INSPIRE Good Practice – Data-Service Linking Simplification

MIG-T Sub-group 2.3.2
Antonio Rotundo, Ine de Visser, Marie Lambois, Heidi Vanparys
JRC INSPIRE Team
Jordi Escriu, Davide Artasensi, Marco Minghini, Alexander Kotsev

INSPIRE Good Practice – Data-Service Linking Simplification Webinar
November 21st, 2022

Programme

- Welcome
- ➢ Introduction ‘Data-Service Linking Simplification good practice’
- Implementations and support evidences
- Q/A session & Discussion
- Conclusions and next steps

European Commission

Introduction ‘Data-Service Linking Simplification good practice’

- Context - MIWP Action 2.3.2
- Intended outcomes
- Summary of work
- Overview of the Data-service linking simplification specification
  - Part A: Data-Service Linking Simplification
  - Part B: Use of INSPIRE conformant standard capabilities documents
- Limitations

Context - workprogram

- INSPIRE MIWP 2021-2024
  - 3 areas of work & 6 actions
    1. A digital ecosystem for the environment and sustainability
    2. Towards a common implementation landing zone
       - 2.1 Need-driven data prioritisation
       - 2.2 Roadmap for priority-driven implementation
       - 2.3 Simplification of INSPIRE implementation
         - 2.3.1 Governance of INSPIRE artefacts
         - 2.3.2 Simplification of data-service linking
       - 2.4 Central infrastructure components
    3. GreenData4All

Context - MIWP Action 2.3.2

- Kick-off March 4th 2021
- Participants from AT, DE, DK, EL, ES, FR, IT, LT, NL, PL, SE, SK
- Starting from discussion paper created by action 2019.2

  The initial version of the paper was drafted by a small MIG-T ad-hoc group with members from DK, FR, NL, JRC and DG ENV, 2018
- The sub-group will work on the following activities:
  - Develop an approach for simplification of data and service linking
  - Validate the proposed technical approach with widely used web applications
  - Follow the procedure for submitting an INSPIRE Good practice

Context - the issue

Current approach (as per TGs):

- complicated and partly ambiguous
- duplication of information

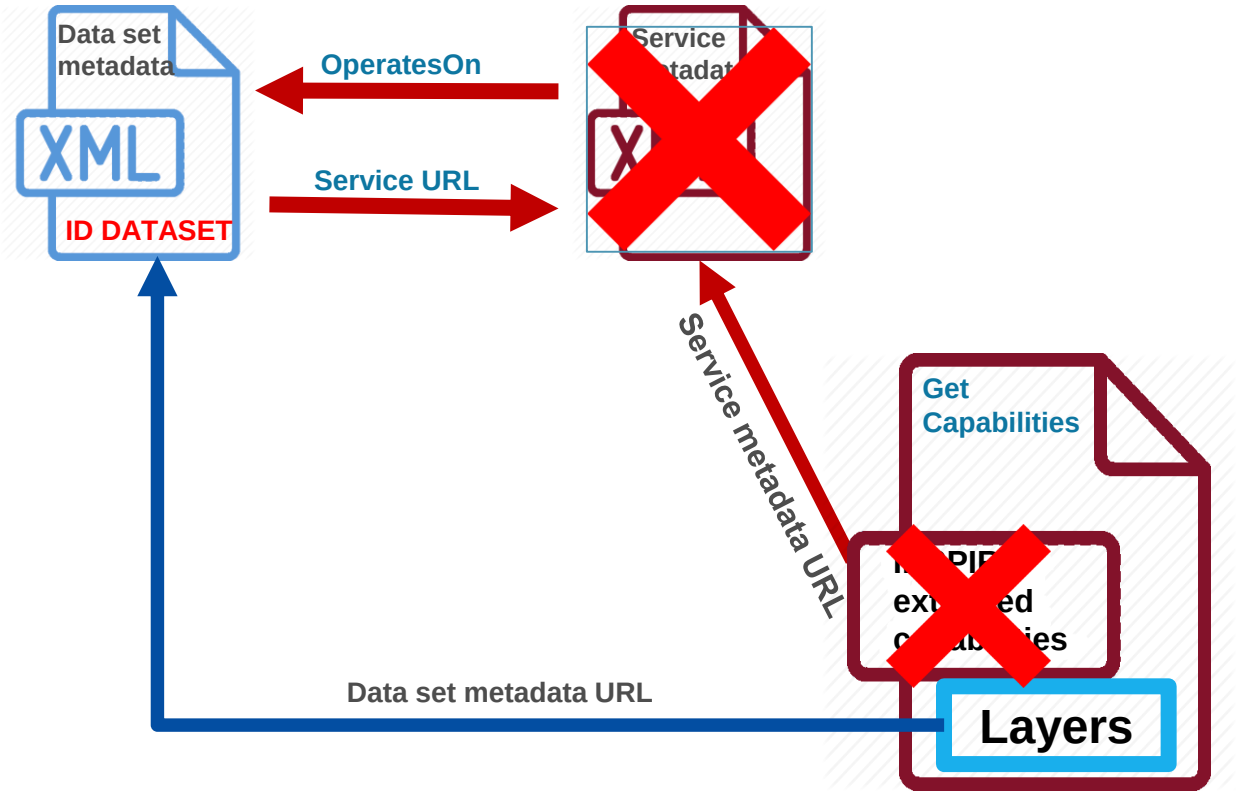
Low level of accessibility of INSPIRE data sets through view and download services

Negative impacts on the overall usability of the INSPIRE infrastructure - Monitoring indicators

Summary of work

- This good practice constitutes an alternative way to provide the data-service linking in INSPIRE - Optional, not mandatory.
- The data set metadata record shall include additional elements, already present in many national metadata profiles, related to view and download services;
- There is no need for view and download services to be documented through their stand-alone service metadata records. The metadata returned by the service itself, as a response to a Get View/Download Service Metadata request, is enough to provide the required information;
- The metadata returned by the OGC web services (OWS) can follow a structure supported by all implementing servers, no longer including the Extended Capabilities section (an optional element not supported by all implementing servers).

MIWP Action 2.3.2
Data Service Linking Simplification - Overview



Section 8

Part A. Data - service linking simplification
Good practice guidelines

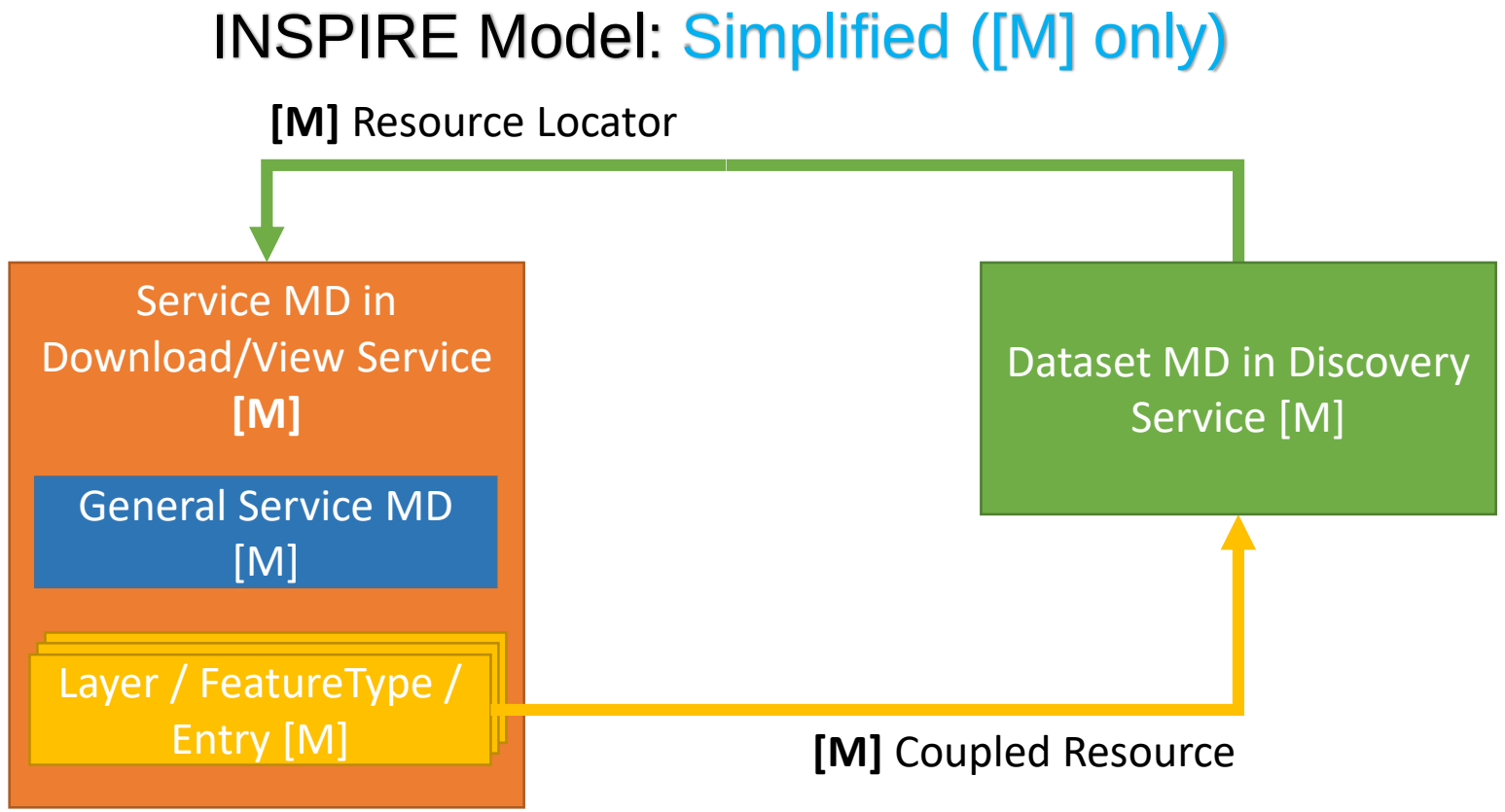
Section 9

Part B. Data - service linking simplification
Use of INSPIRE conformant standard capabilities documents

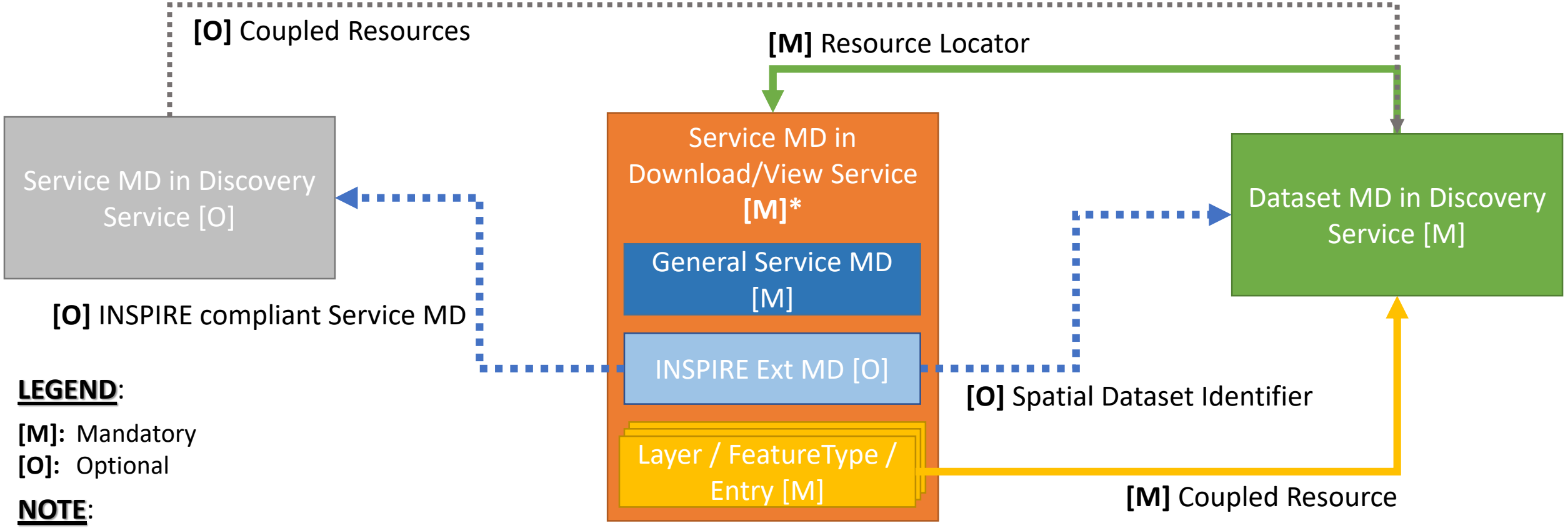
Final specification:

https://github.com/INSPIRE-MIF/gp-data-service-linking-simplification/blob/main/good-practice/data-service-linking-simplification-spec.md

Proposed data – service linking approach



INSPIRE Model: Simplified



LEGEND:

[M]: Mandatory
[O]: Optional

NOTE:

- Regarding the INSPIRE compliant Service MD - In an INSPIRE Network Service Scenario 1 implementation, the Service MD will not contain all INSPIRE metadata elements but contain a link to the Service MD in the Discovery Service; An Scenario 2 implementation have no separate Service MD in the Discovery Service. Instead, all metadata elements are provided in the extended capabilities section of the capabilities document of the service; An Scenario 3 implementation (new scenario considered if the good practice candidate on Data-Service Linking Simplification is endorsed) also have no separate Service MD in the Discovery. Instead, the metadata elements are remapped to existing elements in the capabilities document of the service and in the dataset metadata.
- Regarding the Spatial Data Set Identifier - The IR on Metadata is not including the Unique resource identifier as a required metadata element to be applied to services. The TG for Download and View services specify a WxS/Atom metadata element that contains the Unique Resource Identifier of the Spatial Data Set. In the current INSPIRE Geoportal this is used, in some cases, to establish a link between data and service for quality control purposes. The Coupled resource would be enough for data-service linking purposes, as is used e.g. in case of a WMS in the current INSPIRE Geoportal.

Part B. Remapping of Extended Capabilities Aim of the work

- Define an alternative mapping of INSPIRE service metadata elements to elements available in the Capabilities document of OGC OWS standard services (WMS, WFS) and Atom feeds.
- Avoid (as an option) the need for the INSPIRE Extended Capabilities section.
- Remove remaining obstacles in the implementation of INSPIRE requirements for network services due to the extensions required to software tools available in the market.

Limitations

- This GP is not yet applicable for services based on the OGC API family of standards.
  This is because a mapping between the INSPIRE metadata elements and the OpenAPI Specification has not yet been agreed. See also the Technical guidelines for setting up an INSPIRE Download service based on the OGC API-Features standard.
- Complying with this GP and providing metadata for services in the discovery service will result in the duplication of certain INSPIRE metadata elements, which can lead to inconsistencies if the metadata elements are not kept in sync by means of automated processes.

Thank you!

JRC-INSPIRE-SUPPORT@ec.europa.eu

European Commission