Interoperability Solutions for European Public Administrations

- Informatics Directorate-General, Interoperability Solutions for European Public Administrations (ISA)

- ISA Actions (part of the 2010-2015 Work Programme)
  - Common frameworks in support of interoperability (policies, strategies, specifications, methodologies, guidelines)
    - European Interoperability Framework
    - European Interoperability Strategy
  - European Interoperability Architecture
  - National Interoperability Frameworks Observatory
  - Access to Base Registers
  - Semantic Interoperability Center Europe - SEMIC
Why Government Data (aka Public Sector Information)

- Governments: producers, collectors, owners of huge amount of information
- Access to Government Data
  - promotes transparency
  - improves administrative efficiency
  - stimulates economic growth
- Historically, problematic access for several reasons

Can “Linked Data in the Future Internet” facilitate our access to public sector information and data?
Accessing public sector information

The story so far...
- Documents
- Datasets
- Linked Data
The era of Documents
Public Sector Information has been...

- “locked” in documents
- available through physical access, or via the web
- technically accessible through static web pages following an e-document paradigm
The era of Documents

- Accessibility
- Discoverability
- Cross-referencing
- Handling
- Costs
The era of Documents

- **Re-use of Public Sector Information Directive**: the way public sector bodies should enhance re-use of their information resources (2003/98/EC, 17/11/2003).
- Member States to implement the Directive into national law by 1/7/2005.
- In 2008, all 27 Member States notified complete transposition of the PSI Directive.
The era of Datasets (aka Open Data)

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Datasets

Directorate-General for Informatics
The era of Datasets (aka Open Data)

- Public Data is...
  - ... available as raw datasets in various (un-)structured, (non-)proprietary formats (e.g. pdf, text, xls, csv, xml)
  - ... which become available through Data Catalogs
  - ... which provide easy access and portal-like functionalities
The era of Datasets (aka Open Data)

- Open Government Data
  - Over 10 countries with data portals
  - At least 13 countries are currently discussing or already working on Open Data portals in EU
  - Numerous initiatives at regional/local level

- Over 300K (!!) datasets in data.gov

Data Catalog
The era of Datasets (aka Open Data)

- Accessibility +++
- Discoverability +
- Cross-referencing -
- Handling +++
- Costs +++
- Datasets Management Systems
- Data catalog federation
The era of linked data (?)
The era of linked data (?)

- **Linked Open Government Data will be...**
  - ... interlinked internally and externally, cross-referenced and put in context
  - ... available for federated search and querying
  - ... technically accessible through a web of data
The era of linked data (?)

- Accessibility ✓
- Discoverability ✓
- Cross-referencing ✓
- Handling ✓
- Costs ✓
- Linked Data Publishing
- Linked Data Querying/Browsing
- Vocabulary Management Systems
- URI Management Systems
European Commission actions I

- **European Public Sector Information (PSI) Platform**, to raise awareness and exchange good practices. More planned activities under CIP are foreseen.

- **LOD2-FP7 project** to increase public access to high-value, machine-readable data sets generated by European, national/regional/local public administrations.

- The **Linked Open Data Around the Clock (LATC) FP7 Support Action** supports interested partners to publish and consume Linked Data.
European Commission actions II

- Digital Agenda Stakeholders’ Day: “**Priority #3: Beyond raw data: public sector information, done well**”. A discussion on what is next in Open Data
- Provide **Semantic Interoperability Center Europe (SEMIC)** as a possible trusted registry infrastructure for vocabulary, metadata schemas and EU URI management (semantic assets)
- Investigate ways of **improving access to EC information**
Conclusion

Can “Linked Data in the Future Internet” facilitate our access to public sector information and data?

a) We need to advance from the dataset paradigm, b) LOD seem to cover our business requirements, c) There is a growing momentum around LOD.
**References**

- [http://www.epsiplus.net/](http://www.epsiplus.net/), EPSI platform
- [http://lod2.eu/Welcome.html](http://lod2.eu/Welcome.html), LOD2 project
- [http://latc-project.eu/](http://latc-project.eu/), LATC project
- [http://linkeddata.org/](http://linkeddata.org/), The Linking Open Data cloud diagram
From Open to Linked Government Data

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