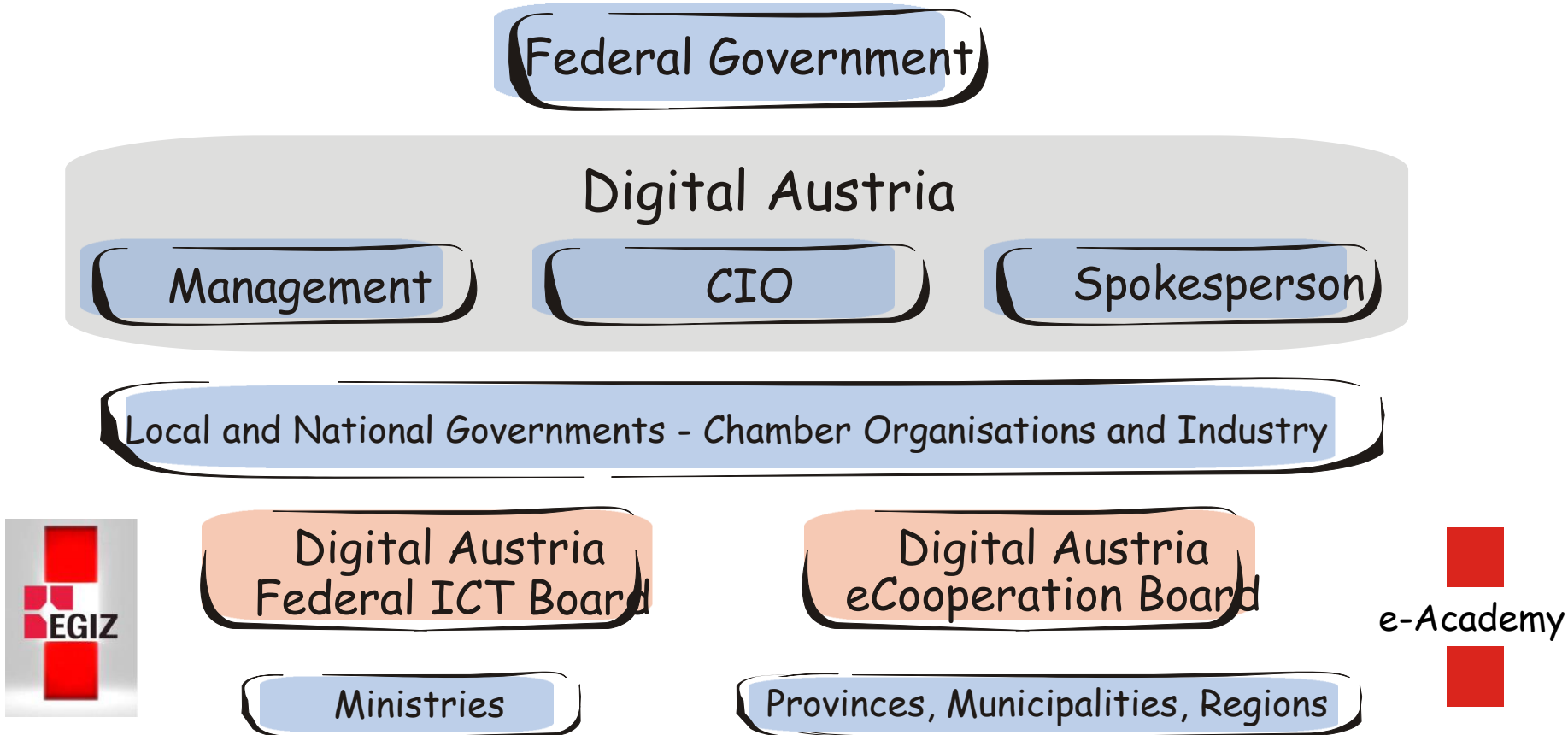# Challenges of the
semantic interoperability layer:
core registers and their contribution to

the core data model establishment

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ÖSTERREICH

VERNETZT

Governance

Federal Government

Digital Austria

Management   CIO   Spokesperson

Local and National Governments - Chamber Organisations and Industry

EGIZ

Digital Austria
Federal ICT Board

Digital Austria
eCooperation Board

e-Academy

Ministries

Provinces, Municipalities, Regions

ICT in the public sector is like a large vessel …

… it needs clear decisions quite ahead before real movement can be planned

constant procedures
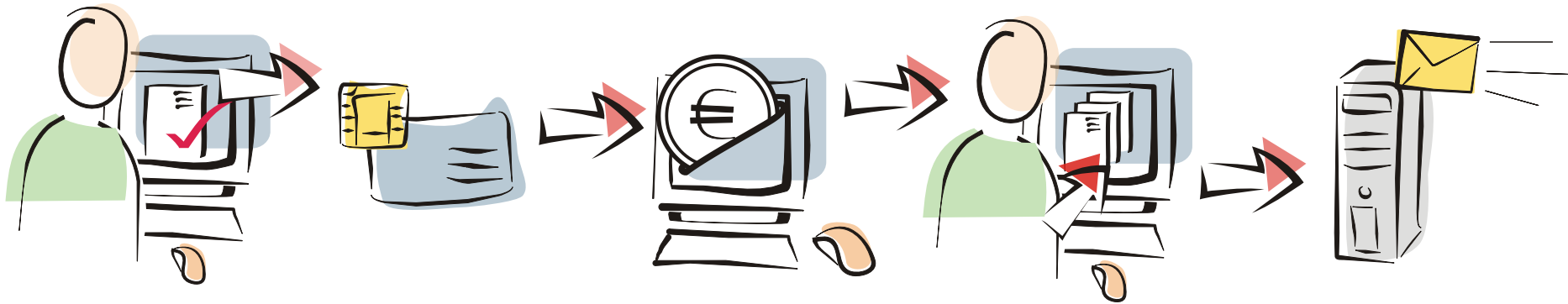
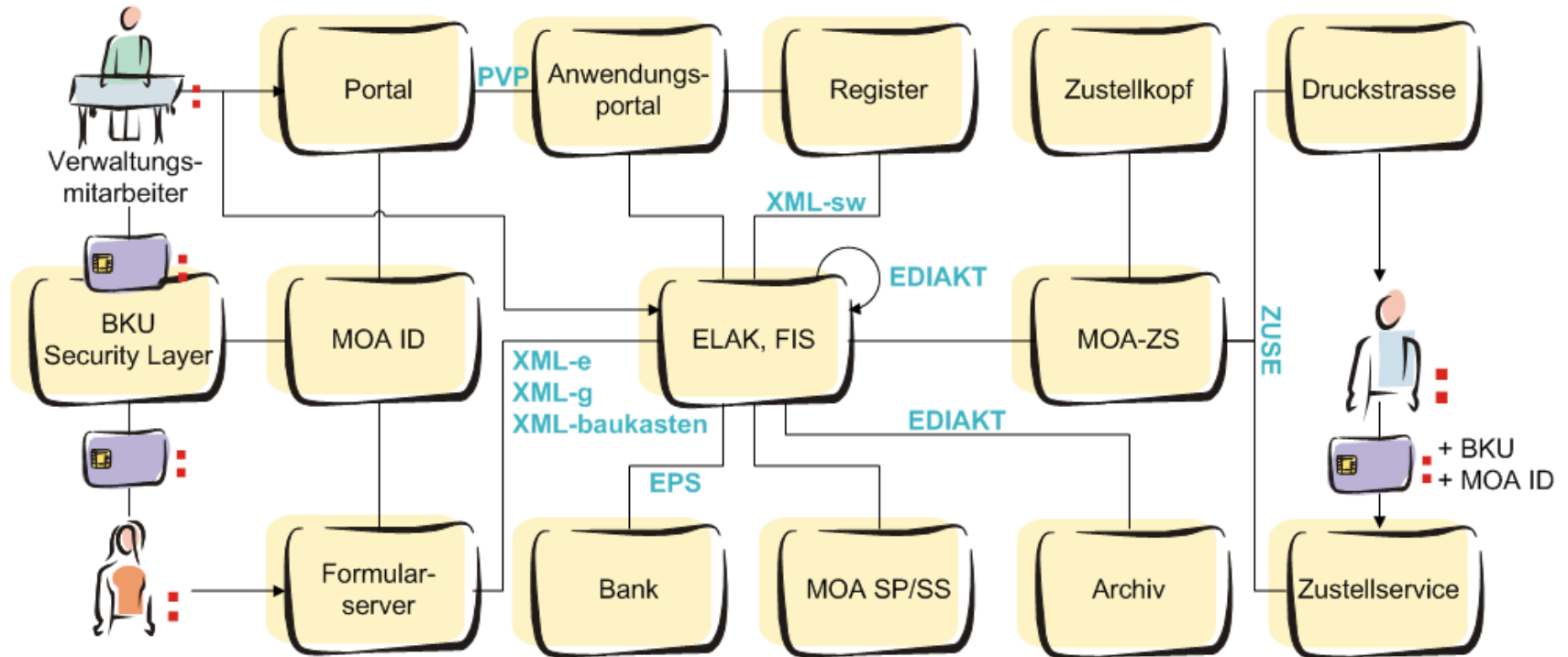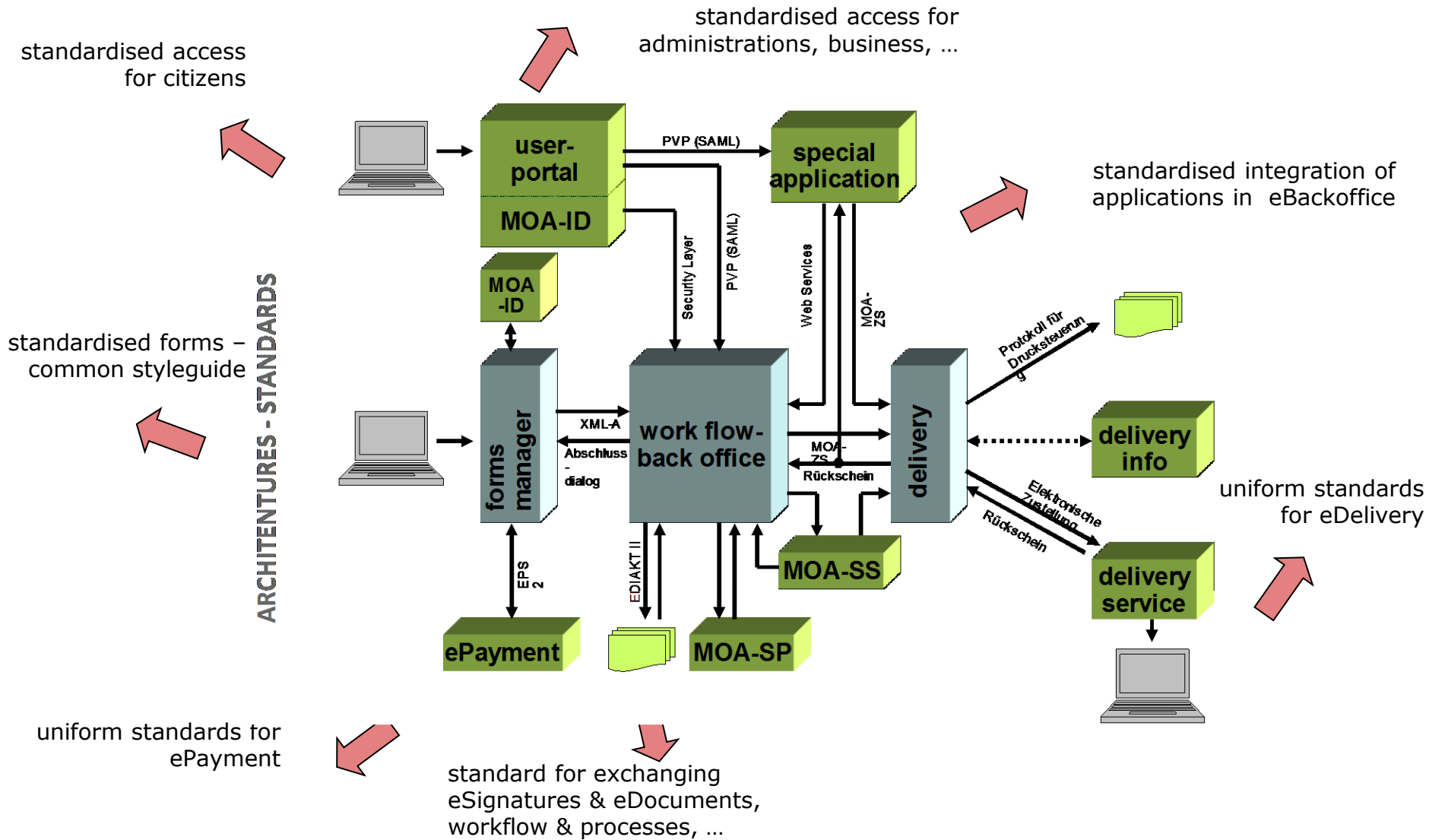| filling in form (XML) | signing with citizen card | ePayment (EPS) | back office activity(ELAK) | electronic delivery |

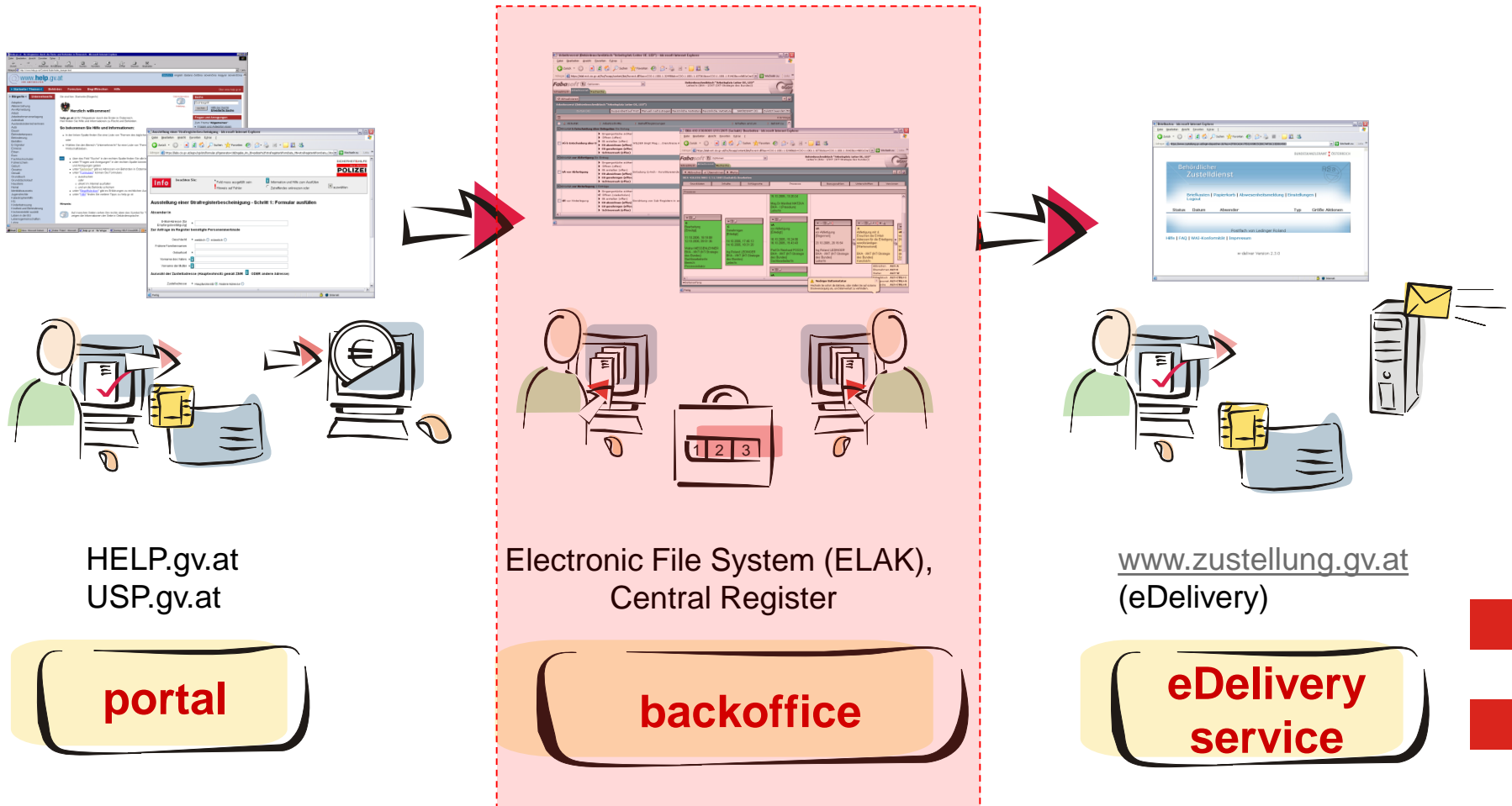**www.help.gv.at**   **www.buergerkarte.at**   **www.elak.gv.at**   **www.zustellung.gv.at**

reference model

reference model –
basic input for implementation

standardised access for citizens

standardised access for administrations, business, …

standardised integration of applications in eBackoffice

ARCHITENTURES - STANDARDS

standardised forms – common styleguide

uniform standards for eDelivery

uniform standards for ePayment

standard for exchanging eSignatures & eDocuments, workflow & processes, …

user-portal

MOA-ID

special application

PVP (SAML)

MOA-ID

Security Layer

PVP (SAML)

Web Services

MOA-ZS

MOA-ID

forms manager

work flow-back office

delivery

XML-A

Abschluss-dialog

MOA-ZS

Rückschein

Protokoll für Drucksteuerung

delivery info

Elektronische Zustellung

Rückschein

delivery service

EPS 2

EDIAKT II

MOA-SS

ePayment

MOA-SP

Goal: constant procedures

HELP.gv.at
USP.gv.at

portal

Electronic File System (ELAK),
Central Register

backoffice

www.zustellung.gv.at
(eDelivery)
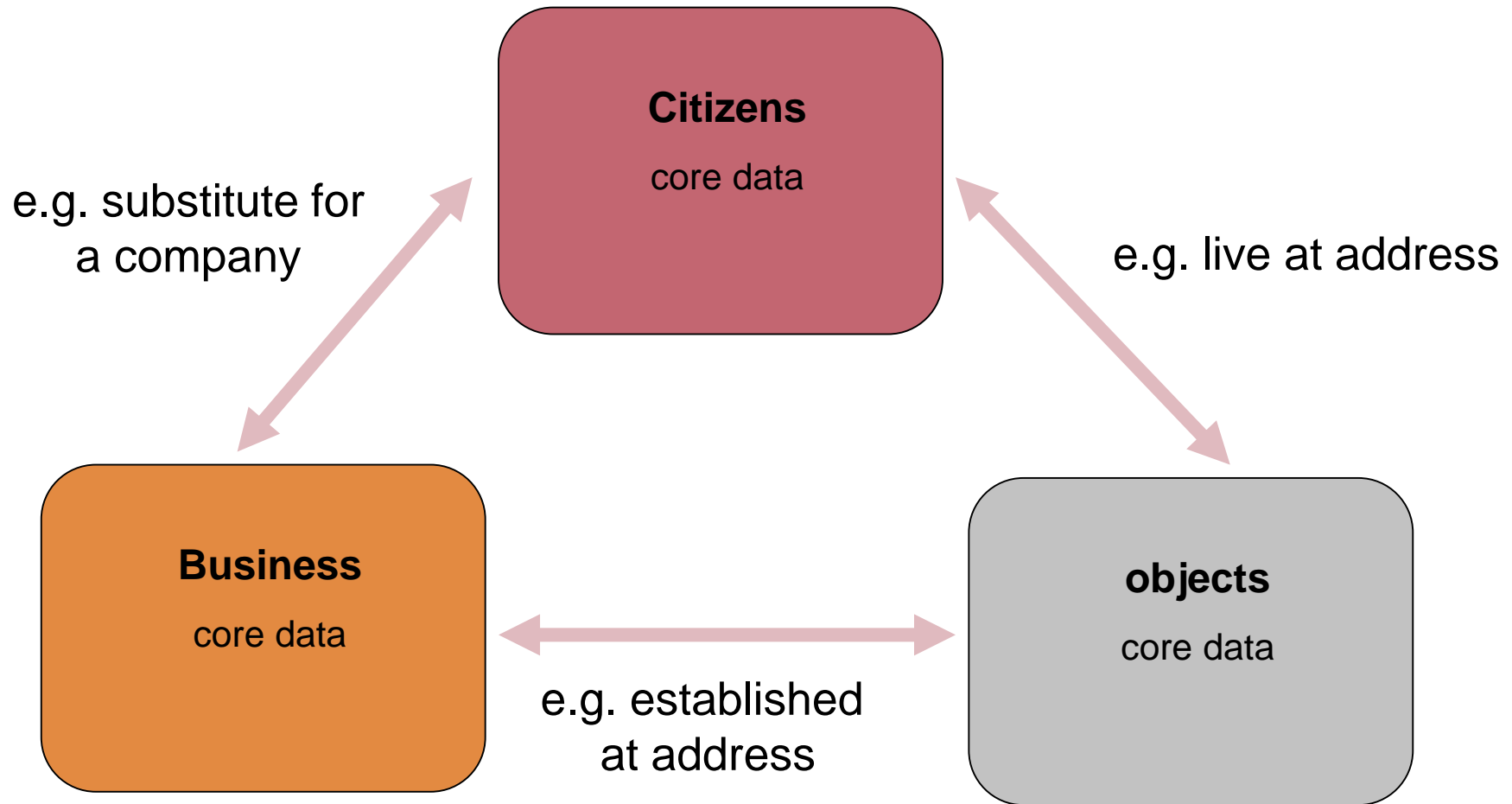
eDelivery service

State of registers …

Registers a base element in the back office

- three main core data (blocks)
  - Citizens
  - Business
  - Objects (building, address, …)
- central core data are necessary to
  - optimize official procedures
  - minimize data clearing between organizations
  - have a valid base for taxes, statistics, eID, ….

Registers interconnection of base data

Citizens
core data

e.g. substitute for
a company

e.g. live at address

Business
core data
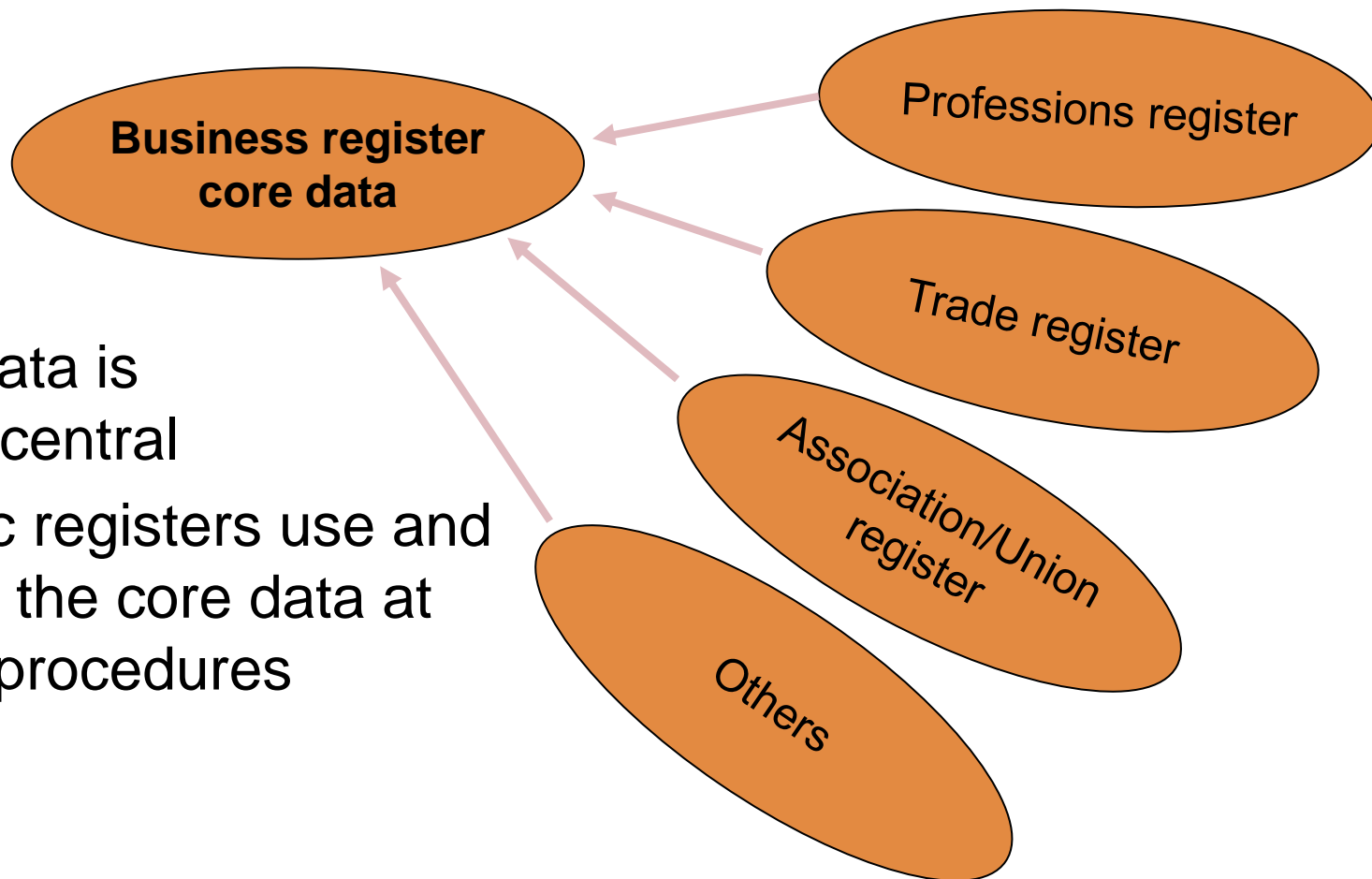
objects
core data

e.g. established
at address

Register core data (example Natural Persons)

- Marital/civil Status register & Central population register

- Sector specific register use the core person data register(s)

- Services are using core person data register(s) -> quality assurance, avoiding duplication, …
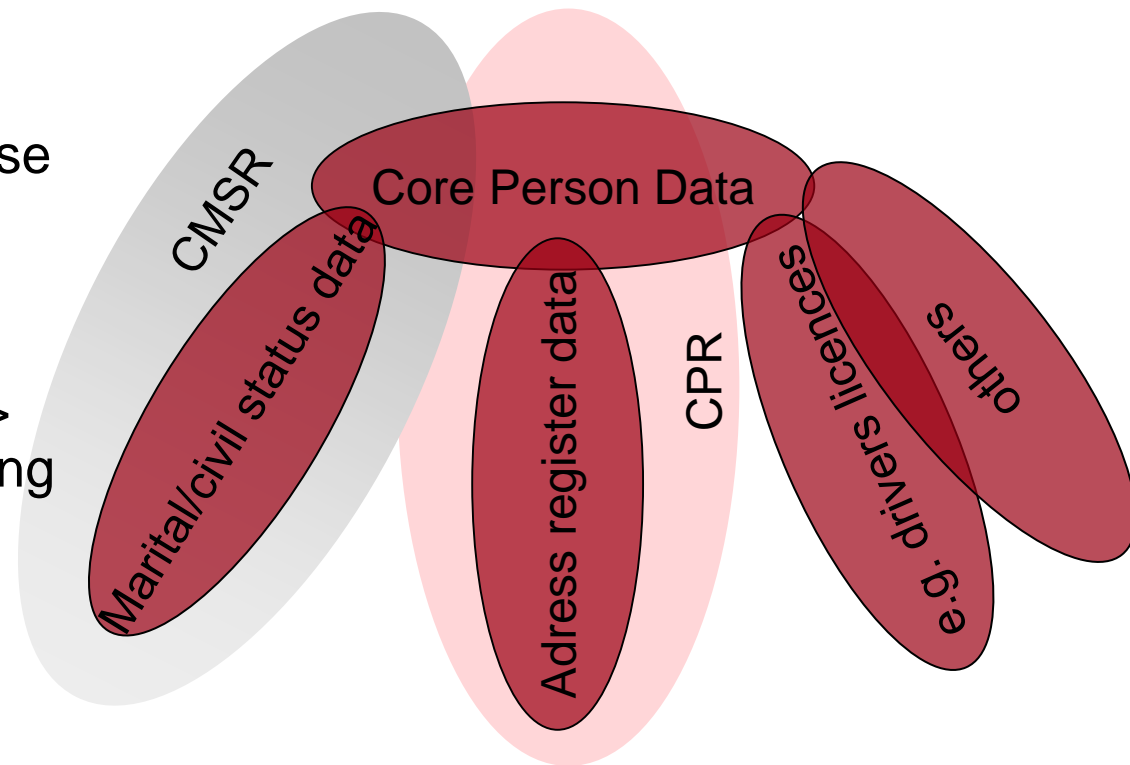
Register core data (example Business)

- Core data is stored central
- specific registers use and update the core data at actual procedures

Business register core data

Professions register

Trade register

Association/Union register

Others

Register queries

- Since the last amendment (30 December 2010) there is an obligation for public authorities to query directory services to verify the accuracy of the data used in an official procedure.

- The pre-condition is either the approval of the applicant or a legal authorization for the official data inquiry (§ 17 Abs. 2).

- The Implementation of all technical and organizational obligations has to be fulfilled by all official authorities and directory services until 31 December 2012.

Register(s) - a base element in the back office

- three main core data (blocks)
  - Citizens
  - Business
  - Objects (building, address, …)
- central core data are necessary to
  - optimize official procedures
  - minimize data clearing between organizations
  - have a valid base for taxes, statistics, eID, ….
  - Diacritic characters (UTF8/16, …)
- Lifecycle of data (f.e. 'PERSON')
  - I nsert,
  - U pdate,
  - D elete,
  - H istory,
  - (L ogging / J ournalising)
- Clearing Process (how to tie / split …)

Semantic Interoperability Framework
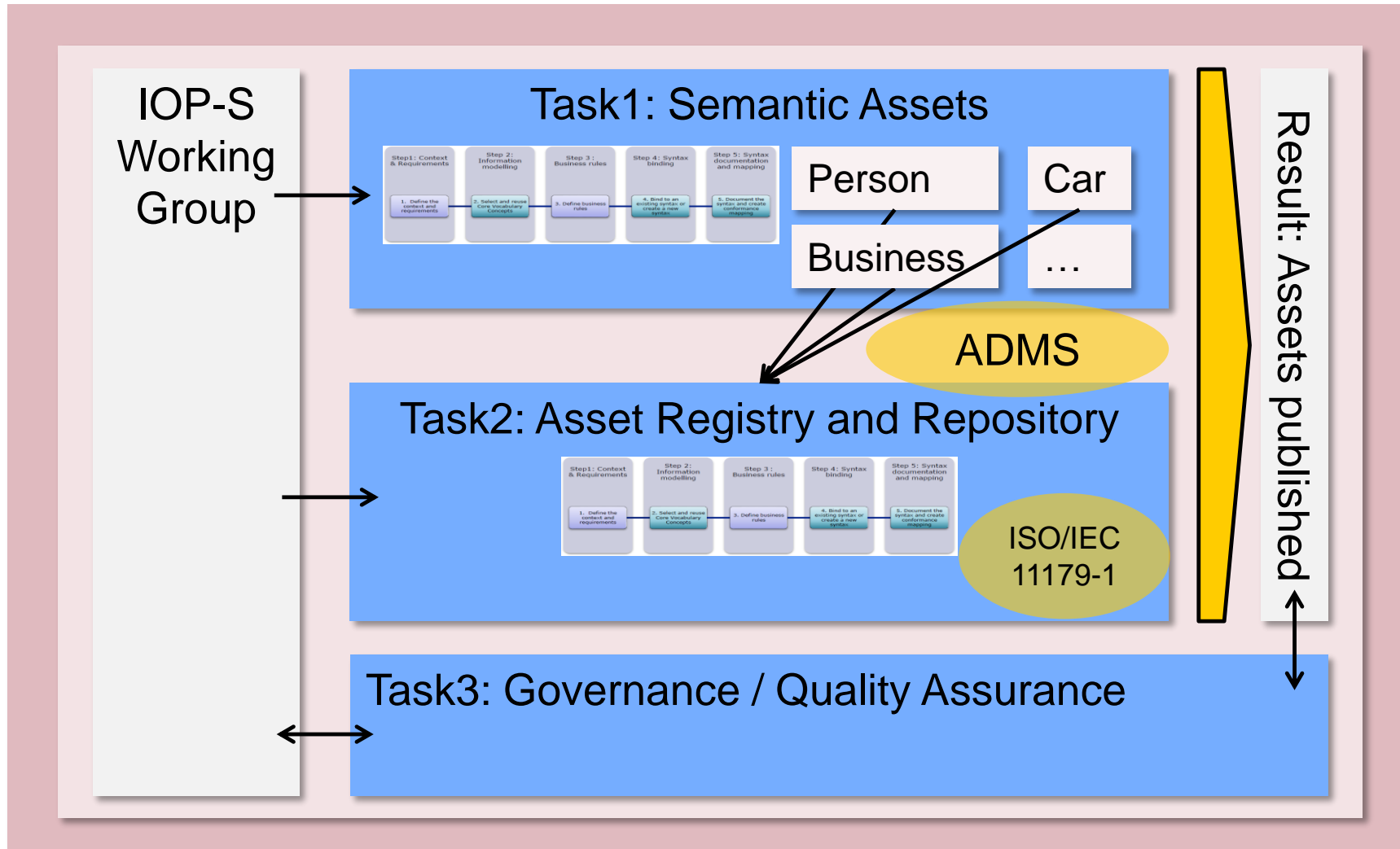
Semantic Assets

- Goal: Agreed assets
  for (government) institutions
  - specification, agreement, publication, re-use
- Vocabularies
  - Core vocabularies, e. g. for Persons, Businesses, Locations, Addresses, Cars, Public Services, Open Data
  - can be extended for domain specific purposes
  - are published in an Asset Repository for others to use (also private sector)
- Code lists
  - e.g . Eurostat standard code list marital status: single, married, registered partnership, widowed….
    23 different entries

ADMS
ASSET DESCRIPTION METADATA SCHEMA

CORE PERSON VOCABULARY

CORE BUSINESS VOCABULARY

CORE LOCATION VOCABULARY

CORE PUBLIC SERVICE VOCABULARY

eGOVERNMENT **CORE** VOCABULARIES

Detail

TOTAL Total Detail	
SIN Single persons (never in legal unions) Detail	
LUN Persons in legal unions (married or in registered partnership) Detail	
MAR Married persons Detail	
MARO Persons in an opposite-sex married couple	
MARS Persons in an same-sex married couple	
REP Persons in registered partnership Detail	
REPO Persons in an opposite-sex registered partnership	
REPS Persons in a same-sex registered partnership	
CSU Persons in consensual union	
DTHLUN Persons whose legal union ended with the death of the partner Detail	
WID Widowed persons Detail	
DTHREP Persons whose registered partnership ended with the death of the partner Detail	
DISLUN Persons whose legal union was legally dissolved Detail	
DIV Divorced persons Detail	
DISREP Persons whose registered partnership was legally dissolved Detail	
SEP Legally separated persons Detail	
NLUN Persons neither in registered partnership nor married Detail	
ENDLUN Persons whose legal union ended Detail	
NMAR Not married persons Detail	
NLUN_NCSU Persons neither in legal nor in consensual union	
NRP No response	
UNK Persons with unknown marital status	

Assets Registry and Asset Repository

- **Goal: Agreed assets
  for (government) institutions**
  - Specification, agreement, publication, re-use

- **Asset Registry**
  - an infrastructure where metadata about semantic assets are documented and can be retrieved, whereas the semantic assets themselves are located in the repository

- **Asset Repository**
  - One (or more) physical locations (websites) where Semantic Assets are stored and can be uploaded and downloaded

Challenges

- **What are the main challenges our/your organisation faces with definition of vocabularies / ensuring consistency?**

- **What are the main challenges of cross-organisational definitions of vocabularies?**

- **How could our/your organisation profit from mapping your vocabularies to the core vocabularies recommended by the EU?**

- **maturity level of asset repository in your organisation**
  - What are the main challenges our/your organisation faces with asset repositories ?

- **compliance level of your asset description with ADMS**
  - What are the main challenges our/your organisation faces with moving to ADMS

Lessons learned …

- holistic approach, comprehensive framework

- include horizontal key enablers in the big picture

- reduce complexity

- don't think in SILOS …

- reInventing the Wheel ‚syndrom' / legal 'support' needed?!

- ISA strategy <-> national/local strategy

- share Sevices (eForms, eID, …)

- local services IMPORTANT

- Initiatives: Digital Austria, Digital Cities, … Help.Partner

- …

‚Next Generation'?

- workplace of the future (2020)
- big data
- synergies in/with e-sectors
- eID / federation of portals
- portals – mashups, SSO, …
- register queries / ‚BOGD'

- granularity of services -> aggregated services (responsive)
- Open Government Data (OGD) -> contest
- feedback of citizens is necessary <-> citizen centric
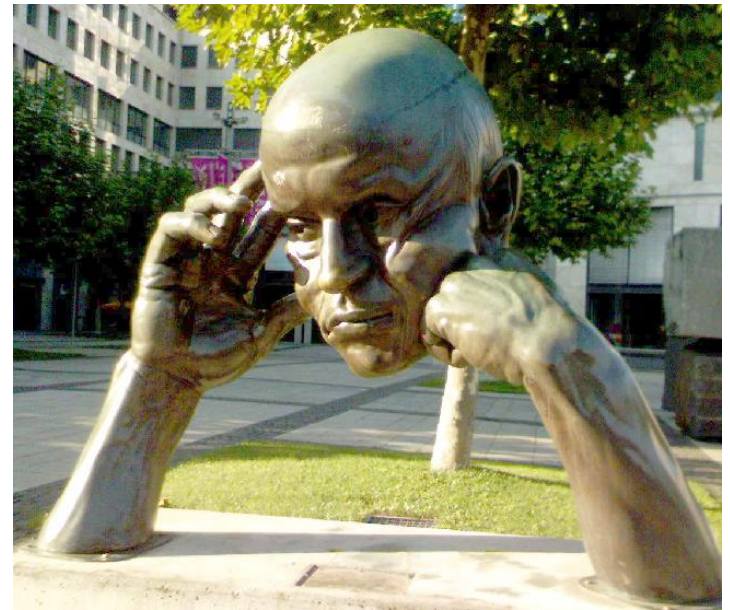- capacity building / skills

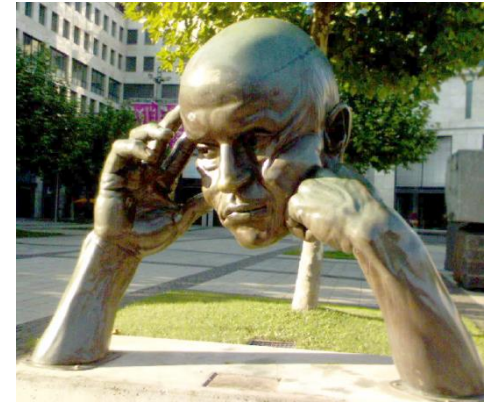- Government

Conclusion

- **Lets walk the way together …**

we clearly have
to identify our
strategic goals

Thank you!

Questions?

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Federal Chancellery / ICT-Strategy

http://www.help.gv.at/
http://www.digital.austria.gv.at/
http://reference.e-government.gv.at/
Results and specifications available online (unfortunately mostly only in German ☺, but we're doing our best …)