



## MEDIN DAC Network Status Report: October 2012

### Introduction

MEDIN has established an operational network of linked marine data archive centres (DACs) to provide secure long-term storage for marine data. This network provides the capability to upload and retrieve data. Those organisations archiving data at a MEDIN DAC should have free access to their data, DACs will manage third party access to these data according to the data provider's specification.

The required capabilities of DACs within the MEDIN framework are:

- To ensure the secure, long term, curation of key marine data sets, according to best practice and to relevant national and international standards.
- To make available clear, searchable information on their data holdings, by the generation and publication of metadata on the MEDIN portal.
- To provide view and download services for data sets covered by INSPIRE
- To form the first point of call of expertise for the management of marine data.

In addition MEDIN will, **on request** from the data provider, publish metadata records to data.gov.uk and hence INSPIRE

As a condition of its accreditation, each MEDIN Data Archive Centre is required to provide a short annual report so that Sponsors can assess how well the DAC framework is operating.

The MEDIN Sponsors' Board has emphasised the following requirements:

- Provide a statement on funding and sustainability
- Include Key Performance Indicators, specifically measures of use (numbers of enquiries, numbers of downloads)
- Further information on dissemination – how is access to data currently served up and how do the DACs see their interaction with the portal.

This short document provides a report on the current status of DACS in terms of data sets held and recently uploaded, requests from users for data, and financial outlook

## DAC listing

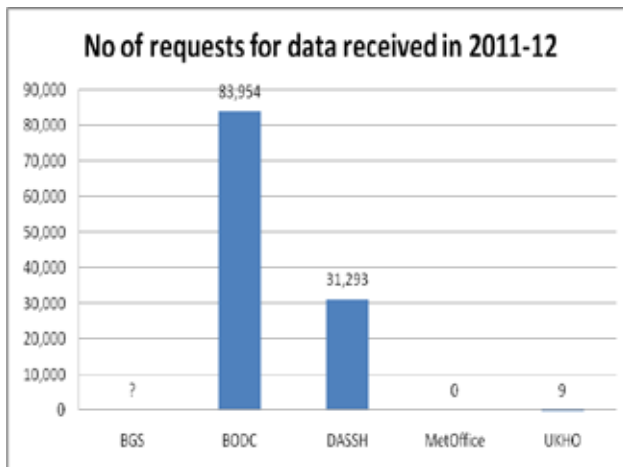
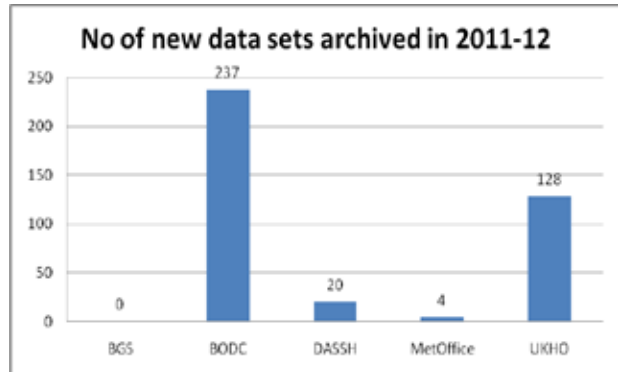
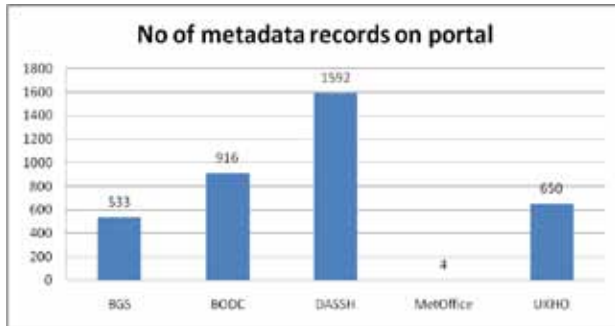
Name	Coverage	Contact Information	Web links	MEDIN Status
BODC	Marine Data	<a href="mailto:enquiries@bodc.ac.uk">enquiries@bodc.ac.uk</a>	<a href="http://www.bodc.ac.uk">www.bodc.ac.uk</a>	Accredited , operational
British Geological Survey	Marine geoscientific data	<a href="mailto:offshoredata@bgs.ac.uk">offshoredata@bgs.ac.uk</a>	<a href="http://www.bgs.ac.uk">www.bgs.ac.uk</a>	Accredited , operational
DASSH	Marine Species and Habitats	<a href="mailto:Dassh.equiries@mba.ac.uk">Dassh.equiries@mba.ac.uk</a> 01752 633291	<a href="http://www.dassh.ac.uk">www.dassh.ac.uk</a>	Accredited , operational
Met Office	Marine Meteorological Data	<a href="mailto:enquiries@metoffice.gov.uk">enquiries@metoffice.gov.uk</a>	<a href="http://www.metoffice.gov.uk">www.metoffice.gov.uk</a>	Accredited , operational
United Kingdom Hydrographic Office	Bathymetry	<a href="mailto:Andrew.talbot@ukho.gov.uk">Andrew.talbot@ukho.gov.uk</a>	<a href="http://www.ukho.gov.uk">www.ukho.gov.uk</a>	Accredited , operational. Web delivery of data under development
FishDAC	Fish and Shellfish, Fisheries, Aquaculture and related samples	England and Wales:		Accredited summer 2012, To be launched October 2012
		Scotland		Accredited summer 2012, To be launched October 2012
Historic Environment DAC	Marine Historic Environment fieldwork derived datasets	<a href="mailto:help@archaeologydataservice.ac.uk">help@archaeologydataservice.ac.uk</a>	<a href="http://archaeologydataservice.ac.uk">http://archaeologydataservice.ac.uk</a>	Accredited summer 2012, To be launched October 2012

## DAC Metrics

Name	No of data sets held	New data sets archived in 2011-12	Data sets archived from MEDIN pilot projects	No. of Requests for Data in 2011-12	No of MSSC partners with data in DAC
BODC	916	237		83,594	4
British Geological Survey	533	16		Not recorded	14
DASSH	1592	20		31,923	8
Met Office	4 <sup>1</sup>	4		Not recorded	1
United Kingdom Hydrographic Office	650	128		9	2

<sup>1</sup> Includes 6.3 million observations

## DAC Metrics





## DAC Sustainability and Funding

### Overview

The core costs for four of the five current MEDIN DACS (BODC, BGS, Met Office and UKHO), and the two DACS soon to be launched, are supported through internal funding where an organisation has itself recognised the value of maintaining a data collection to its own business.

DASSH is the exception to this as it was established with Research and Development funding from DEFRA after a national requirement for a Marine Biodiversity DAC had been identified. Core funding for DASSH is currently provided by Defra and the Scottish Government, agreed up until 2014 (with annual reviews)

Thus the major contributors to the **visible** costs of data archiving for Marine Data include:

- a) The Natural Environment Research Council which pays through its core funding of BODC and BGS, and the top-slicing of research projects to support data-archiving costs.
- b) UKHO, which is underwriting the costs of operating the UKHO Bathymetry DAC
- c) DEFRA and the Scottish Government which provide core funding for the Marine Species and Habitats DAC at DASSH.
- d) MEDIN sponsors who are supporting the costs of establishing common standards across DACS.

From October:

- e) CEFAS (Defra) and Marine Scotland who provide core funding to the two initial Fisheries DAC components
- f) NERC who provide core funding to the ADS initial component of the Marine Historic Environment DAC.

It is expected that in the future these visible costs will be sustained at a similar level, but that the results of improved coordination will be significant reductions in less visible, but substantial indirect costs, related to improved efficiency in retrieving and re-using data, and to improved coordination in marine monitoring activity

Costs for UKHO are not available. The combined annual running cost (including the archival of new data) for the three other MEDIN DACs is estimated to be at least £2,625k. The cost of the MEDIN DAC work stream, supported from MEDIN sponsors funds, is £180k.

Costs are provided in 3 categories according to the model proposed and adopted in November 2010:

- **Core DAC Capability**

“Core” DAC capability includes infrastructure costs and some routine data archiving. It is expected that core DAC funding is provided by organisations with a strategic interest in a national DAC capability for specific data types. MEDIN acts to provide an overview and to consider whether funding of this core capability is secure or at risk.

*Total Annual Cost (2009-10) (not including UKHO): £1,686k*

*To be supported by: NERC for BODC and BGS, UKHO for the bathymetry DAC, potentially DEFRA and Marine Scotland for DASSH. The Met Office will fund the Met-Ocean DAC.....*

- **MEDIN coordination**

MEDIN acts to ensure common standards and service provision across the MEDIN DAC network. The cost of MEDIN coordination activities is shared between MEDIN Sponsorship funds and the DACs themselves.



*Total Annual Cost (2009-10): £159k: £99k (DAC in-kind support) + £60k (MEDIN funds)  
To be supported by: MEDIN Sponsor funds and DACs*

- **Additional Archive Costs**

In the general case the costs of archiving newly collected data should be funded by the data providers, in the form of one-off fees to the DACs in return for the services provided. This data archiving cost is not currently included in the overall budget of many monitoring and research programmes.

*Total Annual Cost (2009-10): £840k (not including UHKO) – would be expected to increase if more partners archive their data in MEDIN DAC network.*

*To be supported by: Data suppliers, includes all MEDIN sponsors and partners*

- **Data retrieval**

MEDIN DACs will provide data access the original data provider at no cost, and will manage third party access to data sets according to terms agreed with the data provider. If no constraints are required by the owner, data will be made available to third parties at no cost, beyond any necessary to cover costs of retrieval / provision.

*No cost*

### **From 2010 Report and Proposal DAC Funding Arrangements**

*The core costs for four of the five current MEDIN DACS (BODC, BGS, Met Office and UKHO), and the two DACS soon to be launched, are supported through internal funding where an organisation has itself recognised the value of maintaining a data collection to its own business.*

*DASSH is the exception to this as it was established with Research and Development funding from DEFRA after a national requirement for a Marine Biodiversity DAC had been identified.*

*Currently, the major contributors to the **visible** costs of data archiving for Marine Data include:*

- g) The Natural Environment Research Council which pays through its core funding of BODC and BGS, and the top-slicing of research projects to support data-archiving costs.*
- h) UKHO, which is underwriting the costs of operating the UKHO Bathymetry DAC*
- i) DEFRA and the Scottish Government which have underwritten the large part of establishing the Marine Species and Habitats DAC at DASSH.*
- j) MEDIN sponsors who are supporting the costs of establishing common standards across DACS.*

*It is expected that in the future these visible costs will be sustained at a similar level, but that the results of improved coordination will be significant reductions in less visible, but substantial indirect costs, related to improved efficiency in retrieving and re-using data, and to improved coordination in marine monitoring activity*

*Costs for UKHO are not available. The combined annual running cost (including the archival of new data) for the three other MEDIN DACs is estimated to be at least £2,625k. The cost of the MEDIN DAC work stream, supported from MEDIN sponsors funds, is £180k.*

Costs by

- **Core DAC Capability**



It would be expected that core DAC funding is provided by organisations with a strategic interest in a national DAC capability for specific data types. It is recommended that a DAC funders group is formed to provide high-level oversight to ensure core DAC capability meets national needs.

*Total Annual Cost (2009-10) (not including UKHO): £1,686k*

*To be supported by: NERC for BODC and BGS, UKHO for the bathymetry DAC, potentially DEFRA and Marine Scotland for DASSH. The Met Office will fund the Met-Ocean DAC.*

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DAC	Funding model	Comments and proportional funding	Funding Level Estimates for 2011-12	Outlook
BODC	Established 1989 as NERC (Natural Environment Research Council) marine data archive. Funded through NERC normative budgets and programmatic support.	1) Core funding support to infrastructure and management - covers the basic IT (databases, web, ingestion and checking software), management and enquires.. 2) May provide an active data management service to cruises etc. 3) Data management agreements within projects and extra-budgetary resources from national and international data programmes.	(Full Economic Cost) Core costs: £890k  MEDIN support costs £60K  Project data archiving costs: £806K	We can expect ~5% reduction for the next three years in the core funded element (presently 55% of our income) of our programme. Clearly, this provides challenges and may lead to some reduction in subsequent years to MEDIN. However, NERC remains committed to Data Management for the medium and long-term.
DASSH	DASSH is core-	<i>Defra core funding covers up to 30</i>	<i>Core costs:</i>	

	<p>funded through Defra and Scottish Government until 2014 (with annual reviews). In addition DASSH is working with European partners and initiatives to seek additional core funding to support metadata and data services to support the Marine Strategy Framework and INSPIRE Directives.</p>	<p><i>datasets a year.</i></p> <p><i>Additional project based funding has supported upload of further data sets .</i></p> <p><i>The remainder is an in-kind contribution from MBA staff</i></p>	<p><i>£86.24K</i></p> <p><i>Project data archiving costs: £30K</i></p> <p><i>MEDIN support costs £15K</i></p>	
BGS	<p><i>NERC normative budget and programmatic support via multiple funding routes.</i></p> <p><i>Multiple models exist in BGS and it is difficult to separate out the marine sector (e.g. what proportion of cost for a core store is the marine contribution)</i></p> <p><i>All income (from all sources) goes into the centre, and BGS data management is funded centrally from this budget.</i></p>	<p><i>Core Costs include archiving data collected by internal BGS projects,</i></p> <p><i>Costs have been supported from data sales and value added products.</i></p>	<p><i>(Full Economic Cost<sup>2</sup>)</i></p> <p><i>Core costs: £400K</i></p> <p><i>Project data archiving costs: £100K</i></p> <p><i>MEDIN support costs £24K</i></p>	<p>BGS MEDIN DAC funding appears secure in the medium term, if limited by the general spending cuts across the public sector.</p> <p>In the short term, the main limiting factor on archiving new data is the willingness of donors to pay for moderate archiving costs and the lack of reserve funds in BGS to fund this work. Careful shepherding of resources is required</p>
UKHO	<p>The UKHO is a Trading Fund. The UKHO has agreed to provide nominal funding (cash and in-kind) for 3 years to set up and staff the Bathymetry DAC as part of the MEDIN network. Then the DAC becomes “business as usual” and will be staffed and run from within the UKHO Seabed (bathymetric) Data Centre. It is not envisaged that the additional MEDIN</p>	<p>The DAC functionality and remit have been specified so that almost all cost falls under core operations. It is anticipated that charges for archival may be made in the case of particularly large or complex data sets.</p> <p>Charges may be levied for data where media supply costs will be incurred</p>	<p>UKHO were unable to provide costs as the costs for the final delivery of the infrastructure are not yet available</p>	<p>The UKHO has an ongoing business as usual requirement to quality assure, archive and, wherever relevant, make available, all bathymetric surveys as part of our safety of life at sea (SOLAS) task.</p> <p>Therefore funding of the bathy DAC is assured in the medium to long term.</p>

<sup>2</sup> BGS costs estimate does not include costs for enquiry or delivery services, which are combined with non-marine data and are difficult to quantify.

	specific BAU staff and resource commitment will result in an increase in activity of more than 10% at UKHO.			
The Met Office				There has been an overall reduction in Public Service funding but this has had little impact on the Met Office and, in fact, the areas of data management have been growing in recent years. The Met Office will provide DAC funding and this has been incorporated into the operational long term plan.

**BGS:** BGS MEDIN DAC funding appears secure in the medium term, if limited by the general spending cuts across the public sector.

In the short term, the main limiting factor on archiving new data is the willingness of donors to pay for moderate archiving costs and the lack of reserve funds in BGS to fund this work. Careful shepherding of resources is required.

*Estimated Cost of In-Kind Support – £12,000*

**DASSH:** DASSH is core-funded through Defra and Scottish Government until 2014 (with annual reviews). In addition DASSH is working with European partners and initiatives to seek additional core funding to support metadata and data services to support the Marine Strategy Framework and INSPIRE Directives.

*Estimated Cost of In-Kind Support – £125,000*

**Met Office:** There has been an overall reduction in Public Service funding but this has had little impact on the Met Office and, in fact, the areas of data management have been growing in recent years. The Met Office will provide DAC funding and this has been incorporated into the operational long term plan.

*Estimated Cost of In-Kind Support – £8,100*

**UKHO:** DAC activities are being funded as business as usual from within UKHO, with a nominal charge applied for the supply of full density data.

*Estimated Cost of In-Kind Support – £35,150*

**FishDAC:**

**Marine Scotland:** Marine Scotland Science, where fisheries survey data are generated and held, are core funded as part of the Marine Scotland Directorate, with approximately 10% external income. The core fisheries survey components form part of a statutory obligation, and will continue to form part of core operations for the foreseeable future.





Marine Scotland Science employed a full time data manager in 2010. While there was a general need for this post to improve the existing data management culture, the post was also created with the view of the interactions with MEDIN and other external partnerships. IT infrastructure is supported as part of a central service for Marine Scotland.

**CEFAS:** IT support is provided by Cefas IT services and communications support in the form of web pages and download services.

Cefas has specifically allocated a team to support FishDAC, totaling 0.36 FTE, The current funding source for attending MEDIN meetings is the Data Management in Cefas project that is currently updating the integration of Cefas data management and providing the Master Data Register. When FishDAC is fully operationalised this funding will be through the Cefas Fisheries Division which has Service Level Agreements with Defra covering fisheries related work.

**Marine Historic Environment DAC:**

The ADS is hosted by the University of York, Department of Archaeology. The ADS's long term business plan is under constant review and is monitored by the ADS Management Committee. Through its charging policy ADS has also developed a preservation endowment fund. Should it become necessary to transfer ADS holdings to another repository then the endowment fund should cover the costs of data transfer and migration to another technical infrastructure. This agreement is reviewed by the management board on which sits representation at Pro Vice Chancellor level from the University of York and the ADS direct holds quarterly meetings with the ADS/University management accountant.

Specific roles in the ADS (primarily Deputy Directors) undertake visits, give presentations and attend meetings and conferences that are not directly funded via specific projects. These are undertaken with a view to fulfilling aims in increasing collections development and widen access to the collections. They are also undertaken to contribute specialist knowledge to the archaeological community. Should the ADS become a MEDIN accredited DAC attendance at MEDIN meetings would be included in the commitment.