New approach for Data-service linking

Geoportal Workshop
23-24 January 2019, Ispra

Joint Research Centre
The European Commission's science and knowledge service

Rationale

- The level of data-service linking is insufficient; many organisations in the MS are not able to provide implementations in line with the current TGs

- This has negative impacts on the accessibility of INSPIRE data sets and future monitoring and reporting (based on metadata) and hence as the overall impression of the usability of the INSPIRE infrastructure

- The current approach for data-service linking in the TGs (metadata and network services) is widely acknowledged as complicated and there are different interpretations of the requirements, even by implementation/standards experts

- The fact that the current approach for service metadata requires extensions to base standards is posing an obstacle to the implementation of INSPIRE requirements (because they are not widely implemented in off-the-shelf software)

- There is a clear overlap / duplication of data set and service metadata, which in some cases leads to inconsistencies.

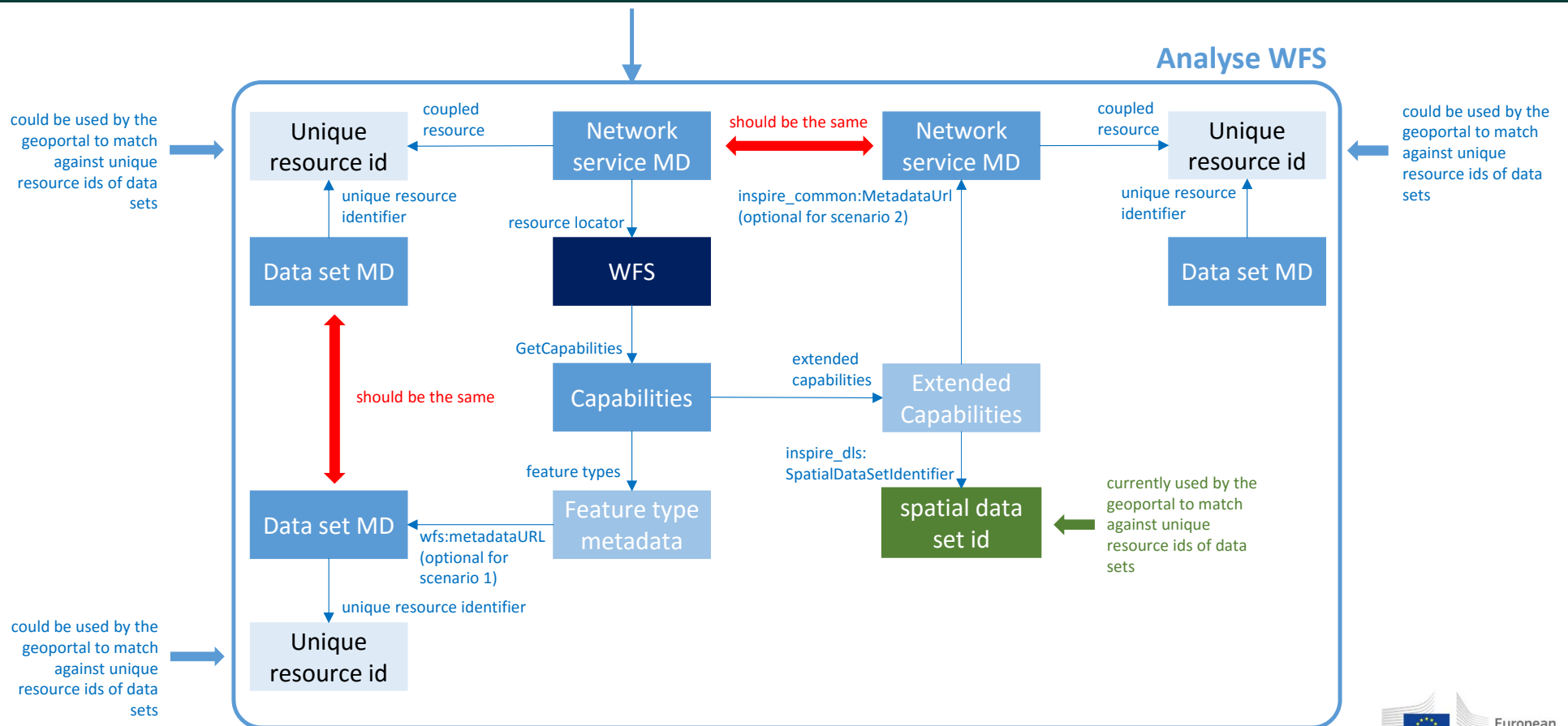European Commission

Main ideas

1. Data set metadata
    a) Data sets are documented in metadata as currently proposed in the TGs, with the minor modifications for documenting data-service linkage described in 1b.
    b) In the metadata for each data set, resource locator elements are provided for at least one view and one download service, pointing to a Get Download/View Service Metadata request .
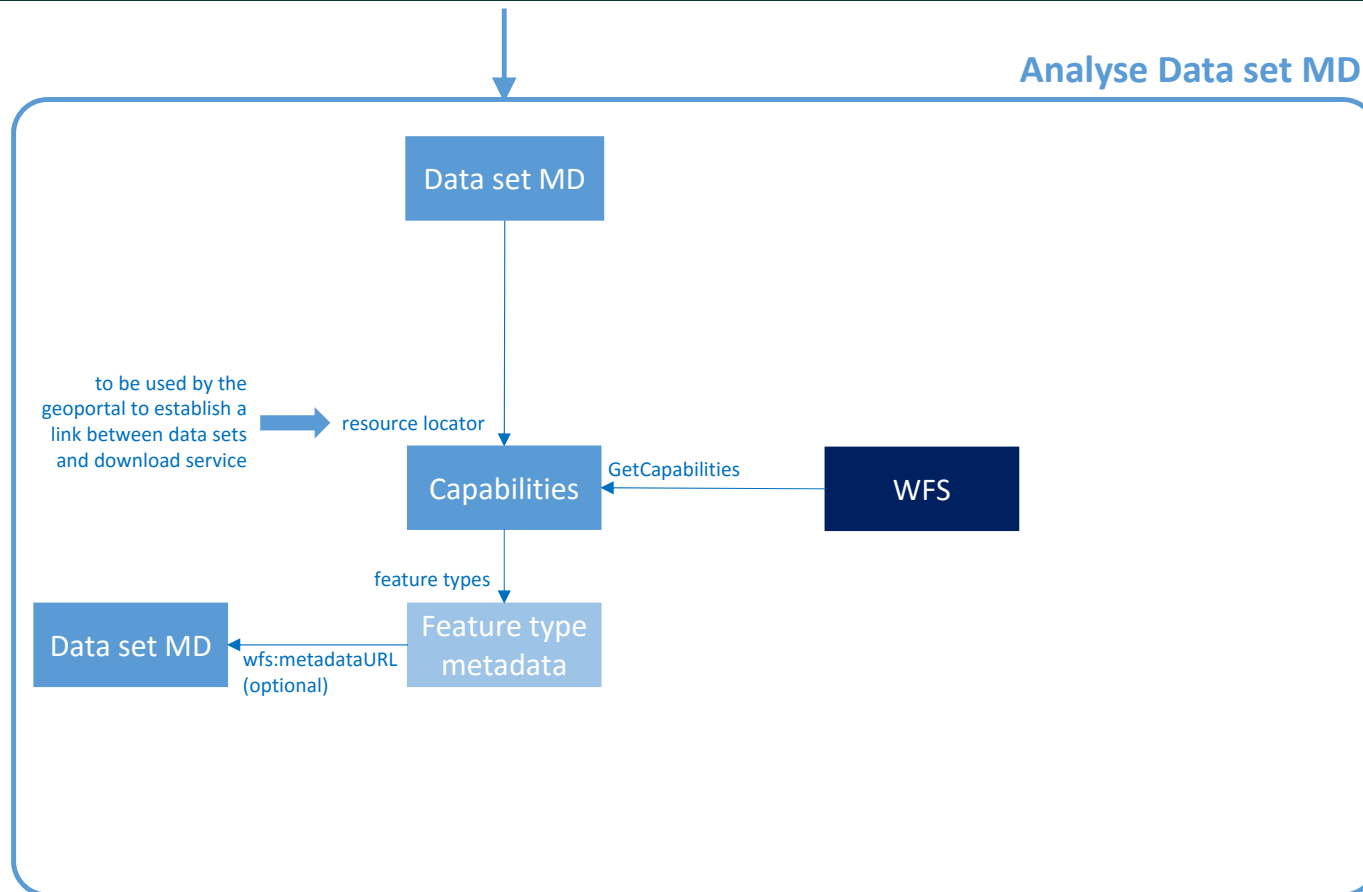
Main ideas

2. Service metadata
   a) Download and view services metadata: stand-alone (ISO 19119) service metadata records in discovery services → metadata returned by the service itself (Get xxx Service Metadata request)
   b) Limit service metadata to metadata elements that do not duplicate data set metadata and are useful to users → remove the need for extensions of base standards (extended capabilities)
   c) Optionally, where a view/download service provides access to more than one data set and to facilitate the development of client applications, provide additional resource locator elements, pointing directly to a Get Map or Get Spatial Data Set request
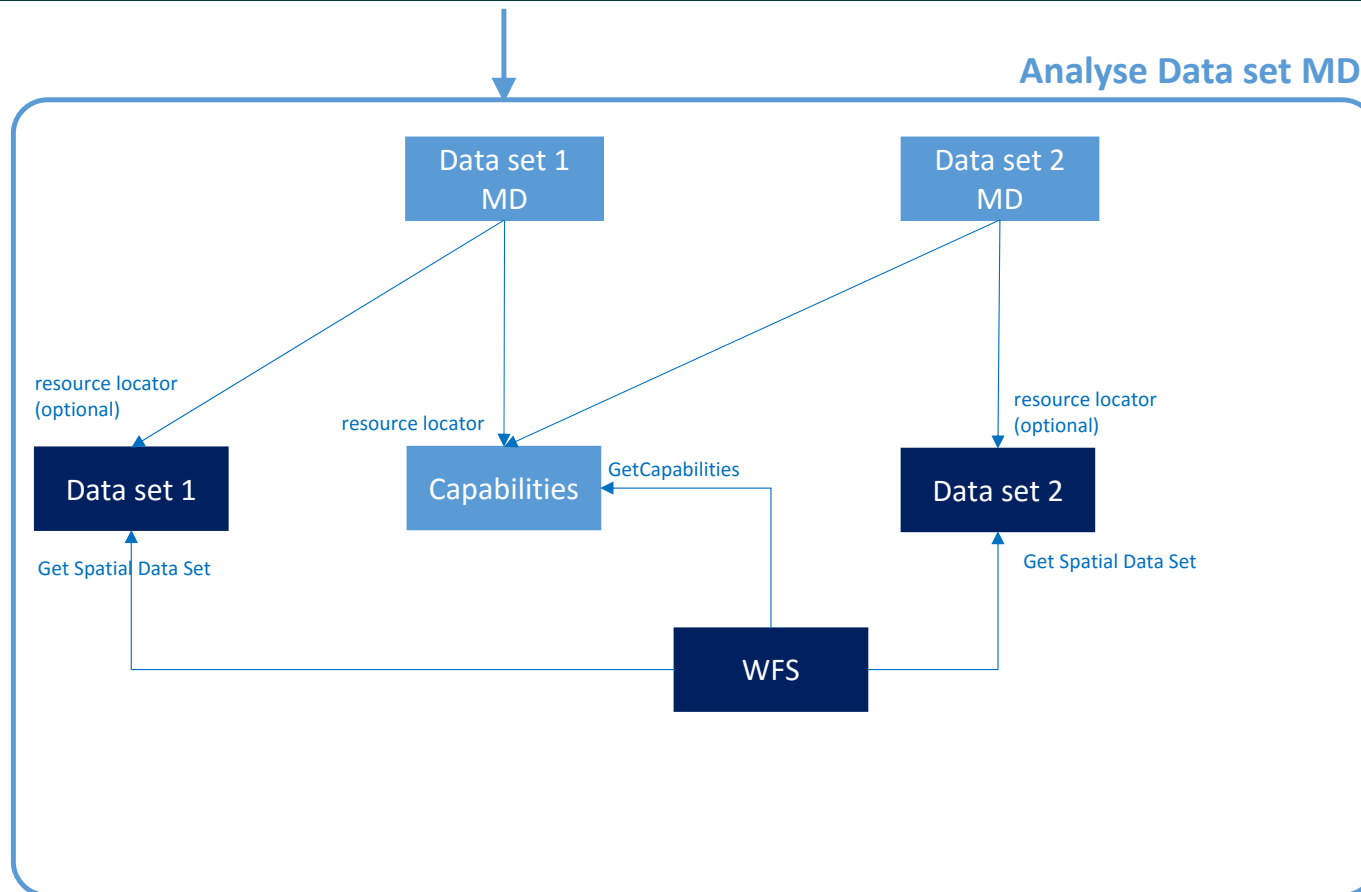
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Current data-service linking approach

Analyse WFS

could be used by the geoportal to match against unique resource ids of data sets

Unique resource id

coupled resource

Network service MD

should be the same

Network service MD

coupled resource

Unique resource id

could be used by the geoportal to match against unique resource ids of data sets

unique resource identifier

Data set MD

resource locator

inspire_common:MetadataUrl (optional for scenario 2)

unique resource identifier

WFS

Data set MD

GetCapabilities

Capabilities

extended capabilities

Extended Capabilities

should be the same

inspire_dls: SpatialDataSetIdentifier

feature types

Data set MD

wfs:metadataURL (optional for scenario 1)

Feature type metadata

spatial data set id

currently used by the geoportal to match against unique resource ids of data sets

could be used by the geoportal to match against unique resource ids of data sets

unique resource identifier

Unique resource id

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Proposed simplified approach

Proposed simplified approach (2+ data sets per service)

Discussion in the MIG

- An alternative way for documenting data-service linking in the data set metadata (as proposed in the discussion paper) will be further elaborated and added as the preferred option in the MD TG (and/or in a stand-alone guidance document on data-service linking)
  - this should include an explanation how the IR requirements for network service metadata are mapped to the new approach
- The current approach will still be supported as an alternative option (that the geoportal will use if no service information can be found in the data set metadata)
- NS TGs shall be reviewed to reflect
  - the proposed simplification of service metadata (incl. which elements could be dropped)
  - the new approach to document data-service linking

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MIWP action 2019.2: Improving data availability

- Phase 1 (January – June 2019)
  - Further investigate and document the issues causing the low level of data accessibility (through the Geoportal workshop in January 2019 and follow-up analyses)
  - Jointly work on improving data accessibility in the INSPIRE geoportal (through changes in national discovery services and/or the EU Geoportal) following the current approach
  - Test the proposed simplified approach for data-service linking (MS metadata & services and INSPIRE geoportal)
  - Report status and propose follow-up actions to MIG meeting in June 2019

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MIWP action 2019.2: Improving data availability

- Phase 2 (July – December 2019) – pending endorsement by the MIG
  - Draft change proposals to TGs for metadata, view and download services (and/or a stand-alone TG document on data-service linking)
  - Analyse whether the proposed simplifications would require changes in the IRs
  - Propose an implementation roadmap (or Common Implementation Strategy)
  - Implement support for the simplified approach in the INSPIRE geoportal
  - Final status report at MIG meeting in December 2019

Any questions?

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