



8 May
2024

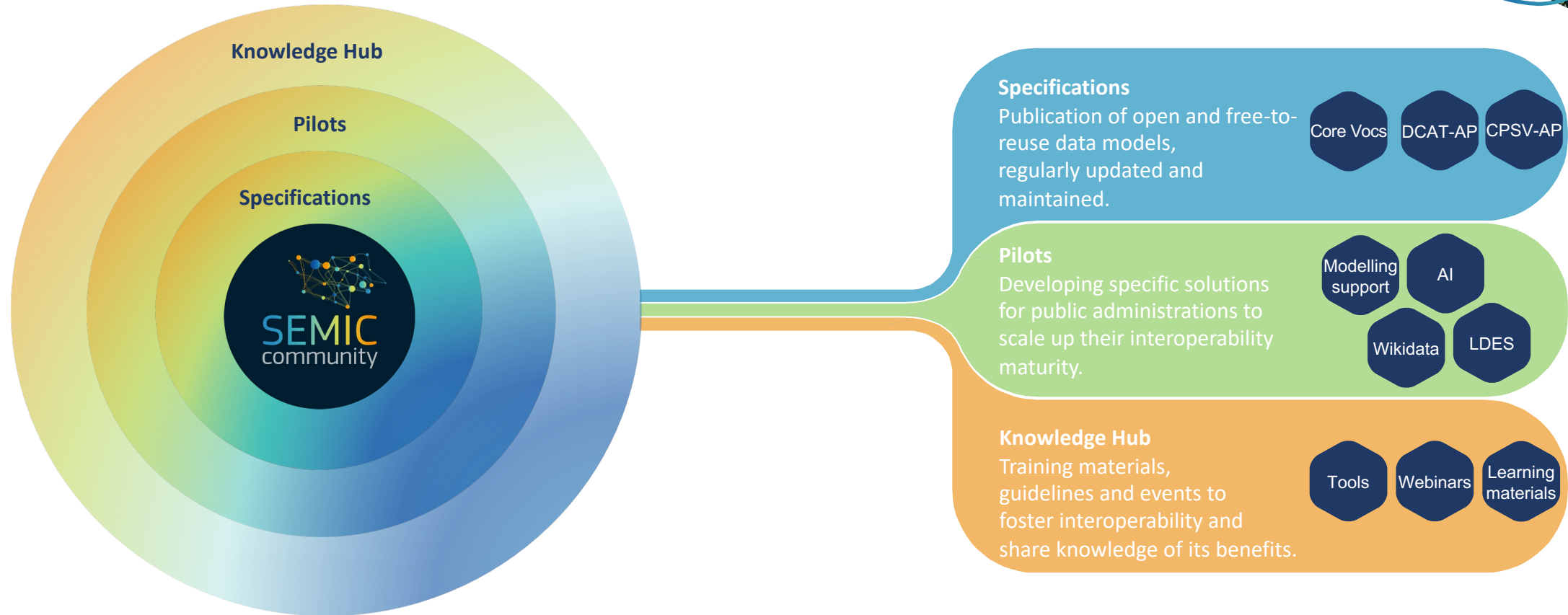
DCAT-AP
in support of cross Data Space
data sharing

interoperable
europe

innovation ∞ govtech ∞ community

SEMIC

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





Specifications

SEMIC specifications enable interoperability:

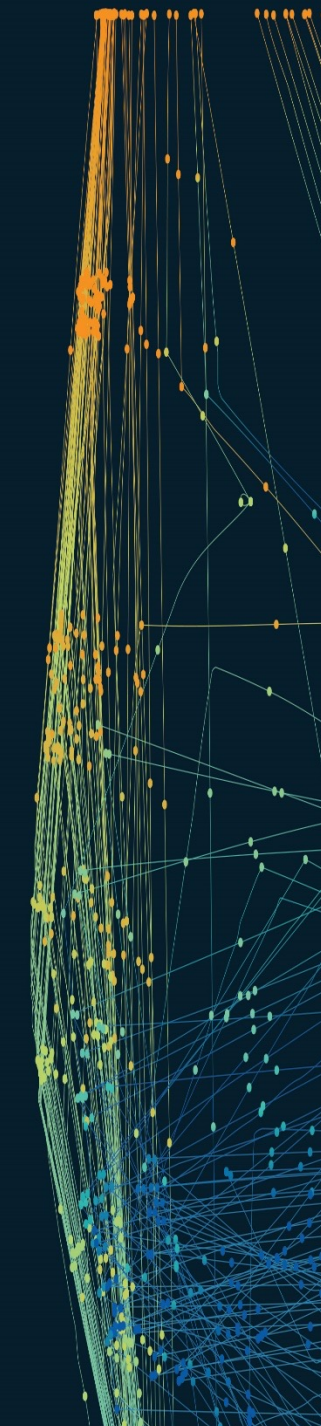
- They make data **transparent** and **available**
- They support the **coherent** implementation of laws and policies
- They help implement **cost efficiencies**
- They help **digitalisation** and **harmonising** processes

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.

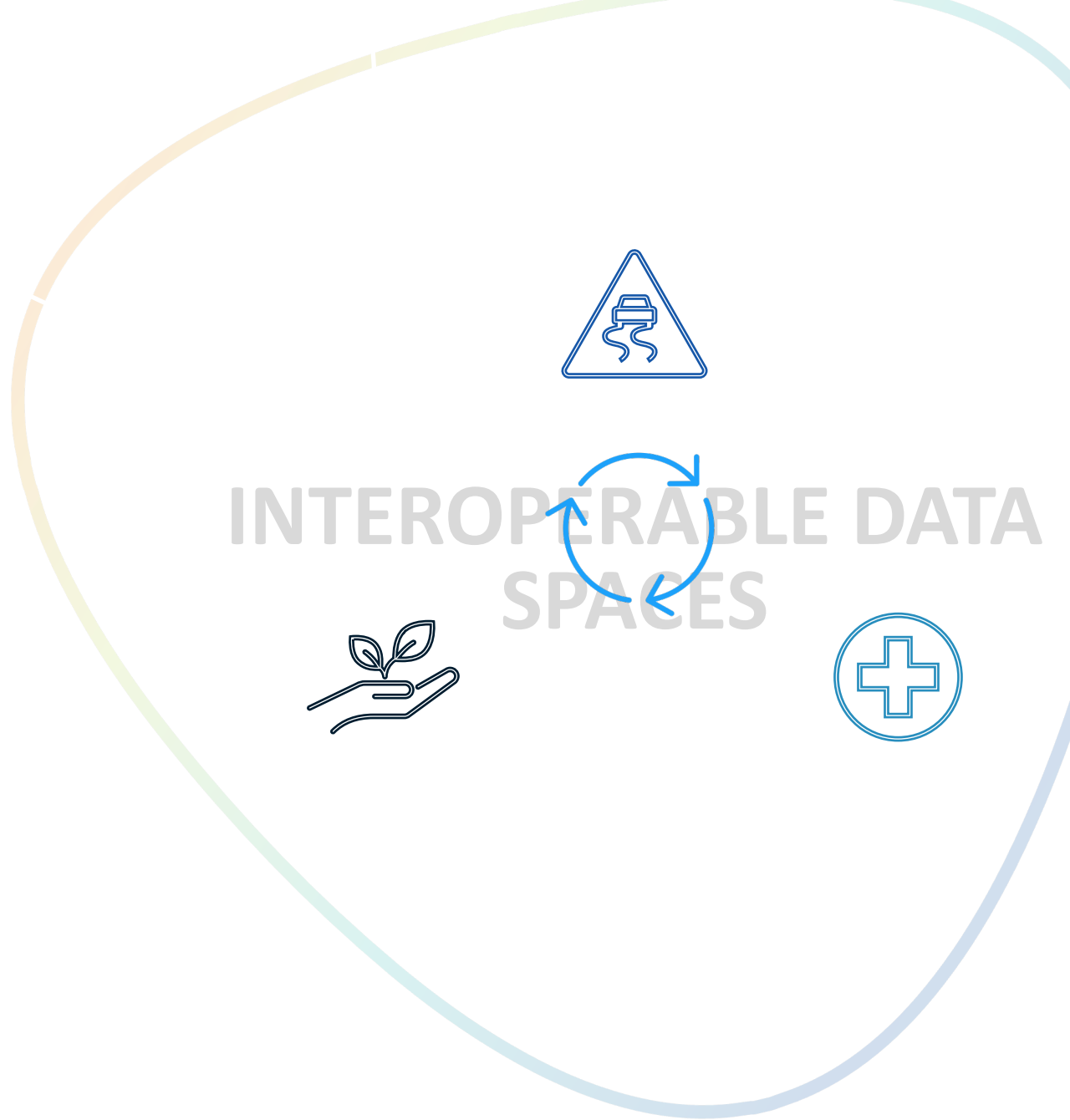
Application Profiles

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



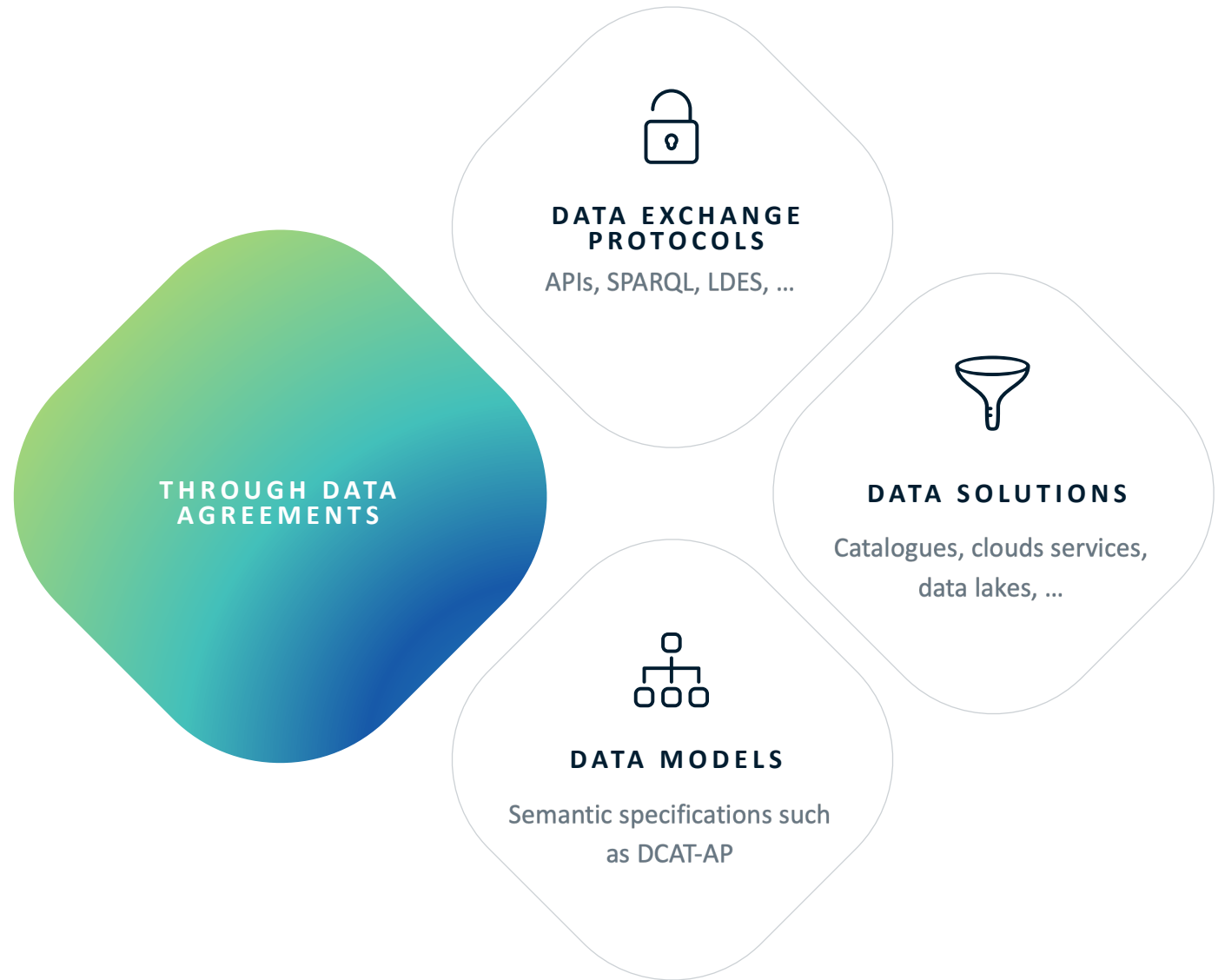
Cross Data Spaces Challenge

Enable discoverability of datasets to
maximise their reuse



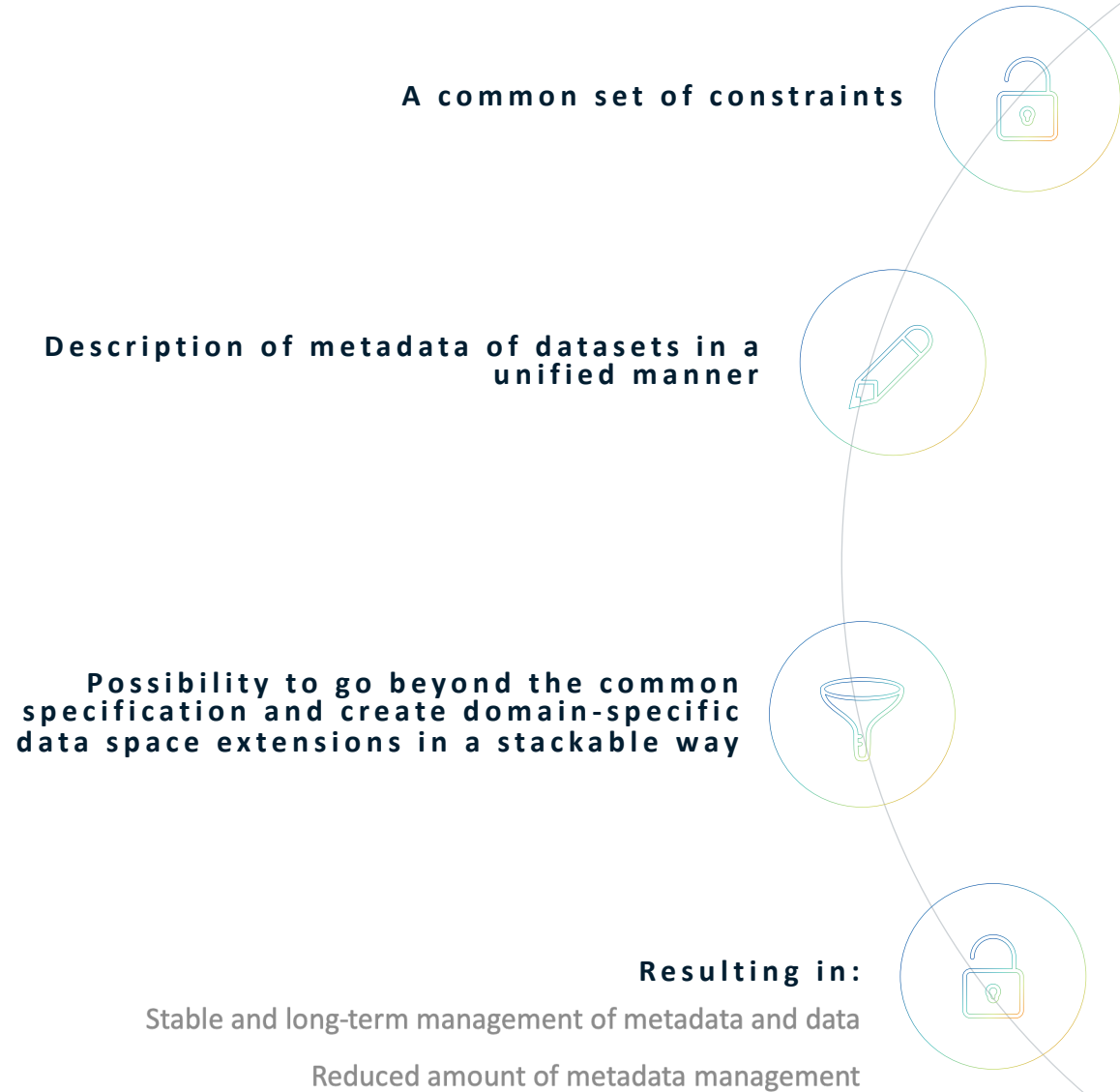
HOW?

How to make data **more “accessible”**?



DCAT-AP as a solution

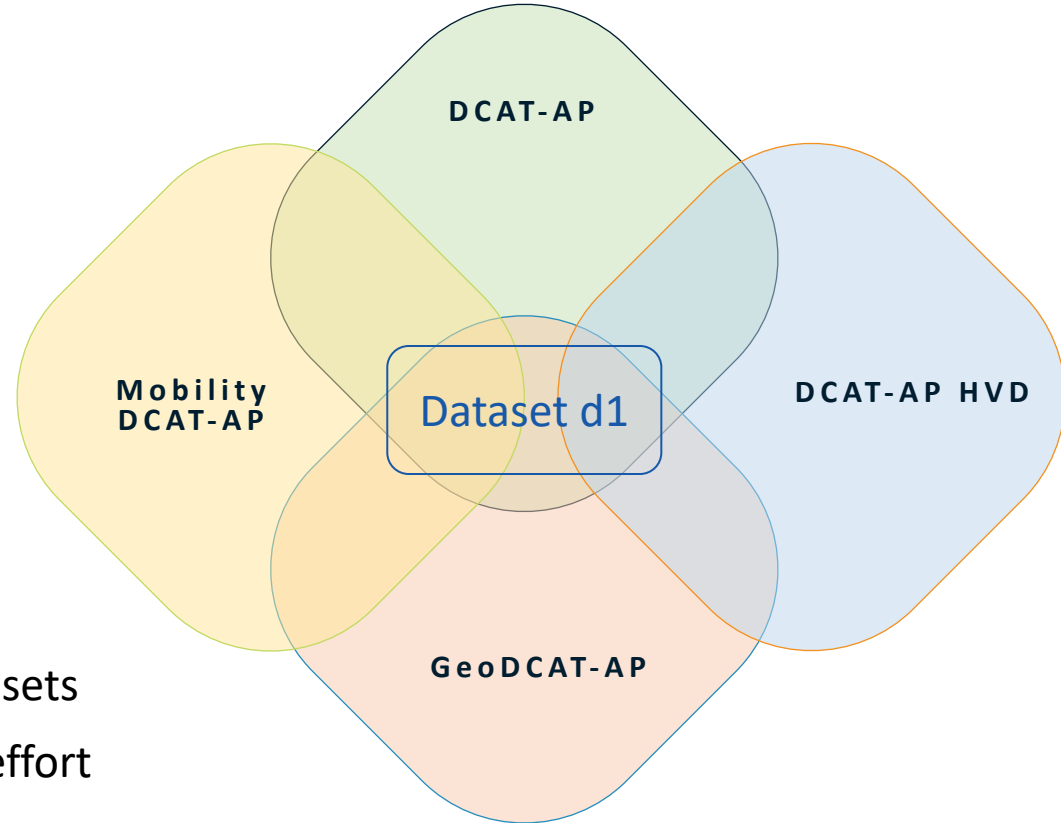
An EU-wide specification that enables interoperability across data spaces through



Multi-domain collaboration

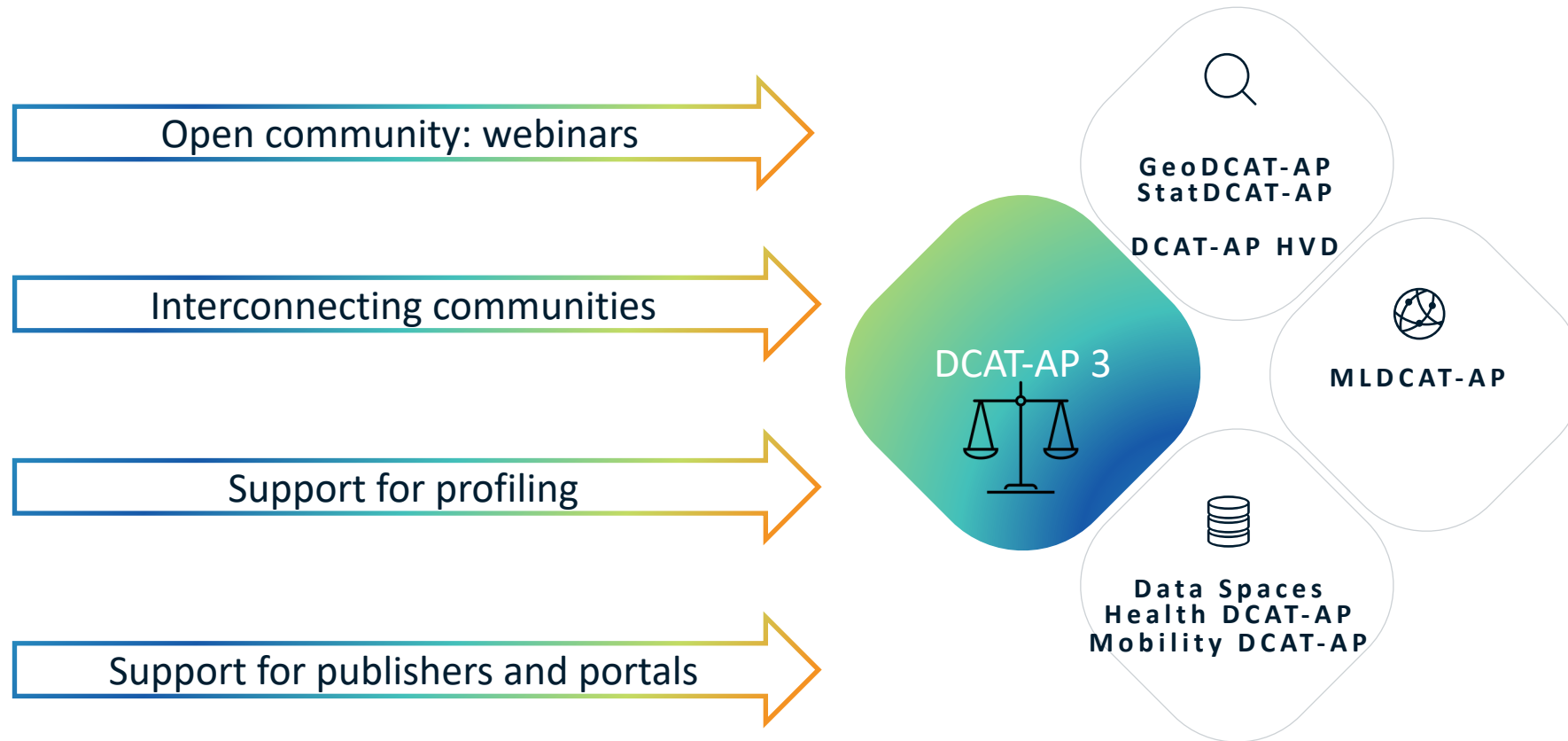
Interoperable Profiles

- Concise
 - easiness to read, editorial effort
- Once-only effort for publishers of datasets resulting in acceptable implementation effort



DCAT-AP a growing ecosystem

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.



<https://joinup.ec.europa.eu/collection/semic-support-centre>

DCAT-AP 3 status

DCAT-AP 3 will be announced shortly

- Aligned with W3C DCAT 3
- Introduces Dataset Series
- Major editorial update
- Alignment with SEMIC style guide

GeoDCAT-AP 3 in active revision

- <https://joinup.ec.europa.eu/collection/semic-support-centre/news/upcoming-events-may-2024>:
Upcoming webinar 14 may 2024 @ 10h
- <https://github.com/SEMICEu/GeoDCAT-AP>

ML DCAT-AP

- <https://semiceu.github.io/MLDCAT-AP/releases/2.0.0/>

DCAT-AP 3.0

12 February 2024



▼ More details about this document

Latest published version:

<https://github.com/SEMICEu/DCAT-AP/tree/master/releases/2.1.1>

Latest editor's draft:

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

History:

[Commit history](#)

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

SEMIC Style Guide

Question?

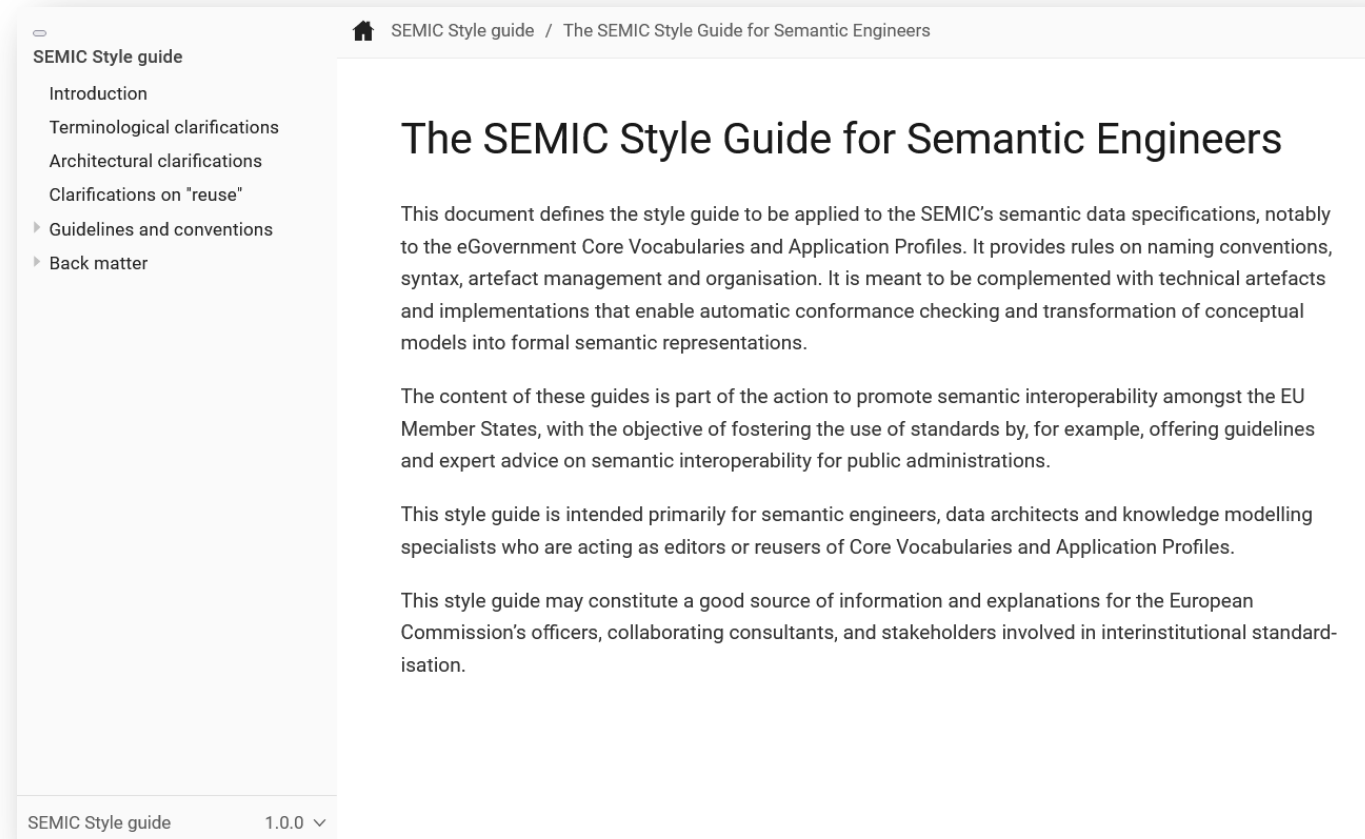
What are the rules to create good, interoperable data specifications.

Reuse types

- as-is
- with terminological changes
- with semantical adaptations

Coherency & editorial effort

- internal coherent
 - all artifacts express the same knowledge
- external reusable
 - artifacts ready for reuse



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

DCAT-AP Profile Alignment principles

Recurring Questions

- Q1: How to indicate that the properties (constraints) of one class apply to another class?
- Q2: How to reuse a property with conflicting constraints?
- Q3: Is profile A coherent/consistent with profile B and what are the changes?

Proposals

- P1: DCAT-AP is master profile
- P2: use subproperties to avoid conflicts
- P3: diagram subclass arrows means adopt all constraints of superclass
- P4: indicate reuse with extra column
- P5: expressing local scopes as additional classes is allowed

An in-depth impact assessment on the DCAT-AP specification must be conducted.

- properties with cardinalities and/or codelists
- Semantics of the “table of codelists” that must be used
- Additional guidelines: profiles should also consider alignments here too.

Proposals are made with the objective that sub-profiles do not restrict the use of the super-profile and that the super-profile allows the right level of freedom to the sub profiles.

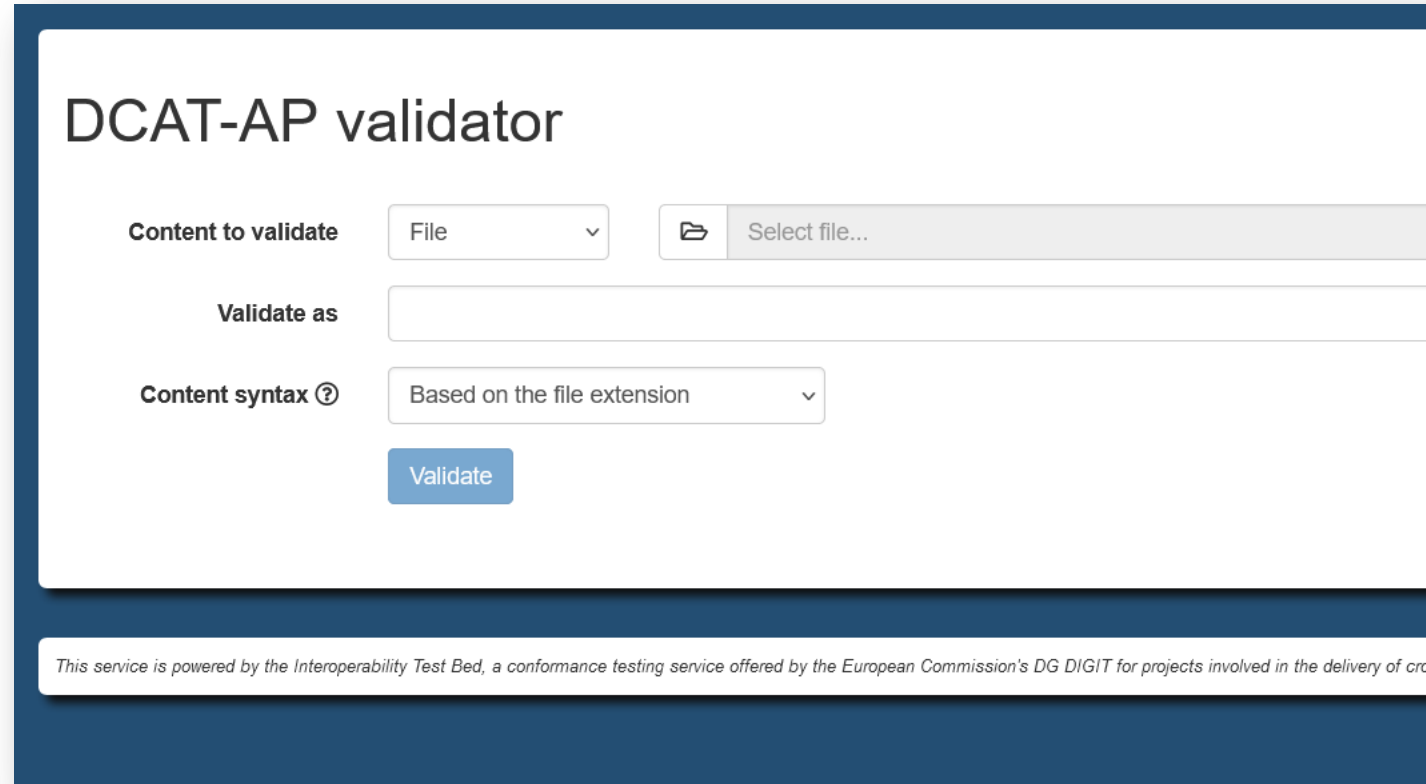
DCAT-AP validator

Question?

How can publishers validate their efforts?

DCAT-AP provides [SHACL shapes](#) which are activated in the DCAT-AP validator.

Based Interoperability Test Bed
(<https://www.itb.ec.europa.eu/>)



The screenshot shows the DCAT-AP validator web interface. It has a dark blue header with the title "DCAT-AP validator". Below the header, there are three main sections: "Content to validate" with a dropdown menu set to "File" and a "Select file..." button; "Validate as" with an empty text input field; and "Content syntax ?" with a dropdown menu set to "Based on the file extension". A blue "Validate" button is positioned below these fields. At the bottom of the interface, a small text line states: "This service is powered by the Interoperability Test Bed, a conformance testing service offered by the European Commission's DG DIGIT for projects involved in the delivery of cro".



<https://www.itb.ec.europa.eu/shacl/dcat-ap/upload>

SEMIC DCAT-AP feeds specification

Question?

How to share DCAT-AP in a harvesting network?

Linked Data Event Streams

- <https://semiceu.github.io/LinkedDataEventStreams/>
- An protocol to share a collection of immutable objects in Linked Data native format

The DCAT-AP Feed specification

Living Standard, 26 April 2024

This version:

<https://semiceu.github.io/LDES-DCAT-AP-feeds/index.html>

Issue Tracking:

[GitHub](#)

Editors:

- Pieter Colpaert

- Matthias Palmér

 To the extent possible under law, the editors have waived all copyright and related or neighboring rights to this work. In addition, as of 26 April 2024, the editors have made this specification available under the [Open Web Foundation Agreement Version 1.0](http://www.openwebfoundation.org/legal/the-owf-1-0-agreements/owfa-1-0), which is available at <http://www.openwebfoundation.org/legal/the-owf-1-0-agreements/owfa-1-0>. Parts of this work may be from another specification document. If so, those parts are instead covered by the license of that specification document.

Abstract

Publishing a full data dump repetitively will delegate change detection -- a fault-prone process -- to data consumers. With DCAT-AP Feeds we propose that DCAT-AP catalog maintainers publish an event source API that can help to replicate the catalog towards a harvester, and always keep it in-sync in the way that is intended by the publisher. Therefore, this spec describes how to publish your DCAT-AP entity changes using the Activity Streams vocabulary and LDES. It also provides a specification for harvesters to provide transparency into their harvesting progress.



<https://semiceu.github.io/LDES-DCAT-AP-feeds/index.html>

Webinar 30 Apr 2024 : <https://joinup.ec.europa.eu/collection/semic-support-centre/event/ldes-webinar>

SEMIC Levels of Service Offering



Thank you



<https://joinup.ec.europa.eu/interoperable-europe/event/registration-semic-2024-conference-open-secure-your-seat-now>



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innovation ∞ govtech ∞ community

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