Evaluation of INSPIRE implementation in France by computing indicators and analysing data with Daobs application
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Evaluation of INSPIRE implementation in France by computing indicators and analysing data with Daobs application

Etienne Taffoureau – BRGM
Context of DAOBS project

> **DAOBS** : a web application for creating & publishing dashboards

> **Developed in MIWP-16 (monitoring & reporting)**
  * Working group composed of experts from member states: FR, NL, DE, UK, IT, PL, …
  * Conducted by European Environment Agency (EEA)

> **European dashboard** :
  * [https://inspire-dashboard.eea.europa.eu/official](https://inspire-dashboard.eea.europa.eu/official)

> **Based on Solr (search engine) & Banana (dashboard)**

> **Published as open source (EUPL license)** :  
  * [https://github.com/INSPIRE-MIF/daobs](https://github.com/INSPIRE-MIF/daobs)
Objectives of DAOBS project

> Simplify INSPIRE reporting process
  • Compute indicators from metadata catalogues (from MS)
  • Provide XML file to European Commission

> Show evolution of indicators in INSPIRE dashboards
Dashboard / Statistics by resource type

- **Dataset**: 25,700
- **Service**: 3,950
- **Series**: 780
- **Feature**: 2
- **Non-Geographic Dataset**: 1

- **Type of services**:  
  - Télécharger: 1,531
  - View: 1,432
  - Invoke: 748
  - Discovery: 79

- **Type of datasets**:  
  - Vector: 13,537
  - Grid: 1,602
  - Text Table: 223
  - Tin: 18
  - Vector: 6

- **Other types**:  
  - Service: 1.3%
  - Dataset: 84%
  - Télécharger: 40%
  - View: 38%
  - Invoke: 20%
  - Grid: 10%

[Logo: Géosciences pour une Terre durable]
Dashboard / Number of network services

The diagram shows the number of network services reported over time, with different colors representing various countries. The x-axis represents the reporting date, ranging from 07/10 to 01/16, while the y-axis represents the values, ranging from 3 to 10544. The countries are indicated by color codes, with AT, DE, BG, CH, CY, CZ, DK, EE, EL, SE, SI, SK, UK, FR, FI, HU,IE, IS, IT, LI, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SL, SK, and UK reported with different numbers of services.
Dashboard / Existence of metadata at European level
Dashboard / Implementation in France

> DAOBS has been implemented in french infrastructure (Geocatalogue.fr)
> The dashboard is an important tool for decision making
> But, we need to have specific indicators:
  • at local level (eg. regional maps)
  • by data producers
  • by SDI (eg. Sextant)
  • Number of open data
> …to have their evolution at different time-scales
> …and the user interface in french!
> So, we have evolved the dashboard
Indicators at local level: Existence of metadata
Dashboard / Harvesting

http://www.geocatalogue.fr/api-public/inspire/csw?

http://dashboard.geocatalogue.fr/daobs/
Dashboard / Analysis

Metadata XML ISO 19139

Harvesting

CSW

Analysis

Solr index

Validation tools

Controlled vocabularies

Indicator rules

INSPIRE dashboards

Other dashboards
Dashboard / Analysis

> Each metadata element is stored in Solr index

> Dashboard use Solr fields:

- From XML ISO 19139 metadata (e.g. gmd:title)
- Computed from metadata (e.g. isOpendata = yes/no)
- Link between metadata (recordOperatedBy)
- Synonyms from controlled vocabularies (e.g. producers)
Dashboard / Analysis

eg. INSPIRE codelists
eg. Synonyms analysis

Direction Départementale des Territoires de la Loire (DDT 42)

ManagedSynonymFilterFactory

Synonyms

Index

ISO19139 metadata record

DDT 42
DDT42
DDT_42
DDT de la Loire
DDEA 42
DIREN de la Loire
Coupled with other applications

- ETF for services validation
- JRC validator or Geocatalogue.fr for metadata validation
Dashboard / Validation report

**INSPIRE VALIDATION REPORT**
- false (110,184)
- true (15,733)
- Missing field (9,110)

**IS ABOVE 75% FOR COMPLETENESS INDICATOR**
- true (118,267)
- false (7,605)

**CONFORMANT DATA SETS**
- false (40,211)
- true (3,847)

**CONFORMANT SERVICES**
- true (357)
- false (154)

**TEXT**

Validation is computed using the INSPIRE validator.

A record is considered valid for INSPIRE if completeness indicator is above 75% (see isAboveThreshold field).

Even if completeness indicator is 100%, a record may be displayed as invalid in the INSPIRE validation chart due to INSPIRE validation warnings (e.g., if the URL of a coupled resource point to an invalid link).

**TEXT**

Conformity of datasets and services is declared in the metadata records.
Dashboard / Service validation report

Valid services per organisation:
- Beheer PDKK: 29
- Royal Netherlands Meteorological Institute (KNMI): 2
- Alterra, Wageningen UR: 2
- TNO Geologische Dienst Nederland: 1
- Het Waterschapshuis: 1

Note that the completeness indicator currently weighs all tests equally. Please, consider that failures in some tests may have much more impact as failures in other tests. So use the completeness Indicator with caution.
Dashboard / INSPIRE indicators

Report on Monitoring Indicators generated for NL based on 417 record(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
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<tbody>
<tr>
<td>MDv</td>
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<tr>
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<td>0</td>
</tr>
<tr>
<td>MDv2_DS</td>
<td>0</td>
</tr>
</tbody>
</table>
MDi1 : Metadata existence

MDv11
+(resourceType:dataset
resourceType:series)
+inspireAnnex:i

MDi11
MDv11 / DSv_Num1

MDi1
(MDv11 + MDv12 + MDv13 + MDv14) /
(DSv_Num + SDSv_Num)
Conclusions & perspectives

> MIWP-16 works leads to a prototype of DAOBS application & european “official” dashboards

> DAOBS has been improved and adapted in order to evaluate INSPIRE implementation and SDI deployment in France ➔ very important tool for making-decision!

> Perspectives of evolution:
  • Implementation of common validation tools
  • Improve harvesting
  • Compute indicators in « real-time »
  • Supervision of catalogues
  • Identify duplicate/similarity/differences between catalogues
Thank you for your attention

Etienne Taffoureau – BRGM