

Hidrografico + A contribution to the knowledge of the ocean

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Introduction

The Hydrographic Institute (IH) is a public body that, since the 1980s, has managed in cooperation with regional entities, and in the context of monitoring the marine environment, a network of permanent observations that includes tide gauges, buoys, coastal weather stations to support oceanographic activities and more recently, high frequency radars.

Complementing the operational oceanography component (monitoring, data management and forecasting), IH has participated in several scientific research projects that have enabled the contribution to the knowledge of the environment.

In order to improve data management, IH started to develop a new Infrastructure for Marine Spatial Data through the Hidrografico + project, funded by the SAMA2020 program (POCI-02-0550-FEDER-035422).

This article presents the construction process of the Marine Spatial Data Infrastructure, Hidrografico +, which represents an important tool for the next decade of knowledge of the oceans.

Methods

The overall goal of Hidrografico+ project is to build an integrated Marine Spatial Data Infrastructure (MSDI). Software development team combine multiple commercial and open source applications (e.g. Oracle, PostgreSQL + Postgis, ArcGIS Server, GeoServer, ncWMS Server and Geonetwork) to connect multiple data users to IH geospatial data through a controlled, centralized and integrated environment. The MSDI has a central geoportal where users can search, visualized and access the geospatial datasets. Humans and machines users could access directly to data services by linking their applications to the OGC webservice endpoints. IH wants to provide a good level of service to their MSDI users. The level of service is continuously monitor by a built in analytics and

metrics system. The MSDI are now online with several data layers accessible and several capabilities still under development.

Results

The Hidrográfico + MSDI started the software development phase in 12 of December 2019. Since first of August 2020 the MSDI portal is online accessible at URL - <https://geomar.hidrografico.pt>. The platform currently serves free data, for visualization and download, in compliance with good practices and European Directives, allowing the user innovative products and services.

Conclusion

With this new portal, IH is actively committed to contributing to the Decade of the Oceans, meeting the end-users needs and providing the stakeholders with new products and several services.