INSPIRE framework for e-Government

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Agenda

- Who we are?
- INSPIRE framework
- Examples of simple spatial service for eGovernment - Geoportal API
- Summary
Who we are?

- Head Office of Geodesy and Cartography (GUGiK) is Polish National Mapping and Cadastral Authority
- Responsible for coordination of INSPIRE implementation in Poland
- Also directly responsible for harmonisation of datasets for 15 INSPIRE themes
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 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 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, providing all kinds of datasets. Altogether we publish approximately 30 TB of data.
We have noticed that for some stakeholders it is difficult to integrate with ours services because of:

- Significant part of IT specialist integrating with our services are not GIS specialists
- Competition like Google, Bing, OSM
- Time of developers is expensive
- License restrictions
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
Address dictionary service (1)

- 2 services
  - Dynamic (WFS like)
  - Static (ATOM like)
- Returns address data in simple, flat structure
- One record contains complete information about one address point
- Supports SOAP, REST and HTML interfaces
- Data returned in XML and JSON
- Online documentation
Starting point – OGC services returning addresses data

- WMS
- WFS
- ATOM

all of them in national and INSPIRE AD specifications

Public sector stakeholders said that they want something simpler
Response example

Address dictionary service (3)

Statistics – dynamic dictionary service

Monthly number of unique users

28 000 request in August 2016
Address dictionary service (3a)

Statistics – static dictionary service

Monthly number of requests
The biggest users:

- Ministry of Digitalisation - Center for Informatics Technology
- Tauron – energy distribution company
- PZU – insurance
- University of Warmia and Mazury in Olsztyn
- European Organisation for the Exploitation of Meteorological Satellites
API (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
- Online documentation
Why have we developed API?

Starting point – OGC view services data

- WMS
- WMTS

Presenting content of topographic maps, orthoimagery, addresses and much more

Public sector stakeholders said that they did not want integrate directly with view services, they wanted something simpler
API (3a)

```javascript
function initMap() {
    ILITEAPI.init(
        "divId" : "iapi",
        "width" : 500,
        "height" : 400,
        "activeGpMapId" : "gp0",
        "activeGpMaps" : ["gp0","gp1"],
        "activeGpActions" : ["pan","fullExtent"],
        "scale" : 2000,
        "marker" : {
            "x" : 635865,
            "y" : 487235,
            "opts" : {
                "title" : "Jestemy tutaj",
                "content" : "Miejsce konferencji"
            }
        }
    );
}

<body onload="initMap()">

<iframe src="http://mapy.geoportal.gov.pl/iMapLite/viewer.html?c=4028a91250a9bc020150ae179a9e0001"
    width="800"
    height="450"
    frameborder="0" style="border:0">
</iframe>
```

Java script example

HTML example
API (4)

https://www.biznes.gov.pl/

- Single contact point to people doing business in Poland
- API shows location of over 10,000 authorities in Poland
The General Office of Building Control

API used for finding documents related to building development procedure

http://wyszukiwarka.gunb.gov.pl/mapa-api/
https://mapy.geoportal.gov.pl/iMapLite/KMZBPublic.html

- **Security Map**
- **Portal that allows people to report online location of:** minor criminal offences and potentially dangerous sites
Statistics – API

Monthly number of unique users

- July/15: 0
- August/15: 5000
- September/15: 10000
- October/15: 15000
- November/15: 20000
- December/15: 25000
- February/16: 30000
- March/16: 35000
- April/16: 40000
- May/16: 45000
- June/16: 50000
- July/16: 80000
Summary (1)

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
- 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
- Reputational factor - public sector organisations tend to utilize tools/services provided by other public sector organisations
Although „traditional” 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

Maybe it is a time to start building such services on the European (INSPIRE) level
Thank you for your attention

Questions?

www.geoportal.gov.pl

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