

The Inspire Geoportal Validator 2

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Workshop on validation, Marne-la-Vallee, 2-3 June 2016



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 **INSPIRE GEOPORTAL**
Enhancing access to European spatial data

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INSPIRE Geoportal Metadata Validator [what's new](#) [change feed](#) [documentation](#) [about](#)

This validator replaces the former [schematron validator](#) and implements the same validation criteria applied during the INSPIRE Geoportal discovery process.

It is possible to use this validator as a Web Service (Instructions available [here](#)).

Paste your resource in the text field below
(ISO 19139 Metadata or OGC Service Endpoint or CSW GetRecords or GetRecordById GET Request or URL to metadata)

You can also upload a file to test
Select the file to be tested: No file selected.

For security reasons, HTTP resources using ports other than 80, 443 and 8080 cannot be contacted.

DISCLAIMER: This service is used in the context of the INSPIRE Geoportal to perform validation of the metadata of resources discovered through the Member State Discovery Services. It is provided as is and it is not to be considered a full INSPIRE compliance test. While we have tried to ensure compliance with the INSPIRE Regulations and the relevant Technical Guidance documents we do recognise that there may still be issues that will need to be addressed. We would appreciate if you could [report to us](#) any issue you find with this validator so that we can improve it.

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Features

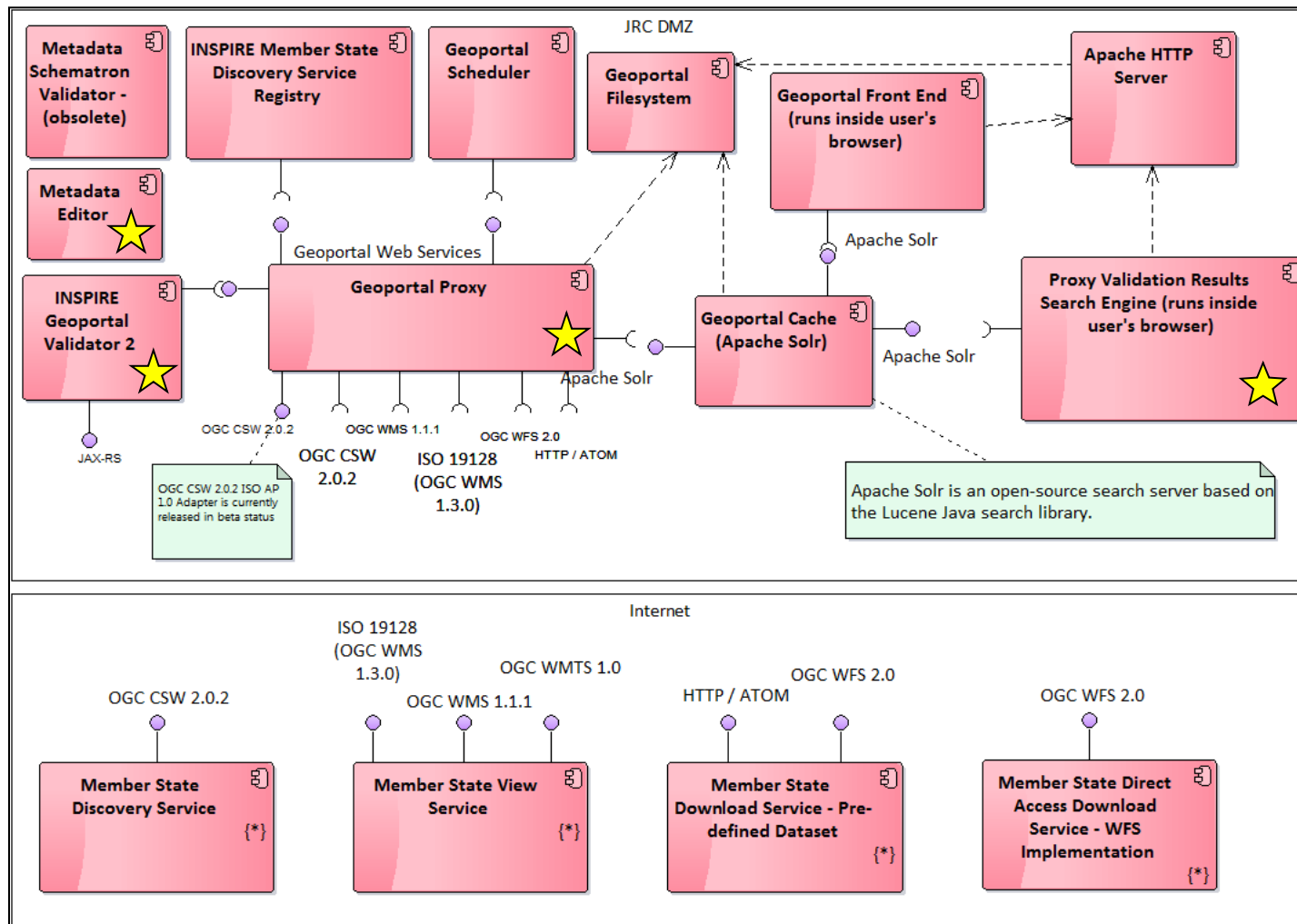
- Validates metadata (and services) with respect to the INSPIRE Technical Guidance documents
- Accepts ISO 19139 documents, endpoints of INSPIRE Network Services, zipped files, etc.
- Available as a web page and as a RESTful web service
- Replaces the old schematron validator (now retired)

Supported service specifications

- OGC CSW 2.0.2 – ISO AP 1.0.0 (*)
- OGC WMS 1.3.0 - ISO 19128 (*), OGC WMS 1.1.1 (*)
- OGC WMTS 1.0.0 (*)
- OGC WFS 2.0 - ISO 19142 (*)
- Atom based INSPIRE Download Services (*)

(*) With INSPIRE Extensions

INSPIRE Geoportal Operational Pilot



Implementation

- Implemented in Java and based mostly on XSLT 2.0 for the initial transformation from the resource original encoding into the INSPIRE Geoportal internal representation
- XSLT stylesheets are designed graphically using Altova MapForce
- It runs with both the open source and the commercial version the Saxon XSLT and XQuery Processor libraries

Governance

- Developed by the JRC as part of the Geoportal back end
- Continuous development as continuous integration, continuous delivery, continuous testing but not continuous deployment
 - Scheduled releases at well-defined intervals
 - Intermediate bug fixes only if changes are more permissive
- Periodically published as open source on Joinup
- Feedback on implementation through Geoportal helpdesk

INSPIRE Geoportal Validation Report

Three sections:

- **Source document validation issues**
Errors coming from the validation of the source document against the relevant XML schemas
- **INSPIRE validation issues**
Errors coming from the validation against the requirements of the INSPIRE Technical Guidance documents
- **INSPIRE validation warnings**
Errors coming from the validation against the recommendations of the Technical Guidance documents

INSPIRE Geoportal Validation Report

- Messages contain links to the relevant documentation, made available as HTML pages:

Inspire Validation Issues

- **The source document is not valid. Please see the 'Schema Validation Issues' section above**

Relevant documentation:

- See [TG Requirement 3](#) in *D2.8.I.5 Data Specification on Addresses – Technical Guidelines (Version 3.1)*
- See [EN ISO 19115](#) in *COMMISSION REGULATION (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services*

Expert documentation

- *UML Requirement Diagram*

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

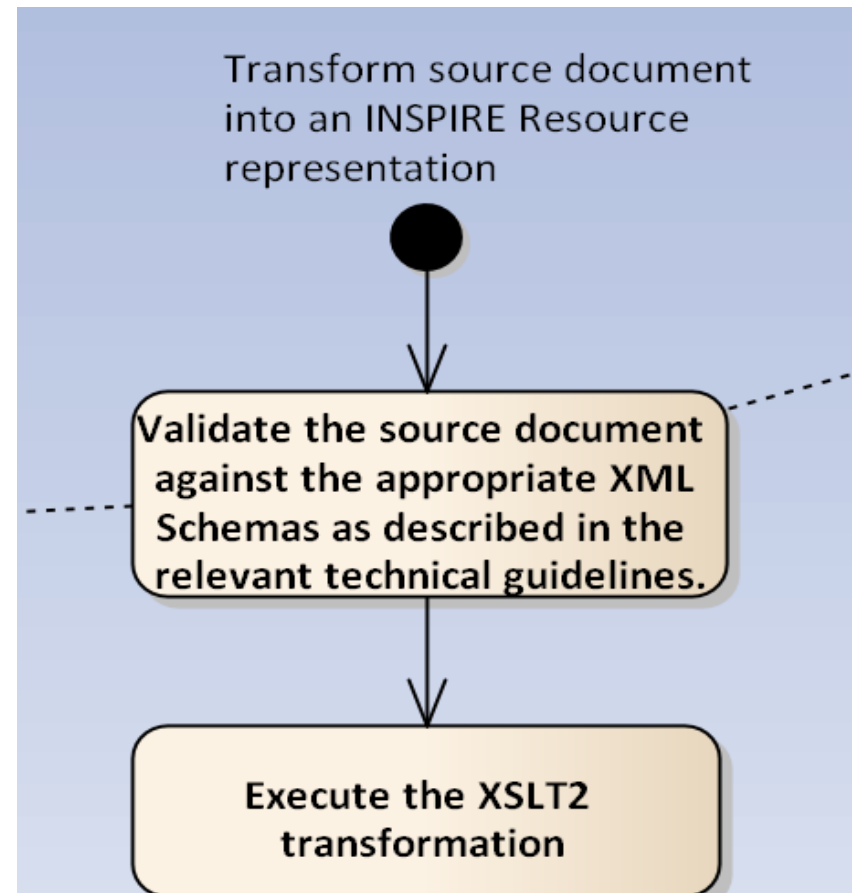
The following TG requirements need to be met in order to be conformant with the proposed encoding.

TG Requirement 3 Metadata instance (XML) documents shall validate without error against the used ISO 19139 XML schema.

INSPIRE Geoportal Validation Report

- Source document validation issues

If a document does not respect the structure foreseen by its schema, subsequent validation steps might give unreliable results since the extraction information is based on XPath



INSPIRE Geoportal Validation Report

- Example of schema validation errors:

Schema Validation Issues

Please note that issues with schema validation issues could likely be at the origin of the issues reported in the 'Inspire Validation Issues' section below.

Relevant documentation:

- See *INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119 (Version 1.2)*

Validation Schema(s) used for validation: 19139 XSchemas TS RC (2006 May 4)

- The content of element <CI_Citation> is incomplete. Expected one of: {<http://www.isotc211.org/2005/gmd>}alternateTitle, {<http://www.isotc211.org/2005/gmd>}date at column 49, line 435

Metadata records need to validate against one of the schemas recommended in the MD TG

INSPIRE Geoportal Validation Report

- Example of INSPIRE validation errors:

Inspire Validation Issues

- **Expected citation:** Title: 'Nariadenie Komisie (EÚ) č. 1089/2010 z 23. novembra 2010 , ktorým sa vykonáva smernica Európskeho parlamentu a Rady 2007/2/ES, pokiaľ ide o interoperabilitu súborov a služieb priestorových údajov', Dates: 'Date of Publication: 2010-12-08' **Found citation:** Title: 'žiadna', Dates: 'Date of Publication: 2014-04-24'

Relevant documentation:

- See [TG Requirement 28](#) in *INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119 (Version 1.3)*
- See [Metadata for spatial data sets and spatial data set series](#) in *Commission Regulation (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata*

Expert documentation

- *UML Requirement Diagram*

- **The required metadata element "Coordinate Reference System" is present, but does not contain any of the coordinate reference system identifiers (EPSG URIs) required by the Technical Guidelines**
- This requirement has to be met starting from 23 November 2012 for data sets that were created or extensively restructured after 15 May 2007 and starting from 23 November 2017 for all other data sets.

Relevant documentation:

- See [TG Requirement 2](#) in *D2.8.I.5 Data Specification on Addresses – Technical Guidelines (Version 3.1)*
- See [Article 13](#) in *COMMISSION REGULATION (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services*

Expert documentation

- *UML Requirement Diagram*

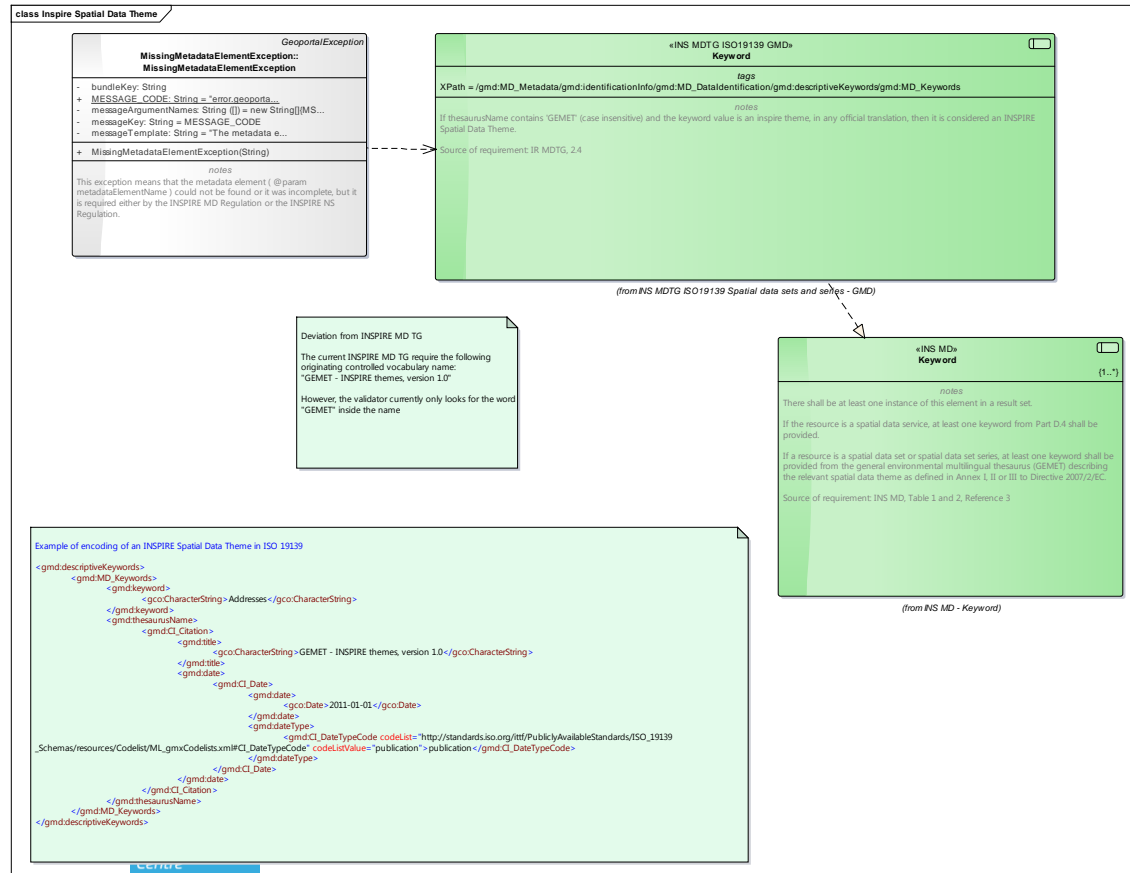
A copy of the original source file is available [here](#) (Media Type application/vnd.iso.19139+xml)

```
+<gmd:MD_Metadata xmlns:gmd="http://www.isotc211.org/2005/gmd"> </gmd:MD_Metadata>
```

INSPIRE Geoportal Validation Report

- Expert documentation links to UML documentation specific to each issue

Each reported issue is mapped to the TG requirement which is mapped to the relevant INSPIRE Regulation requirement it derives from.



Validation Processes

act Resource validation Process

Main validation process



**Spatial Data Set
validation process
validation process**



**Spatial Data Set
Series validation
process**



**Spatial Data Services
validation process**



**Validate the Network
Service Metadata
Response**



(from Main validation process)

**Validate Discovery
Service Metadata
Response**



(from Main validation process)

**Validate View Service
Metadata Response**



(from Main validation process)

**Validate Download
Service Metadata
Response**



(from Main validation process)

Metadata Compliance Meter

- Validation reports feature a metadata compliance meter.
- This indicator shows how complete a metadata document, or group of documents, is with respect to the INSPIRE Metadata and Network Service Technical Guidance documents
- The indicators also include colour clues:

Average degree of conformity of INSPIRE Metadata: 60.67%



Metadata Compliance Meter

- For example, if in a metadata document, one out of 10 required metadata elements is missing or is not compliant with the requirements, the indicator will show 90% or less, depending on the importance of the missing element



INSPIRE Full Operating Capability Testing

Average degree of conformity of INSPIRE Metadata: 75.00%



Resource Verification Report

[Go Back To Group Report](#)

[Click here to see the INSPIRE metadata of the resource \(media type: application/vnd.europa.ec.inspire.geoportal.resource+xml\)](#)

Inspire Validation Issues

- The metadata element "Conformity" is missing, empty or incomplete but it is required. Hint: "Expected citation: Title: 'Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services', Dates: 'DateOfPublication 2010-12-08' Found citation: Title: 'D2.8.II.1 INSPIRE Data Specification on Elevation - Draft Guidelines', Dates: ' '" [\(see documentation\)](#)

Relevant documentation:

- *Commission Regulation (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata*
- The metadata element "Coordinate Reference System" is missing, empty or incomplete but it is required. Hint: "At least one Coordinate Reference System in the required list could not be found (see documentation)" [\(see documentation\)](#)



What's this?

Metadata Compliance Meter

- The information is available for each batch



INSPIRE Full Operating Capability Testing

Average degree of conformity of INSPIRE Metadata: 41.85%



What's this?

This indicator shows how complete a metadata document or group of documents is with respect to the INSPIRE metadata Implementing Rules and the Technical Guidance documents;

for example, if in a metadata document, one out of 10 required metadata elements is missing or is not compliant with the requirements, the indicator will show 90%;

for a group of documents, the indicator is an average across all of the metadata documents contained in the group.



(FR) - Member State Discovery Service- Discover Metadata Group Report

Current Group: From Resource 81 To Resource 100 (of 5997 available) - [Previous Group](#) - [Go Back To Summary Report](#)

Result of the interaction with the Discovery Service

Resources available for discovery: 5997, Expected Resource Count: 20, Actual Resource Count : 20

PERFORMANCE

Initial response (seconds) 0.674
Transmission time (seconds) 1.295
Bytes transferred 406,484
Average MBytes/sec 0.299

Bookmarks inside this document

Summary of ISO Metadata Resources	Coverage of INSPIRE Spatial Data Themes
Summary of Spatial Data Services	Summary of View Services
Summary of Discovery Services	Summary of Download Services

Resources In This Group Needing Review

Spatial data set

Plan de Prévention du Risque Inondation de la vallée de la Tardoire (Ministère de l'Ecologie, du Développement et de l'Aménagement Durables)	Atlas des zones inondables de l'Aisne (Ministère de l'Ecologie, du Développement et de l'Aménagement Durables)	Atlas des zones inondables de la Vienne et cartographie de l'aléa inondation de Saint-Priest-Taurion à Saillat-sur-Vienne (Ministère de l'Ecologie, du Développement et de l'Aménagement Durables)	Plan de Prévention du Risque Inondation de Dax (Ministère de l'Ecologie, du Développement et de l'Aménagement Durables)
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Metadata Compliance Meter

- ... and also per discovery service



INSPIRE Full Operating Capability Testing

Average degree of conformity of INSPIRE Metadata: 74.10%



What's this?



(UK) - Member State Discovery Service Summary Report

[See the INSPIRE Metadata of the Discovery Service](#)

Bookmarks inside this document

Summary of ISO Metadata Resources	Coverage of INSPIRE Spatial Data Themes
Summary of Spatial Data Services	Summary of View Services
Summary of Discovery Services	Summary of Download Services

[INSPIRE Geoportal Resource Browser \(Opens in a new browser window\)](#)

Result of the interaction with the Discovery Service

Resources available for discovery: 5224, Expected Resource Count: 100, Actual Resource Count : 100

PERFORMANCE

Initial response (seconds) 2.584
 Transmission time (seconds) 2.374
 Bytes transferred 2,523,512
 Average MBytes/sec 1.014

Browse Through The Groups Containing Resources Needing Review (The Resources Have Been Retrieved In Groups Of 20)



INSPIRE Geoportal Resource Browser



INSPIRE Full Operating Capability Testing ([Change log for this tool](#)) ([Change log for validation reports and validation logic](#))



Search Resources Needing Review



Show: ☒ All resources ☐ with errors ☐ with warnings but no errors ☐ with no issue at all

Current selection criteria (after applying the filter above)

No additional search criteria selected

Show Map Viewer

Select Member State

--select--

Search

(press ESC to close suggestions)

Geoportal Resource Types

[dataset\(260946\)](#) [downloadservice\(319\)](#)
[layer\(22769\)](#) [series\(705\)](#) [service\(4973\)](#)

< 1 2 3 ... 36213 36214 > displaying 1 to 8 of 289712



(service) INSPIRE-PT Catalog Service (Instituto Geográfico Português)

[Inspire Metadata](#) [Validation report](#)

The portuguese metadata catalog for INSPIRE. Based in the Deegree CSW version 3.1.1



(dataset) Folha 53-A (Faro) da Carta Geológica de Portugal à escala 1/50 000 (Laboratório de Geologia e Minas/ Laboratório Nacional de Energia e Geologia)

- The Resource Browser is a diagnostic tool for Member States and providers, for quickly identifying resources with issues

INSPIRE Geoportal Resource Browser

- Immediate identification of resources portrayed in an accessible View Service layer



Search Resources Needing Review



Show: ☒ All resources ☐ with errors ☐ with warnings but no errors ☐ with no issue at all

Current selection criteria (after applying the filter above)

(x) [geoportalResourceType:downloadservicedataset](#)

Show Map Viewer

Select Member State

--select--

Search

(press ESC to close suggestions)

Geoportal Resource Types

[downloadservicedataset\(319\)](#)

< 1 2 3 ... 39 40 > displaying 1 to 8 of 319

 (downloadservicedataset) Digitale Orthophotos des LFRZ
Flugjahr 2010 (*no Responsible Organisation Name
specified*)
[Inspire Metadata](#) [Validation report](#)
(no abstract available)

 (downloadservicedataset) Digitale Orthophotos des LFRZ
Flugjahr 2010 (*no Responsible Organisation Name
specified*)

INSPIRE Geoportal Resource Browser

- Easy selection of all resources affected by the same issue type:

Error counts

`error.geoportal.discovery.metadata.xml.validation(9990)` `error.geoportal.discovery.missing.inspireextcaps(1042)` `error.geoportal.metadata.service.coupledresource.invalid(733)`
`error.geoportal.metadata.vs.metadataurl.invalid(1799)` `error.geoportal.proxy.download.dataset.validation.failed(224)` `error.geoportal.proxy.error.generic(1260)`
`error.geoportal.proxy.error.sourcevalidation(41844)` `error.geoportal.proxy.iso2inspire.failed(449)`
`error.geoportal.proxy.metadata.element.conditionsforaccessanduse.missing(6911)` `error.geoportal.proxy.metadata.element.conformity.missing(1654)`
`error.geoportal.proxy.metadata.element.coupledresource.missing(936)` `error.geoportal.proxy.metadata.element.creationdate.multiple(3718)`
`error.geoportal.proxy.metadata.element.downloaddatasets.missing(202)` `error.geoportal.proxy.metadata.element.geographicboundingbox.missing(12613)`

INSPIRE Geoportal Resource Browser

- Various criteria available for resource selection:

Select Member State

--select--

--select--

pl (160093)

es (97536)

de (5575)

fr (5143)

cz (4072)

dk (3843)

nl (2866)

lv (2820)

uk (2236)

fi (1188)

at (1023)

se (1006)

be (835)

pt (527)

sk (308)

ro (206)

si (92)

ie (83)

lu (66)

Show: ☒ All resources ☐ with errors ☐ with warnings but no errors ☐ with no issue at all

Geoportal Resource Types

dataset(260946) downloadservice(319)

layer(22769) series(705) service(4973)

Network Service Implementation Specification

csw 2.0.2 ap iso 1.0.0(74) ietf rfc 4287/atom(155)

iso 19128:2005(1093)

iso 19142/wfs 2.0(35) ogc wms 1.1.1(676)

ogc wmts 1.0.0(7)

Spatial Data Service Types

discovery(81) download(731) invoke(1) other(16)

transformation(7) **view(2201)**

INSPIRE Geoportal Resource Browser

- Links to original ISO metadata is available for datasets, series and spatial data services:

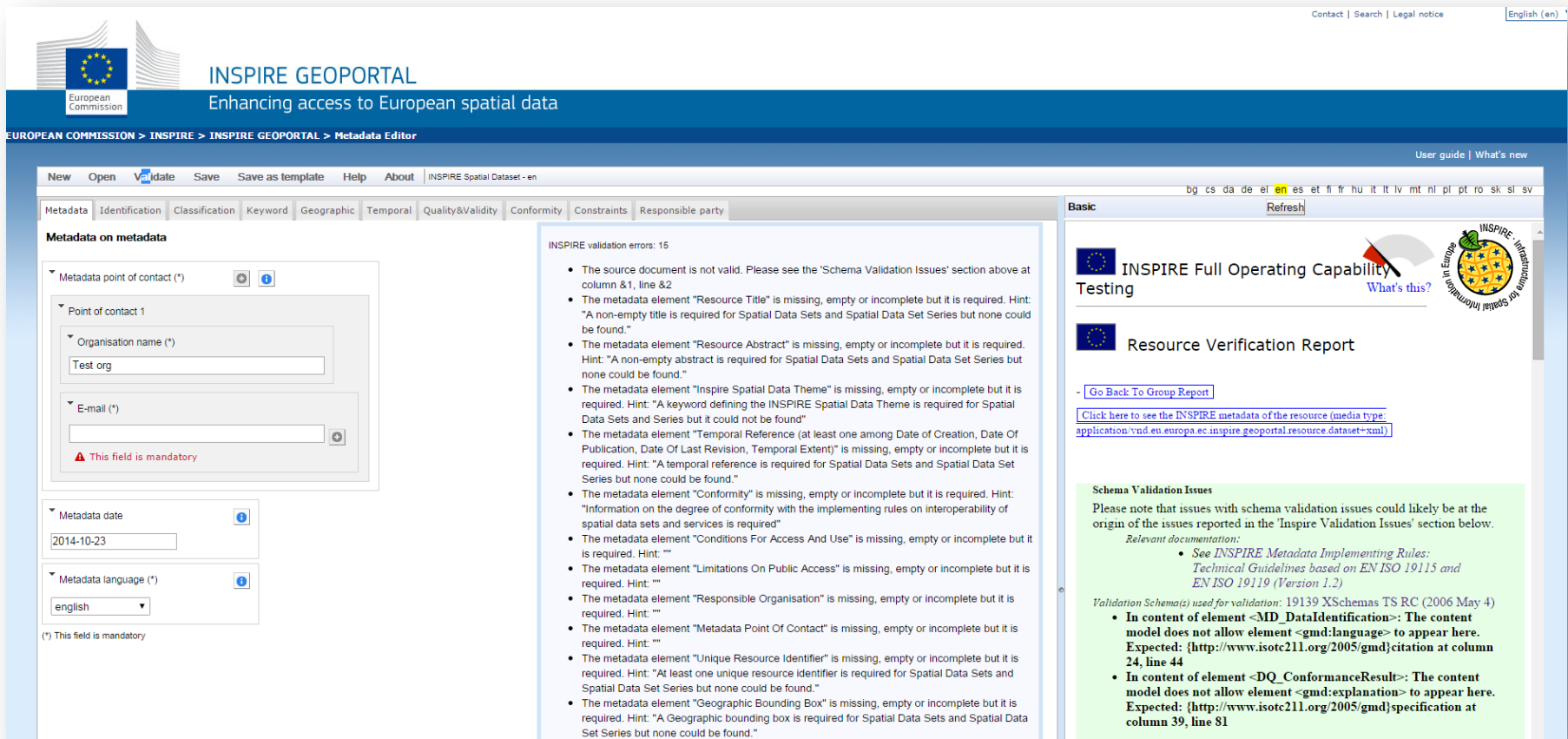


(dataset) Folha 53-A (Faro) da Carta Geológica de Portugal à escala 1/50 000 (Laboratório de Geologia e Minas/ Laboratório Nacional de Energia e Geologia)

[Inspire Metadata](#) [Original metadata](#) [Validation report](#)

Reimpressão, com pequenas alterações, realizada com a coordenação de G. Manuppella (SGP). Levantamentos Geológicos de G. Manuppella, A. Bartolomeu, A. Rodrigues e J.G. Leal (SGP) e estudos estratigráficos de M. Ramalho (SGP), R. Rocha, B. Marques, M. Telles Antunes, João Pais (UNL) e J. Rey (U. Toul...[more](#)

INSPIRE Geoportal Metadata Editor



The screenshot displays the INSPIRE Geoportal Metadata Editor interface. At the top, the European Commission logo and the text "INSPIRE GEOPORTAL Enhancing access to European spatial data" are visible. Below this, a navigation bar includes links for "New", "Open", "Validate", "Save", "Save as template", "Help", and "About". The main content area is divided into several sections:

- Metadata on metadata:** This section contains fields for "Metadata point of contact (*)", "Point of contact 1", "Organisation name (*)", "E-mail (*)", "Metadata date", and "Metadata language (*)". A red warning icon indicates that the "E-mail" field is mandatory.
- INSPIRE validation errors: 15:** This section lists 15 validation errors, including missing or incomplete fields such as "Resource Title", "Resource Abstract", "Inspire Spatial Data Theme", "Temporal Reference", "Conditions For Access And Use", "Limitations On Public Access", "Responsible Organisation", "Metadata Point Of Contact", "Unique Resource Identifier", and "Geographic Bounding Box".
- Basic:** This section includes a "Refres" button and a "What's this?" link. It also features a "Resource Verification Report" and a "Go Back To Group Report" link.
- Schema Validation Issues:** This section provides information about schema validation issues, including a link to the "INSPIRE Metadata Implementing Rules" and a list of validation errors.

The interface is designed to help users manage and validate metadata for spatial data sets, ensuring compliance with INSPIRE standards.

INSPIRE Geoportal Metadata Editor

- Uses the Validator 2 for validation
- Not for production use due to critical limitations
- Not yet up-to-date with the latest Validator 2 rules