: since 2015

This ensures semantic interoperability!

■ Current use cases

- Identification of patient and access to demographic data
- Authentication of health service provider and patient
- Access control and logging
- ELGA app 1: **e-Reports**: Sharing clinical documentation
 - Discharge Summary (Physician, Nursing), Radio report, Lab report, Nursing report
- ELGA app 2: **e-Medication**: Sharing medication data (clinical scope)
 - Aka „Patient’s Medication List“

■ Currently in pilot

- e-Immunization: Immunization registry for all citizens
- Exchange of Images: Sharing clinical images

■ Currently in design phase

- e-Prescription (reimbursement scope)
- e-Reports: Outpatient report

ELGA connects all facilities

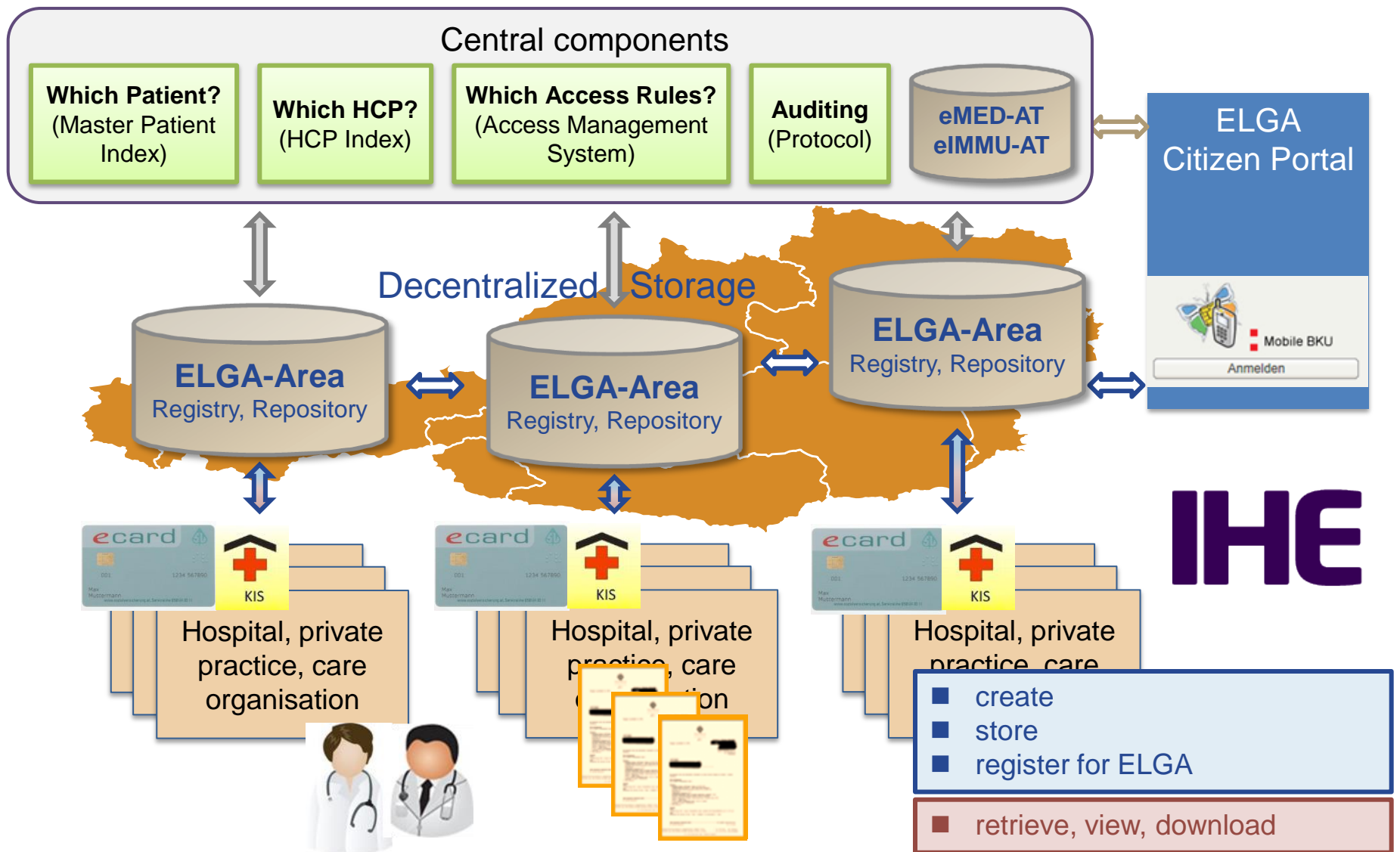
**It’s the national e-Health
“backbone infrastructure”**

■ Future

- **Main focus on** convergence of Clinical- and Administration processes!
- **Share more document types** (“more e-Reports”)
 - Pathology report, Patient Summary, Advanced directives, ...
- **e-Referral**
- **Tele-consultations** and **Tele-monitoring** (device communication)
- All use-cases needed for engagement of the citizen by **mHealth**
 - Appointments, Doctor/Patient communications, Mother/Child management and process

■ **General motto:** design everything for nation-wide coverage

ELGA architecture



- **IHE Profiles used:**

- Patient identification and demographics: PIXv3/PDQv3
- Sharing clinical documents: Cross-Enterprise Document Sharing (XDS.b), XCA
- Sharing medication information: CMPD, PRE, DIS, PADV, PML
- Access control and audit: ATNA
- Healthcare Provider Authentication: XUA
- Discharge Summaries and Nursing Reports: XDS-MS
- Laboratory reports: XD-LAB



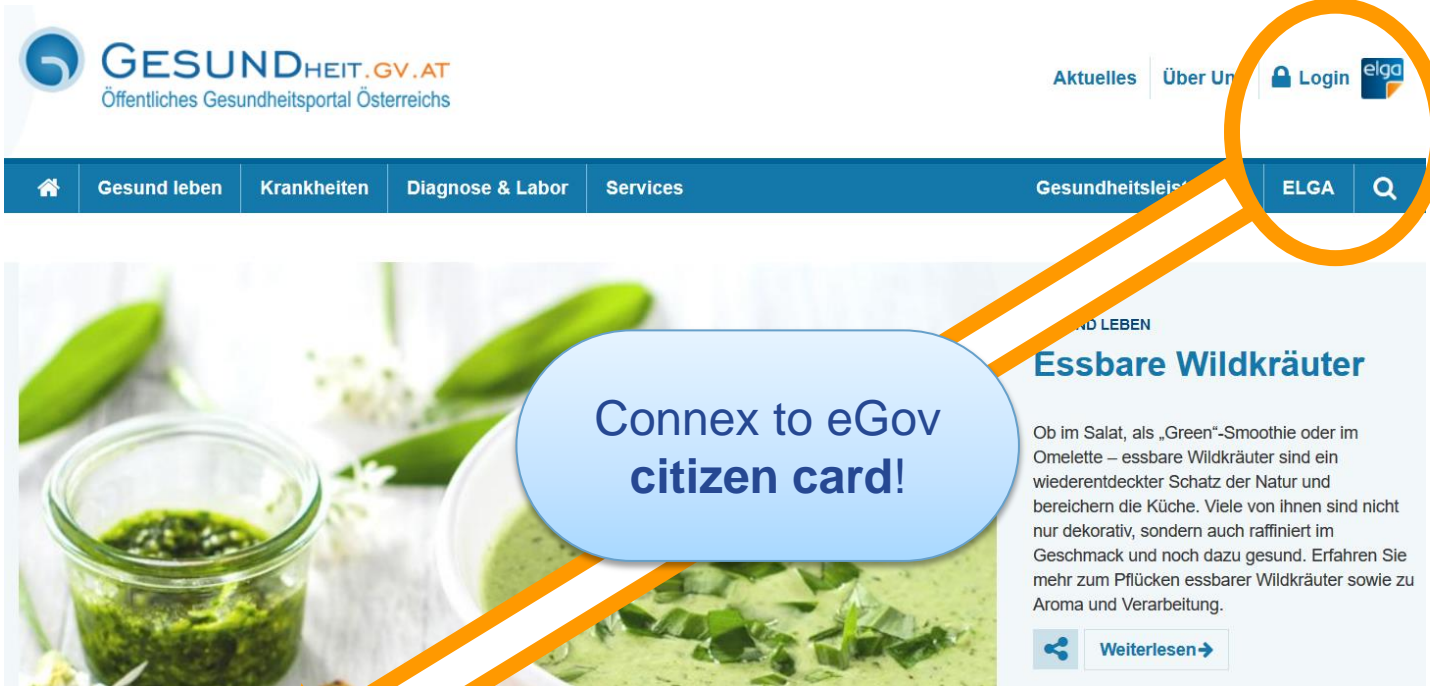
- **International standards used (endorsed by IHE profiles):**

- Transport standards: W3C (SOAP, HTTP), TLS, OASIS SAML, WS-Trust
- OASIS ebXML for Cross-Enterprise Document Sharing
- HL7® CDA® for nation-wide harmonized clinical documents
- HL7® v3.x for patient-identification related communication
- DICOM – international imaging standard (WADO)

- **Terminologies & classifications used:**

- ICD-10, LOINC, SNOMED-CT, Austrian terminologies (medicines, etc.)

Citizen portal / ELGA portal



Citizen portal

- Common health info
- ELGA info
- Login to ELGA
- Sponsor-free

ELGA portal

- Declare Opt-out
- View ELGA documents
- Manage access rights
- View access log



■ Coverage of ELGA

■ e-Report:

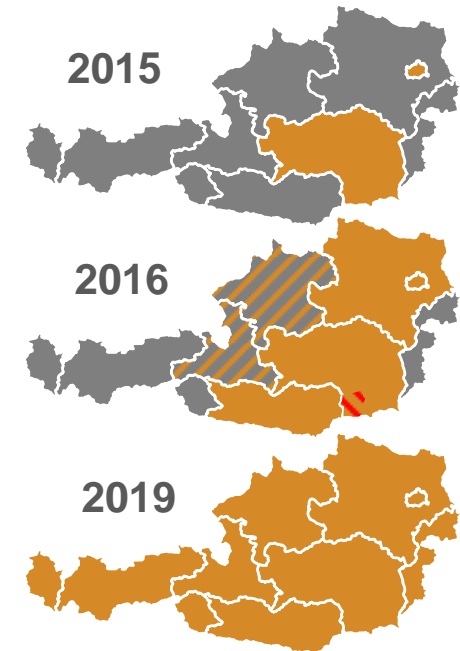
- Gov hospitals: 97,5% (89% of total beds)
- Other hospitals: 25%
- Selected PCPs reading

■ e-Medication:



- PCPs: 87%
- Pharmacies: 53%

■ Patients in ELGA

- 7,6 M patients registered in ELGA since go-live
- 99,5% unique ID coverage (non-citizens get an ID)
- 3% opted out (generally)
- 0,62% opted out (situative)



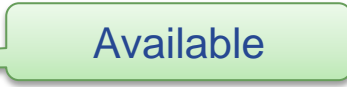
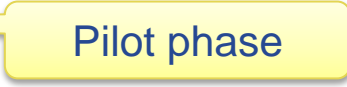

- **Stage 1: eHealth Digital Service Infrastructure (eHDSI)**

- Cross-border exchange of ...
 - Patient Summary 
 - e-Prescription 



COMMISSION RECOMMENDATION

- **Stage 2: EC Recommendation on a European Electronic Health Record exchange format**

- Further extend eHDSI by ...
 - Discharge Summary 
 - Radiology report and -images 
 - Lab reports 

Thank you

■ ELGA

- Austrian Citizen Health portal: www.gesundheit.gv.at
- ELGA Homepage: www.elga.gv.at

■ European Union

- eHealth Stakeholder Group: Report "Perspectives and Recommendations on Interoperability": [Stakeholder Group Report](#)
- European Commission recognizes 27 IHE profiles that should be referenced in public procurement documents: [EC Recommendation](#)
- EC Recommendation on a European Electronic Health Record exchange format: [European Electronic Health Record exchange format](#)

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