

Infrastructure for Spatial Information in the European Community

INSPIRE and the role of standardisation

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The Mission of the Joint Research Centre

... is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies.

As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union.

Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.





Objective of presentation

- To explain what INSPIRE is
- To focus on the role of standardisation in INSPIRE


 **CHRISTIE**

Alt i INSPIRE arbeid :



- **BORING**
- **SAGING**
- **SLIPING**
- **INJISERING**
- **REHABILITERING**

 DUMMEYGG

 **CHRISTIE**



Outline



- INSPIRE as a process
- Types of documents produced by INSPIRE
- Role of standards
- New requirements for standardisation
- Conclusions



INSPIRE Directive

- INSPIRE lays down general rules to establish an infrastructure for spatial information in Europe
 - for the purposes of Community environmental policies and
 - policies or activities which may have an impact on the environment.
- INSPIRE to be based on the infrastructures for spatial information established and operated by the Member States
 - INSPIRE is a distributed infrastructure.
- INSPIRE does not require collection of new spatial data
- INSPIRE does not affect existing Intellectual Property Rights
- Entry into force 15 May 2007





Scope INSPIRE Directive

- Spatial data held by or on behalf of a public authority operating down to the lowest level of government when laws or regulations require their collection or dissemination
- INSPIRE covers 34 Spatial Data Themes laid down in 3 Annexes
 - ***required to successfully build environmental information systems***





Annex I

1. Coordinate reference systems
2. Geographical grid systems
3. Geographical names
4. Administrative units
5. Addresses
6. Cadastral parcels
7. Transport networks
8. Hydrography
9. Protected sites

Annex II

1. Elevation
2. Land cover
3. Ortho-imagery
4. Geology

Harmonised spatial data specifications more stringent for Annex I and II than for Annex III



INSPIRE Thematic Scope

ISO/TC 211 SDI Workshop, 2009-05-27



Annex III

- | | |
|--|---|
| <ol style="list-style-type: none">1. Statistical units2. Buildings3. Soil4. Land use5. Human health and safety6. Utility and governmental services7. Environmental monitoring facilities8. Production and industrial facilities9. Agricultural and aquaculture facilities10. Population distribution – demography | <ol style="list-style-type: none">11. Area management/restriction /regulation zones & reporting units12. Natural risk zones13. Atmospheric conditions14. Meteorological geographical features15. Oceanographic geographical features16. Sea regions17. Bio-geographical regions18. Habitats and biotopes19. Species distribution20. Energy Resources21. Mineral resources |
|--|---|



INSPIRE Directive

- Legal obligation to start sharing of spatial data and spatial data services that are in the scope of INSPIRE on 15 May 2009
 - Irrespective of any Implementing Rules that may exist or that are under development



INSPIRE Components

- Metadata
- Interoperability of spatial data sets and services
- Network services (discovery, view, download, invoke)
 - Made available through the European geo-portal
- Data and Service sharing (policy)
- Coordination and measures for Monitoring & Reporting

INSPIRE is a Framework Directive

Detailed technical provisions for the issues above will be laid down in Implementing Rules

Once adopted, Implementing Rules become European legislative acts and national law in 27 Member States and in some EFTA countries





From Commission proposal to Community Directive implementation

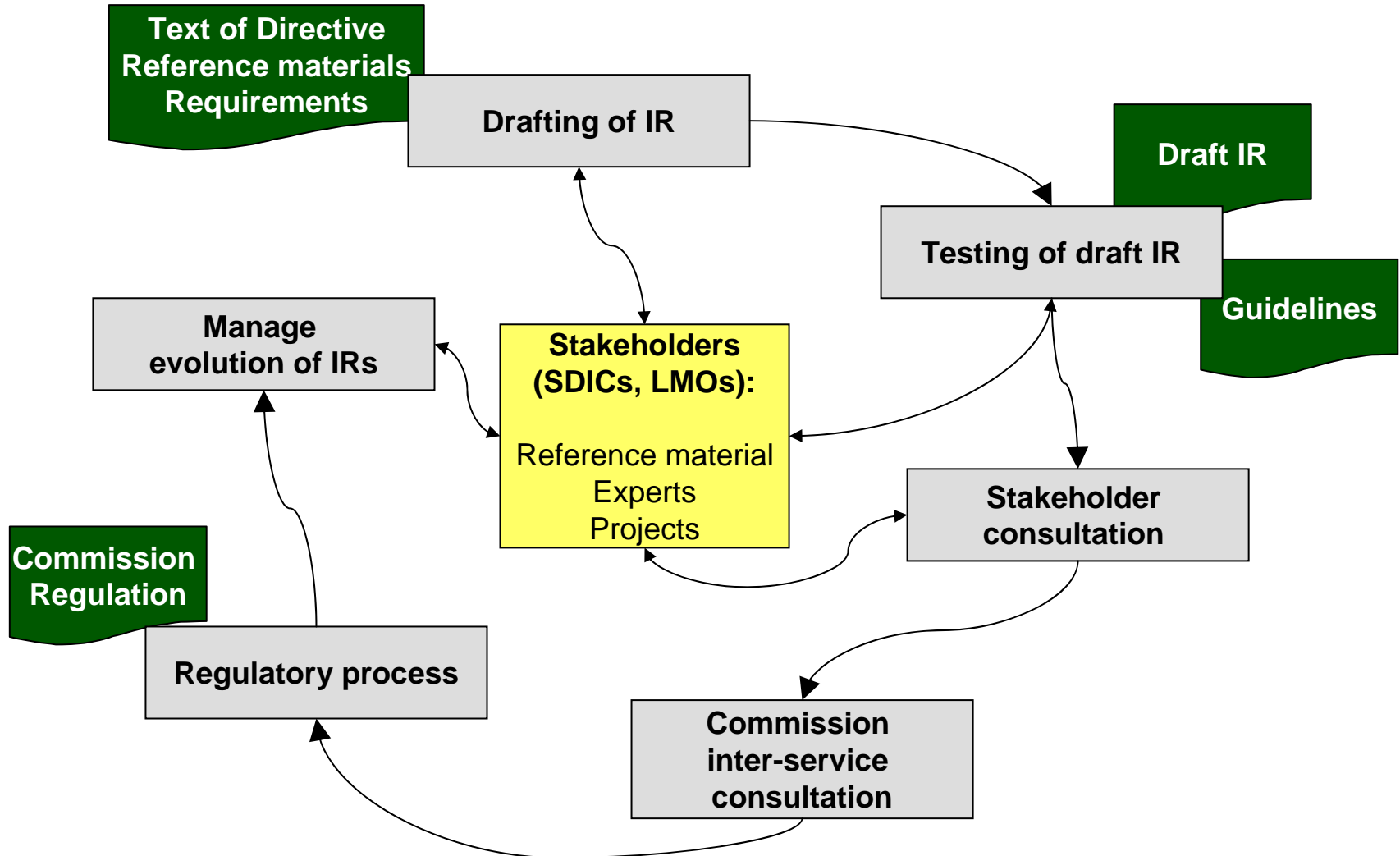
- **Preparatory phase (2004-2006)**
 - Co-decision procedure
 - Start of preparation of Implementing Rules
- **Transposition phase (2007-2009)**
 - Directive entered into force **15 May 2007**
 - INSPIRE Committee starts its activities **26 June 2007**
 - Continuation of preparation of Implementing Rules
 - Transposition into national legislation
 - Adoption of Implementing Rules by Comitology
 - **Metadata regulation published on 4 December 2008**
 - **Draft legislation on Network Services View and Discovery and on Monitoring and Reporting adopted by Committee on 19 December 2008**
- **Implementation phase (2009-2013)**
 - Implementation and monitoring of measures
 - Continuation of preparation of Implementing Rules
 - Adoption of Implementing Rules by Comitology





Work Programme 2007-2009

Implementing Rule development cycle





Participatory approach




	22-06-2005	01-06-2007	10-12-2008
Spatial Data Interest Communities (SDICs)	139	201 (+45%)	281 (+142%)
Legally Mandate Organisations (LMOs)	89	116 (+30%)	163 (+78%)
Proposed Experts	193	210 (+9%)	365 (+183%)
Referenced Materials	96	144 (+50%)	351 (+271%)
Identified Projects	94	112 (+19%)	121 (+29%)
Proposals testing Annex I data specifications			78





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Types of documents produced by INSPIRE

- INSPIRE Directive
 - European legislative act
 - The “What”, not the “how”
 - To be transposed by the EU Member States + EFTA countries (including Norway)
- Implementing Rules
 - European legislative acts (Regulations, Decisions)
 - Become automatically national law in Member States the moment they enter into force
- Draft Implementing Rules
 - Not yet legislative acts, candidate content for legal acts
 - Result of stakeholder participation



Types of documents produced by INSPIRE

- Guidelines to the Implementing Rules
 - As the title suggests, guidelines, not legislation
 - Endorsed by the Commission
 - Process needed for maintenance in collaboration with Member States
- Study reports and other documents
 - Contributed by stakeholders and Commission
 - Status: reference material for IR + guidelines development process



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Role of standards

- INSPIRE Directive

25.4.2007

EN

Official Journal o

measures should be provided for in order to facilitate the use of spatial data from different sources across the Member States. Those measures should be designed to make the spatial data sets interoperable, and Member States should ensure that any data or information needed for the purposes of achieving interoperability are available on conditions that do not restrict their use for that purpose. Implementing rules should be based, where possible, on international standards and should not result in excessive costs for Member States.



Role of standards

- Definitions and code lists of EN ISO standards referenced in Implementing Rules

L 326/14

EN

Official Journal of the European Union

4.12.2008

ANNEX

METADATA IMPLEMENTING RULES

PART A

Interpretation

1. The following definitions shall apply:

- 'character string' means the value domain of metadata elements expressed as a set of characters treated as a unit,
- 'free text' means the value domain of metadata elements expressed in one or more natural languages,
- 'lineage' means the history of a data set, and the life cycle from collection and acquisition through compilation and derivation to its current form, in accordance with EN ISO 19101,
- 'metadata element' means a discrete unit of metadata, in accordance with EN ISO 19115,



Role of standards

- Guidelines



INSPIRE
Infrastructure for Spatial Information in Europe

INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119

Title	INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119
Creator	Drafting Team Metadata and European Commission Joint Research Centre
Creation date	2007-10-26
Date of last revision	2009-02-18
Subject	INSPIRE Implementing Rules for Metadata



Role of standards

- Reports

JRC Scientific and Technical Reports



**SOAP Primer for INSPIRE
Discovery and View Services**



Role of standards

INSPIRE	Reference: INSPIRE_DataSpecification_AU_v2.0.pdf		
TWG-AU	Data Specification on <i>Administrative units</i>	2008-12-19	Page 2

2.3 Normative References

Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

EN ISO 19113:2005, Geographic Information – Quality principles

ISO 19115:2003, Geographic Information - Metadata

ISO 19115:2003/Cor.1:2006, Geographic Information - Metadata - Technical Corrigendum 1

ISO/TS 19138:2006, Geographic Information – Data quality measures

ISO/TS 19139:2006, Geographic Information – Metadata – XML Schema Implementation

ISO 3166-1993, Codes for the Representation of Names of Countries

COMMISSION REGULATION (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata



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New requirements for standardisation

- Letter to chair CEN/TC 287 with ISO/TC 211 in copy
- For metadata
 - Update of 19115 and 19119 to better accommodate INSPIRE requirements
 - Based on guidelines
- For network services and data harmonization
 - schema transformation standard is missing
 - interoperability arrangements for spatial data services



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Conclusions

- Highest involvement of key stakeholders through the Spatial Data Interest Community (SDIC) and Legally Mandated Organisations (LMO) concepts
- Are you involved in a network representing producers, transformers and users of spatial data that falls within the scope of INSPIRE?
 - Register as a Spatial Data Interest Community!
- Has your organisation a legal mandate for one or more aspects of INSPIRE?
 - Register as a Legally Mandated Organisation!

- Keep informed
- Review deliverables from the Drafting Teams and the Thematic Working Groups
- Propose experts
- Submit reference material
- Testing of draft specifications

<http://www.ec-gis.org/inspire/>



Thank you!

ISO/TC 211 SDI Workshop, 2009-05-27



Welcome to the Global Spatial Data Infrastructure / INSPIRE Conference 2009 !

15-19 June 2009, World Trade Center, Rotterdam



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<http://inspire.jrc.ec.europa.eu>