

16th Meeting of IHO Marine Spatial Data Infrastructure Working Group

Lisbon, Portugal

18 – 21 March 2025

Contribution to the IHO Work Programme 2025

Task 3.7.1 Organize, prepare and report annual meetings of the Marine Spatial Data Infrastructure Working Group.

Summary :

The MSDIWG-16 meeting, held jointly with the OGC Marine Domain Working Group, focused on advancing marine spatial data infrastructure in alignment with the Integrated Geospatial Information Framework for Hydrography (IGIF-H) and the IHO Strategic Plan. Key agenda items included national and regional updates, the evolving role of INTogIS in MSDI delivery, progress on the S-122 Pilot Project, and the proposed integration of the IHO MSDIWG with the UN-GGIM Working Group on Marine Geospatial Information (WG-MGI).

A major outcome of the meeting was the establishment of a metadata task group, led by Singapore, to develop a guidance document promoting consistent metadata practices across both land and sea domains. The Working Group also approved the development of the IHO Marine Geospatial Information (MGI) Portal, leveraging the INTogIS platform to improve the accessibility and integration of marine spatial data.

The meeting served as a strategic milestone, with members initiating a review of the Working Group's structure and mandate in preparation for a proposed merger with the UN-GGIM WG-MGI. A draft Terms of Reference for the unified group is currently under development and will be submitted to the IRCC for consideration.

Overall, MSDIWG-16 reaffirmed the importance of IHO–OGC collaboration, encouraged the adoption of emerging technologies such as AI, and promoted the exchange of best practices among member states. The decisions taken will strengthen the Working Group's capacity to support the IHO Strategic Plan and lead future developments in the global marine geospatial community.

Details:

The sixteenth meeting of the IHO Marine Spatial Data Infrastructure Working Group (MSDIWG), held jointly with the OGC Marine Domain Working Group (Marine DWG), took place in Lisbon, Portugal, from 18 to 21 March 2025. The meeting was chaired by Ms. Caitlin Johnson (Chair, MSDIWG) and brought together representatives from IHO Member States, Regional Hydrographic Commissions, industry stakeholders, and academic institutions.

The meeting opened with remarks from Portuguese authorities and international representatives, emphasizing the importance of marine geospatial data interoperability and promote global best practices in spatial data infrastructure development.

A multidisciplinary session on Portuguese MSDI initiatives highlighted national efforts to integrate marine and terrestrial data, with a strong focus on inter-agency collaboration and institutional coordination. Member States provided national updates, outlining their MSDI strategies, addressing challenges, and sharing practical solutions in areas such as governance, data integration, and service delivery.

Regional Hydrographic Commission (RHC) MSDI Working Groups presented regional perspectives, showcasing progress in capacity-building and stakeholder engagement. Industry and expert contributors introduced innovative technologies and demonstrated how private-sector collaboration can enhance the development and accessibility of marine spatial data.

The meeting also included a series of technical updates:

- **C-17 Maintenance:** The Working Group reviewed the ongoing maintenance of IHO Publication C-17, which is now hosted and managed through a Metanorma-based GitHub environment. The initial setup has been completed, document editing training for contributors has been conducted, and the group is currently identifying required updates to align the publication with evolving MSDI practices. This platform is expected to improve collaboration, version control, and transparency.
- **INToGIS and the MGI Portal:** The latest enhancements to the INToGIS platform were presented, along with plans to use it as the foundation for the upcoming IHO Marine Geospatial Information (MGI) Portal, designed to support data sharing and integration across the IHO community.
- **S-122 Pilot Project:** The IHO Secretariat shared progress and lessons learned from the ongoing implementation of the Marine Protected Areas (S-122) product specification, highlighting its potential for wider adoption.

A dedicated session focused on the use of artificial intelligence (AI) to improve hydrographic office workflows. Participants explored practical applications of AI in areas such as data validation, metadata generation, and production efficiency, recognizing its potential to streamline operations and support decision-making.

In a strategic workshop, the Working Group also considered the proposed merger between the IHO MSDIWG and the UN-GGIM Working Group on Marine Geospatial Information (WG-MGI). Several anticipated benefits were discussed, including a reduced number of meetings, elimination of overlapping topics, more efficient resource management, and better alignment with both groups' evolving mandates. The merger is also seen as a means to elevate IHO's profile within the broader UN system, provide access to new funding opportunities, and attract a wider range of stakeholders—particularly from scientific and environmental sectors. The Working Group agreed to begin drafting revised Terms of Reference that would incorporate key elements from both groups to ensure continuity and clarity of purpose.

Photo



Upcoming meetings:

The next meeting of the MSDIWG (MSDIWG-17) will be hosted by Thailand in Chiang Mai in February 2026, with the exact dates to be confirmed.