

Federal  
Geographic  
Data  
Committee

# Metadata Working Group

Quarterly Telecon  
September 9, 2015

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# Agenda

- Announcements
- FGDC Standards Working Group Update
- ISO Metadata Standards Update
- User Reviews: ISO Geospatial Metadata Editors Registry
- ISO Forum Update
- MWG Activities
- News from the Field

# Announcements

Discuss metadata activities

## Announcements

- 2014 ISO 19115-1 standard available via ANSI/INCITS
  - Cost \$133

<http://webstore.ansi.org/RecordDetail.aspx?sku=INCITS%2fISO+19115-1%3a2014%5b2014%5d>
- INCITS L1 Meeting
  - Friday October 2, 2015; 10–4 pm ET
- 40th ISO/TC211 Meeting (June 2015)
  - Highlighted open source Alaska Metadata Tool at Standards in Action Workshop

[http://www.isotc211.org/Southampton2015/Workshop/Workshop\\_Southampton.htm](http://www.isotc211.org/Southampton2015/Workshop/Workshop_Southampton.htm)

# Announcements

- Metadata activities presentation at OGC North American Forum (June 2015)
  - Exploring potential discussion through NAF on a North American Profile update
- Data.gov Status
  - Crosswalks from FGDC/CSDGM & ISO to Project Open Data/JSON v1.1 are available
    - <https://project-open-data.cio.gov/v1.1/metadata-resources/#crosswalks-for-geospatial-metadata>
  - Validation and Harvesting Group in progress
    - Working to simplify process, especially for CSDGM records and sample records being tested

# Announcements

- National Geospatial Data Assets Dataset Registration
  - 100% registered! (173 with 4 datasets on hold)
- NGDA Dataset Managers now working on Lifecycle Maturity Assessment
  - Due September 30, 2015
  - 14% complete as of August 24
  - <https://www.geoplatform.gov/A-16-NGDA-Theme-Community/LMA>
- Next NGDA activity: Theme Maturity Assessment
  - Discussed with Theme Leads Aug 27
  - Doing follow up and establishing a small team to work on assessment

# ISO Standards Update

Dave Danko, Esri

# ISO Related Metadata Standards

Name of Standard	Description	Status
<b>ISO 19109:2005</b> Rules for application schema	Defines the a general feature model and rules for creating and documenting application schemas for modeling features and their properties allowing physical applications to understand and share data	Under revision: Sent to ISO for publication
<b>ISO 19110:2005 + Amendment 1</b> Methodology for feature cataloguing	Catalogue defining features and properties for a domain of interest and/or a dataset and a schema for encoding in XML	Under revision: FDIS 2014-7, IS 2016-02
ISO 19111:2007 Spatial referencing by coordinates	Metadata about/defining a coordinate reference system	International standard
ISO 19111-2:2009 Spatial referencing by coordinates-Extension for parametric value	Metadata about/defining a coordinate reference system using parametric values	International standard
ISO 19112:2003 Spatial referencing by geographic identifiers	Metadata about/defining a reference system which uses spatial unit identifiers other than coordinates i.e. gazetteer, postal code, etc.	International standard
ISO 19113:2002 Quality principles	Defines the principles, the elements/sub-elements of data quality	Superseded by 19157
ISO 19114:2003 Quality evaluation procedures	Defines procedures for determining data quality	Superseded by 19157



# ISO Related Metadata Standards

Name of Standard	Description	Status
ISO 19115:2003 Geospatial metadata	Defines metadata elements and schema describing geospatial datasets	Superseded by 19115-1
ISO 19115-1:2014 Geospatial metadata fundamentals	Revision of ISO19115 which defines metadata elements and schema describing geospatial resources i.e. datasets and services	International standard
<b>ISO 19115-2:2009 Extensions for imagery and gridded data</b>	<b>Defines additional metadata elements and schema describing imagery and gridded geospatial datasets</b>	<b>Under revision: 1<sup>st</sup> meeting 2015-06, CD 2016-03, DIS 2016-11, TS 2017-11</b>
<b>ISO 19115-3: XML schema implementation metadata fundamentals</b>	<b>Provides a schema for implementing ISO 19115-1 in XML</b>	<b>Under development: TS 2015-09?</b>
<b>ISO 19119:2005 Services</b>	<b>Provides a framework and defines the metadata for services enabling users to access and process geographic information across a generic computing interface. The metadata portion of this standard has been moved to ISO19115-1</b>	<b>Under revision, Partially superseded by 19115-1: IS 2015-08?</b>
ISO 19130:2010 Imagery sensor models for geopositioning	Specifies a sensor model describing the physical and geometrical properties of specific sensors	International standard

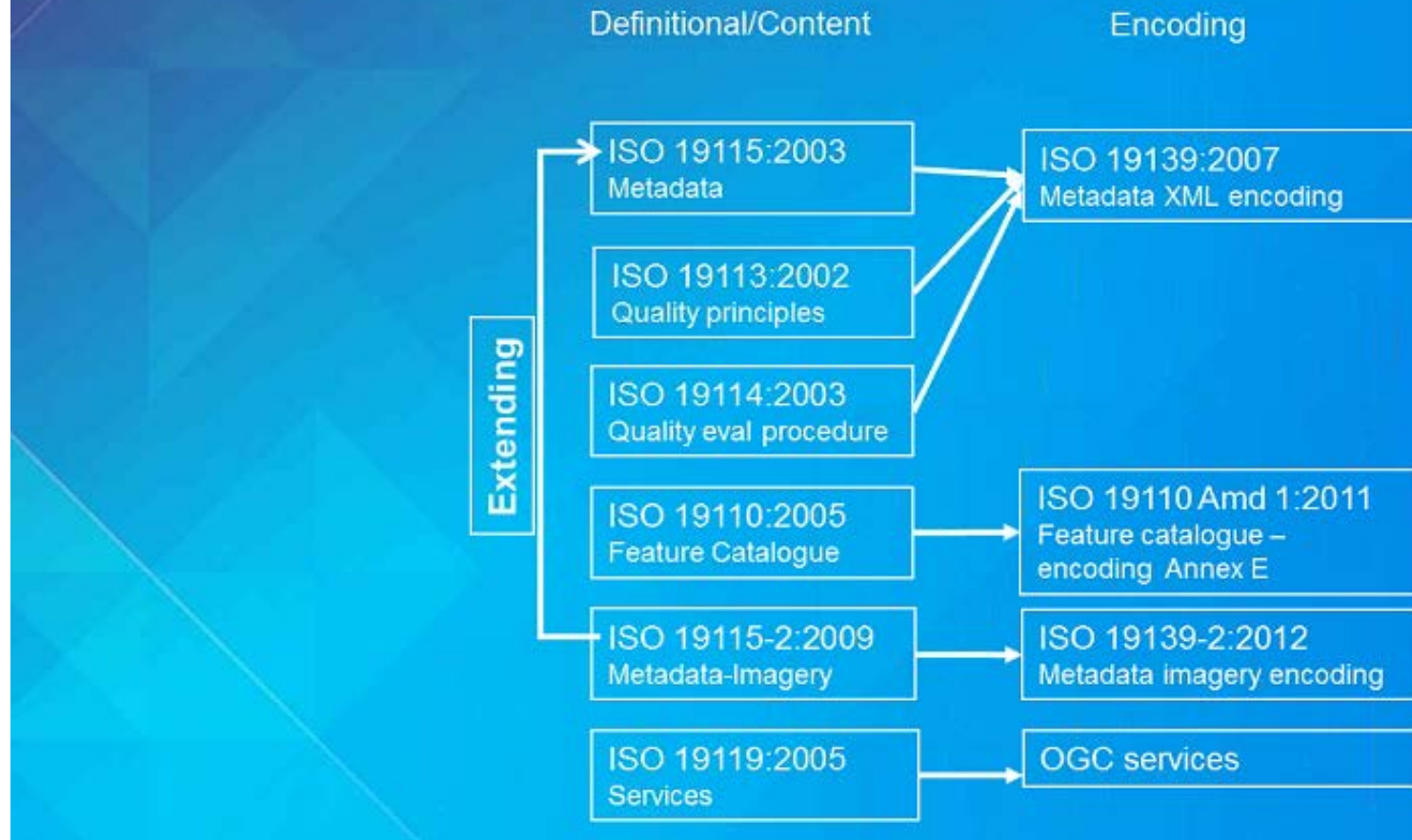
# ISO & W3C Related Metadata Standards

Name of Standard	Description	Status
ISO 19157:2013 Data Quality	Defines the principles and components for describing, evaluating, and the measures used for reporting data quality. Revising and replacing ISO 19113, 19114, 19138.	International standard
<b>ISO 19157-2 Data Quality XML Schema implementation</b>	<b>Provides a schema for implementing ISO 19157 in XML</b>	<b>Under development: TS 2016-05</b>
ISO 15836:2009 The Dublin Core metadata element set	Cross domain resource descriptions – not limited to specific resources	International standard Reviewed 2014

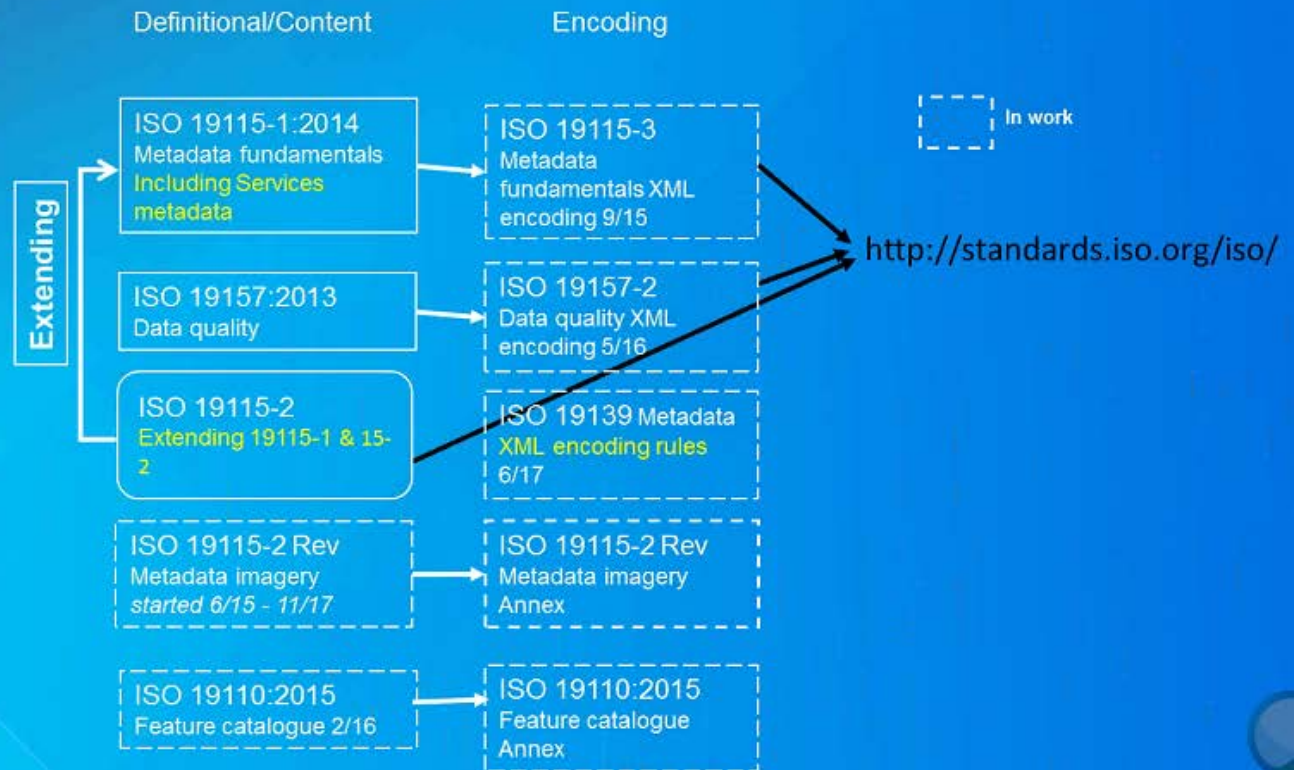
  

Name of Standard	Description	Status
W3C Data Catalog Vocabulary (DCAT)	An RDF vocabulary designed to facilitate interoperability between data catalogs published on the Web.	International standard

## ISO metadata standards today



## ISO metadata standards (near) future



# FGDC Standards Working Group Update

Julie Maitra, FGDC

## FGDC Standards Activities

- ◆ The FGDC Standards WG last met on Thursday, June 19, 2015.
- ◆ The SWG recommended final draft Part 2 , Digital orthoimagery (revised), of the Geographic Information Framework Standard, for FGDC endorsement.



# Digital Orthoimagery

## FGDC Standards Activities

Part 2, Digital orthoimagery (revised) of the Geographic Information Framework Data Content Standard supports exchange of orthoimagery data. It provides a base on which to collect, register, and integrate digital orthoimagery data accurately.

Part 2 specifies data content and logical structure for description and interchange of digital orthoimagery; provides guidelines for acquisition and processing of imagery; specifies documentation of acquisition and processing; focuses on images sensed in the visible to near-IR portion of the electromagnetic spectrum; stresses complete and accurate reporting of information relating to quality control and standards employed in testing orthoimagery data; and includes a data dictionary based on its conceptual schema.

This revision primarily replaces analog camera references with digital sensors and recognizes satellite technology for digital orthoimagery production. This standard was revised with support from members of the American Society for Photogrammetry and Remote Sensing (ASPRS).

## Standards Activities

- ◆ The FGDC Steering Committee endorsed the following standards:
  - Aeronautical Information Exchange Model (AIXM) 5.1
  - GeoRSS-Simple and GeoRSS-GML
  - ISO/IEC 15444-1:2004 Technical Corrigendum 1:2007 and ISO/IEC 15444-1:2004 Technical Corrigendum 2  
JPEG 2000
  - OGC GeoPackage 1.0
  - Geopolitical Entities, Names, and Codes (GENC)  
Standard Edition 2 (with concurrent withdrawal of GENC  
standard Edition 1)



# FGDC Standards Activities

- ◆ Next FGDC Standards WG meeting is scheduled for Tuesday, September 22. Teleconference/web meeting only.
- ◆ Topics:
  - SWG recommendation for public review of the Address Data Standard (revised)
  - Draft SWG charter (revised)
  - Objective 3.1 of the 2014-16 NSDI Strategic Plan
  - Informational briefings
- ◆ To participate, visit [http://www.fgdc.gov/standards/organization/FGDC-SWG/meetings/2015-09-22\\_SWG%20meeting](http://www.fgdc.gov/standards/organization/FGDC-SWG/meetings/2015-09-22_SWG%20meeting)

## FGDC Standards Activities

- ◆ In FY 2016, the FGDC Standards WG plans to accomplish/discuss:
  - Objective 3.1 of the 2014-16 NSDI Strategic Plan
  - Mobile Lidar
  - National Geologic Map Database (NGMDB)
  - FGDC endorsement of INCITS/ISO 19115-1:2014[2014] and metadata-related standards??

## FGDC Standards Activities

- ◆ There is a (private) FGDC Standards WG group on LinkedIn. Please email Julie Binder Maitra if you would like to join.
- ◆ Monthly updates provide status of FGDC, INCITS L1/ISO TC 211, GWG, OGC, and other standards activities. The standards update log tracks over 300 standards. It has been maintained since February 2011. Download monthly standards updates from <http://www.fgdc.gov/standards/monthlyStandardsUpdate/index>

# Questions?

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FGDC Office of the Secretariat

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Linkedin: <https://www.linkedin.com/in/juliebindermaitra>

Web site: [www.fgdc.gov/standards](http://www.fgdc.gov/standards)



# ISO Geospatial Metadata Editors Registry: MWG User Reviews

Lynda Wayne, FGDC/GeoMaxim

## ISO Geospatial Metadata Editors Registry

To submit a User Review for any editor you must:

be a member of the FGDC MWG

To join send email to [fgdc@fgdc.gov](mailto:fgdc@fgdc.gov)

- provide name, org, org type (fed, state, private, etc.)

register with ISO Metadata Editor Registry site

MWG members send message to [Vsheth@USGS.gov](mailto:Vsheth@USGS.gov) to request User Review access

Reviews should:

focus on helpful and challenging features

be constructive

provide guidance an addressing issues

# ISO Geospatial Metadata Editors Registry

## 1. Register

ISO Geospatial Metadata Editors Registry [Home](#) [Submit New](#) [About](#) [Login / Register](#)

### ISO Geospatial Metadata Editors

Feature	GeoNetwork Opensource	CatMDEdit V.5.0	Esri Geoportal Server
	<a href="#">View Full Record</a>	<a href="#">View Full Record</a>	<a href="#">View Full Record</a>

### Sign in

Email

Password

[Sign in](#)

Don't have an account? [Sign up](#)

[Forgot your password?](#)

[Didn't receive confirmation instructions?](#)

## ISO Geospatial Metadata Editors Registry

### 2. Launch Review

The screenshot shows the ISO Geospatial Metadata Editors Registry website. The navigation bar includes links for Home, Submit New, Existing Editors, Existing User Reviews, About, Profile, and Logout. A dropdown menu is open under 'Submit New', with 'User Review' selected and circled in green. Below the navigation bar, there is a green bar indicating a user is signed in. The main heading is 'ISO Geospatial Metadata Editors'. Below this, there is a blue bar with four categories: Feature, GeoNetwork Opensource, CatMDEdit V.5.0, and Esri Geoportal Server.



## ISO Geospatial Metadata Editors Registry

### 3. Select Editor

#### ISO Geospatial Metadata Editors Registry

Home Submit New ▾ Existing Editors ▾ Existing User Reviews ▾ About Profile Logout

#### Select Editor for Submitting User Review

Name	Description	Actions
<a href="#">GeoNetwork opensource</a>	GeoNetwork is a catalog application to manage spatially referenced resources as well as other resources. It provides powerful metadata editing and search functions as well as an embedded interactive web map viewer. It is used in numerous Spatial Data Infrastructure initiatives across the world.	Select
<a href="#">CatMDEdit v.5.0</a>	CatMDEdit is a metadata editor tool that facilitates the documentation of resources, with special focus on the description of geographic information resources. It is an initiative of the National Geographic Institute of Spain (IGN), which is the result of the scientific and technical collaboration between IGN and the Advanced Information Systems Group (IAAA) of the University of Zaragoza with the technical support of GeoSpatiumLab (GSL).	Select
<a href="#">Esri Geoportal Server</a>	The Geoportal XML Editor (GXE) is a component of Esri Geoportal Server that allows for configuring, editing, and validating XML. While typically use for geospatial metadata (including FGDC, ISO 191xx, INSPIRE, ANZLIC, GEMINI, DDMS, NGMP, NMF, Dublin Core...) it also supports editing XML formatted documents such as StratML.	Select

# ISO Geospatial Metadata Editors Registry

## 4. Complete Form

ISO Geospatial Metadata Editors Registry Home Submit New Existing Editors Existing User Reviews About Profile Logout

### New User Review

#### Instructions

- Save your work every 30 minutes using the 'Save as Draft' option at the bottom of the page. Unsaved work will be lost.
- \* denotes mandatory fields
- All submissions will be reviewed prior to publishing

Please provide a constructive response to any of the following questions that relate to your experience with the specified editor. Please read through all questions first to ensure the you are providing information to the most relevant question.

**Application Access and/or Installation**  
Describe success or challenges experienced when accessing or installing the application

(Limit: 2000 characters)

**Standards Supported**  
For the standards supported, describe success or challenges experienced with regard to how well the standards were supported

(Limit: 2000 characters)

## ISO Geospatial Metadata Editors Registry

### 5. Save or Submit Information

**Metadata Catalog  
/Distribution Site  
Publication**

If metadata publication  
directly to a catalog or  
data  
collection/distribution  
site is supported,  
describe success or  
challenges you  
experienced

(Limit: 2000 characters)

**Submit for Publishing**

Save as Draft

Cancel

# ISO Geospatial Metadata Editors Registry

## 6. Edit/Update Review

ISO Geospatial Metadata Editors Registry Home Submit New Existing Editors Existing User Reviews About Profile Logout

- My User Reviews
- All User Reviews
- User Reviews Pending Review

### ISO Geospatial Metadata Editors

Feature	GeoNetwork Opensource	CatMDEdit V.5.0	Esri Geoportal Server
	<a href="#">View Full Record</a>	<a href="#">View Full Record</a>	<a href="#">View Full Record</a>

ISO Geospatial Metadata Editors Registry Home Submit New Existing Editors Existing User Reviews About Profile Logout

### My User Reviews

	Editor	Submitted by	Status	Created on	Actions
<a href="#">View</a>	Test Editor	Lynda Wayne	Unpublished	2014-04-17	<a href="#">Edit</a> <a href="#">Re-Publish</a> <a href="#">Delete</a>

# ISO Geospatial Metadata Editors Registry

## 7. Published Review

**User Review for GeoNetwork opensource** by Jennifer Walter on 03 Jul, 2015 12:26 PM ET

Questions	
<p><b>Application Access and/or Installation</b> Describe success or challenges experienced when accessing or installing the application</p>	<p>Version 2.10.3 must be installed to a directory with write access, otherwise GeoNetwork will not work. There is no mention of this in the user's guide / developer's guide 2.10.3. I only discovered the problem/solution from an internet search of an error message I received. Potential conflict with other software programs using the same port as GeoNetwork (Oxygen, XMLSpy). Cannot be simultaneously installed together.</p>
<p><b>Standards Supported</b> For the standards supported, describe success or challenges experienced with regard to how well the standards were supported</p>	<p>Supports 19115-2/19139-2 when schemas added to GeoNetwork v2.10.3 (not pre-installed). Schema add-in instructions in the GeoNetwork 2.10.3 user's guide/developer's guide didn't work. User must have schema files; GeoNetwork-compatible files not available from GeoNetwork (that I could find). Forced schema add-in by adding 19115-2/19139-2 schemas to the GeoNetwork schema folder. This made GeoNetwork "buggy" (received "24 stylesheet errors" error message) &amp; could not export to ISO 19139-2 XML.</p>
<p><b>Operating Environment</b> Describe success or challenges you experienced with the operating environment including: operating platform (desktop, enterprise, online), operating system(s), proprietary nature, data storage format, programming languages, 3rd party software, or other</p>	<p>Success: Downloadable .exe file made for easy desktop install of version 2.10.3.</p>
<p><b>User Interface</b> Describe success or challenges experienced with the user interface</p>	<p>Version 2.10.3: user friendly editing HTML view with drop down menus, identification of required elements in red, links to definitions of metadata elements, easy addition/deletion of packages, full view (entire record) or section view. XML view is not as user friendly. The XML text wraps, instead of retaining the XML hierarchical/indentation structure.</p>
<p><b>Support Features</b> Describe success or challenges you experienced with user support features including: autopopulation of metadata from data, drop-down pick-lists, links to</p>	<p>Version 2.10.3 drop-down pick-lists, links to definitions and validation tools were very useful. User manual 2.10.3 and developers manual instructions often did not match the reality of using version 2.10.3 and could not be implemented or weren't enough to achieve the desired result (adding in a schema, exporting to XML).</p>

# ISO Metadata Forum Update

*[www.fgdc.gov/metadata/events/iso-geospatial-  
metadata-implementation-forum](http://www.fgdc.gov/metadata/events/iso-geospatial-metadata-implementation-forum)*

# ISO Forum Topics

## October 14 State Experiences with ISO Metadata

- Sarah Wray  
North Carolina
- Lyle Hornbaker  
Virginia Information  
Technology Agency
- Laura Gleasner  
University of New  
Mexico (invited)

## November 18 ISO North American Profile Implementation in Canada

- Cindy Mitchell  
Natural Resources  
Canada

## December 9 Metadata Working Group

- updates
- activities

## 2016

- NASA ISO  
Implementation
- Tools
- ISO Basics
- Other ideas?
- Contact Jen Carlino  
[jcarlino@usgs.gov](mailto:jcarlino@usgs.gov) or  
Lynda Wayne  
[lwayne@usgs.gov](mailto:lwayne@usgs.gov)

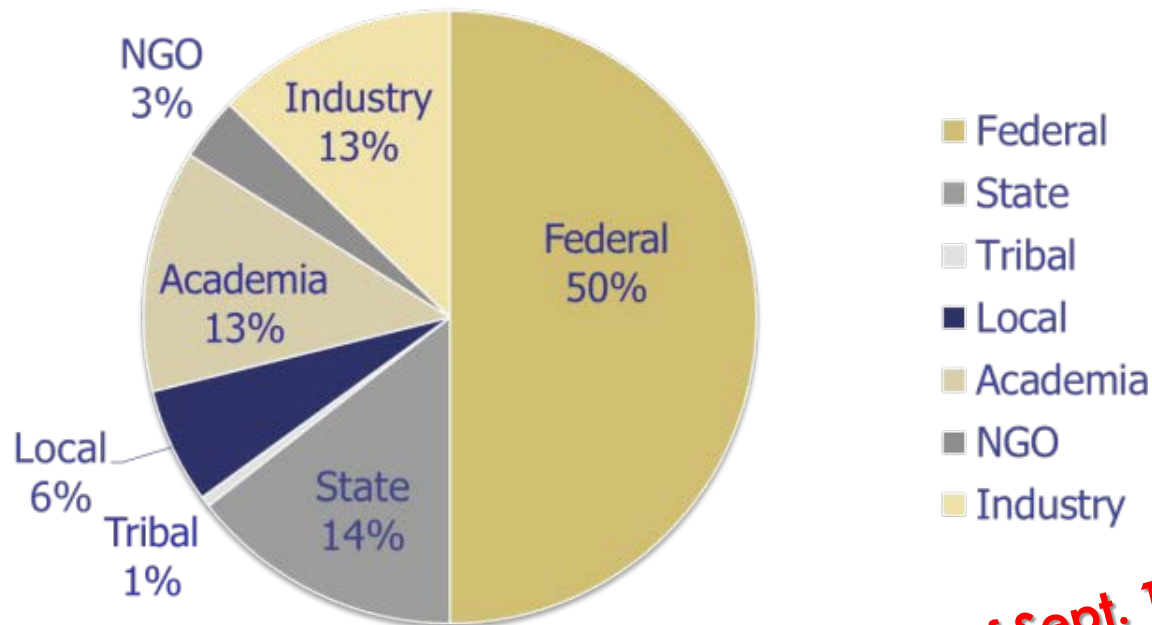
# MWG Update

Jennifer Carlino, FGDC



# Metadata Working Group Members

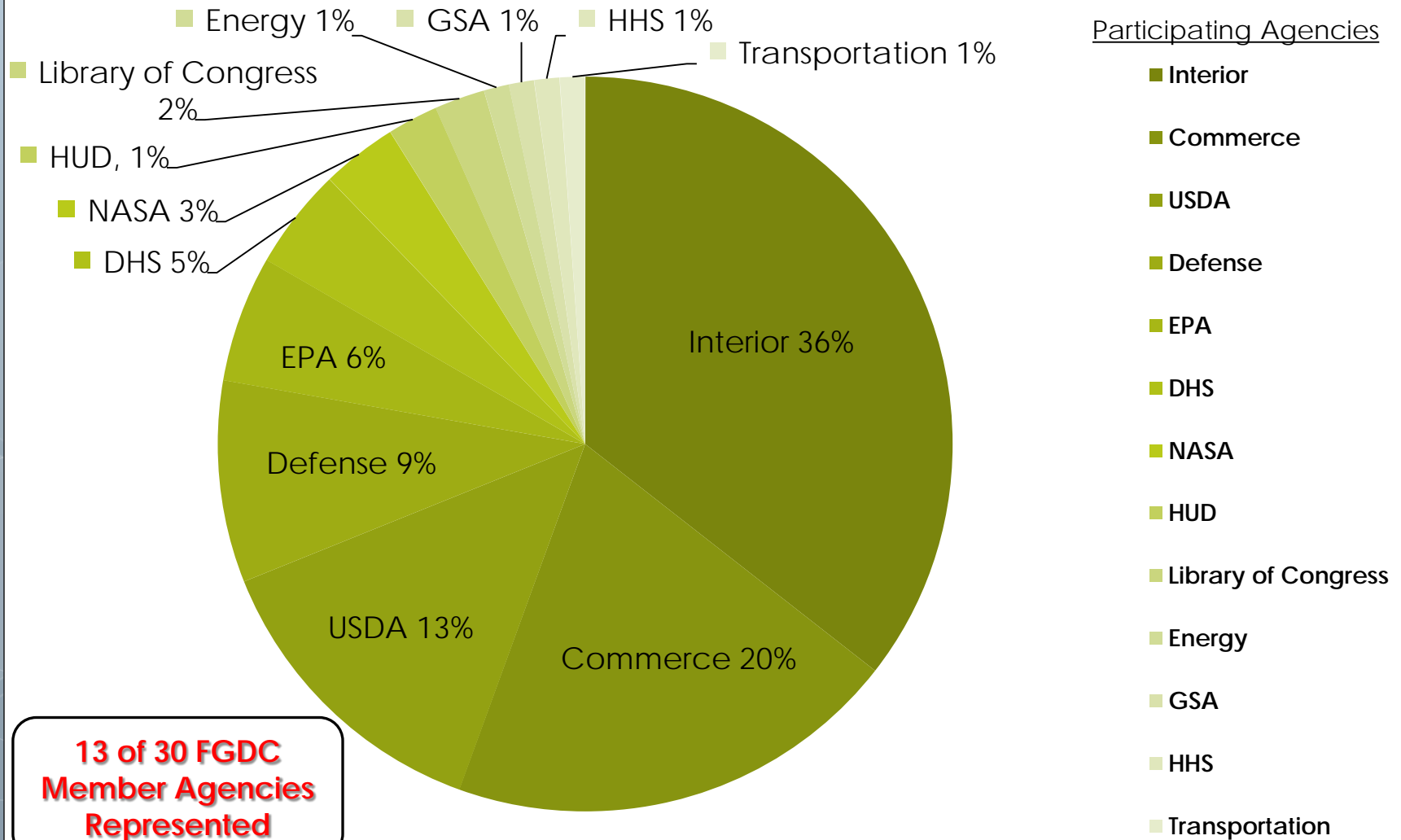
**Total = 180 participants**



**As of Sept. 1, 2015**

<http://www.fgdc.gov/participation/working-groups-subcommittees/mwg/membership>

# Federal MWG Members Distribution



## Meeting Annual Report Goals

- ✓ Continue involvement with NSDI implementation initiatives such as the NSDI Strategic Plan, Geospatial Platform (Geoplatform.gov) and A-16 Supplemental Guidance – National Geospatial Data Asset Management Plan implementation.
- ✓ Continue ISO Metadata Implementation Forum series.
- ✓ Publish and manage content for the FGDC Metadata Website.
- ✓ Publish and manage the ISO Geospatial Metadata Editors Registry.
- ✓ Provide technical guidance and support for ISO Geospatial Metadata implementation, particularly with respect to ISO 19115-1 released in 2014.

# Align MWG Activities to NSDI Strategic Plan (ideas)



- 1.2.4.3. Define workflow for creating new communities on Geospatial Platform. *Create and manage geospatial metadata community*
- 1.1.2.1. Develop components of Geospatial Interoperability Reference Architecture (GIRA). *Identify possible metadata components to support GIRA*
- 3.1.1.1. Identify, monitor and participate in existing and emerging external geospatial communities. *Identify metadata communities and report to MWG and SWG*

## MWG Activities

- Plan to endorse ISO metadata standards through FGDC process
  - 19115-1:2014 Geographic information -- Metadata -- Part 1: Fundamentals
  - 19110:2005 Amd 1:2011 Feature Catalogue Encoding Annex E
  - 19157:2013 Geographic information -- Data Quality
  - (When published) ISO/DTS 19115-3 Geographic information -- Metadata -- Part 3: XML schema implementation of metadata fundamentals
- Update [Data.gov/GeoPlatform.gov](http://Data.gov/GeoPlatform.gov) Metadata Guidance
- Updated Metadata web pages in Fall 2015

## MWG Activities

- Outreach to increase MWG membership from across FGDC agencies, especially those without current representation
- Possible face to face Workshop in 2016
  - Build on Summit (2011), Webinar (2013), and Forum (2014/15)
  - Hands on and breakout sessions
  - Addressing implementation challenges (e.g., workflow, policy, etc.)
- Other opportunities?

# News from the Field

Announcements from  
Metadata Working Group Members

## Participation at URISA

- Lynda Wayne will be attending URISA GISPro Conference, Spokane WA, Oct 12-22, 2015
  - Title: Geospatial Metadata: the 411 on 19115-1
  - Wednesday, Oct. 21, 10:30 AM (same session as Bruce Godfrey)
  - Contact [Lwayne@usgs.gov](mailto:Lwayne@usgs.gov) if you will be attending the conference and would like to touch base.
- *Abstract - Geospatial Metadata standards are going international. The new standards build upon current technologies and concepts to modernize and modularize geospatial metadata into an operational data component. A quick and cogent summary of ISO metadata content, format, and transition strategies - this presentation can jumpstart your metadata program and enable you to better your GIS best practices.*



Next ISO Forum:

October 14, 2015

*Topic: State Experiences with ISO*

November 18, 2015

*Topic: ISO NAP Implementation in Canada*

Next MWG Meeting:

December 9, 2015

*Topic: FGDC Endorsement Process*

Comments and Ideas:

[fgdc@fgdc.gov](mailto:fgdc@fgdc.gov) or [jcarlino@usgs.gov](mailto:jcarlino@usgs.gov)