

# Greeting from the Intergovernmental Oceanographic Commission of UNESCO

The knowledge and understanding of ocean features and processes remain critical aspects to achieving sustainable ocean planning and management. In this sense both hydrography and oceanography, as sister disciplines of ocean science, come to play a fundamental role.

Hydrography is the science of measuring and describing the physical features of water bodies, including their depth, temperature, and currents. Oceanography, on the other hand, is the science of studying the ocean, including its physical, chemical, geological, and biological properties and processes. Both disciplines are naturally intertwined, and often involve the common use of their respective tools, techniques, and methodologies.

From ensuring the safety and efficiency of shipping routes to monitoring the impacts of climate change, and providing for early warning systems, these fields are helping us better understand, protect, and sustainably manage the ocean and its vital resources for future generations.

One of the most significant challenges facing both hydrographers and oceanographers is the vastness of the ocean. Only a small percentage of it has been surveyed or studied in detail, requiring high-quality, reliable, and accessible ocean data. In recent years, advances in technology and the development of new tools and techniques have helped to expand our understanding of the ocean and its properties. It is our responsibility to use the knowledge and information that we generate to protect our ocean and secure its future, and for that we need to continue strengthening partnerships and networks, connecting people and organizations across sectors, disciplines and regions.

The International Hydrographic Review constitutes a platform to communicate the state of development in hydrography, an enabling mechanism to link practitioners, as well as a means to interact with other communities of practice through a cross-domain approach.

The present Jubilee edition of The International Hydrographic Review comes then at a very special time. The UN Decade of Ocean Science for Sustainable Development (2021–2030) is a global initiative coordinated by the Intergovernmental Oceanographic Commission of UNESCO that aims to advance the science of the ocean, accelerate sustainable development, and support the conservation of the ocean's resources. We have a unique opportunity to provide a transformative framework for science-based solutions to address the challenges facing our ocean. To achieve these goals, collaboration between scientists, policymakers, and other stakeholders, as well as the development of innovative technologies and approaches to ocean research and management, is crucial.

Thus, the partnership between hydrographers and oceanographers is particularly important for achieving the aspirations of the Ocean Decade. We have multiple examples and opportunities such as the development of marine spatial planning (MSP) frameworks through which, inter alia, the Ocean Decade supports with the aim to promote sustainable ocean development. These frameworks require accurate and up-to-date information on the ocean's physical characteristics, such as the location of seafloor habitats and resources, to be effective. On the other hand, the lack of detailed mapping of the ocean seafloor constitutes a significant limitation for understanding



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the ocean's geology, biogeography, and ecosystems, as well as for identifying and managing ocean resources and potential hazards and providing the necessary early warnings. Hydrography can provide this information, while oceanography can help to interpret and analyse the data.

One major example of such collaboration is framed under the recently endorsed Decade Programme: The Nippon Foundation – GEBCO Seabed 2030 programme under the umbrella of GEBCO, a joint programme of the IOC and IHO.

In summary, hydrography plays a critical role in supporting the aspirations of the Ocean Decade by providing essential data that supports sustainable development and conservation of the ocean's resources.

By drawing on our combined and wide range of skills, knowledge, and experience, we will be in a position to provide more creative and effective solutions, breakthroughs and innovations. Joint design, development, and delivery are essential to achieving our common goals, and together, these fields of ocean science can help to unlock the full potential of the ocean for the benefit of society. I am confident that we can make a real difference in ensuring that our oceans remain healthy, vibrant, and sustainable for generations to come.



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Chair of the Intergovernmental Oceanographic Commission of UNESCO (IOC)