

1. **CIBAL** Centrum Infrastruktury Badawczej (CIB) Analitycznych Laboratoriów:
- **LPBS** Laboratorium Paleomagnetyzmu i Badań Środowiskowych IGF PAN, ul. Ks. Janusza 64, 01-452 **Warszawa**;

The node of Centre of Research Infrastructure of Analytical Laboratories (CIBAL) located at the Department of Magnetism in the Institute of Geophysics Polish Academy of Sciences was created and enhanced within EPOS_PL and EPOS-PL+ projects and is used mainly for research purposes. The infrastructure (both stationary and field units) is set in the Laboratory for Paleomagnetism and Environmental Studies (LBPS) in Warsaw and serves as the experimental base for IG PAS scientists as well as for researchers and students from other Polish and foreign research centers. The facility was also reported to the frame of the Transnational Access service of EPOS Multiscale Laboratory group. LBPS part of CIBAL also includes two databases located at IG PAS – CIBAL2 database with the palaeomagnetic results and CIBAL1 database with environmental studies data published by IG PAS teams.

The screenshot shows the CIBAL1 database website. At the top left is the EPOS logo. In the center, it says 'Welcome to CIBAL1 Research Infrastructure Center for Analytical Laboratories' with a green button that says 'TRY CIBAL1 PLATFORM'. Below this is a section titled 'Why is it worth using our Database?' with four columns of text:

- Database content:** Database contains measured data (raw and processed) connected environmental magnetism publications, projects and PM monitoring at IG PAS
- Area of studies:** Poland, Central Europe
- Details of research:** The application of combined magnetic and non-magnetic methods to study problems of environmental pollution (outdoor and indoor air, soil and water sediments) and their wide range of impacts on human life. The monitoring service of the concentration of particulate matter (PM10 and PM2.5) and its magnetic susceptibility to trace the trends in the ground-level air pollution variability.
- Publications:** We publish our results mainly in highly scored scientific journals.

- **LGiGI** Laboratorium Geochronologii i Geochemii i Izotopów, Ośrodek Badawczy ING PAN w Krakowie, ul. Senacka 1, 31-002 **Kraków**

Laboratorium Geochemii i Geologii Izotopowej (LGiGI) w Instytucie Nauk Geologicznych PAN jest najnowocześniejszym w Polsce ośrodkiem badań izotopowych i analiz pierwiastków śladowych, oferującym niemal pełne spektrum technik – od systemów tradycyjnych (Sm–Nd, Rb–Sr) po nietradycyjne izotopy stabilne (Li, Fe, Cu, Zn) oraz analizy in situ z zastosowaniem ablacji laserowej sprzężonej z MC-ICP-MS i TIMS. Laboratorium prowadzi badania nad tempem procesów geologicznych, zmianami klimatu, ewolucją środowiska, a także wspiera archeologię, medycynę,

przemysł wydobywczy i ekspertyzy kryminalistyczne. LGiGI realizuje projekty krajowe i międzynarodowe, współpracując z partnerami z Europy, Azji i Australii, a jego infrastruktura zgłoszona jest do bazy EPOS-MSL. Otwarta polityka dostępu umożliwia zarówno współpracę naukową, jak i komercyjne wykorzystanie zaawansowanych analiz izotopowych.

2. **CIBDG** CIB Danych GNSS, Instytut Inżynierii Geoprzestrzennej i Geodezji, Wydział Inżynierii Lądowej i Geodezji WAT, ul. gen. S. Kaliskiego 2, 00-908 **Warszawa**

CIBDG is a national GNSS data and analysis infrastructure operating at the Military University of Technology. It collects, archives, quality-controls, and processes observations from more than 500 GNSS reference stations in Poland and Europe. The centre provides both raw GNSS data and a wide range of processed products, including daily and multi-year station coordinate solutions in ETRF/IGS reference frames, precise coordinate time series, station velocity estimates, reprocessed historical solutions, densified network solutions, and tropospheric parameters. These products support the realization and maintenance of the ETRS89 reference system, national geodetic infrastructure, and high-precision positioning services.

CIBDG operates as one of the European analysis centres of the EUREF Permanent GNSS Network, contributing directly to the maintenance and refinement of the European Terrestrial Reference Frame (ETRF). In this role, it delivers the MUT AC daily solutions for approximately 140 EPN stations, which are incorporated into combined European solutions and redistributed through international services. In addition, CIBDG provides the EPNDEN_ASG solutions within the EPN Densification project, including the reprocessing of ASG-EUPOS and associated stations (2008–2025), strengthening the spatial density and long-term consistency of the European reference frame. At the national level, it produces large-scale solutions such as PL_REPRO2020 and PL_IGS20_ROUTINE for more than 400 Polish stations. These datasets enable crustal deformation modelling, tectonic and anthropogenic displacement analysis, near-real-time deformation monitoring, seismic signal detection, and atmospheric research supporting weather and climate applications. Since 2024, CIBDG products have also supported operational space weather impact assessments for the Polish Armed Forces and NATO, linking advanced GNSS data processing with security-oriented applications.

Search:

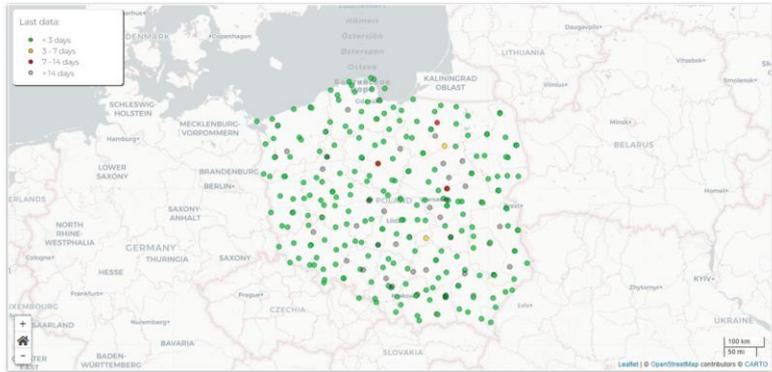
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NMAA	CEC	SEPT POLARIS	TRIM59900.00 SCIS	Minsk Mazowiecki
PTTR	CEC	LEICA GR30	LEIAR20 LEIM	Piotrków Trybunalski
TORU	CECS	LEICA GR30	TRIM59900.00 SCIS	Toruń
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Showing 1 to 283 of 283 entries

Select all Reload Show on map

Advanced Search

To display one station on the map, use the link in the first column of the table. To display more stations, select them (by clicking a row) and press the "Show on map" button



Design and implementation: MJT Team for EPOS-PL
 Institute of Geospatial Engineering and Geodesy
 Faculty of Civil Engineering and Geodesy
 Military University of Technology
 General S. Hallera Street 2, 00-908 Warsaw

EPOS-PL Research Infrastructure co-financed by the European Regional Development Fund under the Intelligent Development Operational Programme 2014-2020 (POIR.04.02.00-14-A00/16-03)





3. CIBIS CIB Indukowanej Sejsmiczności; Thematic Core Service Anthropogenic Hazards (TCS AH): IGF PAN: ul. G. Zapolskiej 44, 30-126 Kraków; ul. Ks. Janusza 64, 01-452 Warszawa; ACK Cyfronet: ul. Nawojki 11, 30-950 Kraków

Induced Seismicity Research Infrastructure Centre (CIBIS) and EPOS Thematic Core Anthropogenic Hazards (EPOS TCS AH) were developed in the framework of IS-EPOS project. Both structures interact to form international Research Infrastructure dedicated to anthropogenic seismicity and related hazards research.

CIBIS is responsible for monitoring, managing and processing of seismic waveform data collected at the distributed Polish seismic network. The centre, operated by IG PAS is equipped with high-performance computers that process continuous data utilising SWIP5 software. The tool facilitates routine and time-consuming analysis of seismic recordings, including seismic phase marking and magnitude calculation. CIBIS also provides the processed data in form of episodes (specific datasets) through a Data Node. Together with four other international data nodes (CNRS, GIG, GFZ and LTU), the IG PAS node maintains, stores and develops the distributed database of the EPISODES Platform, forming the EPOS TCS AH Research Infrastructure. The EPISODES Platform, maintained by IG PAS and ACC Cyfronet AGH, is a virtual laboratory for anthropogenic seismicity and related hazards analysis. The EPISODES Platform offers open access to multidisciplinary datasets (episodes) and applications. Access to the EPISODES Platform facilitates collaborative and interdisciplinary scientific research,

public understanding of science, knowledge dissemination and offers educational resources on anthropogenic hazards related to geo-resource exploration and exploitation.

The image consists of two parts. The top part is a promotional graphic for the EPISODES Platform. It features a dark blue background with a network of glowing nodes and lines. The text reads: "EPISODES Platform provides open access to the integrated research infrastructures of EPOS TCS AH, giving users the possibility to:" followed by three bullet points: "analyze anthropogenic seismicity and related hazards", "assess the potential impact of geo-resources exploitation", and "use educational resources on anthropogenic hazards". Below the text are two buttons: a yellow one for "EPISODES Platform > Anthropogenic Hazards Episodes" and a blue one for "EPOS TCS AH > Consortium Website". Logos for "Service providers" and "EPOS TCS AH" are visible at the bottom right.

The bottom part is a screenshot of the EPOS TCS AH interface. On the left, there are statistics: "48 Worldwide episodes", "83 Dedicated services", "358 000 Data items", and "2200+ Professional users". On the right, there is a seismic waveform plot with a red shaded region highlighting a specific event. The plot includes a time axis and various data series.

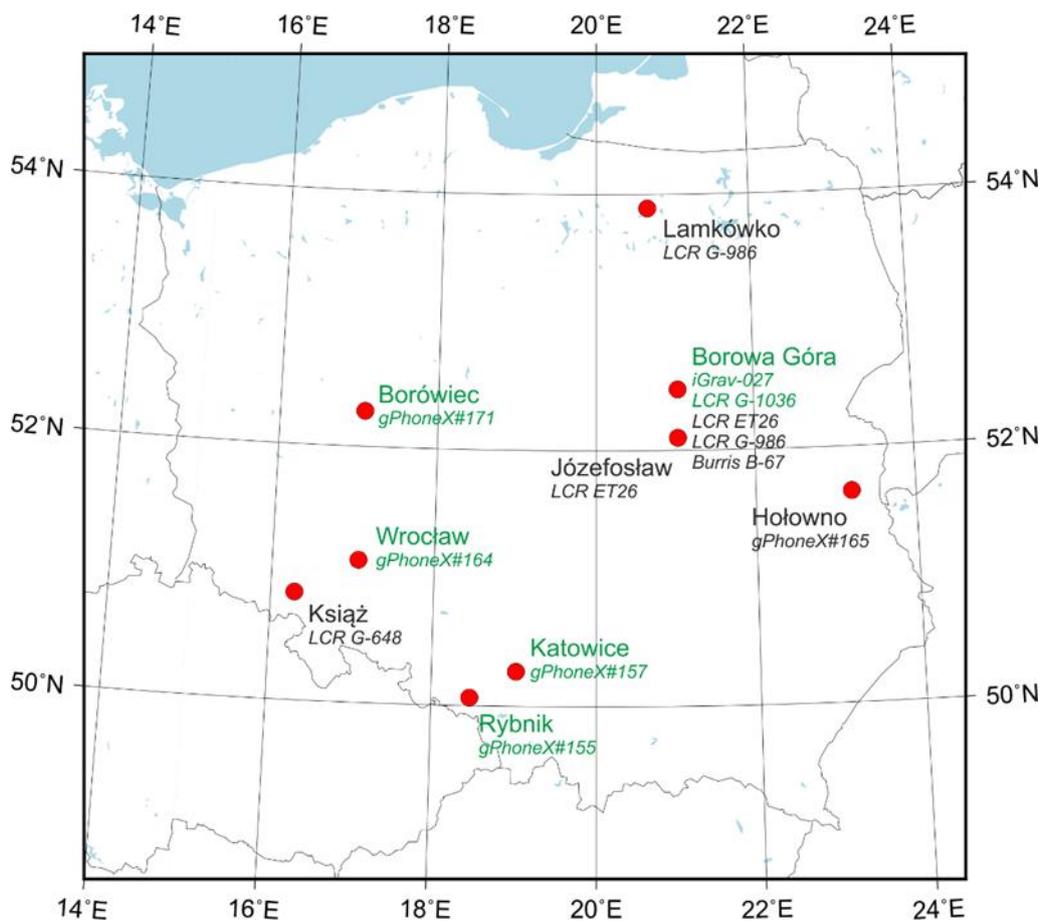
4. CIBOG CIB Obserwacji Grawimetrycznych, Instytut Geodezji i Kartografii, ul.

Zygmunta Modzelewskiego 27, 02-679, **Warszawa**, Obserwatorium Geodezyjno-Geofizyczne, Borowa Góra, ul. Akacyjowa 2, 05-140 **Jadwisin**

Research Infrastructure Centre for Gravimetric Observations (CIBOG) collects and provides access to gravimetric data: tidal observations, absolute gravimetric measurements and products of gravimetric satellite missions data. Currently, data from six stations, collecting tidal gravimetric data, located in Poland are available via a dedicated website: Borowa Góra (iGrav-027 superconducting gravimeter - Institute of Geodesy and Cartography), Borowiec (gPhoneX-171 - Space Research Centre of the Polish Academy of Sciences), Katowice and Rybnik (gPhoneX-157 and 155 - Central Mining Institute – National Research Institute), Wrocław (gPhoneX-164 - Wrocław University of Environmental and Life Sciences) as well as Hołowno (gPhoneX-165 - Polish Geological Institute – National Research Institute) which started to provide data in 2025 and is planned to be released through CIBOG platform.

Picture XX (below) represents the identified tidal gravimeter sensors in Poland. Green marked sensors provide data since beginning of their installation, since 2025 gPhoneX sensor located at Holowno is a new addition to the CIBOG database.

Data from all sensors providing data are verified on the level of file correctness and in consecutive levels processed to data products including tidal corrections as well as allowing direct analysis on the residual gravity signal. These products are available on the CIBOG platform: <https://cibog-platform.igik.edu.pl/>



Welcome to CIBOG

Research Infrastructure Center for Gravimetric Observations

TRY CIBOG PLATFORM

Why is it worth using our Database?

Tidal gravimetry

Continuous relative gravimetric measurements recorded by the tidal gravimeters - raw gravity, ambient pressure and corrected gravity records

Absolute gravimetry

Unique datasets of the regularly performed absolute gravimetric measurements - data files contain complete information on the performed survey

Satellite gravimetry

Example of temporal variations of gravity/mass functionals from the GRACE/GRACE-FO satellite based global geopotential models for virtual stations

Data availability

In order to download the data, please send a request to grav-pl@igik.edu.pl for an account creation at the service.

5. CIBOGM CIB Obserwacji Geomagnetycznych i Magnetotellurycznych, IGF PAN, ul. Ks. Janusza 64, 01-452 Warszawa, COG Belsk Duży,

CIBOGM is the part of the CIBIS research infrastructure that serves as a database for geomagnetic and magnetotelluric data and results. Its scope comprises data and data products from geomagnetic observatories, permanent variometer stations, extremely-low frequency monitoring sites, the secular variation network, and magnetotelluric campaigns including time series, transfer functions, resistivity models, and magnetic maps, most from Poland but some from neighbor countries and the Arctic. The database is constantly updated and expanded with new data. Data included there come with full metadata. Details can be found at <https://cibogm-platform.igf.edu.pl/>

Welcome to CIBOGM

Research Infrastructure Center for Geomagnetic and Magnetotelluric Research

TRY CIBOGM PLATFORM

Why is it worth using our Database?

Scope of data

The database contains magnetic and electromagnetic data from Poland and partly neighbouring countries and polar regions. The areas of magnetotellurics, geomagnetic observation, and secular variations of the main field are covered.

Magnetotellurics

Long-period magnetotelluric data from about 300 stations are available both as time-series and transfer functions. Measured between 1998 and 2017, they have been situated mainly in Poland, but also in Germany, Sweden, Denmark, Czech Republic, Ukraine, and the Baltic Sea. Furthermore a number of conductivity models can be accessed.

Geomagnetic observations

This part comprehends data from Polish observatories in Belsk, Hel, and Hornsund (Spitsbergen) as well as data from a number of permanent variometer stations in Poland, Lithuania, and Antarctica.

Main field elements and secular variations

Results of the regularly performed Polish national survey of main geomagnetic field elements (like total field values and declination) for the time from 1957 to the present are available as maps, tables, and partly time series.

6. **CIBSBL** CIB Sejsmicznych Badań Litosfery, IGF PAN, ul. Ks. Janusza 64, 01-452
Warszawa

The Research Infrastructure CIBSBL of the EPOS-PL project is used mainly for scientific purposes. Data collected from seismic active projects are stored in a catalogued database, easily accessible, allowing for a general as well as detailed insight into the available knowledge, which, through synergy, may lead to new results. In order to securely store the processed data, two disk arrays were installed in two different locations for security reasons. The Lithosphere Seismic Research Database (CIBSBL) contains seismic records and results from deep seismic research projects, allowing for further interpretation of the research results. The database contains seismic data recorded by land-based seismic stations and ocean seismic stations (OBS), along with processed data versions and interpretation results.

epos^{pl} DATABASE LOG IN

Welcome to CIBSBL

Research Infrastructure Center for Lithospheric Research

[TRY CIBSBL PLATFORM](#)

Why is it worth using our Database?

Active data We conducted surveys using controlled seismic sources, mainly from Central and Eastern Europe and the Arctic from 1964.	Passive data We collect the data from registration of local and teleseismic earthquakes.	Seismic models We analyze our data using the latest 2D and 3D seismic modeling techniques.	Publications We publish our results mainly in highly scored scientific journals.
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7. **GGOS-PL** Centrum Integracji IB z GGOS-PL, UPWr, Instytut Geodezji i
Geoinformatyki, ul. Grunwaldzka 53, 50-357 **Wrocław**

The infrastructure of the Global Geodetic Observation System in Poland (GGOS-pl) aims to provide accurate, consistent, reliable, and readily available geodetic reference frames. Activities focus on the integration of geometric, gravimetric, geodetic, and geodynamic observations, as well as time and frequency transfer systems. As part of the infrastructure, permanent multi-GNSS stations supported by radiometric observations, a CG-6 Autograv mobile gravimeter for field measurements, and gPhoneX

tidal gravimeters for permanent measurements have been created, and a fiber-optic connection between Wrocław and Borówiec (Astrogeodynamic Observatory of the Space Research Centre of the Polish Academy of Sciences) using precise time transfer instruments. Satellite time transfer algorithms in the GNSS Precise Point Positioning (PPP) technique were developed and implemented, and tests of the stability of GNSS receiver clocks were carried out. Improved methods of predicting GNSS satellite orbits enable the improvement of real-time satellite data calculations. The GGOS infrastructure aims to create an integrated geodetic reference combining geometry (GNSS, Satellite Laser Ranging), time (atomic clocks), and the gravity field, strengthening the role of laboratories in Wrocław and Borówiec within the GGOS structure.

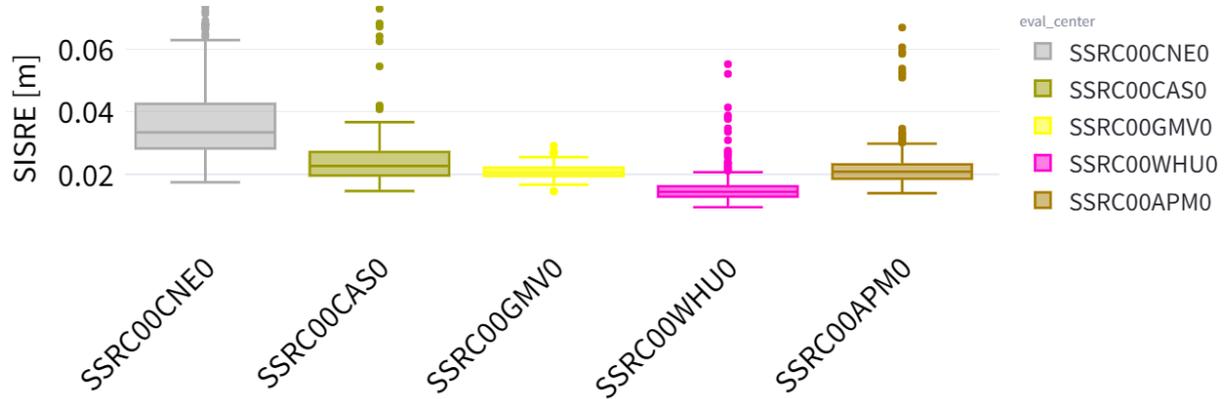


8. CIBDG CIB Danych GNSS, Instytut Geodezji i Geoinformatyki UPWr, ul. Grunwaldzka 53, 50-357 Wrocław

The Research Infrastructure CIBDG of the EPOS-PL project is primarily utilized for scientific purposes. Within the research activities, streaming data with real-time corrections is continuously gathered from a dozen different analysis centers. This data is utilized in ongoing measurement experiments, enabling computations that simulate real-time data processing. Computations performed using the CIBDG infrastructure concern both the development of precise positioning algorithms and qualitative analyses of real-time products. Additionally, the infrastructure enables the delivery of results for the development of algorithms related to seismic shock monitoring and supports the advancement of positioning algorithms that leverage the potential of atomic clocks installed at GNSS stations.

The CIBDG activities regarding the near real-time GNSS data use for the mining industry is utilized to monitor the GNSS stations around Turów lignite mine and the troposphere estimation is ongoing for ASG-EUPOS and Nadowski Net GNSS networks in Poland. The NRT troposphere product is delivered via

EUMETNET EIG GNSS Water Vapour programme (E-GVAP) to operational European ECMWP weather prediction service.



Rys. XXX. Results of SSR (State Space Representation corrections) IGS real-time streams validation at CIBDG



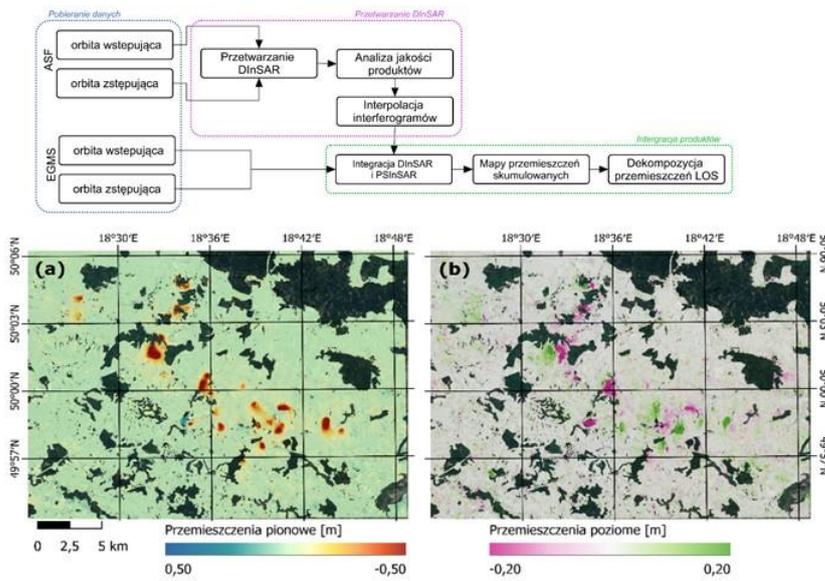
Rys. XXX Map of GNSS stations processed at CIBDG to deliver the troposphere product to E-GVAP

9. **CIBDS** CIB Danych **Satelitarnych** Instytut Geodezji i Geoinformatyki UPWr, ul. Grunwaldzka 53, 50-357 **Wrocław**

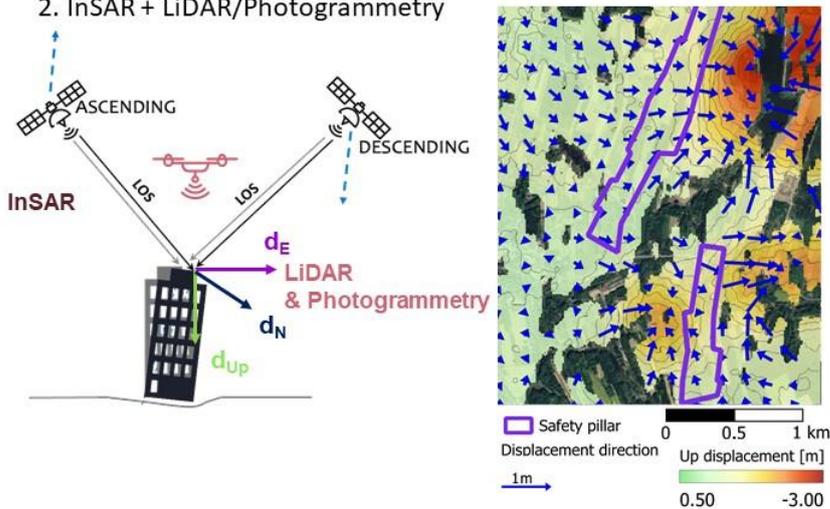
The primary objective of the Satellite Data Research Infrastructure Center (CIBDS) is to provide subsidence maps related to mining activities based on InSAR data, as well as to perform risk assessments through the integration of multi-wavelength SAR data as well as multi-sensor data. Within the Centre, an automated algorithm for processing DInSAR data from various radar satellite constellations has been developed, along with a module that integrates these results with outputs from multi-temporal techniques such as PSI and SBAS, including products from the European Ground Motion Service (EGMS). The products generated for the Upper Silesian Coal Basin have been made available through the POLSA NSIS platform. Additionally, through collaboration with POLSA, the monitoring activities have been extended to selected retention reservoirs located in southern Poland. The Centre has also developed an advanced product that integrates InSAR data with airborne photogrammetric and laser scanning measurements, producing high-resolution, integrated 3D ground displacement maps.

Integrated displacement maps:

1. DInSAR + PSI/SBAS



2. InSAR + LiDAR/Photogrammetry



10. **GSOG-LCDG** Górnośląski System Obserwacji Geofizycznych z Lokalnym CIB Danych Geofizycznych, eNODE TCS AH, GIG-PIB, 40-166Katowice, Plac Gwarków 1

11. **OA CIB** Obserwatorium Astrogeodynamiczne CBK PAN, ul. Drapałka 4, 62-035 Borowiec <https://www.cbk.poznan.pl/>

The AOS CBK PAN Observatory in Borowiec is the only facility in Poland conducting simultaneous geodynamic, time-metrology, and gravimetric research. It uses three main technologies: Satellite Laser

Ranging (SLR), GNSS systems (GPS, GLONASS, Galileo), and gravimetric measurements. Laser measurements determine satellite and space debris orbits, positions of ground stations, Earth's gravity field, and Earth rotation parameters. These observations support the European Space Surveillance and Tracking (SST) and Space Situational Awareness (SSA) programs and help monitor debris and protect Sentinel (Copernicus) satellites. The permanent BOR-1 GNSS station (part of ASG-EUPOS, EPN and IGS networks) performs continuous measurements used to monitor Earth's crust movements, sea levels, space weather, and weather forecasting. GNSS and SLR data also contribute to defining the International Terrestrial Reference System (ITRS). Borowiec hosts Poland's main Time and Frequency Laboratory, responsible for national atomic time scales TA-PL and UTC(PL). The observatory operates hydrogen masers and cesium fountain clocks, among the most accurate standards in the world, contributing to the global time scale TAI. To ensure precise time realization, gravity measurements are performed using a stationary tidal gravimeter installed in 2020. Data are processed and stored within the EPOS-PL infrastructure (CIBOG repository). The site also contains gravimetric, vertical, and horizontal geodetic reference points, used for testing advanced instruments such as quantum gravimeters and supporting future scientific and geodetic measurements.



12. Warsaw University of Technology, Faculty of Geodesy and Cartography, Pl. Politechniki 1, 00-661 Warsaw, Poland

In 2025, the Warsaw University of Technology continued to conduct GNSS (Global Navigation Satellite System), gravimetric, and meteorological observations at the Astro-Geodetic Observatory in Józefosław. Two GNSS stations operated by WUT (JOZE and JOZ2) form part of the international geodetic networks EPN (EUREF Permanent Network), IGS (International GNSS Service), and EPOS-GNSS (European Plate Observing System).

The gravimetric station at the Józefosław Observatory is one of only two sites in Poland contributing to the realization of the International Gravity Reference Frame (ITGRF). This commitment requires quasi-permanent monthly absolute gravity measurements using a ballistic FG-5 gravimeter, together with accompanying observations of meteorological and environmental conditions (including soil

moisture and groundwater levels). The research infrastructure also enables comparison measurements between different absolute gravimeters as well as testing of relative gravimeters. In addition, the gravimetric station in Józefosław serves as a reference point for the Polish fundamental gravity control network and as a calibration database for relative gravimeters.

WUT operates one of the 17 EPN GNSS analysis centres (ACs) and generates daily operational GNSS coordinate solutions for its subnetwork of 150 EPN stations. In addition, the WUT EPN AC participated in the EPN Repro3 project (completed in 2025), which aimed to reanalyse EPN data from 1996-2022 in a fully consistent manner. In 2025, WUT completed all daily and weekly coordinate and tropospheric solutions for its subnetwork.

WUT is also responsible for producing the official EPN combined daily and weekly coordinate solutions based on the GNSS solutions submitted by all 17 ACs. In 2025, WUT additionally finalised the combined solutions for the EPN Repro3 project, incorporating contributions from 12 EPN ACs for the period 1996-2022. The EPN daily and weekly combined solutions also form part of the EPOS-GNSS service.