Building a missing item in INSPIRE: The Re3gistry

Serving society
Stimulating innovation
Supporting legislation

www.jrc.ec.europa.eu
Key pillars of data interoperability

**Conceptual data models**
- spatial objects and their properties and relationships for 34 data themes
- cross-domain harmonization
- based on a common modelling framework
- managed in a common UML repository

**Encoding**
- GML application schemas as standard encoding
- conceptual models independent of concrete encodings
- also possible to derive other encodings (e.g. based on RDF)

**Harmonised vocabularies**
- to overcome interoperability issues caused by free-text and/or multi-lingual content
- allow more specific terms from local vocabularies in addition to the harmonized terms

**Registers**
- provide unique and persistent identifiers for resources
- allow their consistent management and versioning
- items can be made unique and referred to unambiguously
Code lists

Code lists for spatial data already exist and should be reused in INSPIRE (wherever possible)

Key principle: **Extensibility**

Code lists are extensible where

- no agreed code lists or classifications exist in the domain
- code lists or classifications in a specific domain are subject to frequent changes (e.g. addition of values)
- code lists in a specific domain are hierarchical → Extensibility gives data providers the possibility to use more specific (national or local) values

<table>
<thead>
<tr>
<th>Detail</th>
<th>Code Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Infectious and parasitic diseases</td>
</tr>
<tr>
<td>06</td>
<td>Neoplasms</td>
</tr>
<tr>
<td>25</td>
<td>Diseases of the blood(-forming organs), immunol. disorders</td>
</tr>
<tr>
<td>26</td>
<td>Endocrine, nutritional and metabolic diseases</td>
</tr>
<tr>
<td>28</td>
<td>Mental and behavioural disorders</td>
</tr>
<tr>
<td>31</td>
<td>Diseases of the nervous system and the sense organs</td>
</tr>
<tr>
<td>33</td>
<td>Diseases of the circulatory system</td>
</tr>
<tr>
<td>37</td>
<td>Diseases of the respiratory system</td>
</tr>
<tr>
<td>42</td>
<td>Diseases of the digestive system</td>
</tr>
<tr>
<td>45</td>
<td>Diseases of the skin and subcutaneous tissue</td>
</tr>
</tbody>
</table>
Code lists in the IRs

4 types of INSPIRE code lists according to extensibility

a) not extensible – only values included in IRs are allowed
b) narrower extensible – values included in IRs and narrower values are allowed
c) freely extensible – values included in IRs and any other values are allowed
d) empty – any values are allowed

For code lists of types (b), (c) and (d), additional values have to be published in a register

- Technical Guidelines may include additional proposed values that will be published in the INSPIRE code list register
Registry

Application Schema Register

Theme Register

Codelist Register

Other registers …

Application Schema

Theme

Codelist

Codevalue

Label
Description
Definition
...

Theme

Annex

Application schema
Extensibility
Software: “Re3gistry”

System model

Service: “INSPIRE Registry”

Import & export

RESTful web services

Browsing and accessing register content

http://inspire.ec.europa.eu/registry

Multilingual content (based on IR content)

Features considered for future releases

- additional registers: Feature Concept Dictionary, Glossary
- access through a SPARQL endpoint.
- adding querying facilities

Open to external contributions

Formalization

- content negotiation to handle language and content type
- url rewriting to handle the URI

Transformations

- custom xml, atom, json, rdf, ...

REST http request

XML

XSL

XML, atom, json, ...

CSV file

Software: "Re3gistry"

Service: "INSPIRE Registry"
**INSPIRE code list register**

<table>
<thead>
<tr>
<th>ID</th>
<th>Label</th>
<th>Status</th>
</tr>
</thead>
</table>
INSPIRED Location – a gateway to e-Government Firenze 2013
http://thevictorianist.blogspot.it/2012/01/like-painting-forth-bridge-or-greatest.html
Building a collaborative platform for sharing reusable INSPIRE components to aid INSPIRE implementation and cross-border/-sector interoperability
ARE3NA Inventories

Initial inventories
• ~200 FOSS
• ~1100 Member States’ relevant websites and tools
• ~120 Other policy areas and ~200 of their platforms/portals

New ARE3NA survey

tinyurl.com/are3na1

• What are you using for INSPIRE implementation?
• What best practices are there in aiding implementation?
• What is missing and what ‘bridges’ can we build with other sectors?
1. Respond to the survey
2. Recommend other missing items
3. Registry Service - feedback and comments

http://ec.europa.eu/isa/actions/01-trusted-information-exchange/1-17action_en.htm
Grazie!

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