

12TH SESSION OF THE UN COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT (UN-GGIM)

New York USA, 3 - 5 August

Contribution to the IHO Work Programme 2022	
Task 1.1.12	Maintain relationship with United Nations (UN) organizations based in New York, including:
Task 1.1.12.1	- the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM) and WG on Marine Geospatial Information

The principal purpose of the UN-GGIM is to play a leading role in setting the agenda for the development of global geospatial information management and to promote the use of geospatial information in addressing key global challenges, particularly taking into account the role of geospatial data in monitoring and achieving the Sustainable Development goals agreed under the UN 2030 Agenda for Sustainable Development. The UN-GGIM reports to the UN Assembly via the UN Economic and Social Council (ECOSOC). At the time of reporting UN-GGIM runs altogether 17 subgroups formed by regional commissions, topical and thematic groups.


The 12th session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) was the first in-person meeting after two meetings held in 2020 and 2021 in a scaled down virtual format.

UNHQ, NEW YORK / 1-5 AUGUST 2022

The Integrated Geospatial Information Framework (IGIF) provides a basis and guide for developing, integrating, strengthening and maximizing geospatial information management and related resources in all countries

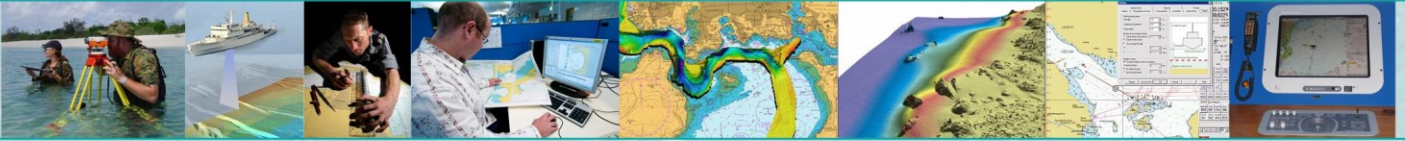


UN-IGIF
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK



UN-GGIM

Twelfth Session of the United Nations Committee of Experts on Global Geospatial Information Management

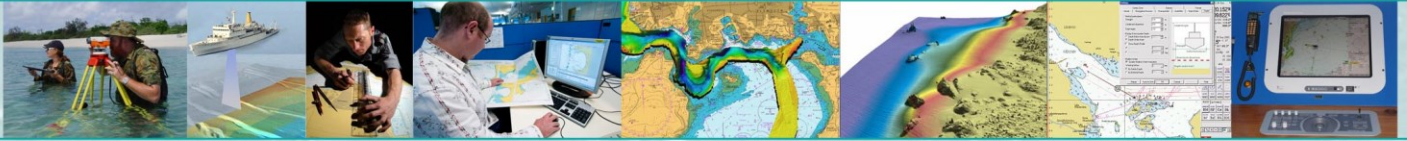


On average more than 256 participants attended the event, representing 73 UN Member States and 111 observing organisations – amongst them the IHO, represented by the Secretary-General of the IHO, Dr Mathias Jonas.

In the preliminaries of the Conference the Group of Standard Development Organizations (SDO) formed by ISO, OGC and IHO conducted a side event which was organized and moderated by the IHO. Under the title *“Bringing Land and Sea together – How standardization helps to implement the Integrated Geospatial Information Framework in Coastal States”* this event presented the approach of the maritime domain how marine geodata can be operationalized by means of IGIF paradigms and presented case studies demonstrating how World Bank’s IGIF methodology is applied in developing island/coastal Nation States. Dr John Nyberg (USA), Chair of the UN-GGIM Working Group on Marine Geospatial Information, informed the participants about the progress made in the layout of the interpretation of the IGIF for hydrography (IGIF-H). Kathrine Kelm (UK) of the World Bank, and Dr Gerald Wang (UK) of UKHO introduced the methodology of OGC/IHO/World Bank collaboration on the IGIF-MSDI Maturity Model, and Chris Body (Australia) informed about the recent developments on ISO’s project to harmonise IHO marine administration with ISO land administration domain model.

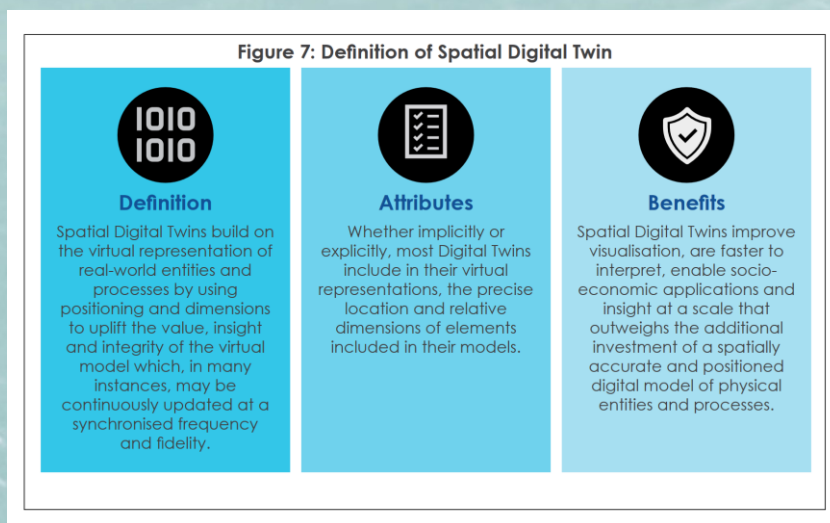


Speakers panel of the Side Event “Bringing Land and Sea together”

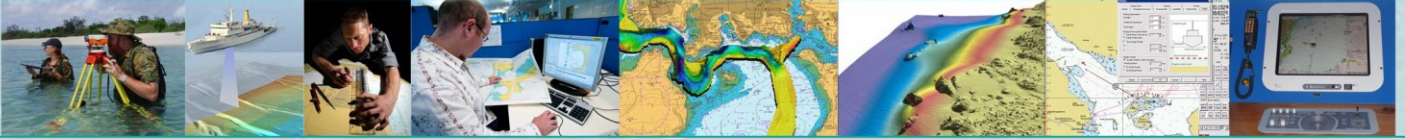


An important item of note for the conference participants was the Secretariat’s report on the resolution 2022/24 entitled ‘Enhancing global geospatial information management arrangements’ recently adopted by the ECOSOC Council. The resolution represents a significant endorsement of the Committee’s work and value over the past decade. It acknowledges the achievements and progress made by the Committee and reiterates the importance of strengthening and enhancing the effectiveness of the Committee, particularly for the achievement of its operations focused on the Sustainable Development Goals (SDGs) and the Integrated Geospatial Information Framework (IGIF), to strengthen and ensure its continued effectiveness and benefits to all Member States. However, the resolution fell short in a number of key areas; namely in the provision of expanded conference management and services for the Committee, and resources to strengthen the Secretariat. In the immediate future, the Committee of Experts will undertake practical action to implement resolution 2022/24 and to mobilize resources as the global role and relevance of the Committee of Experts continues to grow and expand. These expanding roles will include supporting the implementation of the Committee’s global geospatial frameworks; establishing the Global Geospatial Knowledge and Innovation Centre (GGKIC) in Deqing, China and the Global Geodetic Centre of Excellence (GGCE) in Bonn Germany; the convening of the second United Nations World Geospatial Information Congress (UNWGIC) in Hyderabad, India, and in continuing to lead and set the agenda in global geospatial information management.

The twelfth session of the Committee of Experts addressed several emerging and critical issues related to geospatial information management globally. Numerous substantive activities have since been undertaken and, as follow-up, they were reported back and deliberated upon at this twelfth session. These include as new elements Geospatial Knowledge Infrastructure and the Digital Twin. The latter is of special relevance in view of the global aspirations to establish the Digital Twin of the Oceans. In the course of the Committee deliberations, it was pointed out on several occasions that standardization and interoperability (as supported by the S-100 framework for the marine domain) is key for this emerging trend.



Source: *WGIC POLICY REPORT: 2022-01 Spatial Digital Twins: Global Status, Opportunities, and the Way Forward*



Of special relevance for the IHO work programme was the report given under Agenda Item 13 *Marine geospatial information* by the Working Group on Marine Geospatial Information, and Agenda Item 15 *Implementation and adoption of standards for the global geospatial information community*.

The Working Group on Marine Geospatial Information, established by UN-GGIM 7 in 2017 under the co-leadership of Dr John Nyberg (USA) and Ms Pearlyn Pang (Singapore), reported to the Committee of Experts for the fifth time. Ms Pang presented the report.

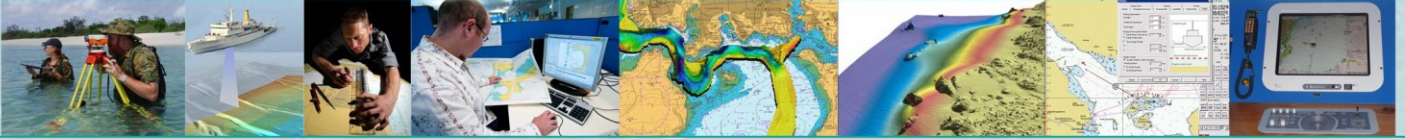
The growing membership of the Working Group and expanding knowledge on the value of marine geospatial information reflects the overall growing engagements and how the oceans unite and connect diverse stakeholders across the full spectrum of the marine domain, including the oceans and seas, coastal zones and deltas, inland water bodies and waterways.

Over the past year, the Working Group's top work item has been to advance the IGIF through its thematic implementation called the Operational Framework for Integrated Marine Geospatial Information, in short IGIF-H, for IGIF Hydro. The group intends for the two-part document to leverage the guidance offered in the IGIF and to provide practical guidance for countries to apply the nine strategic pathways in the water or marine domain, ultimately working towards the vision of integrating water into the global geospatial information ecosystem for our desired future. This year, the Working Group was ready to present IGIF-H Part One, an executive summary of the Operational Framework for the Committee's consideration and support.

The Working Group remained engaged with the global geospatial community and with international and regional organisations including the International Hydrographic Organization (IHO), Open Geospatial Consortium (OGC) and the Pacific Community. The group's work has contributed from a water-themed perspective through various outreach opportunities, notably the webinar series on marine geospatial information last October and the first UN-GGIM International Seminar on Effective and Integrated Marine Geospatial Information Management in May this year jointly organised by the Working Group, the IHO Marine Spatial Data Infrastructures Working Group, and the OGC Marine Domain Working Group, and hosted by the Maritime and Port Authority of Singapore. The outcomes of these activities and contributions from expert representatives, coupled with the 2020 white paper on readily available and accessible marine geospatial information, have driven marine knowledge and the advancement of IGIF-H. The Working Group recommended the outcome document of the International Seminar, the Singapore Statement on Effective and Integrated Marine Geospatial Information Management for due recognition by the Committee of Experts.

The Working Group report also confirmed to continue to recognise, and work with, the GEBCO Seabed 2030, UN Decade of Ocean Science and IHO Innovation and Technology Laboratory. These are important initiatives that contribute towards advancing international goals in the marine domain in addition to raising awareness and strengthening the effective use and integration of marine geospatial information for the benefit of humanity.

The Committee welcomed the report of the Working Group on Marine Geospatial Information and noted its progress towards an updated work plan for the period 2023 – 2024 that will



continue raising awareness, providing guidance and encouraging the availability and accessibility of marine geospatial information for the benefit of society, the environment and the economy.

The delegates expressed its appreciation to the Government of Singapore and its Maritime and Port Authority for hosting the virtual webinar series in October 2021 and the in-person meeting of the Working Group together with an international seminar with the theme 'Effective and integrated marine geospatial information management' in Singapore in May 2022 and welcomed the Singapore Statement on 'Effective and Integrated Marine Geospatial Information Management' as an outcome.

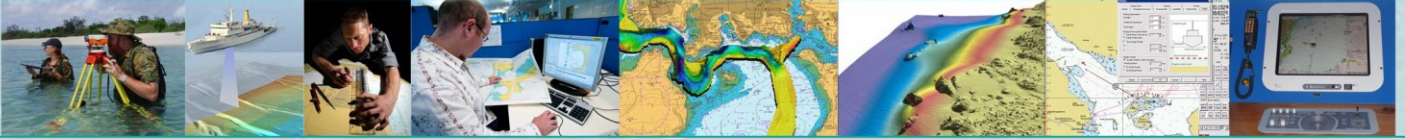
The Committee the continuing efforts of the Working Group to advance the Integrated Geospatial Information Framework (IGIF), and its nine strategic pathways, with the Working Group's Operational Framework for Integrated Marine Geospatial Information (IGIF-H), which is being developed as a two-part document to leverage the guidance offered in the IGIF, and to provide practical guidance for countries to extend the nine strategic pathways in the marine domain, ultimately working towards the vision of the integration of 'water' into the global geospatial information ecosystem and to enhance the ability to make informed decisions to support the preservation and management of the ocean's resources;

IGIF-H Part One and an executive summary of the Operational Framework were endorsed. It was emphasized that the IGIF-H must provide practical guidance that Member States can use to enhance the availability and accessibility of marine geospatial information inclusive of but not restricted to hydrography, oceanography, marine geology, marine biology, human-related activities, maritime governance; and that future marine geospatial infrastructures are integrated with the broader geospatial ecosystem essential for the sustainable development of the world's resources and vital for responding to the impacts of climate change; particularly relevant to small Island developing states (SIDS).

It was noted that the updated work plan will seek to address issues related to: the land-sea interface and coastal zones; integration of the maritime, terrestrial and cadastral domains; and strengthening collaboration, partnerships, engagement and capacity development, including with the International Hydrographic Organization (IHO), the Open Geospatial Consortium (OGC), the Singapore IHO Innovation and Technology Laboratory, the General Bathymetric Chart of the Oceans Seabed 2030 project and the United Nations Decade of Ocean Science for Sustainable Development.

The offers of new members and relevant stakeholders gained recognition together with the intention of the Working Group to convene its fourth expert meeting from 30th January – 3rd February 2023 in Genoa, Italy.

The report on the Implementation and adoption of standards for the global geospatial information community (Agenda Item 15), was brought to the attention of the Committee by the IHO representative, Dr Mathias Jonas. In the referenced report the three organizations elaborated on their collective efforts made since UN-GGIM Committee meeting in August 2021. He provided details of the Open Geospatial Consortium's work on the development of modernized open API standards and the integration of geospatial information, statistics and other data to address access to, and integration of, location information related to Earth observations, disaster preparedness and response, health, marine spatial data



interoperability, the environment and climate change. As listed in detail in the full report, the work of OGC community included a strong focus on improving connections of OGC standards with IHO Standards and ISO Standards.

The report also described the work of technical committee 211 and its continued progress in the development of the multi-part standards ISO 19152 Land Administration Domain Model, the ISO 19144 series on land cover and ISO 19160 on addressing the increased use of the ISO Geodetic Registry.

Lastly, this report presented the advances made by the International Hydrographic Organization on the S-100 Universal Hydrographic Data Model to support the creation and maintenance of interoperable maritime data product services that are compliant with the ISO 19100 series of geographic information standards and the projected work with coastal nations to engage on using the IGIF-MSDI Maturity Roadmap for real-world (Marine) SDI development.

Among other relevant items the organizations' report also provided an overview of the work done regarding the use of geospatial standards in supporting the measurement and monitoring of the Sustainable Development Goals, highlighted the continued support to the standards pathway for the Implementation Guide of the IGIF; and discussed practical examples on the implementation of geospatial standards that help further strengthen the Standards Guide.

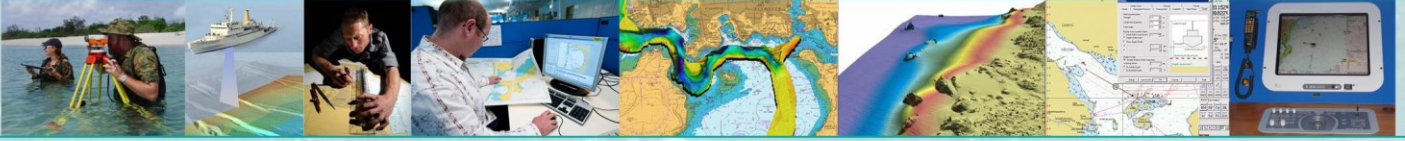
The Committee of Experts welcomed the report of the three standards development organizations, on the implementation and adoption of standards for the global geospatial information community, noted the broad range of geospatial standards considered, and expressed its appreciation to the three standards development organizations for their valuable work and continuing support.

The delegates expressed their appreciation for the collaborative efforts and work of the standards development organizations in developing and preparing standards for the measurement and monitoring of the Sustainable Development Goals, advancing data access and data sharing, including towards the ongoing response to the COVID-19 pandemic, disaster risk reduction and management, and encouraged the development of fundamental and domain-specific standards to address and monitor specific SDGs.

The Committee encouraged the alignment of the standards development organizations with the Integrated Geospatial Information Framework and welcomed the many examples of how countries are using the Standards Guide, which demonstrates the benefits of implementing geospatial standards to ensure standards accountability and compliance of practice.

Appreciation was expressed for the support provided by the standards organizations in the development of the Operational Framework for Integrated Marine Geospatial Information (IGIF-H) as a practical means for ensuring a uniform approach to data integration and management including for the land-sea interface, and the ISO Geodetic Register to support the Global Geodetic Reference Frame.

Mr Pier-Giorgio Zaccheddu (Germany), Member of the Expanded UNEGN Bureau & Convenor of UNEGN's Working Group on Geographical Names Data Management,



reported under Agenda item 16 Collaboration with the United Nations Group of Experts on Geographical Names about intersessional activities. He provided an overview of the implementation of the strategic plan and programme of work for the period 2021–2029, including the work being carried out to redevelop the World Geographical Names database. He encouraged Member States to prepare guidelines for the application and use of geographical names on printed and digital products (so-called: toponymic guidelines). Furthermore, the report informed about the planned and convened webinars with the focus on increasing awareness and strengthening capacity within the Group of Experts community.

The Secretary-General IHO confirmed in his verbal intervention that the IHO took note of UN-GEN's plans and work which have already been carried out to redevelop the World Geographical Names Database. He reminded the Committee that the IHO holds the authoritative database on undersea feature names for sea areas beyond national jurisdiction. This database spans over all oceans and is continuously maintained by a specific technical committee (SCUFN) which reports to the GEBCO Guiding Committee (GGC) jointly formed by Intergovernmental Oceanographic Commission of UNESCO and IHO. He invited UN-GEN for consultation at the appropriate time to discuss if this database can serve as a best practice example and can possibly be interlinked if not embedded in the renewed World Geographical Names Database.

The next Session of the Committee is planned according to the traditional schedule at the UN Headquarters, New York, in the first week of August 2023.