Challenges of the semantic interoperability layer: core registers and their contribution to the core data model establishment

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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

reference model
reference model - basic input for implementation

- standardised access for citizens
- standardised forms - common styleguide
- uniform standards for ePayment
- standard for exchanging eSignatures & eDocuments, workflow & processes, ...
- standardised access for administrations, business, ...
- standardised integration of applications in eBackoffice

[Diagram of reference model with workflow and integration components]

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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. live at address

- Business
  - core data
  - e.g. substitute for a company
  - e.g. established at address

- objects
  - core data
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
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’)
  - Insert,
  - Update,
  - Delete,
  - History,
  - (Logging / Journalising)

- Clearing Process (how to tie / split …)
Semantic Interoperability Framework

Task 1: Semantic Assets
- Person
- Car
- Business
- ... (omitted)

Task 2: Asset Registry and Repository
- ADMS
- ISO/IEC 11179-1

Task 3: Governance / Quality Assurance

IOP-S Working Group

Result: Assets published
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
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 Services (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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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 … )