

The Marine Environmental Data and Information Network (MEDIN)

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Introduction

The Marine Environmental Data and Information Network (MEDIN) was established in April 2008, through the merging of the Marine Data and Information Partnership (MDIP) and the Marine Environmental Data Action Group (MEDAG). Both these bodies operated under the auspices of the Inter Agency Committee on Marine Science and Technology (IACMST), as has MEDIN.

The objective of MEDIN is to improve access to and management of UK marine environmental data and information. It aims to achieve this primarily through the development of a coordinated framework for managing marine data and information, meeting the following key objectives:

- A single point of access to all relevant marine data and information.
- A robust network of definitive integrated Data Archiving Centres (DACs).
- The provision through the DAC network of priority data sets to underpin UK and EU legislative and obligatory requirements, for monitoring and marine planning, in line with INSPIRE principles.
- Facilitation of full data flow to the DAC network for all government sponsored contracts in the marine and coastal zone environment.
- Coordinate input to the development of international data commitments and drivers that may influence marine data management in the UK.
- Improving mechanisms to facilitate international data exchange (including contributing to global data bases).
- Develop and maintain new/existing MEDIN resources that support improved access to marine data (data catalogues and inventories, data products, services, guidelines and tools).

Key Drivers

MEDIN recognises that the funding support from the major government sponsors is based upon the expectation that MEDIN will provide improved access to and management of data sets required to meet key drivers, which include:

- The UK Marine Monitoring and Assessment Strategy, which in turn addresses the reporting for more than 40 national and international obligations including OSPAR, Water Framework Directive and other marine environmental directives, Conventions on Biodiversity.
- Preparation for the UK National Assessment of the Marine Environment. The next assessment, Charting Progress 2, is to be completed in 2010 (data compilation is already underway). MEDIN is already working closely with the CP2 implementation team to identify priorities.

- Supporting the functions of the National Marine Management Organisations (and other equivalent devolved bodies). The England MMO is due to become fully operational in 2010. It is anticipated that the equivalent devolved bodies will run to a similar timescale
- Preparation for preparing the first Characterisation Report under the Marine Strategy Directive, due in 2012.
- Support for implementation of the INSPIRE Directive.

MEDIN Approach

The Marine Environmental Data and Information Network (MEDIN) was established to improve access to and stewardship of UK marine data and information. Specifically, MEDIN aims to deliver:

- Secure long-term management of priority marine data sets, according to best practice standards.
- Improved access to authoritative marine data held in this network, through a central (discovery) metadata search capability.
- An agreed set of common standards for metadata, data format and content maintained and supported through implementation by partners.
- Guidelines, contractual clauses and software tools to support these standards and best practice data acquisition and management.

It aims to achieve this through the following strands of activity:

Network of Marine Data Archive Centres

MEDIN will establish a comprehensive network of marine data archive centres to provide secure long-term storage for marine data. The network will provide the capability to upload data into and to retrieve data from the DACs. Data contributors should have free access to their data managed within the DAC framework.

Standards for Data and Metadata

A full range of standards is required to allow users to locate and assess the marine data sets they need, to provide guidelines for the generation and preparation of data according to recognised standards and best practice, and to help partners meet their obligations under the INSPIRE directive. MEDIN will establish, promote, document and provide guidance for data and metadata standards.

Web Portal, Products and Services

MEDIN plans to establish a single, definitive, point of search for marine data through which a user is confident they are searching the majority of those sources which are readily accessible and can readily access the actual sources (either through onwards links or a relevant contact and process).

International awareness, coordination & delivery to global databases

It is essential that developments in the management of marine data within any individual country are coordinated with, and consistent with, wider scale developments. MEDIN will coordinate the input to the development of international data commitments and drivers that may influence marine data management in the UK.

Resource and Application Development

The success of MEDIN will be judged on the availability of resources in the form of data products or services that meet individual users' needs. Through workshops and

“use cases” MEDIN will evaluate how well the developing framework meets key requirements, and will identify key additional resources required by the community. MEDIN will continue to take responsibility to maintain a number of existing marine information resources, primarily in the form of thematic data catalogues.

MEDIN Partner Commitments

Of equal importance to the provision and maintenance of central resources is the commitment of the UK marine community to support the aims of MEDIN by adopting an agreed set of best practice marine data management criteria. Thus it is proposed that all MEDIN partners sign up to the following set of commitments:

- Apply and document recognised quality control procedures.
- All relevant marine data of long-term interest will be lodged with DACs recognised by MEDIN (subject to data owner terms and conditions). In return, DACs should undertake to ensure data are always freely available to supplier.
- Generate metadata records for all marine data in an agreed format and make these metadata freely available to MEDIN.
- Establish in clear terms policy with regard to data ownership, licencing and access as they adhere to individual data sets.
- Conformance with various data policies as they relate to individual data sets

Summary

The Marine Environmental Data and Information Network (MEDIN) is a collaborative and open partnership, open to all with an interest in improving our management of marine data and information, and developing better access to the UK’s marine data resources. Sponsors include government departments, research councils, environmental and conservation agencies, trading funds and commercial organisations.

The UK marine community will derive real practical benefits from MEDIN, through:

- An improved evidence base for decision making and marine planning built on best available data.
- Efficiency gains in sourcing and ingesting data to meet project aims. Evidence shows that completing these activities presently takes between 10 and 75% of project costs.
- Improved access to data thereby supporting its re-use and maximising past investment in data.
- Coordination of marine survey and research activities, resulting in efficient use of expensive marine facilities.
- Consistent and clearer terms and conditions for data use, resulting in lower uncertainty, sustainability and more accurate project cost estimates.