



INSPIRE status report

**CIP ICT-PSP GI stakeholders meeting
20 October 2010, Luxembourg**

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1 Introduction

The aim of this report is to provide an update of the status of INSPIRE to the participants of the CIP ICT-PSP GI stakeholders meeting on 20 October 2010. It also intends to highlight the importance of the projects funded under the eContent and eContentPlus programmes for the development and implementation of the INSPIRE Directive and related legal acts.

The key messages are:

- In his opening message for the INSPIRE Conference 2010, the Commissioner for the Environment Janez Potočnik described INSPIRE as the “crucial part of **European Union environmental policy** success”. He also stated that “we are going to use INSPIRE to construct the broader and Shared Environmental Information System.”
- The draft **Regulation** for the interoperability of **spatial data sets and services** for Annex I spatial data themes (Coordinate reference systems, Geographical grid systems, Geographical names, Administrative units, Addresses, Cadastral parcels, Transport networks, Hydrography, Protected sites) are **available in 22 languages** from the INSPIRE website, <http://inspire.jrc.ec.europa.eu/>. The adoption and publication in the Official Journal of the EU of the regulation is expected to be at the end of 2010.

- A large number of **projects** funded by DG INFSO in the **eContent** and **eContentPlus** programmes have substantially contributed to the development and implementation of INSPIRE. Examples of these projects are GIS4EU, oneGeology Europe, Plan4all, HABITATS, ESDIN, eSDI-Net+, EURADIN, GS Soil, Nature-SDI plus.
- **Organisations** that have a stake in **INSPIRE** are strongly encouraged to **register** as INSPIRE **Legally Mandated Organizations** (<http://inspire.jrc.ec.europa.eu/index.cfm/pageid/7>), in order to actively contribute to the work on the Annex II and III data themes.
- Software developed by JRC in the context of INSPIRE (e.g., prototype of geoportal, metadata validator) is being released as **open source software** and available from the Open Source Observatory and Repository (go to OSOR.eu, and search for INSPIRE).



2 INSPIRE status

2.1 Background and rationale

Directive 2007/2/EC¹ of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) entered into force on the 15th May 2007. The Deadline for transposition into National legislation was 15 May 2009². 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 foresees the establishment of more detailed provisions, known as Implementing Rules (IR) legal acts. Implementing Rules need to be established for:

- Metadata
- Network services
- Data specifications
- Data and service sharing
- Monitoring and reporting

The establishment of these Implementing Rules is the responsibility of the European Commission. A process for extensive stakeholder participation has been set-up, which is described on the INSPIRE website.

The three lead services of the European Commission are Directorate General Environment, Eurostat and the Joint Research Centre (JRC). DG Environment acts as the overall legislative and policy co-ordinator for INSPIRE while Eurostat is the overall implementation co-ordinator and supports the IR developments on data and service sharing and on monitoring and reporting. The JRC acts as the overall technical co-ordinator of INSPIRE, and is responsible for the development of IRs for metadata, data specification and network services.

This section summarises recent developments in INSPIRE. For more information on INSPIRE, please visit <http://inspire.jrc.ec.europa.eu/>, or write to inspire-info@jrc.ec.europa.eu.

2.2 Stakeholder participation

An open and transparent process for INSPIRE stakeholder participation has been set up. Stakeholders can register at the INSPIRE website (<http://inspire.jrc.ec.europa.eu/>) as a Spatial Data Interest Community (SDIC) or as a Legally Mandated Organisation (LMO). SDICs are those

¹ <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2007:108:SOM:EN:HTML>

² Information on the status of transposition of the INSPIRE Directive in the Member States can be found on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:72007L0002:EN:NOT>

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organisations that are involved in a network representing producers, transformers and users of spatial data that falls within the scope of INSPIRE. LMOs are organisations that have a legal mandate for one or more aspects of INSPIRE. The involvement of stakeholders can be one or more of the following: to keep informed, review INSPIRE deliverables, propose experts, submit reference material, and/or test draft specifications. Registration is continuously open. In close collaboration with stakeholders in the Member States the Commission started the drafting of the Implementing Rules. This is being done in Drafting Teams, which are composed of experts from stakeholder organisations. The drafting of the INSPIRE Data Specifications of Annex I, II, and III is done in Thematic Working Groups (TWG).

2.3 INSPIRE at a glance

2.3.1 Metadata

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 was published in the Official Journal on 4th December and entered into force on 24th December 2008³. By 3 December 2010, Member States shall provide the metadata for data sets and services listed in Annex I and II to the Directive.

A revised version of the guidelines to implement the Regulation using EN ISO 19115 and ISO 19119 was published on the INSPIRE web site in June 2010⁴.

The INSPIRE metadata editor is accessible through <http://www.inspire-geoportal.eu/EUOSME/> in 22 languages.

2.3.2 Network Services

Discovery Services and View Services

The INSPIRE Network Services Regulation (EC 976/2009) was adopted by the commission on the 19th of October 2009. It has been published in the Official Journal of the European Union, OJ number L 2747 Volume 52 20 October 2009 and entered into force on the 20th day following its publication. It contains the implementing rules for the discovery and view services.

The Technical Guidance Discovery Services, (Version 2.0) was prepared by the Network Services Drafting team and published on the INSPIRE site. This document identifies the recommendations and implementation guidelines for Discovery Services to fulfil the INSPIRE directive.

The INSPIRE View Service Technical Guidance (Version 2.0) has also been published. This document defines how to implement INSPIRE View services according to the INSPIRE View Services Implementing Rule.

Download Services and Transformation Services

The Regulation amending Regulation (EC) No 976/2009 as regards download services and transformation services received a positive opinion from the INSPIRE Committee, and was submitted the 7th of July 2010 to the European parliament and the council for scrutiny.

The Technical Guidance Coordinate Transformation Services, (V 2.1) was prepared by the Network Services Drafting team and published on the INSPIRE site. This document identifies the

³ Metadata regulation: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:326:0012:0030:EN:PDF>

⁴ Metadata Guidelines:

http://inspire.jrc.ec.europa.eu/documents/Metadata/INSPIRE_MD_IR_and_ISO_v1_2_20100616.pdf

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recommendations and implementation guidelines for the Coordinates Transformation Services to fulfil the INSPIRE directive.

The technical guidance schema transformation services (V2.0) was prepared by a consortium composed of RWS Geomatic Ltd, 1Spatial and Rob Walker Consultancy in the context of a contract with the JRC and published on the INSPIRE site. This document identifies the recommendations and implementation guidelines for the Schema Transformation Services.

The Technical Guidance Download Services (V 2.0) was prepared by the Network Services Drafting team and published on the INSPIRE site. This document identifies the recommendations and implementation guidelines for the Download Services to fulfil the INSPIRE directive.

Initial Operating Capability Task Force

The Initial Operating Capability Task Force (IOC TF) was set up in June 2009 to help and support Member States in the implementation of INSPIRE services and to ensure interoperability with the INSPIRE geoportal of the European Commission. The IOC TF consists of the representatives, from all Member States, responsible for the Architecture design and the service implementation of the National SDIs. The initial scope of the IOC TF is the maintenance of the INSPIRE Discovery and View Services Technical Guidance (TG) Documents. The latest draft versions of the TGs are published on the INSPIRE web site while the final versions are expected to be published towards the end of 2010.

2.3.3 Data Specifications

The draft Commission Regulation of Implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services was approved by unanimity by the INSPIRE Committee in December 2009. The translations into the other 21 languages of the European Union are completed and available on the INSPIRE website. The draft Regulation is currently under the scrutiny of the European Parliament and Council.

The draft *Commission Regulation amending Regulation (EU) No .../2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services, regarding code lists* was voted and approved by unanimity by the INSPIRE Regulatory Committee on 17 June 2010.

The Technical Guidelines for the spatial data themes of Annex I (Coordinate reference systems, Geographical grid systems, Geographical names, Administrative units, Addresses, Cadastral parcels, Transport networks, Hydrography, Protected sites) are available on the INSPIRE web site. Also available are the framework documents for the INSPIRE data specifications development, updated to reflect the experience with the Annex I data themes.

Following the *Call for Expression of Interest for participation in development of INSPIRE data specifications for Annex II & III Data Themes*, launched in November 2009, nineteen INSPIRE TWG were established to develop the INSPIRE data specifications. Around 190 out of the 330 experts proposed in-kind by the stakeholders were appointed as members of the TWGs.

The development of the Annex II and III data specifications was kicked-off on the 20th of April 2010. The first physical meeting of the facilitator and editors of all TWGs was held the 24th of June in Krakow during the INSPIRE Conference. This meeting was a milestone, giving the possibility for the first time for many experts involved in the development of data specifications for Annex II & III to meet, to present the first developments within the TWGs, to discuss the identified main issues and cross-theme relations and to define a common strategy towards the delivery of the first version of data specifications which is due in October 2010. The EEA will feedback in November 2010 on the proposed scope and the use cases as part of the internal consultation. In spring 2011 the second version of the data specifications will be subject to an INSPIRE stakeholder consultation, which is open to registered stakeholders.

The work on the interoperability of Annex II and III data themes needs a strong **involvement** of the **environment community**, both in terms of **direct participation** and for **reviewing** of documents. A number of communities are still under-represented in INSPIRE. More experts are welcome in

particular for the work on *Production and industrial facilities, Energy Resources, Agricultural and aquaculture facilities, and Area management/restriction/regulation zones & reporting units*. **Organisations with an interest in the thematic areas of INSPIRE** are strongly encouraged to **register** as **INSPIRE Legally Mandated Organizations** (<http://inspire.jrc.ec.europa.eu/index.cfm/pageid/7>), in order to actively contribute to or review the work on the Annex II and III data themes. Table 1 provides an overview of the Annex II and III data themes.

Figure 1. Annex II and III data themes. The size of the data theme reflects the need for additional expertise and support for the respective Thematic Working Group.



There is a good dialogue with the INSPIRE Member States Contact Points (MSCP). For instance, in March 2010, they were asked to comment on the composition of the TWGs, and to contribute with to additional domain experts for those TWGs that had gaps. Also, a discussion was started on the maintenance of the guidelines for Annex I. On 22 June 2010, a MSCP meeting was organized on the issue of data quality within INSPIRE, in which also the data quality survey of the Member States was presented.

2.3.4 Data and service sharing

The *COMMISSION REGULATION implementing Directive 2007/2/EC of the European Parliament and of the Council as regards the access to spatial data sets and services of the Member States by Community institutions and bodies under harmonised conditions* was adopted on the 29.03.2010⁵.

Updated guidelines for data and service sharing are available on the INSPIRE website⁶. These guidelines should help in understanding and implementing this Commission Regulation.

A "Good Practice" document is also available⁷, its aim is to illustrate how the INSPIRE sharing principles can be applied to data and service sharing between Member States.

2.3.5 Monitoring and reporting

⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:083:0008:0009:EN:PDF>

⁶ http://inspire.jrc.ec.europa.eu/documents/Data_and_Service_Sharing/INSPIRE_DSS_Guidance%20document_final.pdf

⁷ http://inspire.jrc.ec.europa.eu/documents/Data_and_Service_Sharing/INSPIRE_GoodPractice_%20DataService%20Sharing_v1.pdf

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On 5 June 2009 the *COMMISSION DECISION implementing Directive 2007/2/EC of the European Parliament and of the Council as regards monitoring and reporting* was adopted⁸.

A document explaining the rationale of the selected indicators, as well as guidelines and an Excel template for reporting, have been developed and made available. These documents can be found on the INSPIRE website in the section on monitoring and reporting⁹.

In 2010 the first INSPIRE monitoring and reporting documents were provided by Member States to the European Commission. These documents are currently evaluated and the major findings will be made available on the INSPIRE website; the original information provided by Member States, as well as translations of the reports, will also be made available.

2.3.6 INSPIRE EU Geo-portal prototype

A prototype of the INSPIRE Geoportal has been developed by the JRC and aims to provide the means to access the services of the INSPIRE network services in Member States and sector specific services. Furthermore through this development it provides the opportunity to assess the specifications that are being proposed by the Drafting Teams.

The prototype INSPIRE geoportal is available at: <http://www.inspire-geoportal.eu>. The INSPIRE geoportal provides the means to search for spatial data sets and spatial data services, and subject to access restrictions, view and download spatial data sets from the EU Member States within the framework of the Infrastructure for Spatial Information in the European Community (INSPIRE) Directive. This version of the INSPIRE geoportal is a prototype and allows for the discovery and viewing of spatial data sets and services. Its aim is to identify issues related to its implementation and accessing distributed INSPIRE services and to help towards the development of the operational geoportal. Note that in this version Discovery of spatial data sets and services as well as viewers for spatial data sets are based on open source software and internal development within the JRC.

Current and future work includes:

- Conducting tests with discovery and view services from Member States in the context of the Initial Operating Capability;
- Include support for Download and Transformation Services
- Develop a register for INSPIRE Discovery Services

2.3.7 Operational INSPIRE EU Geo-portal

A public procurement has been launched for the development of the operational INSPIRE geoportal (<http://ted.europa.eu/udl?uri=TED:NOTICE:234033-2010:TEXT:EN:HTML&src=0>).

Deadline for receipt of proposals is the 15th of October 2010.

2.4 State of play reports

The 5th edition (2007) of the State of Play reports on Spatial Data Infrastructures in Europe is available in the INSPIRE Library on the INSPIRE website¹⁰. The main findings of the 2007 report are that INSPIRE has stimulated the further development of Spatial Data Infrastructures in Europe, particularly in the area of metadata and service development. The summary and country reports can be downloaded from the INSPIRE website.

The 6th edition (2009) will be made available on the same webpage by the end of 2010. As in the previous editions, the objectives of these reports are to describe, analyse and assess the status of National Spatial Data Infrastructures (SDIs), this time in 34 countries in Europe (2 new countries). A workshop with international experts was organised in May 2009, for discussing and revising the list of indicators used for the country reports. The workshop produced a set of recommendations for further development of the "State of Play" study, as well as on its relation with the INSPIRE

⁸ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:148:0018:0026:EN:PDF>

⁹ <http://inspire.jrc.ec.europa.eu/index.cfm/pageid/182>

¹⁰ <http://inspire.jrc.ec.europa.eu/index.cfm/pageid/6/list/4>

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monitoring and reporting information provided by Member States. In addition to the general country surveys, an in-depth study on "Coordination, funding and sharing measures" took place.

2.5 INSPIRE Forum and newsletter

According to the INSPIRE Directive, the Commission assumes the responsibility for the co-ordination at Community level, assisted by relevant organisations and in particular, by the EEA. Member States assume the co-ordination of stakeholders at the national levels while communicating with the Commission through nominated points of contact. Issues related to the formal adoption of INSPIRE Implementing Rules will be addressed by the Commission, hereby assisted through the INSPIRE Regulatory Committee.

The INSPIRE Forum complements the above co-ordination structures by bringing the above actors together in a forum open to the multiple societal stakeholders. The Forum serves to share experiences and best practices while fostering the co-ordination of stakeholder actions.

The Forum is a mechanism through which the INSPIRE community can co-operate, share a common vision and organise themselves to collectively and individually contribute towards the shared vision: implement INSPIRE in a successful way.

Website: <http://inspire-forum.jrc.ec.europa.eu/>

INSPIRE Forum Newsletter October 2010: <http://inspire.jrc.ec.europa.eu/enews/2010-10/>

2.6 Contact

E-mail: inspire-info@jrc.ec.europa.eu

Official INSPIRE EC website: <http://inspire.jrc.ec.europa.eu>

3 Highlights of contributions of eContent(Plus) projects to INSPIRE

This section contains information provided on the INSPIRE Forum website (<http://inspire-forum.jrc.ec.europa.eu/>) and Newsletter (<http://inspire.jrc.ec.europa.eu/enews/2010-10/>).

3.1 Examples of projects listed on the INSPIRE Forum

A number of INSPIRE related projects have already been funded by EC Programmes. The following is a subset of these projects.

- [ESDIN](#) Underpinning the European Spatial Data Infrastructure with a Best Practice Network
- [eSDI-Net+](#) eSDI-Net+ European Network on Geographic Information Enrichment and Reuse
- [EURADIN](#) EUROpean Addresses INfrastructure, aims at constituting a Best Practice Network in order to promote the European Address harmonization regarding the definition, registration and access to the European Address Data.
- [GIS4EU](#) Provision of interoperable datasets to open GI to the EU communities
- [GS Soil](#) Assessment and strategic development of INSPIRE compliant Geodata-Services for European Soil data
- [HABITATS](#): Social Validation of INSPIRE Annex III Data Structures in EU Habitats
- [Nature-SDI plus](#) Best Practice Network for SDI in Nature Conservation
- [OneGeology-Europe](#) OneGeology-Europe, Making digital geological spatial data more easily discoverable, accessible and useable
- [Plan4all](#) European Network of Best Practices for Interoperability of Spatial Planning Information

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3.2 Best Practices for Interoperability of Spatial Planning Information

Plan4all is a European project co-funded by the Community programme eContentplus. Plan4all is a consortium of 24 partners including universities, private companies, international organisations and public administrations.

The main aim of the project is to **harmonise spatial planning data and related metadata according to the INSPIRE principles.**

Spatial planning is one of the most important areas that strongly influence our society on all levels. Sustainable planning addresses the environment where people live and work, the location of social and economic activities, the way in which the resources we possess are exploited.

Plan4all is focused on the following **seven spatial data themes as outlined in Annex II and III of the INSPIRE Directive:**

- Land cover
- Land use
- Utility and Governmental services
- Production and industrial facilities
- Agricultural and aquaculture facilities
- Area management/restriction/regulation zones and reporting units
- Natural risk zones

The Plan4all project should contribute to the standardisation of these spatial data themes from a spatial planning point of view. The cooperation between the Plan4all project and the INSPIRE initiative can be summarised in the following items:

- **Six of our experts are involved in the Thematic Working Groups (TWGs)** for Annex II and III and make direct links with the INSPIRE initiative, exchange of knowledge and experience.
- Plan4all is continuously submitting all its deliverables as **reference material for the TWGs** including data models and metadata profiles for the selected themes.
- Plan4all is registered as a **Spatial Data Interest Community (SDIC)** for INSPIRE and intends to participate in the **testing of the data specifications** for spatial data themes from Annex II and III of the INSPIRE Directive. This will provide most valuable feedback for the INSPIRE team in terms of validation of the proposed data specifications.

Plan4all can be considered as a real use case of INSPIRE. Preliminary results from the Plan4all project (State of the art analysis) show the heterogeneity in Europe in terms of spatial planning systems, spatial data infrastructures, terminology, processes in spatial planning, data formats, quality and quantity of content, standards, data models, data availability, user requirements and other aspects.

The Plan4all team is finishing metadata profiles and data models for the selected 7 INSPIRE spatial data themes and the Plan4all networking architecture. Plan4all will show the feasibility of harmonisation of spatial planning data on European level.

Please visit our website, find all the results in the form of publicly available deliverables and test the pilot version of the Plan4all geoportal at <http://portal.plan4all.eu>.

Are you interested about the Plan4all project? Join and follow us on the [INSPIRE Forum](#). We are looking forward to your feedback.

4 Glossary

DG	Directorate General
EC	European Commission
EN	European Norm
EU	European Union
GMES	Global Monitoring for Environment and Security
INSPIRE	Infrastructure for Spatial Information in the European Community; Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007
IR	Implementing Rule
ISO	International Organization for Standardization
JRC	Joint Research Centre
LMO	Legally Mandated Organization
MSCPs	Member States Contact Points
NFP	National Focal Points
OSOR	Open Source Observatory and Repository
SDI	Spatial Data Infrastructure
SDIC	Spatial Data Interest Community
SEIS	Shared Environmental Information System
TG	Technical Guidance
TWG	Thematic Working Group