Aligning implementation of INSPIRE Coverages to OGC standards

INSPIRE Thematic Cluster on Elevation, Orthoimagery, Reference systems and Geographical grids

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The problems

- INSPIRE data models were developed at conceptual level (data product specifications).
- May led to different implementations.
- OGC standard interfaces expect a specific implementation – The one developed by the OGC CIS standards.
- Implementers (often not being experts in this area) get confused when trying to implement INSPIRE coverage data.
The needs

- Align INSPIRE conceptual data models to the standard implementation of coverages (OGC CIS).
- Map the elements in the INSPIRE conceptual models to those foreseen in the OGC CIS standards.
- Minimize the impact of INSPIRE Extensions by moving these elements to a metadata instance included in the coverage metadata hook.
- Avoid the use of complex modelling:
  - Coverage aggregations
  - Other associations involving the coverage featuretypes.
Possible alternative solutions

A. Amend existing INSPIRE data models for coverage data (from different themes).
   • Taking the previous needs into account.

B. Create new INSPIRE implementation models for coverage data.
   • Aligned with OGC CIS standards.
   • Mapping their elements to those from the INSPIRE conceptual data models.

C. Combination of A & B. – Most likely
INSPIRE Elevation: Existing model
INSPIRE Elevation:

New model proposed.
INSPIRE Elevation:
New model proposed
INSPIRE Orthoimagery:

New model proposed
INSPIRE Orthoimagery: New model proposed
Aspects to be further explored

- Mapping ‘inspireId’ data type to the coverage identifier type used in OGC implementations.
- Access coverage data by filtering through information items included in the metadata hook (XPath search).
- Combined delivery of coverage data (e.g. using WCS) + vector data (e.g. ‘mosaicElements’).
- Harmonise modelling of INSPIRE data models on coverages from different themes (common items).
Future

- Explain the proposals to amend the INSPIRE data models dealing with coverage data.
- Improve and get consensus on these proposals.
- Proposed path:
  - Online activities in Thematic Cluster #3
  - Discuss within the INSPIRE MIG and hopefully get endorsement.
- Come up with an INSPIRE example implementation.
- Drafting the *Technical Guidelines for providing INSPIRE coverage data using WCS* (MIG-T MIWP-7b - Task 2).
Looking for your participation...

INSPIRE Thematic Clusters

https://themes.jrc.ec.europa.eu/

Open platform where implementers can **build communities, share experiences, best practices, raise questions and resolve issues**...

- Discussion topics
- Uploaded contents
- News
- Implementation activities

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