



Federal Agency for
Cartography and Geodesy



United Nations Global Geodetic Centre of Excellence

Sustaining the Global Geodetic Reference Frame





United Nations Global Geodetic Centre of Excellence

To support science and society

The inauguration of the United Nations Global Geodetic Centre of Excellence on 29 March 2023 at the UN Campus in Bonn, Germany, represents a new and exciting benchmark for global geodesy.

The successful signing of an Agreement between the United Nations and the German Federal Ministry of the Interior and Community has provided the long awaited signal that the United Nations Global Geodetic Centre of Excellence (UN-GGCE) can be established and start its global mission to lead and assist Member States and geodetic organisations in their efforts to collectively coordinate and collaborate to sustain, enhance, access and utilise the Global Geodetic Reference Frame (GGRF). With the UN-GGCE, the German government is demonstrating its leadership and intention to support the implementation of the United Nations 2030 Agenda for Sustainable Development.

The objective of the UN-GGCE is to support, within available resources, the implementation of General Assembly resolution 69/266 “A Global Geodetic Reference Frame for Sustainable Development”. In particular, to:

- Enhance global cooperation and coordination across Member States and relevant geodetic stakeholders to maximise the benefit of ongoing geodetic efforts, ensure coherence, and avoid duplication of effort;
- Strengthen worldwide geodetic infrastructure;
- Assist Member States in making their geodetic data Findable, Accessible, Interoperable and Reusable in line with standards, policies and conventions;
- Support education, training and capacity building; and
- Improve communication and raise awareness.



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“I applaud the Government of Germany for its formal offer to host and establish a Global Geodetic Centre of Excellence at the United Nations Campus in Bonn. This is a decisive step taken in the spirit of the 2015 UN resolution and I’m confident it will result in the enhancement of multilateral cooperation in the development of a more sustainable global geodetic reference frame. I look forward to assisting the establishment of the Global Geodetic Centre of Excellence.”

His Excellency Ambassador Peter Thomson,
UN-GGIM Global Geodesy Ambassador and UNSG’s Special Envoy for the Ocean



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Fundamental to sustainable development

In February 2015 the UN General Assembly adopted the resolution “A Global Geodetic Reference Frame for Sustainable Development” – the first resolution recognising the importance of a globally-coordinated approach to geodesy – acknowledging the participation of countries all around the globe, and the need to take action to strengthen international cooperation.



Because the Earth is in constant motion, an accurate point of reference is needed for making measurements. With the GGRF geodesy provides a very accurate and stable coordinate reference frame for the whole planet.

Emphasising that “no one country can do this alone”, and because geodesy plays an increasing role in people’s lives, from finding directions using a smart phone to alleviating poverty, the General Assembly called for greater multilateral cooperation on geodesy.

Importantly, recognising the GGRF’s significant role in underpinning the Sustainable Development Goals, the General Assembly encouraged Member States to enhance global cooperation in providing technical assistance, especially for developing countries, with the aim of ensuring the development, sustainability and advancement of the GGRF.

The journey towards the UN-GGCE

- 2011: Establishment of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)
- 2013: UN-GGIM decided to formulate and facilitate a draft resolution for a Global Geodetic Reference Frame (GGRF)
- 2015: UN General Assembly adopted resolution 69/266 ‘A Global Geodetic Reference Frame for Sustainable Development’ 69/266
- 2016: UN-GGIM decided to elevate the GGRF Working Group to a Subcommittee on Geodesy
- 2017: Inauguration of the UN-GGIM Subcommittee on Geodesy on the margins of the Fifth UN-GGIM High Level Forum in Mexico City
- 2019: UN-GGIM supported the proposal from the Subcommittee on Geodesy to establish a Global Geodetic Centre of Excellence
- 2020: UN-GGIM welcomed Germany’s offer to host the UN-GGCE at the UN Campus in Bonn, Germany
- 2022: Signing of an Agreement between UN Department of Economic and Social Affairs and the German Federal Ministry of the Interior and Community to establish the UN-GGCE
- 2023: Opening of the UN Global Geodetic Centre of Excellence in Bonn, Germany



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“With the establishment of the UN-GGCE, Germany is creating an elementary building block for improving Earth observation and positioning. The establishment of a UN organisational unit for the coordination and monitoring tasks of a globally state-coordinated geodetic infrastructure for Earth observation is essential.”

Prof. Dr. Paul Becker,
President Federal Agency for Cartography
and Geodesy



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“A uniform global geodetic reference frame and global, regional and national geospatial data management are necessary for effective Earth observation and long-term development. To date, however, many UN Member States have shown a low level of understanding of the use of geospatial data for sustainable development and to meet the UN 2030 Agenda Sustainable Development Goals.”

Mr. Stefan Schweinfest,
Director of the United Nations Statistics Division

Publisher, concept and editorial office

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