Managing oceanographic data for the Marine Strategy Framework Directive in Spain supported by the Spatial Data Infrastructure of the Spanish Institute of Oceanography (IEO) and the INSPIRE Directive

Gerardo Bruque and Olvido Tello
Spanish Institute of Oceanography (IEO), Marine Environment Area, Madrid, Spain

In Europe, the Marine Strategy Framework Directive (MSFD) seeks to achieve a good environmental status of European marine waters and protect the resource base on which economic and social activities related to the sea depend. With this legislative tool the European Parliament recognizes the vital importance of the management of human activities that have an impact on the marine environment, integrating the concepts of environmental protection and sustainable use.

MSFD establishes a monitoring program of different descriptors for continuous evaluation and periodic updating of the objectives. In Spain, the Ministry of Ecological Transition (MITECO) is responsible and coordinator of carrying out the MSFD, but it is the Spanish Institute of Oceanography (IEO) that performs the research and study of the different indicators and therefore the tasks of collecting oceanographic data.

The Geographic Information Systems Unit of the IEO is responsible for storing, debugging and standardizing this data by including them in the IEO Spatial Data Infrastructure (IDEO). IDEO has useful and advanced tools to discover and manage the oceanographic, spatial or non-spatial data that the IEO manages. To facilitate access to IDEO, the IEO Geoportal was developed, which essentially contains a catalog of metadata and access to different IEO web services and data viewers.

Some examples of priority dataset for the MSFD are: Species and Habitat distribution, commercially-exploited fish and shellfish species distribution, Nutrients, Chlorophyll a, dissolved oxygen, spatial extent of loss of seabed, Contaminants, litter, noise, etc.

The correct preparation and harmonization of the mentioned data sets following the Implementing Rules adopted by the INSPIRE Directive is essential to ensure that the different Spatial Data Infrastructures (SDI) of the member states are compatible and interoperable in the community context.

The INSPIRE Directive was born with the purpose of making relevant, concerted and quality geographic information available in a way that allows the formulation, implementation, monitoring and evaluation of the impact or territorial dimension policies of the European Union.

The geographic data sets, together with their corresponding metadata, constitute the cartographic base on which the information collected for the update of the continuous evaluation of the
different descriptors of the MSFD is structured. Thus, although these datasets are intended for use by public institutions responsible for decision-making on the management of the marine environment, they can also be very useful for a wide range of stakeholders and reused for multiple purposes.

With all this in mind, the INSPIRE Directive is extremely interesting and essential for the tasks required for the MSFD. As with work on our projects related to the Marine Space Planning Directive (MSP).