The integrated information system to support the implementation of the Greek Marine Strategy Framework Directive

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An integrated information system was designed to support the input and quality control of the Marine Strategy Framework Directive (MSFD) data, the analysis and indicators estimation and provide network services (WFS, WMS, CSW, etc) to the end users (managers, researchers, technical scientific groups, etc). Data and metadata should be made available through network services supporting the search, display, transformation, and capture of alphanumeric or geospatial data sets. The datasets to be made available within the proposed system should be compatible with the INSPIRE interoperability rules. The architecture of the system is structured on four levels:

1) data ingestion services including the collection and storage of primary data that will be homogenized, normalized and complied according to the INSPIRE Directive. Use will be made of the EMODnet data ingestion services to allow data collectors to upload their data, document them properly and integrate them at the relevant national and European marine data repositories and infrastructures.
2) database management system to support the organization and management of the data collected and processed at the first level,
3) middleware services where the INSPIRE network services are implemented, namely view services, discovery services, transformation services, download services and invoke spatial data services,
4) internet applications to access the network services and the data analysis. Open source technologies are adopted ensuring the scalability of the system without additional cost.

The system will make use of the data services from European infrastructures (such as EMODnet, SeaDataNet, Data Collection Regulation, Data Collection Framework, etc) to integrate additional data sources where it is appropriate and support more efficiently the reporting needs.