eGovernment in Europe ...
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eGovernment Benchmark ...
eGovernment Benchmarking 2010

The benchmark’s five-stage maturity model

- **Full online availability**
- **Targetisation** (pro-active, automated)
- **Transaction** (full electronic case handling)
- **Two way interaction** (electronic forms)
- **One way interaction** (downloadable forms)

**Maturity** vs. **Sophistication stages**

Source: Cap Gemini
### „Key Enablers“ in Europe

<table>
<thead>
<tr>
<th>Feature</th>
<th>EE</th>
<th>AT</th>
<th>DE</th>
<th>RO</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-ID</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Single Sign-On</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>E-Safe</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Secure e-Delivery</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Authentic Sources</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Open Specifications</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Architecture Guidelines</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Catalogue of Horizontal Enablers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>E-Payment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
eID in 27+ EU countries

- f.e. Slovenia, Estonia, Luxemburg and Sweden provide three different approaches/mechanism
Some facts about Austria

- Area: 83,870.95 km²
- Population: 8,426,000
- 13 federal ministries
- 80 district administrations
- 9 provinces
- 2354 municipalities
  (1.1.2015 new amount / Styria)
“It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change”

Charles Darwin
How Cities Evolve …

renovations

plumbing

electricity

gas

continual investment
Core (strategy) elements (2003)

- registers
- official signature
- electronic delivery
- security
- E-Inclusion
- connecting portals
- dedicated applications ELAK
- citizen card eID
Use of eID

Within administration:
- in order to provide more efficient procedures and to avoid extensive data to be collected

Access to eGov:
- in order to facilitate eGovernment and transformation (automated procedures)

Access to e-business:
- in order to raise quality trust and security by profiting from public sector

Access to e-health:
Citizen card model

A European eID model must coexist with all three models - not compromising privacy.

eID MUST NOT ADD ADDITIONAL PRIVACY RISKS TO EXISTING APPLICATIONS
### eID profiles of STORK countries

<table>
<thead>
<tr>
<th>Country &amp; credentials</th>
<th>Token Types</th>
<th>Relation to 1999/93/EC</th>
<th>Token Issuer</th>
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<td></td>
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<td>Token Types</td>
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<td>Belgium</td>
<td>1</td>
<td>yes</td>
<td>-</td>
</tr>
<tr>
<td>Estonia</td>
<td>2</td>
<td>yes</td>
<td>qualified</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
<td>yes</td>
<td>optional</td>
</tr>
<tr>
<td>Finland</td>
<td>1</td>
<td>yes</td>
<td>all</td>
</tr>
<tr>
<td>Iceland</td>
<td>2</td>
<td>yes</td>
<td>all</td>
</tr>
<tr>
<td>Italy</td>
<td>2</td>
<td>yes</td>
<td>all</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1</td>
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<td>all</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>3</td>
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<td>all</td>
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<tr>
<td>Portugal</td>
<td>1</td>
<td>yes</td>
<td>all</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3</td>
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<td>yes</td>
</tr>
<tr>
<td>Spain</td>
<td>1+80</td>
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<td>yes</td>
</tr>
<tr>
<td>Sweden</td>
<td>12+</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>
Cross border usage of eID – STORK interoperability
Perspectives

- **personalisation**
  - pro-active services

- **transaction**
  - constant online-procedures

- **communication**
  - E-Mail

- **information**
Lessons learned

- holistic approach, comprehensive framework
- include horizontal key enablers in the big picture
- reduce complexity
  - public opinion still assigns high complexity with eID
  - technology is high up in barriers
  - people who used eID once stay with it
- mobility - eID with and through mobile devices
  - convenience
  - availability
  - simplicity
- easier access to technology
  - we have to go to the citizen - not vice versa
Background / European approach

- 13 Mio EU Citizens work in another EU MS
- 21 Mio SME – a significant part of them works cross border
- 150 Mio EU Citizens are shopping online; only 20% of them buy cross border

Consequence: Need to

- Enable and facilitate electronic access and remove barriers for using the „own“ methods
- Enable cross border usage
- Strengthen trust and security
- Electronic „trust services“ should have the same (legal) value as comparable services in the physical world

- 2011: The Commission will propose a revision of the **eSignature Directive** with a view to providing a legal framework for cross-border recognition and interoperability of secure eAuthentication systems.

- 2012: The Commission will propose a Council and European Parliament Decision to ensure mutual recognition of **eIdentification and eAuthentication** across the EU, based on online ‘authentication services’ to be offered in all Member States (which may use the most appropriate official identification documents — issued by the public and private sectors).

- 2012-2014: Member States should apply and roll out the eID solutions, based on the results of **STORK** and other eID-related projects.
eIDAS-Regulation

- **Aim:**
  - To strengthen EU Single Market by boosting TRUST and CONVENIENCE in secure and seamless cross-border and cross-sector electronic TRANSACTIONS.
  - To stimulate new business opportunities.

- **Background:**
  - Digital Agenda
  - Single Market Act
  - Political Pressure by Council and European Council
„eIDAS-Regulation“: The proposal of the EC

Regulation on electronic identification and trust services for electronic transactions in the internal market (COM(2012) 238 final, 4.6.2012)
Overview – EC Proposal

- Ch 1: General Provisions
- Ch 2: Electronic identification
- Ch 3: Trust services
  - Sec 1: General Provisions
  - Sec 2: Supervision
  - Sec 3: Electronic signature
  - Sec 4: Electronic seals
  - Sec 5: Electronic time stamp
  - Sec 6: Electronic documents
  - Sec 7: Qualified electronic delivery service
  - Sec 8: Website authentication
- Ch 4: Delegated acts
- Ch 5: Implementing acts
- Ch 6: Final provisions
- Annexes I, III, IV: Qualified certificates
- Annex II: Qualified eSig creation devices
Expectations

- Comprehensive “toolbox” of trust building instruments
  - One single legislation across EU
  - Harmonisation power of Regulation

- Foster eID usage
  - Leverage eID cards and mobile ID infrastructure
  - Reliable eID to allow cross border eBusiness and enable eGov services
  - Private sector is invited to build on «notified» eIDs
  - Leverage Large Scale Pilot project STORK
State of play

- Council debates intense: 42 Meetings of the TELECOM-Council Working Group on this dossier between September 2012 and February 2014
- Four informal Trilogues with the EP and several „technical meetings“ with EP
- Agreement in Trilogue on 25.2.2014
- Acceptance at Coreper on 28.2.2014

Finalization:
- Jurists/Linguists finalization (June?),
- Formal Decision by the new EP/Commission and Council,
- Publication and entry into force: Oct. (?) 2014
Outcome

- One single legal Act for eSignature and eID
- Additional coverage of „Trust Services“
- Type of Legal Act: Regulation
- Replaces EU Signature Directive
- Major amendments have been made in comparison to the EC Proposal

Regulation: direct application; existing laws to be abrogated/ adapted. Explicit implementation acts will nonetheless be needed. (e.g. competences/ procedures/ etc.)
Electronic identification - Definitions

- 'electronic identification': the process of using person identification data in electronic form uniquely representing either a natural or legal person, or a natural person who represents a legal person.

- 'electronic identification means': a material and/or immaterial unit containing person identification data, and which is used for authentication for an online service.

- 'electronic identification scheme': a system for electronic identification under which eID means are issued to natural persons or legal persons, or natural persons representing legal persons.
Timeline

- Directive 1999/93/EC is repealed with effect from **1 July 2016**
- References to the repealed Directive shall be construed as references to this Regulation
- Secure signature creation devices of which the conformity has been determined in accordance with Article 3(4) of Directive 1999/93/EC shall be considered as qualified signature creation devices under this Regulation.
- Qualified certificates issued for natural persons under Directive 1999/93/EC shall be considered as qualified certificates for electronic signatures under this Regulation until they expire
- The Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union, except Art 6 and Art foreseeing implementing acts
Consequences for AT

- Adaptations of the current legal framework are needed, in particular
  - Signature Act and Signature Ordinance 2008
  - eGovernment Act and Regulations
  - Delivery Act and Regulation

- AT eGovernment Strategy and technical solutions are a very solid basis. Interoperability has been key element of AT solutions from the scratch – heavy LSP involvement etc. ensures that AT solutions can be kept/updated and can serve as „best practice“

- Potential for „export“ of AT solutions – in particular mobile eID/ signature

- Implementation eID will be based on STORK. Existing solutions (MOA) will serve as good starting point to keep up with the challenge ahead of us
Goal: constant procedures

HELP.gv.at
USP.gv.at

portal

Electronic file / workflow System (ELAK),
Central Register(s)

backoffice

www.zustellung.gv.at

e-delivery service
State of registers ...
 Registers interconnection of base data

- **Citizens**
  - core data
  - e.g. live at address

- **Business**
  - core data
  - e.g. substitute for a company

- **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 are 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.
One Content – different access portals
the basic elements

Inter-operability

eID
eDOC
Interoperability

- ‘Interoperability, within the context of European public service delivery, is the ability of disparate and diverse organisations to interact towards mutually beneficial and agreed common goals, involving the sharing of information and knowledge between the organisations, through the business processes they support, by means of the exchange of data between their respective ICT systems.’ [EIF]
Interoperability Levels

Political context

Legal Interoperability
Legislative Alignment

Organisation Interoperability
Organisation & Process Alignment

Semantic Interoperability
Semantic Alignment

Technical Interoperability
Syntax, Interaction & Transport
European Interoperability Framework 2.0

- **Political Context**
  - Coordinating partners with compatible visions, aligned priorities, and focused objectives
  - Aligned legislation so that exchanged data is accorded proper legal weight
  - Coordinated processes in which different organisations achieve a previously agreed and mutually beneficial goal
  - Precise meaning of exchanged information which is preserved and understood by all parties
  - Planning of technical issues involved in linking computer systems and services

- **Legal Interoperability**
  - Legislative Alignment

- **Organisational Interoperability**
  - Organisation and Process Alignment

- **Semantic Interoperability**
  - Semantic Alignment

- **Technical Interoperability**
  - Interaction & Transport
EIF Principles

1. Subsidiarity and proportionality
2. User-centricity
3. Inclusion and accessibility
4. Security and privacy
5. Multilingualism
6. Administrative simplification
7. Transparency
8. Preservation of information
9. Openness
10. Reusability
11. Technological neutrality and adaptability
12. Effectiveness and efficiency
Public Services Model

- Secure Communications Management
- Secure Data Exchange (Signed, Certified, Encrypted and Logged) over the Public Internet and/or Private Networks
- Multi-channels access
- Aggregate Public Services
- Administrations, Businesses, Citizens

Basic Functions/Services
- Interoperability Services
- Base Registers
- External Services

Aggregate Public Services
IOP Challenges

Public Service Legislation

User Identification/Authentication

Privacy and data protection

Secure Communications Management

Multi-channels access

Service Pricing

Aggregate Service Certification

Administrations, Businesses, Citizens

Accessibility

Org.&Process Standardization

Secure Data Exchange (Signed, Certified, Encrypted and Logged) over the Public Internet and/or Private Networks

Semantic Standardization

Basic Functions/Services

Technical Standardization

Basic Data & Service Certification

Interoperability Services

Aggregate Public Services

External Services

Base Registers
**IOP Guidance**

**ARTEFACTS & INITIATIVES**

**European Interoperability Strategy**

**European Interoperability Framework**

**European Interoperability Architecture Guidelines**

**European Interoperability Infrastructure Services**

**EUROPEAN PUBLIC SERVICES ACTIVITIES**

- Governance
- Conception
- Implementation
- Operation
IOP guidance along PEGS development process
Large Scale Pilots (LSPs) Overview

- Syndication, eDirectories
- Visible Digital Signatures
- eID legal entities
- eDoc Containers
- eDelivery esafe
- eSignature
- Transport Infrastructure
- Company Dossier
- Company ID
- Privacy
- Citizen ID
- Citizen ID
- eCodelx
- PEPPOL
- ePSOS

Aims of LSPs …

Uniformication?  No…

Interoperability…
Member States cooperate in key policy areas

- eID interoperability
  www.eid-stork.eu  www.eid-stork2.eu

- eHealth
  www.epsos.eu

- eJustice
  www.e-codex.eu
  www.eu-spocs.eu

- Service Directive

- eProcurement
  www.peppol.eu
International approach

STORK 1 & 2
(Secure identity across borders linked)

It aims at implementing an EU wide interoperable system for recognition of eID and authentication that will enable businesses, citizens and government employees to use their national electronic identities in any Member State. It will also pilot transborder eGovernment identity services and learn from practice on how to roll out such services.

SPOCS
(Simple Procedures Online for Cross-border Services)

A pilot project launched by the European Commission which aims to remove the administrative barriers that European businesses face before offering their services abroad. It will allow them to more easily meet all the administrative obligations through the points of single contact.

PEPPOL
(Pan-European Public eProcurement On-Line)

The objective of the project is to set up a pan-European pilot solution that, conjointly with existing national solutions, facilitates EU-wide interoperable public eProcurement. The vision of the PEPPOL project is that any company and in particular SMEs in the EU can communicate electronically with any European governmental institution for the entire procurement process.

epSOS
(European Patients Smart Open Services)

The overarching goal of epSOS is to develop a practical eHealth framework and Information & Communication Technology (ICT) infrastructure that will enable secure access to patient health information, particularly with respect to a basic patient summary and ePrescription, between European healthcare systems.
International approach

E-CODEX
(e-Justice via Online Data Exchange)

The goal of the e-CODEX project is to improve the cross-border access of citizens and businesses to legal means in Europe as well as to improve the interoperability between legal authorities within the EU.

E-SENS
(Electronic Simple European Networked Services)

The scope is to prepare the path towards a sustainable infrastructure for interoperable services, exploiting the achievements of the different pilot A initiatives supported with the CIP-ICT PSP programme.
Objectives of ISA 1.18

Public officials should be able to log to EC applications and be granted access based on their role or position in a national administration.

Extend ECAS multi factor authentication to a federated authorisation solution

Access to EC Applications using the national model for authorisation and ECAS-STORK.
European perspective

2. Assignement of the local users to the CIRCABC User Group

Civil servant

2. Communicate the CIRCABC User group to the MS
Protocol: PVP / Federated Identity (SAML 2.0)
European Cloud Partnership (ECP) / Cloud4Europe
General feeling: missing confidence?
Lessons learned ...

- don’t think in SILOS ...
- reInventing the Wheel ‚syndrom‘
- 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
Where is the 'e-/m-/-.........'?
Thank you!

Questions?

peter.reichstaedter@bka.gv.at
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 … )
Links Europa

- **ISA** [http://ec.europa.eu/isa](http://ec.europa.eu/isa)
- **JOINUP** [https://joinup.ec.europa.eu](https://joinup.ec.europa.eu)
- **YourEurope** [http://ec.europa.eu/youreurope](http://ec.europa.eu/youreurope)
- **SEMIC** [www.semic.eu](http://www.semic.eu)
Links Austria

- Plattform Digital Austria, www.digitales.oesterreich.gv.at
- Bundeskanzleramt der Republik Österreich, http://www.bka.gv.at/
- HELP.gv.at, http://www.help.gv.at/
- Secure Information Technology Center - Austria (A-SIT), http://www.a-sit.at/
- Austrian Data Protection Authority, http://www.dsb.gv.at/
Potential Questions

- Barriers for using eGovernment services
- Interoperability – definition?!
- What is the EIF V2?
- What Interoperability levels are existing?! Describe them?
- 3 principles of the EIF V2

- Interoperability projects of EC to foster collaboration across borders / LSPs – what are they aiming to support?

- eID models

- Core Data models – what is it about and describe the approach?