

**Inauguration of the
EMODnet Secretariat Office
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Perspectives from the hydrographic community

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Mister Secretary General, representing the Flemish Government,
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Intergovernmental Oceanographic Commission of UNESCO,
Mister Executive Scientific Secretary of the European Marine Board,
Mister Director of the Flanders Marine Institute,
Ladies and Gentlemen,

It is a great pleasure for the Directing Committee of the International Hydrographic Organization, which I represent, to be associated with the inauguration of the EMODnet Secretariat Office here in Oostende in the premises of the Flanders Marine Institute.

This gives the IHO the opportunity to express publicly, on behalf of its 82 Member States, its full support of the EMODnet initiative and acknowledge the combined efforts of all the partners who have been contributing to its implementation.

We are well aware of the importance and value of marine observations.

The collection of bathymetric and associated data in a systematic manner, the compilation and rendering of the information through standardized products and services have been the core activities of national hydrographic services since the 18th century. It led to the establishment of what is now the International Hydrographic Organization in 1921. The initial focus was very much on ensuring the safe navigation of ships, namely prevent groundings on unknown shoals or other dangers, and the main if not only output was the nautical chart printed on paper. Note that if the nautical chart was meant first and foremost for the mariner, it has been a multi-theme product from the origin, prefiguring in a simplified manner the cross-disciplinary logic of EMODnet.

Mariners are progressively shifting from paper to electronic charts but the initial aim of the IHO and more generally of the hydrographic community is still very much relevant today: ensure that all the world's oceans, seas and navigable waters are surveyed and charted adequately. The subtleness is in the word "adequately". What is considered adequate to-day is much, much more demanding than what was considered adequate a century ago. The requirements have exploded together with the scope of marine activities.

Safe navigation is still a priority but it is no longer the only concern of Hydrographic Offices and it is probably no longer the most demanding, in spite of the fact that ships are getting bigger and bigger. The wide range of requirements facing Hydrographic Offices is clearly affirmed by the theme of this year World Hydrography Day which invites the hydrographic community to celebrate “Hydrography - much more than nautical charts”. Hydrography provides the foundation layer for any human activity on, in or under the sea. It is the foundation layer which supports any decision-making related to the marine environment, such as maritime spatial planning or the implementation of the marine strategy framework directive. How could one decide to implement marine renewable energy systems anywhere without that layer, without taking into consideration the bathymetry, the concurring activities, the current regulations? How could one assess the impact of the project on the environment, the risks associated with the tidal streams and currents, with objects buried in the sediments, etc.?

The ancient philosophers urged each human being to “know thyself” in order to master its destiny. From the hydrographer’s perspective, “know the Ocean” is equally essential for the collective well-being and future of mankind.

In that respect, the hydrographic community very much welcomes the adoption by the European Commission of Marine Knowledge two thousand and twenty, a forward-looking strategy. The IHO sees the continuing development of EMODnet as an essential component of that strategy.

A number of Hydrographic Offices of IHO Member States in Europe have contributed directly or indirectly to the initial development of EMODnet, notably to the EMODnet bathymetry sub-portal. However one could argue that the contribution of the hydrographic community has not been as intense as it could or should have been. This is partly due to the resource constraints which affect most if not all HOs, together with the perception that the first phase, the development of the EMODnet portals and the aggregation of existing datasets, was seen as of limited relevance by HOs. I believe that it illustrates also the inherent difficulty for governmental or public services to respond to call for tenders, which is the preferred project mechanism of the European Commission. The IHO expects that the Memorandum of Understanding on establishing a cooperation on maritime affairs between the European Commission and the IHO, signed in April two thousand and twelve, will encourage and facilitate the participation of all European HOs to the long term support of EMODnet.

This is all the more appropriate as the inauguration of the EMODnet Secretariat Office, which brings us together this evening, constitutes a significant milestone: the EMODnet structure is now established and is meant to operate in a long term perspective. This requires sustainable, reliable and operational solutions and the IHO believes that its regional structures and its corpus of guidelines and standards offer the most adequate framework to maintain and improve the bathymetry theme in EMODnet, in close coordination with the other “physical” themes such as geology and physics.

The regional dimension of the IHO, the Regional Hydrographic Commissions, is based on a sea-basin approach which allows optimizing coordination arrangements, taking into account the specific circumstances of each basin, while sharing the best practices. The best scheme for the Baltic Sea is not necessarily the best one for the Mediterranean Sea, to name but two examples.

The regional approach is also recognized as the best way to improve the global bathymetric coverage developed by the GEBCO project, the General Bathymetric Chart of the Ocean, supervised jointly by the IHO and the Intergovernmental Oceanographic Commission.

The regional approach allows mobilizing the best experts and facilitates the identification and collection of existing data sources. The IHO welcomes the liaison established between GEBCO and EMODnet on the occasion of the last GEBCO Science Day, which took place in Venice, Italy, last October.

As far as standards are concerned, the IHO is a strong advocate of open international standards. We do our best to involve all stakeholders in the scoping, development, maintenance and implementation of standards. This is done through participation of non IHO stakeholders in the relevant committees and working groups and through direct liaison with other standardization organizations, such as ISO and the Open Geospatial Consortium (OGC), with sister specialized organizations, such as the International Association of Marine Aids to Navigation and Lighthouse Authorities, the International Maritime Organization, IOC, or the World Meteorological Organization, and professional organizations such as the Comité international radio-maritime, the Fédération Internationale des Géomètres, the International Cartographic Association.

The on-going development of the S-100 standard, the IHO Universal Hydrographic Data Model, is guided by the objective to encompass a range of requirements and applications as wide as possible and to facilitate adoption and customization by non-IHO stakeholders. This will maximize the use of hydrographic data and ensure full interoperability with other themes in a variety of applications, such as e-navigation or the so-called spatial data infrastructures. It is worth mentioning that S-100 is aligned on current ISO geospatial standards and INSPIRE-compatible.

With the take up of integrated land-sea spatial data infrastructures, developed at the national, regional or international levels, the IHO sees real opportunities to promote and enhance EMODnet beyond the maritime community, as the maritime component of a European spatial data infrastructure. Such a European spatial data infrastructure offers a direct link to promoting land-sea seamless coverage in important worldwide initiatives such as GEO, the development of the Global Earth Observation System of Systems, and GGIM, the United Nations initiative on Global Geospatial Information Management. With more than 70% of the Earth surface covered by salt water, the maritime dimension of those initiatives should be more prominent.

This is not simply a matter of principle or of pride. While modern information and communication technologies allow, as the EMODNET portal illustrates well, to put “big data” just one click away from the users, we should not forget that our knowledge of the oceans and of the ocean floor is still very much fragmentary. Less than 10% of the world’s coastal seas and oceans have been surveyed and charted to the same or better resolution than maps of the Moon and Mars. Even though the situation is not so dramatic in the maritime zone of continental Europe, improving the mapping of European seas and coastal waters should be higher on the list of priorities to meet the requirements of integrated coastal zone management, marine spatial planning and reliable marine disaster prevention and alert systems. This is probably the area which can benefit most of a closer cooperation between the hydrographic community and EMODnet.

Thank you for your attention.