GOVERNANCE AND MANAGEMENT OF DATA SPECIFICATIONS FOR EGOVERNMENT

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CONTENT

Challenges of implementing and using data specifications
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The ever-increasing volume of information exchanged within and between different organisations at both national and EU level requires setting up solutions that facilitate its automatic processing.

Technological developments alone cannot guarantee a greater interoperability in the context of those information exchanges.

A data specification describes or defines other data. It can consist of, among others, data models, reference data, and identifier schemas.
**CHALLENGES OF IMPLEMENTING AND USING DATA SPECIFICATIONS**

- **Limited or uncoordinated development and use**
  - Interoperability conflicts at the schema and at the value levels.

- **Lack of governance**
  - Opaque decision-making with regards to the roles and responsibilities involved in the lifecycle of data specifications

- **Lack of enterprise-level data management**
  - Errors and unavailability of business critical Core Data Models and Reference Data.
GOVERNANCE & MANAGEMENT OF DATA SPECIFICATIONS DELIVERS TANGIBLE BENEFITS

- Increased **quality and traceability** of the information exchanged
- Greater **re-use of data and data specifications**
- Reduced risk of **duplication**
- Increased **trust** towards the information to be exchanged
- **Savings** derived from the re-use of already existing information
THE ISA² PROGRAMME IS SUPPORTING AND PROMOTING THE GOVERNANCE & MANAGEMENT OF DATA SPECIFICATIONS

Survey → Governance specifications
Pilots → Management processes

Standards and tools

Policy

Community of Practice
GOVERNANCE OF DATA SPECIFICATIONS

- Well-defined roles and responsibilities
- Cohesive policies and principles
- Decision-making processes that define, govern and regulate the lifecycle of metadata

Diagram:
- Determine scope ➔ Set up structure ➔ Define decision making mechanism ➔ Define request handling ➔ Set up communication channels
- Set up authoritative source ➔ Establish enforcement approach ➔ Establish licensing framework ➔ Set up quality control
MANAGEMENT OF DATA SPECIFICATIONS

- Implementing policies, processes and systems
- Plan, perform, evaluate and improve the use of data standards
WHAT IS THE SITUATION IN EU INSTITUTIONS AND MEMBER STATES

Identified and documented **good practices** concerning data management requirements and **existing solutions** in EUIs and MSs

Provided **recommendations** for the improvement of data standards governance and management practices and methodologies.

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**Eight detailed case studies**

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<td>Eurostat</td>
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<td>EU spatial data infrastructure (INSPIRE)</td>
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<td>The Metadata Registry (MDR) of EU</td>
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<td>KOOP - Knowledge and Exploitation Centre Official Government Publications</td>
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**An online survey**

[More...]
WHAT IS THE SITUATION IN EU INSTITUTIONS AND MEMBER STATES

★ The importance, the expected benefits and the relevance of governance and management of data standards is often not clear to the management of the organisation. Therefore there is a lack of support from the leadership.

★ The work on developing models for governance and management of data standards comes at the right moment: is not too early in the sense that it can already build on emerging practice, and it is not too late as many organisations still have issues and questions where we can help.

★ Existing tools need to be complemented with additional functionalities to enhance the potential of share and re-use of data standards, e.g. import and export of reference data using standard formats (e.g. SKOS-XL).
GOOD PRACTICES & RECOMMENDATIONS

★ The **roles** concerning legislation, strategy, functionality and operations are **clearly distinguished** and **assigned to designated bodies**.

★ The involvement of **direct stakeholders** in the governance process ensures that the interests of the stakeholders are taken into account which **maximises buy-in and take-up**.

★ Voluntary sharing and re-use of data specifications works best if stakeholders are aware of the **advantages of collaboration** and of the **benefits for interoperability**.

★ **Legislation** should be formulated on a sufficiently **high level** and should not specify details, which should be specified as part of the implementation and made available from an authoritative source to which the legislation can refer.
GOOD PRACTICES & RECOMMENDATIONS

★ Application of standard for management, e.g. ISO/IEC 11179, ISO 19135, and documentation, e.g. ADMS and SKOS, creates a well-structured environment.

★ The management processes should be documented.

★ Good change management processes are based in stability where possible without sacrificing flexibility where needed and take into account an alignment between the life cycles of data standards and software development.

★ Changes in data standards are well planned and tracked, preserving backward compatibility as much as possible; in cases where disruptive changes are unavoidable, these changes should be planned and communicated well in advance.
GOOD PRACTICES & RECOMMENDATIONS

- Owners of data specifications should be made aware of the importance of clear licensing arrangements that specify unambiguously under which conditions the metadata can be reused. Open licenses are recommended.

- Data specifications should have persistent unique identifiers. Content negotiation is used to manage and provide different types of formats from the same URI.

- Tools used for supporting governance and management of data specifications should be based on open standards and should be interoperable.
WHAT’S NEXT

Data specifications as part of an organisation-wide information governance and management initiative
RESOURCES

★ Visit http://semic.eu

★ Developing data specifications:
  ➢ The Core Vocabularies handbook;
  ➢ The process and methodology for developing Core Vocabularies
  ➢ The process and methodology for developing semantic agreements
  ➢ The cookbook for translating relational domain models to RDF schemas

★ Data specifications governance and management in EU Institutions and Member States
  ➢ Methodology and Tools for Metadata Governance and Management for EU Institutions and Member States;
  ➢ Metadata Management Requirements and Solutions in EU Institutions and Member States.
  ➢ Change management process for ISA specifications
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