



## **Geo-Seas – building a unified e-infrastructure for marine geoscientific data management in Europe**

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A significant barrier to marine geoscientific research in Europe is the lack of standardised marine geological and geophysical data and data products which could potentially facilitate multidisciplinary marine research extending across national and international boundaries. Although there are large volumes of geological and geophysical data available for the marine environment it is currently very difficult to use these datasets in an integrated way due to different nomenclatures, formats, scales and coordinate systems being used within different organisations as well as between countries. This makes the direct use of primary data very difficult and also hampers use of the data to produce integrated multidisciplinary data products and services.

The Geo-Seas project, an EU Framework 7 funded initiative, is developing a unified e-infrastructure to facilitate the sharing of marine geoscientific data within Europe. This e-infrastructure is providing on-line access to both discovery metadata and the associated federated data sets from 26 European data centres via a dedicated portal. The implementation of the Geo-Seas portal is allowing a range of end users to locate, assess and access standardised geoscientific data from multiple sources which is interoperable with other marine data types.

Geo-Seas is building on the work already done by the existing SeaDataNet project which currently provides a data management e-infrastructure for oceanographic data which allows users to locate and access federated oceanographic data sets. By adopting and adapting the SeaDataNet methodologies and technologies the Geo-Seas project has not only avoid unnecessary duplication of effort by reusing existing and proven technologies but also contributed to the development of a multidisciplinary approach to ocean science across Europe through the creation of a joint infrastructure for both marine geoscientific and oceanographic data.

This approach is also leading to the development of collaborative links with other European projects including EMODNET, Eurofleets, Genesi-DEC and iMarine as well as extending to the wider marine geoscientific and oceanographic community including projects in the USA such as the Rolling Deck Repository (R2R) initiative and also organisations in both the USA and Australia.

On behalf of the Geo-Seas consortium partners:

NERC-BGS (United Kingdom), NERC-BODC (United Kingdom), NERC-NOCS (United Kingdom), MARIS (Netherlands), IFREMER (France), BRGM (France), TNO (Netherlands), BSH (Germany), IGME (Spain), LNEG (Portugal), GSI (Ireland), BGR (Germany), OGS (Italy), GEUS (Denmark), NGU (Norway), PGI (Poland), EGK (Estonia), NRC-IGG (Lithuania), IO-BAS (Bulgaria), NOA (Greece), CIRIA (United Kingdom), MUMM (Belgium), UB (Spain), UCC (Ireland), EU-Consult (Netherlands), CNRS (France), SHOM (France), CEFAS (United Kingdom), and LU (Latvia).