

INSPIRE Coverage Good Practice

Candidate for endorsement

Good Practice - Overview



OGC CIS1.0
Implementation
model

range type	metadata		
	2	7	3
	4	1	9
	0	2	8



INSPIRE
Conceptual
model

INSPIRE				
range type	metadata			Extensions
	2	7	3	
	4	1	9	
0	2	8		



INSPIRE
Implementation
model
(Good Practice)

range type	INSPIRE Cov Metadata		
	2	7	3
	4	1	9
	0	2	8



INSPIRE Good Practice Status - 1 of 6 Steps

Step 1. Initiation

Identification of issues & needs + Discussion

- 2014 - 2020. INSPIRE Thematic Clusters / INSPIRE Community Forum
 - Implementation of INSPIRE Coverages – Webinar, 6th November 2017.
 - Practicing INSPIRE coverages - Enhancing your data cube implementation assets! – Workshop, INSPIRE Conference 2018 Antwerp.
 - Feel the power of INSPIRE WCS/WCPS in your hands! – Workshop (Summary), INSPIRE Helsinki 2019.
 - INSPIRE Coverages demystified – Workshop (Description + Presentations + Video).
 - Online INSPIRE Conference 2020 (10th June 2020).

Discussion document

- 2nd July 2020. Presentation at the 62nd MIG-T Meeting

INSPIRE Good Practice Status - 2 of 6 Steps

✓ Step 1. Initiation

✓ Step 2. Submission as good practice candidate


<https://inspire.ec.europa.eu/good-practice/ogc-compliant-inspire-coverage-data-and-service-implementation>

13th October 2020. 63rd MIG-T Meeting

RESULT: Endorsed as candidate!

Implementations

- ICGC (es).
- SYKE (fi).
- Landesamt für Vermessung und Geoinformation Schleswig-Holstein (de).



The screenshot shows the INSPIRE Knowledge Base website. The header includes the European Commission logo, navigation links (About, Contact, Terms of use, Privacy Policy, Legal Notice, Cookies), and a language selector set to English (en). The main navigation bar contains: Home, Learn, Implement, Participate, Use, and Toolkit. A 'Quick search' sidebar lists various topics, with 'Use' selected. The main content area is titled 'OGC compliant INSPIRE Coverage data and service implementation' and contains text explaining raster data standards and implementation challenges.

INSPIRE KNOWLEDGE BASE
Infrastructure for spatial information in Europe

European Commission > INSPIRE > Good Practice > OGC compliant INSPIRE Coverage data and service implementation

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OGC compliant INSPIRE Coverage data and service implementation

Raster data appear across many INSPIRE themes from Annex II (4 themes) and Annex III (9 themes), specifically in the form of coverages, a format standardised by the Open Geospatial Consortium (OGC) and offered using different types of geospatial services.

The different INSPIRE themes in the scope use two different approaches to serve coverage data to the user: either offered by a Web Coverage Service (WCS) as features, or by a Sensor Observation Service (SOS) as observation results. Each of these types of services provides, as a default encoding option, coverage data as features according to the OGC CIS 1.0 standard, or as discrete observations based on ISO 19156:2011 (O&M) according to INSPIRE D2.9 v3.0, respectively.

Over the last years the community of implementers has identified issues on making this data interoperable in the context of the INSPIRE Directive, being them mainly due to immaturity of the underlying coverage standards in force, which introduced some inconsistencies in the INSPIRE framework at conceptual level - possibly because misinterpretation - and lack of definition at implementation level. This situation led to application schemas incompatible with OGC CIS 1.0, having elements not foreseen by the implementation standard. Additionally, the INSPIRE Technical Guidance documents are not concrete enough to clarify how to implement interoperable INSPIRE coverage data and services.

Since 2014 a number of OGC, ISO and INSPIRE experts have teamed up in the scope of the activities of the INSPIRE Community Forum to identify the related issues and overcome the drawbacks by establish best practices, evaluated and demonstrated through sample services.

INSPIRE Good Practice Status - 3 of 6 Steps

- ✓ Step 1. Initiation
- ✓ Step 2. Submission as good practice candidate
- ✓ Step 3. Outreach

<https://inspire.ec.europa.eu/coverage-good-practice>

<https://inspire-wcs.eu/>

→ Collected Feedback

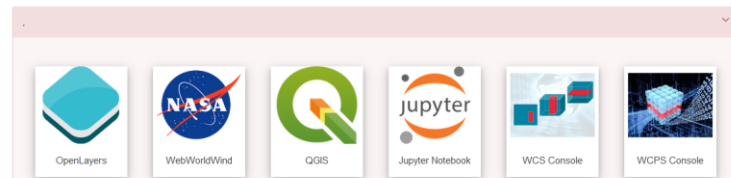
(Datasets provided by [ICGC](#), Barcelona, Spain and [SYKE](#), Helsinki, Finland and [Landesamt für Vermessung und Geoinformation Schleswig-Holstein](#), Kiel, Germany)



BY INSPIRE THEME:



BY CLIENT:



Post-Outreach

Feedback (<https://github.com/INSPIRE-MIF/helpdesk/issues/22>)

- Herzo van der Wal - Rijkswaterstaat (nl), www.rijkswaterstaat.nl
- Christine Hörfarther - Geologische Bundesanstalt / Geological Survey of Austria (at), www.geologie.ac.at
- Janos Schaefer - Saarland GDI (de), <https://geoportal.saarland.de>
- Paloma Abad - IGN Spain (es), <http://www.ign.es> / <http://www.ideo.es>
- Geosolutions.

Feedback presented during 65th MIG-T Meeting (15th April 2021)

INSPIRE Good Practice Status - 4 of 6 Steps

- ✓ Step 1. Initiation
- ✓ Step 2. Submission as good practice candidate
- ✓ Step 3. Outreach
- ... Step 4. Submission **MIG Endorsement?**
- Step 5. Legal scrutiny
- Step 6. Feedback

Conclusion & outlook

- What the GP will bring if endorsed:
 - Efficient and interoperable provision of (raster) coverage data, reusable by the relevant INSPIRE thematic domains referred.
 - Compliance assurance of INSPIRE coverage models to OGC CIS 1.0 modelling paradigms without major modifications to data models.
 - Data can be provided using any WCS service publication engine conforming to OGC CIS 1.0.
 - Interoperability through agreement on a generalized solution towards encoding, avoiding diverse options defined by MS or thematic community, and enabling consistent provision via WCS/WCPS.
 - Will boost the availability of coverage data, underpinning the huge potential of WCS/WCPS in raster data analytics.
- What should be done if the GP is not endorsed:
 - Propose an alternative (clear & interoperable) solution to provide data for INSPIRE raster themes.

Dedicated GitHub repository: <https://github.com/INSPIRE-MIF/gp-coverage-encoding>