Automated generation of INSPIRE monitoring reports including service validation

Paul van Genuchten, Geocat
Francois Prunayre, Titellus
Paul Hasenohr, EEA
Ine de Visser, Geonovum

September 2016
Every member state has to provide annually information on their INSPIRE implementation status:
The INSPIRE monitoring
This is in most cases a burden:

Collecting information of all data providers in the member state
Uploading this information in a standard form
INSPIRE monitoring

The Netherlands use since 2015 the EEA financed dashboard conceived by MIWP-16
The dashboard

- Make use of the metadata available in the INSPIRE discovery service
- Calculate most of the mandatory monitoring indicators out of the metadata
- Use automated metadata validation to provide the metadata conformity information
Dynamic EEA dashboard / the official EEA dashboard

Dynamic EEA dashboard:
- To generate the monitoring
- To visualize up to date monitoring indicators
- To report metadata and service validity

The official EEA dashboard:
- To visualize the reported monitoring indicators
OUTPUT monitoring

INSPIRE site

Official dashboard
- Metadata conformity is not a part of the metadata itself
- Metadata conformity is calculated on base of the JRC metadata validation tooling
- A threshold is be used, due to lack of the commonly agreed rules
This year additional;

- Under ELF developed ETF INSPIRE service validator (inclus ATOM) added by the Netherlands to the EEA dashboard to support service conformance
Benefits

- We have saved at least 20 days per year; less coordination and less work for the data providers
- Quality improvement; use of metadata for the monitoring obligation was an impulse to improve existing metadata
- A clear, comparable picture of the validity of metadata, accessible to all Dutch inspire stakeholders

This year additional;
- A clear, comparable picture of the validity and reported conformity of services, accessible to all Dutch inspire stakeholders
Metadata Validation

Conformant Data Sets:
- False: 137
- True: 30

Conformant Services:
- None (0)

Conformity of datasets and services is declared in the metadata records.

Record Details:

<table>
<thead>
<tr>
<th>resourceTitle</th>
<th>viaSchemaValid</th>
<th>Validation</th>
<th>completenessIndicator</th>
<th>inspireConformResource</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grondwateronderzoek onder INSPIRE</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zwerfwaterlicheden en zwerfwaterkwaliteit - monsterpunten</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nationale Parke 2014</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potentieel warmte uit open WNO systemen per gemeente (1),...</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beekwoude Natuurmonumenten februari 2018</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voorschijnse verweer van sierrooster en</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haberijen die verspreiding gebied van habitatsoorten</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbroedingsleden Nederland 2005</td>
<td>true</td>
<td>false</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Service Validation
completeness indicator with caution
### All Failures

<table>
<thead>
<tr>
<th>Class</th>
<th>Failure</th>
<th>Name</th>
<th>Status</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DescribeServedQueries Failed</td>
<td>JM-01.7</td>
<td>Canceling due to failed test step</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GetCapabilitiesFailed</td>
<td>JM-04.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GetCapabilitiesFailed</td>
<td>JM-04.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GetCapabilitiesFailed</td>
<td>JM-04.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Row42 Scenario 1: ExternalServiceMetadata Failed</td>
<td>JM-04.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**DescribeServedQueries Failed:**

JM-01.7: DescribeServedQueries does NOT contain a StoredQuery with parameters CRS/DatasetDB/Language, to download.

---

**GetCapabilitiesFailed:**

JM-04.58: The returned dataset Metadata document does not seem to be ISO Metadata. It does not have an XML element.

---

**Row42 Scenario 1: ExternalServiceMetadata Failed:**

JM-04.58: Missing Metadata text answer (e.g., Metadata version) entry. Query Dataset description using `https://inspire-data.europa.eu/api/dataservice/find` and see if it has all metadata entries. If it does not have the Metadata, it does not seem to be the Metadata. Check the XML in the Metadata to see if it has all metadata entries.
Results

- Observed inconsistency between validation and reported conformity of services in the metadata, 80-20/20-80
- Most data providers/managers are not aware of that (service validation is a technical thing)
- Discussions about “how much validity” is needed but 80% is not equal to 80%!
- Increase of the service quality
- Request of managers to provide insight;
  - At managers level, an organisation based dashboard
Dashboard links

Dynamic dashboard:

https://inspire-dashboard.eea.europa.eu/dashboard/#/

Ask your INSPIRE reporter acces!
Every member state can use this!
Only thing to do is, to hit the button to start the harvesting and validation!
But,

If you prefer not to share the indicators and validation results with other Member States or organizations ......
The opensource version 1.0 is released. It can be downloaded at:

https://github.com/INSPIRE-MIF/daobs/releases