Other metadata standards: 19115-2, 19119, 19139 and 19115-1
ISO 19115-2 Geographic Information – Metadata – Part 2
Extensions for Imagery and Gridded Data
ISO 19115-2 Geographic Information – Metadata – Part 2
Extensions for Imagery and Gridded Data

• Extension for image data and grid
• It includes 118 new metadata: optional, mandatory and conditional.
• It includes a "data dictionary" containing the definitions of entities and elements.

B.2.2.2.6 Process Step Report

<table>
<thead>
<tr>
<th>Name</th>
<th>Short name</th>
<th>Definition</th>
<th>Obligation</th>
<th>Maximum occurrence</th>
<th>Data type</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE_ProcessStepReport</td>
<td>ProcStepRep</td>
<td>report of what occurred during the process step</td>
<td>Use obligation from referencing object</td>
<td>Use maximum occurrence from referencing object</td>
<td>Aggregated Class (LE_ProcessStep)</td>
<td>Lines 27 to 29</td>
</tr>
<tr>
<td>name</td>
<td>procRepName</td>
<td>name of the processing report</td>
<td>M</td>
<td>1</td>
<td>CharacterString</td>
<td>Free text</td>
</tr>
<tr>
<td>description</td>
<td>procRepDesc</td>
<td>textual description of what occurred during the process step</td>
<td>O</td>
<td>1</td>
<td>CharacterString</td>
<td>Free text</td>
</tr>
<tr>
<td>fileType</td>
<td>procRepFilTyp</td>
<td>type of file that contains the processing report</td>
<td>O</td>
<td>1</td>
<td>CharacterString</td>
<td>Free text</td>
</tr>
</tbody>
</table>
ISO 19115-2 Geographic Information – Metadata – Part 2
Extensions for Imagery and Gridded Data

The metadata to be added includes: mission description information, platform identification information, and documentation reference citations.
ISO 19119 - Geographic information -- Services

http://www.geoportal.cl/geoportal/shar edMap?id=b28e11386e4fdc9462c7958e 9940be76

https://coast.noaa.gov/hurricanes/

http://www.iderc.cu/web/iderc/visor
ISO 19119 - Geographic information -- Services

- Provide guidelines on the architecture of the service interfaces that are used in geographic information
- It includes metadata elements to describe services.

**SV_ServiceIdentification:** Provides an overview of the service so that the user can invoke the service

**SV_OperationMetadata:** Description of Operations

**MD_DataIdentification:** The data that is available from a service.

<table>
<thead>
<tr>
<th>Name/Role name</th>
<th>Definition</th>
<th>Obligation/Condition</th>
<th>Maximum occurrence</th>
<th>Data type</th>
<th>Domain</th>
</tr>
</thead>
</table>
| serviceType    | a service type name
EXAMPLE: 'discovery', 'view', 'download', 'transformation', or 'invoke' | M          | 1                 | Class               | GenericName (B.2.7)     |
| serviceTypeVersion | the version of the service, supports searching based on the version of serviceType | O          | N                 | CharacterString       | No specified domain     |
ISO 19139 Geographic Information - Metadata -- XML schema implementation

• Defines the XML encoding for ISO 19115

Common language that provides interoperability to systems that handle metadata.

It has a data dictionary, with similar characteristics to those defined in ISO 19115
Geographic information -- Metadata -- Part 1: Fundamentals

ISO 19115-1:2014 defines the schema required for describing geographic information and services (webmapping) by means of metadata.

ISO 19115-1:2014 defines:
The minimum set of metadata required to serve most metadata applications (176 pages)

Though ISO 19115-1:2014 is applicable to digital data and services, its principles can be extended to many other types of resources such as maps, charts, and textual documents as well as non-geographic data.

Concept of “core” translated to “Discovery metadata for geospatial resource”
Geographic information -- Metadata -- Part 1: Fundamentals

Metadata community profile

Technological alternatives to develop Metadata
## Metadata software tools

<table>
<thead>
<tr>
<th>Software</th>
<th>Link</th>
<th>Open Source</th>
<th>Web</th>
<th>Desktop</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSphere</td>
<td><a href="https://plugins.qgis.org/plugins/qsphere/">https://plugins.qgis.org/plugins/qsphere/</a></td>
<td><img src="https://via.placeholder.com/15" alt="Checkmark" /></td>
<td><img src="https://via.placeholder.com/15" alt="X" /></td>
<td><img src="https://via.placeholder.com/15" alt="Checkmark" /></td>
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## ISO Geospatial Metadata Editors

<table>
<thead>
<tr>
<th>Feature</th>
<th>GeoNetwork</th>
<th>CatMDEdit V.5.0</th>
<th>Esri Geoportal Server</th>
<th>QSphere</th>
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</thead>
<tbody>
<tr>
<td>Geospatial Metadata Content Standards Supported</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ISO 19115:2003 - Metadata</td>
<td>full</td>
<td>full</td>
<td>full</td>
<td>partial</td>
</tr>
<tr>
<td>ISO 19115-2 - Gridded Imagery Extension</td>
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<td>full</td>
<td>none</td>
</tr>
<tr>
<td>ISO 19110 - Feature Catalog</td>
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<td>full</td>
<td>full</td>
<td>none</td>
</tr>
<tr>
<td>ISO 19119 - Services</td>
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<td>full</td>
<td>full</td>
<td>none</td>
</tr>
<tr>
<td>ISO 19115-1 - Metadata Fundamentals</td>
<td>full</td>
<td>none</td>
<td>full</td>
<td>partial</td>
</tr>
<tr>
<td>Other Related Metadata Standards</td>
<td>View</td>
<td>View</td>
<td>View</td>
<td>View</td>
</tr>
</tbody>
</table>

[https://www.fgdc.gov/iso-metada-editors-registry/editors](https://www.fgdc.gov/iso-metada-editors-registry/editors)
Cases in the world and the Latin American Metadata Profile - LAMP
Geoportal de Chile

National Catalogue

Map Viewer

www.geoportal.cl
Geoportal Server (ESRI) - Catálogo

www.geoportal.cl/Visor
ArcGIS Server 10.1 - Visor
National Geospatial Information Catalog

Entry point to the Geospatial Information Government of Chile

- Metadata records 19,092
- In accordance with ISO standards and OGC
- 7,444 metadata records are connected by standard CSW
- Chile has a National Metadata Profile based on ISO 19115

Institutions publishing information:
- Ministries
- Local governments
- Cartographic institutes
- Corporations
- Municipalities

More than 150 public agencies ...
INSPIRE - Infrastructure for Spatial Information in Europe
INSPIRE - Infrastructure for Spatial Information in Europe

About INSPIRE:

The **INSPIRE directive aims to create a European Union (EU) spatial data infrastructure.** This will enable the **sharing of environmental spatial information** among public sector organisations and better facilitate public access to spatial information across Europe.

INSPIRE lays down general rules to establish an infrastructure for spatial information in Europe.

INSPIRE - Infrastructure for Spatial Information in Europe

Each country must publish its metadata according

INSPIRE profile of ISO 19115 and ISO 19119

This Regulation sets out the requirements for the creation and maintenance of metadata for spatial data
Latin America Metadata Profile - LAMP

Pan American Institute of Geography and History (PAIGH) is leading the work for a Latin America Metadata Profile, LAMP.

- Provides a common structure for documenting geographic information in Latin America
- The latest version was released in 2011.
- Used as a reference ISO 19115 and ISO 19106
- 126 page, It is extensive and it is not easy to implement
- PAIGH plans to have a new version this year 2016
- LAMP uses a Graphical Representation:

  Mandatory  Conditional  Optional
Latin America Metadata Profile - LAMP

http://metadatos.ign.es/MD-theme/documentos/Perfil%20Latinoamericano%20de%20Metadatos%20-%20LAMP.pdf