



# INSPIRE Directive

## INfrastructure for SPatial InfoRmation in Europe

### Status June 2007

European Commission  
Directorate-General Environment  
Research, Science and Innovation Unit

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# From Commission proposal to Community Directive implementation

- Preparatory phase (2004-2006)
  - Co-decision procedure
  - Preparation of Implementing Rules 2005 – 2009 ...
- Transposition phase (2007-2008)
  - Directive enters into force 15/5/2007
  - Transposition into national legislation
  - INSPIRE Committee starts its activities
  - Adoption of Implementation Rules by Committology
- Implementation phase (2009-2013)
  - implementation and monitoring of measures



# INSPIRE Directive

## General Provisions

- 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.
  - This infrastructure shall build upon infrastructures for spatial information established and operated by the Member States.
- INSPIRE does not require collection of new spatial data – electronic format
- INSPIRE does not affect Intellectual Property Rights



# INSPIRE Scope

- 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*)



# INSPIRE Spatial Data Scope (1)

## 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



# INSPIRE Data Scope (2)

## Annex III

1. Statistical units
2. Buildings
3. Soil
4. Land use
5. Human health and safety
6. Utility and governmental services
7. Environmental monitoring facilities
8. Production and industrial facilities
9. Agricultural and aquaculture facilities
10. Population distribution – demography
11. Area management/restriction /regulation zones & reporting units
12. Natural risk zones
13. Atmospheric conditions
14. Meteorological geographical features
15. Oceanographic geographical features
16. Sea regions
17. Bio-geographical regions
18. Habitats and biotopes
19. Species distribution
20. Energy Resources
21. Mineral resources



# INSPIRE Components

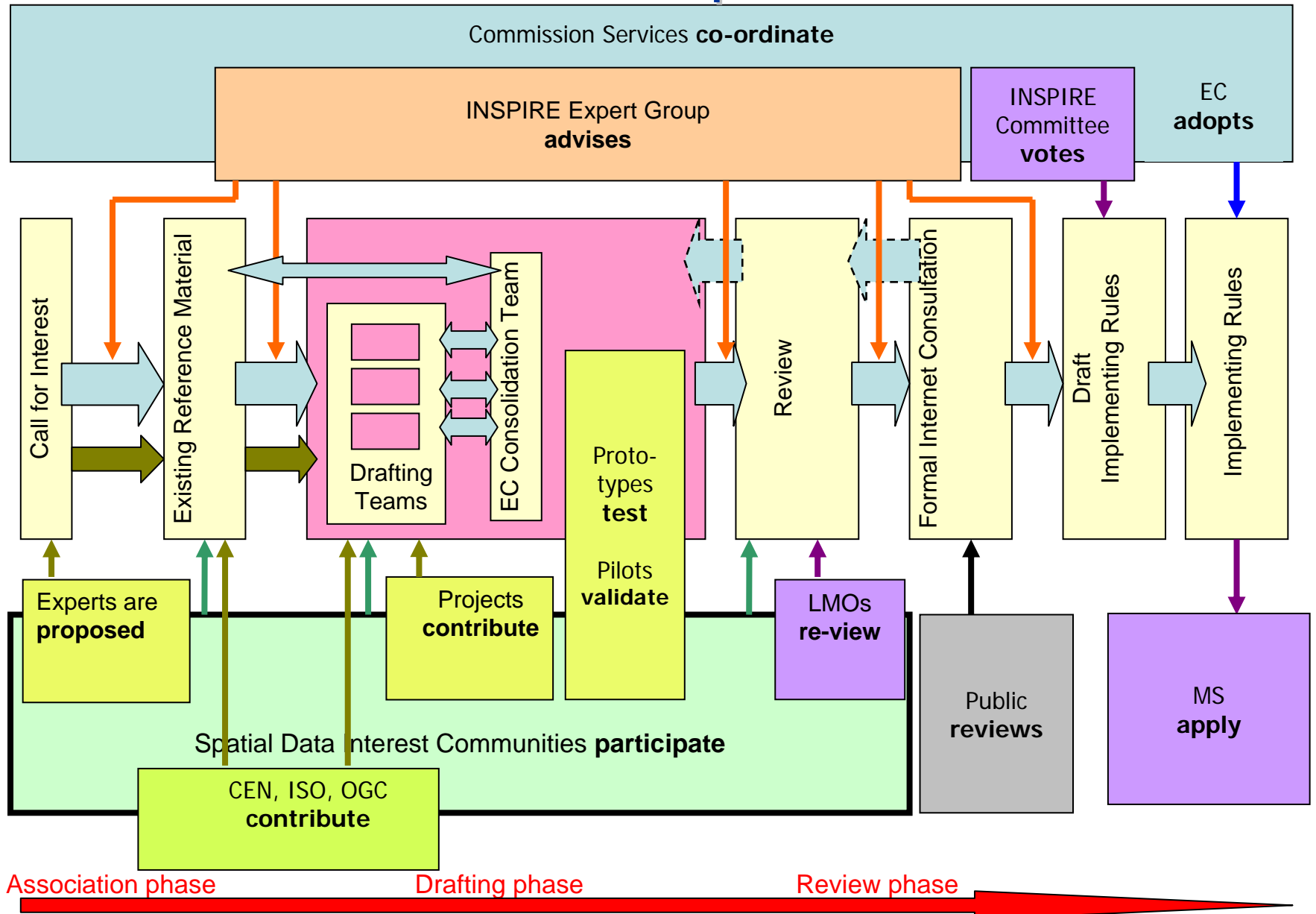
- I. Metadata
- II. Interoperability of spatial data sets and services
- III. Network services (discovery, view, download, transform, invoke)
- IV. Data and Service sharing (policy)
- V. Coordination and measures for Monitoring & Reporting

*INSPIRE is a Framework Directive*

*Detailed technical provisions for the issues above will be laid down in **Implementing Rules (IR)***



# INSPIRE IR process







# I. Metadata

*Member States shall create metadata and keep them up to date*

- Metadata shall include:
  - Conformity with IR on interoperability
  - Conditions for access and use
  - Quality and validity
  - The public authorities responsible
  - Limitations on public access
- Once Implementing Rules adopted:
  - Created within 2 years for Annex I, II
  - Created within 5 years for Annex III



# Status - Metadata

Deliverable	Title	Milestone	Who
MD-D1.3	Draft Implementing Rules for metadata	2007-01	DT
	Launch of SDICs/LMOs consultation of draft IR	2007-02	SDIC/LMO
MD-D1.3	Revised Draft IR	2007-08	CT
	Launch of public consultation on revised draft IR	2007-08	Public
MD-D1.3	Final draft Implementing Rules for metadata submitted to regulatory committee	2007-11	CT
	Adoption of IR for the creation and updating of metadata	2008-05	Comitology



## II. Interoperability of spatial data sets and services

*Implementing Rules shall be adopted for interoperability and where practical for harmonisation of spatial data sets and services*

- Harmonised data specifications – minimum requirements
  - Annex I, II, III:
    - definition and classification of spatial objects
    - geo-referencing
  - Annex I, II:
    - common system of unique identifiers for spatial objects;
    - relationship between spatial objects;
    - key attributes and corresponding multilingual thesauri;
    - how to exchange the temporal dimension of the data;
    - how to exchange updates of the data.
- *3rd parties shall have access to these specifications at conditions not restricting their use*
- *User requirements, existing standards, and cost-benefit considerations to be taken into account in developing the IRs*
- *Cross-border issues shall be agreed on*



# Approach to Specification Development

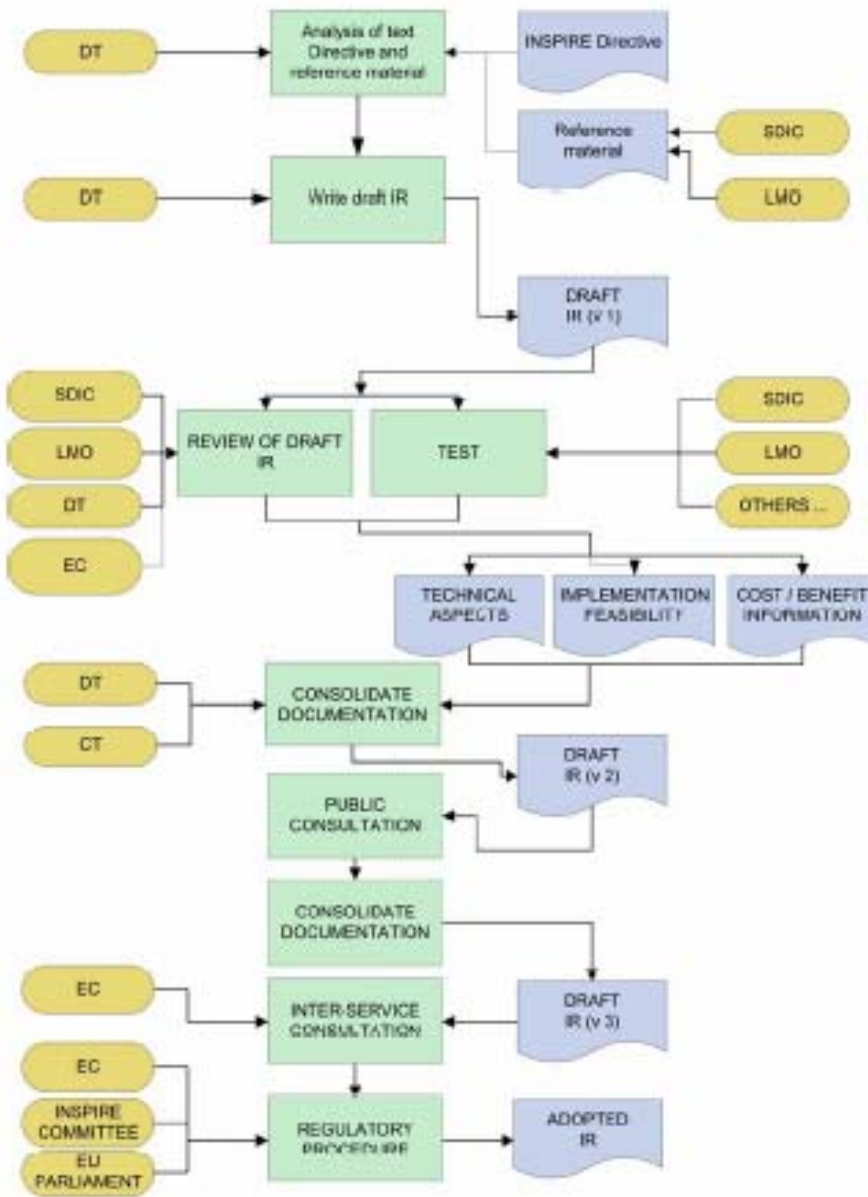
- Development of conceptual framework
  - DS-D 2.5 *Generic Conceptual Model (GCM)*
  - DS-D 2.6 *Methodology for Specification Development.*
- Development of data specifications for each data theme listed in the annexes of the Directive

## 7 principles

- I. Specify each data theme in only one designated Implementing rule; an Implementing Rule may contain one or more data specifications;
- II. Compliance with the GCM;
- III. Involve the necessary domain expertise for each INSPIRE data theme;
- IV. Analyse and take into account, when appropriate, the reference materials provided by the SDICs and LMOs and the CT;
- V. Document how user requirements and cost-benefit aspects of implementation have affected choices in specifications;
- VI. Use and benefit of existing organisational structures
- VII. Guarantee a transparent and open process through consultations with the SDICs and LMOs.



# Data Specifications Development





# Status Specification Process

Activity	Description	Start	End	Who
Call for SDICs/LMOs for participation in data specification development	Draw up a list of SDICs/LMOs able to support the data specifications in terms of expertise and resources	2007-08	2007-09	SDIC, LMO
Call for candidate specifications	Submitting candidate specifications for any spatial data theme (all annexes) is possible in advance, until a specific spatial data theme is addressed by a TWG. In the case of Annex I, the deadline is 2007-09.	2007-08	2007-09	SDIC, LMO
User requirements survey	Complement user requirements with those from all stakeholders using a web-survey with a standard template. This call remains open all over the data specification period; e.g. all requirements will be regarded that are submitted before the specification of the given theme starts.	2007-08	2007-09	SDIC/LMO
Evaluation of candidate specifications	Candidate specifications will be preliminary evaluated against the user requirements and checked for compliance to the GCM	2007-09	2007-11	EIONET, DT, CT
Composition of TWGs		2007-09	2007-11	CT
TWGs start work		2007-11		



# Status Specification Development

Deliverable	Description	Milestone	Who
DS-D2.3	Draft Definition and scope of Annex Themes	2007-05	DT
	Launch of SDIC/LMO consultation on draft Definition and scope of Annex Themes	2007-05	SDIC, LMO
DS-D2.3	Final Definition and scope of Annex Themes	2007-10	CT
DS-D2.5	Draft Generic Conceptual Model (GCM)	2007-05	DT
	Launch of SDIC/LMO consultation of draft GCM	2007-05	CT
	Methodology testing	2007-07	Selected SDICs LMOs, DT, CT
DS-D2.5	Revised draft GCM	2007-10	CT
DS-D2.5	Final GCM	2008-01	CT
DS-D2.6	Draft Methodology for Specification Development	2007-07	DS DT
	Launch of SDIC/LMO consultation on draft Methodology for Specification Development	2007-07	SDIC/LMO
DS-D2.6	Final Methodology for Specification Development	2008-01	CT
DS-D2.7	Draft IR for Data Exchange	2007-12	DT
	Launch of SDIC/LMO consultation on draft IR for Data Exchange	2007-12	SDIC, LMO
DS-D2.7	Final draft IR for data exchange	2008-06	CT
	Adoption of IR for data exchange	2008-11	Comitology



## III. Network Services

*Member States shall operate a network of the following services available to the public for data sets and services for which metadata has been created:*

- Discovery services; No charge
- View services; No charge (exceptions)
- Download services;
- Transformation services,
- Services allowing spatial data services to be invoked

*- Access to services may be restricted*

- Services shall be available on request to 3rd parties under conditions*
- INSPIRE Geo-portal shall be established – Member States geo-portals*





# Status Network Services

Deliverable	Description	Milestone	Who
NS-D 3.7	Draft IR for Discovery and View Services	2007-08	DT
	Launch of SDIC/LMO consultation on draft IR for Discovery and View Services	2007-08	SDIC/LMO
NS-D 3.7	Final draft IR for Discovery and View Services	2008-01	CT
	Adoption of IR for Discovery and View Services	2008-05	Comitology
NS-D 3.9	Draft IR for Download Services	2007-12	DT
	Launch of SDIC/LMO consultation on draft IR for Download Services	2007-12	SDIC/LMO
NS-D 3.9	Final draft IR for Download Services	2008-08	CT
	Adoption of IR for Download Services	2008-11	Comitology
NS-D 3.10	Draft IR for Coordinates Transformation Services	2007-12	DT
	Launch of SDIC/LMO consultation on draft IR for Coordinates Transformation Services	2007-12	SDIC/LMO
NS-D 3.10	Final draft IR for Coordinates Transformation Services	2008-07	CT
	Adoption of IR for Coordinates Transformation Services	2008-11	Comitology



## IV. INSPIRE Data Sharing Policy

- Member States shall 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.
- 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. -> Implementing Rule

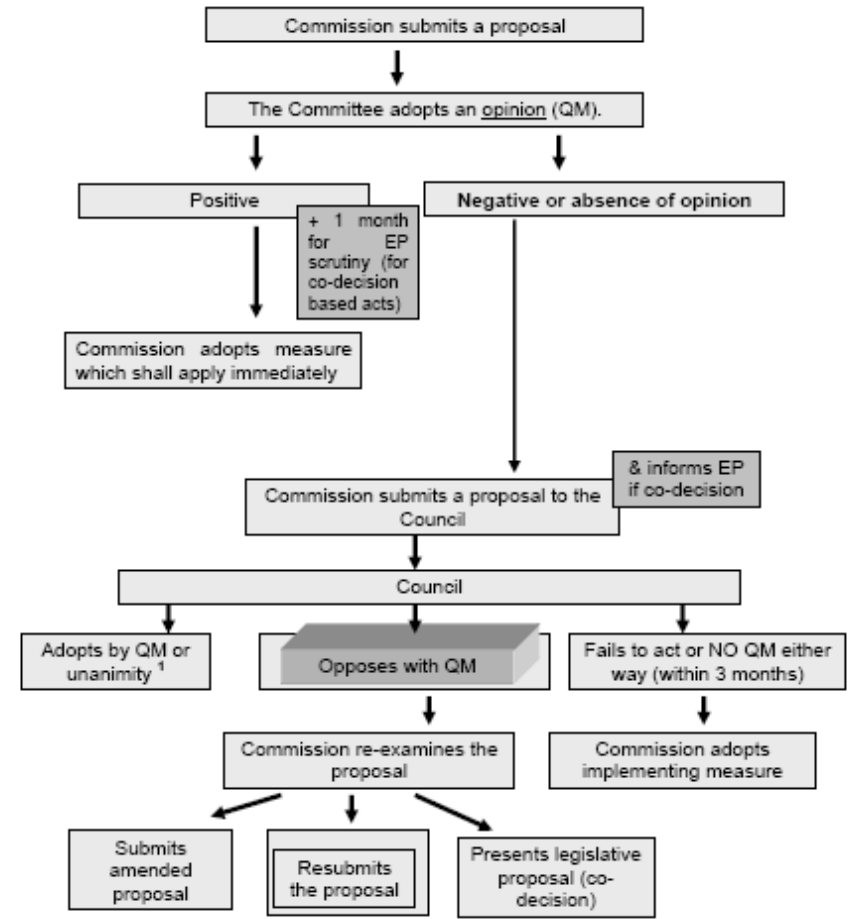
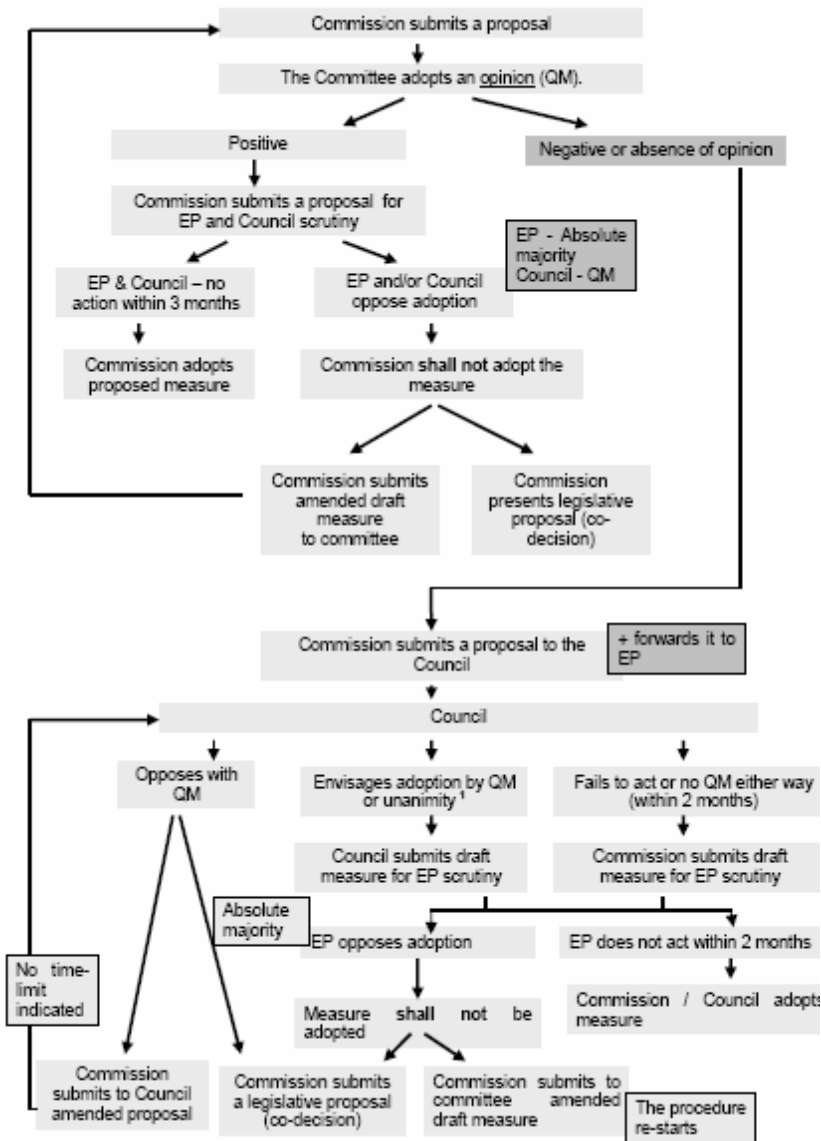


# Status IR DS development

Deliverable	Description	Milestone	Who
DSS-D 4.9a	Draft IR governing access and rights of use of spatial data sets and services for Community institutions and bodies, including commentary and clarifications on the reasoning behind the draft IR ( <i>internal to the DT and CT</i> )	2007-07	DT
DSS-D 4.10	Recommendations accompanying the draft IR	2008-02	DT
DSS-D 4.9b	Draft IR for governing access and rights of use of spatial data sets and services for Community institutions and bodies	2008-05	DT
	Launch of SDIC/LMO consultation on draft IR	2008-07	SDIC/LMO, DT, CT
DSS-D 4.9c	Revised draft IR for governing access and rights of use of spatial data sets and services for Community institutions and bodies	2008-10	CT
	Public consultation on revised draft IR	2008-12	Public, DT, CT
DSS-D 4.9d	Final draft IR for governing access and rights of use of spatial data sets and services for Community institutions and bodies	2009-03	CT
	Adoption of IR governing the access rights of use to spatial data sets and services for Community institutions and bodies	2009-05	Comitology
DSS-D 4.11	Report on best practices	2009-08	DT, CT



# Comitology – Rules of Procedure



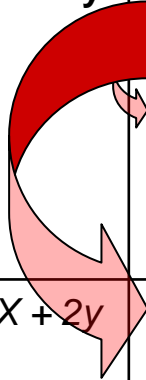
With and without scrutiny



# INSPIRE Roadmap (1/3)

Article		Mile-stone	Description
	2007	X	Entry into force of INSPIRE Directive
<b>22§2</b>	<b>2007</b>	<b>X+ 3m</b>	<b>Establishment of the INSPIRE Committee</b>
<b>5§4 16(a)</b>	<b>2008</b>	<b>X + 1y</b>	<b>Adoption of IRs for the creation and up-dating of the metadata</b> <b>Adoption of IRs for Network Services</b> <i>NS phase 1: Adoption of IRs for discovery and view services</i> <b>Adoption of IRs for monitoring and reporting</b> <b>Adoption of IRs governing access and rights of use to spatial data sets and services for Community institutions and bodies</b>
<b>21(4) 17(8)</b>			
	2009	X + 2y	<i>NS phase 2: Adoption of IRs for download and invoke Network Services</i>
<b>9(a)</b>	<b>2009</b>	<b>X + 2y</b>	<b>Adoption of IRs for the interoperability and harmonisation of spatial data sets and services for Annex I spatial data themes</b>
<b>19§2</b>	<b>2009</b>	<b>X + 2y</b>	<b>MS designate a contact point</b> (as early as possible; at latest X+2y = end of transposition phase)

**First Meeting  
26 June 2007**



Bold means: explicitly mentioned in the directive, including a timing

Bold + italics: explicitly mentioned but without timing

Italics: proposal for subdivision from what is mentioned in the directive, including a proposed timing



# INSPIRE Roadmap (2/3)

Article		Milestone	Description
24§1	2009	X + 2y	Provisions of Directive are brought into force in MS (transposition date)
17§1			<i>Implementation of data sharing framework of spatial data sets and services between public bodies</i>
21§1			<i>Implementation of provisions on monitoring</i>
6(a)	2010	X + 3y	Metadata available for spatial data corresponding to Annex I and Annex II spatial data themes
	2010	X + 3y	<i>NS phase 3: Discovery and View Network services are operational</i>
15§2	2010	X + 3y	<i>The EC establishes and runs a geo-portal at Community level</i>
21§2	2010	X + 3y	Member States' First Report to the Commission. From then onwards MS have to present reports every 3 years
7§3 9(a)	2011	X + 4y (2 + 2)	Newly collected and extensively restructured spatial data sets available in accordance with IRs for interoperability and harmonisation of spatial data sets and services for Annex I spatial data themes
	2011	X + 4y	<i>NS phase 4: Download Network Services are operational</i>



# INSPIRE Roadmap (3/3)

Article		Mile-stone	Description
9(b)	2012	X + 5y	Adoption of IRs for the interoperability and harmonisation of spatial data sets and services for Annex II and Annex III spatial data themes
6(b)	2013	X + 6y	Metadata available for spatial data corresponding to Annex III spatial data themes
23	2014	X + 7y	Commission's report to the EP and the Council. From then onwards the Commission has to present reports every 6 years
7§3 9(b)	2014	X + 7y (2 + 5)	Newly collected and extensively restructured spatial data sets available in accordance with IRs for interoperability and harmonisation of spatial data sets and services for Annex II and III spatial data themes
7§3 9(a)	2016	X + 9y (7 + 2)	Other spatial data sets available in accordance with IRs for interoperability and harmonisation of spatial data sets and services for Annex I spatial data themes
7§3 9(b)	2019	X +12y (7 + 5)	Other spatial data sets available in accordance with IRs for interoperability and harmonisation of spatial data sets and services for Annex II and III spatial data themes



For more information see:  
INSPIRE Work Programme Transposition Phase 2007-2008

**Thank You!**

get to grips with  
**climate change**



**More information on EU climate change policy**