

Fifteenth session

Forum "Authoritative data: land, marine and geodesy"

Tuesday, 05 August 2025 10:00 a.m. to 11:15 a.m. Conference Room 4 (CR-4 GA Building)

CONCEPT NOTE and PROVISIONAL AGENDA

Background

The Challenge

The fragmentation of land and sea data presents a critical challenge for Member States seeking to make informed decisions for environmental sustainability, disaster resilience, maritime operations, and economic development. Terrestrial and marine information often exist in silos, and are referenced to different datums, creating significant barriers to holistic analysis and response. This not only leads to inefficiencies and information gaps but also hampers the ability to address urgent challenges like climate change, coastal erosion, biodiversity conservation, maritime security, port operations, and safe navigation. The impacts of these challenges extend across multiple sectors, from environmental protection to commercial shipping and port management, affecting day-to-day operations as well as long-term strategic planning.

These challenges are particularly acute in coastal zones, where the interaction between land and sea is most dynamic, for example:

- Coastal infrastructure planning requires seamless integration of bathymetric and topographic data.
- Environmental monitoring needs continuous data coverage across coastal boundaries.
- Storm surge or flood modelling demands consistent vertical reference systems across land and
- Maritime safety depends on accurate charting of the land-sea interface.

As the cross-domain challenges grow more complex, the need for unified geospatial information becomes increasingly urgent. Member States require interoperable frameworks that seamlessly integrate land and sea data, enabling comprehensive analysis, fit-for-purpose product delivery and timely action. Equally important is the need for capacity building, technical guidance, and knowledge management to ensure successful implementation of these frameworks. This includes developing technical expertise across domains, sharing implementation guidelines, and maintaining repositories of best practices that can be adapted to local contexts.

Progress through collaboration

Recognizing these needs, the thirteenth session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) encouraged coordination and collaboration between the different working groups to provide practical and sustainable guidance on integrating the terrestrial and marine domains.

Various initiatives are already underway, including:

- The Working Group on Marine Geospatial Information (MGI) had developed the IGIF-Hydro and is collaborating with Expert Group on Land Administration and Management (EGLAM) on the IGIF-Joining Land and Sea framework, structured around the nine IGIF Strategic Pathways.
- The UN Global Geodetic Centre of Excellence (UN-GGCE) had coordinated a workshop (with BIG) centred around the topic of Joining Land and Sea, last December, in Bogor, Indonesia to discuss the challenges, implications and potential solutions, and is working on developing a practical implementation guide.
- The Working Group on Policy and Legal Frameworks for Geospatial Information Management had developed papers and guidance materials on Authoritative Geospatial Data and related policy and legal challenges.

This forum aims to discuss and provide updates on these initiatives and coordinate efforts across the different UN-GGIM groups moving forward.

Objectives

This forum will bring experts from the land, marine and geodesy domains, together to:

- 1. **Share Progress and Insights** share updates on current and past efforts, including framework development, capacity building, and implementation experiences across Member States.
- 2. **Coordinate Future Actions** identify synergies between initiatives, establish a coordinated approach, and develop a clear roadmap for next steps.
- 3. **Drive Implementation** share best practices and success stories, build momentum and encourage broader implementation of developed guidance materials among Member States.

Provisional agenda

1. Welcome and Introduction (35 minutes)

Mr. Victor Khoo, *Co-Chair of EG-LAM, Director Survey & Geomatics - Singapore Land Authority* **Presenters:**

- Policy and legal frameworks to foster trust in authoritative, fit-for-purpose geospatial data across land, sea and geodesy domains, Ms. Madeleine Martin, WG on Policy and Legal Frameworks
- Key Takeaways and Recommendations from the Compilation Report on Domain Integration, Mr. Roy Yuen, EG-LAM and Mr. Jotham Teo, WG-MGI
- Practical guidance to address domain integration challenges, Mr. Nicholas Brown, Head UN-GGCE

2. **Panel discussion** * (35 minutes)

Discussants:

- Mr. Parry Oei, Chair of WG-MGI, Hydrography Adviser in the Maritime and Port Authority, Singapore
- Mr. John Nyberg, Director at the International Hydrographic Organization
- Ms. Kristine Hirschkorn, Manager, Ground Segment Business Development, NRCan
- Mr. Nicholas Brown, Head, UN Global Geodetic Centre of Excellence

(* each discussant will deliver an introductory statement of around 2-3 minutes, as reflections on the focus of the Open Meeting, the three setting-the-scene presentations or to support further discussions and consideration addressing the issue of

authoritative data and the evolving geospatial landscape.)

3. **Summary, next steps and concluding remarks** (5 minutes)
Mr. Victor Khoo, Co-Chair of EG-LAM, Director Survey & Geomatics - Singapore Land Authority

This is an open event; all UN-GGIM delegates and observers are welcome to attend. The Forum is organized by the Working Group on Marine Geospatial Information, Expert Group on Land Administration and Management, Working Group on Policy and Legal Frameworks for Geospatial Information Management and United Nations Global Geodetic Centre of Excellence. It will provide an inclusive platform for stakeholders to explore how integrated geospatial information can shape sustainable development and respond to emerging global priorities.