

GOVERNANCE AND MANAGEMENT OF DATA SPECIFICATIONS FOR EGOVERNMENT

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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



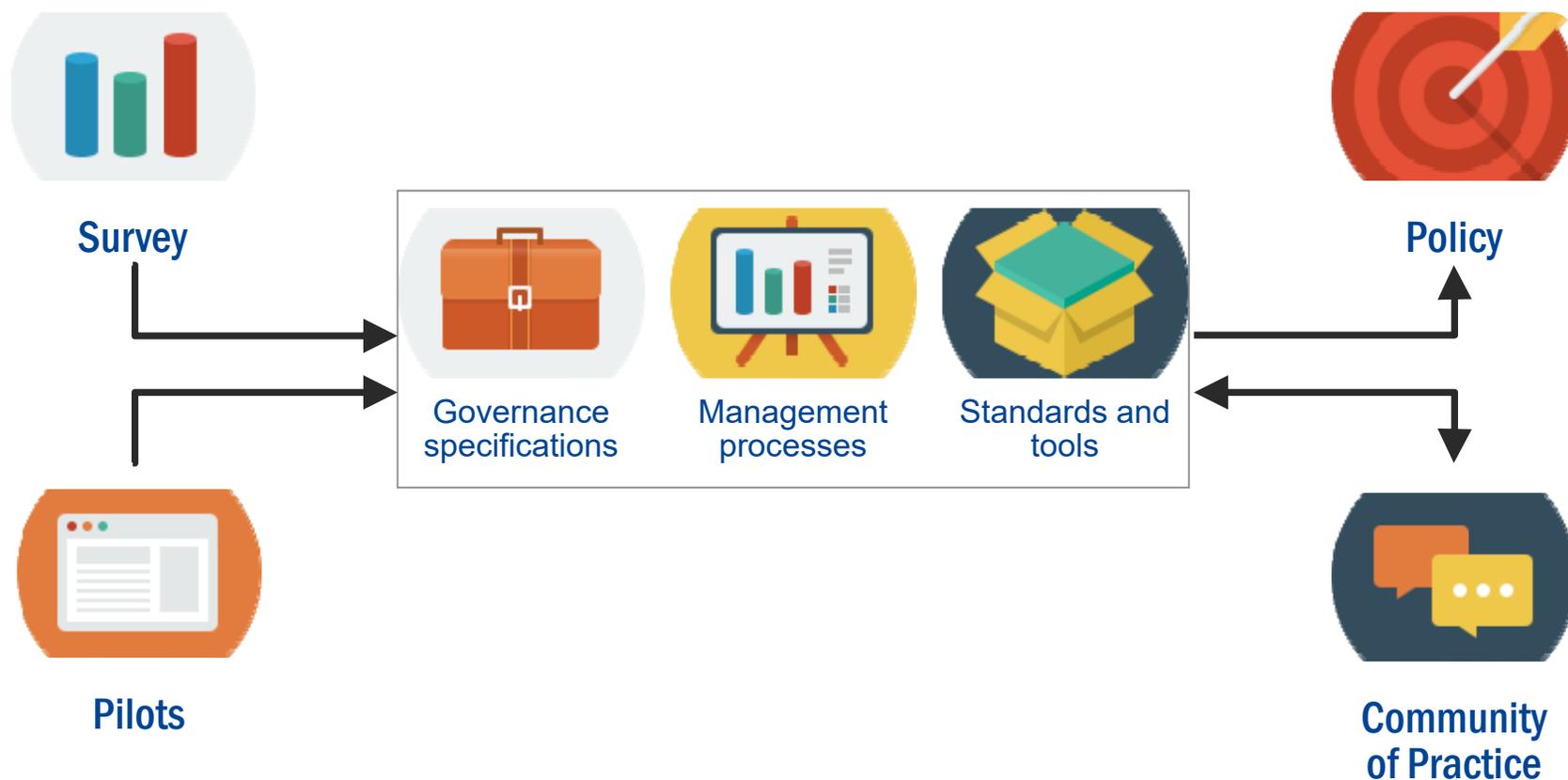
Increased trust towards the information to be exchanged



Savings derived from the re-use of already existing information

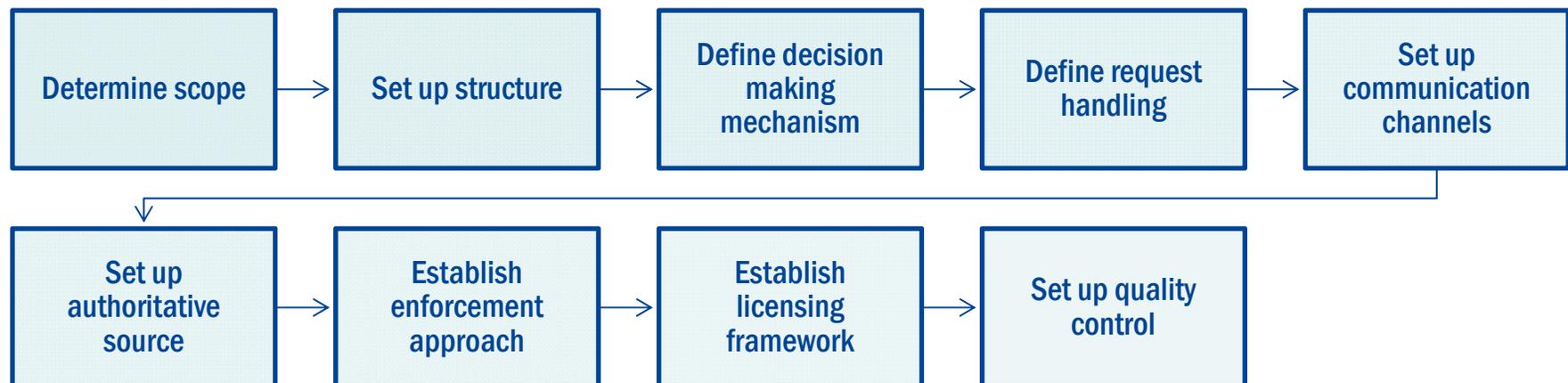


THE ISA² PROGRAMME IS SUPPORTING AND PROMOTING THE GOVERNANCE & MANAGEMENT OF DATA SPECIFICATIONS



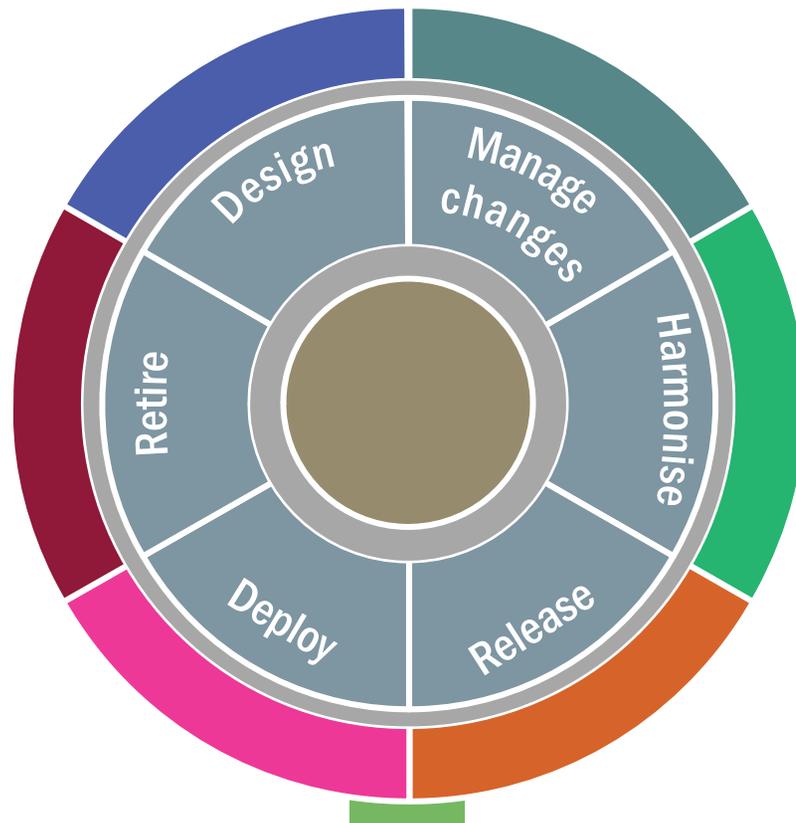
GOVERNANCE OF DATA SPECIFICATIONS

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



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.

Eight detailed case studies

Eurostat
EU spatial data infrastructure (INSPIRE)
The Metadata Registry (MDR) of EU
Finanzen Bremen - KoSIT - XÖV Framework
Centro de Interoperabilidad Semántica (CISE)
Lithuanian Spatial Information Portal (LSIP)
KOOP - Knowledge and Exploitation Centre Official Government Publications
Local Government Inform (LG Inform)

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).**

[\[More...\]](#)



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.**

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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.

[\[More...\]](#)



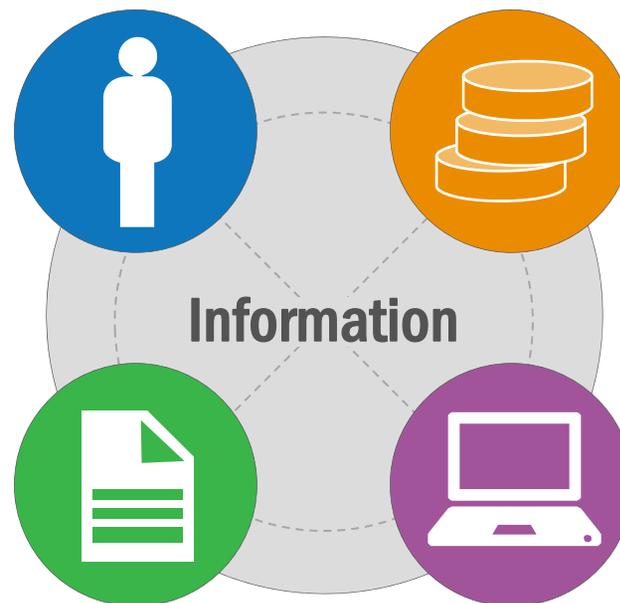
GOOD PRACTICES & RECOMMENDATIONS

- ★ 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.

[\[More...\]](#)

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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