Governance and performance of open spatial data policies in the context of INSPIRE

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Network analysis of the SDI in Flanders (2008)
Evaluation of different SDI arrangements

- Measurement of ‘network impedance’
- Five indicators/barriers: price, legal base, transfer method, need for additional preparations and existence of use restrictions
- Use of 3-point scale: low (0), medium (0,5) or high impedance (1)

<table>
<thead>
<tr>
<th></th>
<th>Price</th>
<th>Legal base</th>
<th>Transfer Method</th>
<th>Need for preparations</th>
<th>Use restrictions</th>
<th>Total</th>
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<td>0.43</td>
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<td>Provincial data</td>
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<td>0.46</td>
<td>0.34</td>
<td>0.44</td>
<td>1.71</td>
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</table>
SmeSpire study of the geo-ICT sector (2012-2014)

- How are European (geo-ICT) companies, and SMEs in particular, involved in the implementation of SDIs?

- Large scale online survey among geo-ICT companies in Europe + set of in-depth interviews with key stakeholders in 12 MS
  - Public sector as the principal customer for most companies
  - Small group of companies actively involved in SDI implementation
  - Key – expected - impact will be through the availability of interoperable data and services allowing companies to develop new services and products
  - Current access and use conditions not clear, complete and/or publicly available
  - Huge differences in the extent to and way in which companies are involved in SDI decision making and implementation processes
Developments in recent years

1. Optimization of the SDI network
   - Clear allocation of tasks and activities (eliminating duplications)
   - Removing barriers and lowering the SDI impedance
   - Harmonizing data flow characteristics
   - Enlarging the SDI network (INSPIRE!)

2. Opening the SDI network
   - Private sector, research, non-profit, citizens as new nodes in the network
   - Taking advantage of the existing SDI network (metadata, services, portals, …)
   - Towards clear, harmonized and open access and use conditions
   - Involving these non-government actors in the governance of the network
Open SDI/INSPIRE Governance

- Member states in Europe have modified existing governance instruments or even implemented new governance instruments to make their SDI/INSPIRE implementation more open

- Ongoing process, and differences in the extent to which this is done and in the timing

- Impact of recent open data initiatives and legislation
Information sharing
Towards non-government actors and organizations

Performance management
Monitoring use by and benefits for citizens and business

Decision making
Involvement of private sector and others

Regulated market
Standard licences for regulating the external market

Financial management
Less dependent on revenues from the sale of data

Coordinating bodies
Collaboration or even integration between spatial and non-spatial

Information sharing
Towards non-government actors and organizations

Legal framework
Requirement to open data incorporated in the law

Partnerships
Inclusion of non-government organizations in SDI partnerships

Strategic planning
Joint development between public and private sector

Re-shuffling competences
Allocation of tasks to non-government actors

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Open spatial data governance

Open data
- PSI Directive
- Open data licenses
- Open data steering group
- Open data monitor
- Open data policies
- Open data strategies

Spatial data
- INSPIRE Directive
- INSPIRE licenses
- SDI/INSPIRE steering group
- INSPIRE M&R
- Spatial data policies
- Spatial data standards

SDI/INSPIRE steering group
Open Spatial Data Performance

Governance as a necessary component to realize a well-performing open spatial data infrastructure

But how do we know our infrastructure (and governance of it) is performing well?

SDI researchers and practitioners have been dealing with this question for many years.

And more recently the open data community started to do the same...
Open spatial data assessment (and other types of assessment)

**Public sector performance**
- Input → Output → Outcomes → Impact

**E-Government value chain**
- Readiness → Availability → Uptake → Impact

**SDI/INSPIRE Assessment Framework**
- Components → Availability → Use → Benefits

**Common Assessment Framework for Open Data**
- Context/environment → Data → Use → Impact
Open spatial data assessment

<table>
<thead>
<tr>
<th>Readiness</th>
<th>Availability</th>
<th>Use</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Technological and non-technological components (including governance)</td>
<td>Availability and accessibility of spatial data and services</td>
<td>Use of spatial data and services by public administration, citizens and businesses</td>
<td>Socio-economic benefits of using spatial data and services</td>
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# INSPIRE Conferences

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## INSPIRE Monitoring & Reporting

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<th>Benefits</th>
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INSPIRE Monitoring & Reporting

- Role and responsibilities, organisation chart of the coordinating structure Relationships with third parties;
- Overview of the working practices and procedures of the coordinating body;
- Quality assurance procedures,
- Measures taken to improve the quality assurance of the infrastructure
- Description of the SDI and its vision/policy/strategy
- Overview of the various stakeholders contributing to the implementation of the infrastructure for spatial information
- Role of the various stakeholders in the development and maintenance of the infrastructure for spatial information
- Main measures taken to facilitate the sharing of spatial data sets and services Description of how stakeholders cooperate
- Overview of data sharing arrangements
- List of barriers to the sharing of spatial data sets and services between public authorities and between public authorities and the Community institutions and bodies, as well as a description of the actions which are taken to overcome those barriers.
INSPIRE Monitoring & Reporting

List of data sets and services, including information on
• Existence of metadata
• Conformity of metadata
• Geographical coverage of spatial data sets
• Conformity of spatial data sets
• Accessibility of metadata through discovery services
• Accessibility of spatial data sets through view and download services
• Conformity of network services
INSPIRE Monitoring & Reporting

- Use of network services (Monitoring)
- Use of the spatial data services of the infrastructure for spatial information
- Use of spatial data sets by public authorities, with particular attention to good examples in the field of environmental policy
- Evidence showing the use of the infrastructure for spatial information by the general public
- Examples of cross-border use and efforts made to improve cross-border consistency of spatial data sets
INSPIRE Monitoring & Reporting

- Examples of the benefits observed, including examples of the positive effects on policy preparation, implementation, evaluation, examples of improved services to the citizen as well as examples of cross-border cooperation.
- Examples that have quantitative measures (e.g. increase in data use, more data sharing, savings in time and money, better policy outcomes, etc.).
MS building further on INSPIRE M&R...

- Monitoring the accessibility of spatial data in Flanders
  - Discoverable, viewable and downloadable

But also the accessibility for the general public

- Accessible?
- Re-usable?
- Fee or not?
- Under which – standard – license?

**Toegankelijkheid geografische informatie**

- 89%
- 85%
- 81%
Next steps: monitoring the use (and benefits)

- Building permits
- Occupation of public space
- Excavation works
- Environmental permits
- E-cadastres
- ...
Thank you for your attention.

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Dr. ir. Bastiaan van Loenen (b.vanloenen@tudelft.nl)