INSPIRE implementation in Slovakia

INSPIRE MIG NATIONAL IMPLEMENTATION WEBINARS

Martin Tuchyňa, Peter Deák
10.03.2016

inspire.eu@sazp.sk
Content

• National coordination
• NSDI components
• Challenges for implementation
• Success stories and opportunities
National coordination

- Legal base
  - Decree no. 352/2011 Coll.
- Current coordination
  - INSPIRE@SK Website
- Awareness raising:
  - CZ&SK INSPIRE Conference
National coordination

• Roles

Ministry of Environment of the Slovak Republic (MoE)

Slovak Environment Agency (SAZP)

- implementation of the INSPIRE Directive
- technical infrastructure – building and maintenance
- support to data providers
- coordination of infrastructure

Geodesy, Cartography and Cadastre Authority of Slovak Republic (GCCA)

Research Institute of Geodesy and Cartography

- maintenance and international harmonisation of data as regards surveying and mapping
- integrating up-to-date reference data on location for INSPIRE and into Slovak e-Government

Ministry of Finance of the Slovak Republic (MoF)

- implementation of eGovernment
- eGovernment standardisation

Ministry of Interior of the Slovak Republic (Mol)

- implementation of Open Government Partnership in SR
- Open Data
National coordination

- **Main stakeholders – remaining NSDI council members**
  - Ministry of Agriculture and Rural Development of the Slovak Republic (MoA)
  - Ministry of Culture of the Slovak Republic (MoC)
  - Ministry of Defence of the Slovak Republic (MoD)
  - Ministry of Economy of the Slovak Republic (MoEC)
  - Ministry of Education, Science, Research and Sport of the Slovak Republic (MoED)
  - Ministry of Health of the Slovak Republic (MoA)
  - Statistical Office of the Slovak Republic (SO)
  - Ministry of Transport, Construction and Regional Development of the Slovak Republic (MoT)
  - Association of Towns and Communities of Slovakia (AoT)

- **Assignment of responsible bodies to INSPIRE Annex themes + INSPIRE UML model**

- **NSDI Council Roadmap 2016**
**NSDI components**

- **Metadata**
  - **National Geoportal** metadata viewer + Catalogue service
  - Creation and update of the metadata:
    - Can be done either via Metadata editor from MoE
    - Via INSPIRE metadata editor
    - Via metadata editors of data providers

~ 410 rec @ **SK CSW** *
**NSDI components**

- **Network services**
  - Searchable via National Geoportal metadata viewer
  - Currently available INSPIRE View and Download services

**Spatial Data Service Types**

- discovery: 5
- view: 54
- download: 14
- transformation: 1
- other: 23
- unknown/non-INSPIRE: 31

**INSPIRE Validation**

- **Nearshore Discovery**
  - Passed: 5
  - Failed: 2
  - Passed with warning: 0

- **Nearshore View**
  - Passed: 0
  - Failed: 5
  - Passed with warning: 7

- **Nearshore Download**
  - Passed: 0
  - Failed: 1
  - Passed with warning: 0
**NSDI components**

- Network services
- Transformation service


Service is not conformant with the INSPIRE requirements yet (end 2016)
**NSDI components**

- Interoperability – **Priority reporting** data sets:

<table>
<thead>
<tr>
<th>Data Set</th>
<th>Metadata</th>
<th>View</th>
<th>Download</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental monitoring facilities</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Agricultural and aquaculture facilities</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Area management/regulation zones and reporting units</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Atmospheric conditions</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Meteorological geographical features</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Bio-geographical regions</td>
<td>😁</td>
<td>😁</td>
<td>😁</td>
</tr>
<tr>
<td>Habitats and biotopes</td>
<td>😁</td>
<td>😁</td>
<td>😁</td>
</tr>
<tr>
<td>Species distribution</td>
<td>😁</td>
<td>😁</td>
<td>😁</td>
</tr>
<tr>
<td>Protected sites</td>
<td>😁</td>
<td>😁</td>
<td>😁</td>
</tr>
</tbody>
</table>
**NSDI components**  
- Interoperability – Other data sets from Annex I:

<table>
<thead>
<tr>
<th>NSDI Components</th>
<th>Metadata</th>
<th>View</th>
<th>Download</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinate reference systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographical grid systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographical names</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative units</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addresses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadastral parcels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport networks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrography</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Mol is currently undertaking the activities to ensure INSPIRE compliance.
- Further coordination between GCCA and MoT will extend the compliancy of SK for all transport means.
- Initial harmonisation activities took place between MoE and GCCA.
- It remains open, whether there shall be appointed any responsible body.
**NSDI components**

- Interoperability – Other data sets from Annex II & III:

<table>
<thead>
<tr>
<th>Component</th>
<th>Metadata</th>
<th>View</th>
<th>Download</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
</tr>
<tr>
<td>Land cover</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
</tr>
<tr>
<td>Orthoimaginary</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Geology</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
</tr>
<tr>
<td>Statistical units</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Buildings</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Soil</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
</tr>
<tr>
<td>Land use</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
</tr>
<tr>
<td>Human health and safety</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
</tbody>
</table>
**NSDI components**

- Interoperability – Other data sets from Annex II & III:
  - Utility and governmental services
  - Population distribution – demography
  - Natural risk zones
  - Energy resources
  - Mineral resources

---

Overall INSPIRE compliance across all annexes
Challenges for implementation

- Coordination
  - NSDI Council – workload distribution, stronger position/role
  - NSDI Expert Group + thematic subgroups: Deserves higher attention
  - Lack of trainings, Setting up the help desk
  - Extension of NSDI Council with the representation of Government Office of the Slovak Republic, Ministry of Justice of the Slovak Republic and professional bodies
  - Improved collection of requirements and benefits evidence (Surveys, hackathons)

- Expertise
  - Responsible bodies comes with limited human and financial resources for the relevant expertise (mainly in data modelling/transformations as well as with services and infrastructure profiles and sufficient legal background)
Challenges for implementation

• Data sharing
  • Wide interpretation of the data sharing arrangements
  • Lack of proper guidance for licencing (also in connection to eGov and Open Data movement)

• Link to eGov and Open Data
  • New legal and societal expectations

• Technical side
  • Filtering metadata for INSPIRE Geoportal (currently testing the possibility to filter the INSPIRE related content from national CSW)
  • Availability of reference implementations
    • Discovery, View, Download (Atom, Pre-defined downloads, Direct access)
  • Validation toolset
    • Validation of the requirements for the interoperability
Success stories and opportunities

- Domain INSPIRE implementations

GCCA INSPIRE Website

Road Databank INSPIRE Website + Portal
Success stories and opportunities

- INSPIRE supporting components (Registries)

Environmental SDI Registry
(Based on Re3gistry)

Spatial Information Registry
(Under the development)
Success stories and opportunities
• INSPIRE Pilots

CSspire – Everyday life issues
Success stories and opportunities

- Linking beyond the INSPIRE

Environmental INSPIRE Linked Data

Linking INSPIRE to National Linked Open Data Cloud

(Under the development)
Conclusions

• What mostly works
  • Coordination on top level
  • Harmonisation for some themes
  • Possibility do discover, view resources
  • X border knowledge transfer

• Points to focus
  • Identify data as they are and where they are
  • Made them accessible via services
  • Describe the data and services with metadata

• What does not properly work
  • Coordination on expert domain / technical level
  • Allocation of sufficient priority and resources
  • Limited open data sharing arrangements / culture

• Possible drivers / helpers
  • Link /interaction with new communities (OGP/Open Data action plan 2016-2019, slovensko.digital)
  • Closer alignment with eGov
  • Support / inspirations from other EU MSs and EC
Additional references

- SK INSPIRE Discovery service: http://csw.sazp.sk/?service=CSW&requestGetCapabilities&version=2.0.2
- View services
  - Administrative units: https://zbgisws.skgeodesy.sk/inspire_administrative_units_wms/service.svc/get
  - Geographical names: https://zbgisws.skgeodesy.sk/inspire_geographical_names_wms/service.svc/get
  - Hydrography: https://zbgisws.skgeodesy.sk/inspire_hydrography_wms/service.svc/get
  - Protected sites: http://inspire.geop.sazp.sk/geoserver/ps/ows?service=wms&version=1.3.0&request=GetCapabilities
  - Transport networks: https://zbgisws.skgeodesy.sk/inspire_transport_networks_wms/service.svc/get
Additional references

• Download services
  • Administrative units: https://zbgisws.skgeodesy.sk/inspire_administrative_units_wfs/service.svc/get
  • Geographical names: https://zbgisws.skgeodesy.sk/inspire_geographical_names_wfs/service.svc/get
  • Hydrography: https://zbgisws.skgeodesy.sk/inspire_hydrography_wfs/service.svc/get
  • Protected sites: http://inspire.geop.sazp.sk/geoserver/wfs?request=GetFeature&version=1.1.0&outputFormat=gml32&typename=ps:ProtectedSite&cql_filter=%22ps:siteDesignation/ps:DesignationType/ps:designation
  • Transport networks: https://zbgisws.skgeodesy.sk/inspire_transport_networks_wfs/service.svc/get
Additional references

- Download services