



# XXVII FIG CONGRESS

11-15 SEPTEMBER 2022  
Warsaw, Poland

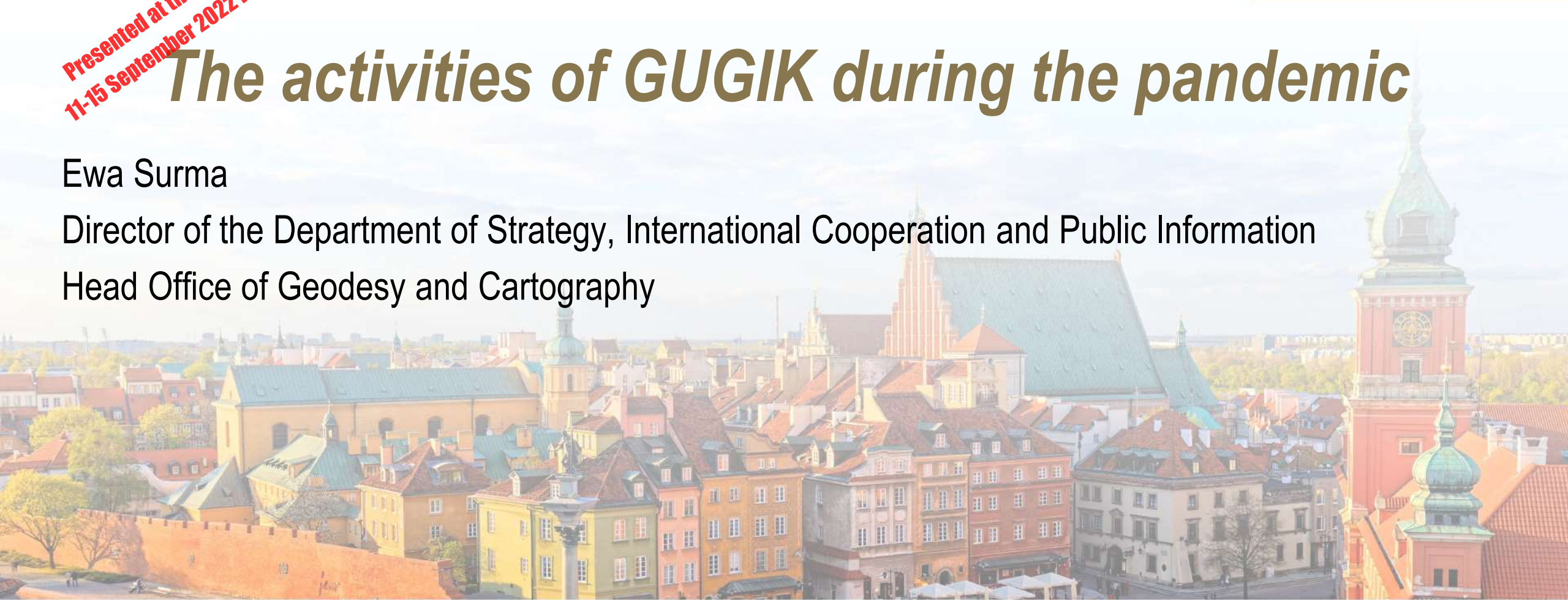
Volunteering  
for the future –  
Geospatial excellence  
for a better living

## *The activities of GUGIK during the pandemic*

Ewa Surma

Director of the Department of Strategy, International Cooperation and Public Information

Head Office of Geodesy and Cartography



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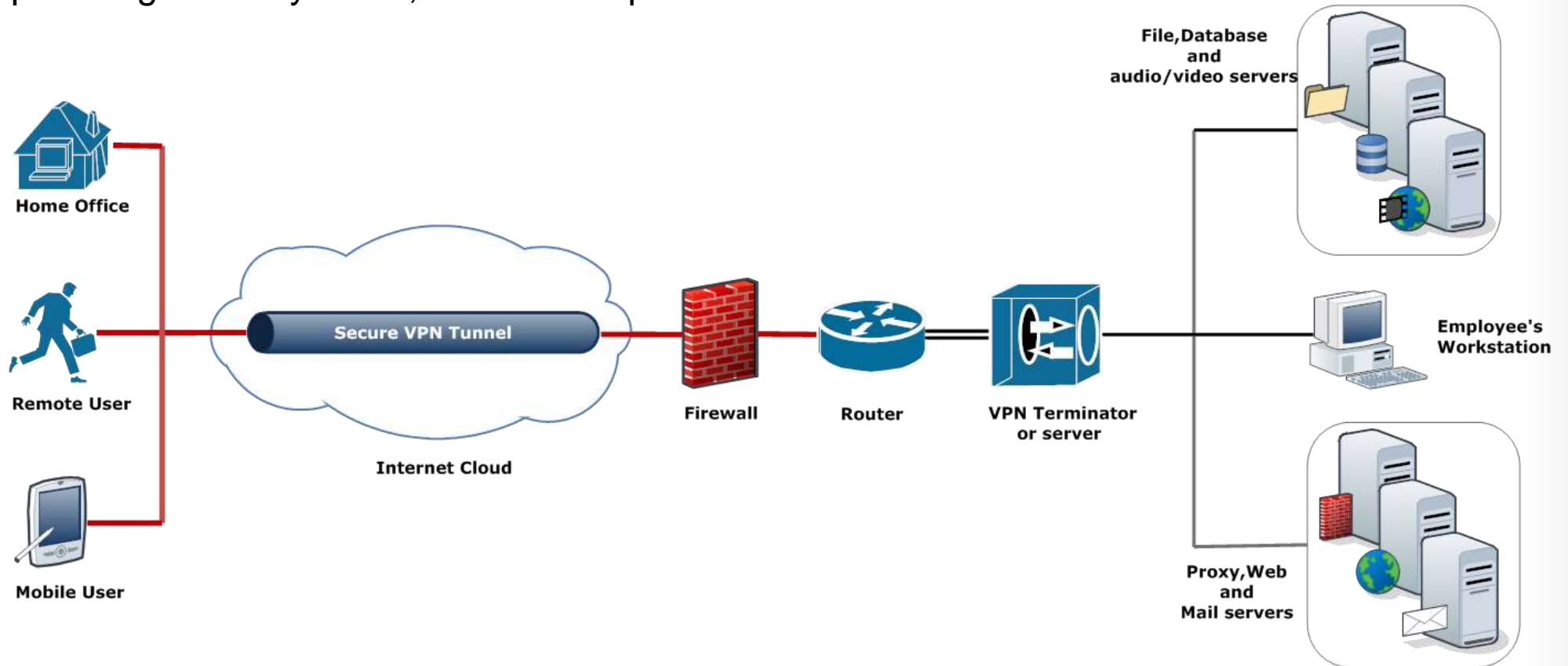


# Working at GUGiK during the pandemic

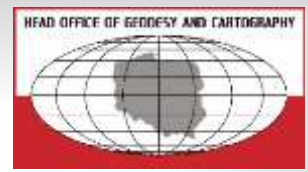


## Security

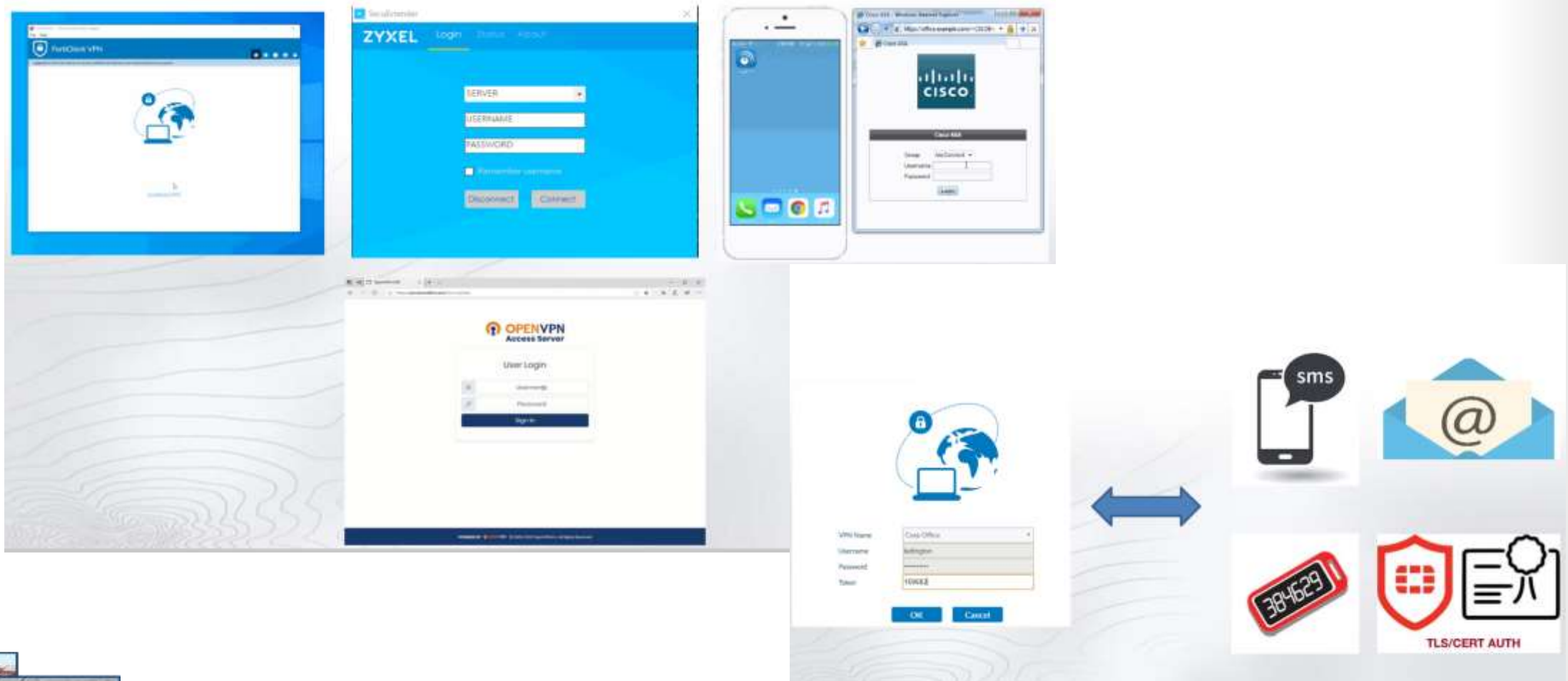
- preparation of infrastructure for remote work
- implementation of access policies
- assigning appropriate rights on systems, remote computers and network devices



# Hardware and software for VPN connections with suitably strong encryption algorithms or free solution e. g. OpenVPN



Secure encrypted communication method with resources in GUGiK



# Legal activities in Polish geodesy

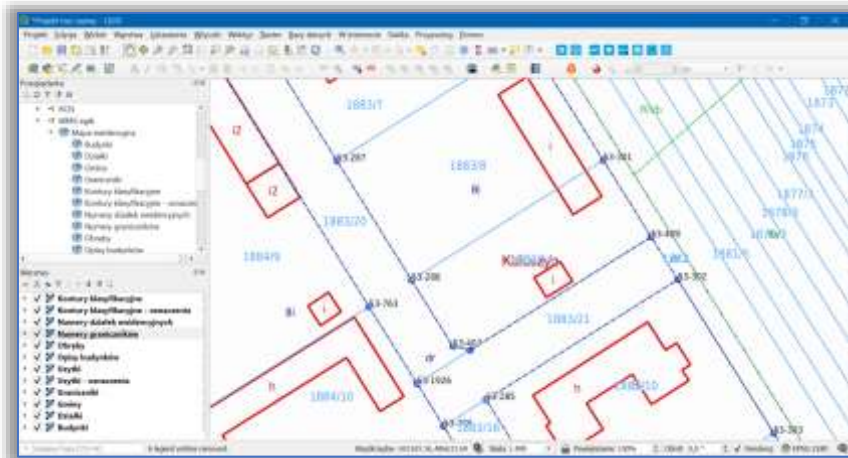


The amendment of the Geodetic and Cartographic Law and 14 regulations

Improvements for land surveyors and acceleration of investment and construction process in Poland.

According to our regulations only until 31 of December 2021 was allowed to produce paper documentation on land surveying works.

The most important is the introduction of web services as the primary forms of data publication (WMS) and its sharing (WFS).



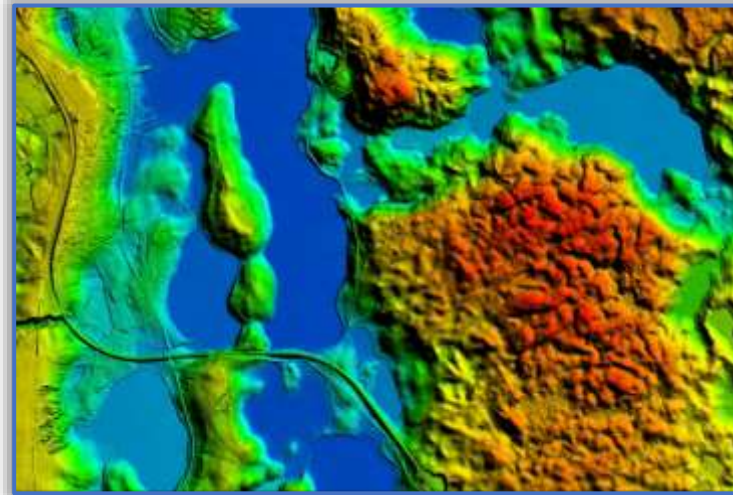
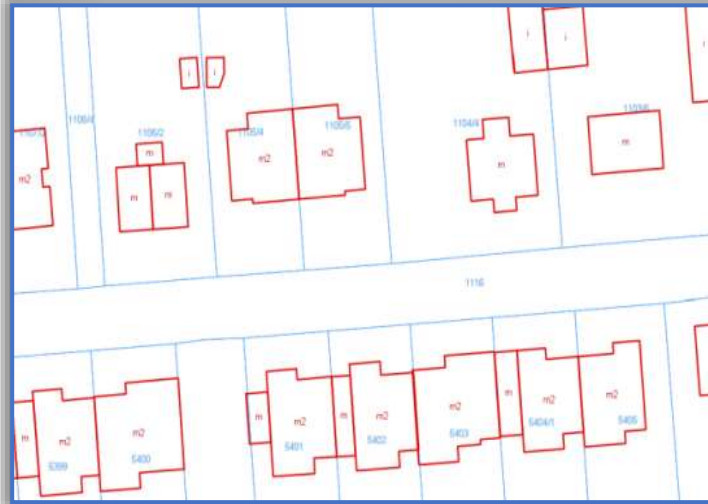
# Improvements for land surveyors and acceleration of investment and construction process



## The significant changes include:

- simplifying how data is shared,
- introduction of web services as the primary forms of data publication (WMS) and its sharing (WFS),
- simplifying the data models and database structures,
- removing GML (*XML Schema Definition - XSD*) application schemes from the regulations and moving them to a separate repository,
- reduction of the amount of information stored in databases,
- reducing the number of buildings' types from over 170 to just 10

# More open data

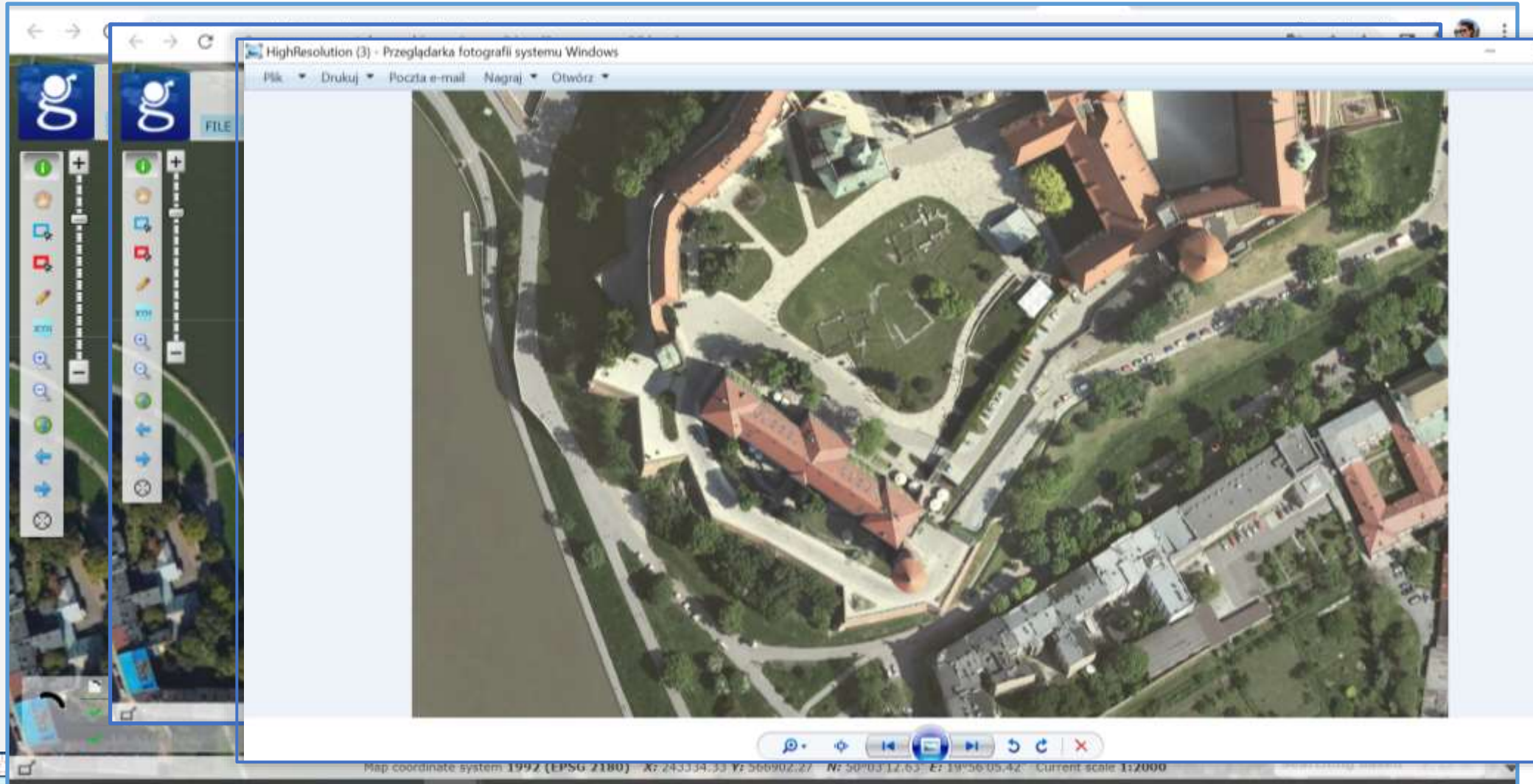


# Easy access to data - [geoportal.gov.pl](http://geoportal.gov.pl)



The screenshot displays the geoportal.gov.pl website interface. The main map shows a geographical view of Poland with various data layers overlaid. The interface includes a navigation menu at the top with options like 'FILE', 'VIEW', 'ANALYSIS', 'DOWNLOAD DATA', and 'SEARCHES'. A search bar is located at the top right. The 'Map contents' panel on the right lists various data layers, including 'Data for download', 'Orthoimagery', 'Digital Terrain Model', 'Digital Surface Model', 'LIDAR measurements', 'Data about register of land and buildings', 'Topography', 'Geodetical network', 'Photogrammetric network', 'National register of geographic names', 'State Boundary Register', and 'National Register of Boundaries'. The map shows major cities like Warszawa, Wrocław, and Łódź, along with various geographical features and data overlays.

# Easy access to data – example of WCS services





# Easy access to ...analysis of data

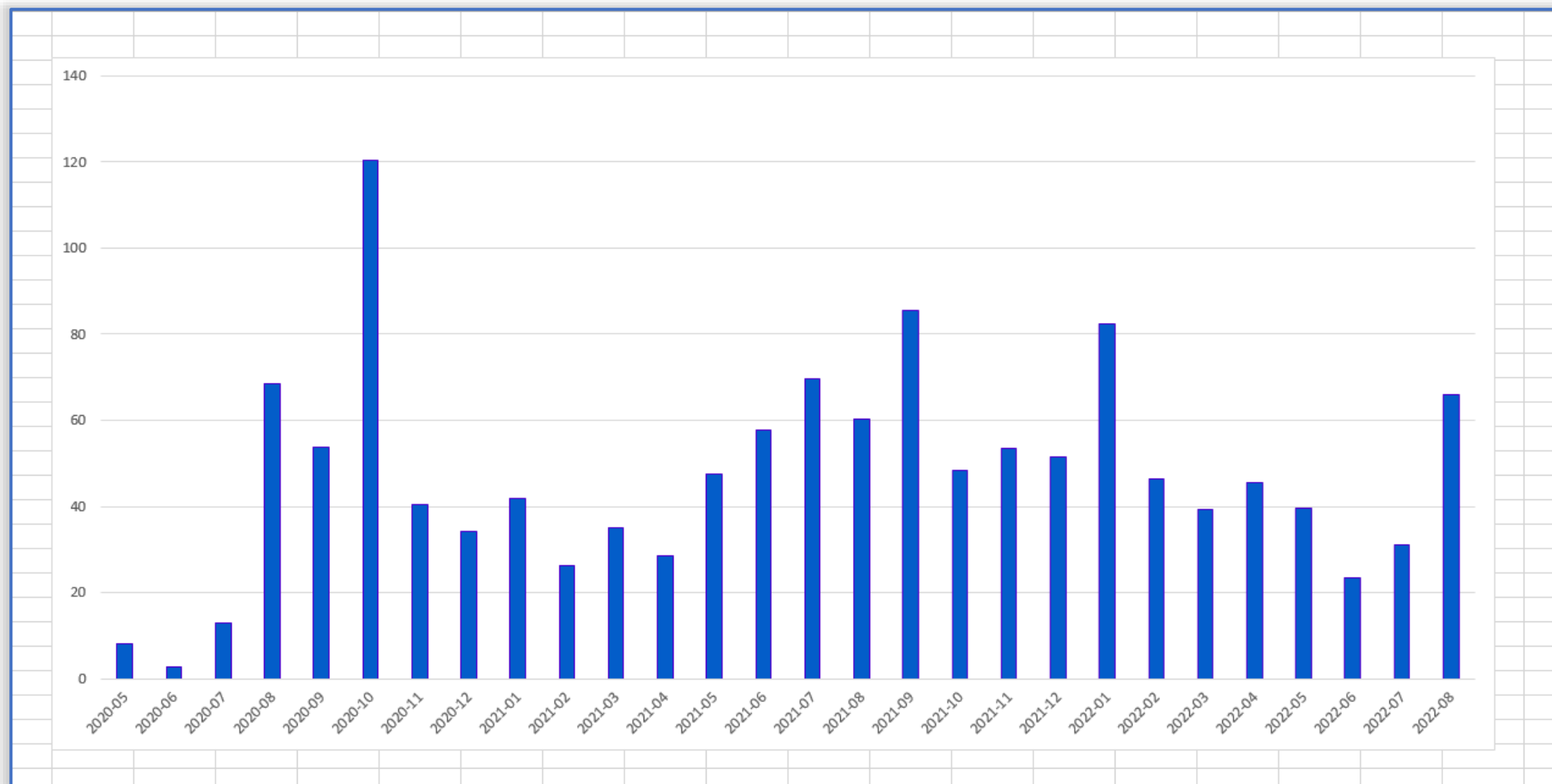


The screenshot displays the geoportal.gov.pl interface. The main map shows a 3D terrain model with a red line drawn across it. A dropdown menu is open over the map, listing analysis options: Measurements, DTM, BDOT10k, Another, Visibility along the line (highlighted), and Surface visibility. The 'Visibility along the line' panel on the right shows the following data:

Category	Value	Unit
Długość odcinków widocznych	9,00	m
Długość odcinków ukrytych	380,62	m

Below the table are buttons for 'Zapisz (txt)' and 'Zapisz (shp)'. A line graph shows elevation data along the red line, with the y-axis ranging from 710 to 790 and the x-axis from 0 to 400. The graph shows a fluctuating red line representing elevation. At the bottom of the map, the coordinate system is noted as 1992 (EPSG 2180) with coordinates X: 198535.49, Y: 599590.06, N: 49°38'45.58", E: 20°22'47.83". The current scale is 1:2000.

# Volume of downloaded data



# Experience in trainings projects - development of digital competence of e-administration



## Expert SDI Trainings

**Stage I: 2017 - 2018 => GUGiK** in partnership with GRID (National Foundation for the Environmental Protection)

- **654 participants from regional public administration**
- **182 public institutions**
- **50 trainings – 3 days/22 h**
- **2/3 of time for computer based workshops**
- **10 locations**

## Stage II: 2020-2021 on-line

### Expert SDI Trainings

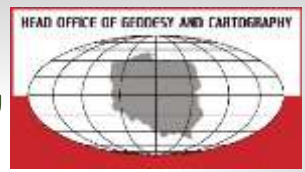
- **900 participants**
- **On-line training (5days/4h)**
- **Voivodship Marshal officers**
- **County officers**
- **Commune office workers**

### Basic INSPIRE Trainings

- **70 participants**
- **Central administration officers**
- **INSPIRE administration officers**

**The key is to teach the society to use SDI !**

# Twining project for Moldova „Improving Spatial Data Services in the Republic of Moldova following EU standards”



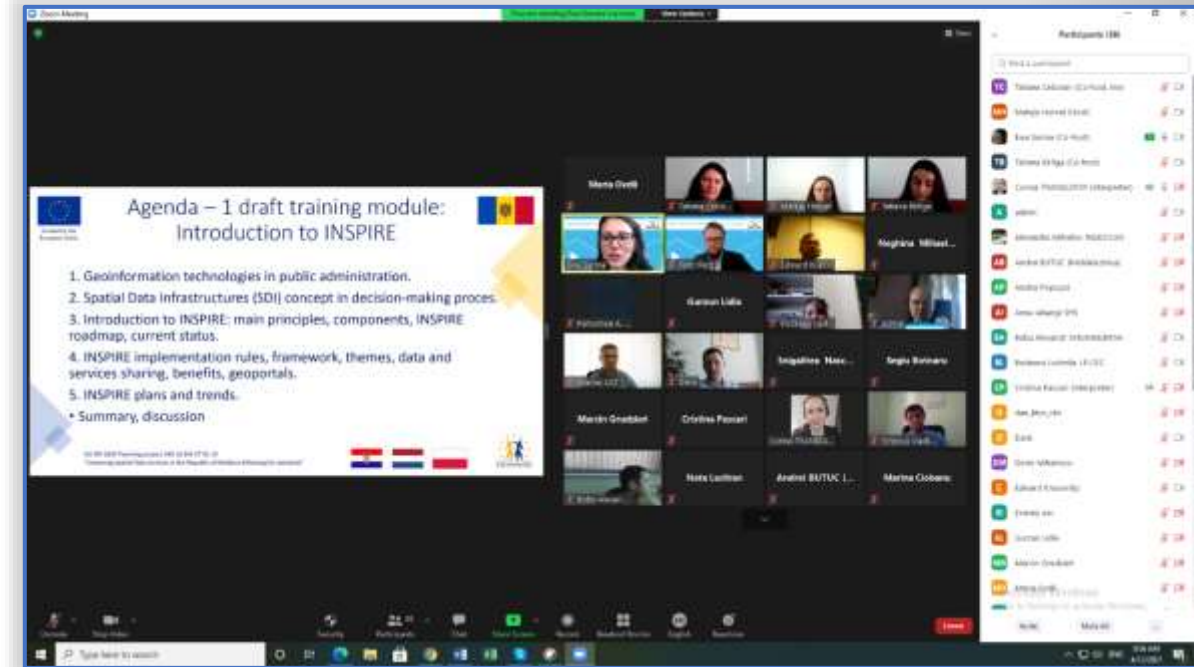
The project is implemented by a consortium of Croatia, the Netherlands and Poland.

Two training sessions conducted remotely GUGiK employees presented the basics of SDI and legislation in this area during trainings in both May and April.

Examples and practical solutions for web services were showed, vector and raster data, using the example of [geoportal.gov.pl](http://geoportal.gov.pl) service. Participants also learned the basics of QGIS software.

More than 100 people from Moldova's public administration and private sector were trained.

The trainings were very popular, which was proved by high marks of trainers given by the participants.



More information in the afternoon

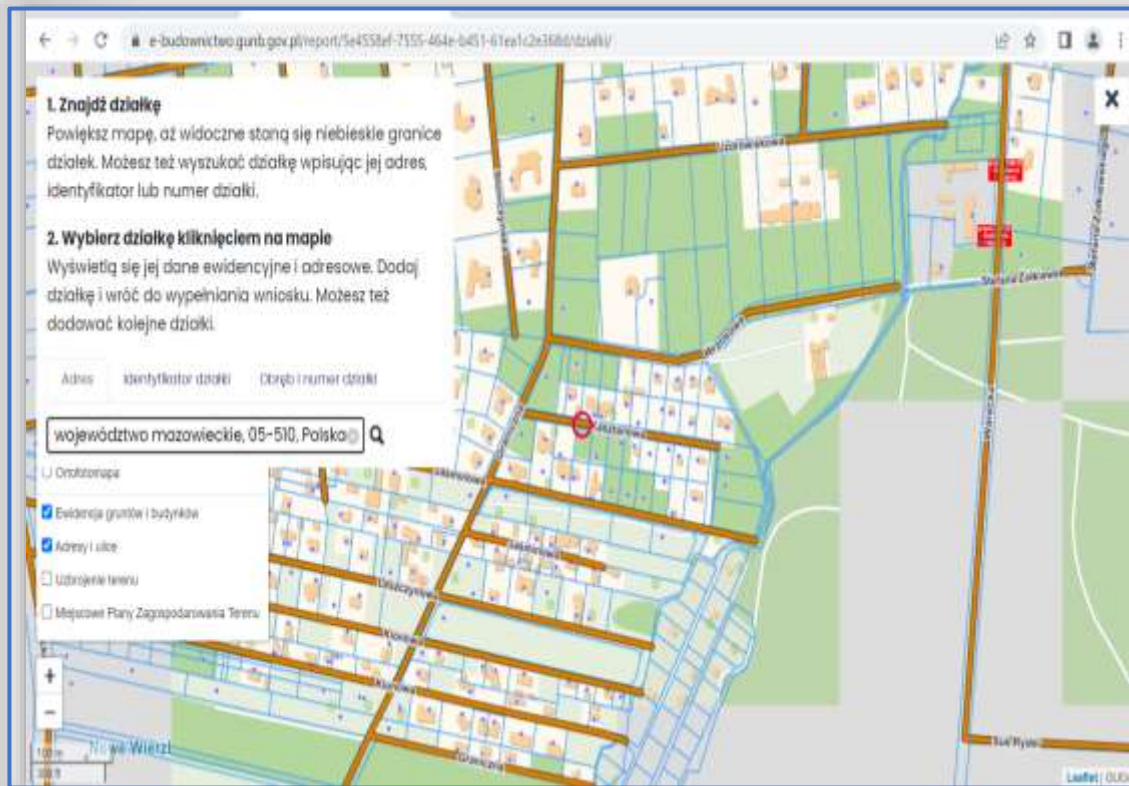
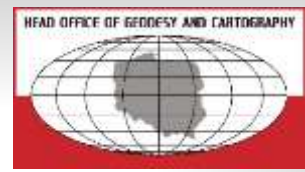
**TS02A: Framework for Effective Land Administration – NMCA Good Practices and Further Developments**

**Sanja Zekušić** (Croatia) and **Ewa Surma** (Poland):

Example of Cooperation in EU Funded Project on Improving Spatial Data Services in the Republic of Moldova



# Utilisation of GUGiK services in other portals



The services of GUGiK have been implemented to support the forms related to the construction process available on the website

<https://e-budownictwo.gunb.gov.pl>.

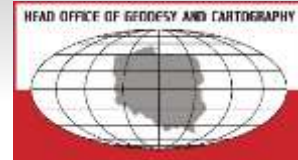
The scope of spatial data available in the construction portal has been greatly extended.

In addition to the land and building registry data, users can use address data, underground utilities local spatial development plans, topographical data and orthoimagery.

# The best use of data and services



# The best use of data and services



← → ↻ kgp3d.amu.edu.pl/szczyty/Risy.html

## Risy (2499 m n.p.m.) Tatry

Wybrano geowizualizację

Co widać ze szczytu

W

R

S

0 1 km

Najbliższy szczyt KGP  
Wysokie Skalki 40,7 km

Wydział Nauk  
Geograficznych i Geologicznych  
Zakład Kartografii i Geomatyki

Korona Gór Polski 3D

- Risy - mapa 2D
- Wykaz szczytów
- Mapa rozmieszczenia szczytów
- Wyświetl szczyt u siebie [AR]
- Umieść szczyty na własnej stronie
- O projekcie
- Współpraca badawczo-rozwojowa
- Kontakt

## Thank you for your attention

Kind invitation to technical tour to Head Office of Geodesy and Cartography, Department of Geodesy, Cartography and GIS on Tuesday, September 13th

- <https://www.fig2022.symposium.pl/tour/head-office-of-geodesy-and-cartography>

