



INSPIRE

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INSPIRE Directive

Current Status of the INSPIRE proposal

The [Commission Proposal](#) for an INSPIRE directive was adopted in July 2004 and will become law once the directive has been adopted by Council and Parliament through the [codecision procedure](#).

The first reading was completed in January this year with the adoption of the [Council Common Position](#). This followed the [Parliament's first reading opinion, adopted in June 2005](#). Both the Council and Parliament texts incorporate a number of changes that have the aim of clarifying the text. However, while the Commission was able to support a large majority of the Parliament's amendments, [the Commission's Communication on the Council Common Position](#) signalled concern about a lack of ambition particularly in relation to public access and sharing of data between public authorities.

The directive is now in [second reading in Parliament](#). Draft amendments to the Common Position tabled by the rapporteur, MEP Frederika Brepoels, were approved in the Parliament's environment committee on 21 March, and have the general aim of increasing the level of ambition in relation to public access and data sharing, as well as reinstating other aspects of the Commission's original proposal, for example in relation to implementing rules for interoperability and adaptation of the annexes.

The Parliament has until June to formally adopt its second reading by majority vote in a plenary session. If disagreements between Council and Parliament still persist at this stage, the directive will go into the [conciliation procedure](#) during the Finnish presidency in the second half of 2006. Agreement must be reached during



this conciliation phase in order for the directive to be adopted.

Work Programme

Work Programme 2006

The initial work programme for the Preparatory Phase of INSPIRE builds on the Commission [INSPIRE proposal for a Directive](#), and was published in February 2005 on the [INSPIRE web site](#).

However, since the initial publication, a number of events took place and needed to be taken into account. Firstly, progress had been made in the political co-decision process related to the legislative proposal, now entering the second reading phase, secondly the call for expression of interest launched in Spring 2005 led to the establishment of 5 Drafting Teams (DTs), which have been working since October 2005 in developing draft implementing rules (IR) for INSPIRE. An update of the work programme therefore became essential.

The essence of the initial work programme has been fully maintained. The scope of the updated Action Plan is to refine activities and structures aiming to establish draft IRs for INSPIRE still according to the INSPIRE implementation roadmap, but also matching the detailed workflow proposed within each individual DT. Changes appear predominantly in the definition and delivery scheduling of the deliverables.

As the development of draft IRs is to some extent also "learning by doing", it proved to be necessary to introduce some refinements in the Terms of Reference. These were mainly the result of questions raised during the early activities in the various Drafting Teams. First of all the concept of dual core DTs (core and support) has been included, following the success of the call for expression of interest and the need for a flexible application of the terms of reference to the specificities of each DT. Amongst others, a document versioning system has been proposed which reflects the development and review cycle for the draft IRs. Furthermore a mechanism has been introduced to ask advice to the stakeholders on intermediate technical documents, not yet in the status of draft IR, but which typically include pathways, choices for which the

DTs consider it essential to know the opinion of the stakeholder community at an early stage.

As the registration of SDICs, LMOs and experts is an on-going process, the terms of reference have been adapted to show clearly the continued possibility for registration and participation in the development process.

Finally a communication policy has been included in the update, underlining the importance of the INSPIRE site as a central pivot point for all types of documents, announcements and general information on the IR development process.

Drafting Team Status Reports

Metadata Drafting Team: An update of the work in progress

This text provides a brief update on the work undertaken and yet to be carried by the INSPIRE Metadata Drafting Team (DT).

After the INSPIRE kick-off meeting of in October 2005 the Metadata DT had three physical meetings. The first physical meeting was in November in Bonn and the second in January in Muenster. The third physical meeting took place in Copenhagen at the end of March.



The available DT-members at the Muenster meeting

Since December the DT has held bi-weekly telephone conferences. No distinction is made between the core drafting team and the support drafting team due to the drive and commitment of all the members. Thus the Metadata DT operates as one "core" team.

The Metadata DT concentrated in the first two months on getting consensus on content and approach. After this period the DT started with an inventory of the reference material. Based on an eight point template all the reference material



was reviewed. About 80 reference materials were initially submitted and this list is still growing. We have also extended this list with DT recommended material. In February we had 120 documents in total with some repetition. The key findings of the review are:

- Most material refers to reports of national and other metadata initiatives/projects
- Regional/local profiles are mostly ISO 19115 based
- And many also Dublin Core compliant to some extent
- Most service metadata are based on ISO 19119
- There are some metadata software or demos
- Some of the submitted on-line material could not be analyzed (broken links)

A draft report defining the requirements for content and structure of metadata for spatial data based on a survey of existing initiatives, reference material and solutions will be completed in April.

In parallel with the review of the reference material, the DT started writing a first draft for the IR for metadata (using of course the relevant input of the reference material). The DT agreed to combine in one single deliverable the Implementing Rules for discovery metadata, metadata for evaluation and use, and rules for extending the metadata (the original Work Programme identified two separate reports for these). Moreover, it was agreed to include at least at the discovery level, metadata for both data and services, whilst working closely with the DT on Network Services on common issues. The DT plans to have a first draft ready by May.

The Metadata DT is pleased with the possibility to make use of the [link JRC distributed metadata] catalogue services tender which started in January 2006. For the purposes of this work emphasis shall be given on the diverse solutions that exist for the discovery and retrieval of metadata for geographic resources from distributed catalogue metadata services. Requested solutions include real time search of distributed catalogues and harvesting. The metadata standards that are used in this tender are ISO19115/ISO 19119 and Dublin Core. In this tender the results of the DT Metadata will be used and essential feedback will be received. This gives better and

practical implementing rules and an environment that different communities or projects can use beforehand.

At last I want to thank the Metadata DT for their hard work and the whole INSPIRE team for the perfect corporation. INSPIRE is a well chosen name.

MARCEL REUVERS
Chairman of DT Metadata

Data Specifications Drafting Team

The Data Specifications Drafting Team so far had two physical meetings (the kick-off meeting in Ispra, October 3rd-4th 2005, and a joint meeting with the RISE project in Frankfurt, December 12th-13th 2005) in addition to bi-weekly conference calls. The next meeting is scheduled for April 26th in Munich, in conjunction with the Feature/Object Models Workshop organised by Euro SDR and EuroGeographics.

Due to the broad expertise needed for the technical drafting, this drafting team is the largest of the five. After the recent addition of Markus Erhard from the European Environmental Agency (EEA) to bring additional environmental expertise to the team, the Drafting Team now consists of 23 members in its [core and support team](#).

One focus of our activities so far has been the scoping of the data themes. We are working from the basis that the scope and description of the data themes, as listed and defined in the annexes of the [Common Position for the Directive](#), will be based on the [INSPIRE position papers](#) and eventually other [reference documents submitted by the SDICs and LMOs](#). For each data theme definition, description, scope, use examples, important feature types, and reference documents are in the process to being drafted. After being integrated with input from the EEA, we plan to submit a first draft of the document "Definition of annex themes and scope" to the CT in April. A particular issue for this work has been the current lack of documentation of the user requirements and applications to be addressed. To address this issue, the CT is in the process of identifying relevant use case scenarios required for environmental policies in the Community.

In parallel, the Drafting Team has agreed on the scope of and a roadmap for data harmonisa-



tion, i.e. establishing a common understanding of the meaning "harmonised data specifications". Based on the principles governing the development of INSPIRE, we have identified 21 data harmonisation components that need to be addressed in the process. These components are organised in three groups: the INSPIRE information model, operational components/registers, and a collection of guidelines and best practices.

1. INSPIRE Information Model

- 1.1 INSPIRE Principles
- 1.2 Reference model
- 1.3 Application Schemas
- 1.4 ISO 19100 Profile
- 1.5 Multi-lingual text and cultural adaptability
- 1.6 Coordinate referencing and units model
- 1.7 Object referencing modelling
- 1.8 Data translation model/guidelines
- 1.9 Portrayal model

2. Operational components/registers

- 1.1 2.1 Identifier
- 1.2 Management
- 2.2 Terminology
- 2.3 Feature catalogues
- 2.4 Dictionaries
- 2.5 Conformance

3 Guidelines & Best Practice

- 3.1 Metadata
- 3.2 Maintenance
- 3.3 Quality
- 3.4 Data Transfer
- 3.5 Derived reporting & multiple representations
- 3.6 Consistency between data
- 3.7 Data capturing

In alignment with this structure, INSPIRE Data Specifications are expected to be based on ISO 19131, an International Standard for Data Product Specifications. It has been agreed that UML will be used for the documentation of the application schema. Based on the roadmap for data harmonisation, our current work is to specify over the next months a first draft of a generic conceptual application schema for INSPIRE data specifications. It has been agreed that the specification development process needs to be iterative and application driven. Components depicted underlined in the diagram above have been identified as priority components with respect to the generic conceptual application schema. Currently the Drafting Team is evaluat-

ing approaches of the SDICs and LMOs with respect to these data harmonisation components in order to identify communalities and differences in the practices in the Member States. The goal is to develop proposals for the generic conceptual application schema for each component based on these evaluations.

Six months have now passed since the kick-off and while a lot of work is still waiting to be done, thanks to the hard and cooperative work by the Drafting Team members and our CT contacts we got off to a good start for our ambitious work.

CLEMENS PORTELE

Chairman of DT Data Specification

Network Services Drafting Team

The objective of the Network Services Drafting Team is to write draft implementing rules for the following services: 1. View services, 2. Discovery services, 3. Upload services, 4. Download services, 5. Transformation services, 6. "Invoke service" services.

The first task for the DT is to have a good understanding of what are the network services for INSPIRE. From a [draft document](#) provided by JRC, the team is working to get a precise definition of services, and is studying what are the specifications provided by organisations of standardization (ISO, CEN, OGC, W3C, OASIS) for architecture and services relevant for INSPIRE. The general topics are: a reference model, the security (access to services and data transfer), the multilingualism, the compliance with services metadata, and technical architecture and protocols. In the reference model, the role for the INSPIRE Network Services is to provide mediation between Member States and EU levels. Some issues are in discussion with other drafting teams (e.g. metadata for services, link between data and services through metadata, dependence from data model for upload and download services, portrayal,).

At the end of 2005 [a workshop on discovery \(ESA/JRC\)](#) and a drafting team meeting on architecture helped the team to have a better understanding on discovery issues and to define a reference model for network services architecture. The next drafting team meeting in March should provide the document for the Network services definition. A workshop on geodata

download (organized by JRC, in April) will give us a state of art on this issue. The team will take this opportunity to get more details on this service.

The second task for the drafting team is to analyze and evaluate the reference material provided by SDIC and LMOs. The criteria for this evaluation have been defined and a template to analyze how these reference materials are relevant to INSPIRE Services requirements has been provided. This task started in February and a first report is scheduled for end of March.

The next task will be to define the interface specifications for the network services before writing the first draft of implementing rules. This task is planned after the definition of services and the reference material analysis.

JEAN-JACQUES SERRANO
Chairman of DT Network Services

Data and Service Drafting Team

After the kick-off meeting in ISPRA in October 2005, the DT met again on 14 - 15th November 2005 at the BEV in Vienna. Since then the DT has predominantly worked via e-mail, and recently it also started using regular conference calls in order to ensure a smooth workflow within the task forces.

At the meeting in Vienna the Drafting Team agreed on the following Mission Statement:
"The Mission of the Data and Service Sharing Drafting Team is to support the establishment of INSPIRE by preparing a draft IR on Data and Service Sharing according to the INSPIRE proposal for a Directive. Along the road the requirements of Community institutions and bodies, the current types of rights, access, and use will be addressed and best practice examples in sharing arrangements and models for data policies will be looked for. The IR will create a framework of provisions to enable public authorities and Community bodies to share data and services in order to meet user needs in the domain of environmentally related policies in a sustainable way."

Right from the start, the remit of the DT Data and Service Sharing was to develop the draft IR:

1. governing access and rights of use to spatial data sets and services for Community institutions and bodies,

2. governing third party access to upload services,
3. increasing the potential re-use of spatial data sets and services by third parties.

These tasks are strongly affected by the Co-Decision Procedure and by the question on which basis (EC INSPIRE Proposal, Amendments of the EP, Common Position of the Council) the team should start working on.

In view of this it was decided to focus initially on those elements that are common to all versions

The Data and Service Sharing Drafting Team (DT-DSS) will address at a later stage those issues that are still unresolved in the proposed Directive. In the meeting in Vienna the DT agreed upon the following work programme:

1. Describe working terms and criteria of requirements
2. Seek requirements of Community institutions and bodies
3. Find best practice examples and create models
4. Review and evaluate examples and models for sharing
5. Create and develop draft Implementing Rules

The work will be done in phases and through several rounds. The DT-DSS compiled a provisional list of relevant terms and categories for assessing requirements.

Some terms have already been defined, in particular in the Common Position of the Council, others still need to be defined by the DT and some depend on the final outcome of the political co-decision process (e.g.: access, restriction). In general, terminology will be an important part of the work during the whole drafting process.

The further work on the draft of relevant categories/criteria for assessing requirements (e.g. types of services, types of data, types of access, rights of use) on the one hand needs close cooperation with the other DTs but on the other hand also raised significant questions to the EC as to state more precisely which requirements are requested by the EC in regard to the IR.

The scope of the draft IR (data, services, user) will be addressed in close cooperation with other DTs and needs also to be specified by the EC.

The DT-DSS also focuses on the collection and analysis of existing data and service sharing examples and best practice examples.



The further creation of use cases depends on the cooperation with other DTs as well as on the results of “user requirements task force”, which has been established by JRC and Eurostat.

The information and clarification on user requirements at EU level, on data flows in relation to the Geo-portal, and on the changes to the proposal for a directive occurring during the co-decision process, are of great importance for the further work of the DT-DSS.

ULRIKE MENZEL

Chairman of DT Data and Service Sharing

Monitoring and Reporting

The scope of the DT is to draft the technical annexes of Implementing Rules for:

- a continuous monitoring of implementation progress of the INSPIRE Directive, using derived indicators as much as possible from applications and services;
- a three yearly report of the implementation of the Directive (coordination, contribution, quality assurance, availability of data sets and services, use, sharing agreements, costs and)

The DT has first analysed the reference material and assessed the requirements of the INSPIRE Directive. The analysis of the reference material has been used to identify guidelines for defining indicators.

The main points are:

- Define what are the main goals of the INSPIRE Directive
- Define who will use the monitoring and reporting information and what for
 1. EC will evaluate if the key objective of the INSPIRE directive is achieved, i.e. “to make more and better spatial data available”
 2. Member states will monitor and report for EC but also for them if indicators are also useful for them
 3. Citizens/business will be kept informed
- Choose indicators to measure, not to predict; choose indicators clear enough to be well understood as a measurement for the status of implementation;

- Use automatic tools to collect information at reasonable cost and also to facilitate monitoring and reporting activities of Member States (web counters for statistics, on line questionnaire, template for reporting).

The INSPIRE Directive has been assessed to identify main goals. For each chapter of the Directive (metadata, interoperability data and services, network services, data sharing, coordination, data in annexes), the DT has proposed an objective (what is the main goal to achieve) and a list of questions that could be answered by Member States (what information is needed to measure the achievement).

The next step will be to formulate clear indicators based on the questions, using examples of indicators from reference material (Examples: State of Play, automatic indicators,), to propose units of measurement (e.g. Y/N, number of..., percentage of ...) and to check the consistency with the other DTs' activities.

The major difficulty for the DT lies in defining how to monitor the implementation of the Directive while the other DTs are still busy defining other Implementing Rules. That is why the DT has assessed the requirements of the proposal for a Directive and has identified a list of questions for the DT (Example: how many indicators? what must/can be monitored? who will implement tools for monitoring/reporting?) and for the other DTs (Example: what is a “metadata of high quality”? how to measure the “consistency” of data sets? what are the “minimum performance criteria” for services? ...).

MARIE-LOUISE ZAMBON

Chairman of DT Monitoring and Reporting

Community News

Call for Expression of Interest for INSPIRE development: Status report

The design of the different technical and policy measures in the proposal for a Directive requires intensive stakeholder participation. Therefore the concept of Spatial Data Interest Communities (SDICs) and Legally Mandated Organisations (LMOs) was introduced, to provide stakeholders the mechanism to participate in the development of the draft Implementing Rules.



A SDIC bundles expertise and resources of users, producers or transformers of spatial data and services. It can originate from and be organised according to a specific sector in society, a geographic extent or a thematic issue. SDICs and LMO's can provide expert knowledge required for the drafting, reviewing and testing of the Implementing Rules. In February 2005, a call for expression of interest was launched for SDICs/LMOs willing to contribute and to participate in the Implementing Rules development process.

At the end of March 2006, there were 158 SDICs and 96 LMOs registered. Together they have proposed 195 experts, provided access to 216 reference materials and registered 106 projects.

These reference material and projects are used extensively by the drafting teams in their work. Additional material can be added at any time by registered SDICs/LMOs.

Nevertheless there remains a large pool of SDICs or LMOs which - for different reasons - could not take a direct part in the process. These organisations and experts still represent the future INSPIRE users. Knowing their needs, capacities and concerns is very important for a successful implementation of the infrastructure for spatial information in Europe. Therefore the Call for Expression of Interest for INSPIRE development remains open for new registrations on the [INSPIRE site](#).

INSPIRE Users Perspective: Analysis of the SDICs and LMOs Expectations and Concerns Survey

During the 11th EC GI&GIS Workshop, held in Alghero, June 2005, a survey of the expectations, concerns and contributions of SDICs/LMOs was undertaken. The analysis was elaborated at the JRC and deals with responses expressed by approximately sixty SDICs and LMOs. The responses had been studied and seven respondent groups were consequently defined. These groups bunch together organisations with relatively similar user views. The participation of the GI and environment focused organisations was surprisingly well balanced. The survey provided the opportunity for many valuable user views and constructive suggestions. In the analysis the typical responses provided by the groups are presented and the general ideas

expressed by of respondees are summarized. Concluding remarks focus on communication and capacity issues, and the fact that there are still some missing user communities. The full report will be published on the [INSPIRE site](#).

1st National INSPIRE Seminar in the Czech Republic

The first National INSPIRE Seminar, Prague, 14-15 March, was co-organised by the JRC, Nemoforum and the Czech Environmental Information Agency (CENIA). 100 people participated in the meeting, the majority of which were managers or senior officials from Ministries, Central Agencies, Regions, Universities and Professional Organisations. Different SDIs were presented and debated in the context of INSPIRE. The accompanying survey was focused on perception of INSPIRE, areas of concern and information needs. The Czech Ministry of Environment and CENIA elaborated a new proposal for a (SDI) implementation plan. This plan was presented along with an invitation to SDI stakeholders to participate in the process.

The methodology used in the organisation of this workshop will be used in the preparation of similar events in other Member States to raise awareness of the Infrastructure for Spatial Information in Europe (INSPIRE).

INSPIRE Seminar in London, 29th March

This seminar was jointly organized by the Association for Geographic Information which represents over a thousand organizations and individual GI stakeholders in the United Kingdom and the Intergovernmental Group on Geographic Information representing central government departments. Its objective was to update the UK GI community on the current status of the Drafting Teams' progress and to find out what the Rules might look like and how the inputs received might be considered. The audience included 52 participants of whom approximately 2/3 represented central government departments and 1/3 the private sector. There was only one representative from local government.

The program included an update on INSPIRE from the JRC, followed by a presentation from DEFRA, the department for the Environment Food and Rural Affairs that leads the dossier on INSPIRE, and presentations from the UK partici-



pants in each of the five drafting teams. The perspectives of the spatial data interests communities were provided by the European Soil Bureau Network, and RESPOND which is a project funded by the GMES program to support humanitarian aid. The panel discussion in the afternoon focused on two main issues: first, the need to develop a sustainable infrastructure in Europe taking into account the differences in funding models across the Member States, and second, the need to develop an appropriate strategy and coordinating framework for the establishment of a national SDI in the UK.

INSPIRE Interparliamentary Conference **2-4 April 2006 Gävle**

On 2-4 April 2006 the Swedish Parliament and its Committee on Housing organised a conference in Gävle on the proposed INSPIRE Directive. The participants came from 16 national parliaments; representatives of the EU institutions and various experts also took part.

The conference was intended to give parliamentarians an opportunity to exchange experiences and discuss continued work with the European Parliament's and Council's INSPIRE Directive, in particular in order to share expectations on the consequences of an increased access to high-quality harmonised spatial information, taking into account both developments in individual Member States and in the Union as such, and comprising different sectors of society.

An introduction by the Speaker of the Swedish Parliament, Dr Björn von Sydow, was followed by three presentations of the legislative process "state of play" from the three EU actors - the Council, the Parliament and the Commission - points of view, and by an enlightening lecture by Jack Dangermond, President of ESRI, on the usage of spatial information and the benefits of a spatial data infrastructure. The main issues still under discussion in the co-decision process, in particular pricing and data sharing policies, were the subject of a round table, integrated by a Q/A session with parliament delegates, continued on the second day.

The conference was an opportunity to raise awareness on the INSPIRE initiative and on the usage of spatial information for a wide range of policies and applications, and constituted a first experience in attempting to bring together EU

institutions and national Parliaments at this stage of an EU directive making process.

Metadata Survey, May 2006

A survey of metadata holdings of all registered SDICs and LMOs is planned for May 2006. The objective of this initiative is to define a benchmark of the current availability of online metadata for datasets by the SDICs and LMOs (a separate survey for services will be undertaken at a later stage if needed).

This benchmark will enable us to do the following:

- to identify the current awareness, availability, format, organisation, and performance of metadata holdings across those communities that having registered with Inspire should be at the leading edge of the community of stakeholders at large.
- to explore the extent to which these metadata holdings can be cross searched and whether it is also possible to search across other communities such as those of the e-government (using the software tools that will be delivered to the JRC by the "distributed catalogue project".)
- to have the opportunity to monitor over time the implementation of the INSPIRE metadata implementing rules.

Additional details will be posted on the INSPIRE site.

Events

- 13th INSPIRE Expert Group Meeting
20 June 2006, Innsbruck, Austria
- [12th EC GI & GIS Workshop](#)
21 - 23 June 2006, Innsbruck, Austria

Links and Contacts

- INSPIRE web site
<http://www.ec-gis.org/inspire>
- INSPIRE SDIC registration
http://www.ec-gis.org/inspire/sdic_call
- INSPIRE help desk:
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Editor

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