Potential of Spatial Data Infrastructure in Poland

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Introduction – SII law

- Interoperability of spatial data sets and services
- Sharing of spatial data
- Cooperation and coordination
- Rules governing the creation and use of SII Administration bodies – roles and responsibilities
- Spatial data services
- Spatial data & metadata
Networking

I - Introduction

N – Networking

S – Strategies

P - Potential (use cases)

I – Impact (Interoperability)

R – Removing barriers/Reports

E – Education
Organizational structure

Three-level of coordination

**Level one**
the coordinator for entire infrastructure - the minister responsible for digital affairs
Cooperation: Surveyor General of Poland, Council for Spatial Information Infrastructure

**Level two**
leading public bodies in the 12 thematically defined parts of infrastructure

**Level three**
other bodies that keep public registers, which contain spatial data included in the infrastructure.
Strategies

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Strategies

- Proper rank to spatial information
- Spatial information is „located” in different governmental strategies:
  - Efficient State
  - Integrated Computerisation of the State
  - Operational Programme - Digital Poland

3.2.3. Supporting the development of the use of spatial information using digital technology.
Access to current and accurate spatial information includes data on the geographical environment, objects and phenomena throughout space surrounding the man is essential to the proper functioning of the state, its economy and its citizens. Spatial information is used in almost all sectors of the economy – including in agriculture, forestry, construction, as well as public administration and private business activity. In order to build an information society, develop entrepreneurship, develop innovation and improve the competitiveness of businesses the market, and to ensure economic development of the state, widespread and easy access to spatial information in electronic form is essential. Harmonised data and services, under standardised rules, are provided by the government’s geoportal.

The service Geoportal.gov.pl[^105], indicated in the report of the European Commission on e-government across the European Union as an example of best practice in access to public services via the Internet, provides affordable, high quality and interoperable services that contribute both to an increase in the need for using Internet by citizens, businesses, emergency services, groups of social exclusion and public administration, as well as to the development of digital literacy and an increase in effectiveness of actions (saved time of settling official matters, fewer paper documents, shorter service time in offices, lower costs of functioning of the state and local government) in those areas of life where direct relationship “the state-citizen” is necessary. Interoperable services are available in a range of spatial data in the state and in the spatial data INSPIRE.

Interoperability of systems created by public administration bodies, including the provision of services, is crucial in the construction of e-government. The integration of systems and the use of services offered by the government’s geoportal
Potential –use cases

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Potential of geoinformation example of ISOK data

- Safety and crisis management
- Spatial economy
- Science
- Land Surveying and Cartography
- Environment
- Tourism and recreation
Use cases

- Identification and verification of aviation obstacles,
- Widely available information on aviation obstacles (for pilots of different aircraft),
- Constantly updated and accurate information about traffic, obstacles,
- Increased security in the airspace,
- Reduce costs in the process of gathering information about obstacles.

Measuring the height of aviation obstacles (Source: Civil Aviation Authority)
Use cases

Decision support for spatial planning

Analysis of shading of the proposed investment (source: Development Office in Gdańsk)
Support for Polish Emergency Services

Universal Map Module (UMM)
- Collection of software components enhancing functionality of Polish Emergency Services

- Implemented in:
  - Police
  - Regional Emergency Management Centres (112)
  - Ambulance Service
  - Fire Service
Potential – use cases
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Implementing rules to the geodetic and cartographic law - 14 enactments concerning the state geodetic and cartographic resources

Implementing rules assume:

- official reference character of geodetic and cartographic registers
- harmonization of the collections of state resource
- integration
- interoperability
- GML standards for exchanging data
Modern Spatial Databases

- Buildings, Constructions
- Roads Network
- Water Network
- Land Cover
- Land Use
- Protected Area
- Utility Network
- Administrative Borders

Full coverage of the country – “one database many opportunities”
Application schema in UML
GML – format for data exchange

GML format for exchanging data

*.gml
Impact – for surveyors on-line

In August 2016, a new dedicated online service was launched enabling clients to request and purchase data from the National Geodetic and Cartographic Resource (PZGIK). In addition to making requests, the portal also allows electronic payment and the downloading of purchased data and licenses. Materials in analog formats can be received traditionally by post. Clients are also able to pay remotely for and automatically activate the license for the ASG-EUPOS system services. With more than 10,000 users by the end of 2016, this is one of the most demanded and successful services for surveyors.

https://pzgik.geoportal.gov.pl/imap/
Removing barriers

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Removing barriers

Removing barriers with the access and use of data
Registers free of charge:

• National Register of Boundaries and Areas of territorial division units of the country;
• National Register of Geographic Names,
• NMT – Digital Terrain Model (100m),
• BDO250 - Database of general geographic objects

For educational and research purposes all data from geodetic and cartographic resource available for free

(above data sets are the source data sets for INSPIRE themes (Annex I and Annex II)
Removing barriers – towards open data policy

- **The Program for Opening Public Data**
- **The first governmental document in Poland dedicated to opening of public data**
- **The program’s preparation was preceded by the study of needs of shareholders that use the data for a variety of purposes: commercial, scientific, research, etc.**
- **Main aim is to improve quality and quantity of available data via single website - danepubliczne.gov.pl**
# Ortophoto

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# Administrative units (INSPIRE AU)

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<tbody>
<tr>
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<td>WMTS</td>
<td>WFS</td>
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<th>Year</th>
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At the national level, there is a need to increase communication, education and training measures necessary to implement INSPIRE [...]. Mid term evaluation report on INSPIRE implementation, 2014

Leading bodies within their jurisdiction [...] are obliged to create and implement training [...]” Polish Act on SII

Education and trainings for public administration to support INSPIRE implementation and NSDI development 2009-2012

We still continue with this action and propose other trainings e.g. in 2016 we started project PO WER “Improving digital skills of e-government - training programs and publications for users of spatial information infrastructure”
Build awareness and potential of spatial information

Cooperation and coordination as the key aspect for successful SDI

Data Quality and update!!

Support education
Thank you for your attention!

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