

# ISO & GeoDCAT-AP metadata implementation pilot

European Commission SEMIC Group (DG DIGIT) and DG JRC, Publications Office of the European Union & Member States



### Introduction



## ISO & GeoDCAT-AP Pilot Context

### **Policy**

GreenDataForAll (<u>URL</u>)



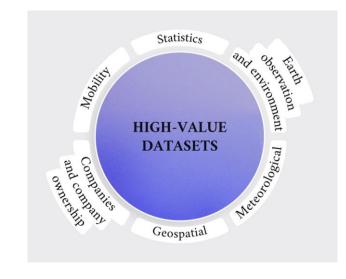
Commission Implementing Regulation (EU) 2023/138 (<u>URL</u>)
 Alignment with High-Value Datasets implementation.

### **Implementation & Actions**

MIG Action 2.5 (URL)

Ad-hoc Subgroup on the Alignment of INSPIRE and High-Value Datasets implementation.





## **GeoDCAT-AP 3.0.0 Release**



GeoDCAT Application Profile 3.0.0 for geospatial portals in Europe

(GeoDCAT-AP 3.0.0)



#### GeoDCAT-AP 3.0.0 release for public review

Dear Community Member,

We are thrilled to announce that the GeoDCAT Application Profile 3.0.0 for geospatial portals in Europe is entering its public review (GeoDCAT-AP 3.0.0). This release for public review is the result of fruitful collaboration between <a href="MRC">JRC</a>, <a href="DG ENV">DG ENV</a>, SEMIC and the many contributors that participated during the <a href="webinars">webinars</a> and on <a href="GitHub">GitHub</a> to align GeoDCAT-AP with DCAT-AP 3.0.0.

GeoDCAT-AP is an extension of DCAT-AP for describing geospatial datasets, dataset series and services. It provides an RDF syntax binding for the union of metadata elements defined in the core profile of ISO 19115:2003 and those defined in the framework of the INSPIRE Directive.

Its basic use case is to make spatial datasets, data series and services searchable on general data portals, thereby making geospatial information better searchable across borders and sectors. This can be achieved by the exchange of descriptions of data sets among data portals.

GeoDCAT-AP 3.0.0 will be the latest version of the GeoDCAT Application Profile for geospatial data portals in Europe.

- Released for public review 9 July 2024.
- Official release 4 October 2024.



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

## **GeoDCAT-AP 3.0.0 Highlights**

#### GeoDCAT 3.0.0

- Facilitates the transformation of metadata managed by national geospatial data catalogues and their integration within the data.europa.eu reporting flow.
- Constitutes an updated mapping between geospatial / INSPIRE (ISO 19139) and (Geo)DCAT metadata.
- GeoDCAT 3.0.0 metadata is compliant to the most updated versions of:
  - European DCAT profile: DCAT-AP 3.0.0 (<u>URL</u>).
  - Global DCAT profile: DCAT 3.0 specification (<u>URL</u>).
- Provides additional rules to satisfy the provisions set for High-Value Datasets:
  - DCAT-AP for HVDs Profile (<u>URL</u>).



#### GeoDCAT-AP 3.0.0

04 October 2024



#### This version:

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

#### Latest published version:

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

#### Latest editor's draft:

https://semiceu.github.io/GeoDCAT-AP/drafts/latest/

#### History:

Commit history

#### Latest Recommendation:

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

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GitHub SEMICeu/GeoDCAT-AP (pull requests, new issue, open issues)

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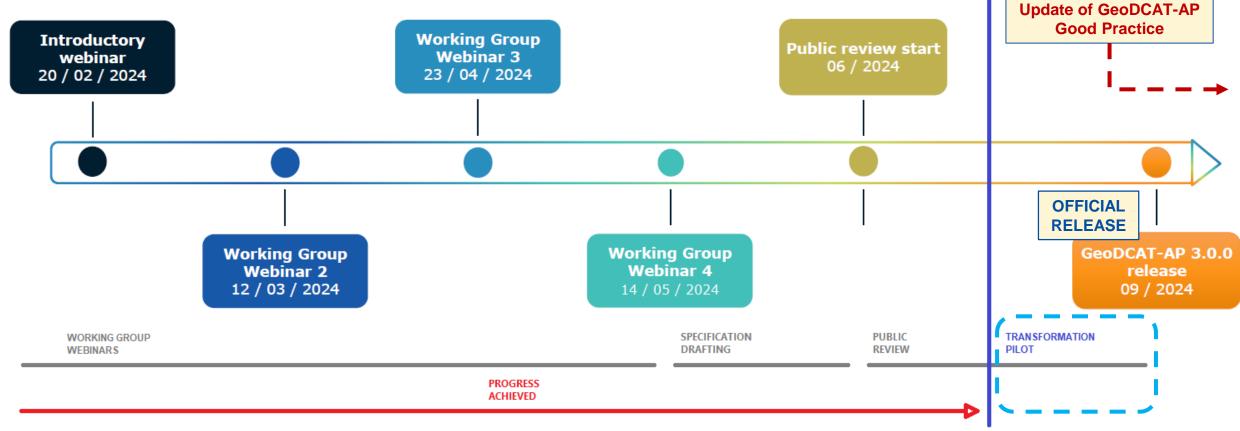


## **GeoDCAT-AP 3.0.0 A collaborative work - Status**



GeoDCAT-AP Working Group

https://knowledgebase.inspire.ec.europa.eu/evolution/ good-practice-library/geodcat-ap en





### **ISO & GeoDCAT-AP Pilot Participants**



Strongly advisable the partnership and participation of **Geospatial and Open Data Representatives** 

**Member States** 

Contact points for the national geospatial catalogues, as users of GeoDCAT-AP to transform geospatial metadata.

















Publications Office of the European Union (OP) / European Data Portal (data.europa.eu) Future receptor of GeoDCAT-AP metadata and transformation re-user.



**DG DIGIT SEMIC group** 

Point of contact for resolving and contributing to solutions in case potential issues.

DG JRC

Organiser of the pilot, and provider of scientific & policy knowledge.



### Pilot proposal



## ISO & GeoDCAT-AP Pilot General Objectives



- Evaluating the adequacy of:
  - The GeoDCAT-AP 3.0.0 specification.
  - Its accompanying XSLT transformation.
- Smooth the integration of geospatial metadata assets within the data.europa.eu reporting workflow.
  - Put in practice a pragmatic sandboxing approach.
  - Minimise information loses.
  - Bring your invaluable experience.
- Support the SEMIC community to release an improved GeoDCAT-AP 3 specification and XSLT transformation

## ISO & GeoDCAT-AP Pilot Specific Objectives: 1. Specification



#### **Evaluate and test the GeoDCAT-AP 3.0.0 specification:**

- Aspects to be analysed:
  - Formalities and understanding of the document.
  - Scope (ISO 19115:2003 metadata elements covered).
  - Technical implementation and feasibility of the mappings.
  - Justified alternatives (if any).
- Available at:
  - GeoDCAT-AP vocabulary, the 930 namespace:
     <a href="https://semiceu.github.io/GeoDCAT-AP/930/releases/3.0.0/">https://semiceu.github.io/GeoDCAT-AP/930/releases/3.0.0/</a>
  - Specification:



## ISO & GeoDCAT-AP Pilot Specific Objectives: 1. Specification



#### **GeoDCAT-AP - Specification overview**

- GeoDCAT-AP vocabulary, the 930 namespace Vocabulary used. Supporting terms.
- GeoDCAT Application Profile 3.0.0 Specification itself.
  - 0. Abstract
  - 1. Introduction
  - 2. Status
  - 3. License
  - 4. Conformance (Conformance Statements)
  - 5. Terminology (and Prefixes used)
  - 6. Overview (Application profile diagram)
  - 7. Main Entities
  - 8. Supportive Entities
  - 9. Datatypes

**GeoDCAT-AP** 

Data model

- 10. Controlled Vocabularies (Requirements and Usage)
- 11. Agent Roles
- 12. Accessibility and Multilingual Aspects

- 13. High Value Datasets (Additional Requirements for HVDs: <u>DCAT-AP HVDs</u>)
- 14. Legal information (Privacy and security)
- 15. Conformance Test Results
- 16. Validation of GeoDCAT-AP
- A. INSPIRE and ISO 19115 Mappings

Objectives, Motivation and use cases, Supported tooling

Methodology and summary of results

RDF syntax bindings for INSPIRE and ISO 19115 metadata elements

Overview of metadata elements covered by GeoDCAT-AP

Detailed usage notes and examples

Comparison between INSPIRE and ISO 19115-1:2014

- **B. Quick Reference of Classes and Properties**
- C. Acknowledgments
- D. References (Normative and Informative references)



## ISO & GeoDCAT-AP Pilot Specific Objectives: 1. Specification



#### **Structure and participants:**

Structured feedback:



| Motivation   | Section  | Description                     | Change proposal           | Justification                    | Additional documents   |
|--|--|---------------------------------|---------------------------|----------------------------------|--|
| Motivation of the issue (re-use the harmonised entries from 'Aspects to be analysed'). | Section of the specification to which the issue applies. | Clear description of the issue. | Proposed change (if any). | Reasoning justifying the change. | Illustrative screenshots, diagrams, graphics, structured proposals, etc. (if any). |

- Report of issues: <a href="https://github.com/SEMICeu/GeoDCAT-AP/issues">https://github.com/SEMICeu/GeoDCAT-AP/issues</a>
  - When reporting your issues, clearly mention that it comes from the 3.0.0 Pilot.
  - Thus, repository maintainers will be able to tag it with the '3.0.0 Pilot' tag.
- Main proposed participants:
  - Member States / Joint Research Centre.



## ISO & GeoDCAT-AP Pilot Specific Objectives: 2. Transformation



### Evaluate and test the XSLT Transformation - Geospatial / INSPIRE metadata TO (Geo)DCAT metadata.

- Aspects to be analysed:
  - Transformation logic and quality
    - Potential information losses.
    - Compliance of the transformed (GeoDCAT) metadata to INSPIRE and High-Value Datasets IRs.
    - Potential mapping and implementation issues.
  - Input / Output validation & Error handling (e.g. outputs consistency, correctness & completeness)
  - Usability & Scalability (e.g. easiness of use, transformation of high volumes of files)
  - Compatibility / Reusability / Integration with existing systems (e.g. compatibility with GeoDCAT-AP 2 / DCAT-AP 2, compatibility with different XML parsers, XSLT engines, & software platforms)
- Available at:
  - XSLT transformation file: 'iso-19139-to-dcat-ap.xsl'
     https://github.com/SEMICeu/iso-19139-to-dcat-ap/tree/main



## ISO & GeoDCAT-AP Pilot Specific Objectives: 2. Transformation



#### **Structure and participants:**

Structured feedback:



| Motivation   | Tools   | Description                     | Change proposal           | Justification                    | Additional documents   |
|--|---|---------------------------------|---------------------------|----------------------------------|--|
| Motivation of the issue (re-use the harmonised entries from 'Aspects to be analysed'). | Enumeration of the tools used when testing the XSLT transformation (name / version / OS platform) | Clear description of the issue. | Proposed change (if any). | Reasoning justifying the change. | Input & output files, Illustrative screenshots, graphics, structured proposals, etc. (if any). |

- Report of issues: <a href="https://github.com/SEMICeu/iso-19139-to-dcat-ap/issues">https://github.com/SEMICeu/iso-19139-to-dcat-ap/issues</a>
  - When reporting your issues, clearly mention that it comes from the 3.0.0 Pilot.
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- Main proposed participants:
  - Member States / Publications Office of the European Union / Joint Research Centre.



## ISO & GeoDCAT-AP Pilot Outputs



Feedback on the tested specification and transformation

[All pilot participants]

- General feedback and evaluation.
- Detailed set of issues, reported in the GeoDCAT-AP (<u>URL</u>) and XSLT transformation (<u>URL</u>) repositories.

#### Pilot final report

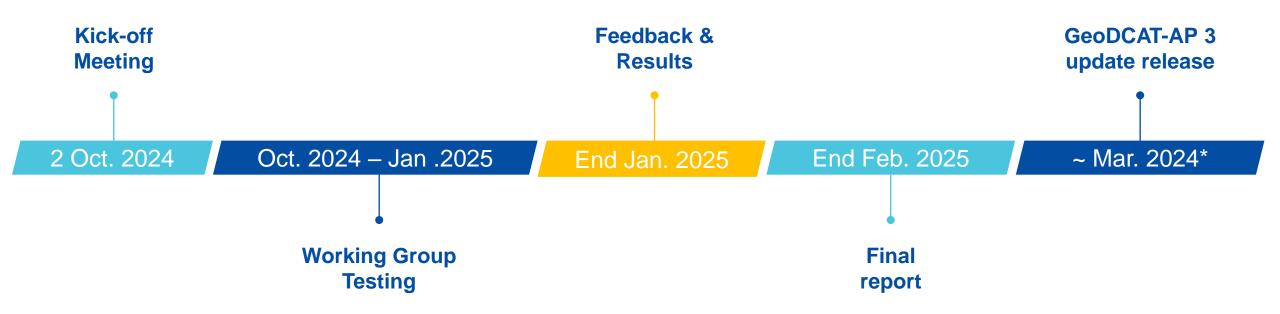
[EC-JRC & Volunteered pilot participants]

- Summary of the process and results achieved in the pilot.
- Evaluation of the extent to which the transformation helps data providers in being compliant to the applicable legal framework.

### ISO & GeoDCAT-AP Pilot Timeline



Metadata implementation pilot



• This (more relaxed) timeline will be hopefully agreed in the 2<sup>nd</sup> Pilot meeting proposed by end-October / beginning-November 2024.

European Commission

### Discussion



## ISO & GeoDCAT-AP Pilot Discussion



#### Main discussion items:

- Pilot plan refinements.
  - Scope & Objectives.
  - Aspects to be analysed.
  - Structured feedback / Tags & Templates in GitHub.
  - Contribution to objectives (each participant) vs. Effort invested.
- Timeline agreement.
- Final proposal & Pilot work start (target date).
- **Next meeting** (target date) A meeting **by end October / beginning November** is suggested to share experiences, update and guide the pilot work (if needed).
- A framadate will be sent to participants.



### AoB



### Thank you!





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