The INSPIRE use case environmental eReporting status, experiences, activities

Stefan Jensen
European Environment Agency

Expert team seminar on Regional Spatial Information System Affairs
The EEA mission:

“The EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe’s environment through the provision of timely, targeted, relevant and reliable information to policy makers and the public”
The European Environment Agency role

EEA is ...

- An independent EU agency
- Analysing, assessing and providing information
- An interface between science and policy
- Dependent upon strong networks to carry out its work

What is our mandate and objective?

- To provide a sound decision basis for the EU and member countries’ environmental policies, by producing
  - European, regional and global environment-related data and indicator sets
  - Integrated environmental assessments
  - Thematic environmental analyses
A core data task: producing European environmental data

- Countries deliveries
- European datasets
- European products

33 countries
XML, SHP, GML, KML, CSV, Access, etc...

100+ European Datasets

Downloads, Web sites, applications
Growing use of geospatial (i.e. Copernicus, INSPIRE compliant) data ...
Streamlining reporting and monitoring of environment legislation – Fitness Check

1. Amend legislation
2. Change reporting obligations
3. Modernise e-reporting
4. Develop and test tools for harvesting
5. Guidance for information systems
6. Promote full implementation INSPIRE
7. Use Copernicus data and services
8. Promote citizen science data
9. Cooperate with other domains
10. Streamline with international reporting
One aim under the Fitness Check - Pan European spatial data sets

Global (SDG linkage):
(United Nations Global Geographic Information Management) UN-GGIM:
*Fundamental data*

Europe:
UN-GGIM Europe: *Core data*

INSPIRE:
*Priority Data Sets for eReporting*

Public Sector Information (PSI)
Directive recast: *High Value datasets*
Long experience in building data sets from national data reported to Reportnet
EEA handles more than 110 data flows from which pan European data sets are produced
The reporting system needs updating to handle these dynamics
Data quality checks (cleansing/wrangling) and ETL processes create the biggest cost
EEA role in supporting INSPIRE

a. Support INSPIRE work program as member of the EU coordination team (DG ENV, JRC, EEA)

b. Co-chair a subgroup on eReporting and priority datasets
   • Manage and update the priority list of eReporting datasets (environment legislation)
   • Analyse and support that countries make available spatial data (covered by INSPIRE) „as is“
   • Implement common and interoperable European data models (INSPIRE data specifications)
   • Monitoring the availability of priority datasets as precursor for pan-European datasets

c. Support INSPIRE implementation in EEA/Eionet data flows
   • Introduce spatial data handling into Reportnet 3.0
   • Ongoing data flows: Commonly designated areas (CDDA), EU-Registry as part of the Industry Emissions Directive (IED), Marine Strategy Framework Directive (MSFD)
   • Work is starting on noise (END), floods (FD), invasive alien species (IAS)

Datasets

- Metadata: 32148
- Download services: 95
- View service: 12

Harvested from:

Geoportal - Polska Usługa Wyszukiwania INSPIRE
(Centralny Ośrodek Dokumentacji Geodezyjnej i Kartograficznej)

15.4.2019

* status 25.4.2019
b) Status on Priority Data Sets - EU & EFTA Country overview

* status 19.3.2019

* status 25.4.2019
### b) Focus: access to data sets – which is still difficult

<table>
<thead>
<tr>
<th>Country</th>
<th>MD</th>
<th>DS</th>
<th>VS</th>
<th>No metadata</th>
<th>Only metadata</th>
<th>if any of service type is missing **</th>
<th>Low degree of accessibility (average &lt; 50%) ***</th>
<th>Medium degree of accessibility (average 50%-90%) ****</th>
<th>High degree of accessibility (90%-100%) *****</th>
<th>Degree of accessibility all PDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>74</td>
<td>63</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td>**</td>
<td></td>
<td></td>
<td>*****</td>
</tr>
<tr>
<td>BE</td>
<td>101</td>
<td>28</td>
<td>57</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>BG</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NO POS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>14</td>
<td>1</td>
<td>3</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>CY</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>CZ</td>
<td>39</td>
<td>5</td>
<td>57</td>
<td>****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>DK</td>
<td>39</td>
<td>5</td>
<td>5</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>EE</td>
<td>21</td>
<td>1</td>
<td>1</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>FI</td>
<td>20</td>
<td>15</td>
<td>13</td>
<td>****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>FR</td>
<td>117</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>65</td>
<td>29</td>
<td>15</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>EL</td>
<td>38</td>
<td>31</td>
<td>51</td>
<td>****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>HU</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>IE</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>LV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NO POS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LI</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NO POS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LT</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NO POS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LU</td>
<td>66</td>
<td>66</td>
<td>56</td>
<td>****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>MT</td>
<td>54</td>
<td>52</td>
<td>54</td>
<td>****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>NL</td>
<td>42</td>
<td>25</td>
<td>26</td>
<td>****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>NO</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>***</td>
</tr>
</tbody>
</table>

Source: INSPIRE Geoportal, 27.02.2019

**Legend**

- High degree of accessibility (90%-100%) (*****)
- Medium degree of accessibility (average 50%-90%) (****)
- Low degree of accessibility (average < 50%) (***)
- If any of service type is missing (**)
- Only metadata (*)
- No priority datasets
### Priority Data sets in Poland

**Filters:**
- Downloadable
- Viewable
- Metadata language
- Show data with national coverage

<table>
<thead>
<tr>
<th>Title</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sieci transportowe (skala 1:10000) dane w modelu INSPIRE</td>
<td><a href="#">View</a></td>
</tr>
<tr>
<td>Sieci transportowe (skala 1:10000) dane w modelu INSPIRE</td>
<td><a href="#">View</a></td>
</tr>
<tr>
<td>Mapa Podziału Hydrograficznego Polski w skali 1:10 000</td>
<td><a href="#">View</a></td>
</tr>
<tr>
<td>Baza danych przestrzennych aktualizacji planów gospodarowania wodami (aPGW)</td>
<td><a href="#">View</a></td>
</tr>
<tr>
<td>Baza Danych Głównych Zbiorników Wód Podziemnych GZWP</td>
<td><a href="#">View</a></td>
</tr>
</tbody>
</table>

**Data sets:**
- Transport network
- Transport network (duplicate, updated version?)
- Hydrographic map
- Updated water management plans
- Major Groundwater Reservoirs Database
c) EEA experiences on INSPIRE and the e-Reporting use case - general

- The INSPIRE use case e-reporting is relevant and brings coherence
- Adapting to INSPIRE models (AQ, CDDA, EU registry) has involved a lot of efforts and costs per dataflow; flexibility has been applied
- Added value and cost decrease is anticipated but only coming stepwise; main gains for reference datasets and new data flows
- Concerns about heterogeneous as-is datasets and different interpretation of data specifications
- Success relies on a robust coordination at national level (so far we experienced many parallel/overlapping processes)
EEA views on data harvesting for e-reporting and INSPIRE

INSPIRE is a driver for data harvesting, but still we are far from a fully operationalisation in the context of reporting

(+)• INSPIRE is a step ahead towards active dissemination of public environmental information
• Clear use case (focus) to advance on INSPIRE implementation
• INSPIRE services perform well and are stable
• Inter-institutional collaboration at national/regional level is enhanced

(-)• Wide heterogeneity in implementation. Guidelines are needed (e.g. identifiers, dataset organisation) for a more efficient and reliable harvesting.
• Full automation is not possible in the short/medium-term (e.g. national reporter to confirm, custom made requests per service)
• Outdated content and lack of synchronisation are critical risks
• Parallel (but interlinked) reporting processes would still exist for some time
Summary

Usage of Geospatial data is growing. INSPIRE data is shaping up as use needs/use cases get clearer. Good to prioritise data with reference function.

Success of INSPIRE in Member States relies on a robust coordination at national level (so far we experienced many parallel/overlapping processes).

INSPIRE implementation needs more flexibility in the use of technologies and data models.