European Commission

GeoDCAT-AP

Working Group
Meeting 1

Tuesday 31 March 2015,
14:00-16:00 CET (UTC+2)

ISA

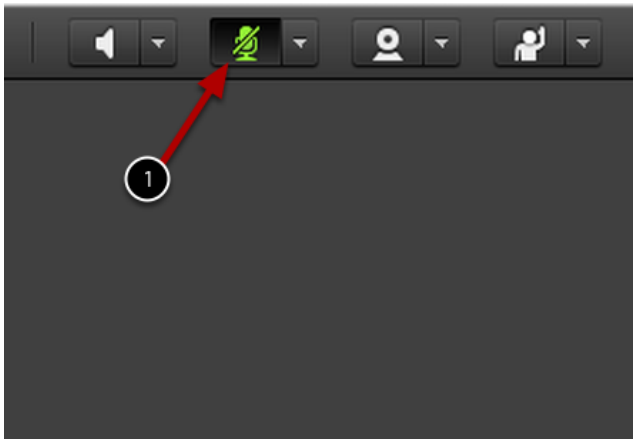
How to enter the Virtual Meeting Room?

See https://joinup.ec.europa.eu/node/139765

1. **Web connection**: **http://ec-wacs.adobeconnect.com/geodcat-ap/**
2. **Audio connection**:
   - Go to **http://ec-wacs.adobeconnect.com/geodcat-ap/**
   - Click '**Enter as a guest**', fill in your name and click 'Enter meeting'.
   - Click '**ok**' to agree with the Web Conferencing Disclaimer
   - Answer '**Start**' to the question: Would you like audio conferencing with this meeting?
   - Enter your telephone number and have the system call you
   OR dial your Local or International Access Number:

     Belgium: +3228081363
     France: +33182880967
     Germany: +498922061600
     Luxembourg: +35220880608
     United Kingdom: +442033189433
   - Dial the Conference Room Number: ***1323004#**

Practical arrangements



Please:

- **Mute your mic** when not speaking
  - To mute your microphone click the Microphone Icon. When muted, the icon will remain green with a slash.
- **Raise your hand** to request the floor (and help making the speaker aware of who is raising hands)
- **Use the chat box** for sharing links and making comments
- **Voting**: use the chatbox (+1 / -1 / abstain)

Agenda

1. Welcome and overview
2. Process and methodology
3. Collaboration in the Working Group
4. Context and previous work
5. GeoDCAT-AP: introduction to first working draft
6. Wrap-up, actions, planning the next working group meetings

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1. Welcome and overview

Round table of introductions

Please use the chat box to introduce yourself and your organisation.

EC JRC	EU
EC DIGIT	EU
Geonovum	NL
FEDICT	BE
EC CONNECT	EU
SCIAMlab	IT
DIFI	NO

SwissTopo	CH
Lvermgeo	DE
FOKUS	DE
Irisnet	BE
UNIZAR	ES
Kodapan	SE
Imis athena	GR
BGK	DE
Terradue	
Red es	ES
LGL BWL	DE
OKFN	Int.

The work is funded under ISA Actions 1.1 and Action 1.17.
The ISA Programme undertakes actions to foster interoperability of information exchanges by public administrations across sectors and borders

Action 1.1 – Semantic interoperability
Action 1.17 – ARE3NA Reference Model
…
Action 2. – e-Prior electronic procurement
Action 1.9 – e-Signature tools
Action 2.1 – European Interoperability Reference Architecture
Action 2.13 – EU Location Framework
…

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2. Process and Methodology

Process and Methodology

- 2015-03: Establish a Working Group
- 2015-03: Secure Intellectual Property Rights

  ISA Open Metadata Licence

  ISA contributor agreement
- 2015-03 – 2015-06: Draft specification
  - Define syntax bindings to terms in *existing* RDF vocabularies for INSPIRE metadata elements not considered in the DCAT-AP.
  - Define new terms for metadata elements for which no suitable candidates are available in existing widely used vocabularies.
- 2015-03 – 2015-06: Review process (within working group)
- 2015-05: Final public review round
- 2015-06 – 2015-10: Endorsement process

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3. Collaboration in the working group

GeoDCAT-AP release page

- Joinup page where the GeoDCAT-AP specs are published

https://joinup.ec.europa.eu/node/139283

GeoDCAT-AP Mailing list

- Publicly archived mailing list on Joinup
- Used for submitting change requests on the draft specification

http://joinup.ec.europa.eu/mailman/listinfo/dcat_application_profile-geo

Issue tracker

- Only editors can log issues on the issue tracker (to avoid duplicates)
- WG Members can comment on the issues that are already logged

https://joinup.ec.europa.eu/asset/dcat_application_profile/issue/all

Submitting issues

- Use the mailing list for submitting change requests on the draft specification
- Use the following structure:
  - Name of your organisation and description of its expected use of Geo-DCAT-AP
  - Description of your issue
  - Your proposed solution (if available)

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4. Context and previous work

European Commission

DCAT
APPLICATION PROFILE FOR EUROPEAN DATA PORTALS

What is DCAT-AP?

- **DCAT-AP** (DCAT application profile for data portals in Europe) is meant to provide a **metadata interchange format for data portals operated by EU Member States**
- Based on the **W3C Data Catalog (DCAT) vocabulary** – one of the most widely used metadata schemas for describing datasets and data catalogues
- Referred to as a **common metadata schema for European data portals** in the **EU implementation of the G8 Open Data Charter** (Oct, 2013)
- To be used as a **metadata schema** for the **pan-EU Open Data** Portal, as well as for the **EU Open Data Portal**

W3C®

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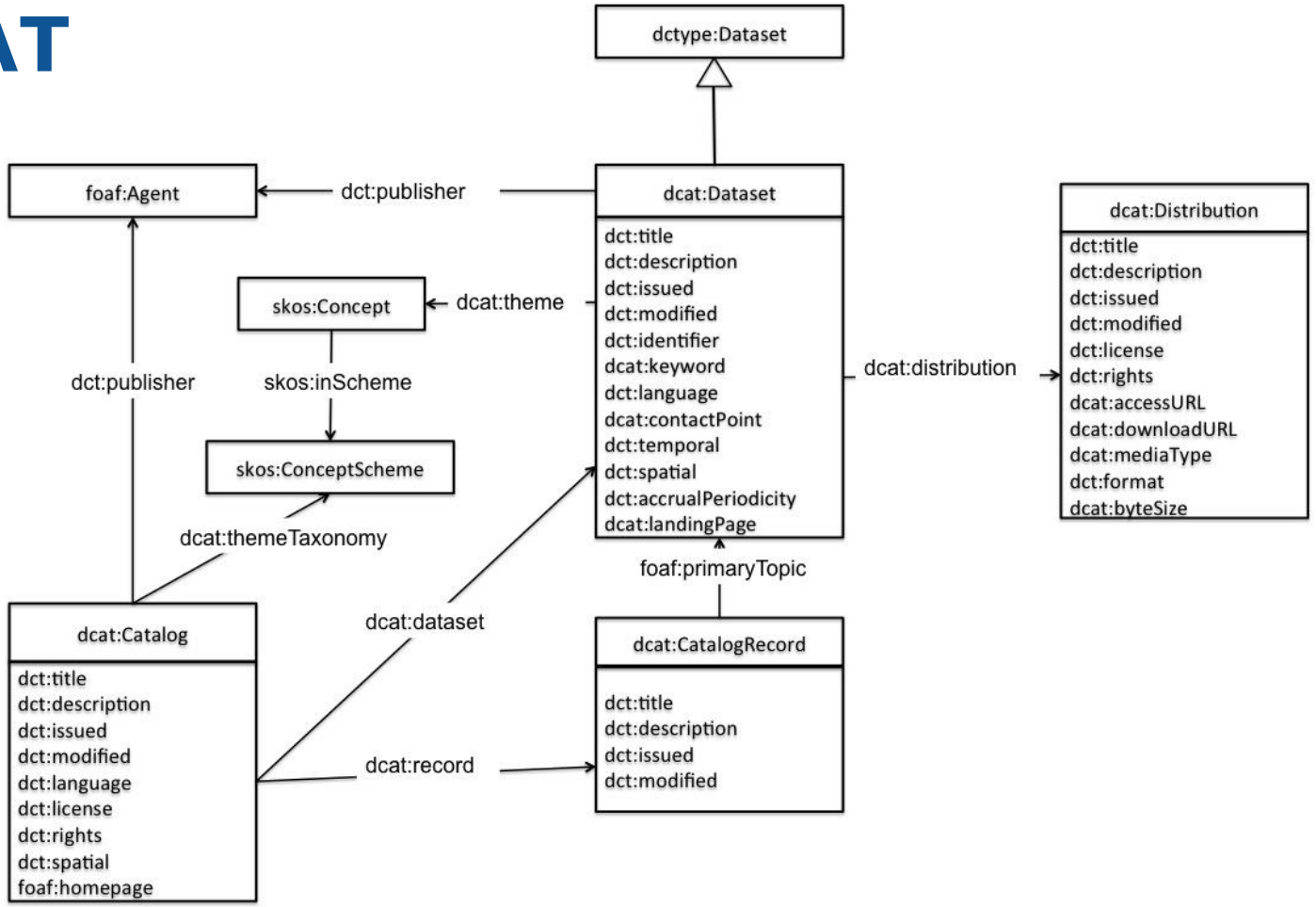
DCAT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dct:publisher
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dct:description
dct:issued
dct:modified
dct:identifier
dcat:keyword
dct:language
dcat:contactPoint
dct:temporal
dct:spatial
dct:accrualPeriodicity
dcat:landingPage
dcat:Distribution
dct:title
dct:description
dct:issued
dct:modified
dct:license
dct:rights
dcat:accessURL
dcat:downloadURL
dcat:mediaType
dct:format
dcat:byteSize
skos:Concept
dcat:theme
dct:publisher
skos:inScheme
skos:ConceptScheme
dcat:themeTaxonomy
dcat:distribution
foaf:primaryTopic
dcat:Catalog
dct:title
dct:description
dct:issued
dct:modified
dct:language
dct:license
dct:rights
dct:spatial
foaf:homepage
dcat:dataset
dcat:record
dcat:CatalogRecord
dct:title
dct:description
dct:issued
dct:modified

Revising and extending DCAT-AP

- DCAT-AP is currently being revised based on feedback from existing implementations
- In order to address domain-specific requirements, two extension will be developed:
    - **GeoDCAT-AP**, for geospatial data
    - **StatDCAT-AP**, for statistical data
- Coordination will be ensured across these three activities, in order to
    - prevent the definition of inconsistent solutions
    - promote re-use of the specifications developed by the different groups, whenever relevant

GeoDCAT-AP: Background

Objectives

- Developing an extension to DCAT-AP for geospatial metadata (referred to as GeoDCAT-AP) taking into account the standards currently used in the geospatial community and, in particular, at the EU level – i.e., INSPIRE.

Motivations

- Quantitative impact of geo data in the EU landscape
  - The INSPIRE Geoportal currently gives access to around 200K metadata records from EU MSs
- Qualitative impact of geo data in the EU landscape
  - Geo and environmental data identified as "high value" datasets in the G8 Open Data Charter, its EU implementation, and in the Commission's Notice 2014/C 240/01
- Cross-sector integration of data infrastructures as regards to metadata
  - The geo community makes use of consolidated technologies and standards
- Cross-sector interoperability of location information
  - Location information is not specific to geospatial data, but used across sectors and domains

Methodology

- GeoDCAT-AP to be based on the standards currently used for geospatial metadata, notably, ISO 19115
- The objective is to define a DCAT-AP compliant representation of a subset of ISO 19115, corresponding to the union of core ISO 19115 profile and the INSPIRE metadata conceptual schema
- Preliminary work carried out in the framework of ISA Action 1.17 (Re-usable INSPIRE Reference Platform - ARe3NA) on a DCAT-AP profile for INSPIRE metadata (referred to as INSPIRE+DCAT-AP)
- INSPIRE+DCAT-AP shall be used as a basis for the development of GeoDCAT-AP
- The objective is to make GeoDCAT-AP a super-set of INSPIRE+DCAT-AP, i.e., a DCAT-AP profile for ISO 19115 compatible with INSPIRE+DCAT-AP

INSPIRE & GeoDCAT-AP

- GeoDCAT-AP can be beneficial to ensure a **harmonised** RDF representation of INSPIRE metadata
- Two key points need to be however clarified:

1. GeoDCAT-AP is not meant to replace the current ISO implementation of INSPIRE metadata, but just to provide an **alternative** representation
2. There is **no obligation** to use GeoDCAT-AP for INSPIRE metadata

ISO 19115 & GeoDCAT-AP

- The reference version will be **ISO 19115:2003**
- Why?
  - ISO 19115-1:2014 is not yet widely used and supported
  - Metadata records available through the INSPIRE infrastructure are implemented by using ISO 19139 (the XML encoding of ISO 19115:2003)
- Possible compatibility issues with ISO 19115:2014 may be taken into account in the development of GeoDCAT-AP

Main tasks

Consolidation of INSPIRE+DCAT-AP

- Review of the current INSPIRE+DCAT-AP specification
- Define alignments for INSPIRE metadata elements not considered in the INSPIRE+DCAT-AP specification ("theme specific" metadata elements)
- Define terms for INSPIRE metadata elements for which no suitable candidates are available in existing widely used vocabularies

Completing the alignment with ISO 19115

- Use the consolidated version of INSPIRE+DCAT-AP to develop a DCAT-AP-compliant representation of the core profile of ISO 19115
- This might include the definition of terms for ISO 19115 metadata elements for which no suitable candidates are available in existing widely used vocabularies.

INSPIRE+DCAT-AP

Described by the following suite of specifications:

- **INSPIRE profile of DCAT-AP - Core version**: defines alignments for the subset of INSPIRE metadata elements supported by DCAT-AP
- **INSPIRE profile of DCAT-AP - Extended version**: defines alignments for all the INSPIRE metadata elements using DCAT-AP and other Semantic Web vocabularies (whenever DCAT-AP does not provide suitable candidates)
- **INSPIRE profile of DCAT-AP - Reference**: reference document for the alignments defined in the core and extended versions of the INSPIRE profile of DCAT-AP

The specifications are available through the online collaboration space of the INSPIRE Maintenance and Implementation Group (MIG):

http://europa.eu/!Bj67cX

Consolidating INSPIRE+DCAT-AP

- A number of alignments in the specifications have been marked as "testing" or "unstable" – need to be consolidated
- For some INSPIRE metadata elements it was not possible to identify suitable candidates in widely used Semantic Web vocabularies – in particular:
  - *Spatial resolution*
  - *Coordinate reference system*
  - *Temporal reference system*
  - *Spatial representation type*
  - *Topological consistency*
- The missing alignment should be addressed taking into account the possibility of **re-using** them in a **cross-sector context** – e.g., spatial resolution may be modelled as a particular case of data granularity

Elements not in INSPIRE+DCAT-AP

INSPIRE MD elements
Data Quality – Logical Consistency – Conceptual Consistency
Data Quality – Logical Consistency – Domain Consistency
Maintenance information

General issues identified

1. How to consistently use URIs, and for which entities described in the metadata records?
2. Should services be modelled and how?
3. Which is the preferrable way of representing / encoding a bounding box / geometry?
4. How to model the "missing" alignments?

Any feedback and experiences

to contribute on these issues?

ISO 19115 Core and INSPIRE (1/3)

ISO 19115	In INSPIRE?
Dataset title	Yes
Dataset reference date	Yes
Dataset responsible party	Yes
Geographic location of the dataset	Yes
Dataset language	Yes
Dataset character set	Yes
Dataset topic category	Yes
Spatial resolution of the dataset	Yes

ISO 19115 Core and INSPIRE (2/3)

ISO 19115	In INSPIRE ?
Lineage	Yes
Spatial representation type	Yes
Reference system	Yes
Lineage	Yes
On-line resource	Yes
Abstract describing the dataset	Yes
Distribution format	Yes
Additional extent information about the dataset (vertical and temporal)	Yes

ISO 19115 Core and INSPIRE (3/3)

ISO 19115	In INSPIRE?
Metadata point of contact	Yes
Metadata date stamp	Yes
Metadata language	Yes
Metadata file identifier	*Not required*
Metadata standard name	*Not required*
Metadata standard version	*Not required*
Metadata character set	*Not required*

Elements not in ISO 19115 Core

INSPIRE MD elements	In INSPIRE+DCAT-AP?
Resource type	Yes
Unique Resource Identifier	Yes
Keyword	Yes
Conformity	Yes
Conditions for access and use	Yes
Limitations on public access	Yes
Data Quality – Logical Consistency – Conceptual Consistency	*No*
Data Quality – Logical Consistency – Domain Consistency	*No*
Maintenance information	*No*

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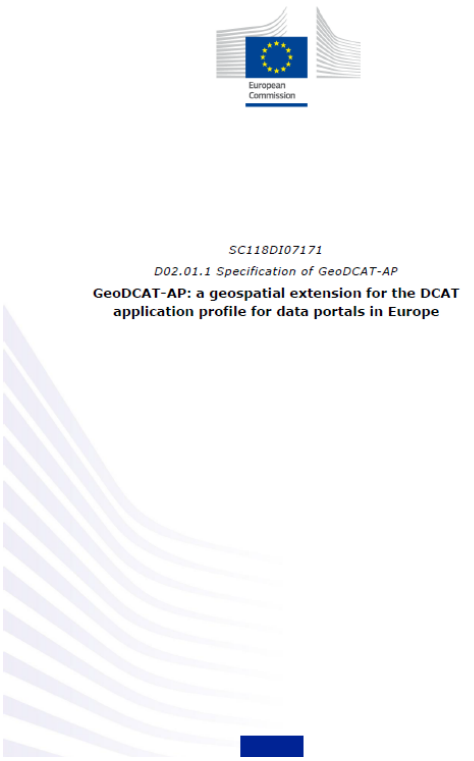
5. Introduction to first working draft

Review the draft specification



Latest WG drafts are available via this link:
http://joinup.ec.europa.eu/site/dcat_application_profile/GeoDCAT-AP/

Current ToC:

1. Introduction
2. Related work
3. Motivation
4. RDF syntax bindings
5. New RDF classes and properties
6. Controlled vocabularies
7. Conformance statement

Issues raised so far

- 139986 - GeoDCAT-AP: Clarify why the scope is set to ISO19115:2003 and not to ISO19115:2014

- 138935 - IM2 - How to describe datasets available via services with specific access methods
- 138907 - PR12 - Replace dct:spatial by property in line with INSPIRE approach
- 138937 - IM4 - Recommend best practice for spatial coverage
- 138909 - PR14 - Add new property to express lineage

Motivation: use case

GeoDCAT-AP will make it easier to share descriptions of spatial datasets between spatial data portals and general data portals, and thus help increase public and cross-sector access to such high value datasets. The datasets could include:

- Datasets on the INSPIRE Geoportal
- Datasets on national SDIs
- General geospatial datasets

An additional RDF syntax for INSPIRE and ISO19115 metadata elements is beneficial, especially when other data portals only support the DCAT-AP metadata elements.

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
Resource title *Dataset title (M)	**dct:title**
Resource abstract *Abstract describing the dataset (M)	**dct:description**
Resource type *not in ISO19115 core	**rdf:type**
	dct:type
Resource locator *On-line resource (O)	**dcat:landingPage**

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
Unique resource identifier *not in ISO19115 core	**dct:identifier**
Coupled resource *not in ISO19115 core	**dcat:dataset**
Resource language *Dataset language (M)	**dct:language**
Topic category *Dataset topic category (M)	dc:subject

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
Spatial data service type *not in ISO19115 core	**rdf:type**
	dct:type
Keyword value *not in ISO19115 core	**dcat:keyword**
	dcat:theme
Originating controlled vocabulary *not in ISO19115 core	skos:inScheme

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
Geographic bounding box *Geographic location of the dataset (by four coordinates or by geographic identifier) (C)	**dct:spatial**
Temporal extent *Additional extent information for the dataset (vertical and temporal) (O)	**dct:temporal**

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
Date of publication *Dataset reference date (M) - publication	**dct:issued**
Date of last revision *Dataset reference date (M) - revision	**dct:modified**
Date of creation *Dataset reference date (M) - creation	**dct:created**

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property / Class (bold face for DCAT-AP core properties)
Lineage *Lineage (O)	dct:provenance
Spatial resolution *Spatial resolution of the dataset (O)	*no candidate available*
Conformity *not in ISO19115 core	**dct:conformsTo**
	earl:Assertion
Conditions for access and use *not in ISO19115 core	**dct:rights**

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
Limitations on public access *not in ISO19115 core	dct:accessRights
Responsible party *Dataset responsible party (O)	**dct:publisher**
	dcat:contactPoint
	dct:rightsHolder
	dct:creator
	prov:qualifiedAttribution + dct:type (role)

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	Property (bold face for DCAT-AP core properties)
*Metadata file identifier (O)	dct:identifier
*Metadata standard name (O)	dct:conformsTo
*Metadata standard version (O)	
*Metadata character set (C)	cnt:characterEncoding
Metadata point of contact *Metadata point of contact (M)	dcat:contactPoint
	prov:qualifiedAttribution + dct:type (role)

RDF bindings

Element in INSPIRE Metadata Regulation [1] ***ISO19115:2003 Core Profile**	**Property** **(bold face for DCAT-AP core properties)**
Metadata date *Metadata date stamp (M)	dct:modified
Metadata language *Metadata language (C)	dct:language
Coordinate Reference System *Reference System (0)	*no candidate available*
Temporal Reference System	*no candidate available*
Encoding *Distribution format (O)	dct:format, dcat:mediaType

RDF bindings

Element in INSPIRE Metadata Regulation [1] *ISO19115:2003 Core Profile	**Property (bold face for DCAT-AP core properties)**
Topological Consistency	*no candidate available*
Character Encoding *Dataset character set (C)	cnt:characterEncoding
Spatial Representation Type *Spatial representation type (O)	*no candidate available*
Data Quality – Logical Consistency – Conceptual Consistency	*no candidate available*
Data Quality – Logical Consistency – Domain Consistency	*no candidate available*
Maintenance information	*no candidate available*

Controlled vocabularies (1/3)

Element(s) in INSPIRE *ISO19115:2003 Core	Controlled Vocabulary
Resource language Metadata language **(ISO 639-2)**	Language Named Authority List operated by the Metadata Registry of the Publications Office of the EU
Resource type	Register operated by the INSPIRE Registry for resource types defined in ISO 19139
Spatial data service type	Register operated by the INSPIRE Registry for service types
Topic category	Register operated by the INSPIRE Registry for topic categories defined in ISO 19115

Controlled vocabularies (2/3)

Element(s) in INSPIRE *ISO19115:2003 Core	Controlled Vocabulary
Keyword denoting one of the INSPIRE spatial data themes	INSPIRE spatial data theme register operated by the INSPIRE Registry
Keyword denoting one of the spatial data service categories	Register operated by the INSPIRE Registry for spatial data service categories defined in ISO 19119
Conformity degree	Register operated by the INSPIRE Registry for degrees of conformity
Responsible party role	Register operated by the INSPIRE Registry for responsible party roles

Controlled vocabularies (3/3)

Element(s) in INSPIRE *ISO19115:2003 Core	Controlled Vocabulary
Encoding	*Register of media types used for datasets in INSPIRE download services*
	File type Named Authority List operated by the Metadata Registry of the Publications Office of the EU
Coordinate Reference Systems	Register of coordinate reference systems included in the European Petroleum Survey Group (EPSG) Geodetic Parameter Dataset. http://www.opengis.net/def/crs/EPSG/ http://www.epsg-registry.org/

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6. Wrap-up, actions, planning the next working group meetings

Next steps

- WG member to sign the Contributor Licence Agreement
- WG members to review the first draft of the GeoDCAT-AP specification
- WG members to submit issues via the mailing list following the structure of the issue template
- Fill in the Doodle polls to schedule the next two meetings
  - 2nd WG virtual meeting: http://doodle.com/8cvputr4swdqipbn
  - 3rd WG virtual meeting: http://doodle.com/9c6kiksgpa3h8nqx
- Editors to produce second draft

Save the date!

5 May 2015
Riga – Latvia

https://joinup.ec.europa.eu/node/109900

Semantic Interoperability Conference 2015

Bringing Enterprise Information Management and Service Portfolio Management to public administration

Tuesday 5 May 2015
Riga, Latvia

Project Officers Vassilios.Peristeras@ec.europa.eu
Suzanne.Wigard@ec.europa.eu
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Visit our initiatives

ADMS ASSET DESCRIPTION METADATA SCHEMA

DCAT APPLICATION PROFILE FOR EUROPEAN DATA PORTALS

ADMS.SW

REGISTERED ORGANIZATION VOCABULARY

eGOVERNMENT CORE VOCABULARIES

CORE PUBLIC SERVICE VOCABULARY

CORE LOCATION VOCABULARY

CORE PERSON VOCABULARY

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