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**IODE NATIONAL REPORT ON OCEANOGRAPHIC
DATA MANAGEMENT AND EXCHANGE
FOR IRELAND**

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3. **Data Center Address:**
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4. **Data Center URL:**
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5. **IODE Data Center Designation Date:**
6. **Description of national data flow:**

How does data flow operate in your country (if possible illustrate by means of one or more diagrams)? This should cover:

1. **Metadata management:**
 - At the discovery level (e.g. do you contribute to IOC/IODE MEDI, GCMD, EDMED, another system, none?)
The Marine Institute collates metadata for all programmes/projects we are involved with. This includes research programmes carried out in third level institutions and EU funded projects. This metadata is available via www.marinedataonline.ie and copies are sent to EDMED periodically. To date this has been a manual exercise but work is ongoing to exchange metadata via XML which should be more efficient and can be carried out more frequently.
 - At the Cruise level (e.g. do you contribute to IOC/IODE Cruise Summary Reports (ROSCOPs), other in-house system, none)
We currently submit CSRs to the Online Cruise Report system on an ad hoc basis. This is a difficult activity as currently there is no onus on Chief Scientists using Irish Research Vessels to submit reports to the organization or to make the information more widely available.
 - For monitoring/operational systems (e.g. EDIOS, regional GOOS systems, etc)
Periodically we submit information to EDIOS via the Sea Search project.
2. **Data tracking:**
 - What systems are in place to track data through from collecting organisations to through to data dissemination?
The Marine Institute is currently developing a centralized repository for management of diverse marine data holdings within a single environment. As part of

this, administration tools will be developed to track the history of data from initial receipt, quality assurance and final deposit for further dissemination. Links are maintained between the data and the associated metadata recorded in the online catalogue (www.marinedataonline.ie). A Data Policy has also been adopted by the Institute to govern the usage and licensing of data by external bodies. Its implementation is centered on use of an Online Data Request page so that all requests for data can be tracked and license agreements put in place where appropriate (<http://www.marine.ie/online+services/data+services/index.htm>.)

7. What is the structure of marine data management in your country:

1. How many organisations are involved?

A variety of organizations are involved including:

- Marine Institute (MI)
- Department of Communications, Marine and Natural Resources (DCMNR)
- Bord Iascaigh Mhara (BIM)
- Environmental Protection Agency (EPA)
- Geological Survey of Ireland (GSI)
- National Parks and Wildlife Service (NPWS)

A number of third level universities and technical institutes are also involved in a variety of research programmes.

2. Who does what?

- MI – carries out variety of monitoring and research programmes including operation of national weather buoy network, management of two national research vessels, nutrient monitoring, biotoxin monitoring, contaminants monitoring, fisheries stock assessment, sea lice monitoring and salmon tagging. Data is submitted to central government, ICES, EU, OSPAR/HELCOM and NASCO to name a few.
- DCMNR – central government department. Generally responsible for regulatory enforcement e.g. fish landings data, aquaculture licenses, wind farm licenses. Much of the monitoring work carried out by the MI is on behalf of DCMNR. Data is submitted to the EU.
- BIM collects data relating to commercial fisheries and aquaculture, generally in the inshore area. This includes economic data relating to marine activities. Data is exchanged with central government, ICES, EU and other assessment bodies.
- EPA – has responsibility for implementation of the Water Framework Directive, including assessment of transitional waters.
- GSI – joint partners with the Marine Institute in the Irish National Seabed Survey programme. They are custodians of all marine data collected as part of that programme.
- NPWS is responsible for the development of management plans for Marine Special Areas of Conservation (SACs), required under the EU Habitats Directive.
- Third level sector – a number of universities and technical institutes are involved in variety of marine science research programmes. Some of this work is concerned with collation of oceanographic data, often on board the national research vessels.

3. What data goes where?

Answered above.

4. Are there data for which there is no home?

Much data remains where it was originally collected and is never disseminated further unless there is a regulatory requirement to do so or informal arrangements exist between the organisations/individuals.

5. What gets passed on to other organisations?

Data which has been funded by another organisation or is required for regulatory/ statutory compliance.

6. What regional links and data centres are there?

Data is managed by the organizations listed in 1. In many cases informal links exist between the organisations and data exchange mechanisms are agreed at a local level.

8. **What are the strengths and problems of the present arrangements nationally, regionally and internationally?:**

Marine data management is currently very distributed, and consequently it can be difficult to find out what data is held where. This is being addressed through the development of an Online Catalogue by the Marine Institute (www.marinedataonline.ie) but greater participation amongst organisations within the marine sector is required for this approach to be successful.

The local nature of data exchange arrangements also results in multiple copies of datasets residing in a variety of organisations, without knowledge of the originating organisation, how up-to-date they are or what, if any, problems exist with data quality.

9. **What improvements could be made nationally, regionally and internationally?:**

Greater generation and publication of metadata is one area for improvement. Development of direct access mechanisms is another so that data exchange between organisations is facilitated and more efficiently operated. In general it is the political will to drive these developments that proves the greater stumbling blocks to progress rather than technical issues, but awareness of the benefits, (“joined-up-government”) are improving the climate for instigating such proposals.

10. **What future national activities are planned?:**

The development of an Irish Spatial Data Infrastructure is currently at the initial scoping stages. Within this context there are plans for responsibility of making data available to be given to relevant organisations. This should enhance the availability of some core datasets.

The Marine Institute is also leading a proposal for development of web services between a number of organizations operating within the marine sector, with the aim of improving general access to information and data held by the individual authorities.

The MI is also leading the in-house development of a centralized repository to house the variety of marine data holdings collected by the organisation. This will facilitate improvements in the dissemination of data in the future.

11. **What national, regional or international projects is your NODC involved in (both IODE and non-IODE) . Examples: Argo, GTSPP, EDMED, EDIOS, Sea-Search, GODAR,...**

The Marine Institute is involved in EDMED, EDIOS, SEA-SEARCH, NOOS, and GOOS.