

NATIONAL REPORT OF SWEDEN

– GEODETIC ACTIVITIES IN SWEDEN 2022–2026

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Lantmäteriet

Lantmäteriet is the Swedish mapping, cadastral and land registration authority. The Department of Geodetic infrastructure has approximately 50 employees and is headed by Martin Lidberg.

Selection of activities 2022–2026

- A new strategy for geodesy for 2026–2035 has been published.
- New SWEPOS GNSS reference stations, number of network RTK users has increased from $\approx 8,500$ to $\approx 13,000$.
- Tool developed for GNSS data quality monitoring and detection of GNSS disturbances.
- GIA modelling, velocity field and increased gravity data set.
- Digitally documentation of geodetic fieldwork.
- Review of the national boundary Sweden-Norway 2020–2024.



Figure 1: SAR reflectors have been installed co-located with the 21 fundamental SWEPOS stations, both passive reflectors (corner reflectors) and transponders.

Chalmers University of Technology

Chalmers is a foundation university active in education and research in science and technology. It is operating the Onsala Space Observatory (OSO), the fundamental Swedish geodetic station.

Selection of activities 2022–2026

- Operated geodetic VLBI, GNSS, gravimetry, tide gauges, etc.
- Finalised three PhD projects in space geodesy.
- Started two new PhD projects in geodesy.
- Since 2024: Partner of UN-GGCE.
- Since 2024: Active in the ESA Genesis mission, focussing on VLBI.
- Since 2026: Ongoing development of a “Space Geodesy and Remote Sensing” specialisation in the new MSc programme “NewSpace System Engineering”.



Figure 2: The Onsala twin telescopes and the radome-enclosed Onsala 20-metre telescope, all used for geodetic VLBI.

KTH Royal Institute of Technology

KTH is the largest institution in Sweden for technical education and research. The Geodesy Group is organisationally part of the Division of Surveying – Geodesy, Land Law and Real Estate Planning.

Selection of activities 2022–2026

- Geodesy Division merged with Division of Land Law in 2023.
- Conference “KTH Surveying day” held in 2023, 2025 and 2026.
- Jingbin Liu recruited as lecturer in geodesy in 2024.
- Integration of BIM and 3D GIS for sustainable cadastre, PhD project.
- Project “Reference Network in the Air 2.0”, cooperation with Trafikverket, Lantmäteriet and RISE.



Figure 3: Using inclinometer for stability monitoring of GNSS continuously operating reference station.

University of Gävle

University of Gävle (HiG) is a public university in Sweden known for high-quality education, research, and sustainability. Its programmes combine theory with hands-on learning through real-world projects, preparing students for future challenges in community development and professional careers.

Selection of activities 2022–2026

- Revising and updating bachelor’s and master’s programmes.
- Study on the Earth’s surface mass variations using satellite gravimetry observations.
- Physical geodesy, international height systems, land uplift modelling and Earth observations (InSAR for infrastructure monitoring, GNSS-IR).
- Geodata quality analysis in airborne photogrammetry systems, geodetic surveying and deformation monitoring.
- Study on intelligent positioning solutions, BIM and GeoAI.



Figure 4: Future built with Land Surveying, Geodesy and Geospatial Innovation.