## **Poland**

## Responding to user requirements with practical network services

Poland's Head Office of Geodesy and Cartography (GUGiK) is continuing to deliver helpful and practical network services for users.

By creating integrated services, it is better responding to user requirements by providing easy access to highly detailed innovative geoinformation through the **geoportal.gov.pl** website. More than 500,000 users visit the portal every month.

In 2019, GUGiK introduced a number of integrated view services.

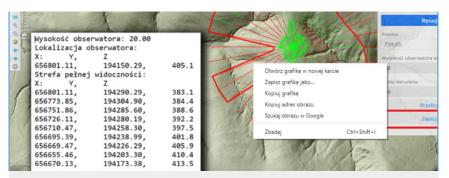
KIEG, the National Land Registry integrated view service, provides the ability to generate a map of land and building registry information for any area of the country directly from county databases.

KIUT is National Integration of Terrain Utilities view service, which enables users to generate a map showing utilities for any area of the country, and KIBDOT is the view service for the National Integration of Topographic Objects Databases.

All the services, which have a simple interface and are widely available for official as well as commercial use, are very popular. For example, the monthly number of calls to the KIEG service already exceeds 150 million. The majority of visits are the result of the use of the services in the geoportal.gov.pl website, but their use



Example of integrated KIEG, KIUT and KIBDOT service



Example of the visibility analysis

by other state and commercial systems is also increasing. All these services form the basis for a comprehensive study such as base map.

GUGiK has also launched a new Digital Terrain Model (DTM) visualisation service at services.gugik.gov.pl/nmt. The service enables users to obtain information about the height of the area based on the data from the DTM database. It offers basic requests including height of the single point, height of the list of points determination of the highest and lowest point, or calculation of the volume of the earth masses

In addition, GUGiK has developed WMS and WMTS Services to present altitude data in shading form. Currently, services are based on altitude data in the grid (1 m  $\times$  1 m) obtained from airborne laser scanning.



Example of analytical shading in DTM visualisation

The DTM also connects useful visualisation and analysis tools which are available in the national geoportal, for example allowing analysis of visibility along a given line or analysis of area visibility.