



Infrastructure for Spatial Information in the European Community

INSPIRE – Status and Challenges of the European SDI for Environment

The European Commission INSPIRE Team

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Spatial Data Infrastructures Unit





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.

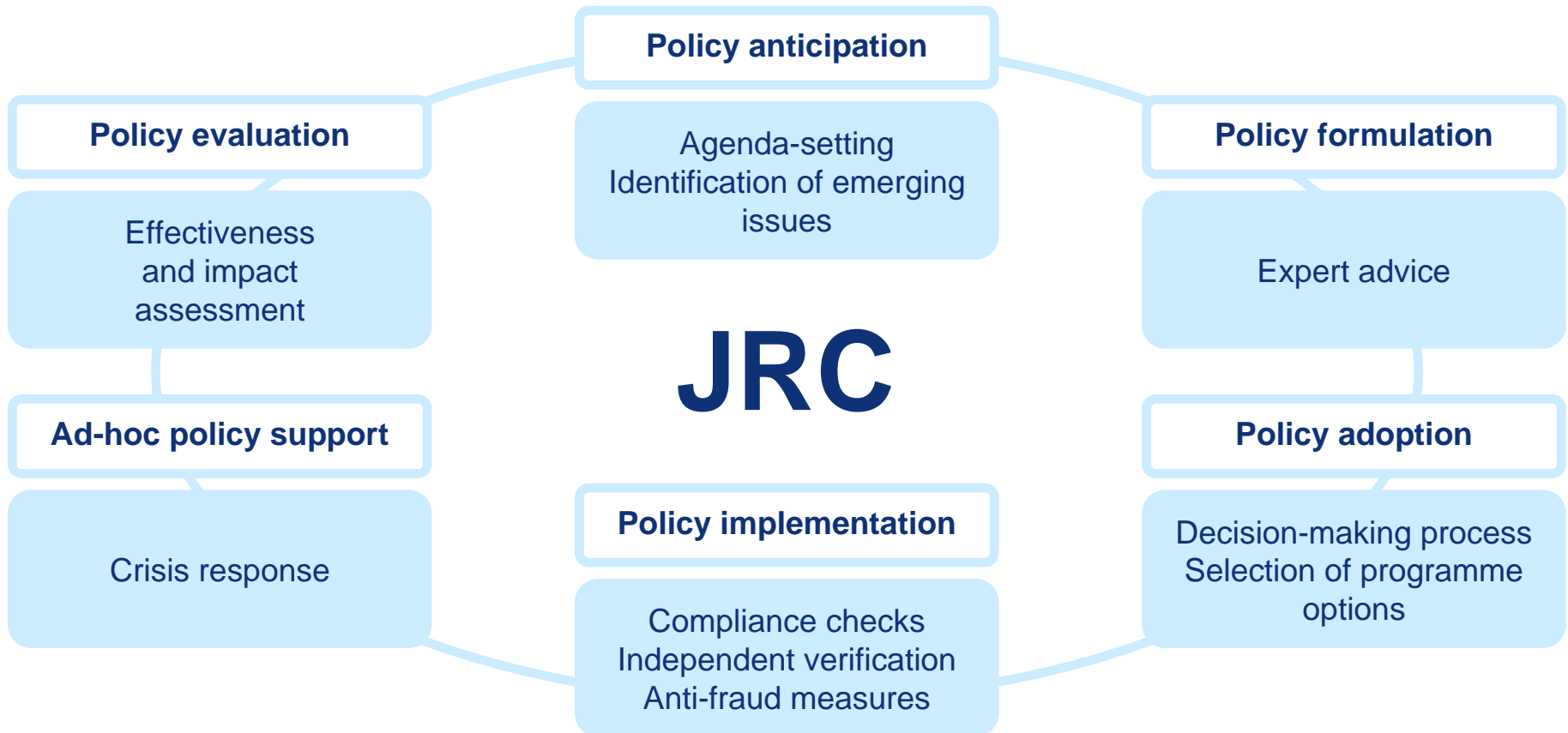
As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union.

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.





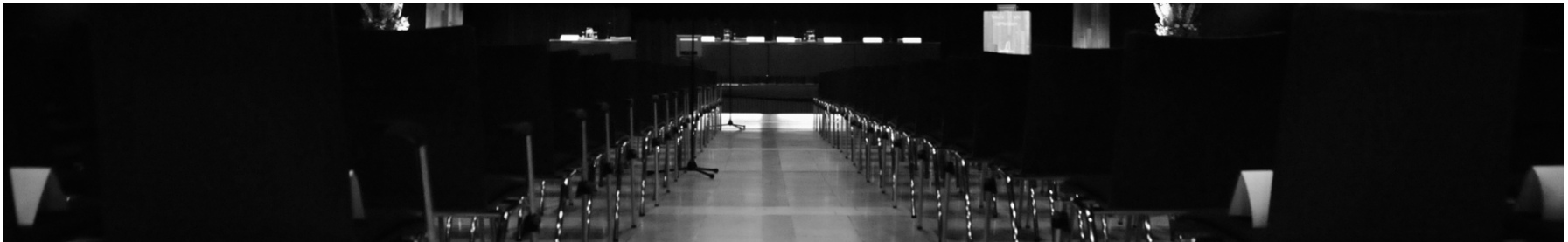
Implementing the JRC Mission in the Policy Cycle





Outline

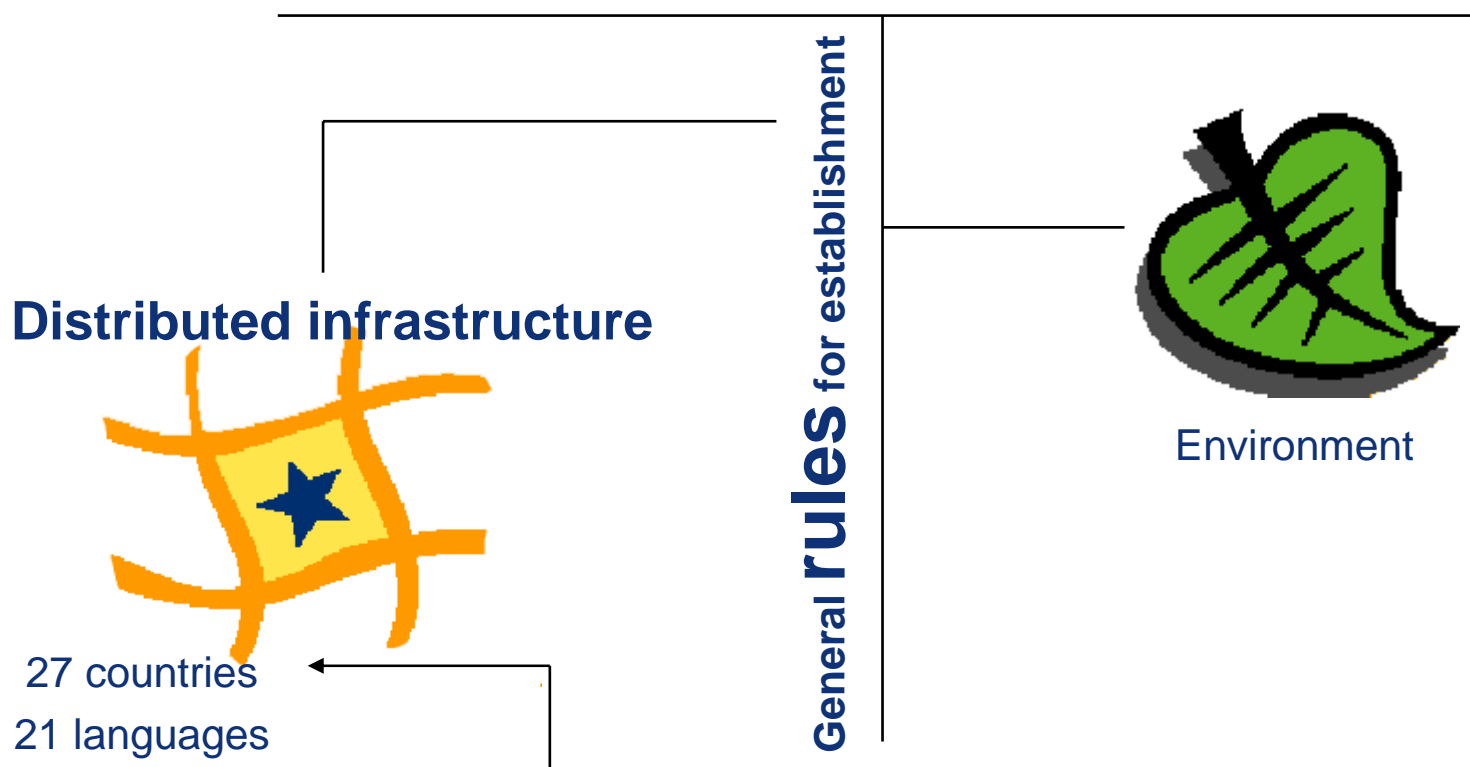
- JRC and the policy cycle
- What is INSPIRE?
- INSPIRE as a process
- Documentation of INSPIRE
- Recent developments
- Outlook





What is INSPIRE?

“Infrastructure for Spatial Information in the European Community”



European legislation



Scope INSPIRE Directive

- General rules to establish an infrastructure for spatial information in Europe
 - Community environmental policies
 - Policies or activities which impact on the environment
- To be based on SDIs established and operated by the Member States
- Does not require collection of new spatial data
- Scope:
 - Spatial data held by or on behalf of a public authority
 - 34 Spatial Data Themes laid down in 3 Annexes
- Entry into force 15 May 2007





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

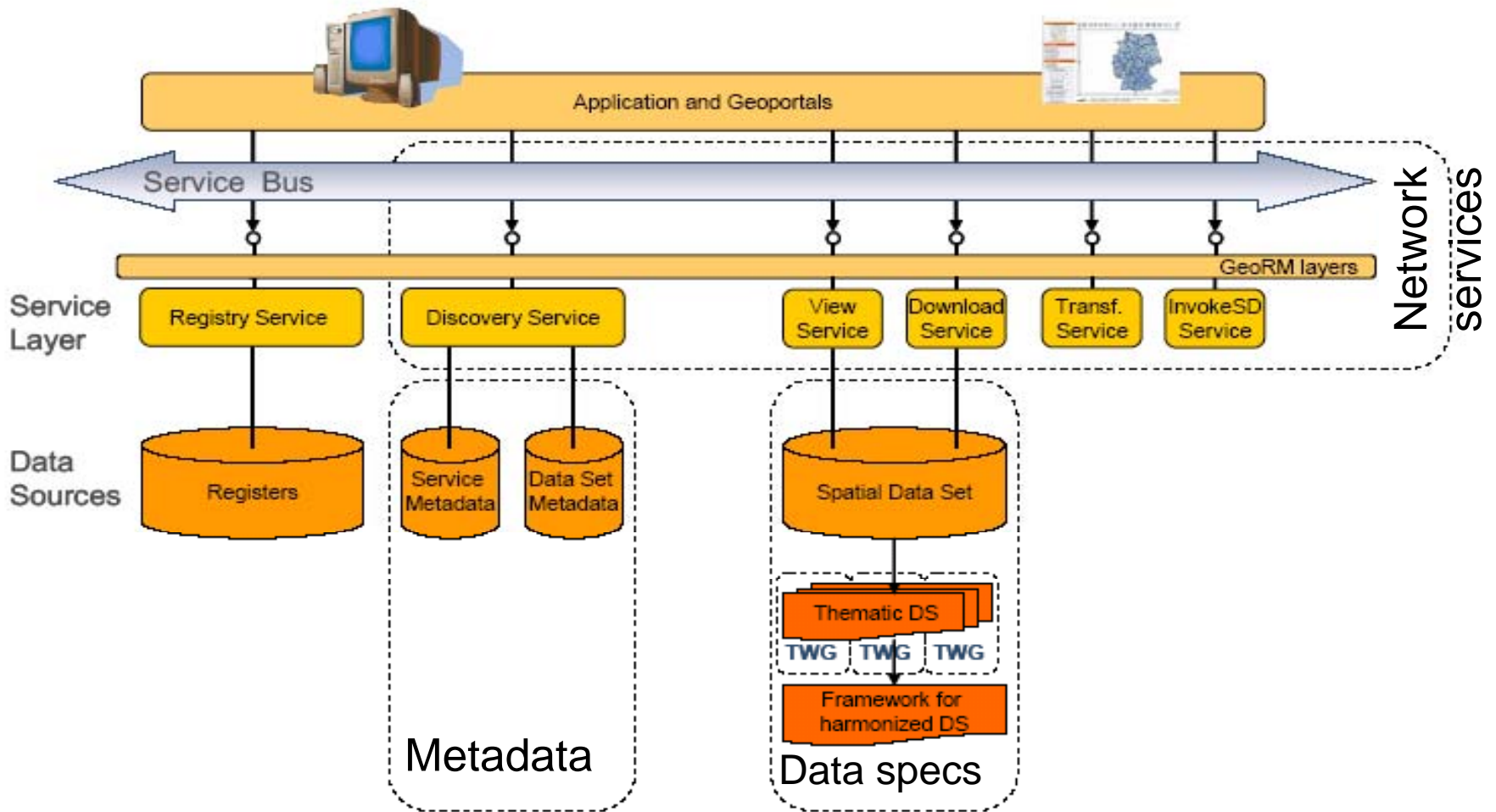
Detailed technical provisions will be laid down in Commission Regulations (Implementing Rules) that become European legislative acts binding in 27 Member States and in some EFTA countries





INSPIRE Architecture

First Croatian NSDI and INSPIRE Day, Varaždin, 26-11-2009

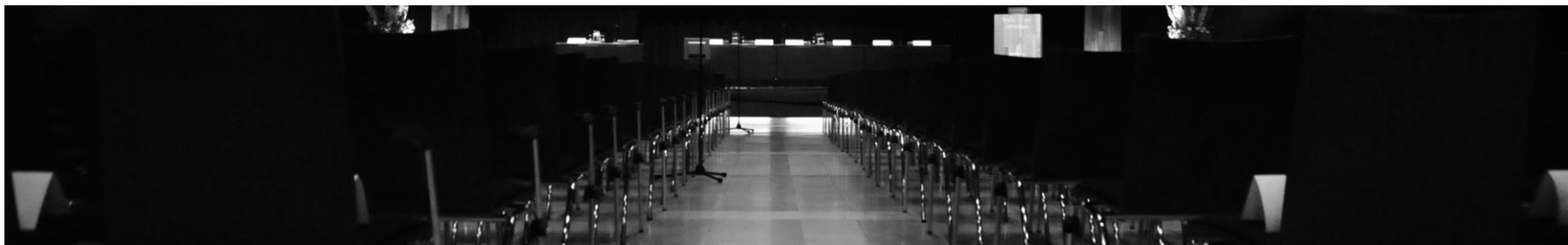


Data specifications define a **harmonised target model** for **publishing** and **exchanging** data



Outline

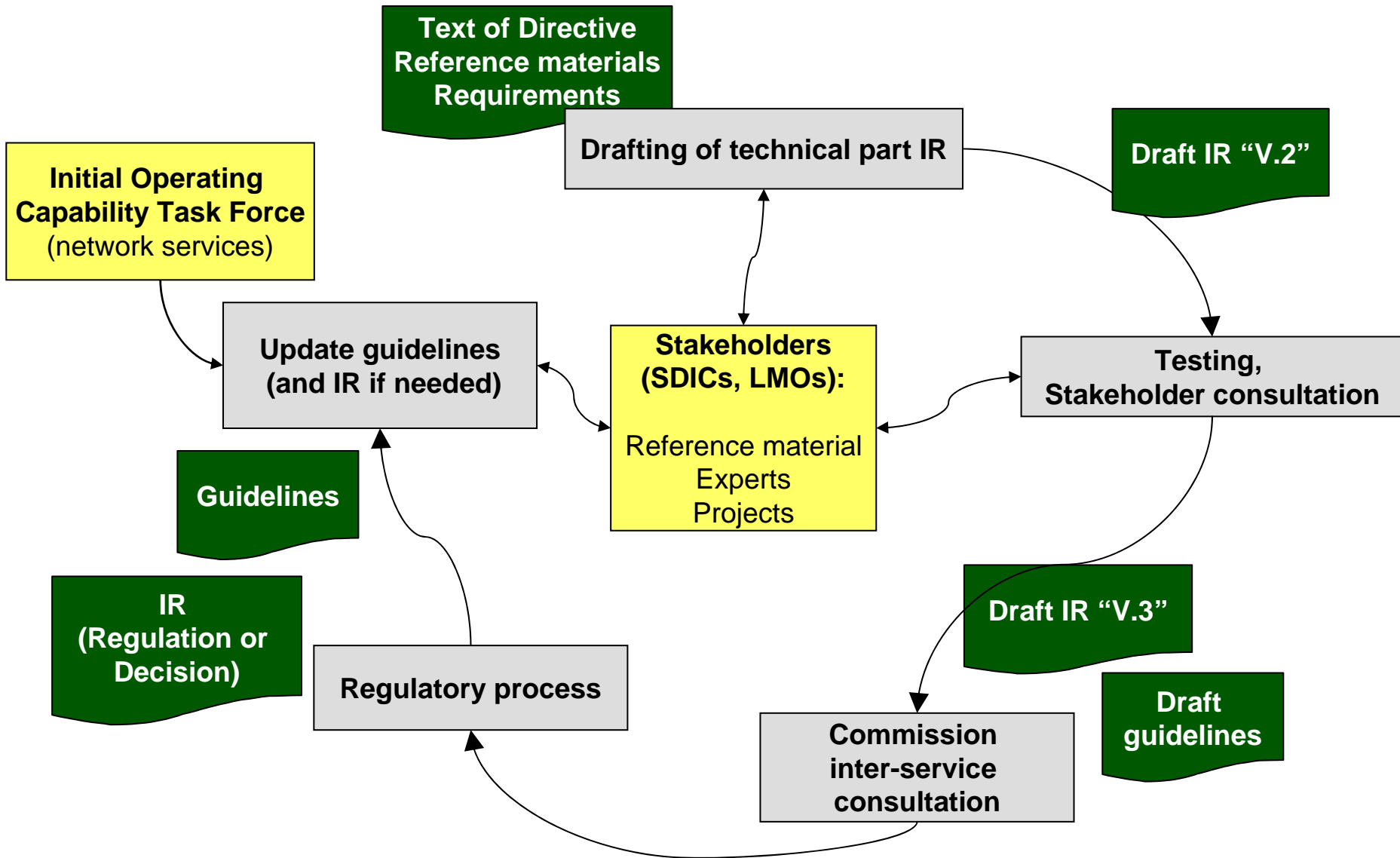
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INSPIRE as a process

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Participatory approach

	22-06-2005	01-06-2007	22-04-2009
Spatial Data Interest Communities (SDICs)	139	201 (+45%)	301 (+117%)
Legally Mandate Organisations (LMOs)	89	116 (+30%)	173 (+94%)
Proposed Experts	193	210 (+9%)	284 (+47%)
Referenced Materials	96	144 (+50%)	354 (+296%)
Identified Projects	94	112 (+19%)	122 (+30%)
Proposals testing Annex I data specifications			78





Governance Structure

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- The Commission (Article 22)
 - Shall be assisted by a Committee -> Comitology Procedure
 - Coordinating INSPIRE at Community level assisted by relevant organisations and, in particular, by the European Environment Agency

- The Member States
 - Are members of the Committee (Article 22)
 - Contact points to the Commission supported by a coordination structure, taking account of the distribution of powers and responsibilities within the Member State. (Article 19)
 - Other Parties



Governance Structure



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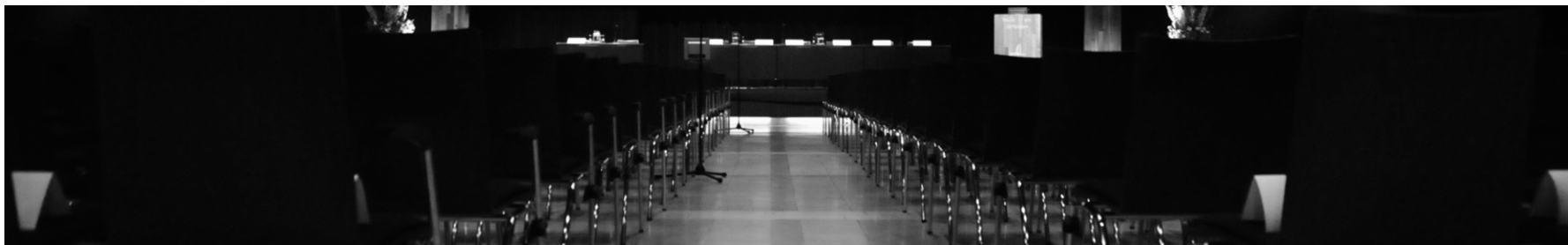
- The Commission (Article 22)
 - Proposes the drafts of legal acts
 - Shall be assisted by a Committee -> Comitology Procedure
 - Coordinates the related activities
- The Member States
 - Delegate Committee members (Article 22)
 - Nominate Contact points supported by a national coordination structure (Article 19) and the related support groups
- The European Parliament and the Council
 - Exercises scrutiny
 - (May have a role when the Committee delivers negative opinion in case of procedures without scrutiny)
- Stakeholders (SDICs/LMOs)
 - Are consulted (Article 7)





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Types of documents produced by INSPIRE

- INSPIRE Directive
- Implementing Rules Legislative Acts
- Draft Implementing Rules and Guidelines
- Technical reports and supporting material



INSPIRE as a process:

Types of documents produced by INSPIRE

- INSPIRE Directive ←
- Implementing Rules Legislative Acts
- Draft Implementing Rules and Guidelines
- Technical reports and supporting material

European legislative act
The “What”, not the “how”
Transposed by the EU Member
States + EFTA countries



INSPIRE as a process:

Types of documents produced by INSPIRE

- INSPIRE Directive
- Implementing Rules Legislative Acts ←
- Draft Implementing Rules and Guidelines
- Technical reports and supporting material

European legislative acts
(Regulations, Decisions, or
amendments thereof)

Become national law in Member
States the moment they enter into
force

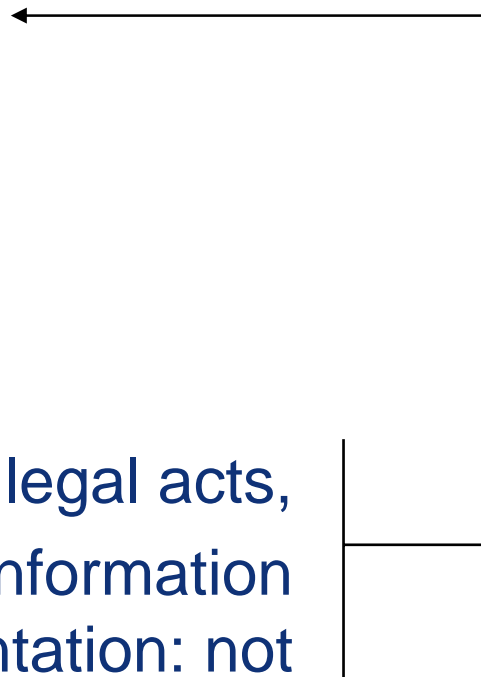


INSPIRE as a process:

Types of documents produced by INSPIRE

- INSPIRE Directive
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Candidate content for legal acts,
More detailed information
supporting implementation: not
legally binding





Guidelines vs. Implementing Rule

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Guidelines

- Each data specification developed by a TWG will be published as a guideline
- Technical documents
- Describe full set of provisions necessary for system interoperability within INSPIRE
- Contain requirements and recommendations (mandatory and optional elements), explanations and examples
- Basis for the IR on Interoperability of Spatial Data Sets and Services
- Full implementation not mandatory
- May contribute to further coherent development of SDIs of the Member States

Implementing Rule

- Reflects what is necessary to be achieved taking into account cost-benefit considerations
- Text of legal relevance and technical provisions expressed in natural language (when notation is necessary, it will be explained)
- Includes **mandatory** elements of the specifications
- Implementation is mandatory within the period specified in the Directive
 - 2011 for newly collected or restructured Annex I data
 - 2016 for other Annex I data



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Metadata

- INSPIRE Metadata Regulation published 4th December 2008
- Two years for Member States to create metadata for Annex I and II, 5 years for Annex III.
- Separation between legal text (what needs doing) from non-binding Guidelines explaining How to do. Flexibility in the face of evolving standards and practices.
- Maintenance of Technical Guidelines based on user feedback
- Metadata editor publicly available as part of prototype INSPIRE geo-portal
 - to test that IRs and Guidelines are technically coherent and compliant with ISO standards
 - to support MS in creating metadata compliant with regulation
 - plan to assess the need for a Multilingual Open Source version so that it can be downloaded by users and extended by thematic communities



Network Services

- Discovery and View Services
 - Draft Commission Legislation: Draft Regulation on INSPIRE Discovery and View Services
 - Finalization and publication expected by the end of the year
 - Initial Operating Capability foreseen as part of the regulation
- Transformation Service
 - Network Services Drafting Team has finalised the next version of their proposal for Transformation service Implementing Rules and the accompanying Technical Guidelines for the coordinate transformation.
 - Taking into account the comments received from the SDICs and LMOs
 - The Draft Legislation is currently being prepared by the European Commission for submission to the INSPIRE Committee.
 - The Draft Implementing Rules, the Technical Guidelines and the comments resolution document are publicly available as of 25 September 2009.



Initial Operating Capability

Network services regulation introduced the concept of IOC i.e., services provide full functionality but not required yet full quality of service.

Task Force created to manage this process.

Purpose

- to help and support the implementation of INSPIRE in the Member States

Scope

- architectural aspects and implementation of Network Services to ensure interoperability with the INSPIRE geoportal and among Member States

Focus

- implementation of the INSPIRE Discovery and View Services.

Composition

- representatives, from all Member States, responsible for the architecture design and the service implementation of the National SDIs.



Interoperability of spatial data sets and services

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Development of these Implementing Rules follow a three-step approach:

1. Development of conceptual framework and specification methodology (by Data Specification Drafting Team)
2. Development of data specifications for each spatial data theme (by different Thematic Working Groups)
3. Preparation of the Implementing Rules based on data specifications (by the Commission)

Annex I Committee Meeting

14 December 2009



Annex I data specifications


- Developed by 8 Thematic Working Groups since 2008-02
- Intermediate documents subject to consultation and testing by stakeholders
- V3 of data specifications for Themes of Annex I published on 2009-09-07
- The Draft Legislation is currently being prepared by the European Commission for formal submission to the INSPIRE Committee (meeting 2009-12-14)



INSPIRE
Infrastructure for Spatial Information in Europe

D2.8.1.1 INSPIRE Specification on Coordinate Reference Systems - Guidelines


Title	D2.8.1.1 INSPIRE Specification on Coordinate Reference Systems – Guidelines
Creator	INSPIRE Thematic Working Group Coordinate Reference Systems and Geographical Grid Systems
Date	2009-09-07
Subject	INSPIRE Specification: Coordinate-reference systems
Status	n/a
Publisher	INSPIRE Thematic Working Group Coordinate Reference Systems and Geographical Grid Systems



INSPIRE
Infrastructure for Spatial Information in Europe

D2.8.1.6 INSPIRE Data Specification on Cadastral Parcels – Guidelines

Title	D2.8.1.6 INSPIRE Data Specification on <i>Cadastral Parcels</i> – Guidelines
Creator	INSPIRE Thematic Working Group <i>Cadastral Parcels</i>
Date	2009-09-07



INSPIRE
Infrastructure for Spatial Information in Europe

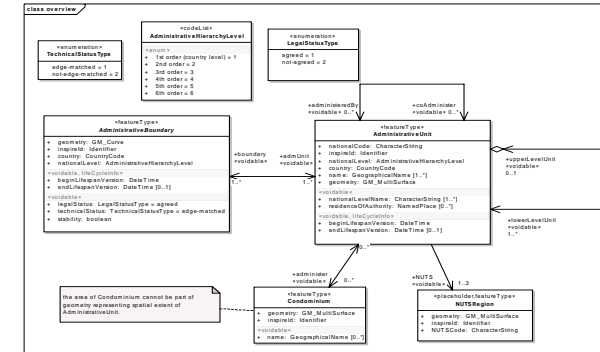
D2.8.1.3 INSPIRE Data Specification on Geographical Names – Guidelines

Title	D2.8.1.3 INSPIRE Data Specification on <i>Geographical names</i> – Guidelines
Creator	INSPIRE Thematic Working Group Geographical Names
Date	2009-09-07
Subject	INSPIRE Data Specification for the spatial data theme <i>Geographical names</i>
Publisher	INSPIRE Thematic Working Group Geographical Names
Type	Text
Description	This document describes the INSPIRE Data Specification for the spatial data theme <i>Geographical names</i>
Contributor	Members of the INSPIRE Thematic Working Group Geographical Names



Data specifications – Content

- Application schema in UML
 - spatial object types
 - attributes & attribute values
 - relationships between spatial objects
 - constraints
- Rule for geographical referencing
- Rules for unique identifiers for spatial objects, derived from national identifiers
- Theme specific metadata (including data quality)
- Simple portrayal rules for the INSPIRE View Network Service





Data and Service Sharing between Member States and Community Institutions and Bodies

- Member States to adopt measures for the sharing of data and services between public authorities for public tasks relating to the environment without restrictions occurring at the point of use. Such measures are open to international bodies and Community institutions and bodies
- Public authorities may charge, license each other and Community institutions provided this does not create an obstacle to sharing.
- When spatial data or services are provided to Community institutions for reporting obligations under Community law relating to the environment then this will not be subject to charging.
- Member States shall provide the institutions and bodies of the Community with access to spatial data sets and services in accordance with harmonised conditions.
- The regulation on these harmonised conditions has now been approved by the INSPIRE Committee. Best practice and guidelines allow to identify measures that are successful in ensuring and maintaining quality of data as well as increasing access and us



Monitoring and Reporting

- Monitoring and Reporting IR approved by INSPIRE Committee in December 2008, published in OJ 11th June 2009.
- Quantitative indicators on the progress of the SDI in the member states and qualitative reports about implementation experiences and benefits will enrich our collective knowledge in SDI assessment.
- Workshop with Member States Contact Points for INSPIRE focusing on Monitoring and Reporting scheduled on 2009-11-16



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Interoperability of spatial data sets and services

Annex II, III

- Principles of process:
 - Open, participatory and transparent process
 - Involvement of stakeholders and relevant thematic experts and communities at all steps
 - Call for manifestation of interest was launched on 05/11 on <http://inspire.jrc.ec.europa.eu/index.cfm/newsid/4140>
 - Closing date for nominating experts 14/12/2009
 - For submitting reference materials 31/01/2010
 - Prior registration as SDIC required



Call for participation in Annex II&III data specification development



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INSPIRE > Call for Expression of Interest for participation in development of INSPIRE data specifications for Annex II & III... - Opera

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INSPIRE > Call for Expre... x

http://inspire.jrc.ec.europa.eu/index.cfm/newsid/4140

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- [Monitoring and Reporting](#)

- [Stakeholder Participation](#)
- [List SDIC/LMOs](#)

News Details

Call for Expression of Interest for participation in development of INSPIRE data specifications for Annex II & III Data Themes launched

Date: 05/11/2009
Link: <http://inspire.jrc.ec.europa.eu/index.cfm/pageid/2>

The Call is addressed to the INSPIRE Spatial Data Interest Communities (SDICs) and Legally Mandated Organisations (LMOs). The Commission is seeking voluntary contributions of SDICs and LMOs, asking them to propose experts (domain experts, Facilitators, Editors) for the Thematic Working Groups (TWGs) and reference materials to be taken into consideration for the data specifications.

We recommend that you carefully read the following documents before responding to this call.

- [Call for Expression of Interest for participation in development of INSPIRE Data Specifications for Annex II and III](#)
- [Terms of Reference for developing Implementing Rules laying down technical arrangements for interoperability and harmonisation of spatial data sets of Annex II and III themes](#)

SDICs and LMOs can participate by [logging in](#) and completing the required forms.

[Back](#)

Print font size

SEARCH INSPIRE

Website and documents
 Website only

OK

LOGIN / REGISTRATION

Welcome to the new Inspire Site. If you are a new user you can [register here](#). Registered users can [login here](#).

Nov 2009

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1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28



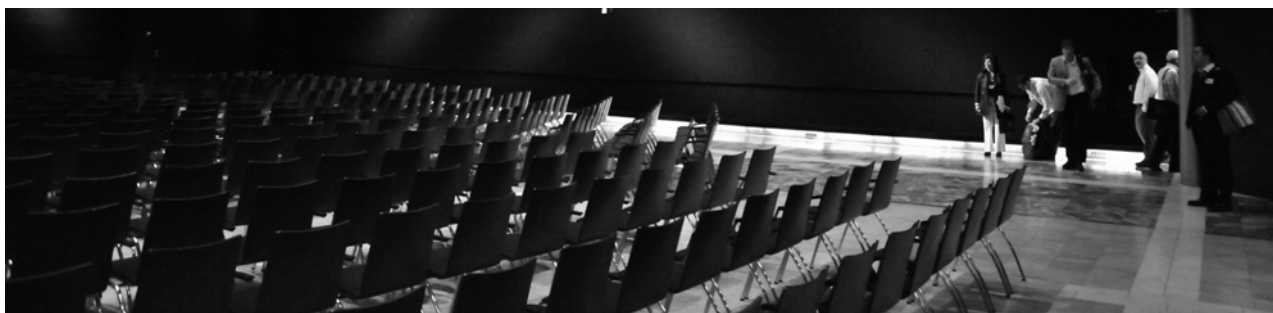
Network Services

▪ Invoke Services

- Technical Report on the state of play for service invocation.
- Network Service Drafting Team will start activity on this service
- As more and more geo-processing services become available, the issues of how to chain them is increasingly important to move from a data-centric to an information-centric SDI, able to respond to much wider user base.
- Several important research issues to address including better documentation of services, quality and trust, dependencies, rights management, etc.



- Renewed EC INSPIRE website
- Web 2.0 INSPIRE Forum website
<http://inspire-forum.jrc.ec.europa.eu/>
- Bring national and thematic workshops addressing INSPIRE aspects under Forum umbrella
 - Organizing an event relevant for INSPIRE development or implementation? Apply for it to be recognized as an INSPIRE Forum event!





Thank you!

Comments? Suggestions?
Submit them through the new INSPIRE website!

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