Good practice proposal – Building one access point to dispersed data sources
Description of the GP (1)

- Datasets maintained at a local level independently by different municipalities often:
  - Are very similar: have the same content, data model, data structure, portrayal etc.
  - Have different spatial extend limited by boundaries of municipalities

- Good example is cadastral data in Poland that is maintained by 380 districts (powiaty)
  - Districts maintain the cadastral datasets in the same national data model
  - Each district maintains cadastral dataset limited spatially to its boundaries
  - Each district is obliged by law to publish network services providing dataset the district maintains
  - This results in 380 WMS services published by districts providing cadastral datasets
Let’s create a proxy service that integrates local services
Benefits

One endpoint for a particular dataset (e.g. cadastre) for the entire country

- It saves user’s time – the user doesn't have search for endpoints of view services published by different districts
- It hides the complexity of the SDI implementation – from the user perspective integrated service provides access to one seamless dataset
Intendent outcome

Users should access dispersed datasets from a single endpoint

This can be for example done as:

- a single national endpoint per dataset integrating services published by municipalities
- a single European access point per INSPIRE theme integrating services provided by the Member States
How it works? (1)

Request forwarded to one local service

1 – GetMap WMS Request

2 – 302 redirection GetMap WMS response containing request URL to the local service

3 – GetMap WMS request

4 – GetMap WMS response

WMS client application

First local WMS service

Second local WMS service

Third local WMS service

Integrating, proxy WMS service

Spatial extends of districts
How it works? (2)

Request forwarded to many local services

1 – GetMap WMS Request
2 – GetMap WMS requests
3 – GetMap WMS responses
4 – Merging (flattening) of local services WMS GetMap responses
5 – GetMap WMS response
Evidence of implementation (1)

There are following integrating WMS services available:

- KIEG – providing cadastral data (cadastral parcels and buildings) [link](https://integracja.gugik.gov.pl/cgi-bin/KrajowaIntegracjaEwidencjiGruntow)

- KIUT – providing utility infrastructure data (electricity, water, telecommunication, sewers, gas and other networks) [link](https://integracja.gugik.gov.pl/cgi-bin/KrajowaIntegracjaUzbrojeniaTerenu)

- KIBDOT – providing high scale topographic data (containing the location of fences, trees, curbs, etc.) [link](https://integracja.gugik.gov.pl/cgi-bin/KrajowaIntegracjaBazDanychObiektowTopograficznych)
Evidence of implementation (3)

Monthly number of request to the KIEG service

[Bar chart showing monthly number of requests from 2017-08 to 2020-08, increasing over time.]
Other relevant information

- The standards are available for
  - KIEG
  - KIUT
- Validator application
Limitations

Additional resources are required to:

• create and maintain a proxy service
• develop standardization documents
• standardise local services
Thank you for your attention

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