European Location Services for cross-border cooperation and e-Government

Head Office of Geodesy and Cartography

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Agenda

- Who we are?
- INSPIRE framework
- ELF Project
- Example of simple spatial service for Polish e-Government
  - Geoportal API
- Summary
Who we are?

- Head Office of Geodesy and Cartography (GUGiK) is Polish National Mapping and Cadastral Authority (NMCA)
- Is a Polish counterpart of Czech State Administration of Land Surveying and Cadastre (ČÚZK)
INSPIRE Initiative of European Union Countries

INSPIRE Directive of 14th March 2007
**Goal:** facilitation of access to spatial information and reduction of costs of data acquisition

**Idea:** interoperability – possibility to combine spatial datasets and network services

**Recipient:** public administration

**Target users:** public administration, business and citizens

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establishing an Infrastructure for Spatial Information in the European Community INSPIRE
INSPIRE establishes building blocks essential for every spatial data infrastructure to work. These building blocks include:

- datasets – containing relevant spatial aspects of surrounding world,
- services – publishing datasets,
- metadata – describing content of both datasets and services to facilitate search of spatial content
All of INSPIRE building blocks are standardized to minimize workload required to find and reuse resources published by different organizations in different countries

The very same principles defined by INSPIRE can be also utilized for publication of national spatial data
As an Polish NMCA we have adopted INSPIRE principles. We have:

- 86 view services: 65 WMS, 21 WMTS
- 62 download services: 22 WFS, 6 WCS, 34 ATOM
- around 50 other services

publically available on maps.geoportal.gov.pl, providing all kinds of datasets.

Altogether we publish approximately 32 TB of data.
5th biggest public sector portal in Poland in terms of number of unique users*

* According to https://widok.gov.pl/statistics/

Number of monthly users

(2) Statistics on national e-portal
Project involved significant part of European National Mapping and Cadastral Authorities

http://www.elfproject.eu/

The project was a proof of concept for INSPIRE

Czech-Polish cluster has been established
Workshop in Kraków

- Goal of the workshop was to provide a map with an optimal route for a truck transporting hazardous materials (hazmat) from Polish Racibórz to Czech Ostrava avoiding build-up areas
- Workshop’s attendees worked on the data downloaded using INSPIRE/ELF services
European Location Framework Project (ELF) (3)
We have noticed that for some stakeholders it is difficult to integrate with our INSPIRE services because of:

- Significant part of IT specialist integrating with our services are not GIS specialists
- Competition like Google, Bing, Open Street Map
- Time of developers is expensive
- License restrictions
INSPIRE framework challenges

What we need is:

- Services/applications with simple APIs
- Standardised but not “spatial” interfaces like SOAP, REST
- Simplified data models
- Popular, non-spatial data exchange formats; XML, JSON instead GML
- Eye catching and simple map compositions
- Simple licensing, open data
API service (1)

- Presentation of users’ business objects using state, official spatial data as a background
- Additional functionalities allow to:
  - Create private and public map compositions
  - Create, update and delete business objects using GUI
  - Define own markers
  - Define clusters of objects
  - Connect external WMS, WMTS services
API service (2)
Use cases

- Ministry of Entrepreneurship and Technology
  https://www.biznes.gov.pl/
- The General Office of Building Control
  http://wyszukiwarka.gunb.gov.pl/mapa-api/
- Ministry of Justice
- Directorate for National Roads and Motorways
  https://kpd.gddkiia.gov.pl
- Polish Television
- Police
  https://mapy.geoportal.gov.pl/iMapLite/KMZBPublic.html
- Others
Portal that allows people to report online location of: minor criminal offences and potentially dangerous sites

https://mapy.geoportal.gov.pl/iMapLite/KMZBPublic.html
National Security Map (2)

Reported crimes
- Act of vandalism
- Illegal rubbish dump
- Pouching
- Illegal clearance of trees
- Illegal car race
- Incorrect car parking
- Damaged greenery
- Quad race in forest
- Exceeding speed limit
- Public drinking
- Burning up grass
- Cruelty to animals
- Beggary
Reported potentially dangerous situation

- Homeless people
- Unlisted swimming area
- Grouping area of adolescents endangered by demoralization
- Dangerous location on waters
- Unprotected railway pedestrian crossing
- Unprotected grade crossing
- Damaged road infrastructure
- Drowning
- Drugs abuse
- Homeless dog
- Collision with wild animal
- Traffic organisation problem
Krajowa Mapa Zagrożeń Bezpieczeństwa

Wyszukaj w Geoportal

Legenda

Spożywanie alkoholu w miejscach niedozwolonych
Data zdarzenia: 2017-01-07 10:30
Nieprawidłowe parkowanie

Nieprawidłowe parkowanie
Data zdarzenia: 2017-09-12 20:06

Nieprawidłowe parkowanie
Data zdarzenia: 2017-09-14 14:59

Nieprawidłowe parkowanie
Data zdarzenia: 2017-09-23 12:13

Dzikie wysypiska Śniegu
Data zdarzenia: 2018-03-12
National Security Map - statistics

Number of daily entries

Date

Number of entries
Conclusions

Why people use our services for e-Government?

- We are more predictable
  - people in OSM may cease their activities
  - Google may start charging for their services
- Reputational factor - public sector organisations tend to utilize tools/services provided by other public sector organisations
- We are part of public sector. Therefore, other public sector organisations can influence our activities
- Standard services require customization to meet a needs of public organizations. We have proved that we listen and that we are flexible
Although „traditional” INSPIRE network services provide a lot of information they are considered by a large group of potential users as difficult to implement and as a result „not cool”

At the same time we should develop the service to a wider audience which are:
- Simpler
- Utilizing standard „non-spatial” interfaces
- Good looking

We continue to follow such approach in our activities for example in project Spatial Analysis Centre of Public Administration (CAPAP)
Thank you for your attention

Questions?

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