



**INSPIRE**

Infrastructure for Spatial Information in Europe

## MIG temporary sub-group on Update of the Technical Guidelines for Metadata – Terms of Reference

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<b>Title</b>	MIG temporary sub-group on Update of the Technical Guidelines for Metadata – Terms of Reference
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<b>Date created</b>	2014-08-25
<b>Date modified</b>	2014-10-09
<b>Subject</b>	Terms of reference (ToR) for the temporary MIG sub-group on Update of the Technical Guidelines for Metadata
<b>Publisher</b>	EC and EEA INSPIRE Team
<b>Type</b>	Text
<b>Description</b>	This document contains the terms of reference (ToR) for the temporary MIG sub-group on Update of the Technical Guidelines for Metadata. It is based on ToR of the “Commission expert group on INSPIRE Implementation and Maintenance” (MIG). The sub-group addressed task MIWP-8 endorsed in the rolling INSPIRE maintenance and implementation work programme.
<b>Contributor</b>	
<b>Format</b>	PDF
<b>Identifier</b>	<a href="http://inspire.ec.europa.eu/mig/tor/miwp-8">http://inspire.ec.europa.eu/mig/tor/miwp-8</a>
<b>Language</b>	En
<b>Status</b>	Final

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## Preface

According to Art. 7(4) of the INSPIRE MIG's terms of reference<sup>1</sup>, *"in agreement with the Commission services, the permanent INSPIRE MIG sub-groups may set up temporary sub-groups to examine specific questions on the basis of terms of reference defined by the permanent INSPIRE MIG sub-groups. Such temporary sub-groups shall be disbanded as soon as their mandate is fulfilled. In particular, sub-groups shall be tasked to work on specific issues related to the maintenance or implementation of INSPIRE."*

This document describes the background for setting up such a temporary MIG subgroup on Update of the Technical Guidelines for Metadata and sets out its terms of reference.

The terms of reference are based on a common document template for temporary MIG sub-groups. Boilerplate text from the common template is highlighted in grey.

## Background

During consultation with EU member states on issues working on Implementation and maintenance of Inspire metadata, a number of issues have been identified that need to be reviewed and possible updates in the technical guidelines made.

Example of these issues are:

- A number of issues has been raised for the Metadata TG (e.g. issues concerning the metadata element useLimitation) that were not been fixed with the last update of the Metadata TG<sup>2</sup>.
- The guidelines for metadata for interoperability (aka metadata for evaluation and use) are currently contained in the data specifications rather than integrated in the Metadata TG.
- The quality of the metadata harvested by the INSPIRE geoportal from the national discovery services is often quite poor, even if they are formally meeting the requirements of the metadata IRs.
- The revised versions of the ISO standards on metadata needs to be addressed to give security in planning. Many implementations are based on the existing standards. Re-building these implementations would require an enormous amount of re-investment.
- An analysis of metadata, which is created now with significant effort, should be made in order for the metadata to support additional use cases, than just the search for geodata and the allocation of information.

It has been agreed in the MIG-T meeting on 9-10/04/2014 that a sub-group should be formed to propose an update of the INSPIRE Metadata TG.

This document proposes terms of reference for this sub-group.

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<sup>1</sup> <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=2958>

<sup>2</sup> [http://inspire.ec.europa.eu/documents/Metadata/MD\\_IR\\_and\\_ISO\\_20131029.pdf](http://inspire.ec.europa.eu/documents/Metadata/MD_IR_and_ISO_20131029.pdf)

# Terms of reference for the temporary MIG sub-group on Update of the Technical Guidelines for Metadata

## Article 1

### Set up of the temporary MIG sub-group on Update of the Technical Guidelines for Metadata

The temporary MIG sub-group on Update of the Technical Guidelines for Metadata, hereinafter referred to as “the temporary sub-group”, is set up as a temporary sub-group of the Commission expert group on INSPIRE Implementation and Maintenance (INSPIRE MIG), in accordance with Art. 7(4) of the INSPIRE MIG’s terms of reference.

## Article 2

### Scope, tasks and outcomes

1. The tasks of the temporary sub-group shall be to address the issues listed in the Annex of this document and any additional prioritized issues deemed critical by MIG-T. Additional issues will be identified and recorded but they will be outside the scope of this work package unless the MIG-T specifically includes the issue.
2. The temporary sub-group shall produce the following outcomes / deliverables:
  - a. Updated metadata TG (release A, estimated for the first half of 2015)
  - b. Updated metadata TG (release B, estimated for the second half of 2015)
3. The temporary sub-group shall produce a list of issues considered outside the scope of the group (as detailed above) that require to be considered for the next work programme.

## Article 3

### Planned duration, effort and criteria for completion of work

1. The temporary sub-group is expected to be active from 2014-09-15 to 2015-12-31.
2. Members of the temporary sub-group are expected to contribute to the work with an effort of around 2 days per month.
3. The work will be considered completed and the temporary sub-group will be disbanded when release B of the updated Metadata Technical Guidelines has been developed and endorsed by the MIG-T.

## Article 4

### Membership – Appointment

1. The members of the temporary sub-group shall be selected by the INSPIRE MIG permanent sub-groups, in agreement with the Commission, from the INSPIRE pool of experts<sup>3</sup> and the representatives of the INSPIRE MIG permanent sub-groups.

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<sup>3</sup> The pool of experts has been set up according to Art. 10 of the MIG’s terms of reference. See <http://inspire.ec.europa.eu/index.cfm/pageid/5160/list/experts> for the current members of the pool of experts.

2. The selection shall be based on proposals of experts by the members of the MIG permanent sub-groups and applications of experts included in the pool of experts or the MIG following a call for participation in the temporary sub-group.
3. The members of the temporary sub-group should have expertise in one or several of the following areas:
  - a. Implementation/Utilization of metadata based on ISO 19115/ISO 19119, ISO 19115-1/ISO 19115-3
  - b. Building profiles/extensions of metadata based on ISO 19115/ISO 19119
  - c. Reporting quality according to ISO 19157
4. The member shall have experience of national implementation of INSPIRE metadata.
5. When selecting members for the temporary sub-group, the INSPIRE MIG should aim at striking a balance within the temporary sub-group in terms of representativeness of members, gender and geographical origin.
6. The Commission may invite experts from outside the pool of experts with specific competence in a subject on the agenda to participate in the work of a temporary sub-group on an *ad hoc* basis. In addition, the Commission's representative may give observer status to individuals, organisations as defined in Rule 8(3) of the horizontal rules on expert groups and candidate countries.
7. Members of the temporary sub-group are appointed for the duration needed to complete the planned work (see Article 3).
8. Members of the temporary sub-group who are no longer capable of contributing effectively to the work or who resign may be replaced.
9. If necessary during the course of its work (e.g. because specific expertise is missing), the temporary sub-group may request additional experts to be selected by the MIG.
10. Personal data shall be collected, processed and published in accordance with Regulation (EC) No 45/2001.

#### *Article 5*

#### **Operation**

1. The INSPIRE MIG shall appoint a facilitator from among the members of the sub-group. The facilitator shall chair the temporary sub-group and liaise with the MIG.
2. The sub-group shall regularly inform the MIG about its progress and can request guidance from the MIG when needed.
3. Secretarial services shall be provided by the JRC.
4. Members of the temporary sub-groups, as well as invited experts and observers, shall comply with the obligations of professional secrecy laid down by the Treaties and their implementing rules, as well as with the Commission's rules on security regarding the protection of EU classified information, laid down in the Annex to Commission Decision of 29 November 2001 amending its internal Rules of Procedure 2001/844/EC, ECSC, Euratom. Should they fail to respect these obligations, the Commission may take all appropriate measures.
5. In order to cut down costs and commitments, the meetings of the temporary sub-group should, where possible, be organised virtually (i.e. using tele-, video- or web-conferencing facilities).
6. Commission officials with an interest in the proceedings may attend meetings of the temporary sub-group.
7. The physical and intellectual products generated by the members of the temporary sub-group under these terms of reference will remain the property of the Commission. Any published deliverable or paper will acknowledge the authorship and other contributions of the members

of the temporary sub-group. Such deliverables or papers will be made available in accordance with the European Commission Decision of 12 December 2011 on re-use of Commission documents, without restrictions on access and re-use for commercial and non-commercial purposes.

#### *Article 6*

##### **Expert remuneration and meeting expenses**

1. Participants in the activities of the temporary sub-groups shall not be remunerated for the services they render.
2. Travel and subsistence expenses incurred by participants in the activities of the temporary sub-group shall be reimbursed by the Commission in accordance with the provisions in force within the Commission.

#### *Article 7*

##### **Tasks to be carried out by contractors**

1. The task of updating the Technical Guidelines on Metadata based on the outcomes of the technical discussions in the sub-group (TG editor) may be carried out by an external contractor.
2. The JRC will investigate whether it can make available a budget for this task.

## Annex 1: Summary of issues

The tasks summarized below are a list of issues returned from National consultation on Maintenance and Implementation issues on Technical Guidelines.

These are the currently identified issues as of the beginning of October 2014. Additional issues identified by the group can be proposed to the MIG-T; these issues shall be outside the scope of this ToR unless the MIG-T specifically instructs the group to take account of the issue within the original timescales.

An initial priority has been set for those issues identified as in scope. It is important that each change to the TG for metadata an appropriate analysis of the advantage of each change in relation of the possible overhead of updating existing metadata records.

### Priority

This is a classification in priority levels of the issues. This is used for setting a planned release for the issue.

### Type

Each issue can be of different types.

*Use*: Updates needed for better use of metadata

*Interop*: Updates needed to increase interoperability of metadata

*Legislation*: Updates needed to fulfill Implementing rules

### Releases

To be able to handle all issues in the list and not being delayed the Updated TG is planned to be published as two separate releases. This will make it possible to make a rapid release of the most urgent issues.

Release A of issues in table below is estimated for first part of 2015. Release B is estimated for second part of 2015.

	Issue	Priority	Type	Release
A	Conditions for use and Access	high	Interop Error	A
B	Open data and DCAT	low	Interop	
C	Harmonized expression of licenses/restrictions	medium	Use, Interop	B
D	Metadata for Interoperability	High	Use, Legislation	A
E-1	Integrate theme specific MD	high	Use/Interop	A
E-2	Review applicability of 19157 for (Theme specific) metadata	Low	Use/Interop	B

F	Relation to ISO19115-1:2014	Medium	Interop / Legislation	B
G	Conformance classes in registry	low	Use/Interop	B
H	Metadata for monitoring	low	Use	B
I	Language neutral identifiers	high	Use/Interop	A
J	Metadata for SDS	high	Interop/Legislation	A
K	Add Abstract Test suite	medium	Use/Legislation	B
L	Unique Resource Identifier	high	Interop	A
M	Coupled resource	high	Interop	A

## Activities

The following issues are planned to be processed within the work of this work package.

**A** Conditions applying to access and use is now implemented in a way not in line with EN ISO 19115:2005. The task is to see what actions can be taken to handle this.

How can the TG be updated to create better alignment with EN ISO 19115:2005 and at the same time not create too many problems for existing metadata records.

The implication if not doing this is that Inspire MD is not compatible with other EN ISO19115:2005 implementations.

**B** Open data and DCAT.

This issue is left here for reference. The issue is removed from these ToR for a temporary sub-group on Update of the Technical Guidelines for Metadata.

**C** Describe how to express restrictions/licenses in a more harmonized way to allow filtering based on licence type and having an URL to detailed license texts.

The task is to define methods to express license types so that data can be filtered in queries based on the type of licenses. This issue has a close relation to Issue A

**D** Integrate metadata for interoperability into the Metadata TG.

The task is to describe in the TG how to handle these metadata elements.

It is important that these elements are clearly flagged as special type of metadata mainly for machine consumption.

#### **E-1 Integrate Theme specific metadata**

- Right now there are number of optional metadata elements spread out over a number of INSPIRE Data Specifications.

The metadata TG will be updated to include those “optional” metadata elements within and updated TG because some data providers are producing theme specific data services already. This will allow those organizations that wish to use the optional elements to have appropriate 19115 elements in the metadata for this purpose.

#### **E-2 Review applicability of ISO 19157 for (Theme specific) metadata**

Since the knowledge and experience in working with quality reports differs among countries this could be beneficial. Currently organizations are now looking into using ISO19157 for quality reporting. ISO19157 is also referenced in current data specifications.

The group should review if and how to handle the new ISO19157 within the TG.

- Baseline existing practice with implementation of 19157 to justify that a requirement amongst data producers exists.
- Are there sections in ISO19157 that could be beneficial for TG Metadata or is the current ISO19115/ISO19139 enough for quality reports.
- Will the new ISO 19115-3 include transformations to convert quality reports from ISO 19115-3/ISO19157-2 to ISO19139 so that organizations that have migrated to ISO 19157 still can deliver metadata according to current Inspire TG Metadata that uses ISO 19139.

**F Explain in the Metadata TG whether/how to take into account the revised versions of the ISO standards on metadata.**

- Describe how interface towards ISO19115-1:2014 should be handled. Should it be handled by import/export functions or by advising the use conversion functions from ISO 19115-1:2014 to the current standard (EN ISO 19115:2005) used in TG Metadata.
- The technical Guidelines can't cover both ISO 19115 and ISO 19115-1. The TG should mainly describe the existing procedures for converting from ISO19115-3 to ISO19139.
- Verify if INSPIRE are legally mandated to handle the ISO 19115-1 when it becomes a CEN standard.

#### **G Conformance**

- Make a list available on current list of Conformance classes both as URL reference and as Citations. This could e.g. be implemented through entries in the Inspire registry.
- Unify how conformance classes should be referenced in metadata. In Data Specifications Technical Guidelines examples exist for both Citation and URL. Abstract Test Suite refers to URLs only. In TG Metadata only Citation is exemplified.



**H** An analysis of metadata, which is created now with significant effort, should be made in order for the metadata to support additional use cases, than just the search for geodata and the allocation of information.

e.g. how can metadata be used to support the work on Monitoring and reporting. This task should be done in close connection with MIWG 16. The MIWP-16 work package may suggest new uses for the metadata or enhancements to TG Metadata that can simplify generation of automated reports using software tools. At present there has been no requirement for this generated by the MIWP-16, this is a placeholder for requirements coming from the other Work Packages.

**I** Clarify where texts in metadata is only an identifier using English text like Topic Category Codes (e.g. health) or Spatial Data Service type (e.g. view) or where they should actually be translated to the metadata language (e.g. values for UseLimitation )  
This is not clearly documented in TG metadata right now.

**J** Update TG Metadata with the extended elements defined for Spatial Data Services

The extended elements for SDS are now defined and it is suggested that an implementation of these is defined in the TG using an extension to ISO19115/19

**K** Update TG Metadata with an ATS Annex similar to what is now included in data specifications for Annex II and III.

This work must be done with close connection to MIWG-5 Validation & conformity testing. The specific requirements will come from MIWG-5 and the task of this group will be to update the TG for metadata to take account of the MIWP-5 requirements.

This ATS would make it simpler to trace each requirement to its corresponding legal context in IR Metadata.

Validation tools that will be created in MIWP-5 can be implemented using same principles as for validating data specifications

The ATS could then be structured so it can handle conformance for specific classes of metadata.

**L** Unique Resource Identifier:

TG Requirement 6 suggests to use RS\_identifier for the encoding of the resource identifier. This is a poor choice as it is (a) against the foreseen semantic in the ISO standard, which defines it as an “identifier used for reference systems” and (b) because it is not a CSW-queryable. As foreseen by the ISO-Standard the MD\_Identifier (a “value uniquely identifying an object within a namespace”) should be suggested, which is also CSW-queryable. The task will be to recommend an “MD\_Identifier” (a “value uniquely identifying an object within a namespace”)

## **M** Coupled resource

The “data-service-coupling” part of the TGs need clarification urgently. The suggested solution is inconsistent and examples are confusing, making use of XML object IDs without any hints/explanation. Suggesting that both, URI or URLs to DataIdentification objects are allowed create a significant confusion for implementers and no justification is given.

The task of this group is to provide more context for the purpose of the coupled resource and to provide justification for the coupled resource as well as an outline of the related use cases (as in other parts of the document).