

# The UK Marine Data and Information Partnership



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**<http://www.oceannet.org/mdip>**

# MDIP Organisation

- **MDIP is a cooperative partnership**
- **Partners come from all parts of the marine sector**
  - Government Departments
  - Environmental Agencies
  - Research Organisations
  - Conservation Agencies
  - Private Companies
  - Defence
- **Each partner has signed up to a common vision**
  - To work together to improve access to and management of marine data and information – for the public benefit
- **Three Working Groups**
  - Data Archive Centres WG
  - Interoperability WG
  - Mapping and Applications WG

# What will MDIP achieve?

## A Framework for UK Marine Data and Information

- A system of interconnected, intercommunicating national marine Data Archive Centres (DACs)
  - Operating to best practice.
  - Serving marine environmental data and information in common formats to support easy access and use including the generation of higher level products.
- Resources to support coastal and offshore GIS applications.
  - Coherence to international standards
  - Building on, and developing from, existing resources - not duplicating or replacing.
- Supporting INSPIRE principles and implementation.



Evaluate through Use Cases, identify priority common resources: Q1, Q2 2007

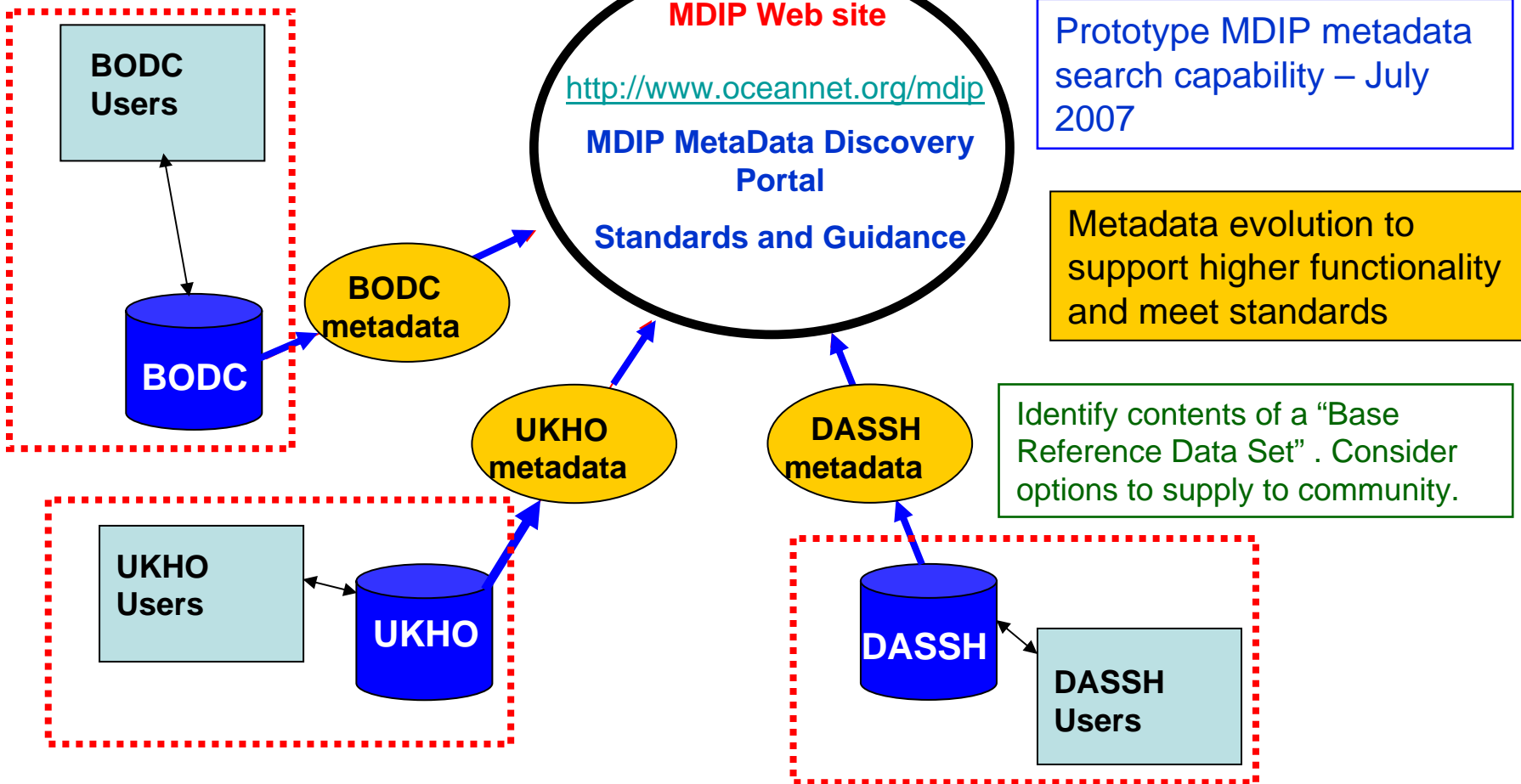
Use Cases to test framework

1<sup>st</sup> round MDIP Data Archives established June 2006

Prototype MDIP metadata search capability – July 2007

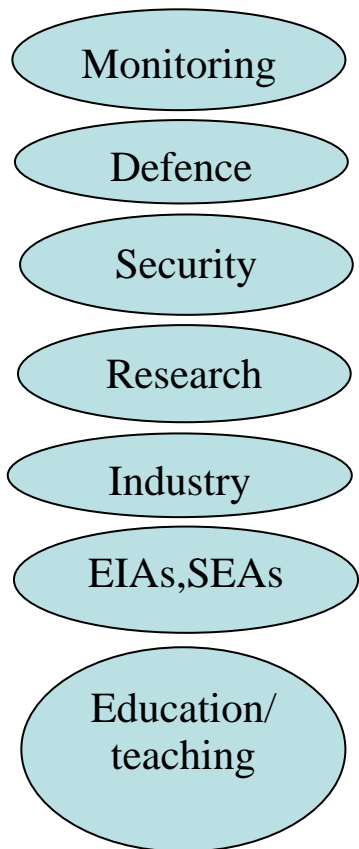
Metadata evolution to support higher functionality and meet standards

Identify contents of a “Base Reference Data Set” . Consider options to supply to community.

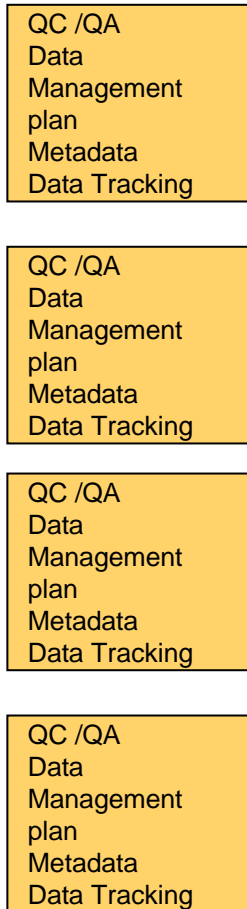


# Current UK marine data system

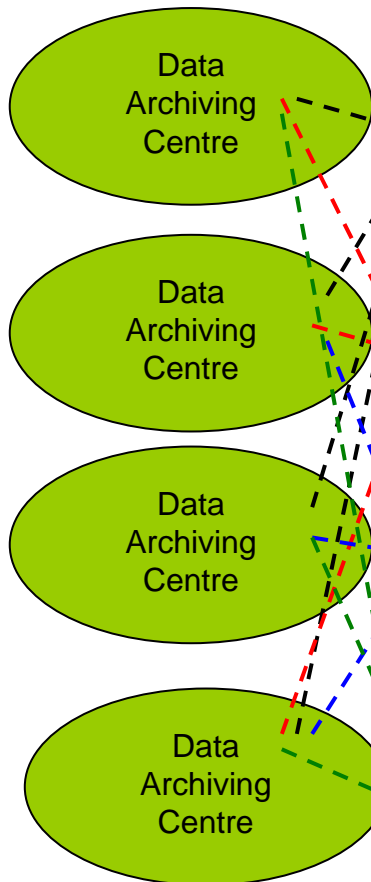
## A: Data Collection



## B: Quality Control



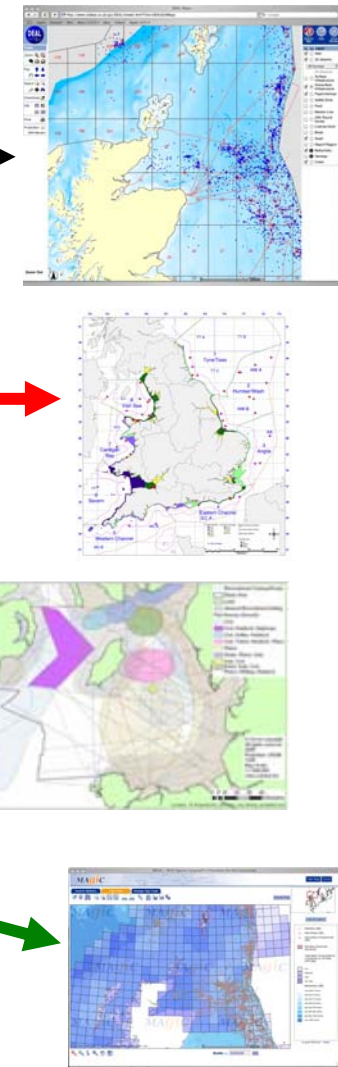
## C: Data Storage



## D: Dissemination / Access



## E: Users



A: Data Collection

B: Quality Control

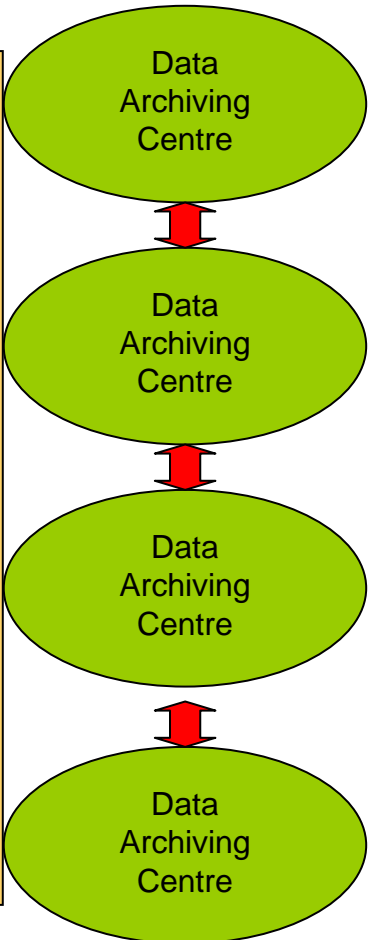
C: Data Storage

D: Dissemination / Access

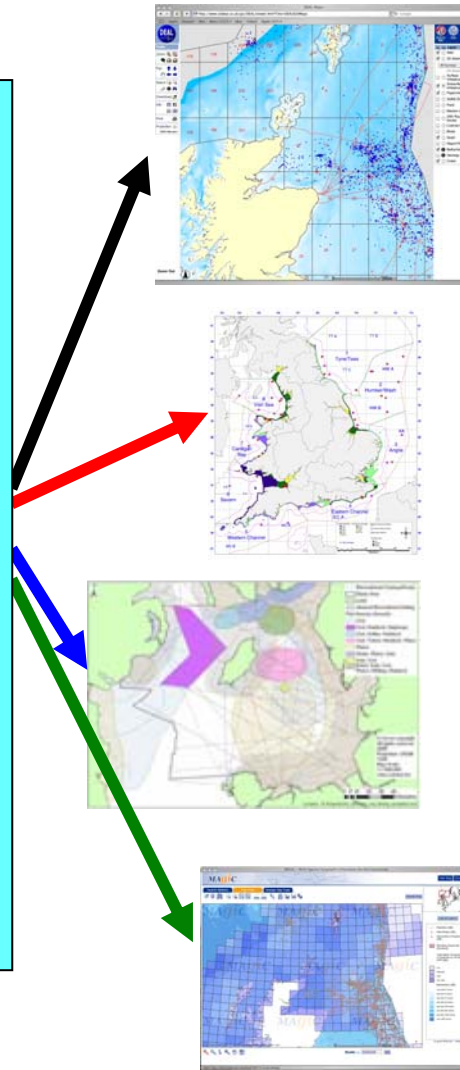
E: Users

- Monitoring
- Defence
- Security
- Research
- Industry
- EIAs,SEAs
- Education/teaching

QC tests, checks  
 Compilation of data quality reports  
 Data Management plan  
 Metadata compilation  
 Data Tracking System



Common format metadata descriptions  
 Discovery data service  
*Downloads of key reference data*  
*Information on data access, copyright and cost*



A National MDIP Framework making it easier to source, access and process MDI, serving key applications.

## MDIP Working Groups

- ***Data Archive Centres (DACs) Working Group***  
*Chairs: Lesley Rickards (MEDAG), Jon Parr (MBA – DASSH)*
  - Basis for long term management of important marine data sets
    - Include ability to upload data from data collectors
  - Requirements for DACs, Standards and best practice within DACs...
  - Establish Pilot MDIP DAC Framework
  - “Round 1” DACs: BODC, DASSH, UKHO, BGS
  - “Round 2” DACs: BADC/Met Office, Fisheries Data
  - Next priorities? Heritage Data Sets?

# Common format Data “Clause” for contracts

***Purpose: To ensure key data “issues” are defined from the outset – before collection starts.***

## **MARINE DATA ACQUISITION**

- 1 Appropriate **standards** shall be agreed with the contractor, applied to process of data collection, and recorded.
- 2 Metadata must be provided with each data set in accordance with ISO 19115 or other recognised standard as may be approved by MDIP.
- 3 Arrangements for the **long term archival** of data sets shall be agreed with the contractor, and documented. The costs associated with this requirement will be established, and the contracting and contracted parties will agree who has the responsibility to bear this cost.
- 4 Ownership and copyright of data shall be agreed with the contractor. (Government may choose to establish a standard set of IPR and copyright terms where it has jurisdiction).

# MDIP Working Groups

- ***Interoperability Standards Working Group***

Chairs: Keiran Millard (HR Wallingford), Steve Wilkinson (JNCC)

- Develop interoperability between DACs and required to support end-use applications.
  - Work with DACs to agree route map to agreed metadata standard (necessary to support data searching and improved data access)
- Pilot MDIP metadata discovery portal.
  - Metadata generated by round 1 MDIP DACs
- Will effectively provide support for INSPIRE implementation (meeting metadata requirements: content, format and public access)

To provide a simple, pilot, search function across initial MDIP DACs

To answer the questions:

- What holdings exist of these data types?
- Where are they held?
- For what location / time?
- What are the limitations on use?

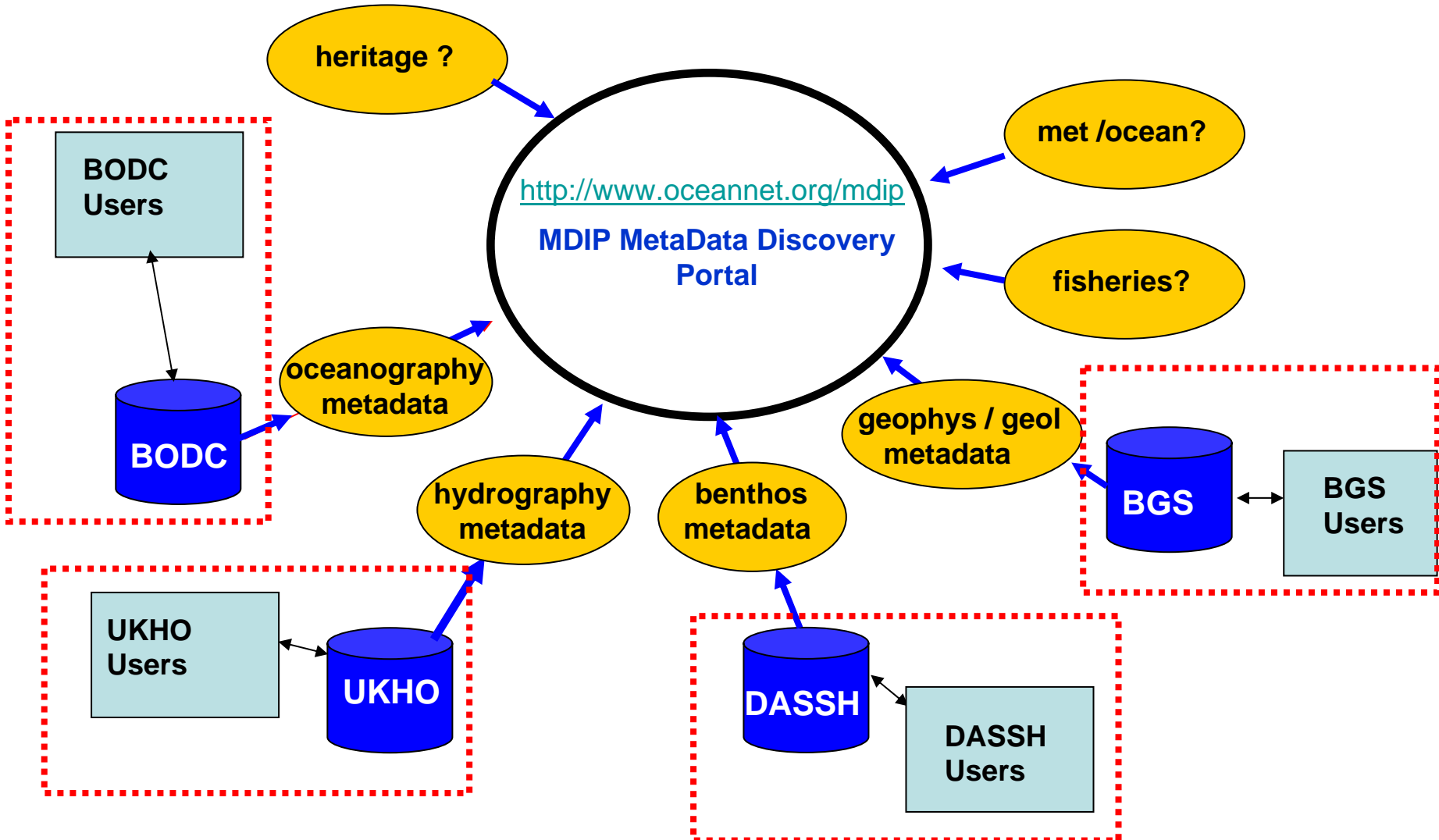
Discovery metadata records prepared by the 4 initial MDIP DACs and placed on Open Access Servers

- BODC - Water Column oceanography
- DASSH - Benthic species (flora and fauna) surveys
- UK HO – Hydrographic and bathymetric surveys
- BGS - Geological / Geophysical surveys

Metadata “harvested” by NERC Data Grid, and held on central repository, accessible through a Web Service Interface.

Portal software to support basic search function.

## Prototype MDIP metadata search portal



# MDIP Working Groups

- ***Mapping and Applications Working Group***

Chairs: Mike Osborne (Seazone), *Matt Harrison (BGS)*

- Through test Use Cases evaluate capability of MDIP DAC based model to meet users requirements.
- Recommend other priority common Marine Data and Information resources to support key applications
  - Base Reference Data Set (contents, access)
  - Additional GI layers of common interest. (Establish a catalogue?)

## A Need for Common Data Layers?

- The MDIP Mapping and Application WG has been looking at requirements for common marine data layers.
- These layers provide the context for more specific layers of information.
- Have established an initial list for a (marine) Base Reference Data set
  - Currently looking at sources for these data, and considering options for making them widely available
- Also looking at a second set of “additional” mapping layers
  - May already be available through existing web applications
  - Can we develop a system of interchangeable GI layers across websites.

## MDIP and MEDAG aims for this forum.

- How can we help to improve access to data BY Heritage Organisations?
  - Better information on specific data sets?
  - Access to specific data sets?
  - Curation for key data sets
- How can we help to improve access to data FROM Heritage Organisations
  - Support generation of and access to metadata
  - Guidance on data management
  - Guidance on data / metadata formats
- More Partners!
  - Please join us and play an active role in one or more of our working groups