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Item 15 of the provisional agenda*

Implementation and adoption of standards for the global geospatial information community

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Note by the Secretariat

The Secretariat has the honour to bring to the attention of the Committee of Experts on Global Geospatial Information Management the report prepared jointly by the International Hydrographic Organization, technical committee 211 of the International Organization for Standardization (ISO) and the Open Geospatial Consortium, which will be available in the language of submission only from the relevant web page of the Committee of Experts (<https://ggim.un.org/meetings/GGIM-committee/15th-Session>). The Committee is invited to take note of the report and to express its views on the ongoing work of the three standards development organizations in the innovation, adoption and implementation of standards for the global geospatial information community.

Summary of the report

At its fourteenth session, held from 7 to 9 August 2024, the Committee of Experts adopted decision 14/113, in which it welcomed the report of the three standards development organizations and their work with the Committee of Experts. The Committee welcomed the numerous examples of the ongoing standards development activities for data access and interoperability while also encouraging Member States to set policy that starts with open standards as a default for geospatial and location information programmes towards the implementation of standards-based solutions that ensure interoperability, data-sharing and flexibility to adapt to changing data sources and technologies, and to support actual real use cases for the integration of geospatial information and statistics, for the reporting of the Sustainable Development Goals, the implementation of the United Nations Integrated Geospatial Information Framework and the use and application of artificial intelligence.

* [E/C.20/2025/1](https://www.un.org/Depts/under20/2025/1).



The Committee also urged Member States to collaborate with and participate in the maintenance, advancement and capacity development of geospatial standards, together with the standards development organizations.

In the report, the International Hydrographic Organization provides information on its continuing efforts to advance 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. In 2024, the organization reported that edition 5.2.0 of S-100 had been released. Based on edition 5.2.0 of S-100, the organization has released a number of Phase 1 S-100 product specifications as operational editions, including S-101 Electronic Navigational Chart, S-102 Bathymetric Surface, S-104 Water Level Information for Surface Navigation and S-111 Surface Currents.

Several additional S-100-based product specifications are being developed and implemented in collaboration with several international organizations, including entities of the United Nations system and partners such as the International Organization for Marine Aids to Navigation and the World Meteorological Organization. The International Hydrographic Organization also reports that it has established a freely available training resource on maritime spatial data infrastructure to assist its members in aligning their country-level work to the United Nations Integrated Geospatial Information Framework and the Operational Framework for Integrated Marine Geospatial Information Management.

Technical committee 211 of ISO, in the report, provides information on its activities with entities of the United Nations system and partners, including supporting the modernization of the geodetic infrastructure as a partner of the United Nations Global Geodetic Centre of Excellence; continued progress in the development of the ISO 19152 Land Administration Domain Model, of which parts 1 and 3 have been published and parts 2, 4 and 5 should be published by August – allowing better integration of land and sea boundaries and supporting the Framework for Effective Land Administration; ISO 19144 on land cover and land use, in conjunction with the Food and Agriculture Organization of the United Nations, of which parts 1, 2 and 3 have been published and part 4 is under development with the Open Geospatial Consortium.

In the report, the Open Geospatial Consortium discusses its focus on developing and testing open geospatial application programming interface standards via pilots, projects and testbeds under its collaborative solutions and innovation programme, covering several areas including climate services, disasters, the marine environment, digital twins and the built environment. Over the past year, the Consortium has focused on a range of topics relevant to Sustainable Development Goals, including a multi-year continued focus on improved support for disaster response, increased coordination within the marine domain and innovation related to climate services. The Consortium emphasizes the integration of geospatial information with statistics and other data under the findable, accessible, interoperable and reusable data principles. The Consortium further reports that it continues to enhance interoperability with its standards, as well as the International Hydrographic Organization and ISO standards, thereby ensuring a cohesive framework for geospatial data utilization and standardization, in support of the global geospatial information agenda.