MULTILATERAL MEMORANDUM OF UNDERSTANDING

BETWEEN

THE UNITED NATIONS GLOBAL GEODETIC CENTRE OF EXCELLENCE (UN-GGCE)

AND

[MEMBER STATE GOVERNMENT DEPARTMENTS AND AGENCIES, PRIVATE SECTOR COMPANIES, ORGANIZATIONS, ASSOCIATIONS, AND ACADEMIC INSTITUTIONS]

REGARDING

STRENGTHENING THE GLOBAL GEODESY SUPPLY CHAIN

OPERATIVE SINCE 10 MARCH 2025

PREAMBLE

The United Nations Global Geodetic Centre of Excellence (UN-GGCE), and the Member State government departments and agencies, private sector companies, organizations, associations and academic institutions listed in Appendix A (hereinafter referred to collectively as "the Participants" and individually as a "Participant"):

Reaffirm their support of the United Nations General Assembly Resolution A/RES/69/266[1] "A global geodetic reference frame for sustainable development"[2].

Acknowledge the extent to which modern society is dependent on the Global Geodesy Supply Chain (GGSC) which includes:

- Geodetic observatories, including but not limited to Global Navigation Satellite Systems Continuously Operating Reference Stations (GNSS CORS), Very Long Baseline Interferometry (VLBI), Satellite Laser Ranging (SLR), Doppler Orbitography and Radiopositioning Integrated by Satellite (DORIS) and gravimeters;
- Data collection hardware and software used at international, regional and national data centres;
- Data distribution infrastructure (e.g. optic-fibre connections)
- Data analysis hardware and software used at international, regional and national analysis, combination and correlation centres;
- Geodetic product hardware and software used to create international, regional and national Terrestrial Reference Frames, the Celestial Reference Frame, Geopotential Reference Frames and Earth Orientation Parameters; and
- Experts, in particular those cooperating and collaborating with the International Association of Geodesy (IAG) working on elements of the GGSC;

[1] https://ggim.un.org/documents/a_res_69_266_e.pdf

[2] The terms 'Global Geodesy Supply Chain' and 'Global Geodetic Reference Frame' have the same meaning. The UN-GGCE have adopted the use of Global Geodesy Supply Chain as it is easier to explain to a lay audience.

for accurate and reliable satellites services essential for economic prosperity, defence programs and the operation of critical infrastructure, including telecommunications, energy, finance, and aviation systems.

Further acknowledge the importance of, and the growing demand for, accurate and stable reference frames that allow the interrelationship of measurements taken anywhere on the Earth and in space essential for Earth science, and societal applications, including sea-level and climate change monitoring, natural hazard and disaster management, and sustainable development.

Recognise no one country can operate and sustain the GGSC alone.

Further recognise the importance of stronger governance arrangements of the GGSC through enhanced country-level and international cooperation and collaboration across government, industry, academia and the science community.

Note the fragility of the current GGSC and the societal, environmental and economic risks associated with its failure or degradation.

Desire to cooperate and collaborate on mutually beneficial activities towards strengthening the GGSC for the benefit of science, society, environment and economy.

Section 1
OBJECTIVE

1. The objective of this Memorandum of Understanding (MMOU) is to promote cooperation and collaboration among the Participants, with the aim of strengthening the GGSC. In particular, the MMOU seeks to raise awareness of the inescapable reliance Member States have on each other to operate ground observatories, share geodetic data and analyse geodetic data to produce accurate and reliable geodetic products essential for positioning, navigation, and timing services.

Section 2
AREAS OF COOPERATION AND COLLABORATION

1. This MMOU envisions focus on two phases of cooperation and collaboration. Initially, the Participants intend to focus on avoiding further degradation of the GGSC. Subsequently, cooperation and collaboration is intended to expand to making the GGSC robust. Specific areas of attention include:

    a. In Phase 1, the focus will be on avoiding further degradation of the GGSC. The Participants will, within available resources:

        i. Strengthen geodesy governance arrangements by engaging with science, policy and defence agencies within their country to discuss and manage strategic, operational, and technical risks associated with the failure or degradation of the GGSC.

        ii. Maintain the current accuracy of geodetic products by continuing to support the elements of the GGSC they operate.

iii. Develop evidence which explains the importance of the GGSC and use it to build awareness amongst government decision-makers, industry and society.

iv. Develop and retain their geodesy workforce.

b. In Phase 2, the focus will be on making the GGSC robust. The Participants will, within available resources:

i. Design and implement a robust GGSC capable of providing accurate and reliable geodetic products which meet civilian, defence and industry requirements with considerations for ground observing stations, technology, analysis, capacity, software, radio-frequency spectrum protection and cybersecurity requirements.

ii. Establish appropriate governance for the GGSC, which is operated across different levels of government, as well as the private and academic sectors, to manage strategic, operational and technical risks.

2. Additional phases of cooperation and collaboration can be negotiated by the Participants by consensus at any time.

Section 3
IMPLEMENTATION

1. Activities under the MMOU are intended to be conducted in accordance with the applicable laws and regulations of the Participants' respective jurisdictions.
2. Participants will undertake activities on a voluntary basis.
3. Coordination of activities will be facilitated by the UN-GGCE.
4. Each Participant will appoint a Representative who will relate, liaise and coordinate with the UN-GGCE, other Participants and their respective agency.
5. The Participants, with assistance from the UN-GGCE, will establish workplans to implement specific cooperative activities under this MMOU.
6. Each Participant will coordinate activities through their Representative who, at such times as the participants mutually determine, can meet to review the activities under this MMOU and develop proposals for future activities, as appropriate.
7. Senior officials of each Participant may participate in dialogues periodically on strategic issues to strengthen cooperation and monitor, review, and evaluate progress of implementation of this MMOU.
8. The Participants may encourage and facilitate the engagement and participation of relevant stakeholders, such as research organizations, universities, industries, other government agencies in cooperative activities under this MMOU.

Section 4
FINANCIAL TERMS AND VOLUNTARY CONTRIBUTIONS

1. This MMOU does not impose financial obligations on any Participant to the other Participants. Each Participant intends to bear its own expenses and costs incurred in connection with the signing and implementation of this MMOU.
2. Each Participant waives any claim for compensation for any services rendered to any other Participant in connection with any activities it carries out in furtherance of this MMOU.

3. Participants who wish to make voluntary financial contributions in areas of cooperation and collaboration described in Section 2, can provide funding to a United Nations Multi-Donor Trust Fund.[3]
4. Contributions to a United Nations Multi-Donor Trust Fund will be managed in accordance with UN policies and procedures governing Multi-Donor Trust Funds to ensure accountability and alignment with the goals of this MMOU.

Section 5
RESOLUTION OF DIFFERENCES

1. Any difference of opinion between the Participants concerning the interpretation or application of this MMOU must be settled through consultation between the Participants without reference to any third-party dispute resolution forum.

Section 6
PARTICIPANTS ELIGIBILITY

1. Participants in this MMOU can be a Member State government department or agency, a private sector company, an organization or association, or an academic institution. Multiple Participants from within a Member State are welcome.

Section 7
MODIFICATION

1. This MMOU may be modified at any time in writing by mutual decision of the Participants provided there is a prior notification of no less than three (3) months. Any modifications are to apply on a date to be determined jointly by the Participants.

Section 8
FINAL PROVISIONS

1. This MMOU becomes operative on the date where least three (3) Participants are signatories.
2. New Participants can sign onto this MMOU at any time.
3. This MMOU is intended to remain operative for five (5) years from the date the MMOU becomes operative and will thereinafter be renewed automatically, each time for a new period of five (5) years.
4. Any Participant may withdraw from this MMOU at any time by providing thirty (30) days written notice to the UN-GGCE. Such withdrawal will not impact the MMOU's validity for the remaining Participants. The UN-GGCE will notify other Participants of any withdrawals.
5. This MMOU will be made publicly available in its most up to date form on the UN-GGCE website.
6. This MMOU does not constitute or create, and is not intended to constitute or create, legally binding obligations under domestic or international law. In addition, this MMOU does not create any legally binding nor enforceable rights or benefits, whether express or implied, in respect of either Participant, their officers or employees, or any other entity or person.

[3] The United Nations Multi-Donor Trust Fund is a financial mechanism that enables voluntary contributions from multiple donors to be combined to support specific UN initiatives or programmes. These trust funds are designed to address complex, multi-sectoral issues that require coordinated international efforts, such as the GGSC.

Appendix A
LIST OF PARTICIPANTS

	Member State	Agency
1	Australia	Geoscience Australia
2	Belgium	Royal Observatory of Belgium
3	Belgium	National Geographic Institute of Belgium
4	Chile	University of Santiago de Chile
5	China	Chinese Society for Geodesy Photogrammetry and Cartography (CSGPC)
6	Finland	National Land Survey
7	France	Institut National de l'Information géographique et forestière (IGN)
8	France	School and Observatory of Earth Sciences ("Ecole et Observatoire des Sciences de la Terre")
9	France	National French Committee in Geodesy and Geophysics ("Comité National Français de Géodésie et Géophysique")
10	Germany	Bundesamt für Kartographie und Geodäsie (BKG)
11	Germany	Technical University of Munich's Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), Research Facility Satellite Geodesy (FESG) and Institute of Astronomical and Physical Geodesy (IAPG)
12	Greece	Aristotle University of Thessaloniki
13	India	Indian Institute of Technology (BHU)
14	Italy	Department of Civil and Environmental Engineering - Politechno Milano
15	Italy	Instituto Nazionale Di Astrofisica
16	Kingdom of Saudi Arabia	General Authority for Survey and Geospatial Information
17	Latvia	Latvijas Ģeotelpiskās informācijas aģentūra
18	Mexico	Instituto Nacional de Estadística y Geografía (INEGI)
19	Mongolia	General Authority for Land Administration, Geodesy and Cartography
20	Netherlands	Netherlands Centrum voor Geodesie and Geo-informatica
21	New Zealand	GNS Science
22	New Zealand	Land Information New Zealand (LINZ)
23	Philippines	National Mapping and Resource Information Authority (NAMRIA)
24	Philippines	Department of Geodetic Engineering - University of the Philippines
25	Republic of Kazakhstan	Committee of Geodesy and Cartography of the Ministry of Digital Development, Innovations and Aerospace Industry
26	Republic of Korea	National Geographic Information Institute
27	Republic of North Macedonia	Agency for Real Estate Cadastre (13 March 2025)
28	Singapore	Singapore Land Authority (SLA)
29	Spain	Instituto Geográfico Nacional of Spain (IGN)
30	Sweden	Chalmers University of Technology
31	Timor-Leste	National Geospatial Information, Secretary Estate of Land And Property
32	Uruguay	Instituto Geográfico Militar (IGM)
33	Norway	Norwegian Mapping Authority (Kartverket)
34	Organization	Esri
35	Organization	FrontierSI
36	Organization	International Association of Geodesy (IAG)
37	Organization	Nordic Geodetic Commission (NKG)
38	Organization	Pacific Geospatial and Surveying Council (PGSC)
39	Organization	Positioning Insights
40	Organization	Sistema de Referencio Geodésico para las Américas (SIRGAS)

41	Organization	United Nations Global Geodetic Centre of Excellence
42	Ukraine	The State Service of Ukraine for Geodesy, Cartography and Cadastre (6 May 2025)
43	Denmark	Danish Agency for Climate Data (7 May 2025)
44	Nigeria	The Centre of Geodesy and Geodynamics (CGN)
45	Organization	Trimble Inc. (25 June 2025)
46	Organization	Regional Centre for Mapping of Resources for Development (RCMRD)
47	Chile	National Territorial Information Coordination System (SNIT-IDE Chile)
48	Organization	EPOS ERIC
49	Republic of Slovenia	Ministry of Natural Resources and Spatial Planning, Surveying and Mapping Authority
50	Germany	Technical University of Munich (TUM)
51	Organization	Hexagon (Geosystems)
52	India	Survey of India
53	Republic of Moldova	The Agency for Geodesy, Cartography and Cadastre (AGCC)
54	Organization	Group on Earth Observations
55	Colombia	Agustín Codazzi Geographic Institute / el Instituto Geográfico Agustín Codazzi (IGAC)
56	Jamaica	National Land Agency (NLA)
57	Organization	European Space Agency (ESA)