

8 Dataset-level metadata

This section specifies dataset-level metadata elements, which should be used for documenting metadata for a complete dataset or dataset series.

NOTE Metadata can also be reported for each individual spatial object (spatial object-level metadata). Spatial object-level metadata is fully described in the application schema(s) (section 5).

For some dataset-level metadata elements, in particular those for reporting data quality and maintenance, a more specific scope can be specified. This allows the definition of metadata at sub-dataset level, e.g. separately for each spatial object type (see instructions for the relevant metadata element).

8.1 Metadata elements defined in INSPIRE Metadata Regulation

Table 8 gives an overview of the metadata elements specified in Regulation 1205/2008/EC (implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata).

The table contains the following information:

- The first column provides a reference to the relevant section in the Metadata Regulation, which contains a more detailed description.
- The second column specifies the name of the metadata element.
- The third column specifies the multiplicity.
- The fourth column specifies the condition, under which the given element becomes mandatory.

Table 8 – Metadata for spatial datasets and spatial dataset series specified in Regulation 1205/2008/EC

Metadata Regulation Section	Metadata element	Multiplicity	Condition
1.1	Resource title	1	
1.2	Resource abstract	1	
1.3	Resource type	1	
1.4	Resource locator	0..*	Mandatory if a URL is available to obtain more information on the resource, and/or access related services.
1.5	Unique resource identifier	1..*	
1.7	Resource language	0..*	Mandatory if the resource includes textual information.
2.1	Topic category	1..*	
3	Keyword	1..*	
4.1	Geographic bounding box	1..*	
5	Temporal reference	1..*	

6.1	Lineage	1	
6.2	Spatial resolution	0..*	Mandatory for data sets and data set series if an equivalent scale or a resolution distance can be specified.
7	Conformity	1..*	
8.1	Conditions for access and use	1..*	
8.2	Limitations on public access	1..*	
9	Responsible organisation	1..*	
10.1	Metadata point of contact	1..*	
10.2	Metadata date	1	
10.3	Metadata language	1	

Generic guidelines for implementing these elements using ISO 19115 and 19119 are available at <http://inspire.jrc.ec.europa.eu/index.cfm/pageid/101>. The following sections describe additional theme-specific recommendations and requirements for implementing these elements.

8.1.1 Conformity

The *Conformity* metadata element defined in Regulation 1205/2008/EC requires to report the conformance with the Implementing Rule for interoperability of spatial data sets and services. In addition, it may be used also to document the conformance to another specification.

Recommendation 1 Dataset metadata should include a statement on the overall conformance of the dataset with this data specification (i.e. conformance with all requirements).

Recommendation 2 The *Conformity* metadata element should be used to document conformance with this data specification (as a whole), with a specific conformance class defined in the Abstract Test Suite in Annex A and/or with another specification.

The *Conformity* element includes two sub-elements, the *Specification* (a citation of the Implementing Rule for interoperability of spatial data sets and services or other specification), and the *Degree* of conformity. The *Degree* can be *Conformant* (if the dataset is fully conformant with the cited specification), *Not Conformant* (if the dataset does not conform to the cited specification) or *Not Evaluated* (if the conformance has not been evaluated).

Recommendation 3 If a dataset is not yet conformant with all requirements of this data specification, it is recommended to include information on the conformance with the individual conformance classes specified in the Abstract Test Suite in Annex A.

Recommendation 4 If a dataset is produced or transformed according to an external specification that includes specific quality assurance procedures, the

conformity with this specification should be documented using the *Conformity* metadata element.

Recommendation 5 If minimum data quality recommendations are defined then the statement on the conformity with these requirements should be included using the *Conformity* metadata element and referring to the relevant data quality conformance class in the Abstract Test Suite.

NOTE Currently no minimum data quality requirements are included in the IRs. The recommendation above should be included as a requirement in the IRs if minimum data quality requirements are defined at some point in the future.

Recommendation 6 When documenting conformance with this data specification or one of the conformance classes defined in the Abstract Test Suite, the *Specification* sub-element should be given using the http URI identifier of the conformance class or using a citation including the following elements:

- title: "INSPIRE Data Specification on *Buildings* – Draft Guidelines – <name of the conformance class>"
- date:
 - dateType: publication
 - date: 2013-04-10

EXAMPLE 1: The XML snippets below show how to fill the *Specification* sub-element for documenting conformance with the whole data specification on Addresses v3.0.1.

```
<gmd:DQ_ConformanceResult>
  <gmd:specification href="http://inspire.ec.europa.eu/conformanceClass/ad/3.0.1/tg" />
  <gmd:explanation> (...) </gmd:explanation>
  <gmd:pass> (...) </gmd:pass>
</gmd:DQ_ConformanceResult>
```

or (using a citation):

```
<gmd:DQ_ConformanceResult>
  <gmd:specification>
    <gmd:CI_Citation>
      <gmd:title>
        <gco:CharacterString>INSPIRE Data Specification on Buildings – Draft
Guidelines</gco:CharacterString>
      </gmd:title>
      <gmd:date>
        <gmd:date>
          <gco:Date>2013-04-10</gco:Date>
        </gmd:date>
        <gmd:dateType>
          <gmd:CI_DateTypeCode
codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resou
rces/codelist/ML_gmxCodeLists.xml#CI_DateTypeCode"
codeListValue="publication">publication</gmd:CI_DateTypeCode>
        </gmd:dateType>
      </gmd:date>
    </gmd:CI_Citation>
  </gmd:specification>
  <gmd:explanation> (...) </gmd:explanation>
  <gmd:pass> (...) </gmd:pass>
</gmd:DQ_ConformanceResult>
```

EXAMPLE 2: The XML snippets below show how to fill the *Specification* sub-element for documenting conformance with the CRS conformance class of the data specification on Addresses v3.0.1.

```
<gmd:DQ_ConformanceResult>
```

```

<gmd:specification href="http://inspire.ec.europa.eu/conformanceClass/ad/3.0.1/crs" />
<gmd:explanation> (...) </gmd:explanation>
<gmd:pass> (...) </gmd:pass>
</gmd:DQ_ConformanceResult>

```

or (using a citation):

```

<gmd:DQ_ConformanceResult>
  <gmd:specification>
    <gmd:CI_Citation>
      <gmd:title>
        <gco:CharacterString>INSPIRE Data Specification on Buildings – Draft Guidelines –
CRS</gco:CharacterString>
      </gmd:title>
      <gmd:date>
        <gmd:date>
          <gco>Date>2013-04-10</gco>Date>
        </gmd:date>
        <gmd:dateType>
          <gmd:CI_DateTypeCode
codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resou
rces/codelist/ML_gmxCodelists.xml#CI_DateTypeCode"
codeListValue="publication">publication</gmd:CI_DateTypeCode>
        </gmd:dateType>
      </gmd:date>
    </gmd:CI_Citation>
  </gmd:specification>
  <gmd:explanation> (...) </gmd:explanation>
  <gmd:pass> (...) </gmd:pass>
</gmd:DQ_ConformanceResult>

```

8.1.2 Lineage

Recommendation 7 Following the ISO/DIS 19157 Quality principles, if a data provider has a procedure for the quality management of their spatial data sets then the appropriate data quality elements and measures defined in ISO/DIS 19157 should be used to evaluate and report (in the metadata) the results. If not, the *Lineage* metadata element (defined in Regulation 1205/2008/EC) should be used to describe the overall quality of a spatial data set.

According to Regulation 1205/2008/EC, lineage “is a statement on process history and/or overall quality of the spatial data set. Where appropriate it may include a statement whether the data set has been validated or quality assured, whether it is the official version (if multiple versions exist), and whether it has legal validity. The value domain of this metadata element is free text”.

The Metadata Technical Guidelines based on EN ISO 19115 and EN ISO 19119 specifies that the statement sub-element of LI_Lineage (EN ISO 19115) should be used to implement the lineage metadata element.

Recommendation 8 To describe the transformation steps and related source data, it is recommended to use the following sub-elements of LI_Lineage:

- For the description of the transformation process of the local to the common INSPIRE data structures, the LI_ProcessStep sub-element should be used.
- For the description of the source data the LI_Source sub-element should be used.

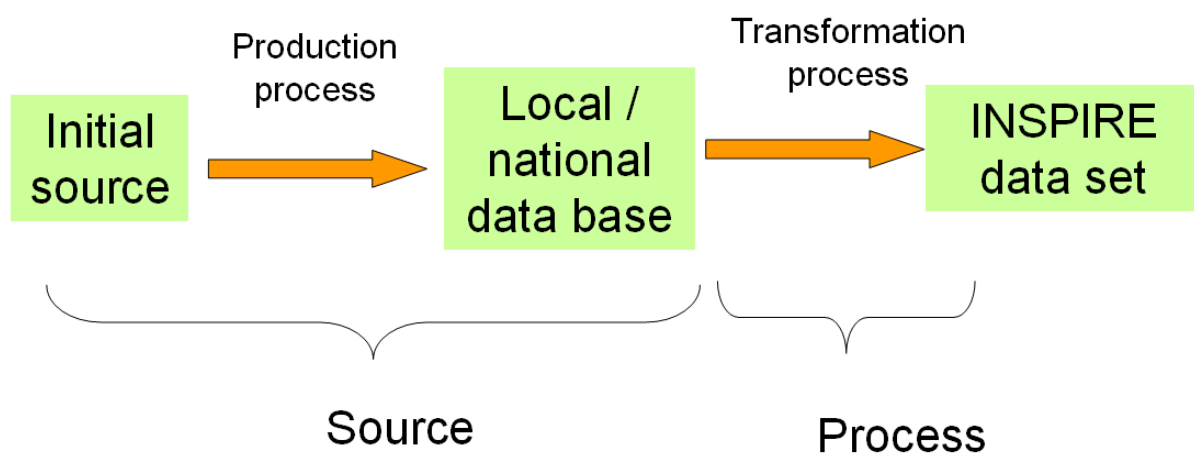
NOTE 1 In order to improve the interoperability, domain templates and instructions for using these free text elements (descriptive statements) may be specified here and/or in an Annex of this data specification.

8.1.3 Lineage from MD Regulation

Lineage is one of the metadata elements coming from the Implementing Rule about Metadata. According to ISO 19115, it may be sub-divided into:

- LI-source : information about the source data used in creating the data set received by the user (the INSPIRE data set)
- LI-process: information about events or transformations in the life of the dataset received by the user (the INSPIRE data set).

However, the INSPIRE data set will generally have been provided following a complex process, that may be summarised by the figure below.



Recommendation 1 To fill the metadata elements Source and Process, the source should be considered as the local/national data base used to derive the INSPIRE data set and the process as the transformations carried out to make this local/national data base compliant with INSPIRE.

8.1.3.1. Source

Information about the source

Metadata element name	Information about the source
Definition	Information about the source data used in creating the data specified by the scope
ISO 19115 number and name	85. source
ISO/TS 19139 path	dataQualityInfo/lineage/LI_Lineage/source
INSPIRE obligation / condition	optional
INSPIRE multiplicity	0..*

Data type (and ISO 19115 no.)	92.LI_Source
Domain	See B.2.4.2.3. This is a complex type (lines 93-98 from ISO 19115). Either the description (free text) or the sourceExtent (EX_Extent) properties shall be provided.
Implementing instructions	Information about the source data used in creating the data specified by the scope
Example	
Example XML encoding	

<p>Comments</p>	<p>This metadata element aims to supplement the <i>Lineage</i> metadata element defined in Regulation 1205/2008/EC with a precise description of data sources that have been used as input to generate the INSPIRE building dataset.</p> <p>It is recommended to describe:</p> <ul style="list-style-type: none"> • the main characteristics of the local or national data base used to derive the INSPIRE data set: name, geographic extent, scale or level of detail, purpose, history, • for each significant INSPIRE attribute or group of attributes (geometric or semantics), a short description of the source and process <p>Example A:</p> <ol style="list-style-type: none"> 1. This INSPIRE data set has been derived from BD TOPO; BD TOPO covers whole French territory, is captured at scale 1/ 10 000, exists since 1990 and aims to provide reference data for mapping and spatial analysis. 2. Geometry, height above ground and elevation have been captured by stereo-plotting from aerial images at scale 1/ 20 000. Building nature and building use have been captured also by stereo-plotting plotting from aerial images at scale 1/ 20 000 and then have been checked by field survey. <p>Example B:</p> <p>This INSPIRE data set has been derived from cadastral data base of the Spanish Directorate General for Cadastre that is the Spanish Public Administration responsible for describing the real-estate properties of the country, being in charge of providing and keeping updated the Real-estate Cadastre as well as of taking care of the correct diffusion of Cadastral data for 95% of the Spanish surface with exception of Basque country and Navarra.</p> <p>Now the cadastral data base has a continuous map with urban and rural cartography, and with all the municipalities aggregated in a unique data base but in origin:</p> <p>Digital <u>urban cartography</u> 1:500 or 1:1000 was generated at the municipal level from the digitalisation of existing cadastral cartography following verification of its quality, or using new cartography generated by a process of analytical restitution of apparent parcellary entities obtained in stereographical flights upon which the cadastral parcellary data is placed, identified and updated.</p> <ol style="list-style-type: none"> 1. Photogrametrical numerical restitution 2. " Fieldwork and later edition in office to obtain an apparent parcellary on which to incorporate the property parcellary " 3. " semantic Treatment: codification, alteration and assignment of cadastral References and labels" <p>The geometry of buildings is composed by several subparcels of different volume constructed. For every volume the number of floors is represented and it permits to build the 3D data. Also for every building, there is a scaled graphic representation of the units forming an urban real estate.</p> <p>The data is daily updated by field work on this basis.</p> <p>building.</p>
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8.1.3.2. ProcessStep

Information about events

Metadata element name	Information about the source
Definition	Information about an event or transformation in the life of a dataset including the process used to maintain the dataset
ISO 19115 number and name	84. processStep
ISO/TS 19139 path	dataQualityInfo/lineage/LI_Lineage/processStep
INSPIRE obligation / condition	optional
INSPIRE multiplicity	0..*
Data type (and ISO 19115 no.)	86. LI_ProcessStep
Domain	See B.2.4.2.2. This is a complex type (lines 87-91 from ISO 19115). The description (free text) property shall be provided.
Implementing instructions	
Example	
Example XML encoding	

Comments	<p>This metadata element aims to supplement the <i>Lineage</i> metadata element defined in Regulation 1205/2008/EC with a precise description of a process or operation that has been applied to make national/local data base compliant with INSPIRE building specifications.</p> <p>It is recommended to describe:</p> <ol style="list-style-type: none"> 1. the schema transformation to make initial source compliant with INSPIRE ; possibly, provide the internet address of the transformation report, if any 2. the coordinate transformation to make initial source compliant with INSPIRE 3. any transformation/process that has been done to make INSPIRE data consistent with other themes, with other levels of detail or with similar data on neighbour areas (i.e. edge-matching) <p>Examples:</p> <ol style="list-style-type: none"> 1. BD TOPO data have been transformed into INSPIRE model, under PosGreSQL using home-made scripts and then provided in GML by GeoServer. Matching rules are documented in the transformation report available at: http://ign.fr 2. BD TOPO data have been transformed from French coordinate reference system (RGF93 – projected coordinates in Lambert-93) into INSPIRE coordinate reference system (ETRS89 – geographic coordinates) by coordinate conversion. Elevation and Z coordinate of geometry have been transformed from IG69 to EVRS by adding a constant value (not exact transformation) 3. Buildings being captured from same source and according to same process as other topographic themes, INSPIRE theme BU is geometrically consistent with other INSPIRE themes (TN, HY, AU, GN, AD) provided from the same national source (BD TOPO). Currently, no edge-matching done with neighbouring countries.
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8.1.4 Temporal reference

According to Regulation 1205/2008/EC, at least one of the following temporal reference metadata sub-elements shall be provided: temporal extent, date of publication, date of last revision, date of creation.

Recommendation 9 It is recommended that at least the date of the last revision of a spatial data set should be reported using the *Date of last revision* metadata sub-element.

8.2 Metadata elements for interoperability

IR Requirement

Article 13

Metadata required for Interoperability

The metadata describing a spatial data set shall include the following metadata elements required for interoperability:

1. Coordinate Reference System: Description of the coordinate reference system(s) used in the data set.
2. Temporal Reference System: Description of the temporal reference system(s) used in the data set.

This element is mandatory only if the spatial data set contains temporal information that does not refer to the default temporal reference system.

3. Encoding: Description of the computer language construct(s) specifying the representation of data objects in a record, file, message, storage device or transmission channel.
4. Topological Consistency: Correctness of the explicitly encoded topological characteristics of the data set as described by the scope.

This element is mandatory only if the data set includes types from the Generic Network Model and does not assure centreline topology (connectivity of centrelines) for the network.

5. Character Encoding: The character encoding used in the data set.

This element is mandatory only if an encoding is used that is not based on UTF-8.

6. Spatial Representation Type: The method used to spatially represent geographic information.

These Technical Guidelines propose to implement the required metadata elements based on ISO 19115 and ISO/TS 19139.

The following TG requirements need to be met in order to be conformant with the proposed encoding.

TG Requirement 1 Metadata instance (XML) documents shall validate without error against the used ISO 19139 XML schema.

NOTE Section 2.1.2 of the Metadata Technical Guidelines discusses the different ISO 19139 XML schemas that are currently available.

TG Requirement 2 Metadata instance (XML) documents shall contain the elements and meet the INSPIRE multiplicity specified in the sections below.

TG Requirement 3 The elements specified below shall be available in the specified ISO/TS 19139 path.

Recommendation 10 The metadata elements for interoperability should be made available together with the metadata elements defined in the Metadata Regulation through an INSPIRE discovery service.

NOTE While this not explicitly required by any of the INSPIRE Implementing Rules, making all metadata of a data set available together and through one service simplifies implementation and usability.

8.2.1 Coordinate Reference System

Metadata element name	Coordinate Reference System
Definition	Description of the coordinate reference system used in the dataset.
ISO 19115 number and name	13. referenceSystemInfo
ISO/TS 19139 path	referenceSystemInfo
INSPIRE obligation / condition	mandatory
INSPIRE multiplicity	1..*
Data type(and ISO 19115 no.)	186. MD_ReferenceSystem
Domain	<p>To identify the reference system, the referenceSystemIdentifier (RS_Identifier) shall be provided.</p> <p>NOTE More specific instructions, in particular on pre-defined values for filling the referenceSystemIdentifier attribute should be agreed among Member States during the implementation phase to support interoperability.</p>
Implementing instructions	
Example	<pre>referenceSystemIdentifier: code: ETRS_89 codeSpace: INSPIRE RS registry</pre>
Example XML encoding	<pre><gmd:referenceSystemInfo> <gmd:MD_ReferenceSystem> <gmd:referenceSystemIdentifier> <gmd:RS_Identifier> <gmd:code> <gco:CharacterString>ETRS89 </gco:CharacterString> </gmd:code> <gmd:codeSpace> <gco:CharacterString>INSPIRE RS registry</gco:CharacterString> </gmd:codeSpace> </gmd:RS_Identifier> </gmd:referenceSystemIdentifier> </gmd:MD_ReferenceSystem> </gmd:referenceSystemInfo></pre>
Comments	

8.2.2 Temporal Reference System

Metadata element name	Temporal Reference System
Definition	Description of the temporal reference systems used in the dataset.
ISO 19115 number and name	13. referenceSystemInfo
ISO/TS 19139 path	referenceSystemInfo
INSPIRE obligation / condition	Mandatory, if the spatial data set or one of its feature types contains temporal information that does not refer to the Gregorian Calendar or the Coordinated Universal Time.
INSPIRE multiplicity	0..*
Data type(and ISO 19115 no.)	186. MD_ReferenceSystem

Domain	<p>No specific type is defined in ISO 19115 for temporal reference systems. Thus, the generic MD_ReferenceSystem element and its reference SystemIdentifier (RS_Identifier) property shall be provided.</p> <p>NOTE More specific instructions, in particular on pre-defined values for filling the referenceSystemIdentifier attribute should be agreed among Member States during the implementation phase to support interoperability.</p>
Implementing instructions	
Example	<pre>referenceSystemIdentifier: code: GregorianCalendar codeSpace: INSPIRE RS registry</pre>
Example XML encoding	<pre><gmd:referenceSystemInfo> <gmd:MD_ReferenceSystem> <gmd:referenceSystemIdentifier> <gmd:RS_Identifier> <gmd:code> <gco:CharacterString>GregorianCalendar </gco:CharacterString> </gmd:code> <gmd:codeSpace> <gco:CharacterString>INSPIRE RS registry</gco:CharacterString> </gmd:codeSpace> </gmd:RS_Identifier> </gmd:referenceSystemIdentifier> </gmd:MD_ReferenceSystem> </gmd:referenceSystemInfo></pre>
Comments	

8.2.3 Encoding

Metadata element name	Encoding
Definition	Description of the computer language construct that specifies the representation of data objects in a record, file, message, storage device or transmission channel
ISO 19115 number and name	271. distributionFormat
ISO/TS 19139 path	distributionInfo/MD_Distribution/distributionFormat
INSPIRE obligation / condition	mandatory
INSPIRE multiplicity	1
Data type (and ISO 19115 no.)	284. MD_Format
Domain	See B.2.10.4. The property values (name, version, specification) specified in section 5 shall be used to document the default and alternative encodings.
Implementing instructions	
Example	<pre>name: <Application schema name> GML application schema version: version 3.0 specification: D2.8.III.2 Data Specification on <i>Buildings</i> – Technical Guidelines</pre>

Example XML encoding	<pre> <gmd:MD_Format> <gmd:name> <gco:CharacterString>SomeApplicationSchema GML application schema</gco:CharacterString> </gmd:name> <gmd:version> <gco:CharacterString>3.0</gco:CharacterString> </gmd:version> <gmd:specification> <gco:CharacterString>D2.8.III.2 Data Specification on Buildings – Technical Guidelines</gco:CharacterString> </gmd:specification> </gmd:MD_Format> </pre>
Comments	

8.2.4 Character Encoding

Metadata element name	Character Encoding
Definition	The character encoding used in the data set.
ISO 19115 number and name	
ISO/TS 19139 path	
INSPIRE obligation / condition	Mandatory, if an encoding is used that is not based on UTF-8.
INSPIRE multiplicity	0..*
Data type (and ISO 19115 no.)	
Domain	
Implementing instructions	
Example	-
Example XML encoding	<pre> <gmd:characterSet> <gmd:MD_CharacterSetCode codeListValue="8859part2" codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/I SO_19139_Schemas/resources/codelist/ML_gmxCodellists.xml#C haracterSetCode">8859-2</gmd:MD_CharacterSetCode> </gmd:characterSet> </pre>
Comments	

8.2.5 Spatial representation type

Metadata element name	Spatial representation type
Definition	The method used to spatially represent geographic information.
ISO 19115 number and name	37. spatialRepresentationType
ISO/TS 19139 path	
INSPIRE obligation / condition	Mandatory
INSPIRE multiplicity	1..*
Data type (and ISO 19115 no.)	B.5.26 MD_SpatialRepresentationTypeCode
Domain	
Implementing instructions	<p>Of the values included in the code list in ISO 19115 (vector, grid, textTable, tin, stereoModel, video), only vector, grid and tin should be used.</p> <p>NOTE Additional code list values may be defined based on feedback from implementation.</p>
Example	-
Example XML encoding	
Comments	

8.2.6 Data Quality – Logical Consistency – Topological Consistency

See section 8.3.2 for instructions on how to implement metadata elements for reporting data quality.

8.3 Recommended theme-specific metadata elements

Recommendation 11 The metadata describing a spatial data set or a spatial data set series related to the theme *Buildings* should comprise the theme-specific metadata elements specified in Table 9.

The table contains the following information:

- The first column provides a reference to a more detailed description.
- The second column specifies the name of the metadata element.
- The third column specifies the multiplicity.

Table 9 – Optional theme-specific metadata elements for the theme *Buildings*

Section	Metadata element	Multiplicity
8.3.1	Maintenance Information	0..1
8.3.2	Logical Consistency – Conceptual Consistency	0..*
8.3.2	Logical Consistency – Domain Consistency	0..*
8.3.2	Other DQ element from chapter 7	0..*
8.3.3	Content Information	0..1

Recommendation 12 For implementing the metadata elements included in this section using ISO 19115, ISO/DIS 19157 and ISO/TS 19139, the instructions included in the relevant sub-sections should be followed.

8.3.1 Maintenance Information

Metadata element name	Maintenance information
Definition	Information about the scope and frequency of updating
ISO 19115 number and name	30. resourceMaintenance
ISO/TS 19139 path	identificationInfo/MD_Identification/resourceMaintenance
INSPIRE obligation / condition	optional
INSPIRE multiplicity	0..1
Data type(and ISO 19115 no.)	142. MD_MaintenanceInformation

Domain	<p>This is a complex type (lines 143-148 from ISO 19115). At least the following elements should be used (the multiplicity according to ISO 19115 is shown in parentheses):</p> <ul style="list-style-type: none"> – maintenanceAndUpdateFrequency [1]: frequency with which changes and additions are made to the resource after the initial resource is completed / domain value: MD_MaintenanceFrequencyCode: – updateScope [0..*]: scope of data to which maintenance is applied / domain value: MD_ScopeCode – maintenanceNote [0..*]: information regarding specific requirements for maintaining the resource / domain value: free text
Implementing instructions	
Example	
Example XML encoding	
Comments	

8.3.2 Metadata elements for reporting data quality

Recommendation 13 For reporting the results of the data quality evaluation, the data quality elements, sub-elements and (for quantitative evaluation) measures defined in chapter 7 should be used.

Recommendation 14 The metadata elements specified in the following sections should be used to report the results of the data quality evaluation. At least the information included in the row “Implementation instructions” should be provided.

The first section applies to reporting quantitative results (using the element DQ_QuantitativeResult), while the second section applies to reporting non-quantitative results (using the element DQ_DescriptiveResult).

Recommendation 15 If a dataset does not pass the tests of the Application schema conformance class (defined in Annex A), the results of each test should be reported using one of the options described in sections 8.3.2.1 and 8.3.2.2.

NOTE 1 If using non-quantitative description, the results of several tests do not have to be reported separately, but may be combined into one descriptive statement.

NOTE 2 The sections 8.3.2.1 and 8.3.2.2 may need to be updated once the XML schemas for ISO 19157 have been finalised.

The scope for reporting may be different from the scope for evaluating data quality (see section 7). If data quality is reported at the data set or spatial object type level, the results are usually derived or aggregated.

Recommendation 16 The scope element (of type DQ_Scope) of the DQ_DataQuality subtype should be used to encode the reporting scope.

Only the following values should be used for the level element of DQ_Scope: Series, Dataset, featureType.

If the level is featureType the levelDescription/MDScopeDescription/features element (of type Set<GF_FeatureType>) shall be used to list the feature type names.

NOTE In the level element of DQ_Scope, the value featureType is used to denote spatial object type.

8.3.2.1. Guidelines for reporting quantitative results of the data quality evaluation

Metadata element name	See chapter 7
Definition	See chapter 7
ISO/DIS 19157 number and name	3. report
ISO/TS 19139 path	dataQualityInfo/*/report
INSPIRE obligation / condition	optional
INSPIRE multiplicity	0..*
Data type (and ISO/DIS 19157 no.)	Corresponding DQ_xxx subelement from ISO/DIS 19157, e.g. 12. DQ_CompletenessCommission
Domain	Lines 7-9 from ISO/DIS 19157 7. DQ_MeasureReference (C.2.1.3) 8. DQ_EvaluationMethod (C.2.1.4.) 9. DQ_Result (C2.1.5.)
Implementing instructions	39. nameOfMeasure NOTE This should be the name as defined in Chapter 7. 42. evaluationMethodType 43. evaluationMethodDescription NOTE If the reported data quality results are derived or aggregated (i.e. the scope levels for evaluation and reporting are different), the derivation or aggregation should also be specified using this property. 46. dateTime NOTE This should be data or range of dates on which the data quality measure was applied. 63. DQ_QuantitativeResult / 64. value NOTE The DQ_Result type should be DQ_QuantitativeResult and the value(s) represent(s) the application of the data quality measure (39.) using the specified evaluation method (42-43.)
Example	See Table E.12 — Reporting commission as metadata (ISO/DIS 19157)
Example XML encoding	

8.3.2.2. Guidelines for reporting descriptive results of the Data Quality evaluation

Metadata element name	See chapter 7
Definition	See chapter 7
ISO/DIS 19157 number and name	3. report
ISO/TS 19139 path	dataQualityInfo/*/report
INSPIRE obligation / condition	optional
INSPIRE multiplicity	0..*
Data type (and ISO/DIS 19157 no.)	Corresponding DQ_xxx subelement from ISO/DIS 19157, e.g. 12. DQ_CompletenessCommission
Domain	Line 9 from ISO/DIS 19157 9. DQ_Result (C2.1.5.)

Implementing instructions	67. DQ_DescriptiveResult / 68. statement NOTE The DQ_Result type should be DQ_DescriptiveResult and in the statement (68.) the evaluation of the selected DQ sub-element should be expressed in a narrative way.
Example	See Table E.15 — Reporting descriptive result as metadata (ISO/DIS 19157)
Example XML encoding	

8.3.3 Content information

Metadata element name	<MD_ContentInformation >
Definition	description of the content of a dataset
ISO 19115 number and name	<i>MD_ContentInformation</i>
ISO/TS 19139 path	
INSPIRE obligation / condition	optional
INSPIRE multiplicity	0..1
Data type (and ISO 19115 no.)	MD_FeatureCatalogue Description
Domain	MD_FeatureCatalogue
Implementing instructions	The purpose of this metadata element is to inform the user about the feature types and properties that are populated in the data set. This has to be done by a reference to a feature catalogue including only the populated feature types and properties. It may be done by referencing the tables supplied in annex E for additional information once they have been filled by the data producer, just by ticking the populated features and properties.
Example	
Example XML encoding	
Comments	

8.3.4 Template for additional information

The data specification for theme *Buildings* is quite flexible and adaptable by data producers. Therefore, there is a need that users are informed about how the INSPIRE specification has been interpreted and adapted. Typically, users would need to get explanations about the specificities remaining in a data set, even once it has been made INSPIRE conformant.

The main information elements to be provided by data producers in complement of the INSPIRE specifications have been identified by TWG BU in annex E: template for additional information.

There are two ways to use this template:

- data producer supplies to users both the INSPIRE specification and the template for additional information to complement it
- data producer makes its own specification based on INSPIRE one by integrating the information elements supplied in the template for additional data.

These documents (INSPIRE specification + template for additional information or customized INSPIRE specification) are dedicated to human being users; they are not supposed to provide searchable metadata elements. These documents must be made available to users in a way or another. For instance, they may at least be published on the data provider Web site. If possible, they should be made available through the download services.