

### Stronger. Together.

The United Nations Global Geodetic Centre of Excellence (UN-GGCE) vision is a future where all countries have strong political support for geodesy which enables them to – together – implement the General Assembly Resolution 69/266 ‘A Global Geodetic Reference Frame for Sustainable Development’, and accelerate the achievements of the Sustainable Development Goals to derive social, environmental and economic benefits.

[ggim.un.org/UNGGCE](http://ggim.un.org/UNGGCE)

## UN-GGCE MISSION REPORT

# Capacity Development in the Americas

Over the past few months, the UN-GGCE team has been building capacity alongside SIRGAS in the Americas, working with the private sector to understand their needs of the global geodesy supply chain, and briefing UN Permanent Mission staff in New York.



PHOTO: SIRGAS

**SANTIAGO, CHILE:** Surveying, geodesy, and geospatial professionals building capacity.

### Capacity development workshop

In Santiago, Chile, the UN-GGCE team provided a five-day capacity development workshop on geodesy with assistance from experts from SIRGAS to 57 surveying, geodesy, and geospatial professionals participants from 27 Member States across the Americas region.

The training was focused on how to transition to a modern geospatial reference system and included guidance on governance, communication and business case development, in addition to technical training on topics such as geodetic adjustments and geoid model development. “My aim for the workshop was to help colleagues in the Americas heighten awareness of the importance of geodesy to society and provide practical guidance so they can build support to modernise the foundations of their country’s economies”, says Nicholas Brown.

“Most pleasing was that we could run our workshop in parallel with the UN-GGIM Americas meeting and a UN-GGKIC workshop which allowed the geodesy community to strengthen collaboration with other senior leaders and geospatial professionals from their countries and demonstrate just how important geodesy is.”

### GeoGov Middle East Summit

In Abu Dhabi, United Arab Emirates, UN-GGCE assisted Member State representatives from the Arab States engage with the private sector and highlight how important the geodetic foundations that countries provide are for the private sector to build on and develop satellite-based services.

“The private sector are heavily reliant on the geodetic products developed by the IAG Services and it is critical that the private sector acknowledge this dependence which enables them to operate”, says Mr Brown.

### UN Mission Briefing

As requested by the Australian Mission to the UN, Nicholas Brown, UN-GGCE Head of Office, provided a briefing on issues related to weaknesses in the global geodesy supply chain and their potential impacts on the operation of critical infrastructure and satellite services.

The briefing was convened at the UN Headquarters in New York, USA in November, and was provided to representatives from the Missions of Australia, Canada, the EU Delegation, France, Germany, Italy, Japan, the Netherlands, New Zealand, Norway, the Republic of Korea, Sweden, the United Kingdom, and the United States of America.

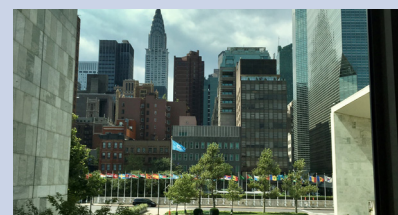


PHOTO: ANNE JØRGENSEN

“I was asked many questions relating to what “good” governance looks like and how these options could be implemented”, says Nicholas Brown.

“This indicates to me that when we get the messaging right and explain the weaknesses in the supply chain, and the risks that poses to key industry sectors and critical infrastructure, senior officials understand the importance and they are prepared to discuss multilateral options.”





PHOTO: GALILEO SATELLITE IN ORBIT ESA

**ICG STATEMENT:** Highlights the critical reliance of GNSS on the global geodesy supply chain.

#### INTERNATIONAL COMMITTEE ON GNSS (ICG)

## Statement on the critical role of the global geodesy supply chain

One of the outcomes from the recent International Committee on GNSS (ICG) held in Busan, South Korea, was a statement on the critical reliance of GNSS on the global geodesy supply chain.

“The statement provides a unifying narrative and authoritative reference for Member States, international organizations, and private sector stakeholders to align policy, funding, and technical initiatives aimed at reinforcing the resilience of the global geodesy supply chain”, Nicholas Brown, UN-GGCE Head of Office explains.

With this statement, the ICG seeks to highlight the critical reliance of GNSS on the global geodesy supply chain (GGSC). The statement adds a GNSS perspective to the growing body of evidence on the importance of the GGSC:

**Without critical inputs from the global geodesy supply chain, GNSS-based positioning, navigation, and timing (PNT) services would systematically degrade to the point of being virtually useless, ICG states.**

The statement was coordinated by International GNSS Service - IGS (in its capacity as co-chair of ICG Working group D) with support and input from many expert contributors in the working group, UN-GGCE, and the broader geodesy community.

The statement was tabled by Ms. Alison Rose from the Australian delegation, which took on the role of presenting the recommendation for consideration, and ultimately adoption by the ICG.

The statement has been adopted by ICG and is now made available as a publication of ICG for use as a resource for GNSS providers, users, and advocates. The authors of the statement were very kind to note that they appreciated the fact it is “based on the seed planted by UN-GGCE” at last year’s ICG meeting ICG-18, held in Wellington, New Zealand.

#### The importance of the global geodesy supply chain (GGSC):

The GGSC refers to all components for establishing geodetic products.

The ICG statement identifies the particular significance of the following components of the global geodesy supply chain for GNSS, constellation operators, and the millions of users that rely on their services:

- **International Terrestrial Reference Frame (ITRF)** - By using a single, global reference frame, different GNSS constellations can be seamlessly integrated and used together for improved positioning.
- **Satellite Laser Ranging (SLR)** - SLR enables validation of satellite orbit modelling against independent observations.
- **Very Long Baseline Interferometry (VLBI)** - VLBI is the only technique capable of measuring Earth orientation with high accuracy and allows us to monitor the difference between Earth’s rotation and UTC
- **Accurate gravity models and observations** - enable scientists to account for and mitigate variations in satellite orbits, enabling precise satellite geolocations.

#### Statement adopted by ICG:

**The Critical Role of the Global Geodesy Supply Chain for GNSS: A Resource for GNSS Providers, Users, and Advocates**

[https://www.unoosa.org/documents/pdf/icg/2025/ICG-19/ICG-19\\_WG-D\\_Recommendation\\_A\\_.pdf](https://www.unoosa.org/documents/pdf/icg/2025/ICG-19/ICG-19_WG-D_Recommendation_A_.pdf)

