

INSPIRE Infrastructure for Spatial Information in Europe

# INSPIRE Implementing Rules development Update May 2008

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# Implementing Rules on metadata (ref. Art. 5.4)

#### Progress since the adoption of the INSPIRE Directive

The Drafting Team (DT) composed of National Experts, set up by the Commission in October 2005, continued its activities in preparation of a draft set of Implementing Rules on Metadata. Between June and October 2007 the comments received during the consultation with SDICs and LMOs were reviewed by the DT and the Commission. A new draft version of the IR was published on the INSPIRE web site on 26<sup>th</sup> October 2007, and opened for public consultation until 21<sup>st</sup> December 2007. This version is publicly available on the INSPIRE website<sup>1</sup>.

At the end of this period, 390 comments were received. These were analysed in early 2008 and clustered around key topics which had received multiple comments. On the basis of these comments, a revised draft implementing rule has been prepared and submitted to the Regulatory Committee for its opinion.

#### Next steps

Opinion of the Regulatory Committee on 14<sup>th</sup> May 2008.

#### Main issues

None

#### **Milestones**

| Deliverable | Description                                                    | Milestone                    | Who <sup>2</sup> |
|-------------|----------------------------------------------------------------|------------------------------|------------------|
|             | IR for Metadata submitted for opinion to the INSPIRE Committee | 14 <sup>th</sup> May<br>2008 | Comitology       |

http://www.ec-gis.org/inspire/reports/ImplementingRules/INSPIRE\_Metadata\_ImplementingRule\_v3\_20071026.pdf

DT: Drafting Team (National experts) CT: Consolidation Team (Commission services) SDIC: Spatial Data Interest Community LMO: Legally Mandated Organisation

# Implementing Rules governing interoperability of spatial data sets and services (Ref. Chapter III, Art 7-10)

#### Progress since the adoption of the INSPIRE Directive

The Data Specification Drafting Team (DS DT) continued working on the technical documents of the conceptual framework. The purpose of this framework is to elaborate a firm starting point for the data specification of the themes listed in the Annexes of the Directive.

Three of these documents (D2.3 – Definition of Annex Themes and Scope, D2.5 – Generic Conceptual Model, D2.6 – Methodology for Specification Development) have reached quite a mature status after the comment resolution workshops and are ready to be applied for data specification development of the themes. Having passed the internal review between the Drafting Teams and the Consolidation Team (CT) a forth document (D2.7 – Guidelines for Encoding) is still in draft state, waiting for the appropriate input from the Network Services Drafting Team.

For facilitating the specification development the CT conducted a web-based user requirement survey, provided initial classification of reference materials, and delivered a review of existing international initiatives relevant to data specifications.

In order to support TWGs work operational components (like the INSPIRE feature concept dictionary<sup>3</sup> and the consolidated model repository<sup>4</sup>) are being set up.

Parallel to the activities of DS DT, the Consolidation Team (CT) put in place preparative arrangements for the second phase of the specification process.

Eight Thematic Working Groups (TWGs) have been set up to develop data specifications for each of the themes listed in Annex I. In order to keep this process consistent, the TWGs use the deliverables of the conceptual framework as a starting point of their work. At the moment the TWGs are analysing user requirements (selecting/setting up use cases for specification development) and are studying the reference materials submitted by the SDICs and LMOs.

#### Next steps

The first drafts of data specifications of Annex I themes are expected to be delivered in September 2008. After an internal consultation with participation of all TWGs, DTs, CT, and EIONET (user representation) the revised draft will be sent for review to the SDICs and LMOs. The review will be followed by a comment resolution phase, with a view to submit Commission proposals for Implementing Rules to the Regulatory Committee by 15 May 2009.

<sup>&</sup>lt;sup>3</sup> Dictionary that contains definitions of and related descriptive information about concepts used for description of the universe of discourse

<sup>&</sup>lt;sup>4</sup> Repository used for storing the UML models developed for each theme

#### Main Issues

The schedule for delivering Implementing Rules across the eight themes of Annex I is undoubtedly challenging, taking into account that it is important to keep stakeholders involved, and test the proposed solutions against the user requirements whilst taking into consideration technical feasibility, and cost-benefit considerations. For this reason, close collaboration with the Member States and the thematic communities will continue to be a critical factor. Synergy with existing relevant projects at European at national level will also be very important to ensure optimal use of human and technical resources in the Community.

The lessons learned form this first round of Implementing Rules will be carefully evaluated to inform the work related to the data themes in Annex II and III.

| Deliverable | Description                                                                                                                             | Milestone | Who <sup>5</sup>    |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|
| DS – D2.3   | D2.3 – Definition of Annex Themes and<br>Scope<br>Revised technical document and<br>accompanying comment resolution<br>spreadsheet      | 2008-05   | SDIC/LMO,<br>DT, CT |
| DS – D2.5   | D2.5 - Generic Conceptual Model<br>Revised technical document and<br>accompanying comment resolution<br>spreadsheet.                    | 2008-05   | SDIC/LMO,<br>DT, CT |
| DS – D2.6   | D2.6 - Methodology for specification<br>Development<br>Revised technical document and<br>accompanying comment resolution<br>spreadsheet | 2008-06   | SDIC/LMO,<br>DT, CT |
| DS – D2.7   | D2.7 - Guidelines for encoding<br>Draft for SDIC/LMO consultation                                                                       | 2008-10   | DT                  |

 <sup>&</sup>lt;sup>5</sup> DT: Drafting Teams (national experts) CT: Consolidation Team (Commission services) SDIC: Spatial Data Interest Community LMO: Legally Mandated Organisation

|               | Questionnaire for the User Requirement<br>Survey<br>Ongoing till the start of data<br>specification development of Annex II<br>and III themes                        | 2009-05 | CT, DS DT          |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|
| TWG-XX-nn     | Evaluation of the User Requirement<br>Survey (for each Annex I theme)                                                                                                | 2008-06 | TWG, CT,<br>EIONET |
| TWG-XX-nn     | Use case development/documentation for specification development                                                                                                     | 2008-06 | TWG                |
| TWG-XX-nn     | "As-is" and gap analysis<br>(Comparison of the data requirements<br>stemming from the use case and the<br>state of the art documented in the<br>reference materials) | 2008-08 | TWG                |
| DS-D2.8.I.n   | Draft Data Specifications<br>(Technical annex for the Implementing<br>Rules – one for each theme in Annex I)                                                         | 2008-11 | TWG                |
| DS-D2.8.I.n b | Launch of specification testing<br>(Based on use-cases that require data<br>input from several themes)                                                               | 2008-11 | SDIC, LMO          |
| DS-D2.8.I.n c | Launch of SDIC/LMO consultation on data specifications                                                                                                               | 2008-11 | SDIC. LMO          |
| DS-D2.8.I.n d | Revised Draft Data specifications                                                                                                                                    | 2009-03 | TWG                |
| DS-D2.8.I.n e | IR governing the interoperability of<br>spatial datasets and services of Annex I<br>themes submitted for opinion to the<br>INSPIRE Committee                         | 2009-05 | Comitology         |

# Implementing Rules on Network Services (ref. Art. 16)

#### Progress since the adoption of the INSPIRE Directive

The Drafting Team (DT) of National Experts, set up by the Commission in October 2005, continued its activities in preparation of a draft set of Implementing Rules (IR) for the Network Services.

The Second draft of the Implementing Rule for the Discovery and View services and the Network Services Architecture were finalised and submitted for consultation in December 2007, leading to more than 600 comments on the Implementing Rules and around 200 on the Architecture document by the consultation closure date in February 2008. The Drafting Team is currently assessing the comments and discussing their resolution.

In addition drafts for the Download and Transformation Services Implementing Rules have been produced.

#### Next steps

Some of the comments received on the second draft of the Implementing Rules for the Discovery and view services and on the second draft of the Network Services Architecture have been assessed as needing further discussion, consequently a workshop will be held in the JRC the 27<sup>th</sup> to 28<sup>th</sup> of May 2008 to further discuss and resolve the critical comments with the comments' author.

Once the third draft of the Discovery and View Services Implementing Rules will be finalized by the Drafting Team, it will be taken over by the Consolidation Team for presentation to the Committee before the end of 2008.

Once internally finalised, the first draft of the Implementing Rules for Download and Transformation Services will be submitted for consultation to the other Drafting Teams and the Consultation Team for a target submission for consultation to SDIC/LMO by the end of 2008.

#### Main issues

The main issue has been the maturity, stability or direct applicability of the International standards and specifications under consideration. It is therefore proposed that the Network Services implementing rules define the expected functionality of these services as independent as possible from technological progress, generic enough to adapt to a changing environment, and therefore ensure their long term fitness for purpose. In addition the Network Services Implementing Rules will be accompanied, where relevant and required, by Technical Guidance addressing, for example, detailed implementation aspects and relations with existing standards, technologies, and practices or architectural consideration and potentially open for revision and update with the relevant stakeholders during the course of implementing the infrastructure.

| Deliverable | Description                                                                              | Milestone | Who <sup>6</sup> |
|-------------|------------------------------------------------------------------------------------------|-----------|------------------|
| NS-D3.7     | Version 3 of the Draft Discovery and<br>View Services Implementing Rules                 | 2008-07   | DT               |
| NS-D3.7     | Final Draft IR for Discovery and View<br>Services                                        | 2008-10   | СТ               |
|             | <i>IR for discovery and view services submitted for opinion to the INSPIRE Committee</i> | 2008-11   | Comitology       |
| NS-D3.5     | Final Version of the Network Services<br>Architecture Document                           | 2008-09   | DT               |
| NS-D3.9     | Version 1 of the Draft Download<br>Services Implementing Rule                            | 2008-10   | DT               |
| NS-D3.10    | Version 1 of the Draft Transformation<br>Services Implementing Rule                      | 2008-10   | DT               |
|             | IR on Download Services submitted for opinion to the INSPIRE Committee                   | 2009-5    | Comitology       |
|             | IR on Transformation Services<br>submitted for opinion to the INSPIRE<br>Committee       | 2009-5    | Comitology       |

<sup>&</sup>lt;sup>6</sup> DT: Drafting Team (national experts) CT: Consolidation Team (Commission services) SDIC: Spatial Data Interest Community LMO: Legally Mandated Organisation

# Implementing Rules governing the access rights of use to spatial data sets and services for Community institutions and bodies (ref. Art. 17.8)

#### Progress since the adoption of the INSPIRE Directive

The Drafting Team (DT) of National Experts, set up by the Commission in October 2005, continued its activities in preparation of a draft set of Implementing Rules (IR) governing the access rights of use to spatial data sets and services for Community institutions and bodies.

A first draft of the IR was reviewed by the Commission services responsible for INSPIRE Directive and cross checked by the DTs of the other IRs in November 2007. Comments received where discussed within the responsible DT and a response was provided in January 2008. In April 2008 a new version of the draft IR was finalised and submitted for consultation to registered SDICs and LMOs. For a better understanding the IR are accompanied by a Commentary that clarifies and explains how the IR should be interpreted and used.

#### Next steps

After the 8 weeks of SDICs and LMOs review, feedback from stakeholders will be discussed and possibly integrated into a revised draft IR. A legislative instrument is scheduled for submission to the opinion of the INSPIRE Committee in spring 2009. A Recommendations document, incorporating current best practices on data and service sharing within and between Member States, is foreseen to be ready by the end of 2008.

#### Main issues

The Implementing Rules harmonise, as far as is practicable, the terms and conditions under which Community Institutions and Bodies receive access to, and use of, datasets and services under the scope of the INSPIRE Directive.

To this end the IR on Data and Service Sharing proposes 3 types of model licences: a Basic INSPIRE Licence, a Specific INSPIRE Licence and a Framework INSPIRE Agreement. The "basic INSPIRE licence" is an agreement on the basis of which access to the spatial data sets and services to Community Institutions and Bodies is provided without any further restrictions or conditions. The Specific INSPIRE Licence takes the form of a Model Licence (included as an Annex to the IR), to be completed and customized in relation to the access to a particular data set or service. A framework INSPIRE agreement is an upstream agreement concluded between a Community Institution or Body and one or more public authorities or Member States, possibly regarding multiple datasets or services. The IR also define a maximum response time for the provision of access to the spatial data sets or services.

Despite the harmonisation of conditions for supply of data and services there will inevitably be instances in which data is needed urgently by a Community Institution or Body to deal with an emergency situation. The IR therefore proposes to require Member States and their public authorities to put in place adequate measures to ensure the provision of access to spatial data sets and services in the case of major emergencies falling under article 6 of the Council Decision of 8 November 2007 establishing a Community Civil Protection System, so that in such situations spatial data sets or services can be delivered without delay.

Furthermore the IR streamline the access to spatial datasets and services achievable through a certain degree of coordination within Member States. It is proposed that established National Contact Points could take an active role in the process.

| Deliverable | Description                                                                                                                                                              | Milestone | Who <sup>7</sup>    |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|
| DSS-D 4.9b  | Launch of SDIC/LMO consultation on<br>draft IR accompanied by the<br>Commentary document                                                                                 | 2008-05   | SDIC/LMO,<br>DT, CT |
| DSS-D 4.9c  | Revised draft IR for governing access<br>and rights of use of spatial data sets and<br>services for Community institutions and<br>bodies                                 | 2008-10   | СТ                  |
| DSS-D 4.11  | Recommendations accompanying the draft IR                                                                                                                                | 2008-12   | DT                  |
| DSS-D 4.9d  | Final draft IR for governing access and<br>rights of use of spatial data sets and<br>services for Community institutions and<br>bodies                                   | 2009-03   | DT, CT              |
|             | IR governing the access rights of use to<br>spatial data sets and services for<br>Community institutions and bodies<br>submitted for opinion to the INSPIRE<br>Committee | 2009-05   | Comitology          |

 <sup>&</sup>lt;sup>7</sup> DT: Drafting Team (National experts) CT: Consolidation Team (Commission services) SDIC: Spatial Data Interest Community LMO: Legally Mandated Organisation

# Implementing Rules on monitoring and reporting the implementation of the INSPIRE Directive by Member States (ref. Art. 21.4)

#### Progress since the adoption of the INSPIRE Directive

The Drafting Team (DT) composed of National Experts, set up by the Commission in October 2005, continued its activities in preparation of a draft set of Implementing Rules on Monitoring and Reporting. Between June and August 2007 feasibility tests were conducted in order to review and validate a proposed list of indicators for monitoring. Subsequently to these tests, a first draft of the IR on Monitoring and Reporting was reviewed by the responsible Commission services and cross checked by the DTs of the other IRs. In March 2008 a new version of the draft IR was finalised and submitted for consultation to registered SDICs and LMOs. This version is publicly available on the INSPIRE website<sup>8</sup>.

A first draft of the Guidance document that clarifies and explains the way in which the IR should be implemented has also been prepared.

#### Next steps

After the 8 weeks of SDICs and LMOs review, ending on 11 May 2008, the comments will be discussed and possibly integrated. Revised draft IR will then be converted into a proposed legislative instrument to be submitted for opinion to the INSPIRE Committee during the meeting scheduled for Autumn 2008

#### Main issues

The basis for monitoring the implementation of the INSPIRE Directive and the use of the infrastructure for spatial information is the list of data sets and services that are part of this infrastructure. While themes have been defined in the Directive, their content (data specifications) will be defined through the DT Implementing Rules on Data Specifications and the thematic sub-groups. The list of data sets should be established according to the three annexes and their themes. Services should be listed per type of service. It will be up to the Member States to draw up lists of relevant data sets and services.

For each theme, Member States should indicate the data sets that contribute to that theme. If a data set contains spatial objects related to several themes, it should be listed under each of those themes (e.g. BD TOPO in France)

<sup>8</sup> 

 $http://www.ec-gis.org/inspire/reports/ImplementingRules/monitoring/INSPIRE_DT_MR_DraftImplementingRules_140308.pdf$ 

The current proposal, with the aim of monitoring the progress in the harmonisation of the themes, includes indicators referring to compliant and non compliant datasets falling under the scope of the Directive. Concerning services, only services that have metadata are proposed for consideration.

No suitable indicators for monitoring data sharing were defined so far; the current proposal includes data sharing as part of the reporting obligations. However, SDICs and LMOs currently reviewing the IR have been invited to submit suggestions on appropriate data sharing indicators which could integrate the proposed reporting obligations.

| Deliverable | Description                                                                                                | Milestone | Who <sup>9</sup>    |
|-------------|------------------------------------------------------------------------------------------------------------|-----------|---------------------|
| MR-D 5.5b   | Launch of SDIC/LMO consultation on draft IR for Monitoring and Reporting                                   | 2008 - 03 | SDIC/LMO,<br>DT, CT |
| MR-D 5.6    | Guidelines and Justification document<br>on monitoring (use of template<br>spreadsheet, automation issues) | 2008 - 09 | DT, CT              |
| MR-D 5.5c   | Final draft IR for Monitoring and for<br>Reporting                                                         | 2008 - 09 | DT, CT              |
|             | IR for Monitoring and Reporting<br>submitted for opinion to the INSPIRE<br>Committee                       | 2008 - 11 | Comitology          |

 <sup>&</sup>lt;sup>9</sup> DT: Drafting Team (National experts) CT: Consolidation Team (Commission services) SDIC: Spatial Data Interest Community LMO: Legally Mandated Organisation

# **INSPIRE** geoportal (ref. Art. 15)

#### Progress since the adoption of the INSPIRE Directive

The prototype INSPIRE geoportal is under development in DG JRC. An Initial Operating Capability (IOC) has been established for the INSPIRE geoportal since June 2007. The core architecture of the INSPIRE geoportal currently consists of a client to the discovery service, or clearinghouse to connect to distributed discovery services and a map client for view services. Development and tests for interoperability are done in collaboration with Member States and European organisations.

Currently there are 6 catalogues (national, regional, and from European organisations) and 20 web mapping services (European, national and regional) registered with the INSPIRE geoportal.

#### Next steps

Update of metadata and search criteria to comply with the INSPIRE Implementing Rules for metadata, following adoption by the Committee, and draft Implementing Rules for discovery and view services.

Under development is a web-based metadata editor that will allow anybody to create the required INSPIRE metadata following the proposed Implementing Rules and guidelines so that they are compliant with the ISO 19115 and 19119 standards.

Work closely with the Member States both to increase participation and improve interoperability issues.

#### Main issues

Main issue has been the robustness and different implementations of the International standards and specifications under consideration. These caused interoperability problems primarily with the discovery services where specific developments were required to connect to the services from the Member States. We work together both with the standardisation bodies to improve the specifications and with the Member States to provide links to their metadata catalogues where possible and test the specifications and standards.

| Deliverable | Description                                                                                     | Milestone             | Who |
|-------------|-------------------------------------------------------------------------------------------------|-----------------------|-----|
|             | Search Criteria of discovery service compliant with the metadata IR                             | 06-2008               | JRC |
|             | INSPIRE IR compliant metadata editor                                                            | 06-2008               | JRC |
|             | Validate metadata for compliance with the INSPIRE IR                                            | 06-2008               | JRC |
|             | Update discovery service client to<br>comply with the INSPIRE draft IR on<br>discovery services | 10-2008               | JRC |
|             | Update view service client to comply<br>with the INSPIRE draft IR on view<br>services           | 10-2008               | JRC |
|             | Update discovery service client to<br>comply with the INSPIRE IR on<br>discovery services       | 04-2009               | JRC |
|             | Update view service client to comply<br>with the INSPIRE IR on view services                    | 04-2009               | JRC |
|             | Multilingual search using thesauri (e.g.<br>GEMET)                                              | 06-2009               | JRC |
|             | Support for the draft IR on Download and Transformation services                                | 06-2009 <sup>10</sup> | JRC |

<sup>&</sup>lt;sup>10</sup> Approximate date, since development is very much dependent on the development of the draft Ntwork Services Implementing Rules.