

Third Plenary Meeting of the Subcommittee on Geodesy 29 to 31 March 2023

Conference Room LE 2312, 23rd Floor, Langer Eugen Building
UN Campus, Platz der Vereinten Nationen 1, 53113 Bonn, Germany

SUMMARY NOTES

Preamble

The Third plenary meeting of the Subcommittee on Geodesy (SCoG) was hosted by the Federal Agency for Cartography and Geodesy of Germany (BKG) at the United Nations campus in Bonn from 29 to 31 March 2023. The meeting was attended by 41 participants: 27 representatives from seventeen Member States that are members of the Subcommittee, three representatives from three participating Member States, ten participants from international and regional organizations, geodetic research institutions, and relevant stakeholders. One staff member from the United Nations Secretariat substantively facilitated the plenary meeting.

Participants also attended the opening ceremony of the United Nations Global Geodetic Centre of Excellence (UN-GGCE) on 29 March 2023 at 1:00 p.m. Plenary meeting participants were joined by a further seventy plus invited guests at the opening ceremony. It was an impressive gathering, the invited guests came from every continent on planet Earth, except Antarctica. There was someone from each of the five regional committees of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). There was someone from each of the four thematic networks and the eight functional groups reporting into UN-GGIM.

The opening ceremony was attended by a number of invited dignitaries who addressed the opening ceremony. They are:

- Juliane Seifert, State Secretary, Federal Ministry of the Interior and Community
- Peter Thomson, UNSG's Special Envoy for the Ocean and UN Global Geodesy Ambassador (via video)
- Kjersti Bjørnstad, State Secretary, Ministry of Local Government and Regional Development, Norway
- Stefan Schweinfest, Director, United Nations Statistics Division, Department of Economic and Social Affairs
- Melanie Grabowy, First Deputy Mayor, City of Bonn
- Paul Becker, President, Federal Agency for Cartography and Geodesy, Germany
- Rainer Lassig, Ambassador and Head of UN Campus Liaison Office, Federal Foreign Office, Germany

Their messages celebrated the establishment of the UN-GGCE and welcomed the centre including to Bonn, Germany. They also encouraged and stressed the need to apply global geodesy to address challenges facing humanity including climate change, a dynamic Earth, and sea-levels and inundation. Echoing the words of Ambassador Peter Thomson, the UN-GGCE and SCoG must press forward, "*full of hope*" with "*all fair winds and following seas*".



Welcome, introductions and organization of the work

Participants were first welcomed to Bonn by Paul Becker, President of BKG. He commented on the long journey and the more than two years to secure an agreement, before the opening of the UN-GGCE on 29 March. He expressed excitement for what the UN-GGCE will achieve for global geodesy. It was noted that global geodesy has a place to call home. The co-Chair of the SCoG, Nick Brown from Geoscience Australia, added his welcome and rallied the SCoG to ensure the effort to date are worthwhile. He requested the geodetic community gathered in Bonn to be motivated by an African proverb, to *'go far by going together'*, co-developing and implementing an effective action plan to sustain the GGRF.

Meeting participants were encouraged to maximize the breaks during the three days including over lunch to get to know and engage one another. The meeting proceeded to adopt the agenda and the organization of the work for the Third plenary meeting.

Setting the scene – Global geodesy for the betterment of humanity, leaving no one behind

There were three presentations to help set the scene. The first was by Johannes Bauman from BKG who provided the historical context to German geodesy, the present national geodetic arrangements with impressive interlinkages between the operational, both at federal and local level, and the research and experimental elements of national geodesy. Johannes also discussed German efforts towards improving needed observations and contributions to sustain global geodesy. Nick reminded participants to think global and act local, the importance of global efforts and consensus for an effective national geodetic arrangement that benefits society and science. He reiterated the significance of global geodesy for every living person, a fact that is usually lost amongst policy developers and political masters. The final presentation was from the Secretariat, a report that related the United Nations Economic and Social Council resolution 2022/24 to the focus and work of the SCoG. The presentation outlined key decisions from the Twelfth session of UN-GGIM and outlined salient elements of the work programme of UN-GGIM. All three presentations are available online.

Terms of Reference and membership of the Subcommittee

The plenary meeting was notified of the process in developing and consulting the Terms of Reference that was agreed by the Subcommittee at its earlier virtual meeting, then finalized by the Bureau, and subsequently provided to the Bureau of UN-GGIM. The SCoG now operates with the updated Terms of Reference. It was clarified that the Terms of Reference has provision for revision, that members of the SCoG are nominated by the leadership/leadership groups of regional committees of UN-GGIM. Members of SCoG were encouraged to actively liaise with and serve as a bridge between the Subcommittee and the regional committees including their regional working groups on geodesy.

The Secretariat informed the meeting that four of the five regional committees of UN-GGIM responded to a request to review the participation and contribution of their nominees. The fifth response is forthcoming. The meeting thanked retiring members of the SCoG whilst welcoming newly nominated members. The present membership of the SCoG is reflected on the Subcommittee's webpage.



Strategic Plan and Action Plan to Sustain the Global Geodetic Reference Frame

The meeting was provided with an update on the development of the draft Action Plan to sustain the GGRF. Participants were requested to continue working on the Action Plan, with a focus on strategic objectives and priority tasks. The meeting considered related matters that impacted the Action Plan including the implementation of E/RES/2022/24 as well as A/RES/69/266, how to leverage the United Nations Integrated Geospatial Information Framework (UN-IGIF) and contribute to its implementation at the country-level. The meeting was made aware on the availability of UN-IGIF implementation guidance and resource materials that are presently available or will be available online.

The meeting resumed its consideration of this agenda item on Friday (31 March) morning jointly with the International Advisory Committee of the UN-GGCE (UN-GGCE: IAC) through the five breakout groups from the day before. A summary of strategic actions, tasks with prioritization, deliverables and timeframes (summary from the joint meeting on Thursday, 30 March) were provided to the meeting. The joint meeting considered and work together to finalize a set of seven strategic actions, tasks and priorities, deliverables, and timeframe. The meeting also outlined various roles and responsibilities including those for partnering international geodetic organizations. The joint meeting segments allowed both groups to collectively consider the Action Plan and to identify appropriate roles, responsibilities, and timeline.

Before concluding its deliberations on this agenda item, participants discussed steps towards implementing the Action Plan including the establishment of new working groups as a first step. The Action Plan will still need work before it is finalized at future (virtual) meeting(s) of the Subcommittee.

Any other global geodesy related operational and technical matters

This agenda item was jointly considered by members of the UN-GGCE: IAC and SCoG together with invited participants. The importance of enhancing multi-lateral coordination and national contribution for an accurate, accessible, and sustainable GGRF was emphasized. Participants were divided into five breakout groups that corresponded with the five areas of focus: governance; geodetic infrastructure; policies and standards; education, training and capacity development; and communication and outreach. Participants were free to choose which breakout groups they wished to be part of. The breakout groups reported back to the plenary meeting at the end of this segment on Thursday (30 March) evening.

During the report-back by the groups, participants further discussed, clarified, and refined proposed and/or recommended actions, tasks, and timelines.

Business of the Subcommittee – work/task groups, bureau, and co-Chairs

Several business elements before the Subcommittee were considered. This segment of the meeting began with a presentation from Calvin Klatt (Canadian Geodetic Survey) on the proposed paper 'Authoritative Data in an Evolving Geospatial Landscape: An Exploration of Policy and Legal Challenges'. The presentation was delivered on behalf of the Working Group on Policy and Legal Frameworks for Geospatial Information Management, currently chaired by Canada. The proposed paper had contents on authoritativeness vis-à-vis geodetic data and is presently under a global consultation process involving



Member States and relevant stakeholders. Participants were encouraged to review the paper and provide inputs and feedback, as appropriate.

The meeting next discussed the upcoming Thirteenth session of UN-GGIM before considering who within the stakeholder group to invite as partners and to become members of the Subcommittee under provision 4.1 of the Terms of Reference of the Subcommittee. The meeting was of the view that this will allow partners opportunities to better engage, participate and contribute to the work of the Subcommittee.

The meeting next considered the composition of the bureau of the Subcommittee. The membership of the Bureau shall include: the two co-Chairs, four additional members who are from Member States, and the Chairs of working groups of the Subcommittee. It was noted that the bureau shall lead and guide the Subcommittee, including to assist in meeting its objectives and performing its functions. The Subcommittee affirmed by acclamation a bureau that reflects geographic diversity and balance.

On the matter of the co-Chairs of the Subcommittee, the Secretariat, noting that elections occur biennially to provide continuity, proposed that, firstly, the term of the co-Chairs coincides with the annual sessions of UN-GGIM; secondly, one of the co-Chairs serves a half term and thus, the next biennial election shall be around the Fourteenth session of UN-GGIM in 2024. The Secretariat proposes there be two candidates for the co-Chair positions, reflecting geographic diversity, and they be affirmed by acclamation by the Subcommittee. The Subcommittee, by acclamation, confirmed its new co-Chairs.

Summary, next meeting and close

The co-Chairs with the support of the Secretariat will write up a set of summary notes and decisions which will be provided to the participants. The presentation that guided the three-day meeting will be updated to include outcomes from the joint meeting and considerations of the strategic actions, tasks, priorities, and timelines to implement A/RES/69/266 towards achieving the long-term sustainability, accessibility, quality, and accuracy of the GGRF for sustainable development. The Secretariat will upload all presentation materials to the event webpage. The meeting deferred discussion on its next plenary meeting but agreed to convene a virtual meeting to discuss and finalize the Action Plan to Sustain the GGRF and its implementation as well as the Subcommittee's preparations for the Thirteenth session.

The meeting heard closing remarks, thanks and appreciation from Johannes Bauman as well as from Fernand Bale, and Nick Brown. The meeting closed with expressions of appreciation and gratitude to the Federal Agency of Cartography and Geodesy of Germany, the United Nations Global Geodetic Centre of Excellence, and the UN Secretariat.



SUMMARY OF DECISIONS

The Subcommittee on Geodesy, at its Third Plenary Meeting from 29 to 31 March 2023 at the UN Campus in Bonn, Germany –

1. Terms of Reference and membership of the Subcommittee

- a) Decided to invite the following partners as members of the Subcommittee –
- i) The International Association of Geodesy
 - ii) The International Federation of Surveyors (Commission 5 – Positioning and Measurement)
 - iii) The International Union of Geodesy and Geophysics
 - iv) The Technical Committee 211 of the International Organization for Standardization
 - v) The National Aeronautics and Space Administration of the United States of America
 - vi) The International Committee on Global Navigation Satellite Systems.

It was noted that the International Committee on Global Navigation Satellite Systems was not represented at the meeting and its membership will need to be confirmed.

2. Strategic Plan and Action Plan to Sustain the Global Geodetic Reference Frame

- a) Agreed on seven strategic actions –

Strategic Action #1

Conduct a global geodesy needs assessment by February 2024 (supported by the International Association of Geodesy and the International Federation of Surveyors Commission 5 – Positioning and Measurement)

Strategic Action #2

Prepare a State of Geodesy Report by June 2024 (supported by the International Association of Geodesy and the International Federation of Surveyors Commission 5 – Positioning and Measurement)

Strategic Action #3

Support the United Nations Global Geodetic Centre of Excellence in its development of a Global Geodesy Development Plan due to be completed by January 2025

Strategic Action #4

Support and promote global coordination, coherence, and partnerships for a sustainable global geodetic reference frame, an ongoing action

Strategic Action #5

Raise awareness and advocate for global geodesy, an ongoing action

Strategic Action #6

Engage in capacity and capability development, an ongoing action



Strategic Action #7

Develop branding and communicate, an ongoing action

b) Concurred on a series of priorities and tasks for each of the seven strategic actions –

Strategic Action #1

- i) Support the stakeholder identification and mapping exercise to be conducted by UN-GGCE (July 2023)
- ii) Support effort to identify and map stakeholders' contributions to GGRF to be conducted by UN-GGCE (July 2023)
- iii) Create a working group to begin global geodesy needs assessment with terms of reference by June 2023
- iv) Engage, consult, and include regional committees of UN-GGIM in the global geodesy needs assessment (Nov 2023)
- v) Prepare, consult, and finalize the Global Geodesy Needs Assessment by February 2024

Strategic Action #2

- i) Contribute and support the development and preparation of factsheets and case studies on the contribution of global geodesy to climate studies and resilience, disaster risk reduction, space mission, sea-level and inundation, earthquakes and tsunamis, efficient (autonomous) transportation, economic value and contribution to GDP, food security, SDGs to be undertaken by the UN-GGCE (July to November 2023)
- ii) Create a working group with terms of reference to work on the State of Geodesy Report by July 2023
- iii) Develop a concept note and outline of contents for the State of Geodesy Report by November 2023
- iv) Incorporate findings from the global geodesy needs assessment into the State of Geodesy Report
- v) Develop, prepare, consult, and finalize the State of Geodesy Report by June 2024

Strategic Action #3

- i) Contribute the global geodesy needs assessment and the State of Geodesy Report and support the preparation of the Global Geodesy Development Plan to be completed by January 2025

Strategic Action #4

- i) Support and facilitate as appropriate global coordination and coherence efforts by the UN-GGCE and to avoid duplication (ongoing)
- ii) Engage stakeholder and convene stakeholder meetings and appropriate events at annual sessions of UN-GGIM (ongoing)



- iii) Coordinate calendar of events amongst partner members to ensure a coherent calendar of activities and in this regard, work with FIG, IAG and IUGG to coordinate activities and events amongst members of the UN-GGIM: Geospatial Societies (ongoing)
- iv) Work with ISO TC/211 towards an authoritative register for geodetic standards (ongoing)

Strategic Action #5

- i) Convene global geodesy side event at annual sessions of UN-GGIM (annually)
- ii) Support and contribute to advocacy for the inclusion of geodesy into global reports (e.g., State of the Climate; State of the Environment) (ongoing)
- iii) Support UN-GGCE advocacy activities (ongoing)

Strategic Action #6

- i) Coordinate with regional committees of UN-GGIM and partner members to enhance geodetic knowledge and innovation development (ongoing)
- ii) Consult regional committees of UN-GGIM, support and contribute to capacity and capability development activities of the UN-GGCE (ongoing)
- iii) Leverage and support existing/ongoing capacity and capability development initiatives and activities of partner members (ongoing)

Strategic Action #7

- i) Contribute to the development of UN-GGCE communication and knowledge management plan (November 2023)
- ii) Explain the nexus between global geodesy actors and their contribution and develop appropriate materials and generic presentation that may be used by the Subcommittee and its members (November 2023)

3. Business of the Subcommittee – work/task groups, bureau, and co-Chairs

- a) Agreed to abolish all current working groups and established the following -
 - i) SCoG Working Group on Global Geodesy Needs Assessment (Zuheir Altamini – Lead)
 - ii) SCoG Working Group on State of Geodesy Report (Laila Løvhøiden – Lead)
 - iii) SCoG Working Group on Capacity and Education (previously, Education, Training and Capacity Building; Dan Roman – Lead)

In this regard, the Subcommittee will have to develop a mechanism to enable relevant stakeholders to participate in the work of the working groups established by the Subcommittee.

- b) Agreed to convene a side event at the Thirteenth session of the UN-GGIM.
- c) Agreed the terms of the co-Chairs and bureau shall coincide with annual sessions of UN-GGIM and that one of the co-Chairs shall be elected for a term of two years, essentially until the Fourteenth session of UN-GGIM, and the second co-Chair for the full term of four years, until the Sixteenth session



of UN-GGIM. Similarly, two of the elected bureau members shall serve until the Fourteenth session of UN-GGIM and the remaining two for the full term. The next biennial election will be for one co-Chair and two bureau members.

d) Affirmed by acclamation Nick Brown from Geoscience Australia as co-Chair (until the Fourteenth session) and Fernand Bale from the Geographic and Digital Information Center of Cote d'Ivoire as co-Chair for the full term.

e) Affirmed by acclamation Abdullah AlQahtani (Saudi Arabia) and Calvin Klatt (Canada) (until the Fourteenth session) and Sergio Cimbaro (Argentina) and Johannes Bauman (Germany) as members of the Bureau together Zuheir Altamini (France), Laila Løvhøiden (Norway) and Dan Roman (United States), who are the three leads of the working groups of the Subcommittee.

*Bonn, Germany
(31 March 2023)*

