European Commission

20 **February 2024**

Introductory webinar on the revision of GeoDCAT-AP

interoperable europe

innovation ∞ govtech ∞ community

Agenda

Workshop practicalities

Audio

Click on 'connect audio' but please mute your microphones

Chat

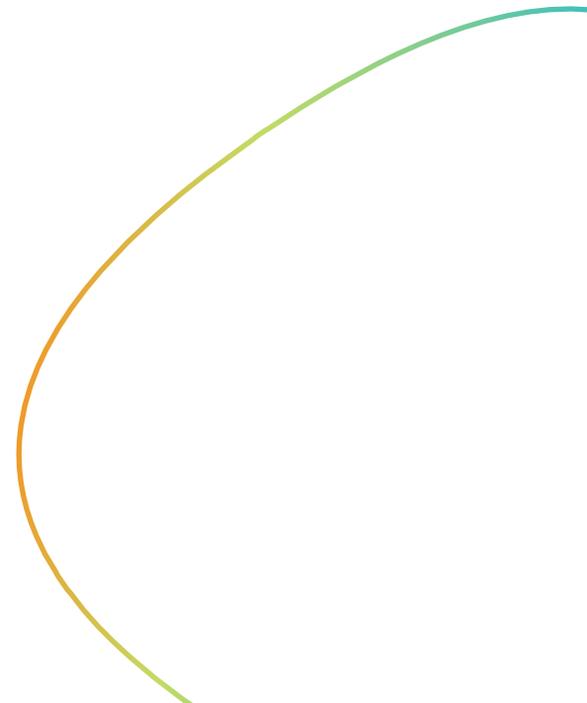You can also share your questions for the Q&A session via the chat

Recording
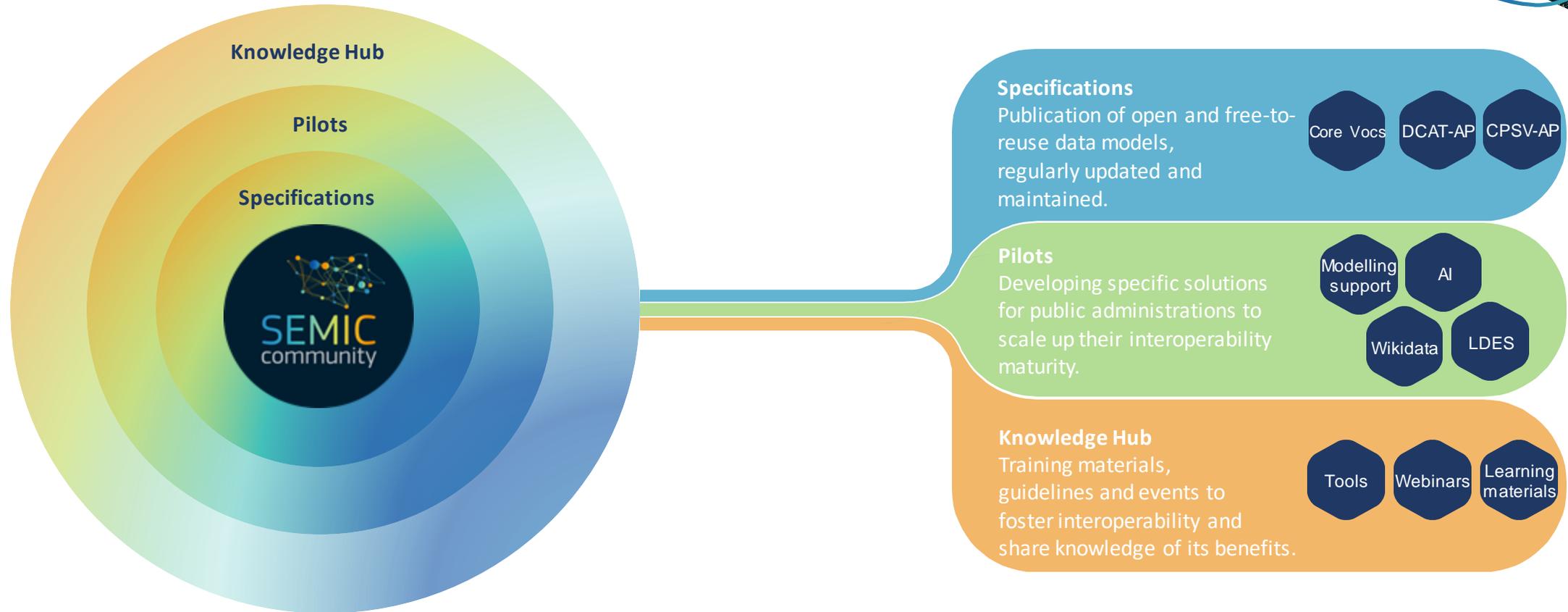
The workshop will be recorded
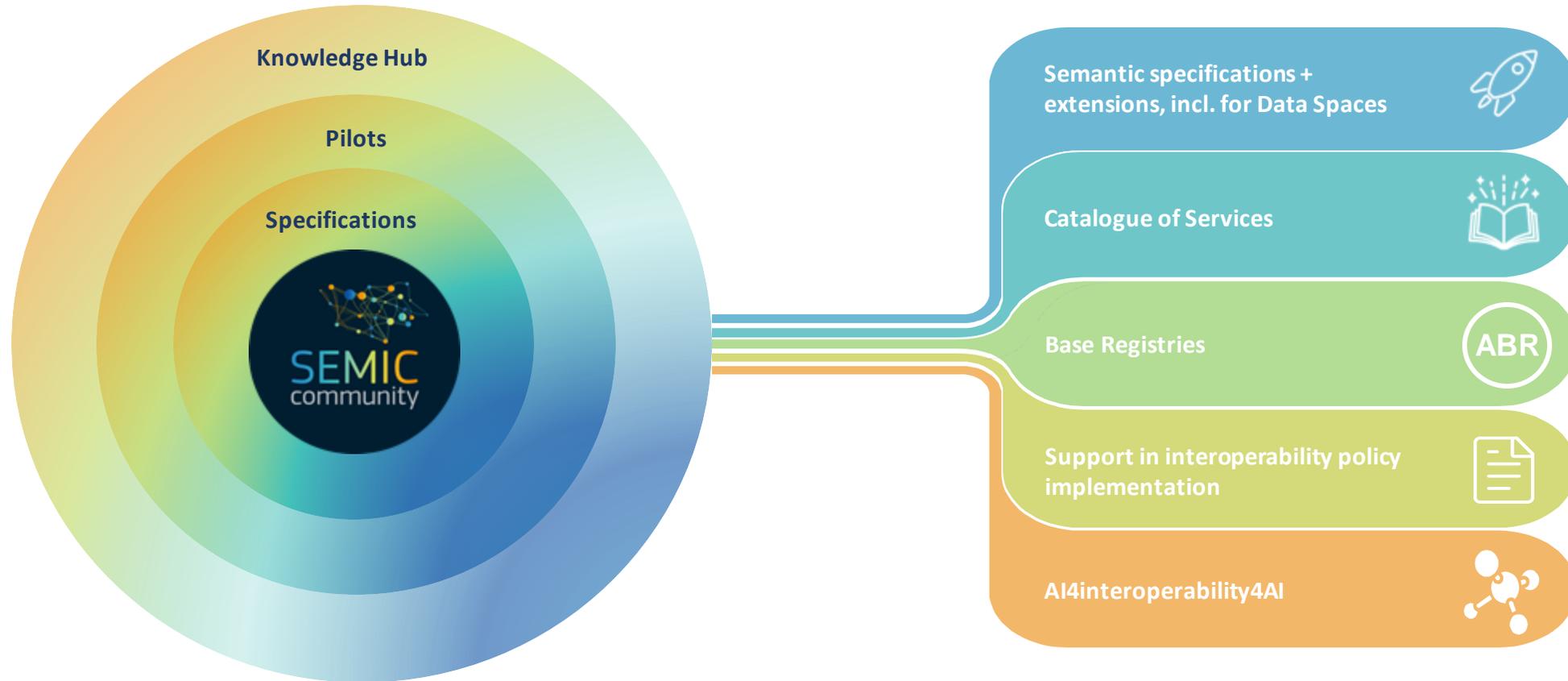
Context of the SEMIC assets

SEMIC

SEMIC's mission is to promote Semantic Interoperability amongst the EU Member States and deliver pragmatic support to help build an Interoperable Europe.

Knowledge Hub

Pilots

Specifications

SEMIC community

Specifications
Publication of open and free-to-reuse data models, regularly updated and maintained.

Core Vocs

DCAT-AP

CPSV-AP

Pilots
Developing specific solutions for public administrations to scale up their interoperability maturity.

Modelling support

AI

Wikidata

LDES

Knowledge Hub
Training materials, guidelines and events to foster interoperability and share knowledge of its benefits.

Tools

Webinars

Learning materials

European Commission

SEMIC Focus Areas

Knowledge Hub

Pilots

Specifications

SEMIC community

Semantic specifications + extensions, incl. for Data Spaces

Catalogue of Services

Base Registries — ABR

Support in interoperability policy implementation

AI4interoperability4AI

European Commission

Specifications

SEMIC specifications enable interoperability:

- They make data **transparent** and **available**
- They support the **coherent** implementation of laws and policies
- They help implement **cost efficiencies**
- They help **digitalisation** and **harmonising** processes

Core Vocabularies

Core Vocabularies are a cornerstone element of semantic interoperability. They provide a standardised approach for describing key concepts such as locations, businesses, organisations and natural persons.
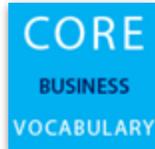
Application Profiles

Application Profiles make use of vocabularies for a detailed set of use cases to define mandatory relations, constraints and relationships.
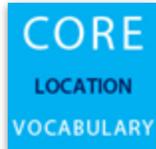
European Commission

SEMIC specifications

Vocabularies

CORE PERSON VOCABULARY
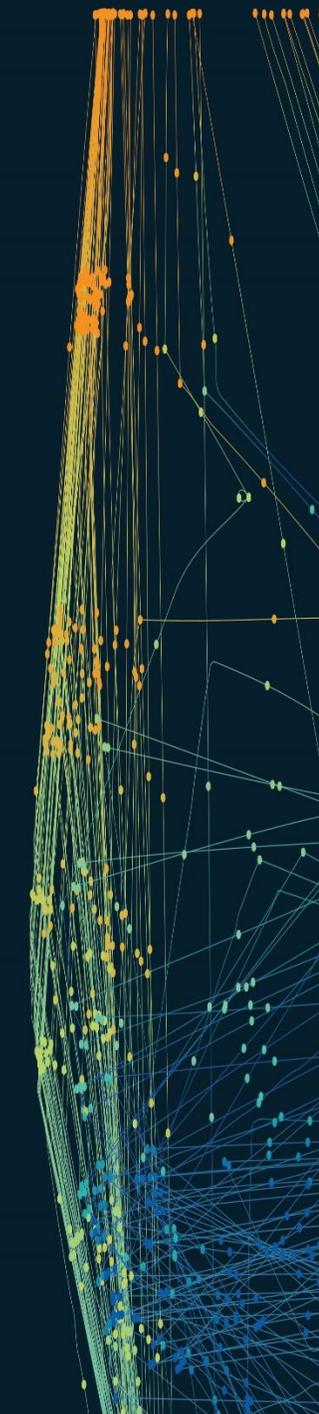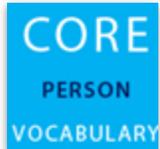
A person's name(s), date and place of birth/death, identifier, addresses, citizenship, etc.

CORE BUSINESS VOCABULARY

The legal name, address, identifier, company type, and activities of a legal entity.

CORE LOCATION VOCABULARY

The different ways of describing a location, e.g. via an address, a geographic name, or a geometry, in alignment with INSPIRE.

CORE CRITERION & EVIDENCE VOCABULARY
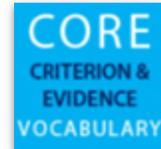
The requirements and evidence of a procedure or formal process.

CORE PUBLIC ORGANISATION VOCABULARY

The administrative information, hierarchy, identifiers, events and classification of a public organisation.

CORE PUBLIC EVENT VOCABULARY

A public event, its time, audience, location, etc.

ADMS ASSET DESCRIPTION METADATA SCHEMA

Application Profiles

CORE PUBLIC SERVICE VOCABULARY Application Profile

DCAT-AP FOR DATA PORTALS IN EUROPE

BRegDCAT-AP FOR BASE REGISTRIES

GeoDCAT-AP FOR GEOSPATIAL DATASETS

StatDCAT-AP FOR STATISTICAL DATASETS

European Commission
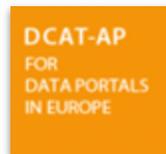
Objectives of DCAT-AP

⟩ Supporting the discovery of/access to (open) data in a cross-border and cross-domain environment, by describing metadata to be harvested across a distributed network of portals.

⟩ In the form of an application profile of W3C DCAT, by

- expressing constraints and usages on DCAT properties and classes, and
- including additional properties and usages of controlled vocabularies

Domains of applications

Open data portals with an extension for statistics and geospatial data.

Base registries metadata descriptions
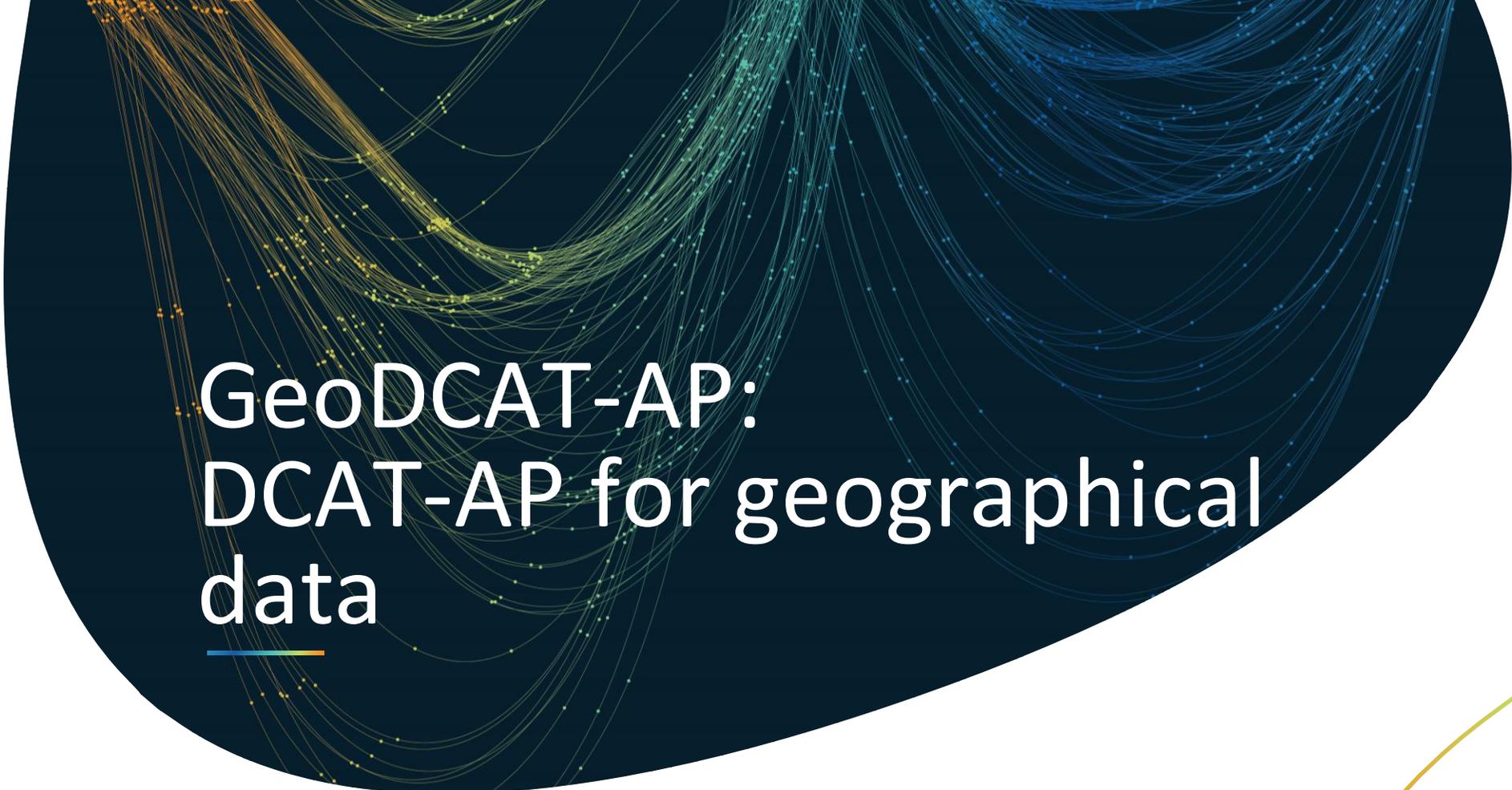
Data spaces
- NAPCORE-Mobility
- HealthDCAT-AP
- …

Machine Learning with MLDCAT-AP

European Commission

Collaboration

The revision of GeoDCAT-AP is a collaborative effort between:

- The Joint Research Community (JRC)
- DG ENV
- SEMIC (DG DIGIT)

GeoDCAT-AP:
DCAT-AP for geographical data

GeoDCAT-AP

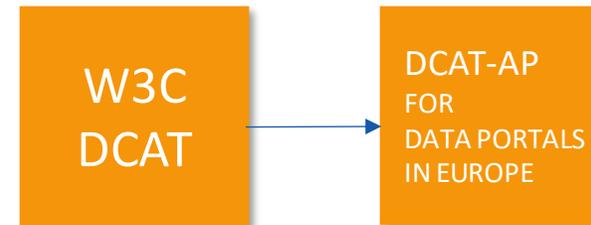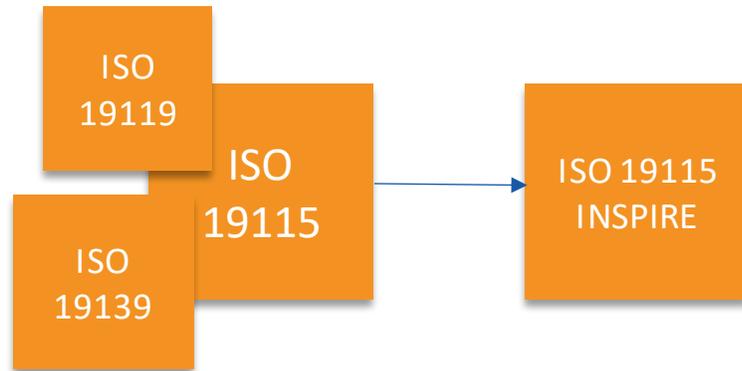GEODCAT-AP FOR GEOSPATIAL DATASETS

Basic use case: Make spatial datasets (services, series) **searchable on general data portals**.
→ **improve findability** across borders and sectors.

Spatial data natively described by
- core profile of ISO 19115:2003 and ISO 19119
- INSPIRE metadata

General data portals use
- W3C DCAT
- DCAT-AP in Europe

https://semiceu.github.io/GeoDCAT-AP/releases/2.0.0/

GeoDCAT-AP

Basic use case: Make spatial datasets (services, series) **searchable on general data portals**.
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- INSPIRE metadata

General data portals use
- W3C DCAT
- DCAT-AP in Europe

GeoDCAT-AP provides an alternative representation of INSPIRE metadata in 2 levels
- GeoDCAT-AP **Core**: Mapping to existing DCAT-AP terms
- GeoDCAT-AP **Extended**: Extensions for INSPIRE metadata with no direct DCAT-AP counterpart

Current status: GeoDCAT-AP 2.0.0 (**2020**)
   aligned with W3C DCAT 2, DCAT-AP 2.0.1, INSPIRE Metadata Technical Guidelines 2.0.1
Upcoming: GeoDCAT-AP 3.0.0 (**2024**)
   alignment with W3C DCAT 3, DCAT-AP 3.0, DCAT-AP HVD, INSPIRE Metadata Technical Guidelines 2.2.0

https://semiceu.github.io/GeoDCAT-AP/releases/2.0.0/

GeoDCAT-AP

GEODCAT-AP
FOR
GEOSPATIAL
DATASETS

Basic use case: Make spatial datasets (services, series) **searchable on general data portals**.
→ **improve findability** across borders and sectors.

Spatial data natively described by
- core profile of IS
- INSPIRE metada

General data portals use

GeoDCAT-AP provid
- GeoDCAT-AP **Co**
- GeoDCAT-AP **Ex**

GeoDCAT-AP **does not replace** the INSPIRE
Metadata Regulation nor the INSPIRE
Metadata technical guidelines based on
ISO 19115 and ISO 19119!

ounterpart

Current status: GeoDCAT-AP 2.0.0 (**2020**)
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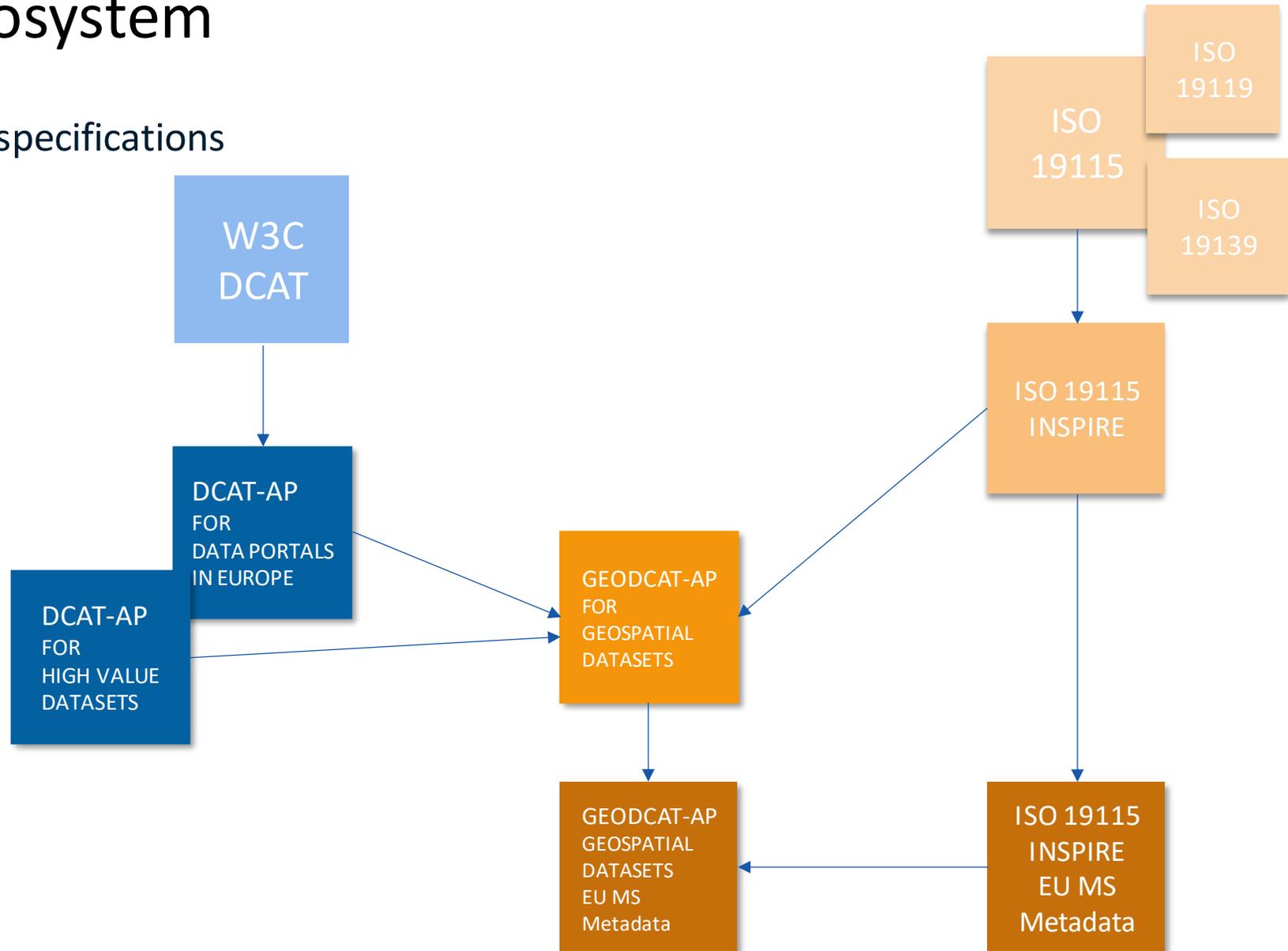**Upcoming:** GeoDCAT-AP 3.0.0 (**2024**)
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> https://semiceu.github.io/GeoDCAT-AP/releases/2.0.0/

GeoDCAT-AP: ecosystem

Interoperability between specifications

Home / News / OGC Forms new GeoDCAT Standards Working Group

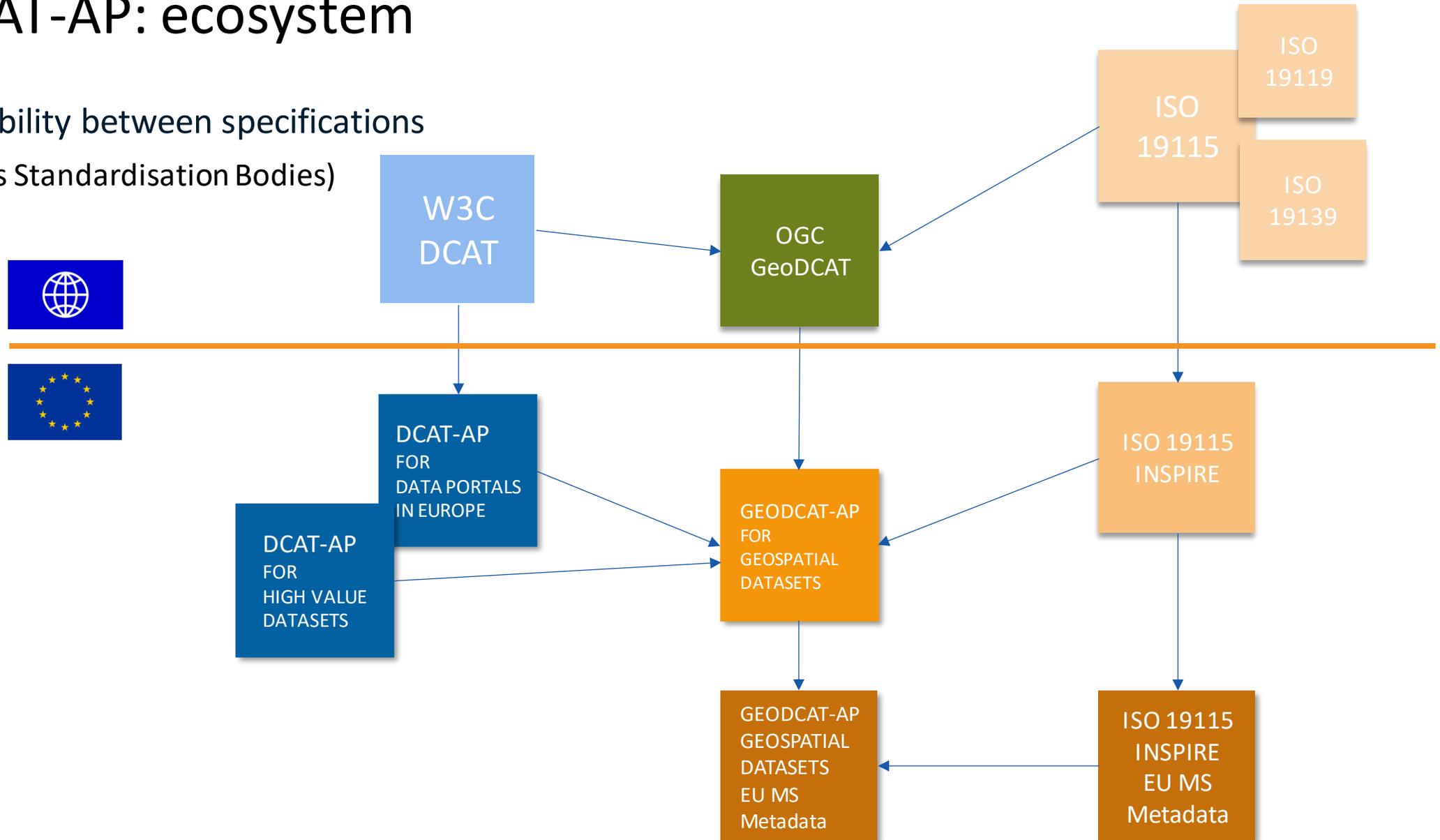May 18, 2023

OGC Forms new GeoDCAT Standards Working Group

The GeoDCAT SWG will separate a general geospatial profile of DCAT, called GeoDCAT, out from the Europe-specific Application Profile, GeoDCAT-AP.

OGC Forms new
GeoDCAT

GeoDCAT-AP: ecosystem

Interoperability between specifications

(even across Standardisation Bodies)

DCAT-AP 3.0

Major improvement trigged by alignment with W3C DCAT 3

- Dataset Series (W3C DCAT 3)

- Versioning (W3C DCAT 3)

- Applicable legislation (based on need from HVD IR)

- From PDF to online HTML representation (ReSpec)

- SEMIC Style Guide and Data Space profiles alignment, e.g. mobilityDCAT-AP, healthDCAT-AP, etc.

5 webinars + 80 issues

Updated DCAT-AP specification based on provided feedback in GitHub and webinars.

Released as Candidate Release in February 2024.

DCAT-AP HVD: annex compatible with both DCAT-AP 2.1.0 and DCAT-AP 3.0

https://semiceu.github.io/DCAT-AP/releases/3.0.0/

DCAT-AP for High Value Datasets: Quick Overview

DCAT-AP HVD is an annex of DCAT-AP

- Additional constraints in case the Dataset under consideration is subject to the HVD IR

- Additional information such as examples and validation support

Mandatory properties for Datasets and Data Services

- Applicable legislation => HVD IR

- HVD category
  - o EU Vocabularies NAL defined
  - o Mapping from INSPIRE themes exists

+ mandatory properties for Data Service
  - o Contact point
  - o Quality of service documentation

https://semiceu.github.io/uri.semic.eu-generated/DCAT-AP/releases/2.2.0-hvd/

§ 7.5 Dataset

Definition
A conceptual entity that represents the information published.

Reference in DCAT
Link

Subclass of
Catalogued Resource

Properties
For this entity the following properties are defined: applicable legislation , conforms to , contact point , dataset distribution , HVD Category .

Property	Range	Card	Definition	Usage	DCAT	Reuse
applicable legislation	Legal Resource	1..*	The legislation that mandates the creation or management of the Dataset.	For HVD the value must include the ELI http://data.europa.eu /eli/reg_impl/2023/138/oj. As multiple legislations may apply to the resource the maximum cardinality is not limited.		P
conforms to	Standard	0..*	An implementing rule or other specification.	The provided information should enable to the verification whether the detailed information requirements by the HVD is satisfied. For more usage suggestions see section on specific data requirements.	Link	A
contact point	Kind	0..*	Contact information that can be used for sending comments about the Dataset.		Link	A
				The HVD IR is a quality improvement of existing		

DCAT-AP for High Value Datasets: Quick Overview

HVD includes higher quality level of service and metadata

- Persistent IRIs
  - o Endpoint URLs
  - o DCAT Dataset IRIs
  - o DCAT Data Service IRIs

- Machine readable, dereferenceable licensing information
  - o not just textual information

https://semiceu.github.io/uri.semic.eu-generated/DCAT-AP/releases/2.2.0-hvd/

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§ 7.5 Dataset

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				The HVD IR is a quality improvement of existing		

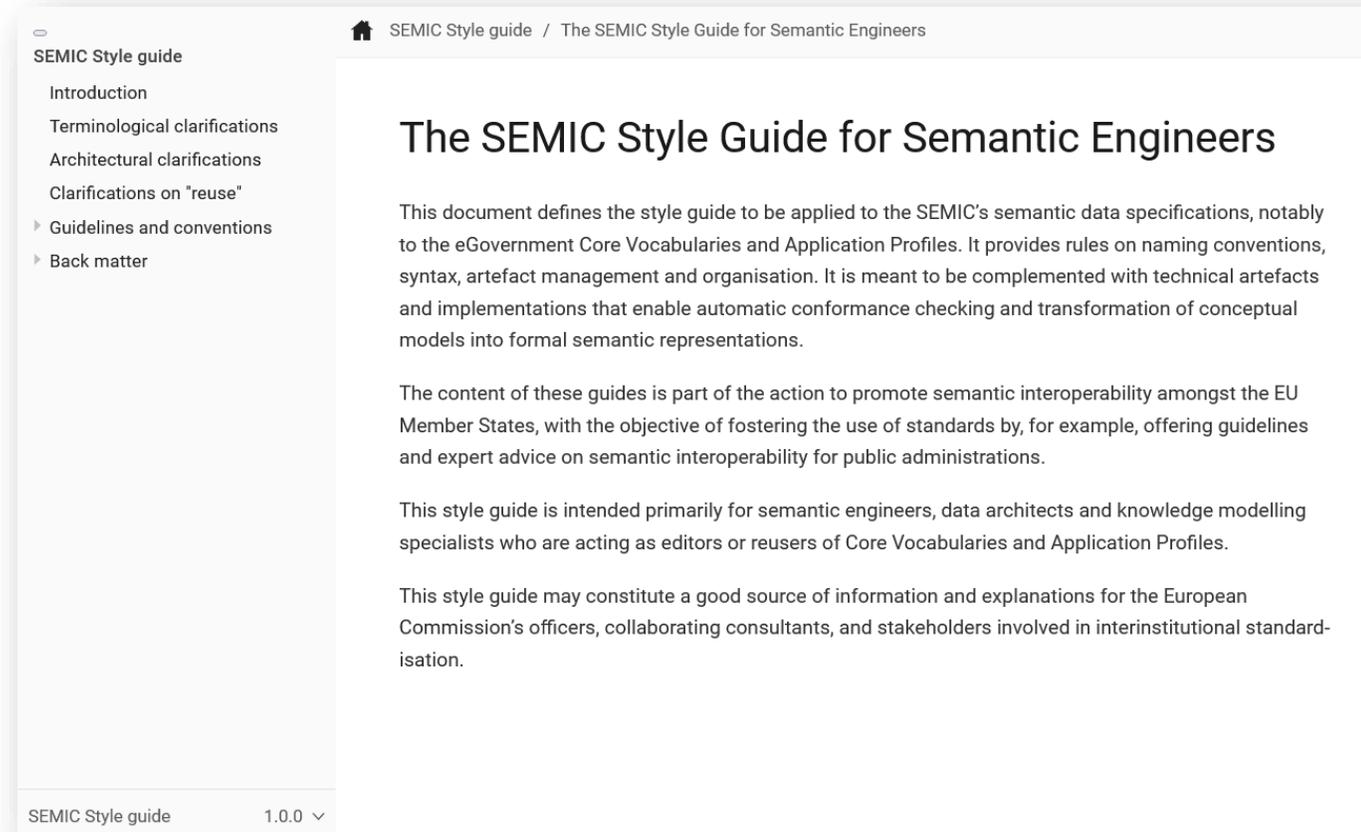# SEMIC Style Guide for DCAT-AP Profile Alignment

Question?

What are the rules to create good, interoperable data specifications.

Reuse types

- as-is

- with terminological changes

- with semantical adaptions

Coherency & editorial effort

- internal coherent

  o all artifacts express the same knowledge

- external reusable

  o artifacts ready for reuse

SEMIC Style guide / The SEMIC Style Guide for Semantic Engineers

SEMIC Style guide

Introduction

Terminological clarifications

Architectural clarifications

Clarifications on "reuse"

▸ Guidelines and conventions

▸ Back matter

The SEMIC Style Guide for Semantic Engineers

This document defines the style guide to be applied to the SEMIC's semantic data specifications, notably to the eGovernment Core Vocabularies and Application Profiles. It provides rules on naming conventions, syntax, artefact management and organisation. It is meant to be complemented with technical artefacts and implementations that enable automatic conformance checking and transformation of conceptual models into formal semantic representations.

The content of these guides is part of the action to promote semantic interoperability amongst the EU Member States, with the objective of fostering the use of standards by, for example, offering guidelines and expert advice on semantic interoperability for public administrations.

This style guide is intended primarily for semantic engineers, data architects and knowledge modelling specialists who are acting as editors or reusers of Core Vocabularies and Application Profiles.

This style guide may constitute a good source of information and explanations for the European Commission's officers, collaborating consultants, and stakeholders involved in interinstitutional standard-isation.

SEMIC Style guide   1.0.0 ⌄

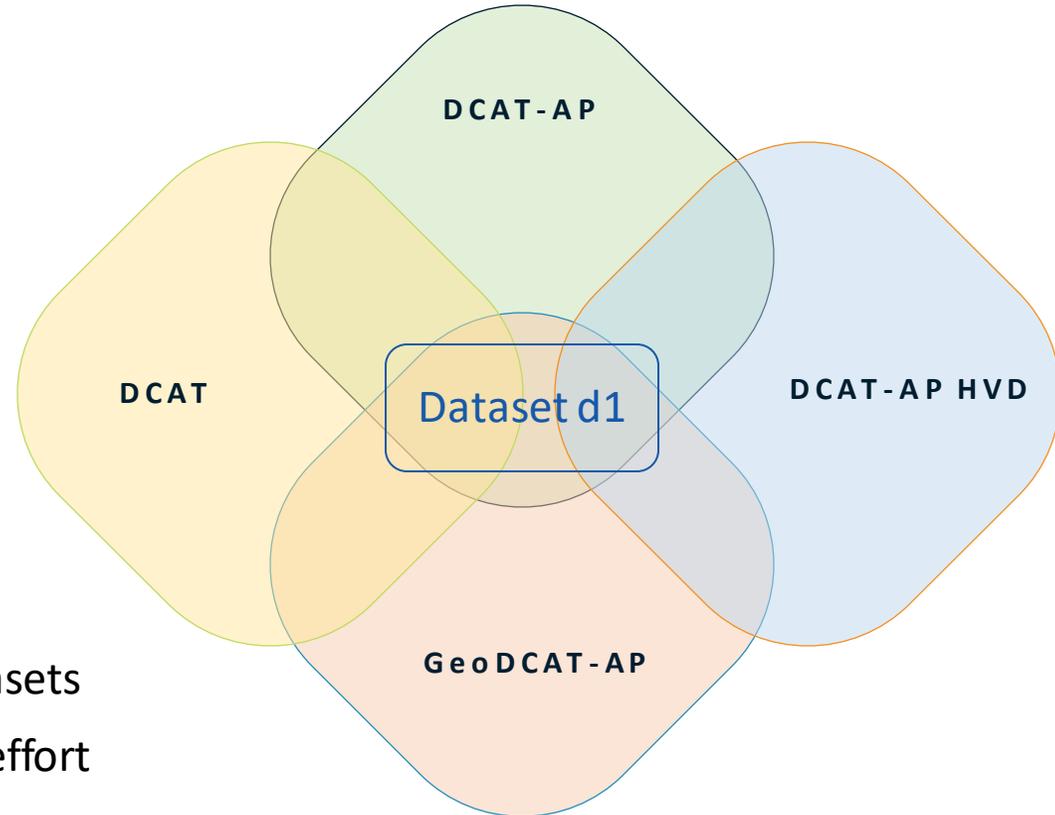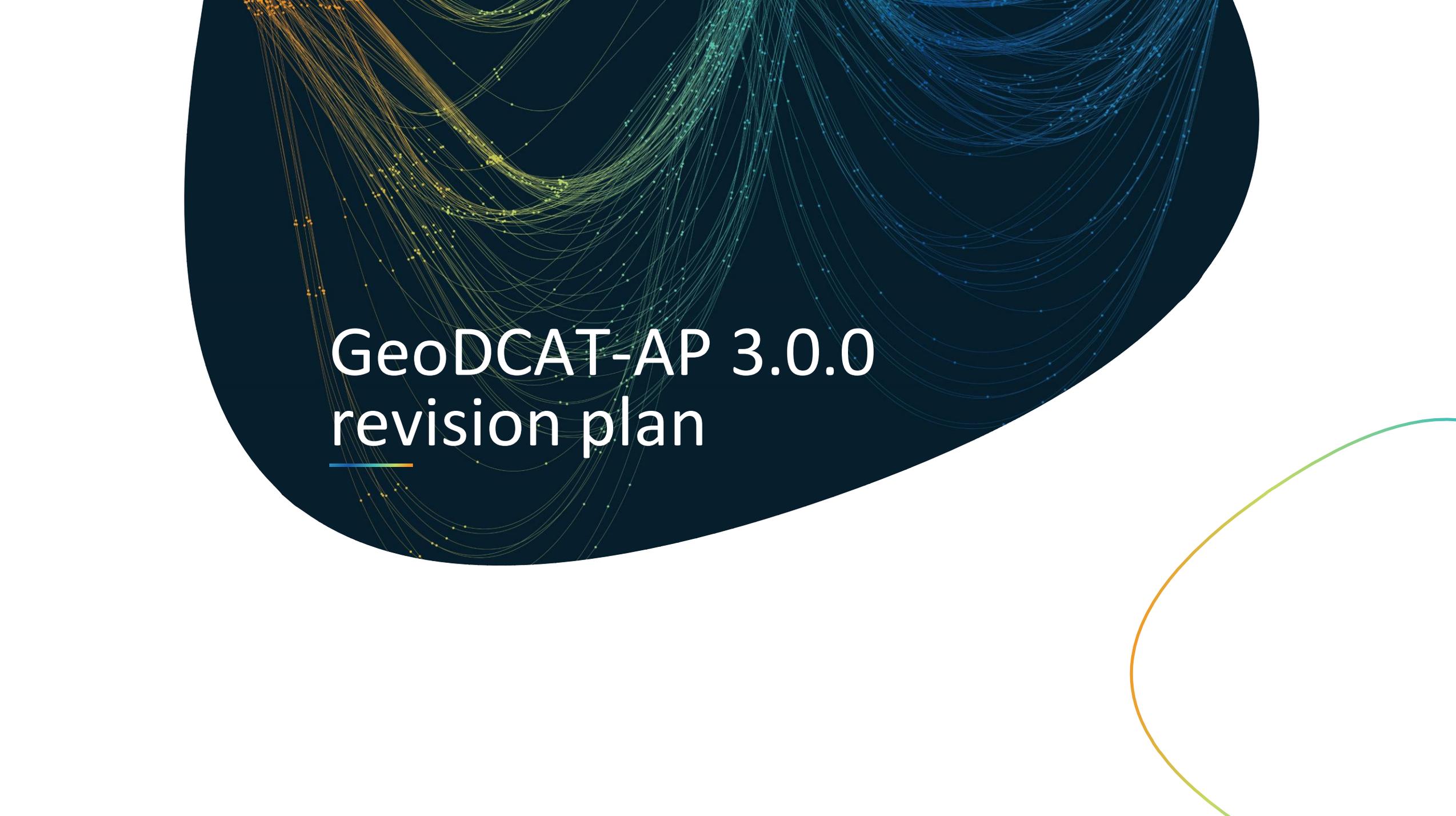https://semiceu.github.io/style-guide/1.0.0/index.html

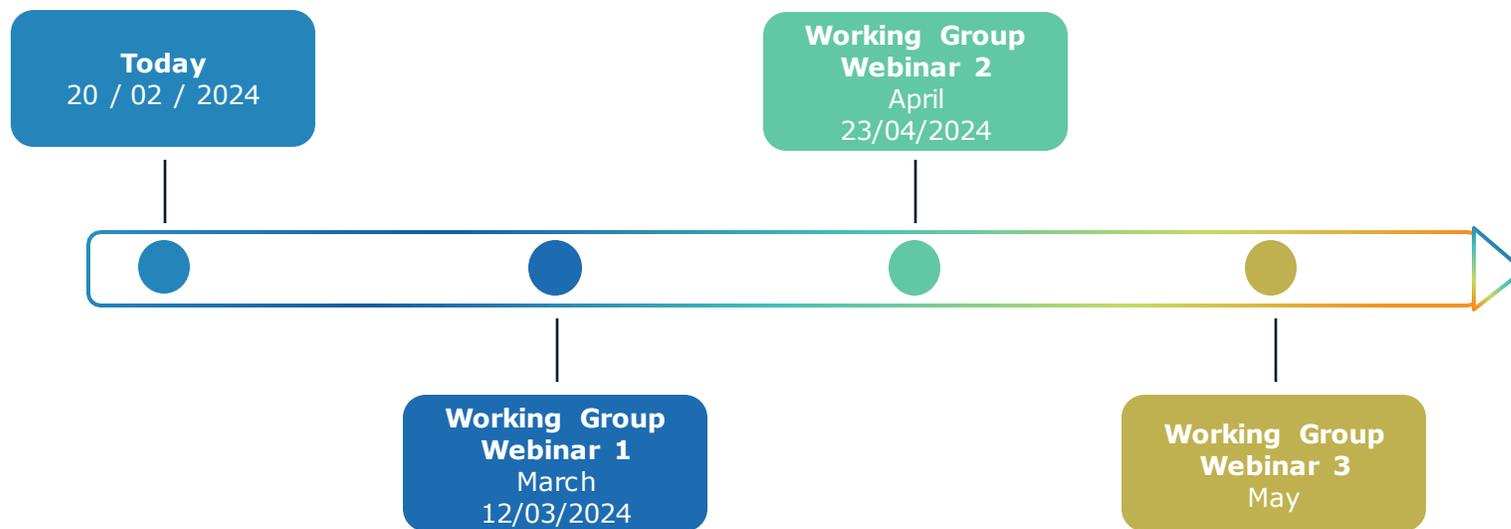# Multi-domain collaboration

Interoperable Profiles

- Concise
  - easiness to read, editorial effort
- Once-only effort for publishers of datasets

resulting in acceptable implementation effort

GeoDCAT-AP 3.0.0 revision plan

GeoDCAT-AP Timeline

Today
20 / 02 / 2024

Working Group Webinar 1
March
12/03/2024

Working Group Webinar 2
April
23/04/2024

Working Group Webinar 3
May

GeoDCAT-AP 3.0.0: revision plan

Revision already started, see https://github.com/SEMICeu/GeoDCAT-AP/issues

Working Group Webinar 1 - Concerning generic organisation & findability (12/03/2024)

- Datasets, Distributions and their relationships

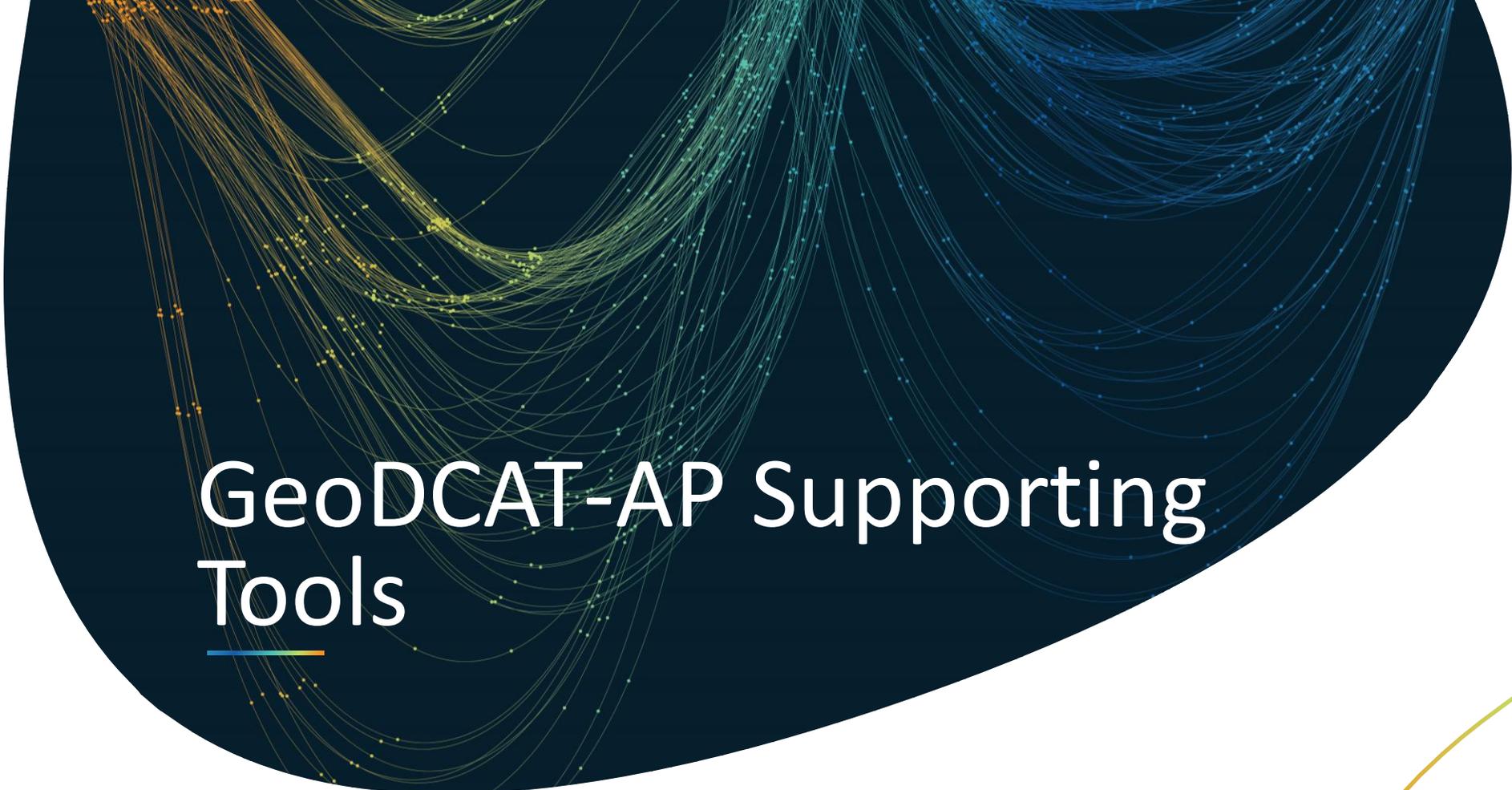- Categories (alignment with DCAT-AP 3.0): keywords, categories, themes

Working Group Webinar 2 – specific geo-aspects (23/04/2024)

- Geospatial coverage & resolution

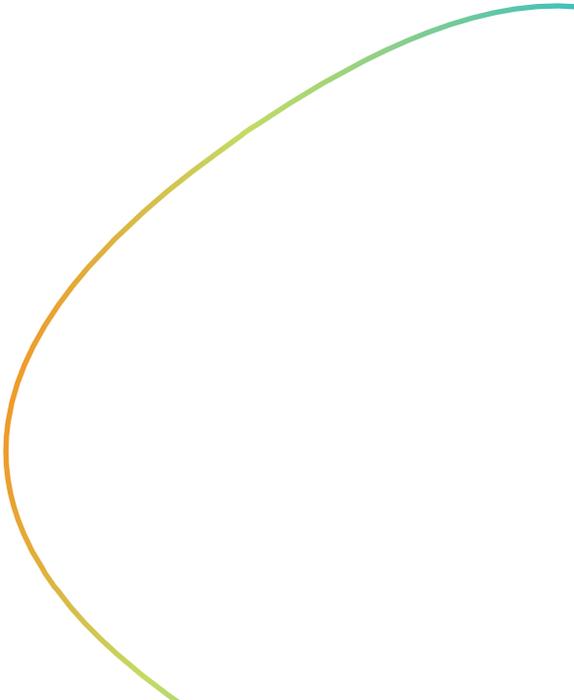- Coordinate reference systems & spatial representation type

Working Group Webinar 3 – relationship with INSPIRE

- GeoDCAT-AP related tools such as XSLT

We are interested in which issues you are facing and we encourage you to post them as issues on the GeoDCAT-AP GitHub repository.

GeoDCAT-AP Supporting Tools

Poll: which of the GeoDCAT-AP tools are you using?

GEODCAT-AP
FOR
GEOSPATIAL
DATASETS

You can access the Slido by:

- **scanning the QR code** on your mobile device
- clicking the **link provided in the chat**

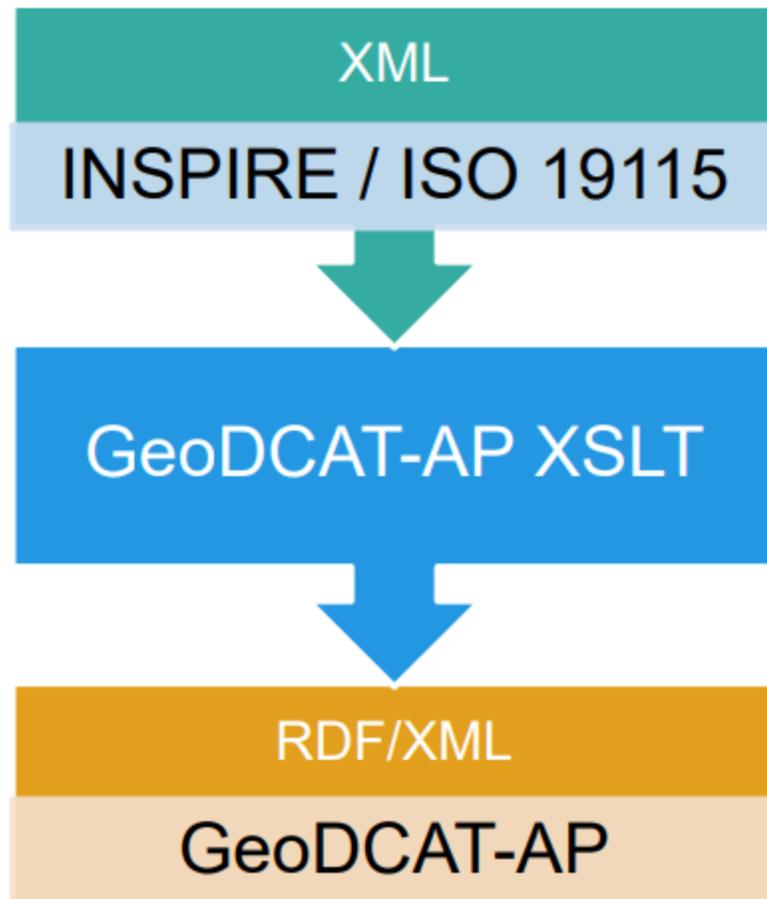# Supporting tools: GeoDCAT-AP XSLT

GEODCAT-AP FOR GEOSPATIAL DATASETS

```
┌─────────────────────────────┐
│            XML              │
├─────────────────────────────┤
│    INSPIRE / ISO 19115      │
└─────────────────────────────┘
              ↓
┌─────────────────────────────┐
│     GeoDCAT-AP XSLT         │
└─────────────────────────────┘
              ↓
┌─────────────────────────────┐
│          RDF/XML            │
├─────────────────────────────┤
│         GeoDCAT-AP          │
└─────────────────────────────┘
```

- Reference implementation of the mappings defined in GeoDCAT-AP

- Converts INSPIRE / ISO 19115 into Geo-DCAT-AP

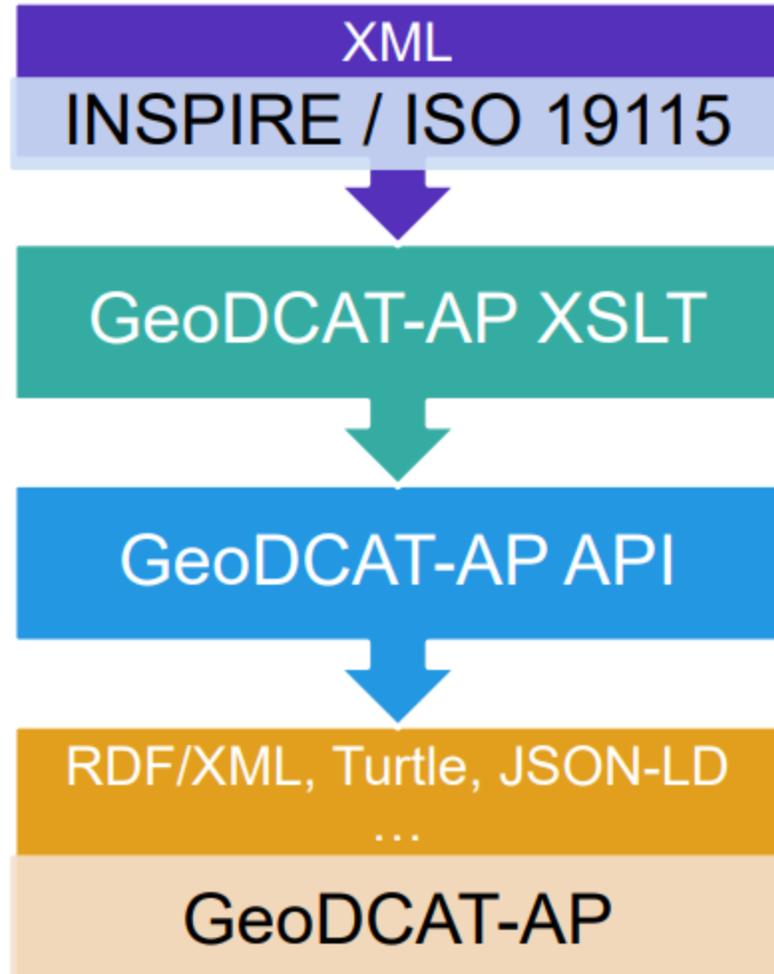- Can run in any tool supporting XSLT

https://github.com/SEMICeu/iso-19139-to-dcat-ap

Supporting tools: GeoDCAT-AP API

GEODCAT-AP FOR GEOSPATIAL DATASETS

- Given a CSW endpoint, extracts all dataset descriptions according to the XSLT transformation in GeoDCAT-AP.

- Uses the Geo-DCAT-AP XSLT

- multiple RDF serializations output

http://geodcat-ap.semic.eu/api/

Supporting tools: GeoDCAT-AP API

GeoDCAT-AP API
ISO 19139 records in RDF

Output Schema : GeoDCAT-AP ⌄   **Transform**

https://sdi.eea.europa.eu/catalogue/srv/eng/csw?request=GetRecords&service=CSW&ver

Output format : HTML+RDFa ⌄

Usage notes

Copy & paste the URL of a file or of a CSW request returning ISO 19139 records.

Supported CSW request types: GetRecords, GetRecordById.

Supported CSW output schema: http://www.isotc211.org/2005/gmd

NB: The current version of the API supports only CSW calls using the GET HTTP method.

A description of the GeoDCAT-AP API is available on the dedicated GitHub repository.

http://geodcat-ap.semic.eu/api/

Supporting tools: CSW-4 Web

GEODCAT-AP
FOR
GEOSPATIAL
DATASETS

CSW-4-Web
A Web-friendly front-end for CSW endpoints

GeoDCAT-AP
FOR
GEOSPATIAL
DATASETS

Copy & paste the capabilities URL of a CSW service ▶

ℹ Please read below before submitting the form

The form above, when submitted, will send you a cookie including the URL you specified, which will be used to generate the CSW-4-Web pages you will be visiting.

The cookie will be used only for that purpose, and it will be deleted when you close your browser. However, if you prefer to have no cookie set, you can try one of the following services for a demo.

EEA SDI Catalogue (Copernicus)
~70 records

EEA SDI Catalogue
1,000+ records

INSPIRE Geoportal Discovery Service
200,000+ records

- Publish content of a CSW endpoints
  - in web-friendly way
  - without need of specific client applications

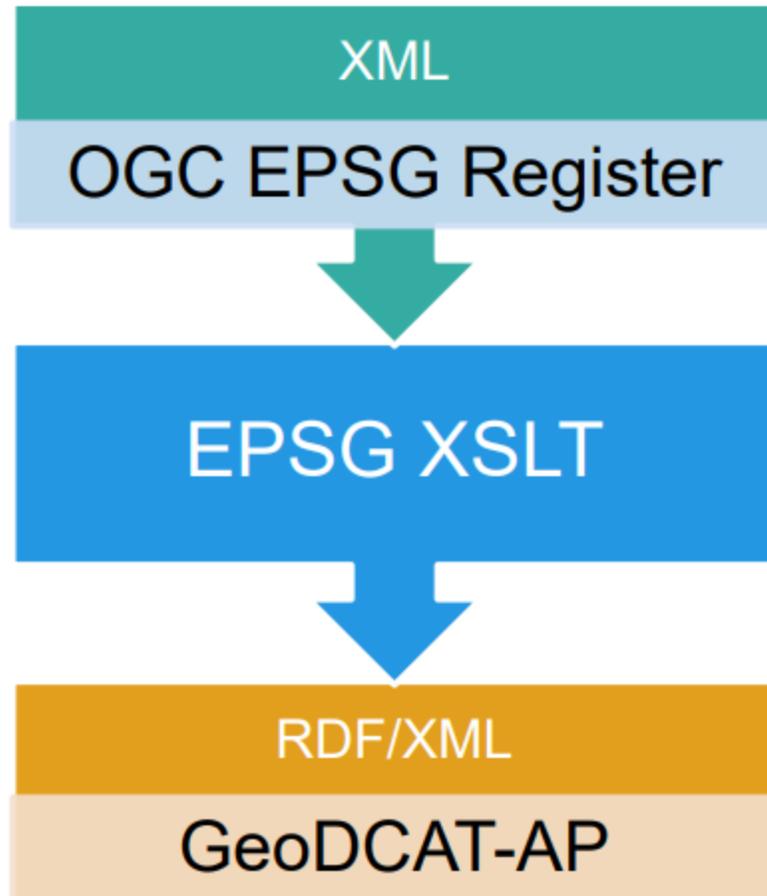- Uses *extended and ad-hoc version* of Geo-DCAT-AP XSLT & API

http://geodcat-ap.semic.eu/csw-4-web/

Other tools: EPSG-XSLT

GEODCAT-AP FOR GEOSPATIAL DATASETS

XML

OGC EPSG Register

↓

EPSG XSLT

↓

RDF/XML

GeoDCAT-AP

- Converts entries from the OGC EPSG register of CRS into a GEO-DCAT-AP conformant representation

- Can be run in any tool supporting XSLT

```
<http://www.opengis.net/def/crs/EPSG/0/4326> a dct:Standard,
    skos:Concept ;
  rdfs:label "WGS 84"@en ;
  dc:source "EPSG. See 3D CRS for original information source."@en ;
  dc:type "geographic 2d"@en ;
  dct:identifier "http://www.opengis.net/def/crs/EPSG/0/4326"^^xsd:anyURI ;
  dct:modified "2020-03-14"^^xsd:dateTime ;
  dct:relation <https://apps.epsg.org/api/v1/CoordSystem/6422/export?format=gml>,
    <https://apps.epsg.org/api/v1/Datum/6326/export?format=gml> ;
```

http://github.com/SEMICeu/epsg-to-rdf/

Other tools

GEODCAT-AP
FOR
GEOSPATIAL
DATASETS

GeoIRI
HTTP URIs for geometries

Geometry (WKT)   ⓘ EPSG : 4326   **Get GeoIRI**

MULTIPOLYGON(((40 40, 20 45, 45 30, 40 40)),((20 35, 45 20, 30 5, 10 10, 10 30, 20 35),(30 20, 20 25, 20 15, 30 20)))

NB: The axis order in the WKT-encoded geometry must be longitude / latitude, irrespective of the selected coordinate reference system.

Powered by GeoIRI

This work is jointly supported by the ARe3NA and SEMIC Actions of the EU ISA Programme.

ARe3NA SEMIC ISA

Measurement resolution
HTTP URIs for measurement resolution

Scale: 1:100

URI: http://dcat-ap.semic.eu/id/resolution/scale/100
Type: Quality Measurement
Raw data: RDF/XML | N-Triples | N3 | Turtle | JSON-LD |

Properties

rdfs:label	Spatial resolution (scale): 1:100
rdf:type	dqv:QualityMeasurement
dqv:isMeasurementOf	geodcatap:SpatialResolutionAsScale
dqv:value	0.0100000000000000000208167

```
http://some.site/geoiri/doc/geometry/4326/multipolygon(((40_40,20_45,45_30
,40_40)),((20_35,45_20,30_5,10_10,10_30,20_35),(30_20,20_25,20_15,30_20)))
```

```
http://dcat-ap.semic.eu/id/resolution/scale/100
```

Create URIs for geometries

〉 https://geodcat-ap.semic.eu/geoiri/

Other supportive URIs
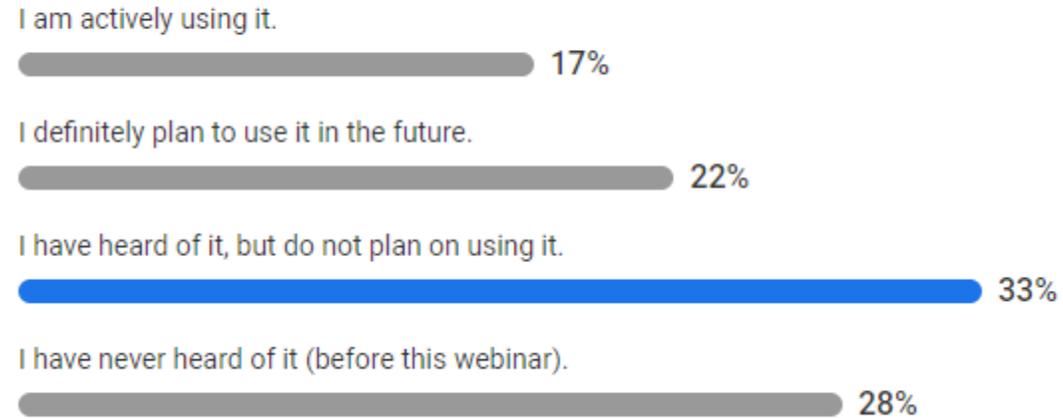
〉 https://geodcat-ap.semic.eu/id/resolution/scale/100

Break

Poll results

Poll results: GeoDCAT-AP XSLT

Choose the option that is most applicable for you for: GeoDCAT-AP XSLT.   18 👥

I am actively using it.

17%

I definitely plan to use it in the future.

22%

I have heard of it, but do not plan on using it.

33%

I have never heard of it (before this webinar).

28%

Poll results: GeoDCAT-AP API

Choose the option that is most applicable for you for: GeoDCAT-AP API.   18

I am actively using it.
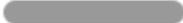
11%

I definitely plan to use it in the future.

17%

I have heard of it, but do not plan on using it.

0%

I have never heard of it (before this webinar).

72%

Poll results: CSW-4 WEB

Choose the option that is most applicable for you for: CSW-4 Web.   17 👥

I am actively using it.

⬤—— 6%

I definitely plan to use it in the future.

⬤—— 6%

I have heard of it, but do not plan on using it.

⬤——— 12%

I have never heard of it (before this webinar).

⬤——————————————————— 76%

Poll results: EPSG-XSLT

Choose the option that is most applicable for you for: EPSG-XSLT.   18 👥

I am actively using it.

⬭ 0%

I definitely plan to use it in the future.

▬▬▬ 6%

I have heard of it, but do not plan on using it.

▬▬▬▬ 11%

I have never heard of it (before this webinar).

▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬ 83%

Poll results: GeoIRI

Choose the option that is most applicable for you for: GeoIRI.   18 👥

I am actively using it.
0%

I definitely plan to use it in the future.
6%

I have heard of it, but do not plan on using it.
6%

I have never heard of it (before this webinar).
89%

Poll results: Measurement Resolution

Choose the option that is most applicable for you for: Measurement Resolution.

18 👥

I am actively using it.

0%

I definitely plan to use it in the future.

6%

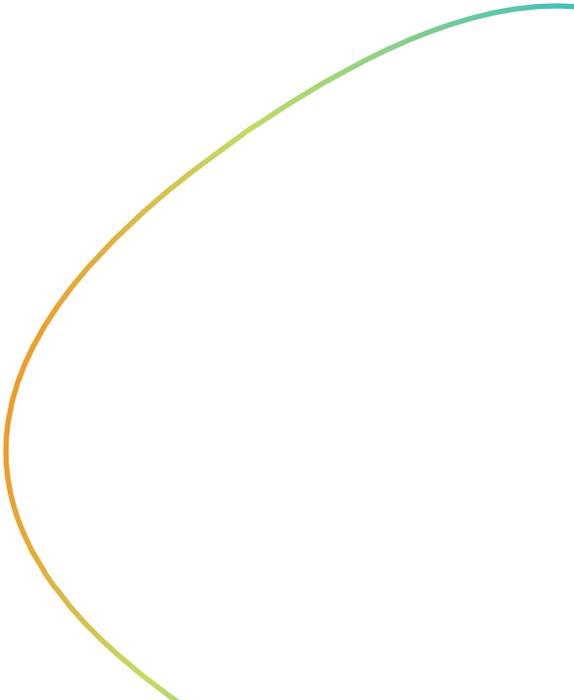I have heard of it, but do not plan on using it.

6%

I have never heard of it (before this webinar).

89%
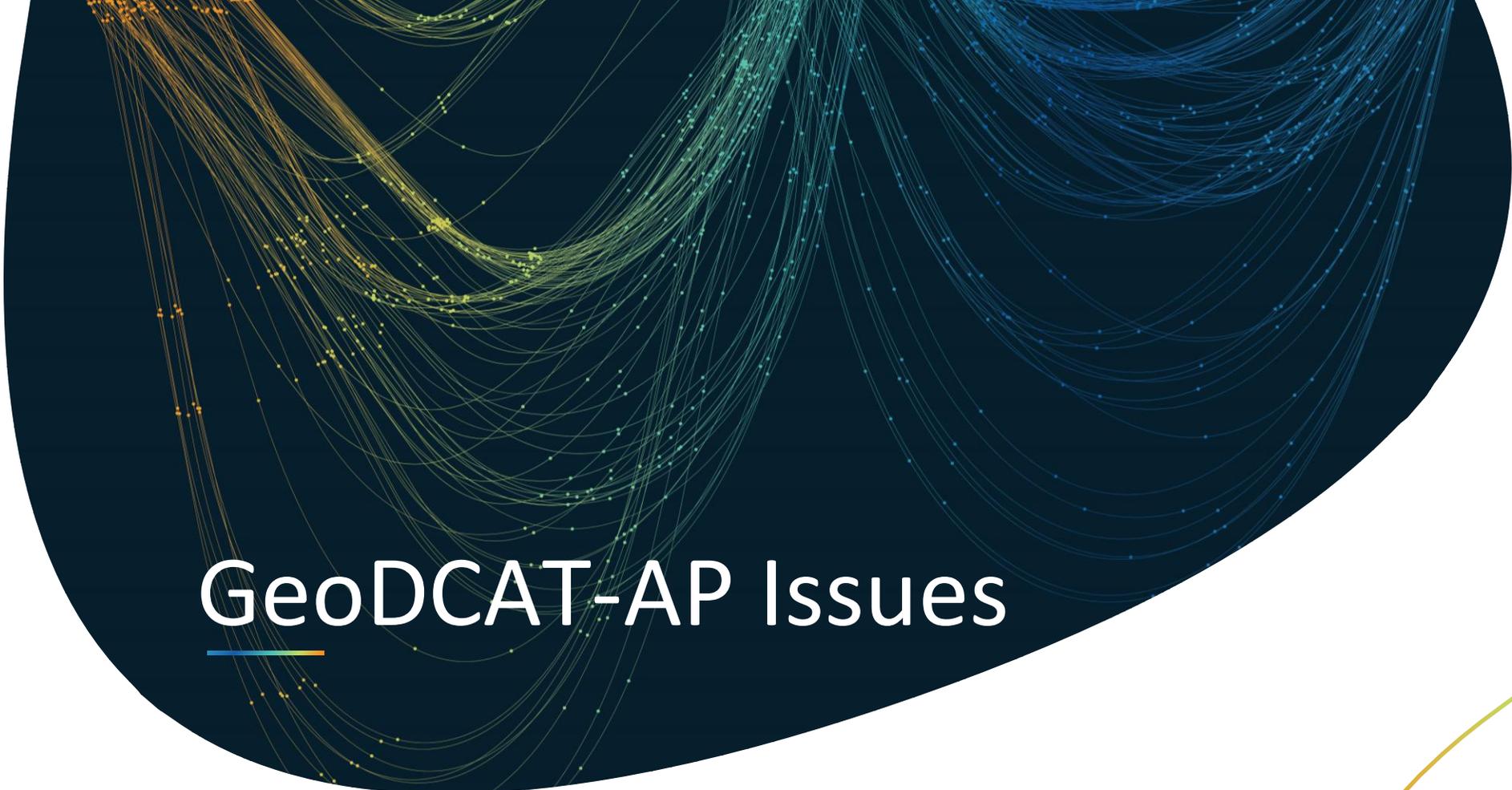
GeoDCAT-AP Issues

Currently 17 open issues

- 6x DCAT-AP 3.0 alignment
- 1x INSPIRE alignment
- 2x SEMIC Style Guide alignment
- 3x editorial
- 1x other

(4x) Feedback requested!

https://github.com/SEMICeu/GeoDCAT-AP/issues

GEODCAT-AP FOR GEOSPATIAL DATASETS

☐ ⊙ 16 Open   ✓ 29 Closed   Author ▾   Label ▾   Projects ▾   Milestones ▾   Assignee ▾   Sort ▾

☐ ⊙ Define profile specific sub-property of `dct:subject` release:3.0.0 style-guide
   #78 opened 23 minutes ago by jakubklimek

☐ ⊙ Revise ambiguous `dct:type` mapping on Data Service release:3.0.0 style-guide
   #77 opened 3 days ago by jakubklimek

☐ ⊙ Revise guidance on usage of GeoJSON release:3.0.0 type:editorial
   #76 opened 3 days ago by jakubklimek

☐ ⊙ Add properties for datasets in a dataset series alignment-dcat-ap-3.0 release:3.0.0
   #75 opened last week by andrea-perego

☐ ⊙ Add versioning properties alignment-dcat-ap-3.0 release:3.0.0
   #73 opened 2 weeks ago by andrea-perego

☐ ⊙ Properties for class dcat:DatasetSeries alignment-dcat-ap-3.0 release:3.0.0
   #72 opened 2 weeks ago by andrea-perego

☐ ⊙ Add class dcat:DatasetSeries alignment-dcat-ap-3.0 release:3.0.0
   #71 opened 2 weeks ago by andrea-perego

☐ ⊙ Alignment with version 2.2.0 of the INSPIRE Metadata Technical Guidelines alignment-inspire release:3.0.0   💬 1
   #70 opened 2 weeks ago by andrea-perego 🗐 1 task

☐ ⊙ Alignment with DCAT-AP 3 and DCAT 3 alignment-dcat-ap-3.0 release:3.0.0
   #69 opened 2 weeks ago by andrea-perego 🗐 4 tasks

☐ ⊙ Example 35 Using Multiple `dcat:bbox` feedback-requested release:3.0.0   👤 💬 1
   #68 opened on Jul 25, 2023 by init-dcat-ap-de

☐ ⊙ Relationships between GeoDCAT-AP and DCTERMS agent roles feedback-requested   💬 1
   #57 opened on Dec 15, 2020 by andrea-perego

☐ ⊙ Maintenance frequency code list release:3.0.0   💬 7
   #56 opened on Dec 7, 2020 by andrea-perego

☐ ⊙ Review list of recommended controlled vocabularies release:3.0.0 type:editorial   👤
   #49 opened on Dec 4, 2020 by andrea-perego

☐ ⊙ Support 1-to-many mappings for responsible party roles feedback-requested   💬 1

Ambiguous mapping of *dct:type* on Data Service (issue [#77](#))

Description

In GeoDCAT-AP 2.0.0 `dct:type` on Data Service is used in three different contexts.

1. **service category** with "Classification of spatial data services" code list

2. **service type** with "Spatial data service types" code list

3. **type** with "Resource types" code list. (this one also appears in Dataset)

Motivation

- Correct assignment of usage notes, labels and required code lists rather difficult, as well as validation

- not in line with guidelines of SEMIC Style Guide
  - Reuse of a property with terminological adaptations or
  - Reuse of a property with semantic adaptations.

- Even more problematic in a cross-profile environment - incompatible requirements can be easily made

Feedback requested!

+service category	`dct:type`	`skos:Concept`	In GeoDCAT-AP, this property *SHOULD* take as value one of the URIs of the "Classification of spatial data services" code list operated by the INSPIRE Registry [INSPIRE-SDSC].	0..1
+service type	`dct:type`	`skos:Concept`	In GeoDCAT-AP, this property *SHOULD* take as value one of the URIs of the "Spatial data service types" code list operated by the INSPIRE Registry [INSPIRE-SDST].	0..1
+type	`dct:type`	`skos:Concept`	In GeoDCAT-AP, this property *SHOULD* take as value one of the URIs of the "Resource types" code list operated by the INSPIRE Registry [INSPIRE-RT] - namely the one corresponding to "Spatial data service".	0..1

Ambiguous mapping of *dct:type* on Data Service (issue [#77](#))

Description

In GeoDCAT-AP 2.0.0 `dct:type` on Data Service is used in three different contexts.

1. **service category** with "Classification of spatial data services" code list

2. **service type** with "Spatial data service types" code list

3. **type** with "Resource types" code list. (this one also appears in Dataset)

Proposition

Introduce subproperties of `dct:type`

- `geodcat-ap:serviceCategory` for "Classification of spatial data services" code list

- `geodcat-ap:serviceType` for "Spatial data service types" code list

- `geodcat-ap:resourceType` for "Resource types" code list with the domain of `dcat:Resource` to accommodate both for Datasets and Data Services

Feedback requested!

+service category	`dct:type`	`skos:Concept`	In GeoDCAT-AP, this property *SHOULD* take as value one of the URIs of the "Classification of spatial data services" code list operated by the INSPIRE Registry [INSPIRE-SDSC].	0..1
+service type	`dct:type`	`skos:Concept`	In GeoDCAT-AP, this property *SHOULD* take as value one of the URIs of the "Spatial data service types" code list operated by the INSPIRE Registry [INSPIRE-SDST].	0..1
+type	`dct:type`	`skos:Concept`	In GeoDCAT-AP, this property *SHOULD* take as value one of the URIs of the "Resource types" code list operated by the INSPIRE Registry [INSPIRE-RT] - namely the one corresponding to "Spatial data service".	0..1

Profile specific sub-property of *dct:subject* (issue #78)

Description

The generic property `dct:subject` is used for specific code list "Topic categories in accordance with EN ISO 19115" (see B.6.8.1 Topic category and keyword in datasets and dataset series)

Motivation

- Correct assignment of usage notes, labels and required code lists rather difficult, as well as validation

- not in line with guidelines of SEMIC Style Guide
    - Reuse of a property with terminological adaptations or
    - Reuse of a property with semantic adaptations.

- Even more problematic in a cross-profile environment - incompatible requirements can be easily made

§ B.6.8.1 Topic category and keyword in datasets and dataset series

As far as dataset metadata are concerned, in both [VOCAB-DCAT-2] and [DCAT-AP-20200608], a distinction is made only between free keywords and keywords from controlled vocabularies, associated with a URI. For the former, `dcat:keyword` is used, whereas for the latter `dcat:theme` (which is a sub-property of `dct:subject`). Since the INSPIRE Registry operates URI registers for topic categories and INSPIRE spatial data themes, and in order to keep the distinction existing in INSPIRE between topic categories and keywords, the mapping is as follows:

- Topic category is mapped to `dct:subject`, and expressed by the corresponding URIs minted for the ISO code list in the INSPIRE Registry – reference register:

    http://inspire.ec.europa.eu/metadata-codelist/TopicCategory

- Keywords not associated with a controlled vocabulary will be mapped to `dcat:keyword`;

- INSPIRE spatial data themes are mapped to `dcat:theme` and expressed by the corresponding URI in the INSPIRE Registry – reference register:

    http://inspire.ec.europa.eu/theme

- Keywords associated with other controlled vocabularies are mapped to `dcat:theme`.

Proposition

Introduce subproperty of `dct:subject`

- `geodcat-ap:topicCategory` for "Topic categories in accordance with EN ISO 19115" code list

Feedback requested!

Investigation of usage of Dataset series in INSPIRE community (#79)

Description

Need to determine how Dataset series is used in the INSPIRE community. Is it just a grouping of datasets, or does it actually use all properties defined for datasets and services?
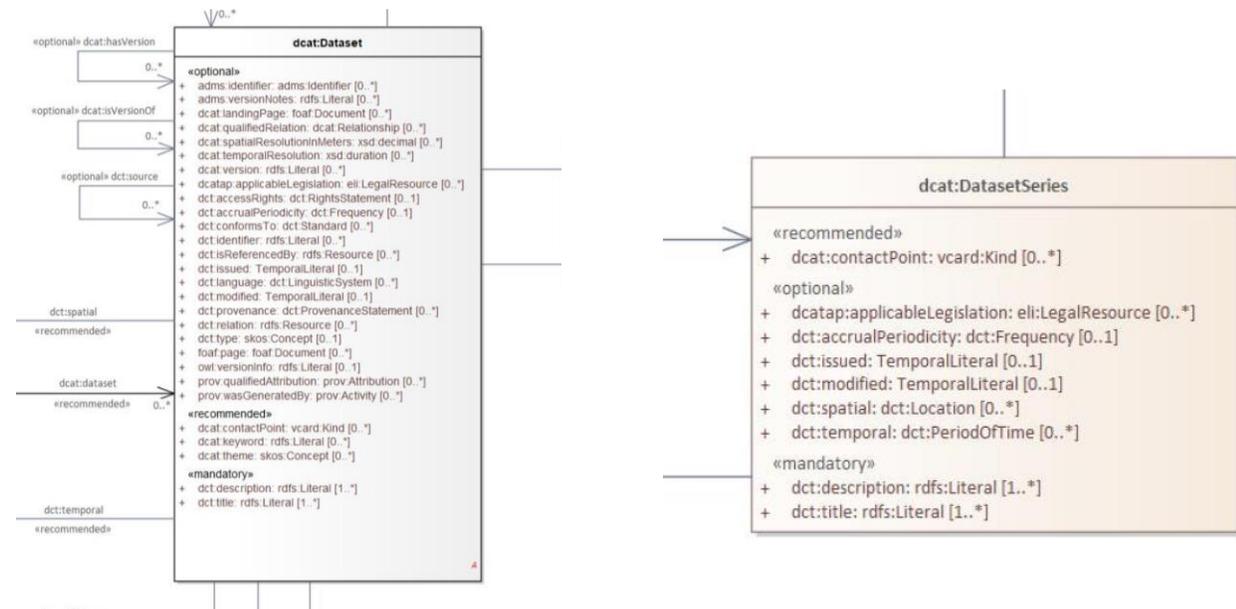
Motivation

For mapping to DCAT-AP, it is important to know how the dataset series are actually being used.

If used just for grouping of datasets, similarly to DCAT-AP, there might be no need to map all Dataset properties also for Data Series in GeoDCAT-AP

Proposition

Collect Dataset Series usage evidence in #79.

Multiplicity of `dcat:bbox`, `dcat:centroid` w.r.t. various representations ([#68](#))

Description

In the specification and the examples, geometry-related properties `dcat:bbox` and `dcat:centroid` have multiplicity `0..1`. However, in the specification text, multiple encodings are allowed.

Also, in an example, multiple values for `dcat:bbox` are illustrated.

This approach is compared to titles in multiple languages, however, max. one per language.

Property	URI	Range	Usage note	Card.
bounding box	`dcat:bbox`	`rdfs:Literal` typed as `gsp:wktLiteral` or `gsp:gmlLiteral`	This property refers to the geographic bounding box of a resource.	0..1

title	Literal	1..*	A name given to the Dataset.	This property can be repeated for parallel language versions of the name.

- Geometries *MAY* be provided in multiple encodings, but at least one of the following *MUST* be made available: GML and WKT.

Proposition

1) Lift the cardinality to `0..*` & propagate do DCAT-AP

2) Limit to one representation and change the example

```
[] dct:spatial [ a dct:Location ;
  dcat:bbox """
      POLYGON((-10.58 70.09,34.59 70.09,34.59 34.56,-10.58 34.56,-10.58 70.09))
    """^^gsp:wktLiteral ;
  dcat:bbox """
      <gml:Envelope srsName="http://www.opengis.net/def/crs/OGC/1.3/CRS84">
        <gml:lowerCorner>34.56 -10.58</gml:lowerCorner>
        <gml:upperCorner>70.09 34.59</gml:upperCorner>
      </gml:Envelope>
    """^^gsp:gmlLiteral ;
```

Feedback requested!

Discussion on spatial coverage originating from DCAT-AP#175

Description

Would it be possible to recommend a subset of the variety of ways for geometry representation for **metadata**, e.g. in spatial coverage, beyond the Spatial Data on the Web Best Practices?

Motivation

To ease processing, e.g. in data.europa.eu and similar portals without heavy-weight geo-processing libraries. Currently, for Geometries, they should support

- Various geometry types – points, lines, polygons, multipoints, multilines, multipolygons, …

- Various geometry representations – `geo:gmlLiteral`, `geo:wktLiteral`, `geo:geoJSONLiteral`

- Various coordinate reference systems – WGS84, ETRS89, national ones, … see e.g. `https://epsg.io/`

Feedback requested!

Discussion on spatial coverage originating from DCAT-AP#175

Description

Would it be possible to recommend a subset of the variety of ways for geometry representation for **metadata**, e.g. in spatial coverage, beyond the Spatial Data on the Web Best Practices?

Current status in GeoDCAT-AP (see B.6.10.1 Bounding box)

- no agreement on a preferred format to be used in RDF for the representation of geometries

- geometries can be provided in any, and possibly multiple, encodings
  - but at least one of the following must be made available: WKT or GML.

- The CRS must be specified in the GML or WKT encoding as required by GeoSPARQL
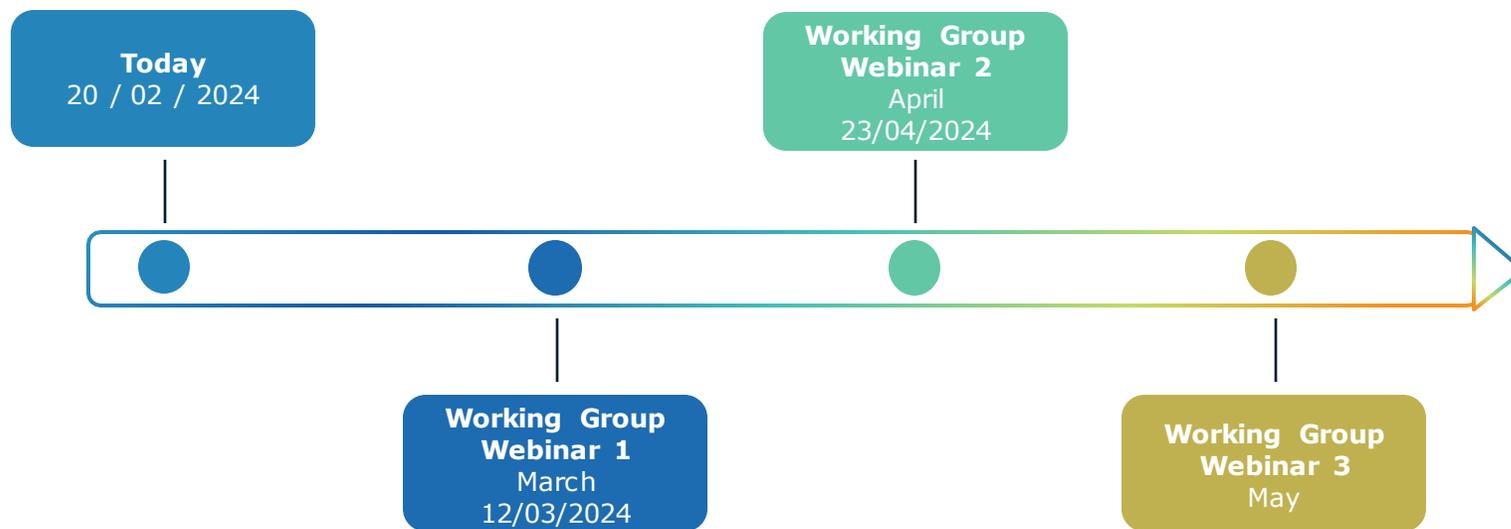
Proposition

Recommend a limited set of CRSs, geometry types and/or their representations to improve interoperability.
e.g. bounding box using WKT as representation and WGS84 as CRS

Feedback requested!

Next steps

GeoDCAT-AP Timeline

Today
20 / 02 / 2024

Working Group Webinar 2
April
23/04/2024

Working Group Webinar 1
March
12/03/2024

Working Group Webinar 3
May

GeoDCAT-AP 3.0.0: revision plan

Revision already started, see https://github.com/SEMICeu/GeoDCAT-AP/issues

Working Group Webinar 1 - Concerning generic organisation & findability (12/03/2024)

- Datasets, Distributions and their relationships

- Categories (alignment with DCAT-AP 3.0): keywords, categories, themes

Working Group Webinar 2 – specific geo-aspects (23/04/2024)

- Geospatial coverage & resolution

- Coordinate reference systems & spatial representation type

Working Group Webinar 3 – relationship with INSPIRE

- GeoDCAT-AP related tools such as XSLT

We are interested in which issues you are facing and we encourage you to post them as issues on the GeoDCAT-AP GitHub repository.

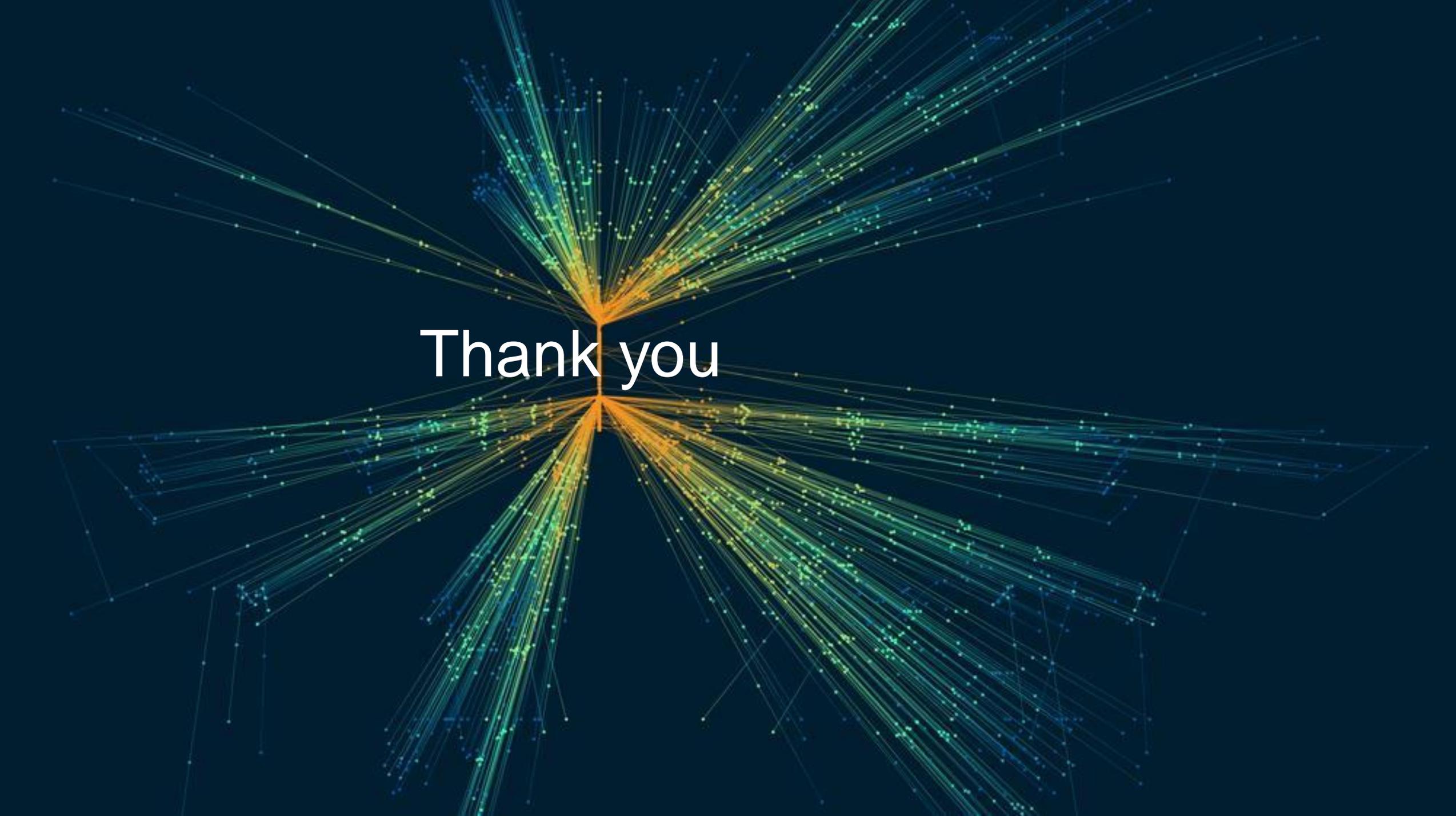# Next steps

Please provide your additional feedback on GitHub.
https://github.com/SEMICeu/GeoDCAT-AP/issues

A new editor's draft will be created at
https://semiceu.github.io/GeoDCAT-AP/drafts/latest/

GeoDCAT-AP mapping to HVD will be done as a separate document

Thank you

Stay in touch

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https://joinup.ec.europa.eu/collection/interoperable-europe/interoperable-europe