



# GWFF

GEOSPATIAL WORLD FORUM

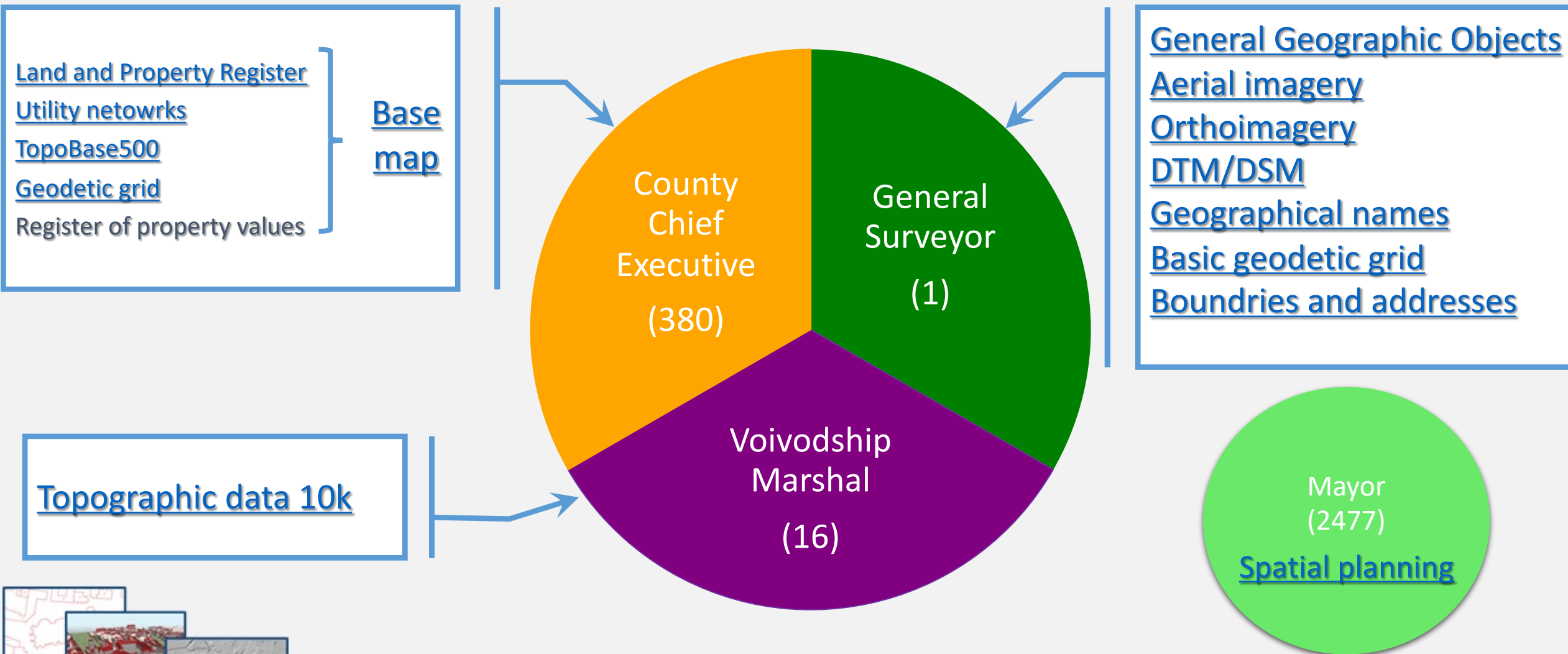
[CLICK TO KNOW MORE](#)

# National Geoportal [www.geoportal.gov.pl](http://www.geoportal.gov.pl)

The next step in the liberation of spatial data

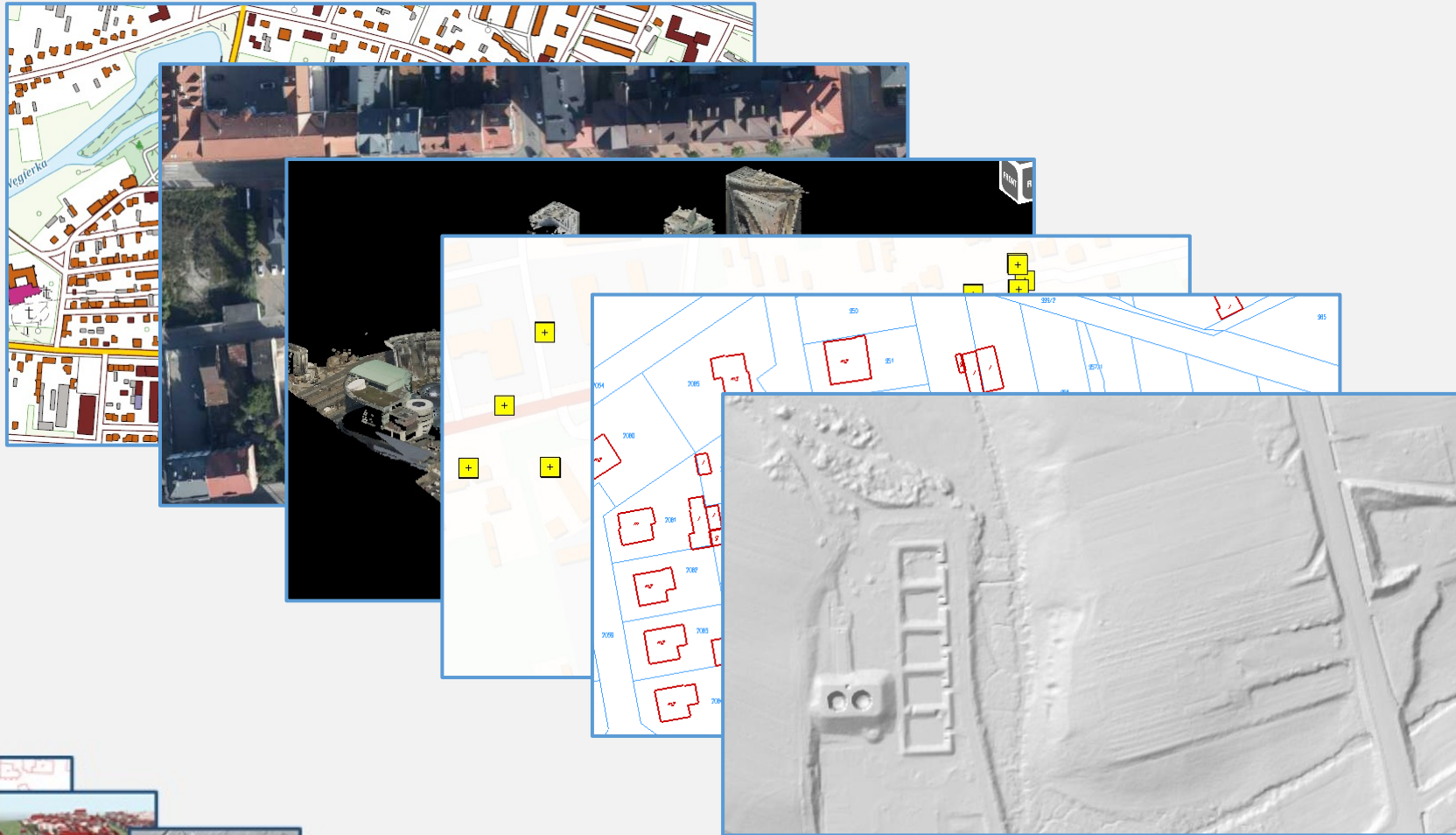
Piotr Perz – Head of Geoportal Division

# Geodetic data in Poland



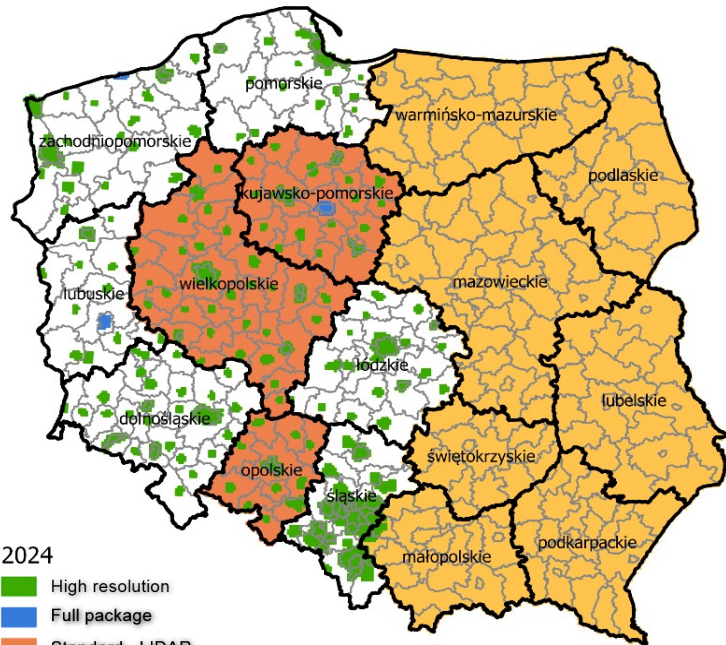
# Release of data for public access

Since July 31, 2020, most of the data has been available for free.

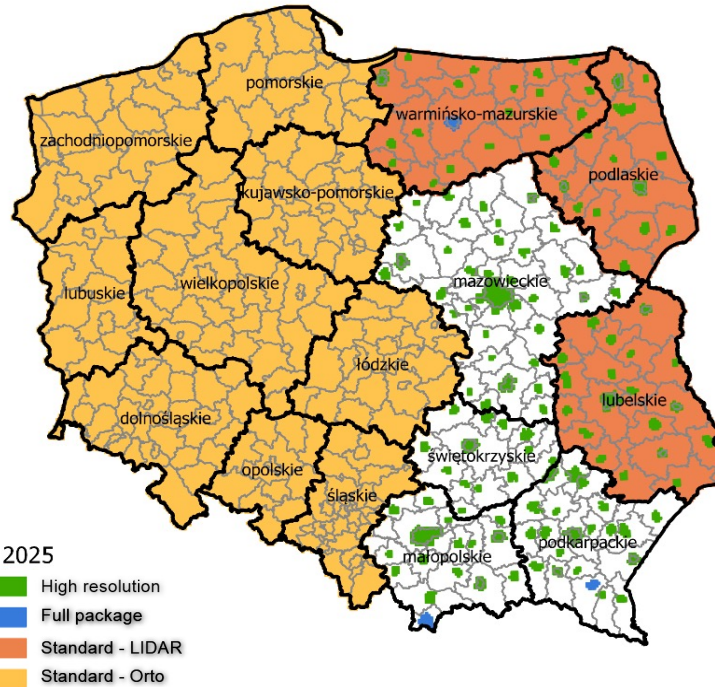


# Multiannual plan for data acquisition

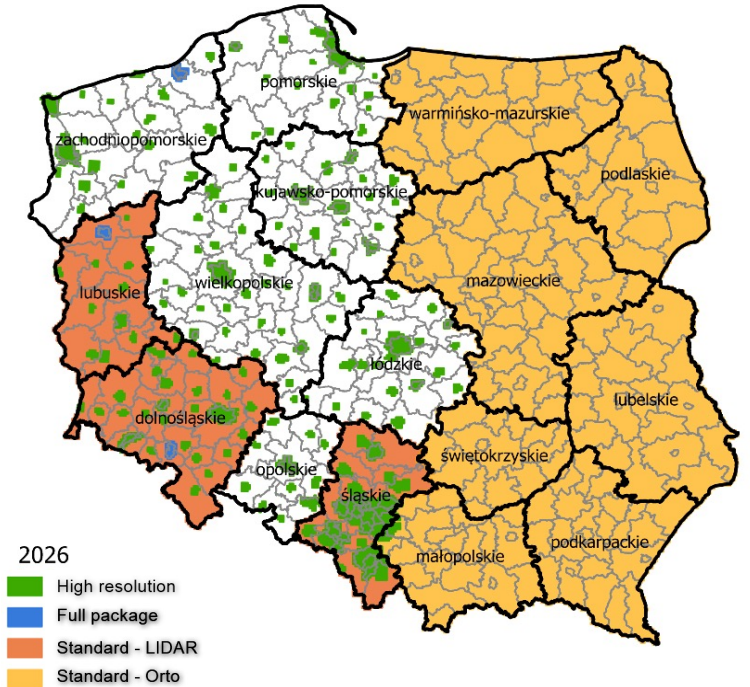
## 2024



## 2025



## 2026



# Multiannual plan for data acquisition



MULTIANNUAL PLAN  
FOR SPATIAL DATA  
ACQUISITION AVAILABLE AT  
[www.geoportal.gov.pl](http://www.geoportal.gov.pl)

Wyszukaj...

Panel narzędzi

- Zawartość mapy
- Identyfikacja

ORTO2025\_10cm  
Zdjęcia lotnicze - w realizacji i planowane

OBSZAR\_OPRACOWANIA ORTO2025\_10cm

CHARAKTERYSTYKA\_PRZE STRZENNIA 0,1

CHARAKTERYSTYKA\_SPEK TRALNA RGB

UKŁAD\_SYTUACYJNY

UKŁAD\_WYSOKOŚCIOWY

FORMAT TIFF

PLANOWANY\_TERMIN\_P OZYSKANIA\_DANYCH

PLANOWANY\_TERMIN\_O DBIORU 31.12.2025

ZAMAWIAJĄCY GUGIK

KONTAKT\_DO\_ZAMAWIAJĄCEGO Główny Urząd Geodezji i Kartografii, 00-926 Warszawa, ul. Zurawia 6/12, tel. 22 532 25 48, mail: foto\_koordinacja@gugik.gov.pl

DATA\_AKTUALIZACJI\_INFORMACJI 23.06.2023

kategoria GUGIK

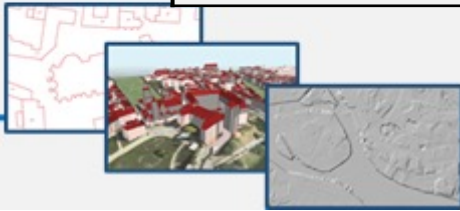
uid 7153

Skala 1:4 000 000 Układ: EPSG 2180 (układ 1992) X: 532119.89 m Y: 993191.68 m Z: -

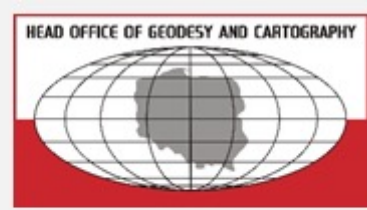
# Multiannual plan for data acquisition



	HIGH RESOLUTION – urban areas	FULL PACKAGE – urban areas	STANDARD RESOLUTION – for non-urban areas	
	ALS + ORTO	ALS + ORTO + MESH	ALS	ORTO
	Target: 2-year cycle;	Target: Justified reported need	Target: 5-year cycle;	Target: 2-year cycle;
Vertical aerial photos	0.05 m	0.05 m	0.10 m	0.25 m
Oblique aerial photos	-	0.05 m	-	-
Standard orthophotomap	0.05 m	0.05 m	0.10 m	0.25 m
True orthophotomap	-	0.05 m	-	-
Oblique orthophotomap	-	0.05 m	-	-
Point cloud	12 p/m <sup>2</sup>	12 p/m <sup>2</sup>	4 p/m <sup>2</sup>	-
Digital Elevation Model	1.0 m	1.0 m	1.0 m	5 m
Digital Surface Model	0.5 m	0.5 m	1.0 m	-
3D mesh models	-	Tak	-	-



# Tools for using the data – OGC Services



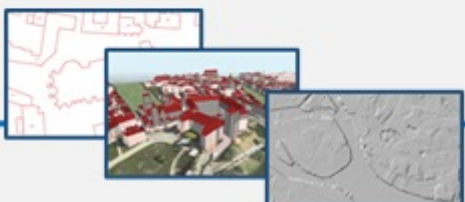
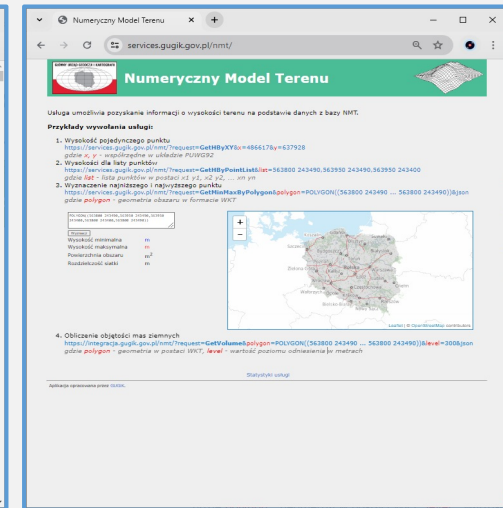
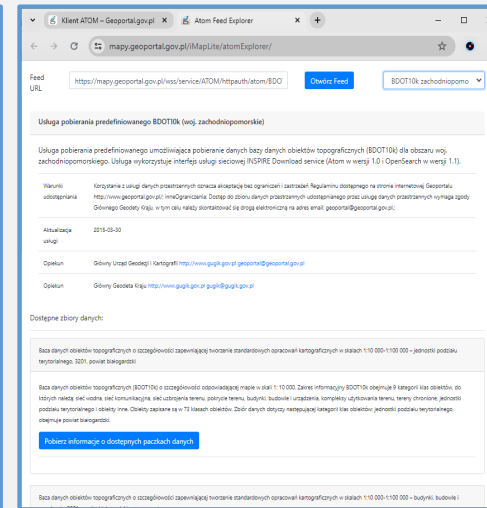
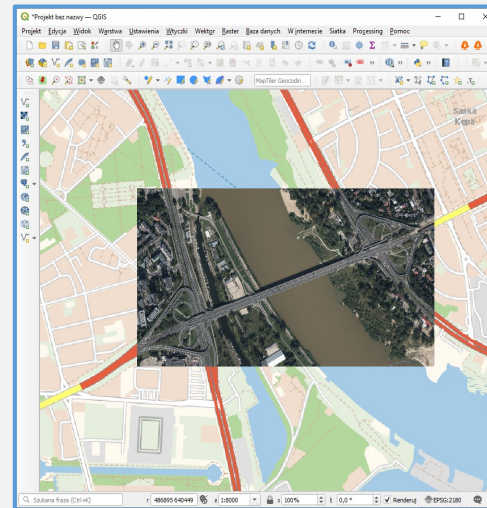
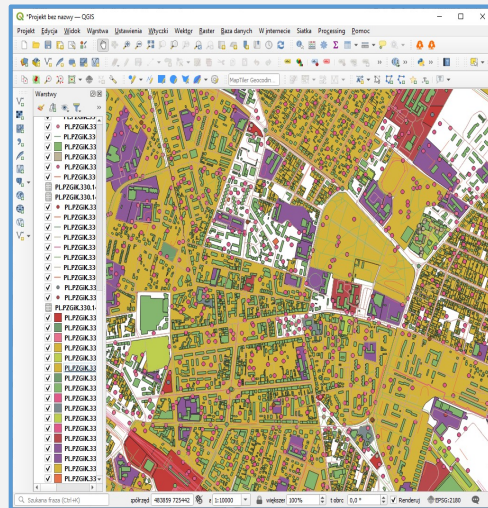
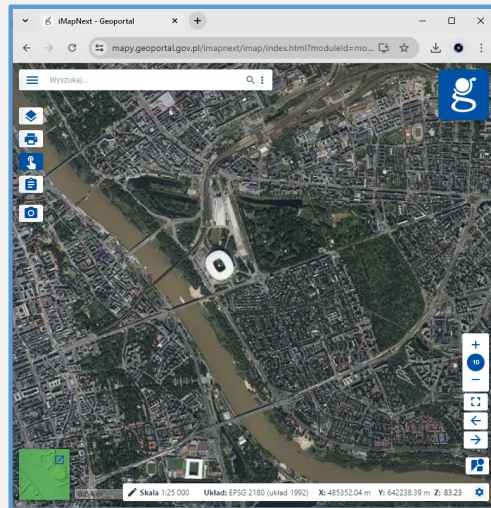
WMS/WMTS

WFS

WCS

ATOM

API





# Tools for using the data



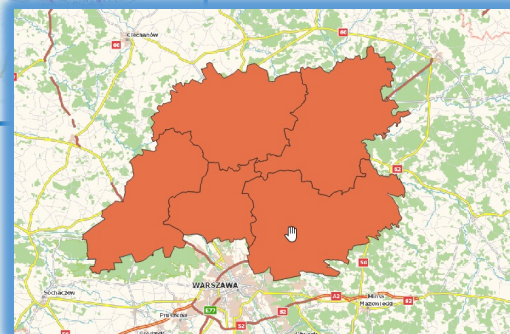
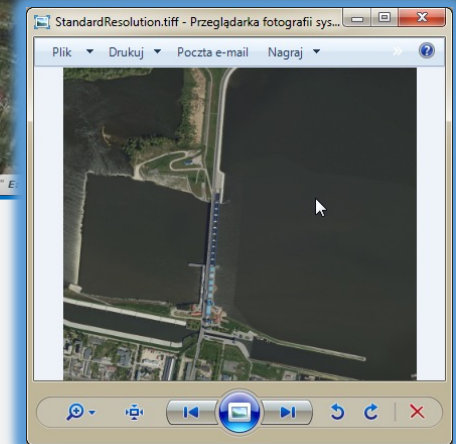
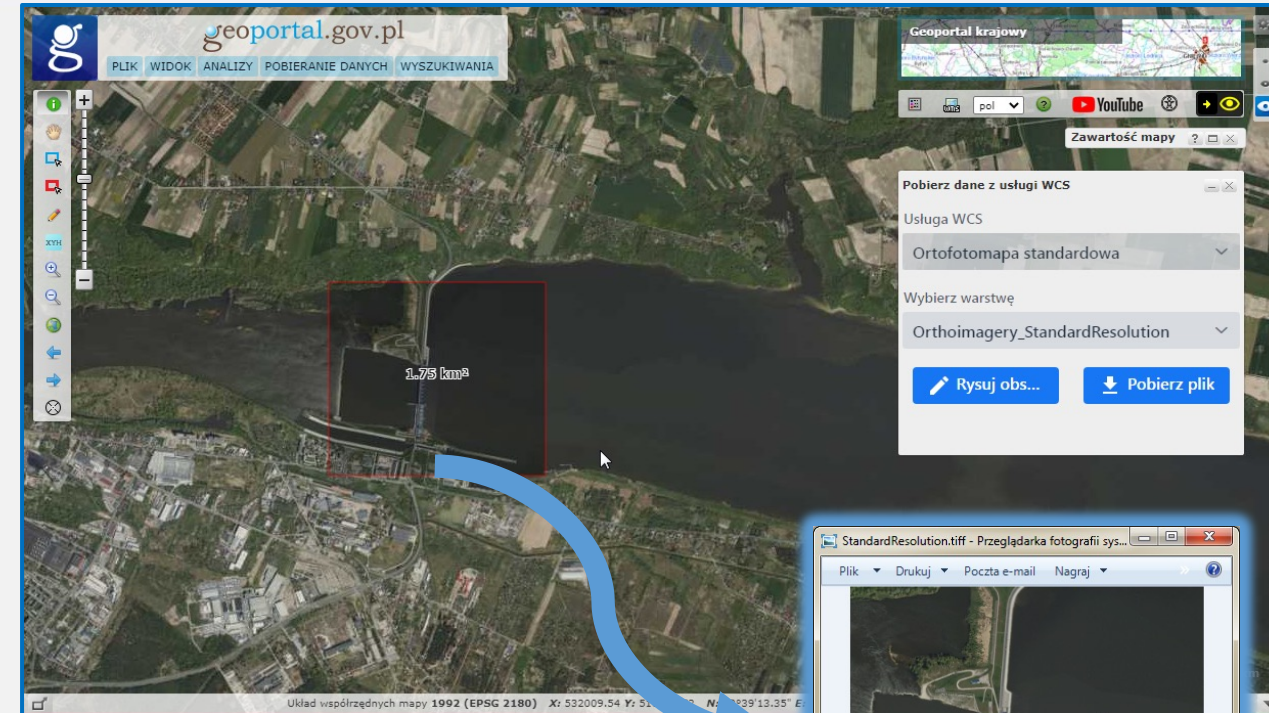
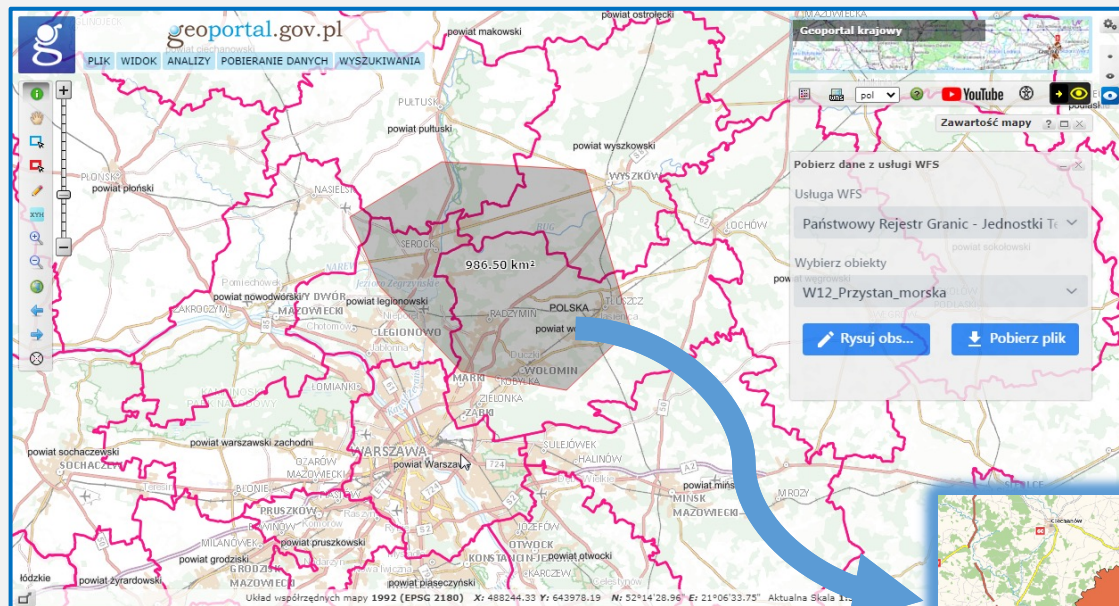
The screenshot displays the geoportal.gov.pl interface. The left panel shows a comparison tool with a time slider for historical aerial photography (Ortofotomapa archiwalna) from 1995-01 to 2022-12. The right panel shows a map content menu with the following layers:

- Ceny nieruchomości
- Ewidencja gruntów i budynków
- Uzbrojenie terenu
- Obiekty topograficzne (BDOT500)
- Zagospodarowanie przestrzenne
- Portale mapowe
- Specjalistyczne informacje geodezyjne
- Obiekty użyteczności publicznej
- Programy rządowe
- Dane innych instytucji
- Rzeźba terenu
- Monitoring pozyskiwania danych
- Skorowidze
- Dane specjalistyczne
- Dane topograficzne
- Ortofotomapa
- Dane archiwalne

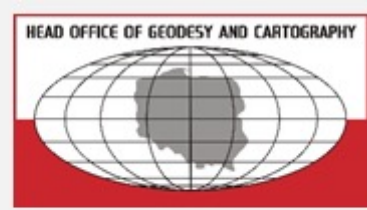
# Tools for using the data



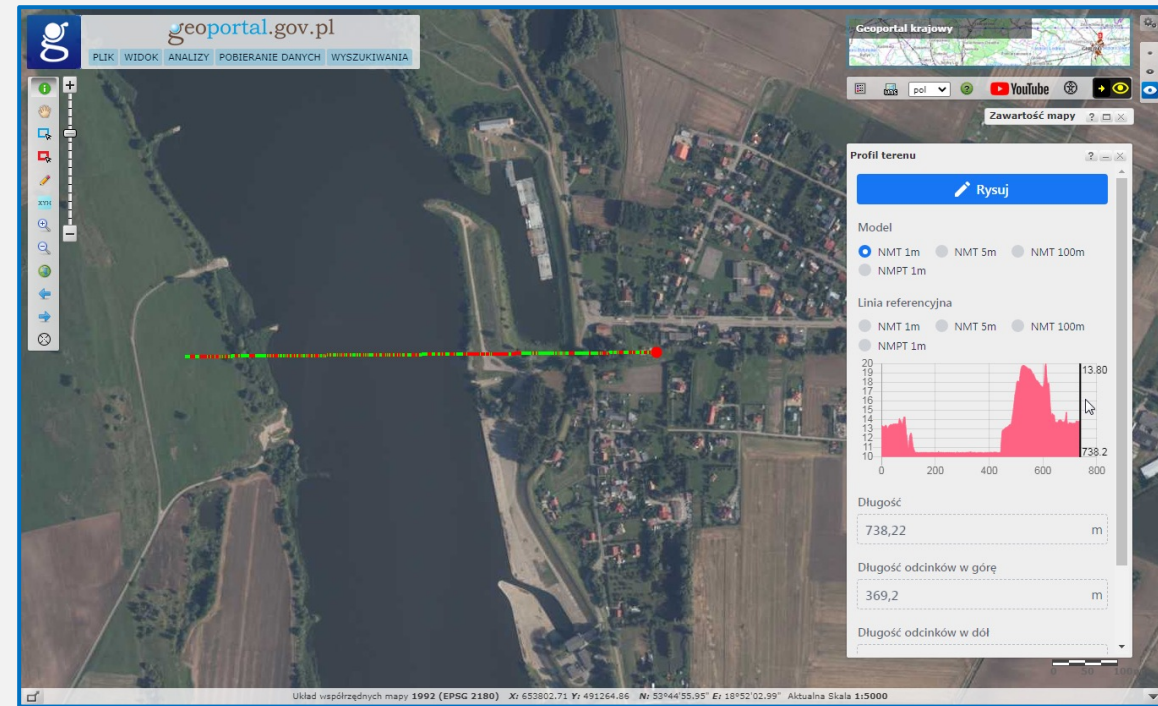
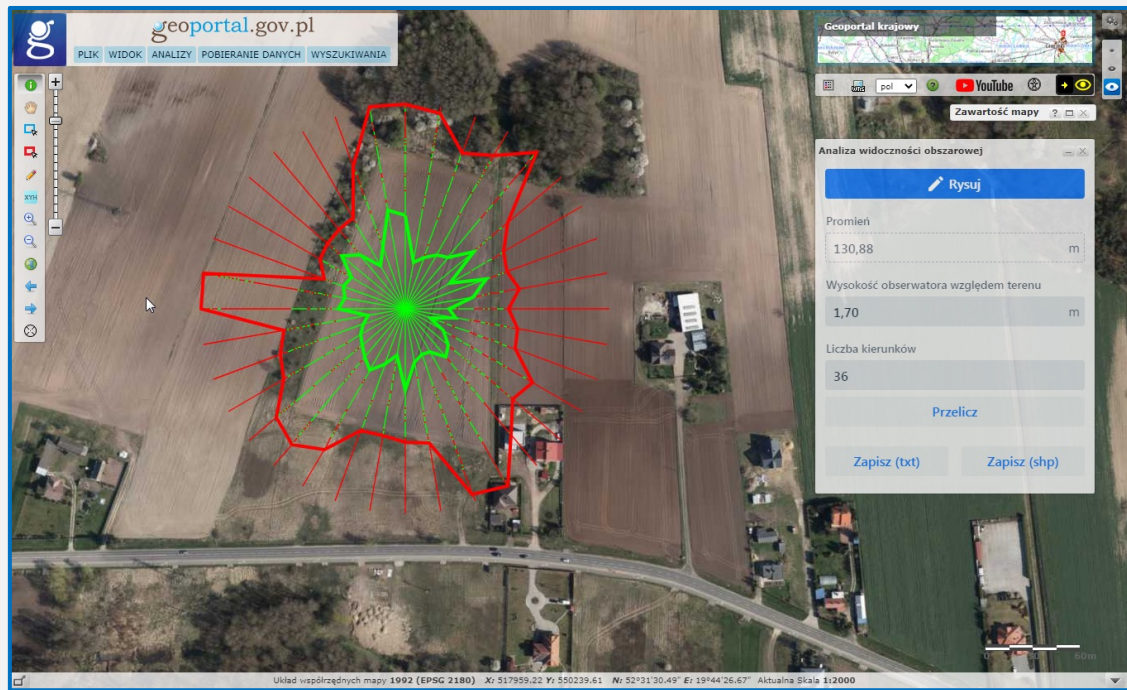
Ability to download raster and vector data directly from the graphical interface



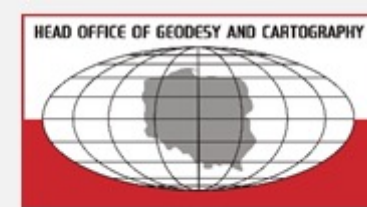
# Analysis – Digital Surface Model



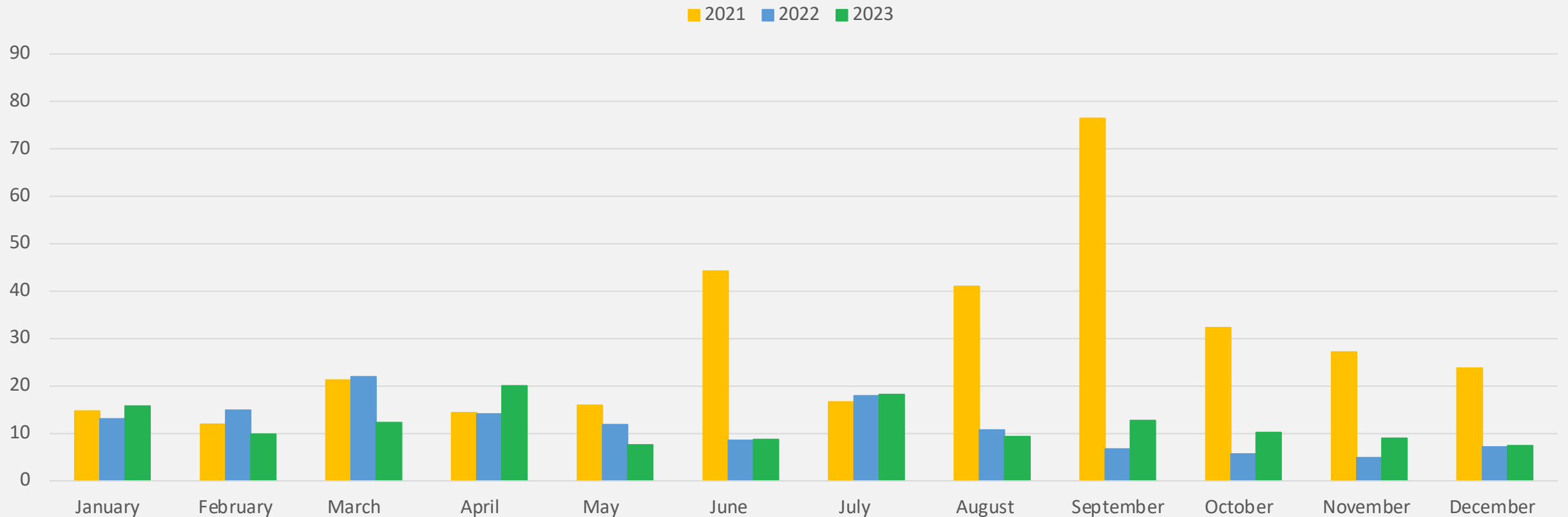
Spatial analysis "in the cloud" based on DTM and DSM data for the entire country. 313 billion points with specific heights (1m x 1m point grid)



# Downloading datasets after release - examples



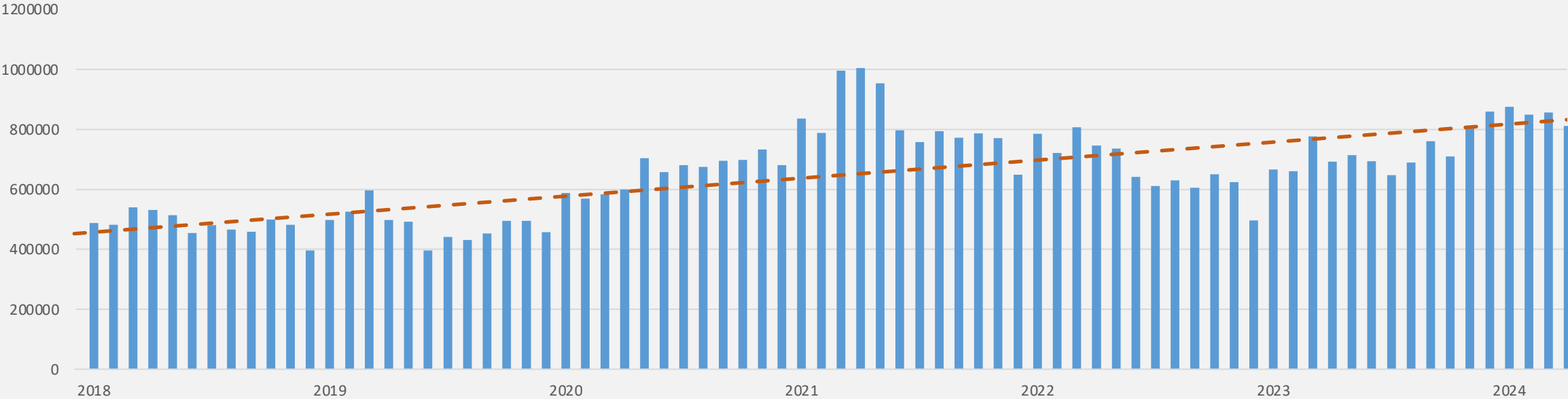
Ortophotomap [in TB]



# Statistics - the number of users is growing

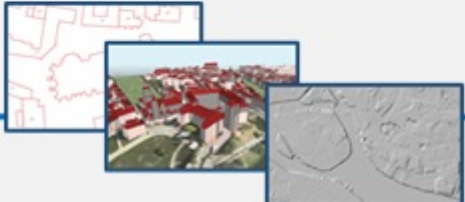


Number of users of Geoportal (GoogleAnalytics)



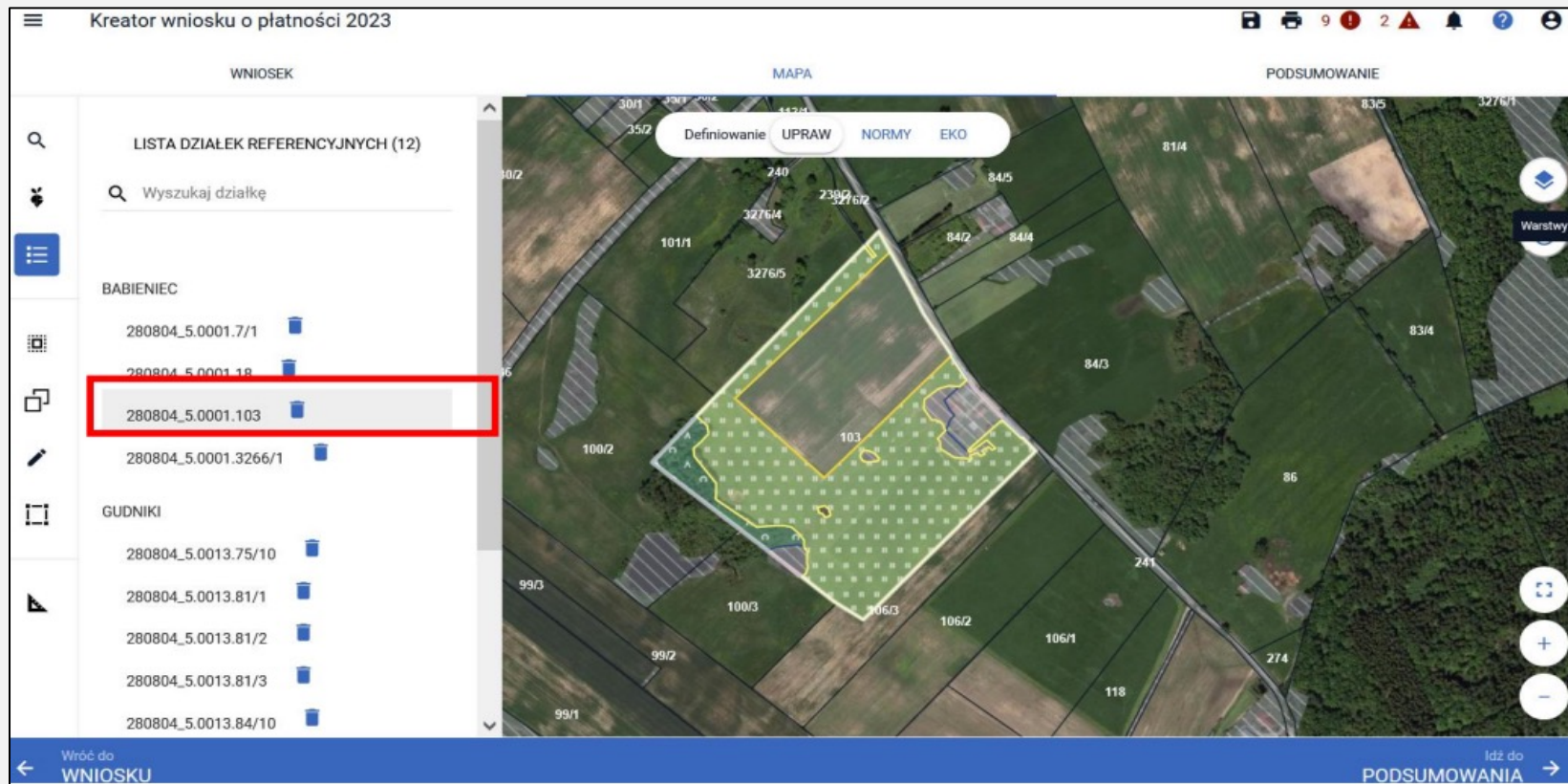
2017-2020 average:  
529,589 users per month

2021 - 2024 average:  
750,948 users per month



# Non-commercial solutions based on released data

- ✓ The Agency for Restructuring and Modernisation of Agriculture (ARMA) – Land Parcel Identification System, payments to farmers





# Non-commercial solutions based on released data

- ✓ State Water Holding Polish Waters - Flood hazard maps / risk analyses



# Non-commercial solutions based on released data

- ✓ National Heritage Institute - specialized documentation of archaeological monuments

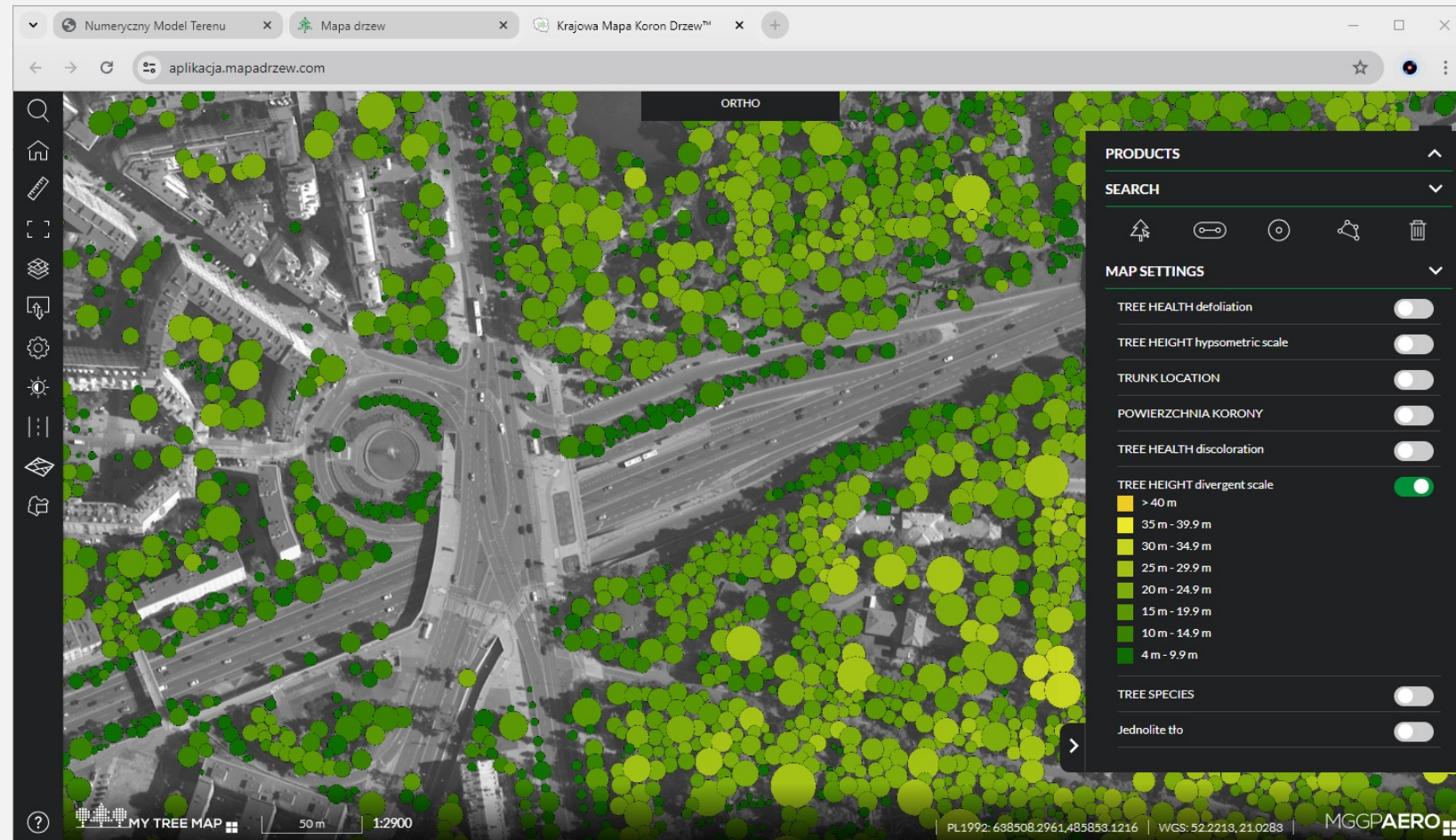




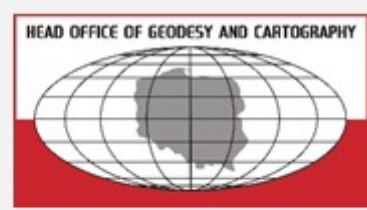
# Commercial solutions based on released data



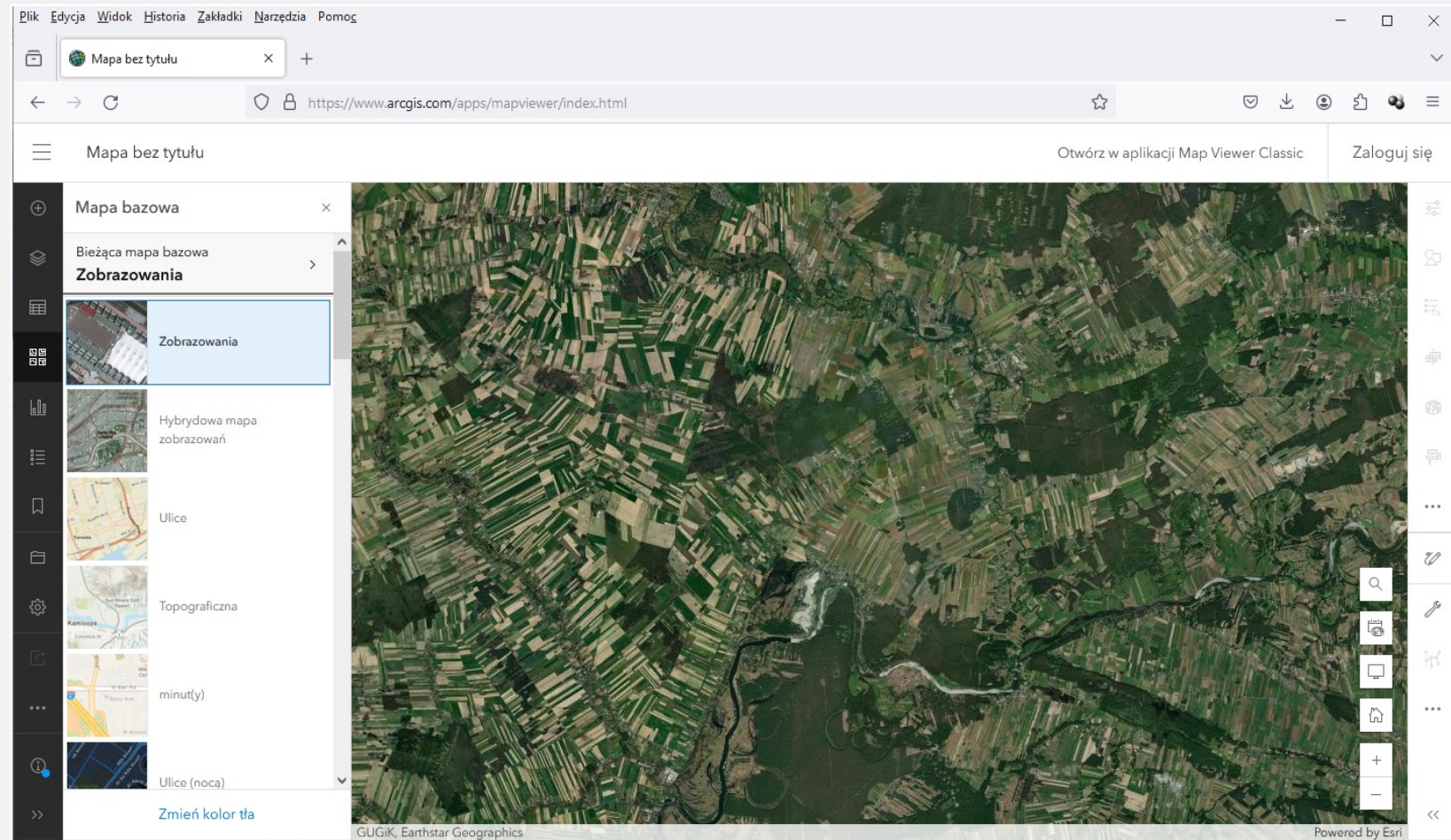
Tree height map



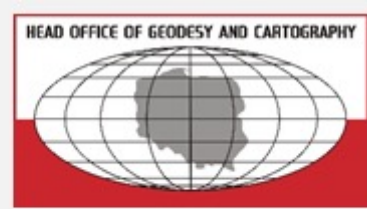
# Commercial solutions based on released data



Orthophoto in  
ArcGIS Online



# Commercial solutions based on released data



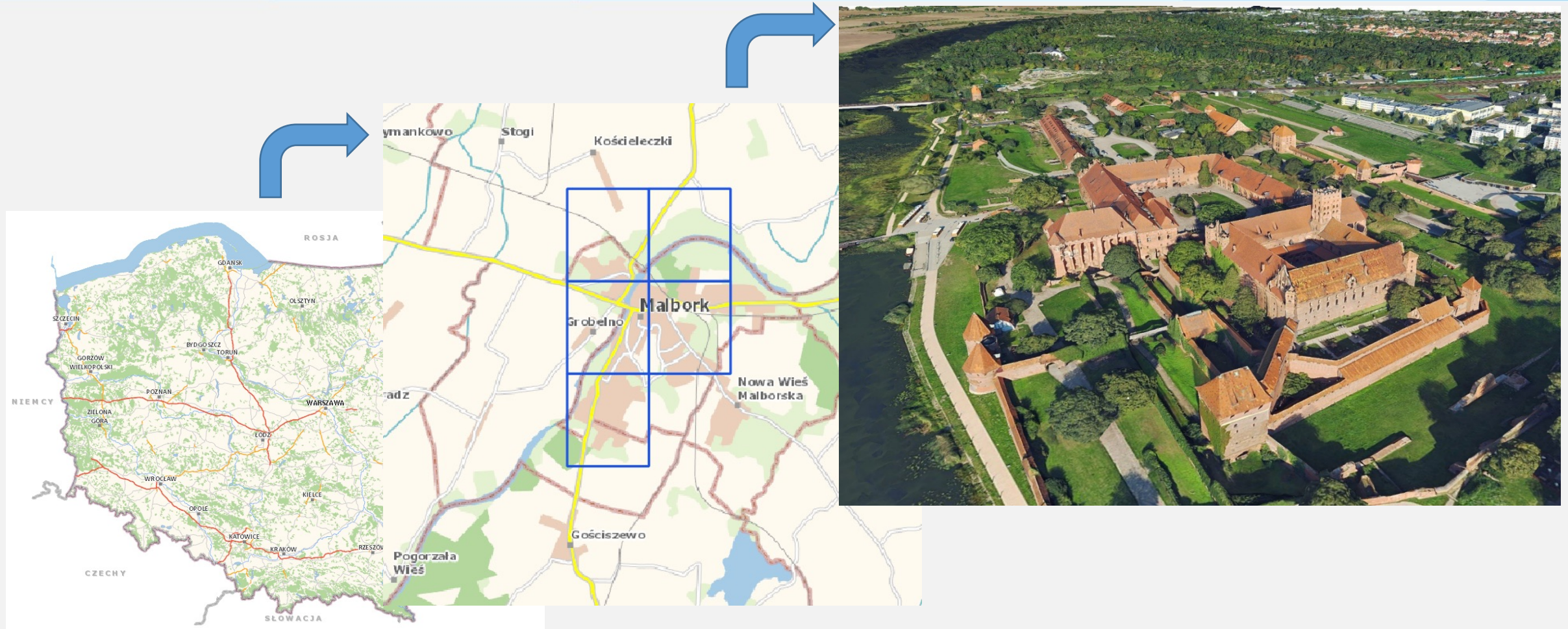
## Plugins in QGIS

The screenshot displays the QGIS desktop environment. The main map window shows a topographic map of Poland with major cities and neighboring countries labeled. The 'Pobierz Danych GUGiK' (Download GUGiK Data) plugin window is open on the right side. It contains the following elements:

- Header:** 'Pobierz Danych GUGiK' with a download icon.
- Description:** 'Wtyczka pozwala na pobranie danych przestrzennych udostępnianych nieodpłatnie przez GUGiK.'
- File Path:** 'C:\Users\pperz\Downloads'
- Source:** 'Ortofotomapa/CIR'
- Filtering Options:**
  - filtruj dane**
  - Kolor:
  - Układ współrzędnych:
  - Data od:
  - Data do:
  - Źródło danych:
  - Cały arkusz wypełniony treścią:
  - Wielkość piksela od (w metrach):
  - Wielkość piksela do (w metrach):
- Download Options:**
  - Pobierz tylko aktualne dane**
  - Pobierz przez wskazanie punktu na mapie**
  - Wybierz warstwę wektorową**
  - Pobierz warstwą wektorową**

The status bar at the bottom shows coordinates (804759 800012), scale (1:4716462), zoom (100%), rotation (0,0°), and projection (EPSG:2180).

# Future challenges - 3D mesh models



Study commissioned by the GUGiK in 2023

Thank you for your attention!

[geoportal.gov.pl](https://geoportal.gov.pl)