More and better access to high quality information on species is essential to increase our knowledge on biodiversity and to address the global crisis it faces. Computer technologies now provide a workable platform to properly manage this information and standard data schemes and exchange protocols make online systems interoperable. Consequently, a lot of previously scattered information can now be integrated, analyzed and made publicly available. The Flanders Marine Institute has a professional, government funded data centre which takes a lead in marine biodiversity data management on a local and international level. It is host of over 100 websites of projects and organizations and has developed a full suite of inter-linked data systems to archive, document, integrate and disseminate information over the internet.

Because species are the most practical and widely applicable measure of biodiversity, and species names are at the foundation of quality control in biological studies, VLIZ has developed a taxonomic database that is now the single most complete inventory of all marine life (the World Register of Marine Species, WoRMS). WoRMS is the taxonomic backbone and serves as a standard reference for many institutions and projects. VLIZ also hosts the portal of EU-nomen, which is an initiative towards taxonomic standardization in Europe.

The species composition in a particular habitat or area is the most important aspect of biodiversity as it provides a measure of the stability and environmental health of the ecosystem. To manage species occurrences, VLIZ built the European node of the Ocean Biogeographic Information System (EurOBIS) and coordinates the biological lot of the European Marine Observation and Data Network (EMODNET). This inter-operable network of systems of European marine observations provides the best measure of marine biodiversity in Europe.

Geographic Information Systems (GIS) have become indispensable tools in managing and displaying marine biodiversity data. VLIZ developed a standardized register of place names, the VLIZ Marine Gazetteer (VLIMAR). This gazetteer includes a hierarchical dictionary of place names and areas at sea (e.g. islands, sandbanks, bays, sea-mount chains ...) and provides shape files of these areas. VLIMAR is the first international, internet-accessible gazetteer for the marine environment. In parallel with this geographic system, VLIZ plans to build a glossary and standard marine habitat classification system. To document and archive all these data and information, VLIZ has built the Integrated Marine Information System (IMIS) and Marine Data Archive (MDA). IMIS is a relational database that integrates information on people, institutions, projects, websites, conferences, datasets, infrastructure, maps and literature.

The expertise in biodiversity data management, the networking and communication skills and the long-term support VLIZ can provide, makes their systems authoritative and world-class standard references respected by many national and international organizations. These marine species information systems significantly improve and maximize the use of biodiversity data and information for science, the public at large and for generations to come.