

Strategic Context (from IHO perspective)

(still under review by the SPRWG)

A.0. Hydrographic offices (HO) are facing strong challenges. Though not really new, they are developing rapidly. Some challenges impact the mission of the IHO, and shape the context to be taken into account by the Organization for building its strategy and fulfil its objectives.

Customers

A.1. The HOs' customer base and their requirements are changing rapidly, either through the evolution of the requirements of navigation, or through the extension of other needs for marine data. These trends enlarge the global need for marine data, though less focused on the HOs as central entities for providing marine information to seafarers.

A.2. For navigation, safety challenges are marked by the development of harbours in many countries, and of new routes of navigation. Moreover, the core role of shipping in globalization puts pressure on its efficiency, which through digitisation and automation generates needs for new, reliable services supporting the safety and efficiency of navigation. More generally, all categories of navigators, from merchant mariners to leisure boaters, are eager to access the new services enabled by digital technology. In the same time, complexity of technologies available to mariners raises new concern regarding their appropriation.

A.3. An increasing need for marine data is strived by the development of a sustainable Blue economy, the concern for the protection of the marine environment, and the prevention or mitigation of consequences of marine disasters or climate change. A wide range of related data is now crucial in supporting important decisions. These data, and associated skills, are very similar to those used for supporting navigation.

Technology

A.4. In a digital world these changes raise new questions regarding the relationship between data, information, specific products, and the kind of interoperability needed for HO to be efficient in their tasks and to satisfy their customers.

A.5. The pace of technological changes, from sensors to digital services, is increasing, bolstering the need for continuous adaptation of training and standards, thus requiring strong effort from HO in investment and training.

Legal and policy framework

A.6. Albeit more marine data is necessary and growing awareness and commitment of governments to ensure its collection, assets or resources they devote to collection of hydrographic data are limited, and often insufficient.

A.7. Technological democratization of hydrography, started decades ago with the GNSS, is continuing, giving opportunities to many actors to collect valuable data. In the same time, digitalization of services make easier for new actors to rely on standards all along the hydrographic "value chain" to reach customers at different level of this value chain, including the end users. This is likely to change the relationship between HOs, private sectors in many aspects (crowd-sourcing, liability etc.).

A.8. More generally, the crucial role of data and information in our societies entails important consequences on public policy (e.g. open data), the need for assurance and cybersecurity of their dissemination, and on the involvement of the private sector (e.g. OGC), which are likely to have an impact on how investments in hydrography are sustained, and how standards are developed.