



EMODnet



European Marine
Observation and
Data Network

Your gateway to marine data in Europe

Data Management in Offshore Licensing Procedures UK Case Study: Renewables

EMODnet Workshop – 29th February 2024 (online)

Mark Hebden



British
Oceanographic
Data Centre



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Outline

- ① Licencing for aquaculture and renewables in the UK
- ① The Crown Estate (TCE), Crown Estate Scotland and Marine Data Exchange (MDE)
- ① Overview of TCE Marine Data Exchange (MDE)
- ① Links with UK Marine Environmental Data and Information Network (MEDIN)
- ① Links with EMODnet Data Ingestion



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Aquaculture licencing

England:

Marine Management Organisation (MMO)
Fish Health Inspectorate
Landowners including The Crown Estate (TCE)

Scotland:

Marine Scotland Licensing Operations Team (MS-LOT)
Scottish Environment Protection Agency (SEPA)
Marine Scotland's Fish Health Inspectorate (FHI)
Crown Estate Scotland

Northern Ireland:

DAERA Marine and Fisheries

Wales:

Natural Resources Wales (NRW)
Fish Health Inspectorate (FHI) – as for England
The Crown Estate (TCE), Swangrove Estate (SE)
and Port Authorities

All UK:

Maritime & Coastguard Agency (MCA)



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Renewables licencing

England, Wales and Northern Ireland:

The Crown Estate (TCE)

in collaboration with, for example:

Department for Energy Security and Net Zero

Marine Management Organisation

Welsh Government

Department for the Economy (Northern Ireland)

Scotland:

Crown Estate Scotland

Scottish Government



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Background



The Crown Estate (TCE):

- ⦿ Independent commercial business, created by Act of Parliament
- ⦿ Role: to ensure that the land and property invested in and managed are sustainably worked, developed and enjoyed to deliver the best value over the long term
- ⦿ Owns the sea bed around England, Wales and Northern Ireland (<12nm limit)
- ⦿ Leases sites for renewable energy, cables & pipelines and marine aggregates within EEZ (200nm)
- ⦿ Collects and retains data and information to support decision making, enhance development opportunities and cost effectiveness of future development
- ⦿ To instill data management best practice with those developing our offshore environment.



Crown Estate Scotland:

- ⦿ Self-financing public corporation of the Scottish Government
- ⦿ Separated from The Crown Estate of the UK under the Scotland Act 2016. It was formed to take responsibility for Scotland.





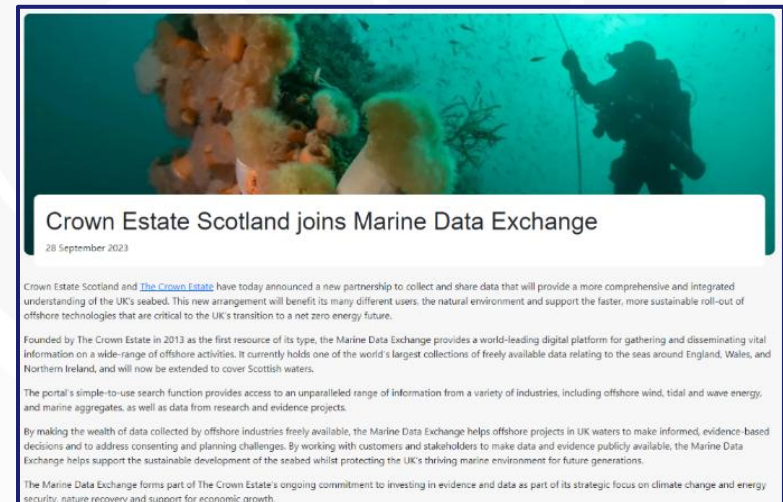
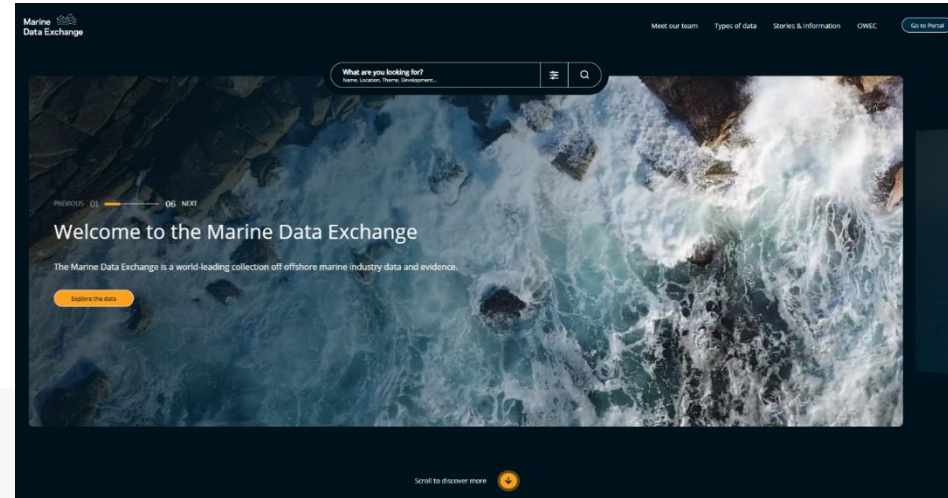
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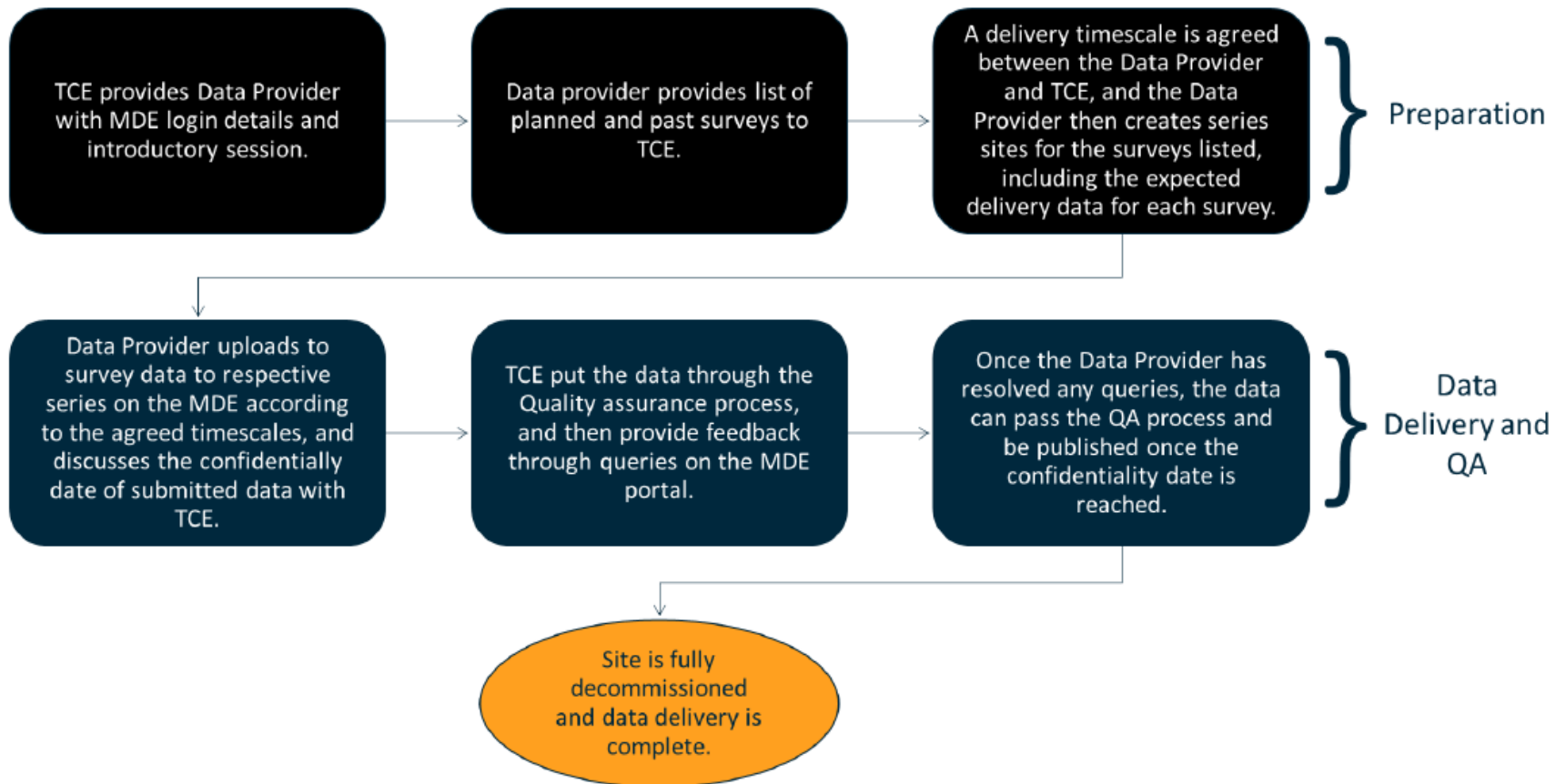
Marine Data Exchange (MDE)

- Established by TCE in 2013
- World-leading collection of offshore marine industry data, research and evidence
- Data made freely available through cutting-edge technology
- Promotes sharing of survey data collected throughout the lifetime of offshore projects
- Supports sustainable development and UK's Net Zero and biodiversity targets
- Data from renewables projects in Scottish waters collected prior to 2017 are included (and now using MDE again).





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Marine Data Exchange in numbers

Marine Data Exchange

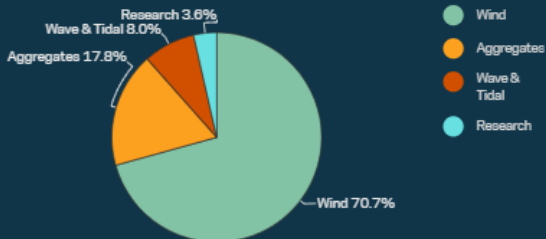


A world-leading collection of offshore marine industry data

By making the wealth of data collected by offshore industries freely available through the [Marine Data Exchange](#), we give offshore projects in the UK a valuable head start, helping those involved to make informed, evidence-based decisions.

Data Holding by Industry

Percentage composition of MDE survey holding by industry (Jan 2024)



MDE in Numbers



2929

Number of Series



268

Terabytes of Data

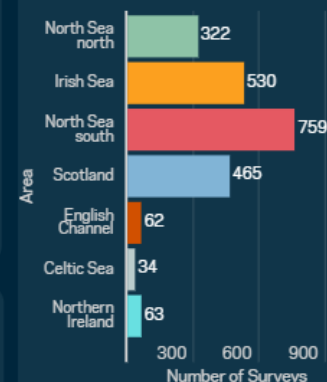


5200

Users (2023-2024)

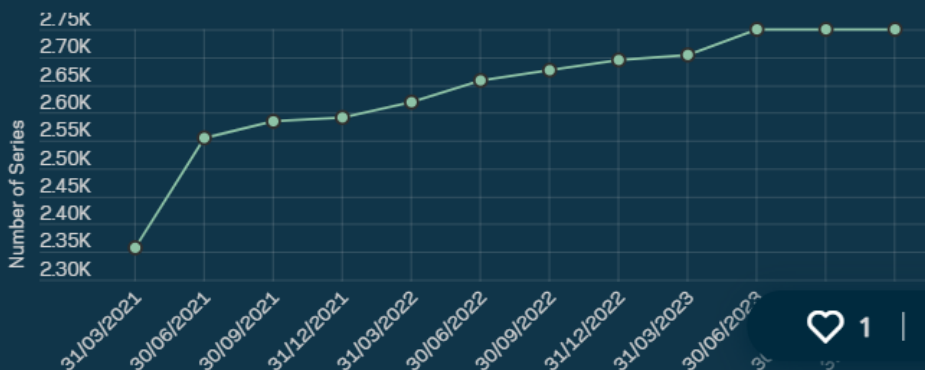
Surveys by Area

Number of surveys by collection area (Jan 2024)



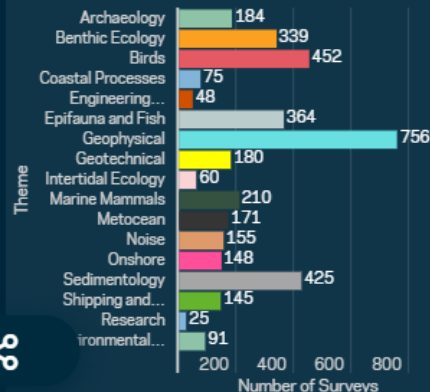
Growth of data holding over time

Number of Series added to the MDE over time, including non-public datasets (Jan 2024)
The graph begins in May 2021 at over 2000 Series, as this is when the MDE moved to the new site, or "new-look" MDE. See the [MDE History](#) for more details.



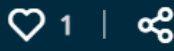
Data Holding by Theme

Number of Series (Surveys) by Theme (Jan 2024)



The MDE Team

From marine biologists and geospatial specialists, to software engineers and web designers, learn more about the [MDE Team](#).



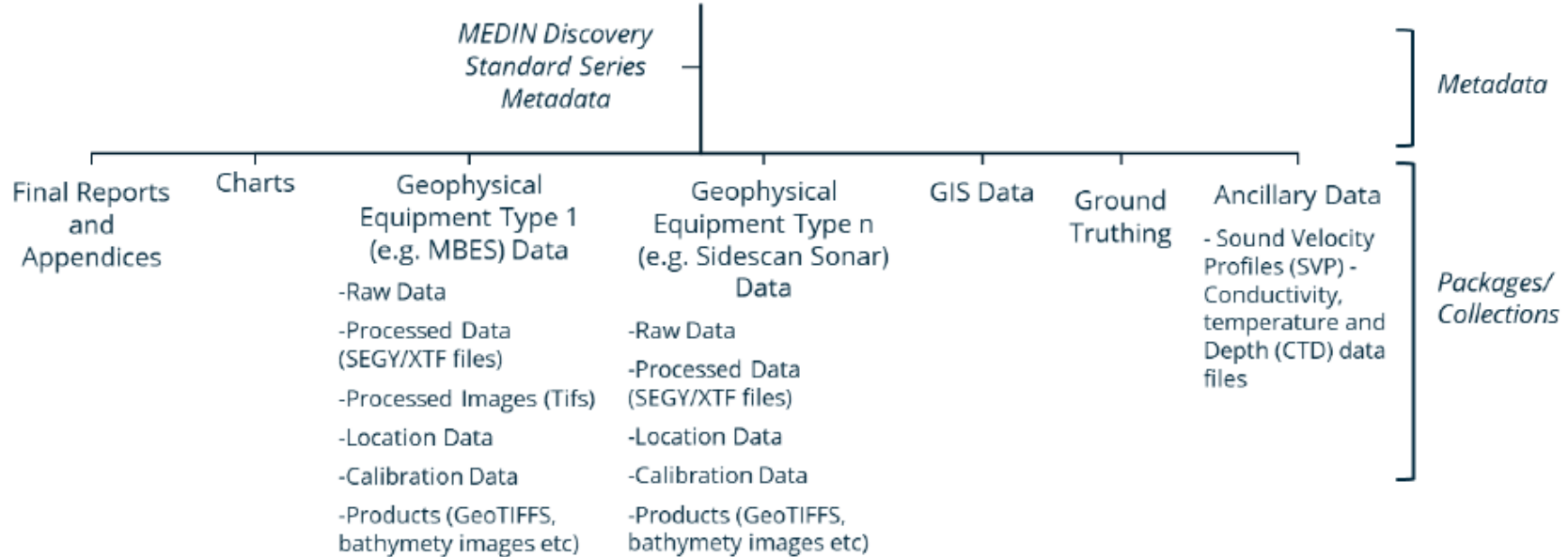


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Geophysical Series



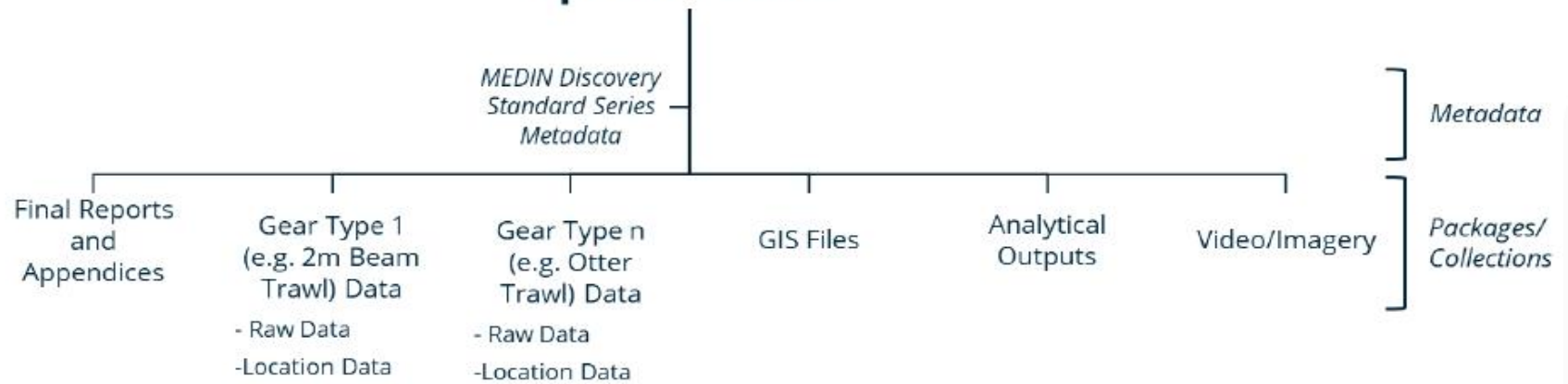


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Fish and Epifauna Series



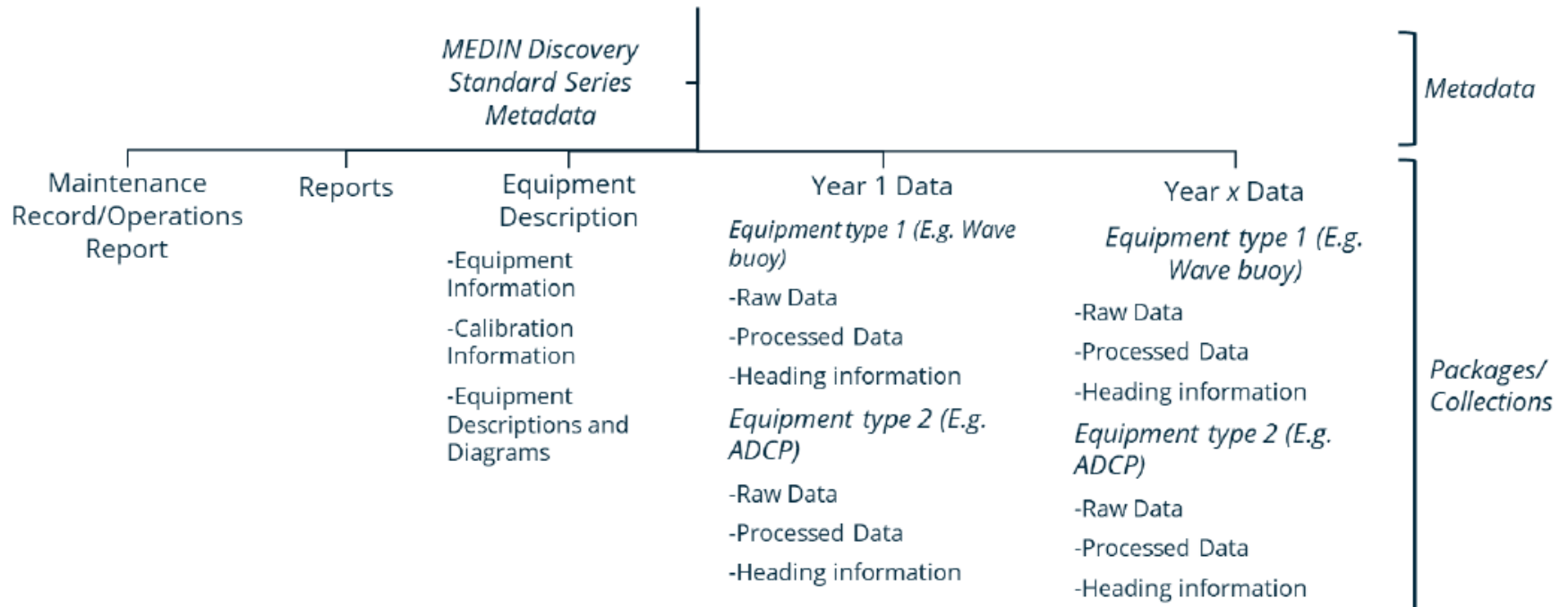


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Metocean Series





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MDE requirements

Clear requirements (including adoption of robust standards) are essential for optimum storage, management and dissemination

MDE record hierarchy:

- Series - group of datasets/reports collected for a survey or campaign (described by a single metadata record)
- Packages - associated data, reports, information related to a single parameter, instrument or method

Alignment with MEDIN...



Requirements for providing survey data to The Crown Estate via the Marine Data Exchange





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The UK MEDIN network

MEDIN The Marine Environmental Data and Information Network (MEDIN) is the hub for UK marine data. We work with UK organisations to improve the stewardship and access to UK marine data.

7 data archive centres
MEDIN delivers data through a co-ordinated network of accredited data archive centres, that provide expertise to the marine community.

- Bathymetry**
- Meteorology**
- Flora, Fauna and Habitat**
- Fisheries**
- Oceanography**
- Geology and Geophysics**
- Historic Environment**

15 sponsors
Providing funding and governance, our consortium of sponsors steer MEDIN's direction.

50+ partners
UK organisations that have committed to practising and promoting good marine data management, our partners help deliver MEDIN's vision.

17,500+ marine datasets
are accessible from the online MEDIN portal

from 600+ organisations
that collect or manage marine data in the UK.



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Aligning with MEDIN

- ⦿ The Crown Estate requires **MEDIN Discovery Standard** metadata to be delivered for all Series
- ⦿ Adoption of relevant **MEDIN data guidelines** to ensure data are re-usable in the future (also used by TCE as part of their quality acceptance checks)
- ⦿ Use of controlled vocabularies.



Data Standards > MEDIN guidelines

Physical Oceanography and Metocean

Download Physical Oceanography and Metocean Guidelines

MEDIN data guideline for archiving of digital images (Sep 11)	⌵
MEDIN data guideline for moored oceanographic instruments (Dec 13)	⌵
MEDIN data guideline for underway oceanographic sampling (Dec 13)	⌵
MEDIN data guideline for oceanographic vertical profile data (Dec 13)	⌵
MEDIN data guideline for ADCP data (Oct 18)	⌵
MEDIN data guideline for the recording of underwater noise (Sep 11)	⌵
MEDIN data guideline for tidal elevation data (Oct 16)	⌵
MEDIN data guideline for meteorological data from fixed platforms (Oct 16)	⌵



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Linking with MEDIN data portal

Search for marine data across UK organisations

Welcome to the MEDIN portal

The MEDIN portal contains information about 17214 marine datasets from over 400 UK organisations. Metadata are an enduring resource and contact details are publicly available for a long time. Please contact us (enquiries@medin.org.uk) if you find your contact details on the MEDIN portal and do not consent to this. Metadata records are updated daily and were last updated 2022-06-08. Record deletion takes place weekly and the latest occurred 2022-06-05.

Need help?

SEARCH

Free search

Date

From (yyyy-mm-dd) To (yyyy-mm-dd)

Season of interest

Season/month

Geographical box

Use the button on the left to click and drag the area you want to search in. This action will fill the fields below. Please use decimal degrees.

North

West East

South

Search item completely within bounding box

UKHO	DASSH	Cefas
TCE	BODC	NIRW
MS	ADS	BGS

MEDIN

Marine environmental data & information network

Working together

To improve access to and stewardship of marine data

Browse Medin datasets

Reset all csw-crown-estates X Found 1395 | Show (1-100) | Prev | Next

TITLE
2010, EMU, Zone 7 - Navitus Bay, Geophysical Survey
2011, Brown and May Marine Ltd., Gunfleet Sands Offshore Wind Farm, Post Construction Fish Survey
2003, BMAPA, BMAPA 2002 Review
2009, Wessex Archaeology, Humber Gateway Offshore Windfarm, Archaeological Assessment of Geophysical Data
2017, EGS, Lincs Offshore Wind Farm, LS68 Clearance Survey 2017
2010, PARTRAC Ltd, Kyle Rhea, Vessel-Mounted Acoustic Doppler Current Profiler Survey
2009, Maritime Archaeology, Gunfleet Sands Offshore Wind Farm, Monitoring of Archaeological Exclusion Zones
2010-2012, EMU, Zone 9 Celtic Array, Hydrodynamic Campaign
2004, Osiris Projects, London Array Offshore Wind Farm, Geophysical Surveys



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Linking with EMODnet Data Ingestion Portal

Improving Data
Discovery at the
European level

DATA INGESTION PORTAL [New tab (Ctrl+T)]

Wake up your data - set them free for Blue Society

Home / Submissions

Details of Offshore Gas Storage (UK) - natural gas storage leases

Dataset identification

Title of dataset: Offshore Gas Storage (UK) - natural gas storage leases

Narrative summary of dataset: The Crown Estate manages the UK seabed out to the 12 nautical mile territorial sea limit and, under the 2008 Energy Act, hold the rights for gas storage within the Exclusive Economic Zone Order 2013, which extends out onto the Continental Shelf. This Order incorporated the Gas Importation and Storage Zone Order 2009, which was created by the 2008 Energy Act. Offshore natural gas storage has been taking place within UK waters, in the Rough field, since 1983. Developers of offshore projects need a storage licence (from BEIS) and a storage lease (from the Crown Estate), as set out in the 2008 Energy Act, which also explains which type of gas importation and storage projects fit into this description. Effectively the regulatory and proprietary roles are separated. This dataset shows gas storage leases given by The Crown Estate. At this stage there are three leases, Rough, Gateway and Larne Lough. Rough acts as a storage facility for gas shippers and suppliers, allowing them to feed gas into Transco's National Transmission System when demand is at its peak, or withdraw and re-inject it into the reservoir when demand is low. Any company with a UK gas shipper licence can apply to purchase storage capacity at Rough, Gateway and Larne Lough are salt caverns. This data has been checked with the lease areas held by DTCC to ensure they match. The dataset also includes pipeline information. These TCS agreements pipelines are related to the Natural Gas Storage sector in the United Kingdom waters. Attribute information includes name, tenant and pipeline type. The data source is the individual owner company of the infrastructure.

Supporting documentation: The dataset was created with input from Jason Golder - Development Manager (CCS & Gas Storage). The Rough gas storage area is owned by Cerrrica. Rough acts as a storage facility for gas shippers and suppliers, allowing them to feed gas into Transco.

Start date: 2014-01-31
End date: 2017-03-30

Responsible organisations

Country	United Kingdom
Organisation name	The Crown Estate
Role of organisation	Dataset Holding Organisation

DATA INGESTION PORTAL

Wake up your data - set them free for Blue Society

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Details of 2011-GEMS, Zone 8 - Bristol Channel Atlantic Array, Metocean assessment

Dataset identification

Title of dataset: 2011-GEMS, Zone 8 - Bristol Channel Atlantic Array, Metocean assessment

Narrative summary of dataset: GEMS Survey Ltd (GEMS) was awarded a contract by Channel Energy Limited to undertake metocean data collection in the Bristol Channel as part of the Atlantic Array wind farm development project. The scope of work includes the deployment of two acoustic wave and current (AWAC) units and one Directional Wavender Buoy. Ancillary work includes water and sediment sampling and water profiling. Following non-recovery of AWAC devices, TRIAXYS Directional Wave buoys were utilised for the rest of the survey. This series contains both reports and datasets associated with the Metocean Assessment.

Summary of processing methodology: Documentation attached

Supporting documentation: Documentation attached

Start date: 2011-03-09
End date: 2011-04-13
Frequency of observations: minute to sub-hour

Responsible organisations

Country	United Kingdom
Organisation name	The Crown Estate
Role of organisation	Dataset Holding Organisation

Country	United Kingdom
Organisation name	GEMS Survey Ltd
Role of organisation	Originator of Dataset

Dataset availability

Original dataset download link: <https://cloud.emodnet-ingestion.eu/index.php/s/hG3Wskt6g9jG2>



SeaDataNet PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

SEADATANET COMMON DATA INDEX (CDI) V3

TOOLS

LAYER CONTROL

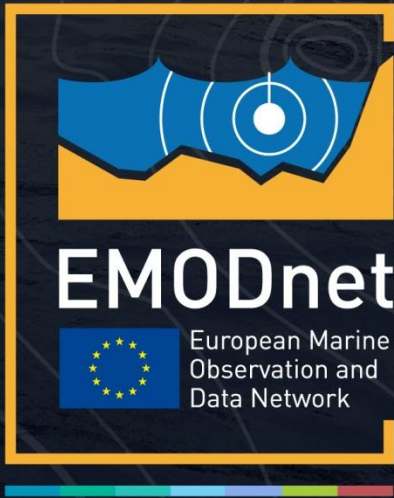
- CDI entry Points
- CDI entry Tracks
- CDI entry Areas
- Grid Lines
- Regional sea
- Regional sea

LISTING RESULTS

● 20 ○ 100 ○ 1000 records

#	Set name	DC country	Start date	Disciplines - Topics	Instrument / gear type	Show
<input type="checkbox"/>	TRIAXYS	United Kingdom	20100903	Administration and dimensions	current profilers, water temperature sensor	

Data Access
(where appropriate)



www.emodnet.eu

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