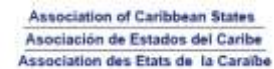
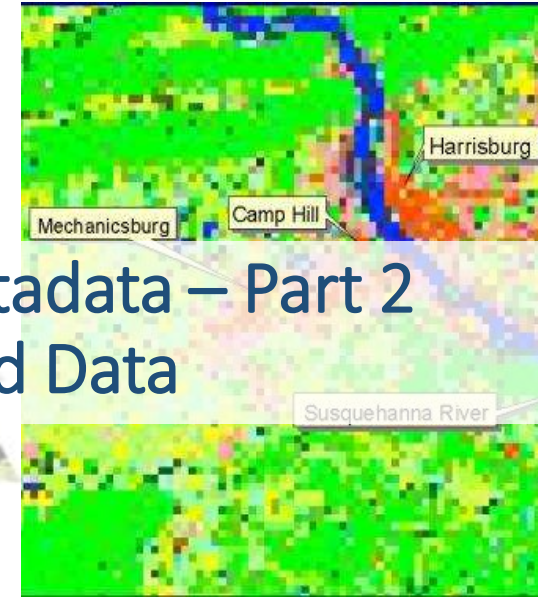


Other metadata standards: 19115-2, 19119, 19139 and 19115-1





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

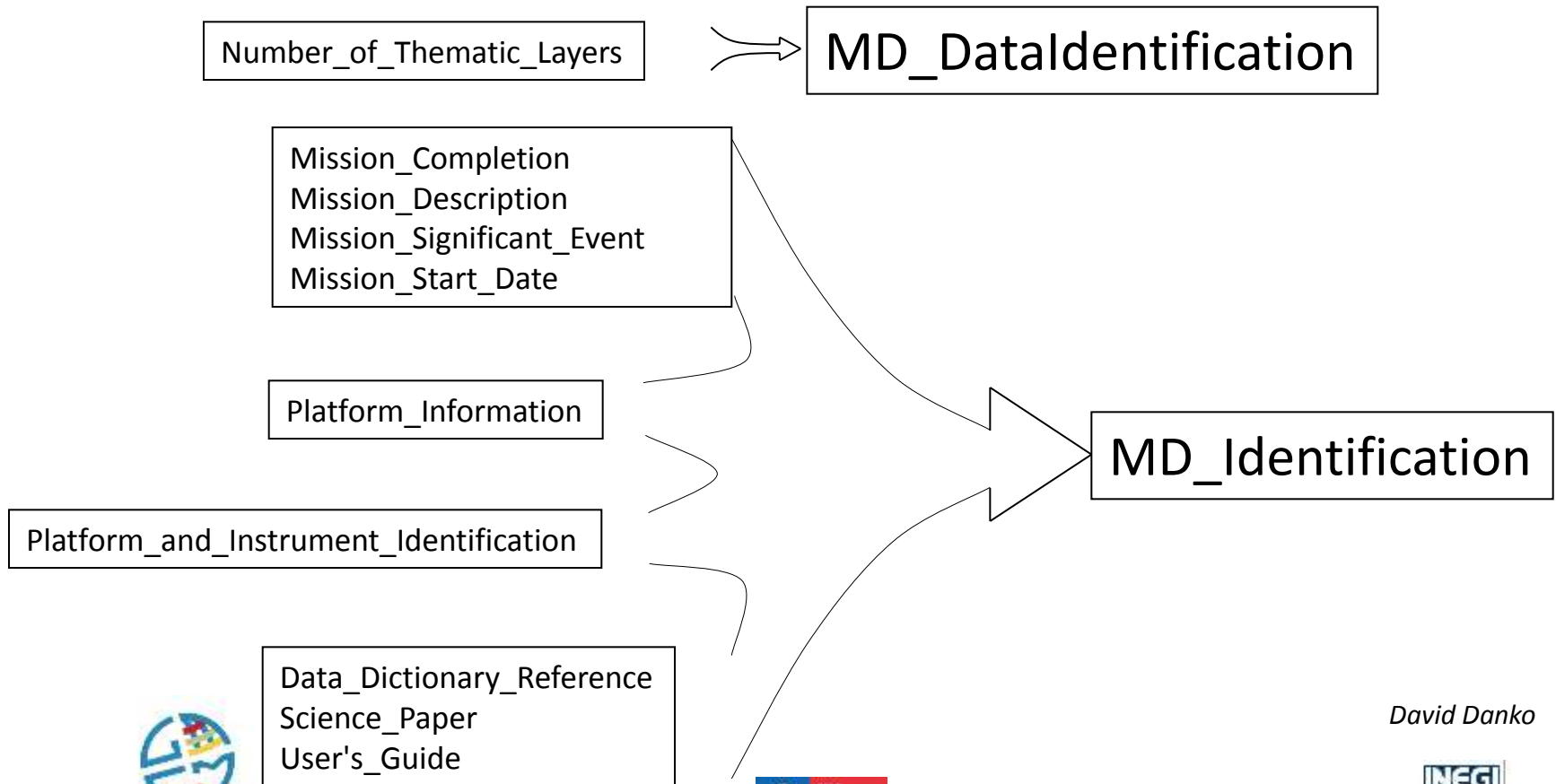
- Extension for image data and grid
- It includes 118 new metadata: optional, mandatory and conditional.
- It includes a "data dictionary" containing the definitions of entities and elements.

B.2.2.2.6 Process Step Report

	Name	Short name	Definition	Obligation	Maximum occurrence	Data type	Domain
26.	LE_ProcessStep Report	ProcStepRep	report of what occurred during the process step	Use obligation from referencing object	Use maximum occurrence from referencing object	Aggregated Class (LE_ProcessStep)	Lines 27 to 29
27.	name	procRepName	name of the processing report	M	1	CharacterString	Free text
28.	description	procRepDesc	textual description of what occurred during the process step	O	1	CharacterString	Free text
29.	fileType	procRepFilTyp	type of file that contains the processing report	O	1	CharacterString	Free text

ISO 19115-2 Geographic Information – Metadata – Part 2 Extensions for Imagery and Gridded Data

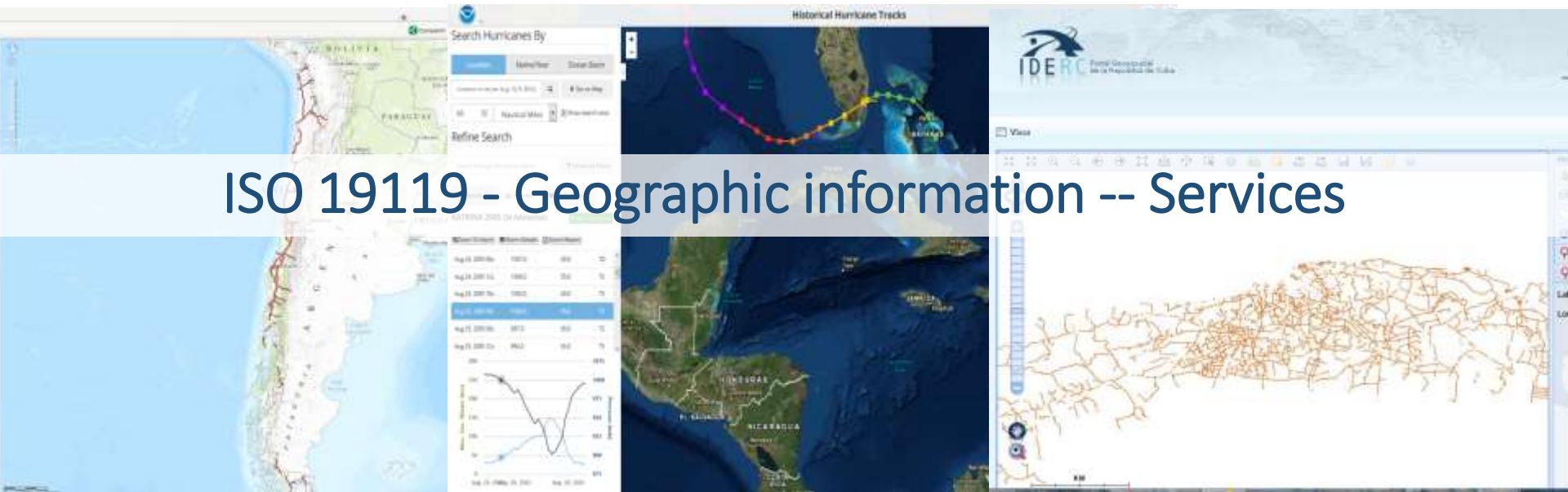
The metadata to be added includes: mission description information, platform identification information, and documentation reference citations



David Danko



ISO 19119 - Geographic information -- Services



<http://www.geoportal.cl/geoportal/shar-edMap?id=b28e11386e4fdc9462c7958e9940be76>

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

<http://www.iderc.cu/web/iderc/visor>



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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.

Name/ Role name	Definition	Obligation/ Condition	Maximum occurrence	Data type	Domain
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	0	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

NGDC/WDS Global Historical Tsunami Database, 2100 BC to present

General Information

File Identifier: gov.noaa.ngdc.mgg.hazards:G02151

Metadata Language: eng: USA

Metadata Date Stamp: 2015-10-01

Organization: DOC/NOAA/NESDIS/NCCEI> National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce

Organization Role: pointOfContact

Identification Information

Title: NGDC/WDS Global Historical Tsunami Database, 2100 BC to present

Dataset

Publication 1974-01-01

Date:

Dataset: eng: USA

Language:

Abstract: The Global Historical Tsunami Database provides information on over 2,400 tsunamis from 2100 BC to the present in the the Atlantic, Indian, and Pacific Oceans; and the Mediterranean and Caribbean Seas. The database includes two related files. The first file includes information on the tsunami source such as the date, time, and location of the

...en XML, se puede tener algunas informaciones de este modo. A continuación se muestra el árbol del documento:

```

<?xml:stylesheet type="text/css" href="http://www.ngdc.noaa.gov/metadata/published/xsd/schema.xsd?>
<gmd:MD_Metadata xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:gxs="http://www.isotc211.org/2005/gxs" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.ngdc.noaa.gov/metadata/published/xsd/schema.xsd http://www.ngdc.noaa.gov/metadata/published/xsd/schema.xsd">
  <gmd:fileIdentifier>
    <gco:CharacterString>gov.noaa.ngdc.mgg.hazards:G02151</gco:CharacterString>
  </gmd:fileIdentifier>
  <gmd:language>
    <gco:CharacterString>eng:USA</gco:CharacterString>
  </gmd:language>
  <gmd:characterSet>
    <gmd:MD_CharacterSetCode codeList="http://www.isotc211.org/2005/resources/CodeLists/gmd/CharacterSetCodeList.xsd" codeListVersion="2.0" value="UTF-8" type="code" />
  </gmd:characterSet>
  <gmd:hierarchyLevel>
    <gmd:MD_ScopeCode codeList="http://www.isotc211.org/2005/resources/CodeLists/gmd/ScopeCodeList.xsd" codeListVersion="2.0" value="dataset" type="code" />
  </gmd:hierarchyLevel>
  <gmd:contact>
    <gmd:CI_ResponsibilityParty xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gco="http://www.isotc211.org/2005/gco" type="CI_ResponsibilityParty">
      <gmd:organization>
        <gco:CharacterString>DOC/NOAA/NESDIS/NCCEI> National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce</gco:CharacterString>
      </gmd:organization>
      <gmd:pointOfContact>
        <gco:CharacterString>Hazards Data Manager</gco:CharacterString>
      </gmd:pointOfContact>
      <gmd:contactInfo>
        <gmd:CI_Contact>
          <gmd:address>
            <gmd:CI_Address>
              <gmd:deliveryPoint>
                <gco:CharacterString>225 Broadway</gco:CharacterString>
              </gmd:deliveryPoint>
              <gmd:city>
                <gco:CharacterString>Boulder</gco:CharacterString>
              </gmd:city>
              <gmd:administrativeArea>
                <gco:CharacterString>CO</gco:CharacterString>
              </gmd:administrativeArea>
              <gmd:postalCode>
                <gco:CharacterString>80501-1128</gco:CharacterString>
            </gmd:CI_Address>
          </gmd:CI_Contact>
        </gmd:CI_Contact>
      </gmd:contactInfo>
    </gmd:CI_ResponsibilityParty>
  </gmd:contact>
  </gmd:MD_Metadata>
  
```

Common language for computers
XML



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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)*

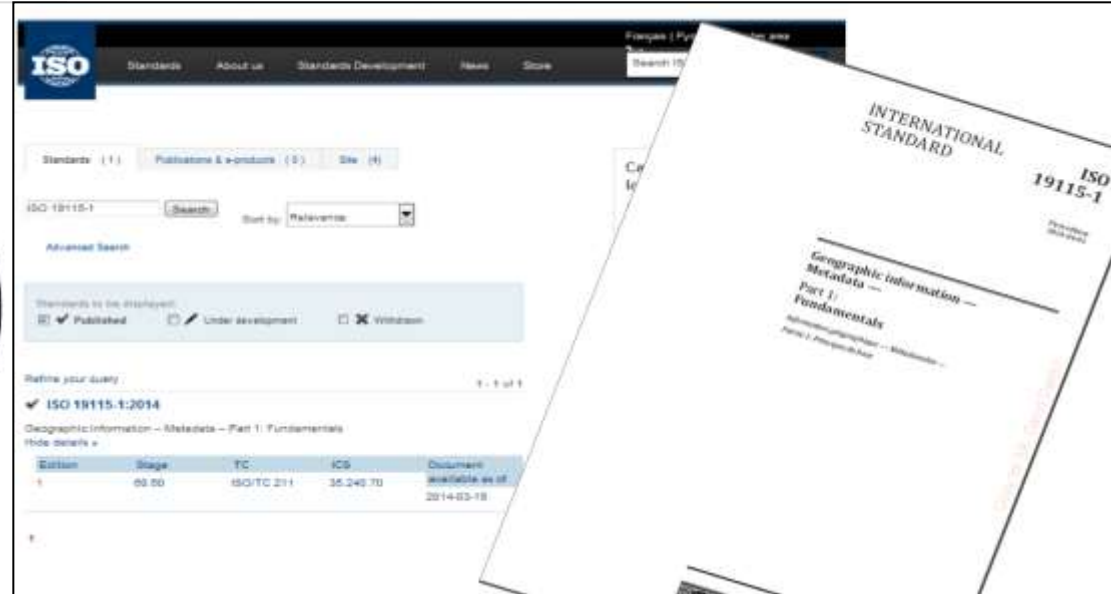
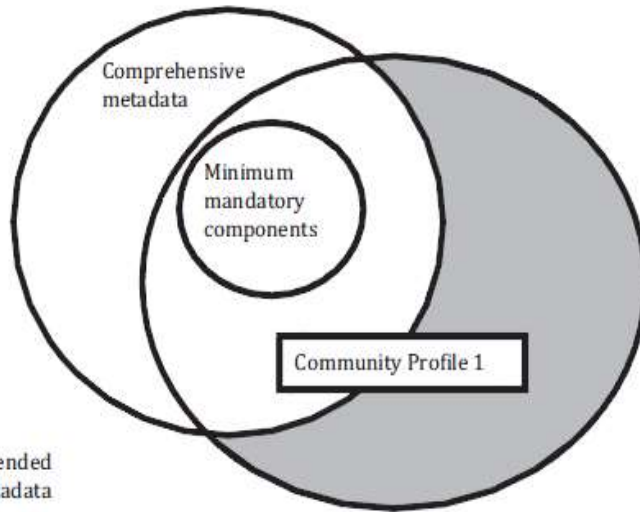
Though ISO 19115-1:2014 is applicable to digital data and services, its principles can be extended to many other types of resources such as maps, charts, and textual documents as well as non-geographic data.

Concept of “core” translated to “**Discovery metadata for geospatial resource**”



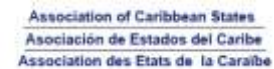
Geographic information -- Metadata -- Part 1: Fundamentals

Metadata community profile


















http://www.iso.org/iso/catalogue/catalogue_ics/catalogue_detail_ics.htm?csnumber=53798

Technological alternatives to develop Metadata



Metadata software tools

Software	Link	Open Source	Web	Desktop
Esri Geoportal Server	http://www.esri.com/software/arcgis/geoportal			
GeoNetwork	http://geonetwork-opensource.org/			
CatMDEdit	http://catmdedit.sourceforge.net/			
QSphere	https://plugins.qgis.org/plugins/qsphere/			
ArcGIS 10.1 – 10.4 - (ArcCatalog)	http://www.esri.com/software/arcgis/			

ISO Geospatial Metadata Editors

Feature	GeoNetwork Opensource	CatMDEdit V.5.0	Esri Geoportal Server	QSphere
	View Full Record	View Full Record	View Full Record	View Full Record
Geospatial Metadata Content Standards Supported				
ISO 19115:2003 - Metadata	full	full	full	partial
ISO 19115-2 - Gridded Imagery Extension	full	none	full	none
ISO 19110 - Feature Catalog	full	full	full	none
ISO 19119 - Services	full	full	full	none
ISO 19115-1 - Metadata Fundamentals	full	none	full	partial
Other Related Metadata Standards	View	View	View	View

<https://www.fgdc.gov/iso-metadata-editors-registry/editors>



Cases in the world and the Latin American Metadata Profile - LAMP



Geoportal de Chile

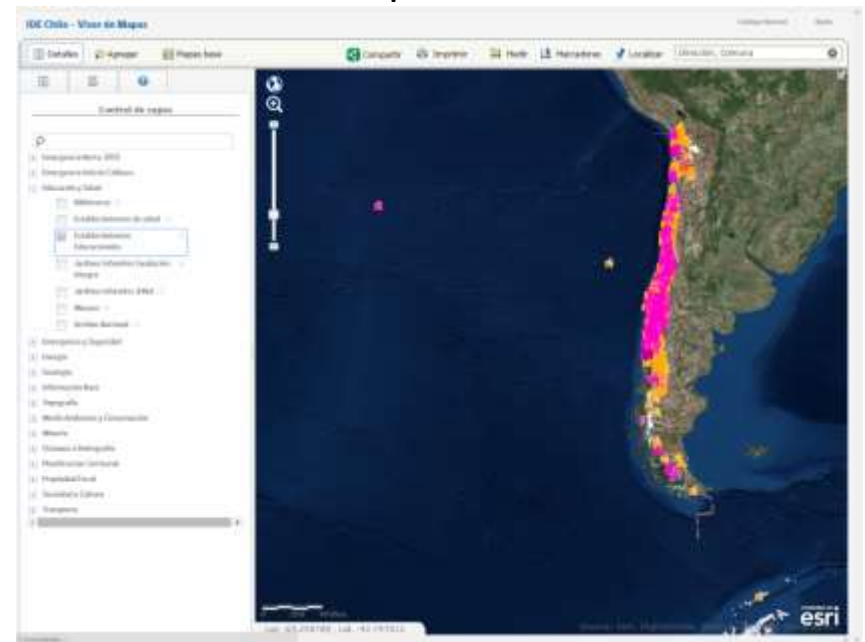
National Catalogue



www.geoportal.cl

Geoportal Server (ESRI) - Catálogo

Map Viewer



www.geoportal.cl/Visor

ArcGIS Server 10.1 - Visor



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National Geospatial Information Catalog

Entry point to the Geospatial Information Government of Chile

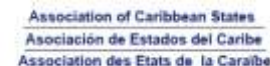
<http://www.geoportal.cl/geoportal/>

- 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



Ministerio de Infraestructura
**CHILE
MEXICO**

AMEXICID



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INSPIRE - Infrastructure for Spatial Information in Europe

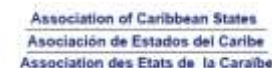
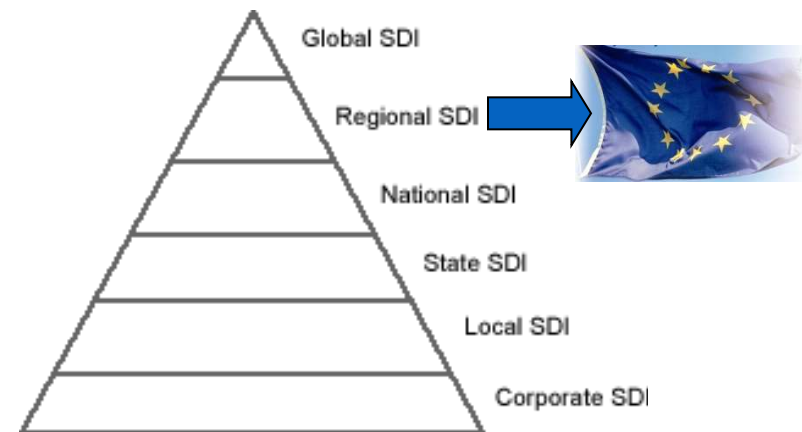
About INSPIRE:

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



<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:108:0001:0014:EN:PDF>



INSPIRE - Infrastructure for Spatial Information in Europe

Each country must publish its metadata according

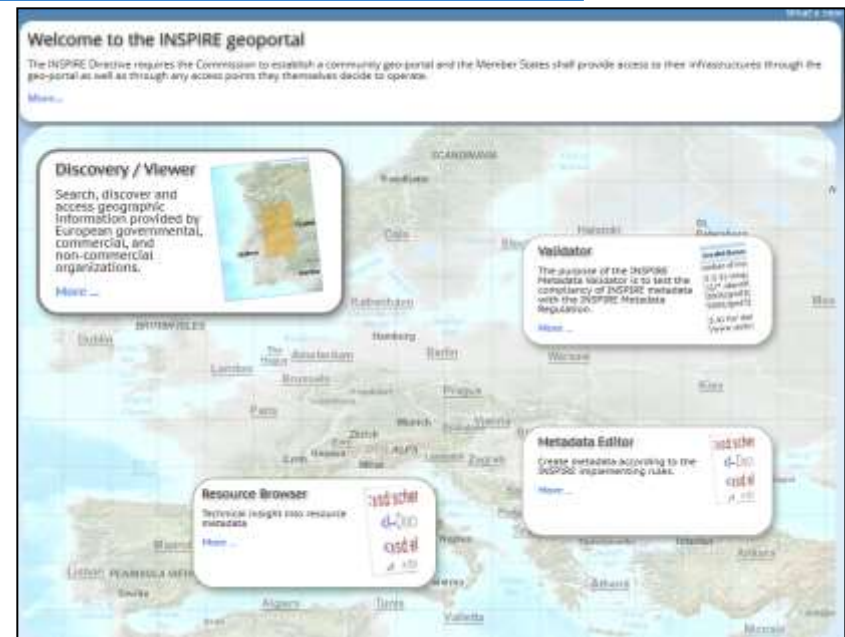
INSPIRE profile of ISO 19115 and ISO 19119

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

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:326:0012:0030:EN:PDF>

This Regulation sets out the requirements for the creation and maintenance of metadata for spatial data



<http://inspire-geoportal.ec.europa.eu/>



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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



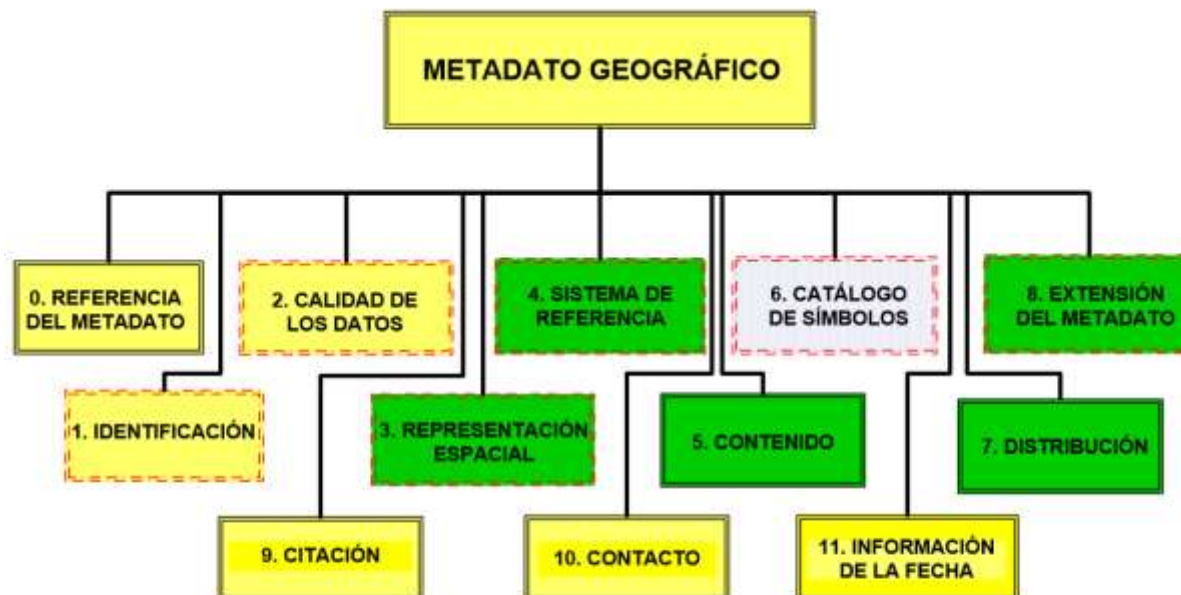
IPGH



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Latin America Metadata Profile - LAMP



CONVENCIONES



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