** INSPIRE**

**Infrastructure for Spatial Information in Europe**

List of inconsistences in the Implementing Rules for interoperability

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Proposal for changes/additions to the INSPIRE Technical Guidance documentation

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| **Title** | List of inconsistences found in the Implementing Rules for interoperability including proposal for changes/additions to the INSPIRE Technical Guidance documentation |
| **Creator** | INSPIRE MIG -Thematic cluster temporary sub-group (MIWP14) |
| **Date** | 22-06-2016 |
| **Subject** | Consolidated list of inconsistences found and proposal for changes to the INSPIRE legal and technical documentation. |
| **Status** | Version 2.0 |
| **Publisher** | DG-JRC |
| **Type** | Text |
| **Description** | This document presents/describes IR inconsistencies found and changes proposed by the MIG sub-group on Thematic clusters (MIWP14) based on the proposal of Thematic Cluster Facilitators and consolidated by MIG-T members and agreed by INSPIRE CT.  |
| **Format** | MS Word (docx) |
| **Source** | INSPIRE Thematic clusters discussions, MIWP14, MIG-T, INSPIRE CT |
| **Rights** | Public |
| **Identifier** | MIG-P of 28-29 June 2016, document no. 13 |
| **Language** | EN |
| **Requested actions** | The members of the MIG-P are invited to: * Take note of the identified issues in the IRs and the proposed changes in the TGs, and the fact that they have been reviewed by the MIG-T for quality and completeness.
* Discuss the document and the process of finalisation at the meeting.

Note: Some procedural issues will need to be clarified by the Commission services for how to address the identified issues in the legal acts as well as in the light of the (new) instructions for guidance documents in the context of Better Regulation. Once this has been done, the intention is to submit the document to MIG-P for endorsement through written procedure. |

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# Introduction

According to the Terms of Reference of the MIG temporary sub-group on Thematic clusters (MIWP14) the sub-group held a technical meeting back to back with the meeting of the INSPIRE Maintenance and Implementation Group, Technical sub-group (MIG-T) in Rome 1-4.12. 2016 to evaluate the first proposal for changes / additions to the INSPIRE legal and technical documentation originated from the discussions held by communities of implementers in the INSPIRE Thematic Cluster platform and prepared by the Technical Clusters Facilitators. During the meeting each issue/change proposal was evaluated and the final list of priority issues was agreed by the members of the MIG sub-group.

During the follow up MIG-T meeting it was agreed that further consolidation is needed in order to e.g. better estimate the cost of the implementation of each of the change proposal. It was also agreed that once consolidated by MIWP14 the proposal will undertake a quality/completeness check by the MIG-T representatives.

Due the fact that some proposed changes, mainly those representing textual/inconsistency errors, affect also the Implementing Rules – the INSPIRE legal framework for data interoperability[[1]](#footnote-2) (IR) the proposal was extended, during the consolidation phase, with the list of errors and inconsistencies to the IR had been already discovered[[2]](#footnote-3) and published on the MIG collaboration platform.

Before sending the consolidate proposal to the MIG-T the internal INPSIRE CT review took place resulting in better consolidation of the proposal. The proposal was then sent to the MIG-T representatives on 21.3. 2016 for the quality/completeness check[[3]](#footnote-4). The proposal received comments from 5 MSs (UK, FR, SE, CZ, GE). The majority of the comments had the editorial character nevertheless they helped to improve the consistency as well as clarity of the proposal.

Based on the MS comments received the INSPIRE CT updated the proposal and created the Version 2.0.

**The current proposal (V2.0) covers in total:**

* **39 inconsistencies errors found in the Implementing Rules (some of which also affect the INSPIRE Technical Documentation);**
* **35+ proposals for changes/additions to the INSPIRE Technical Guidelines or other types of technical documentation.**

**Chapter 2** covers description of inconsistences found in the IR. Usually these change proposals also affect various types of the INSPIRE technical documentation (e.g. Technical Guidelines, UML models / XML schemas, Code list register, existing XML data sets etc.).

**Chapter 3** covers change/addition proposals that effect “only” various types of the INSPIRE technical documentation (e.g. Technical Guidelines, UML models / XML schemas, Code list register, existing XML data sets etc.).

The individual change proposals, presented in Chapters 3 and partly 2, were published and debated **on the relevant INSPIRE Thematic cluster collaborative / discussion platform**. The available links to the discussion are also presented in each of the proposal description. Each change proposal should have fulfilled the following criteria:

1. Reflects real INSPIRE implementation experience;
2. Has enough thematic community discussion and reached agreement;
3. Received the highest priority from the respective TC facilitators, MIG-T representatives;
4. Were agreed by the INSPIRE CT team.

All inconsistencies to the IRs as well as proposed changes / additions to the TGs were also registered and documented by facilitators in the MIG-T collaborative platform / Issue number tracking system[[4]](#footnote-5).

**This document is also accompanied by additional / clarifying documentation (Annex and the INSPIRE\_MIG\_Mineral4EU\_codelist.xls).**

# Inconsistencies found in the Implementing Rules

This chapter reports on 39 inconsistencies identified in the ***Inspire interoperability regulations***[[5]](#footnote-6).

**Color coded legend**: Red color - what is proposed to be changed

 Yellow colour –what is the proposed change

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| **Issue number: 1** | Affected documents: **IR** | Themes: **Administrative Units** |
| **Subject:** Codelist AdministrativeHierarchyLevel |
| **Description:** The regulation doesn't define values for the AdministrativeHierarchyLevel codelist defined by the [section 4.2.4.1 of annex II](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=II&section=4.2.4.1.&language=en). In fact the Commission Regulation (EU) No 102/2011 is indeed providing values for the AdministrativeHierarchyLevel which refer to section 4.4.1 of the Commission Regulation (EU) No 1089/2010. But the Commission Regulation (EU) No 1253/2013 supersedes the part of 1089/2010 and changes the numbering system of the sections which results in the fact that the value list from 102/2011 is no longer associated.It is unlikely that this change effect existing datasets as the code values and their status was made clear by the Technical Guidelines and the UML as such. Therefore one can expect that AdministrativeHierarchyLevel is still implemented the way it was actually intended.  |
| **Corrigendum:** In point 4.2.4.1, the following table is added:**Allowed values for the code list AdministrativeHierarchyLevel**

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| **Value** | **Definition** |
| 1stOrder | Highest level in the national administrative hierarchy (country level). |
| 2ndOrder | 2nd level in the national administrative hierarchy. |
| 3rdOrder | 3rd level in the national administrative hierarchy. |
| 4thOrder | 4th level in the national administrative hierarchy. |
| 5thOrder | 5th level in the national administrative hierarchy. |
| 6thOrder | 6th level in the national administrative hierarchy. |

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| **Issue number: 2** | Affected documents: **IR, UML, TG, XML schema, existing GML data sets** | Themes: **Administrative Units** |
| **Subject:** Typo - endLifepanVersion |
| **Description:** The attribute endLifespanVersion of the MaritimeZone spatial object type defined in [section 4.3.1.3. of annex II](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=II&section=4.3.1.3.&language=fr,en) is misspelled (as “endLifepanVersion“) in most versions but the spelling has been corrected in some versions.It is wrongly spelled in the GML Schema, existing spatial datasets, the UML representation, Technical Guidelines and the Commission Regulation (EU) No 1253/2013. |
| **Corrigendum:** Correct the spelling of attribute endLifepanVersion to endLifespanVersion wherever it appears (IR, TG, UML, GML Schema). |

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| **Issue number: 3** | Affected documents: **IR** | Themes: **Addresses** |
| **Subject:** Address-Buildings association role |
| **Description:** The type of the building association role of the Address spatial object type is defined in [section 5.2.1. of annex II](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=II&section=5.2.1.&language=en) as "Type to be specified in the spatial data theme Buildings" which is incorrect. |
| **Corrigendum:** Replace “Type to be specified in the spatial data theme Buildings” in Section 5.2.1. of Commission Regulation (EU) No 1089/2010 by "Building of the Buildings Base package". |

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| **Issue number: 4** | Affected documents: **IR** | Themes: **Transport Networks** |
| **Subject:** Transport Networks - Buildings association role |
| **Description:** The type of the association role controlTowers of the spatial object type AerodromeNode is defined in [section 7.4.1.3. of annex II](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=II&section=7.4.1.3.&language=en) as "Type to be specified in the spatial data theme Buildings" which is incorrect. |
| **Corrigendum:** Replace “Type to be specified in the spatial data theme Buildings” in Section 7.4.1.3 of Commission Regulation (EU) No 1089/2010 by "Building of the Buildings Base package". |

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| **Issue number: 5** | Affected documents: **IR, TG, UML, XML schemas** | Themes: **Transport Networks** |
| **Description:** The spatial object type TrafficSeparationScheme defined in [section 7.8.1.13. of annex II](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=II&section=7.8.1.13.&language=en) is an abstract type but has no subtype defined; therefore it cannot be used to provide spatial objects.<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=II&section=7.8.1.13.&language=en>  |
| **Corrigendum:** Remove the sentence “This type is abstract.” from section 7.8.1.13. in Annex II.Change the UML data model, Technical Guidelines and xml schemas accordingly. |

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| **Issue number: 6** | Affected documents: **IR, UML, TG** | Themes: **Protected Sites** |
| **Subject:** PercentageUnderDesignation |
| **Description:** The type Percentage is never defined but is used for the attribute percentageUnderDesignation of data type DesignationType in section 9.2.1. of annex II of the Commission Regulation (EU) No 1089/2010.Note that this has already been corrected in the xml schema v4.0 where xs:decimal is used as a type. |
| **Corrigendum:** Replace the type Percentage by Decimal in the IR, UML data model and TG |

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| **Issue number: 7** | Affected documents: **IR, UML, TG** | Themes: **Protected Sites** |
| **Subject:** DesignationValue |
| **Description:** The codelist DesignationValue defined in section 9.4.2. of Annex II of the Commission Regulation (EU) No 1089/2010 is defined as "an abstract type". Definitions of Article 2 state that (i) only types can be abstract and (ii) a codelist is not a type; therefore, the codelist DesignationValue cannot be an abstract type. A role model for implementation of a subtyping a codelist is AppurtenanceTypeValue |
| **Corrigendum:** Replace:Abstract base type for code lists containing the classification and designation types under different schemes.This type is abstract.with:Classification and designation types under different schemes.The allowed values for this code list comprise the values of the following code lists or other code lists specified by data providers: - IUCN Designation (IUCNDesignationValue): A code list for the International Union for the Conservation of Nature classification scheme, as specified in Section 9.4.3- National Monuments Record Designation (NationalMonumentsRecordDesignationValue): …- …Remove “This type is a sub-type of DesignationValue.“ from sections 9.4.3 to 9.4.8 |

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| **Issue number: 8** | Affected documents: **IR, UML, TG, XML schema, existing GML data sets** | Themes: **Statistical Units** |
| **Subject:** Spelling mistake Tessellation |
| **Description:** The association role tesselation (including definition) of the AreaStatisticalUnit spatial object type defined in section 1.3.1.2. of annex IV of annex II of the Commission Regulation (EU) No 1253/2013 is misspelled in most versions but the spelling has been corrected in some versions. The spatial object type Statistical Tesselation defined in sections 1.3.1 and 1.3.1.3 of annex IV is sometimes misspelled (e.g. in the English version). |
| **Corrigendum:** Correct the spelling of attribute “tesselation” to “tessellation” and of spatial object type “Statistical Tesselation” to “Statistical Tessellation” in all versions. Correct the spelling of the sentence in section 1.3.1.3 “A tesselation composed of area statistical units.” to “A tessellation composed of area statistical units.” and the definition of the Association role Units (“The units composing a tessellation.” to “The units composing a tessellation.”). |

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| **Issue number: 9** | Affected documents: **IR, TG** | Themes: **Utility and governmental services** |
| **Subject:** Association Utility and Governmental Service - Buildings |
| **Description:** Three spatial object types named Building are defined in the buildings theme in section 2. of annex IV of the Commission Regulation (EU) No 1253/2013. Therefore when this name is used in section 6.9.2.2. of annex IV for the attribute serviceLocationByBuilding, the text should specify which type should be used.In the UML data model, the attribute refers to the Building type in the Buildings 2D package. |
| **Corrigendum:** Replace in section 6.9.2.2. of annex IV of the Commission Regulation (EU) No 1253/2013 Building by "Building of the Buildings 2D package". |

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| **Issue number: 10** | Affected documents: **IR** | Themes: **Buildings** |
| **Subject:** Association Buildings – Building Parts |
| **Description:** Three spatial object types named BuildingPart are defined in the buildings theme in section 2. of annex IV of the Commission Regulation (EU) No 1253/2013. Therefore when this name is used in section 2.3.1.3. of annex IV for the association role parts, the text should specify which type should be used; the current specification is ambiguous. |
| **Corrigendum:** Replace in section 2.3.1.3. of annex IV of the Commission Regulation (EU) No 1253/2013 BuildingPart by "BuildingPart of the Buildings Base package" |

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| **Issue number: 11** | Affected documents: **IR (FR and possible other language versions)** | Themes: **Buildings** |
| **Description:** In the French version of the IR, the codelist HorizontalGeometryReferenceValue defined in [section 2.3.3.6. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=2.3.3.6.&language=fr,en) contains the value bottomOfConstruction, which is not included in other languages such as English.This is an error in the FR version of the IR. The code list HorizontalGeometryReferenceValue is defined as: Values indicating the element considered to capture a horizontal geometry.bottomOfConstruction (defined in FR as: L'altitude a été saisie au bas de la partie utilisable de la construction) refers to an elevation measurement.Note that the code list ElevationReferenceValue does have a value bottomOfConstruction with this definition.<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=2.3.3.6.&language=fr,en>This value is correctly not included in the code list in the data specification on Buildings and the INSPIRE registry (also the FR version). |
| **Corrigendum:** Remove the value bottomOfConstruction from the list of allowed values for the code list HorizontalGeometryReferenceValue (in section 2.3.3.6 of Annex IV) in all the language versions of the regulation in which it is included. |

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| **Issue number: 12** | Affected documents: **IR** | Themes: **Soil** |
| **Description:** In the codelist SoilDerivedObjectParameterNameValue defined in [section 3.3.9. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=3.3.9.&language=en), the value named chemicalParameter is referred as chemicalParameters as the parent the value carbonStock.http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=3.3.9.&language=en |
| **Corrigendum:** Replace chemicalParameters by chemicalParameter. |

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| **Issue number: 13** | Affected documents: **IR** | Themes: **Soil** |
| **Description:** In the codelist SoilProfileParameterNameValue defined in [section 3.3.12. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=3.3.12.&language=en), the value named chemicalParameter is referred as chemicalParameters as the parent the value carbonStock.http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=3.3.12.&language=en |
| **Corrigendum:** Replace chemicalParameters by chemicalParameter. |

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| **Issue number: 14** | Affected documents: **IR** | Themes: **Production and Industrial Facilities** |
| **Description:** The type InstallationType is never defined but is used for the attribute type of the spatial object type ProductionInstallation in [section 8.2.2. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=8.2.2.&language=en).<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=8.2.2.&language=en>The attribute type is correctly defined in the UML data models and the data specifications as InstallationTypeValue. |
| **Corrigendum:** Replace the type InstallationType by InstallationTypeValue. |

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| **Issue number: 15** | Affected documents: **IR** | Themes: **Production and Industrial Facilities** |
| **Description:** The type InstallationPartType is never defined but is used for the attribute type of the spatial object type ProductionInstallationPart in [section 8.2.3. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=8.2.3.&language=en).<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=8.2.3.&language=en>The attribute type is correctly defined in the UML data models and the data specifications as InstallationPartTypeValue. |
| **Corrigendum:** Replace the type InstallationPartType by InstallationPartTypeValue. |

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| **Issue number: 16** | Affected documents: **IR** | Themes: **Natural Risk Zones** |
| **Description:** The type HazardCategoryValue is never defined, but is used for the attribute hazardCategory of the data type NaturalHazardClassification in [section 12.3.4. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=12.3.4.&language=en).http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=12.3.4.&language=en |
| **Corrigendum:** Replace the type HazardCategoryValue by NaturalHazardCategoryValue. |

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| **Issue number: 17** | Affected documents: **IR, TG (D2.9)** | Themes: **Observations & Measurements** |
| **Description:** The abstract type AbstractObservableProperty is never defined but is used for the attribute phenomenon of the spatial object type MarineContour in [section 15.1.8. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=15.1.8.&language=en) and for the attribute parameter of the data type ParameterValuePair in [section 15.2.3. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=15.2.3.&language=en).Also its two non-abstract sub-types CompositeObservableProperty and ObservableProperty are not included in the IR.http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=15.1.8.&language=enhttp://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=15.2.3.&language=en |
| **Corrigendum:** Add the following types to the IR as they are defined in the INSPIRE UML model:* AbstractObservableProperty
* CompositeObservableProperty
* ObservableProperty

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| **Issue number: 18** | Affected Documents: **IR** | Themes: **Soil, Species Distribution** |
| **Description:** In annex IV, two data types named RangeType are defined: one in the Soil theme in [section 3.2.6.](http://docinspire.eu/eutext/?CELEX=02010R1089&language=en&annex=IV&section=3.2.6.) and one in the Species Distribution theme in [section 18.3.3.](http://docinspire.eu/eutext/?CELEX=02010R1089&language=en&annex=IV&section=18.3.3.). Therefore, when RangeType is used in sections 3.1.3., 3.2.1, 3.2.5. and 18.3.2., the regulation should precise which type should be used; the current specification is ambiguous.<http://docinspire.eu/eutext/?CELEX=02010R1089&language=en&annex=IV&section=3.2.6>. <http://docinspire.eu/eutext/?CELEX=02010R1089&language=en&annex=IV&section=18.3.3>.  |
| **Corrigendum:** In section 3 of Annex IV (Soil), replace all occurrences (except in section 3.2.6) of “RangeType” by "RangeType (as defined in section 3.2.6)".In section 18 of Annex IV (Species Distribution), replace all occurrences (except in section 18.3.3) of “RangeType” by "RangeType (as defined in section 18.3.3)". |

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| **Issue number: 19** | Affected Documents: **IR** | Themes: **Energy Resources** |
| **Description:** The type VerticalReferenceRangeType is never defined but is used for the attribute range of the union type VerticalExtentValue in [section 19.3.1.3. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=19.3.1.3.&language=en).<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=19.3.1.3.&language=en>The attribute type is correctly defined in the data models and the data specifications as VerticalExtentRangeType. |
| **Corrigendum:** Replace VerticalReferenceRangeType by VerticalExtentRangeType in the table in section 19.3.1.3. of Annex IV. |

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| **Issue number: 20** | Affected Documents: **IR** | Themes: **Energy Resources** |
| **Description:** The type HydrocarbonMeasure is never defined but is used for the attribute quantity of the data type FossilFuelResourceType in [section 19.4.2.5. of annex IV](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=19.4.2.5.&language=en).<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=IV&section=19.4.2.5.&language=en>The attribute type is correctly defined in the UML data models and the data specifications as FossilFuelMeasure. |
| **Corrigendum:** Replace HydrocarbonMeasure by FossilFuelMeasure in the table in section 19.4.2.5. of Annex IV. |

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| **Issue number: 21** | Affected Documents: **IR** | Themes: **Natural Risk Zones** |
| **Description:** In sections 12.2.1., 12.2.2. and 12.2.4. of annex IV, instead of type "identifier", "Identifier" should be used.The attribute type is correctly defined in the UML data models and the data specifications as Identifier. |
| **Corrigendum:** In sections 12.2.1., 12.2.2. and 12.2.4. of annex IV replace the type “identifier” by “Identifier”. |

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| **Issue number: 22** | Affected Documents: **IR** | Themes: **Observation and Measurements, Common Types** |
| **Description:** The type GM\_Position is never defined but is used for the attribute location of data type TimeLocationValueTriple in [section 7.4.2.1. of annex I](http://docinspire.eu/eutext/?CELEX=02010R1089&annex=I&section=7.4.2.1.&language=en).<http://docinspire.eu/eutext/?CELEX=02010R1089&annex=I&section=7.4.2.1.&language=en>  |
| **Corrigendum:** Add GM\_Position in Annex I, section 1, point (2) so that it reads:(2) For the types DirectPosition, GM\_Boundary, GM\_Curve, GM\_MultiCurve, GM\_MultiSurface, GM\_Object, GM\_Point, GM\_Position, GM\_Primitive, GM\_Solid, GM\_Surface and GM\_Tin, the definitions given in EN ISO 19107:2005 shall apply. |

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| **Issue number: 23** | Affected Documents: **IR** | Themes: **Common Types** |
| **Description:** In section 1. of annex I, two definitions are given for the types Sign (from ISO/TS 19103:2005 and EN ISO 19136:2009) and Quantity (from EN ISO 19136:2009 and from "Robin, Alexandre (ed.), OGC®SWE Common Data Model Encoding Standard, version 2.0.0, Open Geospatial Consortium, 2011.").All references in the UML data model and xml schemas are to the Sign type in ISO/TS 19103:2005 and the Quantity type in "Robin, Alexandre (ed.), OGC®SWE Common Data Model Encoding Standard, version 2.0.0, Open Geospatial Consortium, 2011." |
| **Corrigendum:** Remove “Sign” and “Quantity” from Annex I, section 1, point (7) so that it reads:(7) For the type AbstractFeature, the definitions given in EN ISO 19136:2009 shall apply. |

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| **Issue number: 24** | Affected documents: **IR, TG** | Themes: **Land Cover** |
| **Subject:** Typo (name of the attribute) mentioned in the theme-specific requirements on Land Cover  |
| **Description:** There is a theme-specific requirement pointing to the attribute onlineDescription that no longer exists. It has been replaced by the externalDescription attribute in newer versions of the Technical Guidelines and in the Implementation Rules, except for in this theme-specific requirement.The proposal is to replace the following text in the Implementation Rules and in the TG on Land Cover: ***IR Requirement Annex III, Section 2.6 Theme-specific Requirements:*** *“If an onlineDescription attribute is provided for a LandCoverNomenclature data type, the referenced online description shall define, for each class, at least a code, a name, a definition and a RGB value to be used for portrayal. If the online description describes the nomenclature for a LandCoverGridCoverage object, an integer grid code shall also be provided for each class. This code shall be used in the range of the LandCoverGridCoverage to represent the corresponding class."*   **…with the following text:*****IR Requirement Annex III, Section 2.6 Theme-specific Requirements:****“If an externalDescription attribute is provided for a LandCoverNomenclaturedata type, the referenced external description shall define, for eachclass, at least a code, a name, a definition and a RGB value to be used forportrayal. If the external description describes the nomenclature for aLandCoverGridCoverage object, an integer grid code shall also be provided foreach class. This code shall be used in the range of the LandCoverGridCoverageto represent the corresponding class.*"**In Technical Guidelines the same correction is needed on page 27 in the IR requirement description.**  |
| **Corrigendum:** The textual typo (wrong name of the attribute) has to be corrected in IR as well as in TG to point correctly to the existing attribute. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/32480/mistake-typo-in-the-implementation-rules-regarding-land-cover |

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| **Issue number:** **25** | Affected documents: **IR, TG, UML, GML Schema, GML Instances** | Themes: **Sea Regions** |
| **Subject:** Correction of the SR data model (attribute duplicity) |
| **Description:** The intention of the model was that Sea and MarineCirculationZone should only have a single Extent. However in the UML and in the Commission Regulation (EU) No 1253/2013 the extent attribute is on the level of SeaArea as well as on its subtypes, Sea and MarineCirculationZone. In addition the definition of Extent is different for SeaArea and the subtype Sea. In the GML schema on the other side the Extent attribute is implemented only on the level of SeaArea but with a multiplicity of 1 (and not 1..\* as in the model).  |
| **Corrigendum:** In sections 15.1.2 and 15.1.3 of Annex IV of the IR, remove the extent attribute from Sea and MarineCirculationZone Feature Types and add a constraint to say that the multiplicity of Extent for Sea and for MarineCirculationZone shall be 1.Update the UML data models and TG accordingly. |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/11418/modelling-marineextent>  |

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| **Issue number: 26**  | Affected documents: **IR, TG** | Themes: **Transport Network** |
| **Subject**: TN Rail - Remove duplicated attribute "fictitious" in TN-Rail xml schema |
| **Description**: Duplicate attribute "fictitious" in RailwayLink spatial object type There are two feature types from different schemas using the same attribute “fictitious” but with slightly different definitions. TransportNetwork::RailwayLink is an indirect subtype of Network::Link* Network::Link: "Indicator that the centreline geometry of the link is a straight line with no intermediate control points – unless the straight line represents the geography in the resolution of the data set appropriately."
* Transport Network::RailwayLink: "The railway link does not represent a real and existing railway track but a fictitious trajectory."
 |
| **Corrigendum**: Remove the duplicate attribute "fictitious" in TN-Rail (spatial object type RailwayLink)1) UML application schema "TN – Railway Transport Network: Spatial object types – Links, Nodes and Areas" diagram - remove attribute “fictitious”2) In the TG p.69 update figure 21 and remove attribute: fictitious in 5.5.2.1.73) In the Commission Regulation (EU) No 1089/2010 section 7.6.17. remove table Attributes of the spatial object type RailwayLink |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/26968/remove-duplicate-attribute-fictitious-in-tn-rail-xml-schema |

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| **Issue number:** **27** | Affected documents: **IR, TG, UML, XML schema, existing GML data sets** | Themes: **Protected Sites**  |
| **Subject**: Correct the spelling of the attribute ps:inspireID to ps:inspireId: |
| **Description**: Within the theme of Protected Sites the INSPIRE identifier is spelled as “inspireID” and not as “inspireId”. It is proposed to harmonise the name of the inspire identifier attribute and to use inspireId in the INSPIRE Protected sites theme. |
| **Corrigendum**: replace “inspireID” with “inspireId”. |
| **Discussion link:** https://ies-svn.jrc.ec.europa.eu/issues/2568 |

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| **Issue number:** **28** | Affected documents: **IR,** **TG (GML instances in some cases)**  | Themes: **Protected Sites** |
| **Subject**: Change the definition of the attribute “percentageUnderDesignation” |
| **Description**: The current definition is: “The percentage of the site that falls under the designation. This is used in particular for the IUCN categorisation. If a value is not provided for this attribute, it is assumed to be 100%” This definition is causing difficulties in implementation if the percentage is actually not known or not available.The last sentence should be removed.As the meaning of a voidable element is proposed to be changed it might also have an impact on the already published datasets.  |
| **Corrigendum**: Commission Regulation (EU) No 1089/2010 section 9.2.1: Definition should read The percentage of the site that falls under the designation. This is used in particular for the IUCN categorisation. [last existing sentence to be removed] |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/26866/correcting-percentageunderdesignation-bug-in-ps-simple-xml-schema |

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| **Issue number:** **29** | Affected documents: **TG, IR, UML** | Themes: **Sea Regions** |
| **Subject**: Changing the stereotype of a spatial object type  |
| **Description**: There is a minor inconsistency in the data model which means a featureType (FT) has an attribute that refers to another FT. Normally this is modelled as an association and this is not the case in the TG. Although UML is not incorrect, it was not the intent to model the ShoreSegment in this way and therefore we should change FT to a dataType in case of the ShoreSegment. The purpose of ShoreSegment is/was to assign an attribute to linear sections of a Shoreline dataset.  The Shoreline is the featureType and accordingly has a distinct identity.The Shoreline dataset will contain one or many ShoreSegments.  These ShoreSegments may or may not be continuous and may or may not have a classification.  |
| **Corrigendum**: It is proposed to revert ShoreSegment from a featureType to a dataType. The Commission Regulation (EU) No 1253/2013 section 15.1.6 needs to be changed accordingly including all items affected by the change (TG and UML). |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/11435/modelling-shoreline-segments> |

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| **Issue number:** **30** | Affected documents: **IR, TG** | Themes: **Mineral Resources** |
| **Subject**: Change a value/definition in the code list “ClassificationMethodUsedValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU a new value in the code list ClassificationMethodUsedValue is proposed to supersede an existing one. *Current Value: “Historic resource estimate” - Definition: Term for resource estimation before standard codes (e.g. JORC etc.) http://inspire.ec.europa.eu/codelist/ClassificationMethodUsedValue/historicResourceEstimate* **…should be superseded by:***“Non-compliant resource estimate” – Definition: “Resource estimate that does not meet the standards of "standard codes" (e.g. JORC etc.). Generally these estimates are 'Historic" in that they pre-date the standards however in some cases they do not”.* [*http://resource.geosciml.org/classifier/cgi/classification-method-used/non-compliant-resource-estimate*](http://resource.geosciml.org/classifier/cgi/classification-method-used/non-compliant-resource-estimate)It is proposed to replace one value of the code list “ClassificationMethodUsedValue” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet ClassificationMethodUsedValue. |
| **Corrigendum**: replace the value of the code list “ClassificationMethodUsedValue”.See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet ClassificationMethodUsedValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **31** | Affected documents: **IR, TG**  | Themes: **Mineral Resources** |
| **Subject**: Changes to values/definition of the code list “EndusePotentialValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “EndusePotentialValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “EndusePotentialValue” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet EndusePotentialValue. |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list EndusePotentialValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet EndusePotentialValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **32** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Changes to values/definition of the code list “ExplorationActivityTypeValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “ExplorationActivityTypeValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “ExplorationActivityTypeValue” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet ExplorationActivityTypeValue**.** |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list ExplorationActivityTypeValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet ExplorationActivityTypeValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **33** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Changes to values/definition of the code list “ExplorationResultValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “ExplorationResultValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “ExplorationResultValue” values in the TG with new values described in the: INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet ExplorationResultValue. |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list ExplorationResultValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet ExplorationResultValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **34** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Changes to values/definition of the code list “MineralDepositGroupValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “MineralDepositGroupValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “MineralDepositGroupValue” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx;Sheet MineralDepositGroupValue**.** |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list MineralDepositGroupValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet MineralDepositGroupValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **35** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Changes to values/definition of the code list “MineralOccurrenceTypeValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “MineralOccurrenceTypeValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “MineralOccurrenceTypeValue” values that in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet MineralOccurrenceTypeValue**.** |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list MineralOccurrenceTypeValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet MineralOccurrenceTypeValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **36** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Changes to values/definition of the code list “MiningActivityTypeValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “MiningActivityTypeValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “MiningActivityTypeValue” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet MiningActivityTypeValue**.** |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list MiningActivityTypeValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet MiningActivityTypeValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **37** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Change of a value/definition in the code list “ReserveCategoryValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU a new value in the code list ReserveCategoryValue is proposed to supersede an existing one. *Current value“inaccessibleDocumentation” - Definition: Ore reserve without any accessible documentation.**http://inspire.ec.europa.eu/codelist/ReserveCategoryValue/inaccessibleDocumentation* **…should be made “Retired”**It is proposed to replace one value of the code list “ReserveCategoryValue” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet ReserveCategoryValue. |
| **Corrigendum**: Replace a value of the code list ReserveCategoryValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet ReserveCategoryValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **38** | Affected documents: **IR** | Themes: **Mineral Resources** |
| **Subject**: Change a value/definition in the code list “ResourceCategoryValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU a new value in the code list ClassificationMethodUsedValue is proposed to supersede an existing one. *Current value: “poorlyDocumented” – Definition: Poorly estimated or documented mineral resource.**http://inspire.ec.europa.eu/codelist/ResourceCategoryValue/poorlyDocumented***…should be superseded by:*****New value: “poorly estimated mineral resource, poorly documented” – Definition: Poorly estimated mineral resource, poorly documented***[***http://resource.geosciml.org/classifier/cgi/resource-assessment-category/poorly-estimated-mineral-resource***](http://resource.geosciml.org/classifier/cgi/resource-assessment-category/poorly-estimated-mineral-resource)It is proposed to replace one value of the code list “ResourceCategoryValue” values that is in the TG with new values described is in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; sheet ResourceCategoryValue. |
| **Corrigendum**: Replace the value of the code list “ResourceCategoryValue”. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet ResourceCategoryValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **39** | Affected documents: **IR** | Themes: **Protected Sites** |
| **Subject**: Section 9.4.1 extensibility of the DesignationSchemeValue code list |
| **Description**: Harmonise the extensibility statement of the code list  |
| **Corrigendum**: Replace: “This code list may be extended by the Member States.” in Section 9.4.1.By: “The allowed values for this code list comprise the values specified in the Sections 9.4.1 below and additional values at any level defined by data providers.” |
| **Discussion link:**  |

# Propose changes to the INSPIRE Technical Documentation[[6]](#footnote-7)

**Color coded legend**: onlineDescription - red color: what is proposed to be changed

 externalDescription – yellow color: what is the precise change

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| **Issue number:** **40** | Affected documents: **TG** | Themes: **Transport Network** |
| **Subject**: Typo in the description of the attribute (NumberOfLane/direction) |
| **Description**: In data type NumberOfLane, the description of attribute "direction" includes the following sentence: "NOTE When the value for this attribute is 'both',..."; however, the code list LinkDirectionValue does not include "both" but "bothDirections". |
| **Corrigendum**: p. 56 of the TG 5.4.2.1.4 Number of Lanes correct the NOTE "When the value for this attribute is 'both', …" to "When the value for this attribute is 'bothDirections'," |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/39225/editorial-error |

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| **Issue number:** **41** | Affected documents: **TG,** **EA –** **UML INSPIRE repository**  | Themes: **Environmental Monitoring Facilities** |
| **Subject**: Change the extensibility type of selected code lists |
| **Description**: The extensibility tags in the EA (Enterprise Architect SW package) UML repository as well as in the Fig. 13 of the TG document are different – wrong compared to the IR, code list register and XML schemas. The Extensibility Tags: “NONE” should be replaced by “ANY”.  |
| **Corrigendum**: The extensibility of the following Environmental Monitoring Facilities code lists has to be modified from "none" to "any" in the EA UML INSPIRE repository and in the Fig. 13 of the TG document:- ProcessTypeValue,- ResultAcquisitionSourceValue,- MeasurementRegimeValue, - ResultNatureValue,- MediaValue |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/34147/extensibility-of-code-lists-in-inspire-ef |

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| **Issue number:** **42** | Affected documents**: TG, UML** | Themes: **Buildings** |
| **Subject**: BU - correct the multiplicity for spatial object types Building/attribute “geometry2D”  |
| **Description**: In the 2D Buildings schema, the multiple representation is allowed for feature type BuildingPart (attribute geometry2D has multiplicity [1..\*]) but not for feature type Building (attribute geometry2D has multiplicity 1).This looks like an editorial error as the TWG BU intention was always to allow multiple representation for Building and BuildingPart.Consequently, the data specification shall be corrected. |
| **Corrigendum**: correct the multiplicity for building in1) UML application schema "Buildings2D" class diagram "Buildings - Core 2D" - for feature type "Building" attribute geometry2D:BuildingGeometry2D change multiplicity from 1 to 1..\*2) TG Buildingsreplace figure 25 p.52 and figure 53 page 101In 5.4.2.1.1 Building for attribute:geomtry2D change multiplicity from 1 to 1..\* |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/42181/multiple-representation-for-feature-type-building |

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| **Issue number:** **43** | Affected documents**: TG, UML, Code list Registry** | Themes: **Administrative Units**  |
| **Subject**: AU - Provide reference to the CountryCode list according to GML3.3 as an “Externally governed code list”  |
| **Description**: The INSPIRE CountryCode code list does not contain any value, instead it refers to an external link, [http://epp.eurostat.ec.europa.eu/statistics\_explained/index.php/Glossary:European\_Union](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary%3AEuropean_Union) (EU), where you can search for the country codes. According to the Implementing Rules, which refer (Sec. 4.2) to the Interinstitutional style guide published by the Publications Office of the European Union, the External Reference Link for the CountryCode code list should be http://publications.europa.eu/code/en/en-5000600.htm , a more useful link directly providing the ‘Country and territory codes’ table. |
| **Corrigendum**: Provide reference to CountryCode list according to GML3.31) UML application schema "Base Types2" diagram IR code lists - remove any values, change extensibility from "none" to "any" in accordance with IR amendment 1253\_2013 (6b)2) In the TG add additional section "Externally governed code lists" as in framework document "INSPIRE DS template v3.0rc3" (section 5.3.3)3) Codelist registry- change extensibility from "not extensible" to "any" in accordance with IR amendment 1253\_2013 (6b)- add a new document should to the INSPIRE reference document register, pointing to the annex of the interinstitutional style guide containing the country codes: http://publications.europa.eu/code/en/en-5000600.htm- create a new version of http://inspire.ec.europa.eu/codelist/CountryCode/ pointing to the new document |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/36661/inspire-countrycode-code-list |

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| **Issue number:** **44** | Affected documents: **TGs** | Themes: **Elevation, Orthoimagery**, (+) |
| **Subject**: Clarify structure of coverage encoding-related sections in TGs - "Default encoding(s)" and "Alternative encoding(s)" |
| **Description**: The structure of sections “Default encoding(s)” (e.g. 9.4.1.2 in the Elevation TG) and “Alternative encoding(s)” (e.g. 9.4.2.1 in the Elevation TG) relative to coverage data need to be aligned with the different options foreseen to deliver this kind of data in INSPIRE (those explained in section 9.3 in the Elevation TG), in order to make it clear and avoid readers to misinterpret the content.This is just an editorial clarification of the structure in the mentioned TG documents, rather than a change of content.The proposal is applicable to both, TGs on Elevation and Orthoimagery, and probably to TGs from other INSPIRE themes dealing with coverage data. |
| **Corrigendum**: **proposal for Section 9.4.1.2 – Pages 114-116:****9.4.1.2 – Default encoding(s) for application schema ElevationGridCoverage (coverage data)****Name: *ElevationGridCoverage* GML Application Schema** Version: version 3.0, Specification: D2.8.**II**.1 Data Specification on *Elevation* – Technical Guidelines Character set: UTF-8 The xml schema document is available on the INSPIRE website <http://inspire.jrc.ec.europa.eu/schemas/el-bas/3.0rc3/ElevationBaseTypes.xsd>**A) GML multipart representation****A.1) GML Application Schema for Coverages (for the coverage domain)****Name: GML Application Schema for Coverages** Version: version 1.0.0 Specification: OGC GML Application Schema – Coverages [OGC 09-146r2] Character set: UTF-8 The xml schema documents are available from *http://schemas.opengis.net/gmlcov/1.0/*. **A.2) TIFF (for the coverage range)****Name: TIFF** Version: 6 Specification: TIFF Baseline Character set: UTF-8 NOTE The Geographic Tagged Image File Format (GeoTiff), associates geo-referencing information with TIFF imagery and gridded data by supplying metadata as TIFF tags. Since it fully complies with the TIFF 6.0 specifications, it may be implemented in place of TIFF format to meet this requirement.

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| **TG Requirement 7** | If the format used for encoding the coverage range also includes information about the coverage domain, this information shall be consistent with the information encoded using the GML Application Schema for Coverages. |

EXAMPLE The following is a complete RectifiedGridCoverage instance showing an ElevationGridCoverage using GML multipart representation.*<<Include here the GMLCOV example proposed by 2647>>* (See Issue number 72)**B) GML Application Schema for Coverages (for the coverage domain and range)****Name: GML Application Schema for Coverages** Version: version 1.0.0 Specification: OGC GML Application Schema – Coverages [OGC 09-146r2] Character set: UTF-8 The xml schema documents are available from *http://schemas.opengis.net/gmlcov/1.0/*. NOTE The GML Application Schema is to be used to encode both the domain and the range of the coverage. **”**Note that the current NOTE included in TG EL v3.0:*NOTE For elevation only one format is described below for representing the range set. Formats such as ESRI ASCII Grid are specifically excluded from this specification.*… excluding the possibility to use ESRI ASCII Grid as an output format has been explicitly removed from this section. This has been done in order to align TG EL with the content of the *Technical Guidance for the implementation of INSPIRE Download Services using WCS v1.0 rc1*. |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/49915/clarify-the-structure-of-coverage-encoding-related-sections-in-the-tgs-default-encodings-and-alternative-encodings><https://themes.jrc.ec.europa.eu/discussion/view/49915/clarify-the-structure-of-coverage-encoding-related-sections-in-the-tgs-default-encodings-and-alternative-encodings> |

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| **Issue number:** **45** | Affected documents: **TGs.**  | Themes: **Sea Regions and Oceanographic Features** |
| **Subject**: Add explicitly to the descriptive Sheet of the TGs that marine litter and radioactivity are in the scope of SR and OF. |
| **Description**: Marine litter is a key data set for marine environmental reporting. It was not explicit which Inspire Theme this dataset belonged to. |
| **Corrigendum**: Revise Section 2 of technical guidelines (Descriptive Scope) to make explicit that marine litter is in the scope of SR and OF. This simply requires an update to the descriptive scope of the SR and OF data specifications. Marine litter is already in the code list of marine coverage types. Specifically, in SR TG, in Section 2.2.1 Change: A Sea Region is a 2D geometry of an area that is covered by an ocean, sea or similar salt water body. Its boundaries are attributed to physical or chemical processes, for example:– Salinity (distance inland for a river)– Current circulation– Land mass boundaries– Depth (shelf sea, intertidal areas, abyss)– Sea bed cover (e.g. sand) or sea surface cover (e.g. ice)– In theory any physical or chemical basis can be used provided there is a rule or convention for its use and establishment.To:A Sea Region is a 2D geometry of an area that is covered by an ocean, sea or similar salt water body. Its boundaries are attributed to physical or chemical processes, for example:– Salinity (distance inland for a river)– Current circulation– Land mass boundaries– Depth (shelf sea, intertidal areas, abyss)– Sea bed cover (e.g. sand) or sea surface cover (e.g. ice, marine litter)– Radioactivity– In theory any physical or chemical basis can be used, provided there is a rule or convention for its use and establishment.Specifically, in OF TG, in Section 2.2. add: Based on the above scope, the following are examples of Ocean Features.* Measurements of water temperature, radioactivity and salinity recorded by a buoy or fixed instrument at sea for the purpose of water quality reporting
* Measurements of ocean waves recorded by a buoy for the purpose of understanding a coastal flood hazards
* Gridded measurements of ocean colour from an earth observation satellite for the purpose of defining regions for water quality reporting.
* Monitoring of contaminants e.g. sampling for trace metals, marine litter.
* Aggregated summary data e.g. climatic means.
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| **Discussion link:** <https://themes.jrc.ec.europa.eu/pages/view/43127/sr-of-marine-litter>  |
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| **Issue number: 46** | Affected documents: **TG** | Themes: **Environmental Monitoring Facilities**  |
| **Subject**: Change to the description of ReportToLegalAct data type |
| **Description**: The current description restricts the scope of the theme "Environmental monitoring facilities", whose definition in Annex III.7 of the Directive explicitly includes "observation and measurement of emissions, of the state of environmental media and of other ecosystem parameters (biodiversity, ecological conditions of vegetation, etc.) by or on behalf of public authorities". |
| **Corrigendum**: In the description of the ReportToLegalAct data type, the following sentence shall be removed (in the data specification, UML data model repository and XML schema):“From INSPIRE perspective, an AbstractMonitoringFeature requires the provision of ISO 19156 compliant observations & measurements only in the case that these have been required by a legal reporting obligation or a commonly agreed voluntarily data flow using INSPIRE EF data specification for the definition of data structure.” |
| **Discussion link:** |

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| **Issue number:** **47** | Affected documents: **TG, UML, XML schema, existing GML data** | Themes: **Statistical Units** |
| **Subject**: Change of the value type of the “Geometry” attribute in StatisticalGridCell [SU] |
| **Description**: The StatisticalGridCell Spatial object type in the grid package of the Statistical Units (SU) model contains a wrong value type for the Geometry attribute. Using this value type makes it impossible for WFS to generate geometries for StatisticalGridCell features. |
| **Corrigendum**: In the data specifications on Statistical Units, v3.0 (and the corresponding UML data model), change the value type for attribute “Geometry” of StatisticalGridCell from GM\_Polygon to GM\_Surface. In XML schema: <element name="geometry" nillable="true"> (…) <complexType> <complexContent> <extension base="gml:AbstractMemberType"> <sequence minOccurs="0"> <element ref="gml:PolygonPatch"/> </sequence> <attributeGroup ref="gml:AssociationAttributeGroup"/> </extension> </complexContent> </complexType></element>to<element name="geometry" nillable="true" type="gml:MultiSurfacePropertyType"> (…)</element>Note: in the Implementing Rules, the type is correctly specified as GM\_Surface |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/pages/view/52526/wrong-value-type-of-geometry-attribute-in-statisticalgridcell-su>  |

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| **Issue number:** **48** | Affected documents: **TG** | Themes: **Elevation** |
| **Subject**: Adding guidelines for identifying the Vertical CRS |
| **Description**: Handling of Vertical CRS is specified at an abstract level in Section 6.2.1.4.1 - “General mechanism for the identification of the vertical CRS” of TG on EL, more concretely under “Vertical CRS linkage to Elevation grid coverages” heading and Figure 23 (on the basis of ISO 19123). However, this is not accompanied of clear rules on how to identify the vertical CRS at the implementation level (i.e. in GMLCOV schema). |
| **Corrigendum**: At the end of section 5.5.1.2.4, after: * *Quantity::uom attribute*

The unit of measure, which shall be always specified.the following bullet point shall be added:* *Quantity::referenceFrame attribute*

Identification of the vertical CRS used for referring the elevation values, which shall be always specified. |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/42326/need-more-guidance-for-elevation-encoding-and-correct-example-for-elevationgridcoverage-on-the-basis-of-gmlcov-schema>  |

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| **Issue number:** **49** | Affected documents: **TGs,**  | Themes: **Common TG template** |
| **Subject**: Complete table of http URIs for the default CRS (Issue number1) |
| **Description**: Table 1 "http URIs for the default CRS" in Section 5.5 of TG on CRS v3.2 should be completed with two additional rows (including Short name and http URI identifier) for:• Heights in EVRS (EVRF2007 realization) - EPSG:5621 (http://www.opengis.net/def/crs/EPSG/0/5621);• 3D compound: 2D geodetic in ETRS89 on GRS80, and EVRS height (EVRF2007 realization) - EPSG:7423 (http://www.opengis.net/def/crs/EPSG/0/7423);Currently the table only provides http URI identifiers for EVRS (EVRF2000 realization) and the corresponding 3D compound CRS (2D geodetic in ETRS89 on GRS80, and EVRS height corresponding to EVRF2000 realization).EVRS shall be used in INSPIRE to express the vertical component on land as gravity-related heights (in the scope of EVRS). Heights according any realization of EVRS are allowed (usually EVRF2000 realization is the only one available in many countries), but the EVRF2007 realization is recommended by TG on Elevation.At least, the short names and identifiers of both realizations (EVRF2000 and EVRF2007) should be included in the table. New short names for both EVRS realizations shall be selected and created.This proposal affects the common DS Template. Hence, potentially to all INSPIRE themes TGs. |
| **Corrigendum**: **Table 1. http URIs for the default coordinate reference systems**

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| Height in EVRS (EVRF2000 realization)(H)  | EVRSr2000  | [*http://www.opengis.net/def/crs/EPSG/0/5730*](http://www.opengis.net/def/crs/EPSG/0/5730) |
| Height in EVRS (EVRF2007 realization)(H) | EVRSr2007 | [*http://www.opengis.net/def/crs/EPSG/0/5621*](http://www.opengis.net/def/crs/EPSG/0/5621) |

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| 3D compound: 2D geodetic in ETRS89 on GRS80, and EVRS height (EVRF2000 realization)(Latitude, Longitude, H)  | ETRS89-GRS80-EVRSr2000  | [*http://www.opengis.net/def/crs/EPSG/0/7409*](http://www.opengis.net/def/crs/EPSG/0/7409) |
| 3D compound: 2D geodetic in ETRS89 on GRS80, and EVRS height (EVRF2007 realization)(Latitude, Longitude, H) | ETRS89-GRS80-EVRSr2007 | [*http://www.opengis.net/def/crs/EPSG/0/7423*](http://www.opengis.net/def/crs/EPSG/0/7423) |

**Table 2. http URIs for the default coordinate reference systems**

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| **Coordinate reference system**  | **Short name**  | **http URI identifier**  |
| 3D Cartesian in ETRS89  | ETRS89-XYZ  | *http://www.opengis.net/def/crs/EPSG/0/4936*  |
| 3D geodetic in ETRS89 on GRS80  | ETRS89-GRS80h  | *http://www.opengis.net/def/crs/EPSG/0/4937*  |
| 2D geodetic in ETRS89 on GRS80  | ETRS89-GRS80  | *http://www.opengis.net/def/crs/EPSG/0/4258*  |
| 2D LAEA projection in ETRS89 on GRS80  | ETRS89-LAEA  | *http://www.opengis.net/def/crs/EPSG/0/3035*  |
| 2D LCC projection in ETRS89 on GRS80  | ETRS89-LCC  | *http://www.opengis.net/def/crs/EPSG/0/3034*  |
| 2D TM projection in ETRS89 on GRS80, zone 26N (30°W to 24°W)  | ETRS89-TM26N  | *http://www.opengis.net/def/crs/EPSG/0/3038*  |
| 2D TM projection in ETRS89 on GRS80, zone 27N (24°W to 18°W)  | ETRS89-TM27N  | *http://www.opengis.net/def/crs/EPSG/0/3039*  |
| 2D TM projection in ETRS89 on GRS80, zone 28N (18°W to 12°W)  | ETRS89-TM28N  | *http://www.opengis.net/def/crs/EPSG/0/3040*  |
| 2D TM projection in ETRS89 on GRS80, zone 29N (12°W to 6°W)  | ETRS89-TM29N  | *http://www.opengis.net/def/crs/EPSG/0/3041*  |
| 2D TM projection in ETRS89 on GRS80, zone 30N (6°W to 0°)  | ETRS89-TM30N  | *http://www.opengis.net/def/crs/EPSG/0/3042*  |
| 2D TM projection in ETRS89 on GRS80, zone 31N (0° to 6°E)  | ETRS89-TM31N  | *http://www.opengis.net/def/crs/EPSG/0/3043*  |
| 2D TM projection in ETRS89 on GRS80, zone 32N (6°E to 12°E)  | ETRS89-TM32N  | *http://www.opengis.net/def/crs/EPSG/0/3044*  |
| 2D TM projection in ETRS89 on GRS80, zone 33N (12°E to 18°E)  | ETRS89-TM33N  | *http://www.opengis.net/def/crs/EPSG/0/3045*  |
| 2D TM projection in ETRS89 on GRS80, zone 34N (18°E to 24°E)  | ETRS89-TM34N  | *http://www.opengis.net/def/crs/EPSG/0/3046*  |
| 2D TM projection in ETRS89 on GRS80, zone 35N (24°E to 30°E)  | ETRS89-TM35N  | *http://www.opengis.net/def/crs/EPSG/0/3047*  |
| 2D TM projection in ETRS89 on GRS80, zone 36N (30°E to 36°E)  | ETRS89-TM36N  | *http://www.opengis.net/def/crs/EPSG/0/3048*  |
| 2D TM projection in ETRS89 on GRS80, zone 37N (36°E to 42°E)  | ETRS89-TM37N  | *http://www.opengis.net/def/crs/EPSG/0/3049*  |
| 2D TM projection in ETRS89 on GRS80, zone 38N (42°E to 48°E)  | ETRS89-TM38N  | *http://www.opengis.net/def/crs/EPSG/0/3050*  |
| 2D TM projection in ETRS89 on GRS80, zone 39N (48°E to 54°E)  | ETRS89-TM39N  | *http://www.opengis.net/def/crs/EPSG/0/3051*  |
| Height in EVRS (EVRF2000 realization) | EVRSr2000  | *http://www.opengis.net/def/crs/EPSG/0/5730*  |
| Height in EVRS (EVRF2007 realization) | EVRSr2007 | [*http://www.opengis.net/def/crs/EPSG/0/5621*](http://www.opengis.net/def/crs/EPSG/0/5621) |
| 3D compound: 2D geodetic in ETRS89 on GRS80, and EVRS height (EVRF2000 realization) | ETRS89-GRS80-EVRSr2000  | *http://www.opengis.net/def/crs/EPSG/0/7409*  |
| 3D compound: 2D geodetic in ETRS89 on GRS80, and EVRS height (EVRF2007 realization) | ETRS89-GRS80-EVRSr2007 | [*http://www.opengis.net/def/crs/EPSG/0/7423*](http://www.opengis.net/def/crs/EPSG/0/7423) |

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| **Discussion link:** Discussion on EVRS in the Workshop about Transformation of coverage data and WCS. <https://themes.jrc.ec.europa.eu/file/view/61150/minutes-workshop-on-transformation-of-coverage-based-data-themes-and-wcs-barcelona-29-30092015> |

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| **Issue number:** **50** | Affected documents: **TGs,**  | Themes: **Common TG template** |
| **Subject**: Complete table of http URIs for the default CRS (Issue number2) |
| **Description**: In Table 1 "http URIs for the default CRS" in Section 5.5 of TG on CRS v3.2, the http URI provided in the table for LAT CRS is already operative and shall be put in black text (it currently appears in red-coloured text).This proposal affects the common DS Template. Hence, potentially to all INSPIRE themes TGs. |
| **Corrigendum**: Http URI provided in the table for LAT CRS is already operative and shall be put in black text (is currently in red).

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| Depth referred to LAT (D)  | LAT  | [*http://www.opengis.net/def/crs/EPSG/0/5861*](http://www.opengis.net/def/crs/EPSG/0/5861)  |

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| **Discussion link:** more info[**https://ies-svn.jrc.ec.europa.eu/issues/2648**](https://ies-svn.jrc.ec.europa.eu/issues/2648) |

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| **Issue number:** **51** | Affected documents: **TG**  | Themes: **Mineral Resources** |
| **Subject**: Addition of the new code list “CommodityCodeValue” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “CommodityCodeValue” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “CommodityCodeValue” values that is in the TG with new values described is in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet CommodityCodeValue**.** |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list CommodityCodeValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx Sheet CommodityCodeValue. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **52** | Affected documents: **TG**  | Themes: **Mineral Resources** |
| **Subject**: Changes to the codelist “ProcessingActivityType” |
| **Description:** Based on the community work IUGS-CGI/GWTG as well as the results of the finished EU project - Minerals4EU the values of the current code list “ProcessingActivityType” have undergone major revision resulting in updated new values and their descriptions. It is proposed to replace the code list “ProcessingActivityType” values in the TG with new values described in the INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet ProcessingActivityType. |
| **Corrigendum**: replace (supersede, retire, addition of new) values of the code list CommodityCodeValue. See INSPIRE\_MIG\_Mineral4EU\_codelist.xlsx; Sheet ProcessingActivityType. |
| **Discussion link:** https://themes.jrc.ec.europa.eu/groups/profile/1825/mineral-resources |

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| **Issue number:** **53** | Affected documents: **TG** | Themes: **Area management** |
| **Subject**: ATS A.9.2 CRS http URI test, Errors in Paragraph c)  |
| **Description**: Wrong reference in the Sub-Section 9.2 of the ATS Section of the TG.  |
| **Corrigendum**: c) To change reference to Table 3 instead of Table 2 in the sub-section 9.2.  |
| **Discussion link:**  |

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| **Issue number:** **54** | Affected documents: **TG** | Themes: **All** |
| **Subject**: Incorrect numbering of the Abstract Test Suite (sub-)sections and wrong cross-references between Abstract Tests |
| **Description**: All TGs have more or less serious numbering issues in the ATS section. A table in the **Annex** lists for each theme the issues and the proposed corrections. When several issues are listed for a given theme, the proposed corrigenda have to be applied in the sequential order in which they are listed.How to read the table:* A.7/A.8.[1-3] means *sections labelled A.8.1, A.8.2, A.8.3 under section A.7*
* A.8.[1-6].{a),c),b)} means *sections labelled A.8.1.a), A.8.1.c), A.8.1.b), A.8.2.a) … A.8.6.c), A.8.6.b).*
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| **Corrigendum**: Renumber the sections as proposed in the table in annex, correct the cross-references as proposed in the table in annex and update the ToC. |
| **Discussion link:** |

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| 1. **Issue number:** **55**
 | Affected documents: **TG** | Themes: **Cadastral Parcels** |
| **Subject**: Page numbering Issue number for section *Possible evolutions* |
| **Description**: The section *Possible evolutions* which is the last one of the TG starts with a page number 1 instead of 110. |
| **Corrigendum**: Correct the page numbering in the document and update the ToC. |
| **Discussion link:** |

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| 1. **Issue number:** **56**
 | Affected documents: **TG** | Themes: **Habitat and Biotopes** |
| **Subject**: Update of the ToC needed |
| **Description**: The ToC contains an entry listed between sections 5.3.3 and 5.4 which should be removed: *The Reference Portal for NATURA 2000 - part of the Standard Data Form, Codelist of Annex I habitats (SDF field: 3.1)*. |
| **Corrigendum**: Update the ToC in order for “*The Reference Portal for NATURA 2000 - part of the Standard Data Form, Codelist of Annex I habitats (SDF field: 3.1)”* not to appear anymore. |
| **Discussion link:** |

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| 1. **Issue number:** **57**
 | Affected documents: **TG** | Themes: **Elevation** |
| **Subject**: Wrong name for section A.8 Technical Guideline Conformance Class |
| **Description**: Section A.8 is called *A.2 Part 2 : Conformity with the technical guideline (TG) Requirements* instead of *A.8 Technical Guideline Conformance Class*. |
| **Corrigendum**: Correct the name of section A.8 as proposed under Description and update ToC. |
| **Discussion link:** |

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| 1. **Issue number:** **58**
 | Affected documents: **TG** | Themes: **Land Use** |
| **Subject**: Wrong name for section 2.6 |
| **Description**: Section 2.6 is called *2.6 XML Extensible Markup Language How the Technical Guidelines map to the Implementing Rules* instead of *2.6 How the Technical Guidelines map to the Implementing Rules*. |
| **Corrigendum**: Correct the name of section 2.6 as proposed under Description and update ToC. |
| **Discussion link:** |

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| 1. **Issue number:** **59**
 | Affected documents: **TG** | Themes: **Land Use** |
| **Subject**: Paragraph between A.1.6 and A.1.7 seems to be out of context |
| **Description**: In version 3.0 of the TG, the following text got added between A.1.6 and A.1.7: *This test should include (2) The spatial object type CoverageByDomainAndRange must only be of subtypes of GridCoverage.* It seems to be redundant with the following sentence in A.1.6: *Examine if the spatial object type CoverageByDomainAndRange is provided and if is a subtype of GridCoverage*.Furthermore the ToC contains the entry “This test should include” listed between A.1.6 and A.1.7”. |
| **Corrigendum**: Remove the text *This test should include (2) The spatial object type CoverageByDomainAndRange must only be of subtypes of GridCoverage. Update the Toc.* |
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| 1. **Issue number:** **60**
 | Affected documents: **TG** | Themes: **Geographical Grid Systems** |
| **Subject**: Correction of Bookmark error in ToC - TG GGS |
| **Description**: The Table of Contents (ToC) of TG on GGS v3.1 currently shows 1 bookmark error. This error shall be corrected to provide an appropriate ToC. |
| **Corrigendum**: Correct the bookmark error in the ToC. |
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| **Issue number:** **61** | Affected documents: **TG** | Themes: **Geographical Grid Systems** |
| **Subject**: Correction of typo in TG GGS |
| **Description**: There is a typo in Section 5.2.2.1 of the TG (1st paragraph, page 10) where we read: "all the themes with similar needs makes use of the same geographical grid". |
| **Corrigendum**: Correct the typo in Section 5.2.2.1 of the TG (1st paragraph, page 10) where we read: "all the themes with similar needs makes use of the same geographical grid" we shall read "all the themes with similar needs make use of the same geographical grid". |
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| **Issue number:** **62** | Affected documents: **TG** | Themes: **Geographical Grid Systems** |
| **Subject**: Remove missing reference in TG GGS and edit text accordingly |
| **Description**: There is a reference bookmark error in Section 5.3 "Modelling of grids" (page 15): It has a reference to an 'Appendix 1' existing in previous versions of the document. This Appendix 1 was deleted in the current version of the TG, because it was meaningless. It is proposed to remove the full sentence: "Error! Reference source not found. Contains template application schema for Discrete Surface Grid Coverage (from [ISO 19129])" as well as the following paragraph. |
| **Corrigendum**: Remove the sentence with the reference bookmark error in Section 5.3 "Modelling of grids" (page 15) and the following paragraph: ~~Error! Reference source not found. contains template application schema for Discrete Surface Grid Coverage (from [ISO 19129]).~~ ~~This surface grid schema does not apply to 3 and 4 dimensional specialised grids of the weather, ocean and climate modelling communities, nor to the general parametric display projections taken from such models.~~ |
| **Discussion link:** |

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| **Issue number:** **63** | Affected documents: **TG** | Themes: **Coordinate Reference Systems**  |
| **Subject**: Correction of typos / bookmarks in ToC - TG CRS |
| **Description**: The Table of Contents (ToC) of TG on CRS v3.2 currently shows 6 bookmark errors. These errors shall be corrected to provide an appropriate ToC. |
| **Corrigendum**: Correct the bookmark errors in ToC. |
| **Discussion link:** |

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| **Issue number:** **64** | Affected documents: **TG** | Themes: **Orthoimagery** |
| **Subject**: Renumber Annex E “Encoding rules for TIFF and JPEG 2000 file formats - INSPIRE TG on OI |
| **Description**: Annex E Encoding rules for TIFF and JPEG 2000 file formats comes after another Annex E entitled Data structure examples. It must therefore be renumbered to Annex F. This being the last annex of the TG, the renumbering will not affect further sections of the TG. |
| **Corrigendum**: Page 128: *Annex E (normative) Encoding rules for TIFF and JPEG 2000 file formats* must be renumbered to *Annex F* *(normative) Encoding rules for TIFF and JPEG 2000 file formats* and all sub-sections must be updated as well. Eventually the ToC shall be updated.**See the Table 13 in the Annex** |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/32920/inconsistencieserrors-found-in-the-inspire-tgs-on-orthoimagery |

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| **Issue number:** **65** | Affected documents: **TG** | Themes: **Orthoimagery** |
| **Subject**: Correction of inconsistencies/errors found in Annex E “Encoding rules for TIFF and JPEG 2000 file formats (Issue number1) - INSPIRE TG on OI |
| **Description**: As discussed and justified in the thread below of the INSPIRE Thematic Clusters collaboration platform, it is necessary to make the proposed corrections to the following errors found in INSPIRE TG on Orthoimagery – Annex E “Encoding rules for TIFF and JPEG 2000 file formats”: (Issues 2536, 2644, 2645, 2646, 2643). |
| **Corrigendum**: "Page 143: Errors in the transformation from offsets to sizes - in table 13 “Mapping between boxes in JP2 format and GML elements”. • 'HEIGHT' box in JP2, maps to 'domainSet.limits.high[1] - domainSet.limits.low[1] + 1' in GML (was written ‘domainSet.limits.high[1] - domainSet.limits.low[1]’ by error).  • 'WIDTH' box in JP2, maps to 'domainSet.limits.high[0] - domainSet.limits.low[0] + 1' in GML (was written ‘domainSet.limits.high[0] - domainSet.limits.low[0]’ by error). "**See the Table 13 in the Annex** |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/32920/inconsistencieserrors-found-in-the-inspire-tgs-on-orthoimagery |

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| **Issue number:** **66** | Affected documents: **TG** | Themes: **Orthoimagery** |
| **Subject**: Correction of inconsistencies/errors found in Annex E “Encoding rules for TIFF and JPEG 2000 file formats (Issue number2) - INSPIRE TG on OI |
| **Description**: As discussed and justified in the thread below of the INSPIRE Thematic Clusters collaboration platform, it is necessary to make the proposed corrections to the following errors found in INSPIRE TG on Orthoimagery – Annex E “Encoding rules for TIFF and JPEG 2000 file formats”: (Issues 2536, 2644, 2645, 2646, 2643). |
| **Corrigendum**: "Page 142: Errors in the transformation from offsets to sizes - in Table 12 ""mapping between markers in JPEG2000 codestream and GML elements"". • 'Xsiz' marker in JPEG2000 codestream, maps to 'domainSet.limits.high[0] + 1' (was written ‘domainSet.limits.high[0]’ by error).  • 'Ysiz' marker in JPEG2000 codestream, maps to 'domainSet.limits.high[1] + 1' (was written ‘domainSet.limits.high[1]’ by error).  • 'Ssiz' marker in JPEG2000 codestream, must have the following Value: 'x000 0000 to x0100101 Component sample bit depth = value + 1. x=0 (unsigned values) x=1 (signed values)' " |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/32920/inconsistencieserrors-found-in-the-inspire-tgs-on-orthoimagery |

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| **Issue number:** **67** | Affected documents: **TG** | Themes: **Orthoimagery**  |
| **Subject**: Correction of inconsistencies/errors found in Annex E “Encoding rules for TIFF and JPEG 2000 file formats (Issue number3) - INSPIRE TG on OI |
| **Description**: As discussed and justified in the thread below of the INSPIRE Thematic Clusters collaboration platform, it is necessary to make the proposed corrections to the following errors found in INSPIRE TG on Orthoimagery – Annex E “Encoding rules for TIFF and JPEG 2000 file formats”: (Issues 2536, 2644, 2645, 2646, 2643). |
| **Corrigendum**: "Page 144: Error when writing binary number 37 - in table 13 “Mapping between boxes in JP2 format and GML elements”.  • 'bpc' ('bpcc' type - bits per component) must have the following Condition/Value: 'x000 0000 to x0100101 Component sample bit depth = value + 1. x=0 (unsigned values) x=1 (signed values)' "**See the Table 13 in the Annex** |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/32920/inconsistencieserrors-found-in-the-inspire-tgs-on-orthoimagery> |

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| **Issue number:** **68** | Affected documents: **TG** | Themes: Orthoimagery |
| **Subject**: Correction of inconsistencies/errors found in Annex E “Encoding rules for TIFF and JPEG 2000 file formats (Issue number4) – INSPIRE TG on OI |
| **Description**: “As discussed and justified in the thread below of the INSPIRE Thematic Clusters collaboration platform, it is necessary to make the proposed corrections to the following errors found in INSPIRE TG on Orthoimagery – Annex E “Encoding rules for TIFF and JPEG 2000 file formats”: (Issues 2536, 2644, 2645, 2646, 2643).This specific Issue number proposes a change to clarify and facilitate the understanding of the structure for providing XML within JPEG 2000 (specifically, regarding the ‘XML box’ row in table 13 “Mapping between boxes in JP2 format and GML elements”. This change has been accepted and agreed in the discussion thread. |
| **Corrigendum**: “Page 146: Clarification of the structure for providing XML within JPEG 2000. • In the ‘XML box’ row in table 13 “Mapping between boxes in JP2 format and GML elements”, replace the text: “”The place to provide GML within JPEG 2000 (see OGC standard for more details)”” (placed in the final column of the row) with the text “”N/A”” – meaning that this box is not to be used.  • Add the following extra row at the end of table 13 “Mapping between boxes in JP2 format and GML elements” – meaning that this box is the one to be used: ASOC Box | ‘asoc’ | “”outer”” association Box for XML formatted information to a JP2 file. | Optional | The place to provide GML within JPEG 2000 (see OGC standard 05-047r3 paragraph 8.2).”**See the Table 13 in the Annex** |
| **Descussion link:** https://themes.jrc.ec.europa.eu/discussion/view/32920/inconsistencieserrors-found-in-the-inspire-tgs-on-orthoimagery |

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| **Issue number: 69** | Affected documents: **TG** | Themes: **Orthoimagery, Land Cover** |
| **Subject**: Exclude duplicated text and restructure the contents of Annex J [LC] |
| **Description**: There's a duplication of text in the Introduction of the Encoding rules for TIFF and JPEG 2000 file formats in Annex J. We suggest to improve the readability by excluding the duplication of text in the Introduction of Annex J. This can be done by replacing the introduction with the corresponding introduction of Annex E (page 128) of the Technical Guidelines on Orthoimagery. If this change is carried out, the structure of Annex J can also be amended to adopt the same structure (naming convention) as other annexes. |
| **Corrigendum**: "Replace the Introduction of Annex J (page 169, Encoding rules for TIFF and JPEG 2000 file formats) with the Introduction from the Annex E (page 128) of the Technical Guidelines on Orthoimagery.  Apply the general structure of the annexes to Annex J, so that the heading of the introduction is:- J.1 Introduction, followed by J2 Tiff format, J2.1 Format overview and so on and adjust the Table of contents of the Technical Guidelines accordingly.Regarding the replacement of text, this self-overlapping text: *"This annex specifies how to use the TIFF or JPEG 2000 file formats for encoding the range set of grid coverages. Because pixel payload is not sufficient to construct a readable standalone image, additional descriptive information has to be packaged together in the same file, even if it is already provided somewhere else in GML. For this purpose, this part establishes schema conversion rules for all the coverage components of INSPIRE Application Schemas that have a corresponding element in the output TIFF or JPEG 2000 data structures. These conversion rules play an essential role in maintaining consistency between the different representations (i.e. GML, TIFF or JPEG 2000) of the same coverage information.**On the other hand, TIFF specifications and JPEG 2000 Standard offer many options and let some variables open for encoding image data. If this flexibility allows covering most applications, it leads, in turn, to a situation where disparate implementation platforms exist while being potentially incompatible. As a result, interoperability is often unlikely. In order to fill in this gap and to enable a controlled exchange of data across Europe, this annex draws up an implementation profile of TIFF and JPEG 2000 to constraint their usage within the scope of INSPIRE. It amounts to impose external format-dependent restrictions to the applicable values of the properties described in the INSPIRE application schemasThis annex specifies how to use the TIFF or JPEG 2000 file formats for encoding the range set of grid coverages. Because pixel payload is not sufficient to construct a readable standalone image, additional descriptive information has to be packaged together in the same file, even if it is already provided some-where else in GML. For this purpose, this part establishes schema conversion rules for all the coverage components of INSPIRE Application Schemas that have a corresponding element in the output TIFF or JPEG 2000 data structures. These conversion rules play an essential role in maintaining consistency between the different representations (i.e. GML, TIFF or JPEG 2000) of the same coverage information.* *On the other hand, TIFF specifications and JPEG 2000 Standard offer many options and let some varia-bles open for encoding image data. If this flexibility allows covering most applications, it leads, in turn, to a situation where disparate implementation platforms exist while being potentially incompatible. As a result, interoperability is often unlikely. In order to fill in this gap and to enable a controlled exchange of data across Europe, this annex draws up an implementation profile of TIFF and JPEG 2000 to constraint their usage within the scope of INSPIRE. It amounts to impose external format-dependent restrictions to the applicable values of the properties described in the INSPIRE application schemas."*  **..should be replaced with this text:*****"This annex specifies how to use the TIFF or JPEG 2000 file formats for encoding the range set of grid coverages. Because pixel payload is not sufficient to construct a readable standalone image, additional descriptive information has to be packaged together in the same file, even if it is already provided somewhere else in GML. For this purpose, this part establishes schema conversion rules for all the coverage components of INSPIRE Application Schemas that have a corresponding element in the output TIFF or JPEG 2000 data structures. These conversion rules play an essential role in maintaining consistency between the different representations (i.e. GML, TIFF or JPEG 2000) of the same coverage information.*** ***On the other hand, TIFF specifications and JPEG 2000 Standard offer many options and define some open variables for encoding image data. While this flexibility allows covering most applications, it may also lead to disparate and potentially incompatible implementations. As a result, interoperability might not be acheivable. In order to fill this gap and to enable a successful exchange of data across Europe, this annex establishes an implementation profile of TIFF and JPEG 2000 to constraint their usage within the scope of INSPIRE. It imposes external format-dependent restrictions to the applicable values of the properties described in the INSPIRE application schemas."*** |
| **Discussion link:** more info: https://ies-svn.jrc.ec.europa.eu/issues/2548 |

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| **Issue number:** **70** | Affected documents: **TG**  | Themes: **Utility and Government Services**  |
| **Subject**: Adding a value “crossTheme” to the UtilityNetworkType code list |
| **Description**: Add the 'crossTheme' value to the UtilityNetworkType code list in order to address e.g. ducts and pipes that contain cables of various types as the crossTheme. |
| **Corrigendum**: Add the 'crossTheme' value to the UtilityNetworkType code list. Label: crossThemeDefinition: Utility networks sharing various types of thematic entities. |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/40407/crosstheme-utility-network-type-missing> |

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| **Issue number:** **71** | Affected documents: **TG** | Themes: **Buildings** |
| **Subject**: BU - improve the default styles for building and buildingParts |
| **Description**: The default style for building and buildingPart use the same fill and outline colour.In case the reference geometry of Building is polygon and reference geometry of BuildingPart is point, the portrayal rule proposed by TWG BU is not relevant at all. It is proposed to change it in order to make the BuildingPart point more visible. |
| **Corrigendum**: improve the default styles for building and buildingParts (Sheet 10 Portrayal)

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|  |  | INSPIRE | Change Proposal |
| Building | Surface | grey with black outline o Fill colour: SOLID GREY RGB 128,128,128 o Outline colour: SOLID BLACKo Outline width: 0,4pt  | red light with dark red outlineFill colour: SOLID light red RGB 255,235,235Outline colour: SOLID RED RGB 255, 0, 0Outline width: 1 px |
| Point | dark grey circle o Style: CIRCLE o Fill colour: SOLID DARK GREY (RGB 82,82,82) o Width: 10pt  |  |
| BuildingPart | Surface | hollow with black outline o Fill colour: TRANSPARENT o Outline colour: SOLID BLACK o Outline width: 0,2pt | hollow with red outlineFill colour: TRANSPARENTOutline colour: SOLID REDRGB 255, 0, 0Outline width: : 1 px |
| Point | grey circles o Style: CIRCLE o Fill colour: SOLID GREY (RGB 128,128,128) o Width: 5pt  |  |

 |
| **Discussion link:** https://themes.jrc.ec.europa.eu/discussion/view/31242/portrayal-for-buildings-and-buildingparts |

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| **Issue number:72** | Affected documents: **TG** | Themes: **Elevation** |
| **Subject**: Changing the ElevationGridCoverage encoding example |
| **Description**: The GMLCOV encoding example provided in Section 9.4.1.2 of TG on EL is taken directly from Section 6.7 of OGC 09-146r2 GML Application Schema, and it is addressing Radiance and not Elevation. Therefore it is not very useful in the TG on EL at implementation level. |
| **Corrigendum**: **Proposal for Section 9.4.1.2 – Pages 114-116:**Apply the corrigendum already stated for section 9.4.1.2 in Issue number 44, incorporating the GMLCOV example proposed by 2647 – I.e.:**Replace the existing GMLCOV example in TG EL v3.0 pg.114 – pg116:** *“EXAMPLE The following is a complete RectifiedGridCoverage instance (taken from [OGC 09-146r2]), using the base type RectifiedGridCoverage defined in the OGC GML Application Schema – Coverages available from* [*http://schemas.opengis.net/gmlcov/1.0/*](http://schemas.opengis.net/gmlcov/1.0/)*.”*<?xml version="1.0" encoding="UTF-8" ?> <gmlcov:RectifiedGridCoverage xmlns="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:gmlcov=‖http://www.opengis.net/gmlcov/1.0**”** xmlns:gml=‖http://www.opengis.net/gml/3.2**”** xsi:schemaLocation= ‖http://www.opengis.net/gmlcov/1.0 http://schemas.opengis.net/gmlcov/1.0/gmlcovAll.xsd" gml:id="C001"> <gml:boundedBy> <gml:Envelope srsName="http://www.opengis.net/def/crs/EPSG/0/4326" axisLabels="Lat Long" uomLabels="deg deg" srsDimension="**2**"> <gml:lowerCorner>1 1</gml:lowerCorner> <gml:upperCorner>3 3</gml:upperCorner></gml:Envelope> </gml:boundedBy> <gml:domainSet> <gml:RectifiedGrid gml:id="RG001\_C001" srsName="http://www.opengis.net/def/crs/EPSG/0/4326" axisLabels="Lat Long" uomLabels="deg deg" dimension="2"> <gml:limits> <gml:GridEnvelope> <gml:low>0 0</gml:low> <gml:high>9999 9999</gml:high> </gml:GridEnvelope> </gml:limits> <gml:axisLabels>Lat Long</gml:axisLabels> <gml:origin> <gml:Point gml:id="P001\_C001" srsName="http://www.opengis.net/def/crs/EPSG/0/4326"> <gml:pos>99. 99.9</gml:pos> </gml:Point> </gml:origin> <gml:offsetVector>1 0</gml:offsetVector> <gml:offsetVector>0 1</gml:offsetVector> </gml:RectifiedGrid> </gml:domainSet> <rangeType> <swe:DataRecord> <swe:field name="white"> <swe:Quantity definition="http://opengis.net/def/property/OGC/0/Radiance"> <gml:description>Panchromatic</gml:description> <gml:name>White</gml:name> <swe:nilValues> <swe:nilValue reason="http://www.opengis.net/def/nil/OGC/0/BelowDetectionRange"> 0 </swe:nilValue> <swe:nilValue reason="http://www.opengis.net/def/nil/OGC/0/AboveDetectionRange"> 255 </swe:nilValue> </swe:nilValues> <swe:uom code="W/cm2"/> <swe:constraint> <swe:AllowedValues> <swe:interval>0 255</swe:interval> <swe:significantFigures>3</swe:significantFigures> </swe:AllowedValues> </swe:constraint> </swe:Quantity> </swe:field> </swe:DataRecord> </rangeType> <gml:coverageFunction> <gml:GridFunction> <gml:sequenceRule axisOrder="+1 +2">Linear</gml:sequenceRule> <gml:startPoint>0 0</gml:startPoint> </gml:GridFunction> </gml:coverageFunction> <gml:rangeSet> <DataBlock> <rangeParameters/> <tupleList> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15</tupleList> </DataBlock> </gml:rangeSet> </gmlcov:RectifiedGridCoverage>**…with the following proposal (provided by 2647):*****“EXAMPLE The following is a complete RectifiedGridCoverage instance showing an ElevationGridCoverage using GML multipart representation.”***<?xml version="1.0" encoding="UTF-8"?><el-cov:ElevationGridCoverage xmlns:swe="http://www.opengis.net/swe/2.0" xmlns:ns1="http://inspire.ec.europa.eu/schemas/cvbase/1.0" xmlns:gmlcov="http://www.opengis.net/gmlcov/1.0" xmlns:gts="http://www.isotc211.org/2005/gts" xmlns:gco="http://www.isotc211.org/2005/gco"xmlns:gsr="http://www.isotc211.org/2005/gsr" xmlns:el-bas="http://inspire.ec.europa.eu/schemas/el-bas/3.0"xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:el-cov="http://inspire.ec.europa.eu/schemas/el-cov/4.0"xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gss="http://www.isotc211.org/2005/gss" xmlns:xlink="http://www.w3.org/1999/xlink"xmlns:base="http://inspire.ec.europa.eu/schemas/base/3.3" xmlns:gml="http://www.opengis.net/gml/3.2" gml:id="idmet15v20as0f0333Am1r100-SW-20140701"xsi:schemaLocation="http://inspire.ec.europa.eu/schemas/el-cov/4.0 http://inspire.ec.europa.eu/schemas/el-cov/4.0/ElevationGridCoverage.xsd"> <gml:boundedBy> <gml:Envelope srsName="EPSG:4258" srsDimension="2"> <gml:lowerCorner>41.831955426 2.478775815</gml:lowerCorner> <gml:upperCorner>41.916895878 2.645765735</gml:upperCorner> </gml:Envelope> </gml:boundedBy> <gml:domainSet> <gml:RectifiedGrid dimension="2" srsName="http://www.opengis.net/def/crs/EPSG/0/25831" gml:id="gridmet15v20as0f0333Am1r100-SW-20140701"> <gml:limits> <gml:GridEnvelope> <gml:low>0 0</gml:low> <gml:high>927 624</gml:high> </gml:GridEnvelope> </gml:limits> <gml:axisLabels>x y</gml:axisLabels> <gml:origin> <gml:Point gml:id="origin\_idmet15v20as0f0333Am1r100-SW-20140701"> <gml:pos>456720 4640610</gml:pos> </gml:Point> </gml:origin> <gml:offsetVector>15 0</gml:offsetVector> <gml:offsetVector>0 -15</gml:offsetVector> <!-- Origin coordinates and offset vectors are expressed in the native CRS --> </gml:RectifiedGrid> </gml:domainSet> <gml:rangeSet> <gml:File> <gml:rangeParameters xlink:href="met15v20as0f0333Amr1r100-SW-20140701.tiff" xlink:role="http://www.opengis.net/spec/WCS\_coverageencoding\_geotiff/1.0/" xlink:arcrole="fileReference"/> <gml:fileReference>met15v20as0f0333Amr1r100-SW-20140701.tiff</gml:fileReference> <gml:fileStructure>inapplicable</gml:fileStructure> <gml:mimeType>image/tiff</gml:mimeType>  </gml:File> </gml:rangeSet> <gml:coverageFunction> <gml:GridFunction> <gml:sequenceRule axisOrder="+1 +2">Linear</gml:sequenceRule> <gml:startPoint>0 0</gml:startPoint> </gml:GridFunction> </gml:coverageFunction> <gmlcov:rangeType> <swe:DataRecord> <swe:field name="Height"> <swe:Quantity definition="http://inspire.ec.europa.eu/enumeration/ElevationPropertyTypeValue/height" referenceFrame="http://www.opengis.net/def/crs/EPSG/0/5730"> <!-- Future URL pointing to the "height" enumeration value within the INSPIRE Registry / It will be operative by November 2015 --> <swe:description>EVRS Height - EVRF2000</swe:description> <swe:nilValues> <swe:NilValues> <swe:nilValue reason="http://www.opengis.net/def/nil/OGC/0/Missing">-9999</swe:nilValue> </swe:NilValues> </swe:nilValues> <swe:uom code="m"/> <swe:constraint> <swe:AllowedValues> <swe:interval>-100 3143</swe:interval> <swe:significantFigures>5</swe:significantFigures> </swe:AllowedValues> </swe:constraint> </swe:Quantity> </swe:field> </swe:DataRecord> </gmlcov:rangeType>  <gmlcov:metadata xlink:href="met15v20as0f0333Am1r100ca5.xml"/> <el-cov:beginLifespanVersion>2014-07-01T00:00:00</el-cov:beginLifespanVersion> <el-cov:domainExtent> <gmd:EX\_Extent> <gmd:geographicElement> <gmd:EX\_GeographicBoundingBox> <!-- Geographic extent expressed in SRS EPSG:4258 (ETRS89-GRS80). Geodetic coordinates should be transformed to WGS84 --> <gmd:westBoundLongitude> <gco:Decimal>2.478775815</gco:Decimal> </gmd:westBoundLongitude> <gmd:eastBoundLongitude> <gco:Decimal>2.645765735</gco:Decimal> </gmd:eastBoundLongitude> <gmd:southBoundLatitude> <gco:Decimal>41.831955426</gco:Decimal> </gmd:southBoundLatitude> <gmd:northBoundLatitude> <gco:Decimal>41.916895878</gco:Decimal> </gmd:northBoundLatitude> </gmd:EX\_GeographicBoundingBox> </gmd:geographicElement> </gmd:EX\_Extent> </el-cov:domainExtent> <el-cov:endLifespanVersion xsi:nil="true"/> <el-cov:inspireId> <base:Identifier> <base:localId>met15v20as0f0333Am1r100-SW-20140701</base:localId> <base:namespace>ES.ICGC.MET</base:namespace> </base:Identifier> </el-cov:inspireId> <el-cov:propertyType>height</el-cov:propertyType> <el-cov:surfaceType>DTM</el-cov:surfaceType></el-cov:ElevationGridCoverage>.” |
| **Discussion link:** [**https://ies-svn.jrc.ec.europa.eu/issues/2647**](https://ies-svn.jrc.ec.europa.eu/issues/2647)<https://themes.jrc.ec.europa.eu/discussion/view/42326/need-more-guidance-for-elevation-encoding-and-correct-example-for-elevationgridcoverage-on-the-basis-of-gmlcov-schema><https://themes.jrc.ec.europa.eu/pages/view/60561/provide-an-elevationgridcoverage-encoding-example-and-guidelines-for-identifying-the-vertical-crs><https://themes.jrc.ec.europa.eu/file/view/59232/example-elevation-grid-coverages-single-coverage-tested-final> |

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| **Issue number:** **73** | Affected documents: **TG** | Themes: **Land Cover** |
| **Subject**: Clarification of the concept and content of the Land Cover Value code list versus the content of the Land Cover documentation [LC] |
| **Description**: The text implies that it is not required to supply a machine-readable code list, which it actually is. It recommends to provide the RGB values as part of the code list. The code list is not the place for the RGB values. Instead the RGB values and the code class definitions should be provided in the documentation, if you're using the externalDescription attribute. If you provide your documentation using the externalDescription attribute it is due to the theme-specific requirements of the IR required to define for each class, at least a code, a name, a definition and a RGB value to be used for portrayal. That is not a recommendation to provide the RGB values, but mandatory. However, if you're provided your documentation using the alternative embeddedDescription attribute, then providing the RGB values are not mandatory. |
| **Corrigendum**: Clarify that the Land Cover Class Values has to be provided as a regular INSPIRE code list and that the Land Cover classification also has to be described by a document. Clarify that the RGB values shall be provided as part of the documentation and not as part of the code list. Presently the TG LC says: On page 19, that *"One particularly important part of the documentation is a code list of the land cover nomenclature. This code list is included in the core model and therefore mandatory in INSPIRE. The code list can have any format found appropriate by the data provider. The primary use of a code list is to check that a code found in a land cover data set is valid, and to use the code list as a lookup table to find the textual legend associated with a code. Multi-lingual code lists are recommended in order to support the reuse of data across Europe. Introducing portrayal rules (eg RGB codes) in the code list will promote visual harmonization." and continues on page 22 by saying "Documentation interpretable by computers, allowing applications to convert data between different classification systems automatically help to improve interoperability. This level of harmonization is outside the scope of INSPIRE. Consequently, the data specification does not require machine-readable code lists. It is still recommended to establish machine-readable documentation. It is also recommended to include portrayal rules and a formal definition of the codes. The formal description can either be done by using the Land Cover Meta Language (LCML) defined by ISO standard (ISO 19144-2) or by using a Feature Catalogue as described in ISO 19109 and 19110 (Geographic information - Rules for application schema & Methodology for feature cataloguing)."* **The proposal is to replace the previous text with the following one*****“One particularly important and mandatory part of the land cover data models within INSPIRE is a code list defining the land cover nomenclature (classification). The primary use of this code list is to check that a code found in a land cover data set is valid, and to use the code list as a look-up table to find the textual description associated with a code. Multi-lingual code lists are recommended in order to support the re-use of data across Europe. It is also mandatory to describe your land cover classification with an external document or with a description embedded in your GML file. This description should preferably be provided in English to support European wide use. When referring to an external document on the Internet, you shall for each land cover class provide at least a code, a name, a definition and a RGB value to be used for portrayal and in case of raster data, also an integer grid code. A description can also be done by using the Land Cover Meta Language (LCML) defined by ISO 19144-2 or by using a Feature Catalogue as described in ISO 19109 and 19110 (Geographic information - Rules for application schema & Methodology for feature cataloguing).”*** |
| **Discussion link:** <https://themes.jrc.ec.europa.eu/discussion/view/27660/is-the-land-cover-class-code-list-to-be-used-or-not> |

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| **Issue number**: **74** | Affected documents: TG, UML  | Themes: Natural Risk Zones |
| **Subject:** The **c**hange of the old name of the code list |
| **Description:** The old and not-existing name of the code list: RiskOrHazardCategoryValue should be changed to: NaturalHazardCategoryValue  |
| **Corrigendum:** Replace (3x) the use of the old name of the code list: RiskOrHazardCategoryValue to NaturalHazardCategoryValue. |

Annex

**INSPIRE TG on Orthoimagery – Annex E “Encoding rules for TIFF and JPEG 2000 file formats”: (Issues 64-68)**

**Table 13. Mapping between boxes in JP2 format and GML elements**

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| --- | --- | --- | --- | --- | --- |
| **Box name** | **Type** | **Description** | **Card.** | **Conditions/Values** | **Mapping GML** |
| JPEG 2000 Signature box  | 'jP\040\040' | The combination of the particular type and contents for this box enable an application to detect a common set of file transmission errors.  | 1 | '<CR><LF><0x87><LF>' | N/A  |
| File Type box  | 'ftyp' |  | 1 |  | N/A  |
|  | BR  |  | Brand. This field specifies the Recommendation | International Standard which completely defines this file.  |  | 'jp2\040'meaning is 15444-1, Annex I | N/A  |
|  | MinV  |  | Minor version. This parameter defines the minor version number of this JP2 specification for which the file complies.  | 1 |  | N/A  |
|  | CL  |  | Compatibility list. This field specifies a code representing this Recommendation | International Standard, another standard, or a profile of another standard, to which the file conforms.  | 1..\* | At least 'jp2\040'+ ‘jpx\040' for GMLJP2 images | N/A  |
| JP2 Header box  | 'jp2h' |  | 1 |  | N/A  |
|  | ihdr | 'ihdr' | Image Header box | 1 |  | N/A  |
|  |  | HEIGHT  |  | Image area height  | 1 | Ysiz – Y0siz | domainSet.limits.high[1]- domainSet.limits.low[1] + 1 |
|  |  | WIDTH  |  | Image area width  | 1 | Xsiz – X0siz | domainSet.limits.high[0]- domainSet.limits.low[0] + 1 |
|  |  | NC  |  | Number of components  | 1 | = Csiz | = rangeType.field.size() if no use of palette-colour data. If use of a colour palette NC=1, rangeType.field.size()=3.  |
|  |  | BPC  |  | Bits per component  | 1 | If the bit depth of all components in the codestream is the same (sign an precision)= Ssizi | For each band i, rangeType.field[i].constraint.interval = “0 2^[Ssizi+1]-1” if no use of palette-colour data. If use of a palette colour, there is no relation.  |
|  |  | C  |  | Compression type  |  | 7 (Othervalues are reserved for ISO use) | N/A  |
|  |  | UnkC  |  | Colourspace Unknown.  | 1 | 0 (colourspace of the image is known and correctly specified in the ColourspaceSpecification boxes within the file)1 (if the colourspace of the image is not known) | N/A  |
|  |  | IPR |  | Intellectual Property  | 1 |  | N/A  |
|  | bpci  | 'bpcc' | Bits per component  | OptionalRequired if component have different bit depth | x000 0000 to x0100101 Component sample bit depth = value + 1.x=0 (unsigned values)x=1 (signed values) | For each band i, rangeType.field[i].constraint.interval = “0 2^[Ssizi+1]-1”  |
|  | colri  | 'colr' | Each Colour Specification box defines one method by which an application can interpret the colourspace of the decompressed image data  | 1 |  | N/A  |
|  |  | METH |  | Specification method | 1 | 1 (Enumerated Colourspace)2 (Restricted ICC profile)other values (Reserved for other ISO use) | N/A  |
|  |  | PREC  |  | Precedence  | 1 | 0 (field reserved for ISO use) |  |
|  |  | APPROX  |  | Colourspace approximation.  | 1 | 0 | N/A  |
|  |  | EnumCS  |  | Enumerated colourspace  | 1 | 16 (sRGB as defined by IEC 61966-2-1)17 (greyscale)18 (sYCC as defined by IEC 61966-2-1 Amd. 1)other values (Reserved for other ISO uses) | N/A  |
|  | pclr | 'pclr' | Palette box. This box specifies a palette that can be used to create channels from components.  | 0..1 |  | N/A  |
|  | cmap | 'cmap' | Component Mapping box. The Component Mapping box defines how image channels are identified from the actual components decoded from the codestream.  | 0..1 |  | N/A  |
|  | cdef | 'cdef' | Channel Definition box  | Optional |  | The description provided shall be consistent with the rangeType description  |
|  |  | N  |  | Number of channel descriptions  | 1 |  | = rangeType.field.size()  |
|  |  | Cni  |  | Channel index  | 1/channel |  | N/A  |
|  |  | Typi  |  | Channel type  | 1/channel | 0 This channel is the colour image data for the associated colour.1 (Opacity)2 (Premultiplied opacity) | N/A  |
|  |  | Asoci  |  | Channel association  | 1/channel | 0 (This channel is associated as the image as a whole)1 to (216– 2) This channel is associated with a particular colour as indicated by this value)216– 1 This channel is not associated with any particular colour. | N/A  |
|  | res | 'resd' |  | Optional |  | N/A  |
|  |  | resc  |  | Capture Resolution box.  | Optional |  | N/A  |
|  |  | resd  |  | Default Display Resolution box.  | Optional |  | N/A  |
| Contiguous Codestream box  | ‘jp2c’ | This box contains the codestream as defined by Annex A of ISO 15444-1.  | 1 | Contains the encoded datain JPEG 2000.  |  |
|  |  |  |  |  |  |  |  |
| Intellectual property box  | ‘jp2i’ | This box contains intellectual property information about the image.  | Optional |  | N/A  |
|  |  |  |  |  |  |  |  |
| XML Box  | ‘xml\040’ | Box for XML formatted information to a JP2 file.  | Optional |  | N/A |
|  |  |  |  |  |  |  |  |
| UUID box  | ‘uuid’ | Box for additional information to a file without risking conflict with other vendors  | Optional |  | The place to provide GeoJP2 georeference. Shall be consistent with georeference given by the origin of the grid “domainSet.origin” and the offset vector “domainSet.offsetVector”.  |
| UUID info box  | ‘uinf’ | Box for providing access to additional information associated with a UUID.  | Optional |  | N/A  |
|  | UUID list box  | ‘ulst’ | This box specifies a list of UUIDs.  | Optional |  | N/A  |
|  | URL box  | ‘url\040’ | This box specifies a URL.  | Optional |  | N/A  |
| ASOC Box | 'asoc' | "outer" association Box for XML formatted information to a JP2 file. | Optional |  | The place to provide GML within JPEG 2000 (see OGC standard 05-047r3 paragraph 8.2). |

**Update of the numbering of the various (sub-) sections of the Annex A for all TGs**

|  |  |  |
| --- | --- | --- |
| Theme | Current text | New text |
| AD | A.7/A.8.1 | A.7/A.7.1 |
| AD | A.8/A.9.[1-6] | A.8/A.8.[2-7] |
| AD | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| AD | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.1" |
| AU | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| AU | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.1" |
| CP | A.4/A.5.1 | A.4/A.4.1 |
| CP | A.5/A.6.[2-3] | A.5/A.5.[1-2] |
| CP | A.7/A.8.1 | A.7/A.7.1 |
| CP | A.8/A.9.[1-6] | A.8/A.8.[2-7] |
| CP | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.1" |
| CP | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| GN | A.8/A.9.[1-6] | A.8/A.8.[2-7] |
| GN | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.1" |
| GN | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| HY | A.4/A.5.1 | A.4/A.4.1 |
| HY | A.5/A.6.[1-4] | A.5/A.5.[1-4] |
| HY | A.7/A.8.1 | A.7/A.7.1 |
| HY | A.8/A.9.[1-8] | A.8/A.8.[2-9] |
| HY | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| HY | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| PS | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| PS | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| TN | A.1/C.1 | A.1/A.1.[1-10] |
| TN | A.4/A.5.1 | A.4/A.4.1 |
| TN | A.5/A.6.[1-4] | A.5/A.5.[1-4] |
| TN | A.7/A.8.1 | A.7/A.7.1 |
| TN | A.8/A.9.[1-8] | A.8/A.8.[2-9] |
| TN | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| TN | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| AF | A.9/A.9.{1,[1-6]} | A.9/A.9.[1-7] |
| AF | A.9.[1-6].{a),c),b)} | A.9.[1-6].{a),b),c)} |
| Template | A.9/A.9.{1,[1-7]} | A.9/A.9.[1-8] |
| Template | A.9.[1-6].{a),c),b)} | A.9.[1-6].{a),b),c)} |
| AM | A.9.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.9.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| AM | A.9.[1-6].{a),c),b)} | A.9.[1-6].{a),b),c)} |
| AC-MF | A.7.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.7.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| AC-MF | A.7.[1-6].{a),c),b)} | A.7.[1-6].{a),b),c)} |
| BR | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| BR | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| BU | A.4/A.5.1 | A.4/A.4.1 |
| BU | A.5/A.6.[1-3] | A.5/A.5.[1-3] |
| BU | A.7/A.8.1 | A.7/A.7.1 |
| BU | A.8/A.9.[1-6] | A.8/A.8.[2-7] |
| BU | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| BU | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| EL | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| EL | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 |
| ER | A.8/A.9.1 | A.8/A.8.17 |
| ER | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| ER | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| EF | A.9/A.9.{1,[1-8]} | A.9/A.9.[1-9] |
| EF | A.9.[1-6].{a),c),b)} | A.9.[1-6].{a),b),c)} |
| GE | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| GE | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| HB | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| HB | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| HH | A.4/A.5.1 | A.4/A.4.1 |
| HH | A.5/A.6.[1-3] | A.5/A.5.[1-3] |
| HH | A.7/A.8.1 | A.7/A.7.1 |
| HH | A.8/A.9.[1-6] | A.8/A.8.[2-7] |
| HH | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| HH | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| LC | A.4/A.5.1 | A.4/A.4.1 |
| LC | A.5/A.6.[1-4] | A.5/A.5.[1-4] |
| LC | A.7/A.8.1 | A.7/A.7.1 |
| LC | A.8/A.9.[1-8] | A.8/A.8.[2-9] |
| LC | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| LC | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| LU | 2.6 XML Extensible Markup Language How the Technical Guidelines map to the Implementing Rules | 2.6 How the Technical Guidelines map to the Implementing Rules |
| LU | A.4/A.5.1 | A.4/A.4.1 |
| LU | A.5/A.6.[1-4] | A.5/A.5.[1-4] |
| LU | A.7/A.8.1 | A.7/A.7.1 |
| LU | A.8/A.9.[1-8] | A.8/A.8.[2-9] |
| LU | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| LU | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| MR | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| MR | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| NZ | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| NZ | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| OF | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| OF | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| OI | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| OI | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| PD | A.4/A.5.1 | A.4/A.4.1 |
| PD | A.5/A.6.[1-4] | A.5/A.5.[1-4] |
| PD | A.7/A.9.[1-6] | A.7/A.7.[2-7] |
| PD | A.7.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.7.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| PD | A.7.[1-6].{a),c),b)} | A.7.[1-6].{a),b),c)} |
| PF | A.9/A.9.{1,[1-7]} | A.9/A.9.[1-8] |
| PF | A.9.[1-6].{a),c),b)} | A.9.[1-6].{a),b),c)} |
| SR | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| SR | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| SO | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| SO | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| SD | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| SD | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| SU | A.4/A.5.1 | A.4/A.4.1 |
| SU | A.5/A.6.[1-4] | A.5/A.5.[1-4] |
| SU | A.7/A.8.1 | A.7/A.7.1 |
| SU | A.8/A.9.[1-6] | A.8/A.8.[2-7] |
| SU | A.8.[1-6].{a),c),b)} | A.8.[1-6].{a),b),c)} |
| SU | A.8.2 NOTE 1 Passing this test implies the fulfilment of test A6.2 | A.8.2 "NOTE 1 Passing this test implies the fulfilment of test A.5.2" |
| US | A.9/A.9.{1,[1-6]} | A.9/A.9.[1-7] |
| US | A.9.[1-6].{a),c),b)} | A.9.[1-6].{a),b),c)} |

1. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02010R1089-20131230&qid=1400675738563> [↑](#footnote-ref-2)
2. <http://docinspire.eu/eutext/errorsintheregulations.html> [↑](#footnote-ref-3)
3. <https://ies-svn.jrc.ec.europa.eu/issues/2739> [↑](#footnote-ref-4)
4. <https://ies-svn.jrc.ec.europa.eu/projects/mig-inspire/issues?query_id=30> [↑](#footnote-ref-5)
5. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02010R1089-20131230&qid=1400675738563> [↑](#footnote-ref-6)
6. <http://inspire.ec.europa.eu/index.cfm/pageid/2/list/datamodels>; <http://inspire.ec.europa.eu/index.cfm/pageid/2> [↑](#footnote-ref-7)