Building a National Geospatial Information System in Poland – Geoportal 2
Success Stories, Driving Forces

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geoportal.gov.pl

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Geoportal 2

- **Geoportal 2** is one of the biggest projects in Poland focused on development of Spatial Information Infrastructure (IIP) in Poland.

- The main goal of the **Geoportal 2** project, launched by the Head Office of Geodesy and Cartography, is to provide to citizens, business and public administration access to government registers containing high quality and reliable data.

- **Geoportal 2** concentrate more on development of services providing access to registers containing spatial data rather than on the data.

- The project **Geoportal 2** is the extension of a project GEOPORTAL.GOV.PL. The current version of the Geoportal, available at www.geoportal.gov.pl, is already main access point to the Polish SDI. Last year we have delivered via Geoportal spatial information to around 4 000 000 users.
INSPIRE Broker is the central access point to national data defined in EU INSPIRE Directive. Access to data is provided by services defined in EU INSPIRE.

- Metadata for all national INSPIRE data sets are shared by Catalog Service Server
- Services defined in EU INSPIRE Directive are provided by INSPIRE Broker (INSPIRE Geoportal)
- According to interoperability, INSPIRE broker provides the same structure data using the same data services as other European member state.
- INSPIRE Broker provides tools for reporting, which is required for European Commision, in implementation process in Poland
INSPIRE Broker in numbers

- wms – 5
- wfs – 5
- wmts – 5
- csd – 1

FOR

- Transportation
- Cadastral parcels
- Geographical names
- Administrative units
- Addresses
National Broker (National Geoportal) is central access point do National Spatial Data Infrastructure (SDI).

- Metadata for all national data sets, which are the part of National SDI are shared by Catalog Service Server
- All WMS which are the part of National SDI are provide by National geoportal
- Map browser interface has 3 customizable versions
- Development of the spatial data infrastructure supporting tools
National Broker in numbers

- Users number  
  170 450 per month

- Data download  
  81 GB per month

- Thematic layers  
  150

- Metadata files  
  150 000
Geoportal System
How does it look?

Service bus
- Authentication
- Routing
- Services registry
- Business Process Management
- Authorization
- Monitoring
- Services Management
- Security

Data warehouse
- PRG
- EMUiA
- Orthophotomaps
- BDOT
- Central SDI node data warehouse
- PRNG
Network services monitoring

Tools:
- HP BSM
- HP SM
- ORACLE BAM
- ORACLE EXADATA (EM GRID CONTROL)
- GEOPORTAL SYSTEM MONITORING NODE

Central Monitoring

Local Monitoring

Services

Applications

Hardware

Raports
Geoportal 2 provides tools and other solutions that contribute to the capacity building of infrastructure for spatial information in Poland.

- Metadata editor
- Metadata validator
- SDI Module
- Universal Map Module

- Geoportal 2 share tools with no costs
- All tools are in use
Metadata editor, metadata validator

- available as a network service
- available on-line edytor.geoportal.gov.pl walidator.geoportal.gov.pl
- available application, instruction and configuration
- configurable
- more tools available as profile, guidelines
- integrated with Geoportal system
SDI Module

- GUGiK provides SDI by agreement
- using with no costs
- dedicated www site for all interested in using SDI Module
  www.modul-SDI.geoportal.gov.pl
Universal Map Module
UMM in using – Police command center
Harmonisation general approach

- Harmonisation strategy – framework document for harmonisation of datasets in Poland
- Identification of data sources
- Identification of integration and harmonisation rules
- Development and configuration of tools for harmonisation
- Application of integration and harmonisation rules to the source datasets
- Harmonisation of data samples (iterative approach)
- Harmonisation of entire datasets
Harmonisation

HARMONISATION STRATEGY

SOURCE DATASETS
- Metadata
- Dataset A
  - Public registry and its legal and organisational environment
- Dataset B
  - Public registry and its legal and organisational environment

HARMONISATION PROCESS
- HARMONISATION I
  - Application of harmonisation rules
  - Data consistency
  - Data quality
  - Data acquisition rules
  - Data format
  - Data integration (if source data comes from more than one dataset)
- Technical database
- GML files compliant with INSPIRE requirements
- HARMONISATION II
  - Data format transformation
  - INSPIRE application schema compliance
- HARMONISATION III
  - Data format transformation
  - Data portrayal
- Metadata

DATA DELIVERY
- Metadata
- View services
- Direct access download services
- Download services
Harmonisation

- Result are INSPIRE conformant harmonised datasets for following thematic categories:
  - Transportation
  - Cadastral parcels
  - Geographical names
  - Administrative units
  - Addresses
- Datasets are available in INSPIRE GML format
- Total size of datasets is 92 GB
- Metadata in 8 languages: Polish, English, German, Czech, Slovakian, Ukrainian, Belarusian, Lithuanian and Russian
Harmonisation

- In progress:
  - Soil
  - Land cover
  - Buildings
  - Orthoimagery
  - Elevation
  - Production and Industrial Facilities
  - Area management/restriction/regulation zones and reporting units
  - Utility and governmental services
- Datasets will be available in INSPIRE GML format
- Metadata will be available in 8 languages: Polish, English, German, Czech, Slovakian, Ukrainian, Belarusian, Lithuanian and Russian
SDI in national infrastructure
Geoportal 2 project contribute to improvement access to spatial information for citizens, business, public administration.

Geoportal system is universal map solution e.g. for emergency services.

Tools developed by Geoportal 2 project enhance the development of infrastructure for spatial information for INSPIRE data, national data, regional data and local data.

Geoportal 2 provides tools and other solutions that will contribute to the capacity building of infrastructure for spatial information in Poland.
Benefits

- Public registers open for common use
- Building the society based on knowledge
- Supporting a competitive economy
- Increased activity in business and investments
- Creating opportunities to develop services and new products
- Increased security of citizens and protection of their property
Thank you for your attention!

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