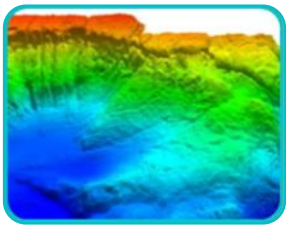
Annual Report

2024-2025

'measure once, use many times'

Highlights of the year



Access to marine datasets

We provide a single place to find marine environmental data. In March 2025, the MEDIN portal described and provided access to over 18,600 marine datasets, owned or managed by more than 600 public and private sector organisations. R*ead more on page 16.*

Data managed by specialists

We coordinate a network of specialist Data Archive Centres (DACs) that provide long-term, interoperable acccess to UK marine data. Our data centres are working towards an international accreditation called Core Trust Seal and by March 2025, six of our ten DAC operators had achieved this acolade. R*ead more on page 12.*

Marine data standards

We provide a standardised way for the UK marine community to describe the data they collect. This year, we enhanced our portfolio of tools to include a standard for non-spatial data. This enables us to better support our diverse users. R*ead more on page 14.*

Marine policy

We provide expert advice to government departments and agencies across a range of topics related to the marine environment and data management. This year we provided the link between the marine community and policy colleagues exploring the requirements for a National Data Library. *Read more on page 22.*

Marine monitoring

We support the UK Marine Monitoring and Assessment Strategy (UKMMAS) community to deliver national and international policy requirements. This year we conducted extensive stakeholder consultation to establish whether there is a business case for an online database of marine monitoring. R*ead more on page 17*.

Performance

2024-25 was the first year of the Marine Environmental Data and Information Network's (MEDIN) five-year (2024-29) Business Plan. MEDIN has gone through four phases: an initial development phase (2008-11) during which the MEDIN framework was developed and established, a transition to operations phase (2011-14), a widening adoption phase (2014-19), which saw MEDIN become a widely-used national framework for marine data management and a strengthening phase (2019-2024). This new phase sets out to reinforce MEDIN as the leading authority on the management of UK marine environmental data and to grow the network, albeit with a reduced level of funding - down from £763K per year before 2011 to £556K in the last year.

Our Key Performance Indicators (KPIs) show some areas of significantly increased performance, as well as helping us identify some areas that may benefit from more focus in the future. This year we saw increases of:

- 36% in the number of requests for data, four times that in 2020.
- 75% in the number of requests to the MEDIN helpdesk.
- 28% in the number of people receiving news and updates from MEDIN via our social media presence.
- 25% in the number of national and international conferences, workshops and webinars with participation from MEDIN and our Data Archive Centres (DACs) – a standout year for MEDIN reaching global audiences.

Despite seasonal dips, overall usage of the MEDIN portal is on the rise, showing its growing value to the marine data community. With an average of nearly 2,500 unique users per month and almost 10,000 visits, the portal continues to serve as the UK's most comprehensive source of marine environmental data. The addition of 759 new metadata records this year further consolidates its role in supporting data discovery and reuse.

In 2024-25, MEDIN strengthened its role as a leader in international marine data collaboration by actively participating in and contributing to major global initiatives. From sponsoring and presenting at the International Marine Data and Information Systems (IMDIS) 2024 conference in Norway to taking part in the International Ocean Data Conference in Colombia, MEDIN promoted UK innovations—like publishing a standard for non-spatial data—and shared best practice on data accessibility. These efforts showcase how MEDIN is helping shape global marine data standards and improving data findability worldwide.

A significant challenge to MEDIN is uncertainty and reduction in funding for several DACs. For example, funding for the British Geological Survey and British Oceanographic Data Centre is not adjusted for inflation, which may strain resources. Additionally, the historic environment DACs in Scotland and Wales have had their budgets cut by 11%, and future funding for DASSH is uncertain beyond September 2025. These financial pressures risk the sustainability and quality of marine data archiving in the UK.

Despite improvements in data standards and tools, this year MEDIN remains unable to track how often our metadata standard and data guidelines are downloaded. Without this information, it is harder to understand how widely our resources and tools measure engagement or identify where more outreach or support is needed.

MEDIN's current Business Plan was developed around 3 strategic goals, which encompass MEDIN's vision for all UK marine data to be Findable, Accessible, Interoperable and Reusable (FAIR). MEDIN has defined seven Key Performance Indicators (KPIs) based on these strategic goals. 2019-20 provided the baseline, against which we compare the KPIs for subsequent years. The KPIs are listed below.

Strategic Goal A: MEDIN delivers its vision for all of the UK marine community by providing tools and services beneficial across the wide spectrum of the marine data community and the full data lifecycle, ensuring widespread archiving and open access to high-quality data to enable maximum use and security and providing integration and coordination of services.

We have 2 Key Performance Indicators that measure progress against this goal:

KPI 1: Number of active MEDIN partners

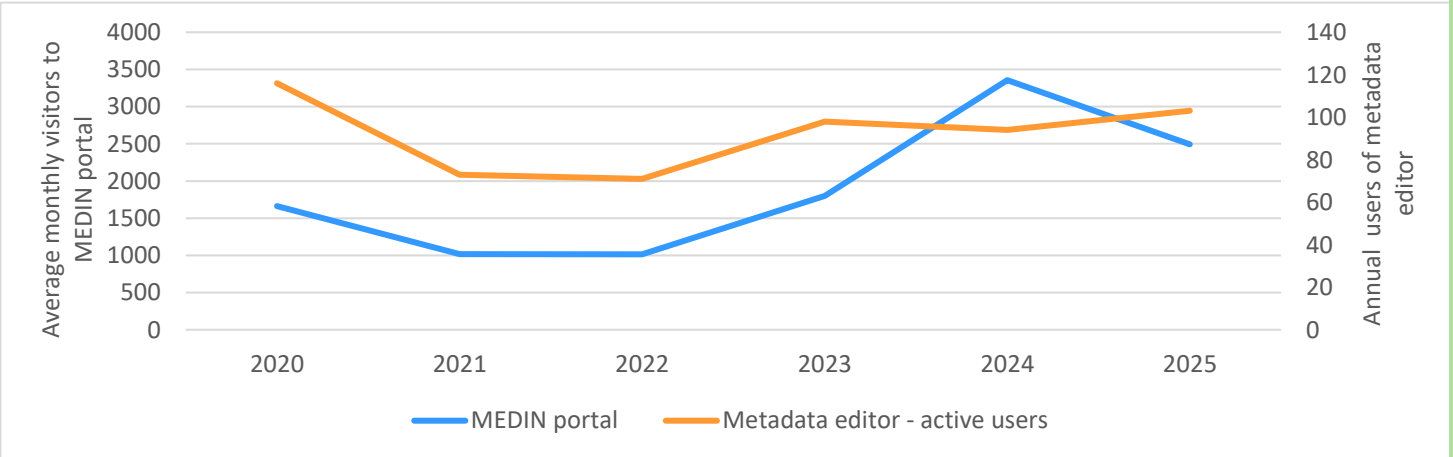
KPI 2: Number of users of MEDIN tools and services

How did we perform this year?

61 partner organisations

The number of MEDIN partner organisations that fall into our main user categories: Government departments and agencies, commercial organisations, academic and research organisations, and charities and Non-Governmental Organisations (NGOs).

2494 monthly users of MEDIN portal



The average monthly number of visitors to the MEDIN portal per year (blue line and left-hand axis) and the number of users creating metadata using the MEDIN metadata editor this year (orange line and right-hand axis).

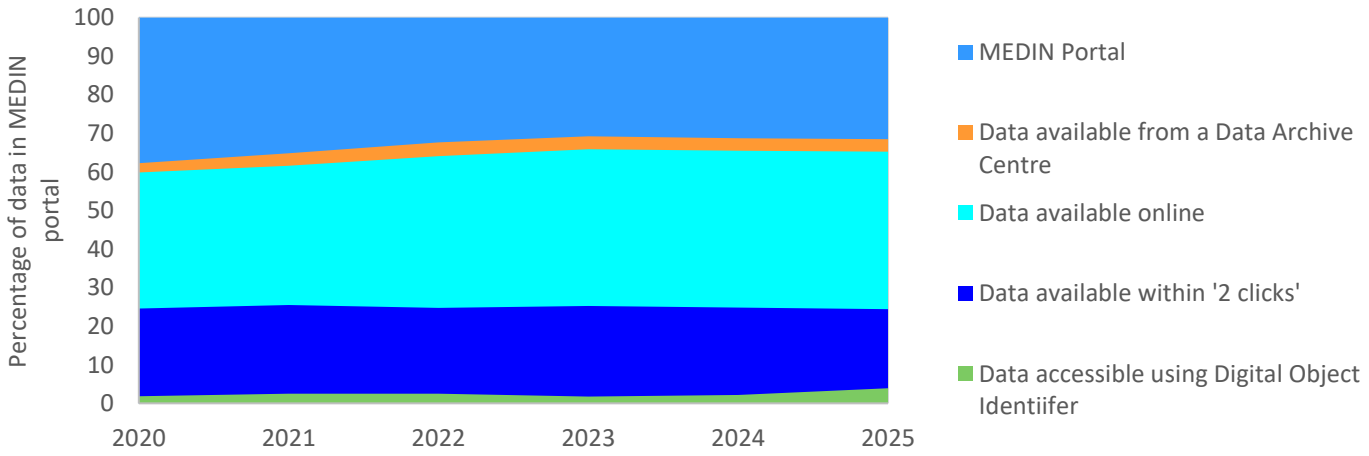
Strategic Goal B: MEDIN delivers the technical infrastructure required to ensure UK marine environmental data are Findable, Accessible, Interoperable and Reusable (FAIR) by providing: a coordinated network of seven marine Data Archive Centres, a single portal to access all UK marine data, and standards, tools and services to support the UK marine community.

We have 2 Key Performance Indicators that measure progress against this goal:

KPI 3: Summary of access to data described in the MEDIN portal
KPI 4: Number of requests for data at MEDIN Data Archive Centres

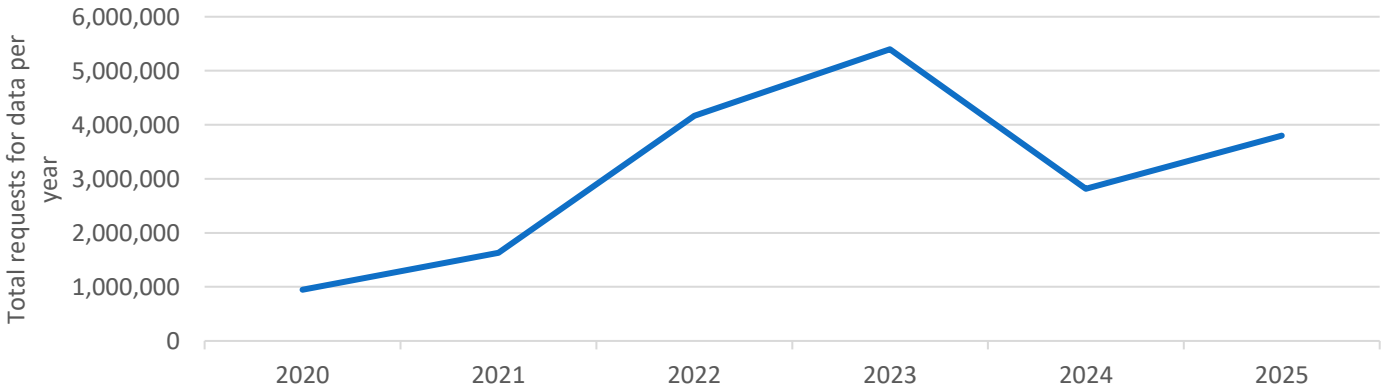
How did we perform this year?

69% data available from accredited Data Centres



The percentage of data within the MEDIN portal that are available: from accredited Data Archive Centres (orange) and online (cyan) and within '2 clicks' of finding them on the MEDIN portal (dark blue) and with a Digital Object Identifier (green). Source: MEDIN Portal.

3.8 million requests for data - 4 times that of 2020



The total number of requests for data from all seven MEDIN Data Archive Centres between 2000 and 2025. Source: variety of sources from MEDIN DACs, including web analytics, direct download statistics and email requests. Note each DAC has a different means of assessing requests for data. Further information is available in the MEDIN DAC Annual Report 2024-2025.

Strategic Goal C: MEDIN delivers an open and constructive data management culture fostering global collaboration and partnerships; addressing skills gaps; providing training and education.

We have 3 Key Performance Indicators that measure progress against this goal:

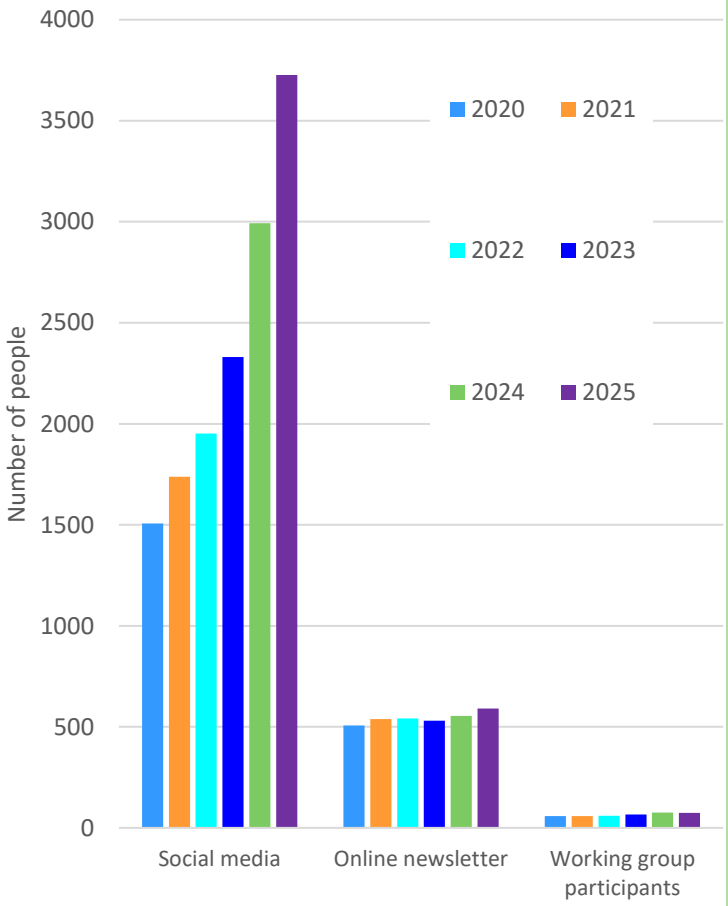
KPI 5: Number of people receiving regular MEDIN updates

KPI 6: Number of organisations receiving MEDIN data management training

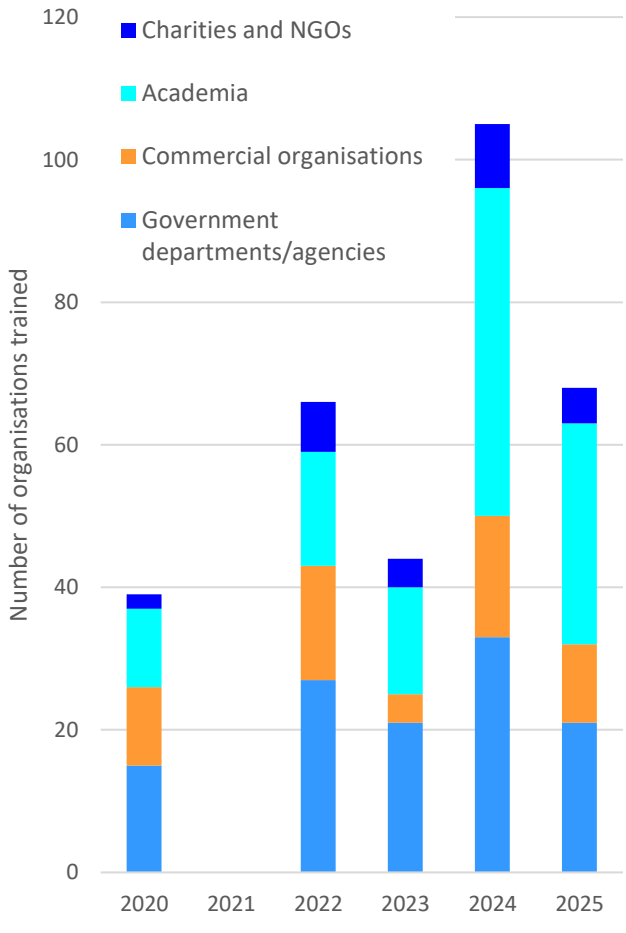
KPI 7: Number of national and international conferences or trade fairs where MEDIN is represented

How did we perform this year?

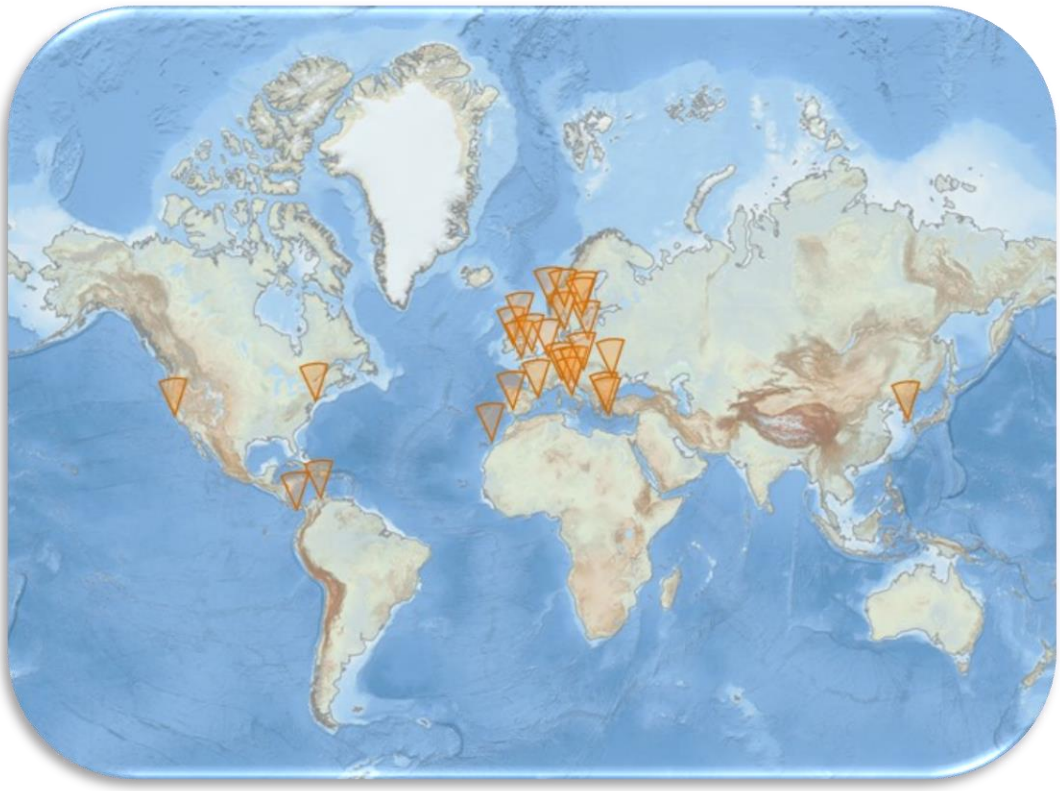
4390 update recipients



68 organisations receiving training



MEDIN represented at over 50 national and international events



EMODnet
European Marine Observation and Data Network

ICES
CIEM

Ocean best practices

Amongst many others.

Finance Summary

This year we raised £556,280 in sponsorship for MEDIN, an increase of 6.1% from last year

Available funds

MEDIN is a collaborative initiative that attracts sponsorship from like-minded organisations who recognise the scientific, environmental and financial benefits of providing a coordinated, national framework for managing the UK's valuable and unique marine data resources. £678,072 was available to fund MEDIN activities in 2024-25: £556,000 from the consortium of 16 sponsors, £33,536 carried over from previous years and £88,256[1] for specific development projects.

Sponsor Name	Funding level for 2024-25
DEFRA: Department of Environment Food and Rural Affairs	£182,000
Scottish Government	£90,000
NOC: National Oceanography Centre	£83,000
NERC: Natural Environment Research Council	£48,000
DESNZ: Department for Energy Security and Net Zero	£30,000
UKHO: UK Hydrographic Office	£25,000
The Crown Estate	£20,000
NRW: Cyfoeth Naturiol Cymru / Natural Resources Wales	£14,980
Met Office	£14,000
JNCC: Joint Nature Conservation Committee	£10,000
Crown Estate Scotland	£10,000
MCA: Maritime and Coastguard Agency	£8,300
AFBI: Agri-Food and Biosciences Institute	£6,000
OceanWise	£5,000
DAERA: Department of Agriculture, Environment and Rural Affairs, Northern Ireland	£5,000
Welsh Government	£5,000
TOTAL available to MEDIN from sponsorship funding	**£556,280**
Carry-over from previous years	£33,536
Funding for special projects	£88,256
Final Total available for 2024-25	**£678,072**

Expenditure

MEDIN is split into seven Work Streams (WS), each with its own budget and project manager, to allow efficient delivery and management of MEDIN's programme of work. We spent £637,318 during 2024-25:

- £416,532 on the employment costs of the MEDIN project managers (the MEDIN Core Team) including all individual and organisational overheads.

[1] £69,285 from Defra to fund project 'Increasing access to marine socio-economic data", £17,842 from the Environment Agency to fund webpages for the Healthy and Biologically Diverse Seas Evidence Group and £1,129 from UKRI Arts and Humanities Research Council to fund project 'Unpath'd waters'.

- £6,704 on travel and subsistence costs.
- £127,002 on external contract costs required for the operation, maintenance and development of the MEDIN framework.
- £87,081 on the externally-funded special projects.

Expenditure category	Expenditure in 2024-25	Work Stream	Expenditure in 2024-25
Employment Costs of Core Team	£416,532	WS1: Data Archive Centres	£107,657
Travel and Subsistence	£6,704	WS2: Standards	£99,275
External Contracts	£127,002	WS3: Portal	£109,383
Special Projects	£87,081	WS4: International Links	£27,747
		WS5: Resources and Applications	£12,309
		WS6: Communications	£53,987
		WS7: Management and Coordination	£139,879
		Special Projects	£87,081
TOTAL expenditure	**£637,318**	**TOTAL expenditure**	**£637,318**

End of year balance

This year we saw an increase in funding from five of the MEDIN Sponsors (Defra, Scottish Government, UKHO, NRW, MCA) and welcomed Crown Estate Scotland as a new Sponsor. This, coupled with lower than planned expenditure on external contracts, resulted in a total **end-of-year underspend of £39,463 for 2024-25**.

External expenditure

This year MEDIN spent £127,002 on external contract costs required for the operation, maintenance and development of the MEDIN framework.

Supplier	Item	Cost
BGS	DAC costs	£11,000
BODC	DAC costs	£11,000
DASSH	DAC costs	£13,200
UKHO	DAC Costs	£11,000
Met Office	DAC costs	£11,000
Fish DAC CEFAS	DAC costs	£6,600
Historic Environment DAC ADS	DAC costs	£6,000
Historic Environment DAC HES	DAC costs	£5,000
Historic Environment DAC RCHAMW	DAC costs	£5,000
JNCC catering	Meeting costs	£426
	Total WS 1 expenditure	£80,226

DASSH	Standards Working Group support	£6,928
CMS	Advertising training workshops	£216
MASTS	Conference attendance	£260
	Total WS 2 expenditure	£7,404

Maris	UKDMOS portal maintenance	£1,500
NOC	Website hosting and support	£5,000
Maris	MEDIN portal and catalogue hosting and maintenance Jan 2025-Dec 2025	£8,100
MBA / DASSH	MEDIN helpdesk (April-Sept)	£10,511
CMS	Advertising UKDMOS questionnaire	£216
	Total WS 3 expenditure	£25,327

Institute of Marine Research Norway	IMDIS Conference registration	£277
	Total WS 4 expenditure	£277

Diguru Ltd	New MEDIN leaflets	£108
The Genuine Dining Company	Catering at MEDIN Open Meeting	£1,566
MASTS	Conference registration MASTS	£260
DHL	Delivery charges	£9
CEC	Courier charges	£184
	Total WS6 expenditure	£2,127

British Ecological Society	Conference registration at NEMC	£150
DASSH/MBA	Representing MEDIN at HBDSEG and BioDIG	£6,450
Katy Hill	Chairing MEDIN meetings	£5,040
	Total WS7 expenditure	£11,640

Governance

Governing Body

MEDIN was established in 2008 as a collaborative, cross-sectoral initiative for the public good. Our governing body, the MEDIN Sponsors' Board, comprises one member from each funding organisation, ensuring each funder has the opportunity to influence our national and international work. The Board is responsible for defining the strategic direction of MEDIN, approving work programmes and budgets. Dr Katy Hill, an Associate Director at the Met Office, became chair of the MEDIN Sponsors' Board in October 2023. The Board met twice during 2024-25.

Sponsor Name	Sponsors' Board member 2024-25
DEFRA: Department for Environment Food and Rural Affairs	Liam Matear
NOC: National Oceanography Centre/ NERC: Natural Environment Research Council	Dr Helen Snaith
Scottish Government	Dr Jens Rasmussen
DESNZ: Department for Energy Security and Net Zero	Saravanan Marappan
UKHO: UK Hydrographic Office	James Carey
The Crown Estate	Gavin Scarff
Cyfoeth Naturiol Cymru / Natural Resources Wales	Mark Diggle
Met Office	Jon Turton
JNCC: Joint Nature Conservation Committee	Elly Hill
Crown Estate Scotland	Marc Gellatly
Maritime and Coastguard Agency	Andrew Colenutt
AFBI: Agri-Food and Biosciences Institute	Dr Matt Service
OceanWise	Dr Mike Osborne
DAERA: Department of Agriculture, Environment and Rural Affairs, Northern Ireland	Aoibheann Rooney
Welsh Government	Caryn Le Roux
Chair	**Dr Katy Hill**

Administrative Body

The management and operation of MEDIN is administered by the National Oceanography Centre (NOC), on behalf of the MEDIN Sponsors' Board.

Operational Groups

Our Board is supported by an Executive Team, which provides interim guidance and management of our operational work programme between Sponsors' Board meetings. The Executive Team is made up of four sponsor members (DEFRA, NERC/NOC, Scottish Government and a fourth member, currently UKHO, as voted by the Sponsors' Board), three subject experts (the chairs of the MEDIN Working Groups) and the MEDIN work stream managers. Our Executive Team met four times in 2024-25.

Executive Team member	Sponsor/Expert member	Executive Team member	MEDIN work stream member
Liam Matear (DEFRA)	Sponsor member since 2023	Dr Clare Postlethwaite	Since 2012
Dr Helen Snaith (NOC/NERC)	Sponsor member since 2023	Dr Richenda Houseago-Stokes	Since 2023
Dr Jens Rasmussen (Scottish Government)	Sponsor member since 2019	Charlotte Miskin-Hymas	Since 2017
Laura Hewson (UKHO)	Sponsor member since 2023	Roseanna Wright	Since 2018
Dan Lear (MBA)	Expert member since 2020	Colm Walsh	Since 2021
Graeme Duncan (JNCC)/	Expert member 2019-2024	Dr Gaynor Evans	Since 2008
Helen Woods (JNCC)	Expert member since 2024		(corresponding member)
Dr Mike Osborne (OceanWise)	Expert member since 2008	Colm Walsh	Since 2021
Dr Katy Hill	**Chair since 2023**		

The seven MEDIN work streams are project managed and supported by the MEDIN Core Team - eight part-time staff employed by the National Oceanography Centre within the British Oceanographic Data Centre. In addition to project management, the MEDIN Core Team provide leadership for the work streams and secretariat as well as administrative support to MEDIN. The MEDIN Core Team met monthly in 2024-25.

Core Team member	Work Stream (WS) role
Dr Richenda Houseago-Stokes	Lead on DACs WS
Roseanna Wright	Lead on Standards WS
Colm Walsh	Support to Standards WS
Alice Rysiecki	Support to Standards WS
Charlotte Miskin-Hymas	Lead on Portal, Products and Services WS and lead on Communication WS
Dr Gaynor Evans	Support on Portal, Products and Services WS, International WS and Communication WS
Dr Clare Postlethwaite	Lead on International; Resources and Applications; Management and Coordination WS
Paul McGarrigle	Administrative Support
Dr Clare Postlethwaite	**Coordinator since 2014**

Working Groups

Our partners help deliver our strategic goals by participating in our working groups, which met regularly throughout 2024-25.

DAC Working Group	Standards Working Group	Portal, Products and Services Working Group	Communications Working Group
Archaeology Data Service (ADS)	BGS	ABPmer	ADS
British Geological Survey (BGS)	BODC	Edinburgh Parallel Computing Centre (EPCC)	BGS
British Oceanographic Data Centre (BODC)	Cefas	DASSH	BODC
Centre for Environment, Fisheries and Aquaculture Science (Cefas)	DASSH	Marine Scotland	Cefas
DASSH	Joint Nature Conservation Committee (JNCC)	NRW	DASSH
Department for Environment, Food and Rural Affairs (DEFRA)	Natural Resources Wales (NRW)	OceanWise	HES
Historic Environment Scotland (HES)	Nature Scot	UKHO	Historic England
Marine Directorate of the Scottish Government (previously Marine Scotland)	Plymouth Marine Laboratory (PML)		Institute of Marine Engineering, Science and Technology (IMarEST)
Met Office	The Crown Estate		Marine Scotland
NatureScot	UKHO		National Oceanography Centre (NOC)
Royal Commission for the Ancient and Historic Monuments of Wales (RCHAMW)			OceanWise
The Crown Estate			Scottish Environment Protection Agency (SEPA)
United Kingdom Hydrographic Office (UKHO)			Sussex-Inshore Fisheries and Conservation Authority (IFCA)
			The Crown Estate
			UKHO
Dan Lear (Marine Biological Association) **Co-chair since 2020**	Graeme Duncan (JNCC) **Co-chair since 2019** Helen Woods (JNCC) **Co-chair since 2024**	Charlotte Miskin-Hymas (MEDIN) **Chair since 2024**	Charlotte Miskin-Hymas (MEDIN) **Chair since 2022**
Dr Richenda Houseago-Stokes (MEDIN) **Co-chair from 2023**	Roseanna Wright (MEDIN) **Co-chair since 2019**		

Network of Data Archive Centres

This year 95% of metadata from our data centres lead to online data

The seven MEDIN Data Archive Centres (DACs) provide the cornerstone for long-term management of UK marine data and the 'collect once, use many times' philosophy. Each DAC provides expertise for their designated area of activity, applying best practice in the field of data management and archiving data from disparate source organisations, to free up resource for other activities. The seven DACs, operated by ten organisations (Figure 1), cover a wide spectrum of data within the marine environment, including bathymetry; fish and shellfish, fisheries, aquaculture and related samples; the historic environment; marine geology and geophysics; marine species and habitats; marine meteorology; water column oceanography. This network provides users from across the marine community with secure, long-term data archiving supported by domain expertise.

Together, the DACs form a coordinated network that supports the reuse of data, helps to avoid duplication of primary data-gathering efforts and contributes to the drive towards making data Findable, Accessible, Interoperable and Reusable (FAIR). Currently 69% of the data accessible from the MEDIN portal are considered “archive quality”. In other words, they are managed, quality controlled and disseminated by one of our accredited Data Archive Centres.

Our DACs provide:

- Secure, long-term curation of key marine data sets, according to best practice and to relevant national and international standards, as demonstrated by their accredited status.
- Clear, searchable information on their data holdings by the generation and publication of metadata on the MEDIN portal (Figure 1).
- Open and easy access to their data, wherever possible.
- The first point of call for expertise in the management of marine data.

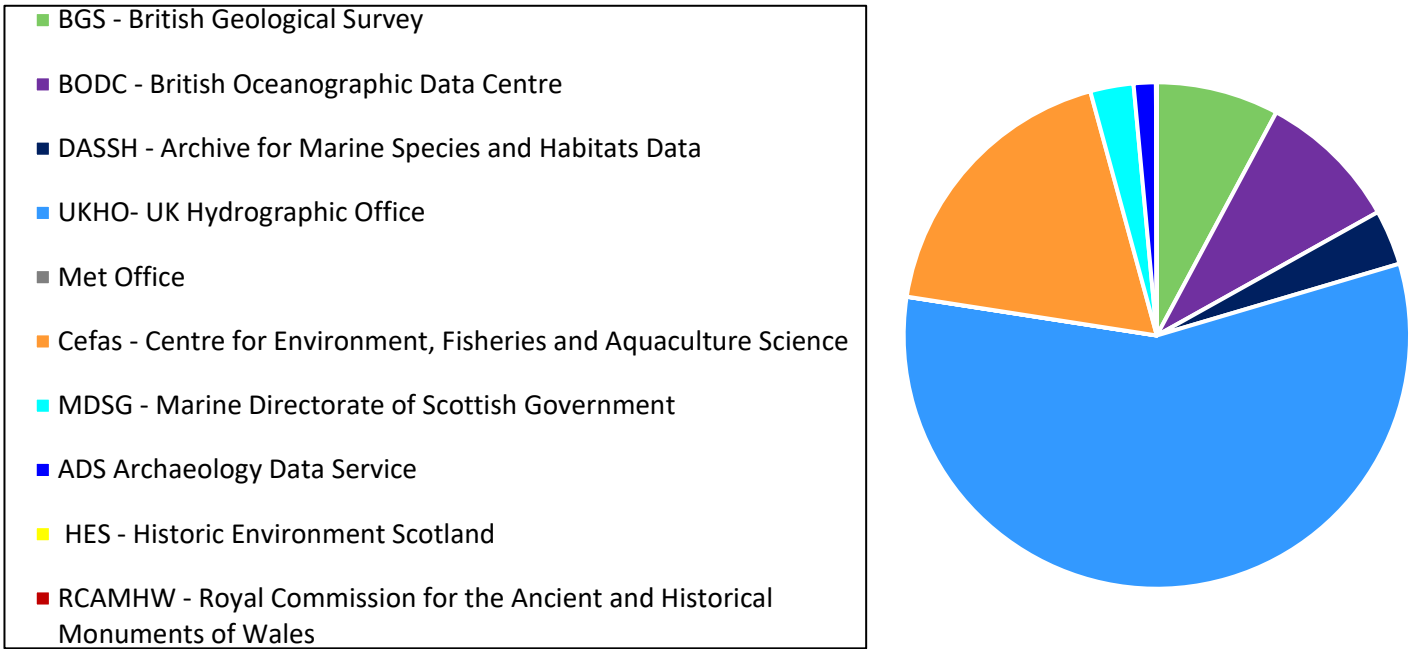
We provide direct access to UK marine data

We promote open and easy access to marine data. Our DACs continue to develop their systems and processes to make it as easy as possible to access the data they manage. This year there has been a 36% increase in the number of requests for data across the DACs (Figure 2). More than 95% of datasets available from our DACs are accessible online and seven of our DACs provide online access to over 85% of their data holdings. 36% of the data held in our DACs are available to download or use within ‘2 clicks’ of finding them on the MEDIN portal, without needing to register, login or carry out additional searches. This year over 2,700 datasets in the MEDIN portal were added to or updated and over 440 more datasets were made available online.

We improve the user experience when submitting data

Increasingly, the data being collected and submitted for archive within MEDIN are cross-discipline and cross-DAC in nature. For a contributor, interacting with each DAC separately can be both time-consuming and counterproductive. During this year, the DACs have continued to develop and strengthen a triage process for archiving multidisciplinary datasets. This provides a clearing house and single point for data to be submitted to the DACs and is operated by DASSH on behalf of MEDIN. In addition, a workshop was held for the DACs to knowledge share on their various submission and ingestion procedures, to provide guidance and share best practice to make the user experience better for submitters.

Operators of the MEDIN Data Archive Centres



***F**igure 1: Percentage of datasets available online from the MEDIN Portal, per DAC.*

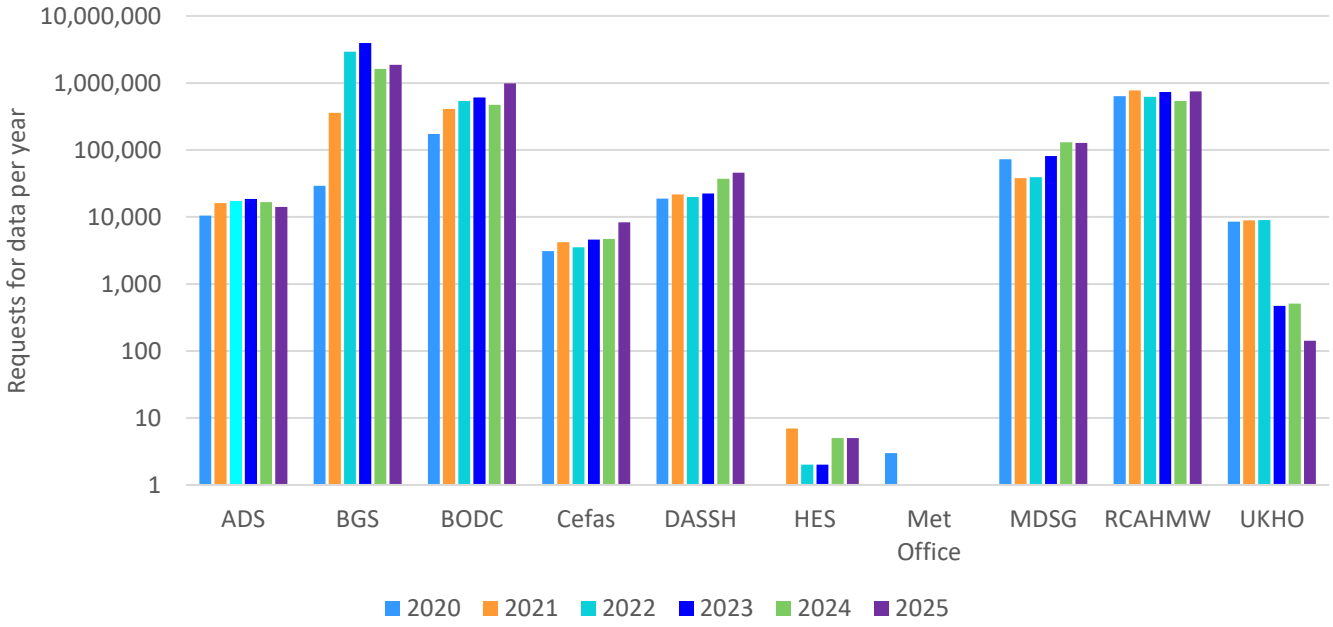


Figure 2. The number of requests for data in 2020, 2021, 2022, 2023, 2024 and 2025 at each MEDIN Data Archive Centre. Note the logarithmic scale on the y-axis

Challenges and opportunities

This year, our DACs noted some financial challenges that they will face in coming years. In particular, the funding for the water column oceanography and marine geology and geophysics DACs (BODC and BGS) from the NERC Data Centre National Capability evaluation and commissioning process is not inflation proofed, which will bring challenges. Furthermore, two components of the Historic Environment DAC (HES and RCAHMW) are funded through the Scottish and Welsh Governments respectively where funding for 2024/25 has been cut by 11% across the historic environment sector. DASSH funding is secure until September 2025, but changes are expected from October 2025, when the funding stream is renewed.

Standards for marine data and metadata

This year we launched a first-of-its-kind standard for sharing non-spatial marine data

UK marine environmental data are collected or managed by over 600 different organisations. Our metadata standard and data guidelines are the backbone of our vision for all UK marine data to be Findable, Accessible, Interoperable and Reusable (FAIR). By providing consistent, standardised ways to describe datasets, we make sure that the wealth of UK marine data can be easily found, accessed and reused.

We ensure marine data can be found

The MEDIN Discovery Metadata Standard ensures that all relevant information about a marine dataset is available to help users assess its relevance. MEDIN regularly updates the standard and associated tools to align with national (GEMINI) and international (EU INSPIRE, ISO) standards. The standard remains compliant with UK GEMINI v2.3. In October 2024, MEDIN released pioneering guidance for non-spatial metadata and enhanced the portal to support searches for both spatial and non-spatial datasets. The new MEDIN non-spatial data standard sets out a clear and consistent way to manage and share data that are independent of geographic location, such as socio-economic data or laboratory experiment results. By creating this new standard, MEDIN is taking a leading role in improving how a wider range of marine data is recorded and shared, helping to ensure that valuable non-spatial information is just as Findable, Accessible, Interoperable and Reusable (FAIR) as spatial data. Two tools support the creation of MEDIN-compliant metadata: Metadata Maestro and the MEDIN Discovery Metadata Editor. A new version of the editor, hosted by DASSH, was launched on 10 February 2025. User accounts were migrated, with inactive ones removed. In 2024-25, there were 68 new registrations on the old tool and 99 on the new one. Total users dropped from 1321 to 876 due to proactively cleaning up accounts. Active users updating metadata in the old tool prior to the release of the new tool rose slightly to 103 (from 94 in 2023-24). The new tool shows 626 users as having updated records; however, this is inflated due to automatic timestamp updates during migration. In total, 436 new records were created in the old editor and 632 in the new one, up from 566 in 2023-24. The total number of records now stands at 11175.

We ensure marine data can be reused

MEDIN offers a suite of 30 data guidelines to help the marine community collect all relevant information to make data reusable. The following MEDIN data guidelines were updated during 2024-25, introducing features for greater modularity of the MEDIN data guidelines for timed search data; quadrat survey data; video surveys of species and benthos; shellfish stock assessment data; species and benthos data by trawl or dredge; the recording of water sample data; static net, pot and trap data; ad-hoc sightings and non-effort or quantitative based visual surveys of marine life; transect survey data; the recording of oceanographic vertical profile data; sediment sampling by grab or core for benthos.

Unfortunately, we were unable to meaningfully record the frequency of downloads of the guidelines or discovery metadata standard this year.

We improve UK marine data management

MEDIN's CPD-accredited online workshop, launched in 2021 and hosted on OceanTeacher, introduces key concepts in marine data governance and MEDIN standards, including controlled vocabularies, data guideline application and the creation of MEDIN-compliant discovery metadata. It also features general data governance modules provided by MEDIN sponsor OceanWise. These workshops play a crucial role in promoting the adoption of MEDIN's data guidelines and discovery metadata standards within the UK and internationally, positioning MEDIN as a model framework for marine data governance.

In 2024-25, MEDIN, in collaboration with OceanWise, delivered two online workshops. Additionally, MEDIN hosted an in-person workshop at the Marine Alliance for Science and Technology for Scotland's (MASTS) Annual Science Meeting (ASM), targeting students and early career researchers, introducing them to MEDIN's tools and resources for effective data management and long-term data preservation.

This year, MEDIN welcomed 136 participants from 83 organisations to our training workshops - maintaining strong engagement following significant growth in previous years (Figure 3). Attendees spanned academia (42.5%), government (28.7%), industry (15%) and NGOs (6.8%). International participation, while slightly reduced from the previous year (27 attendees from 27 organisations compared to 51 from 43), continues to reflect the global reach of the OceanTeacher platform (Figure 3). Of the 56 UK-based organisations represented, 55% were based in England, 32% in Scotland, 7% in Wales, and 5% in Northern Ireland.

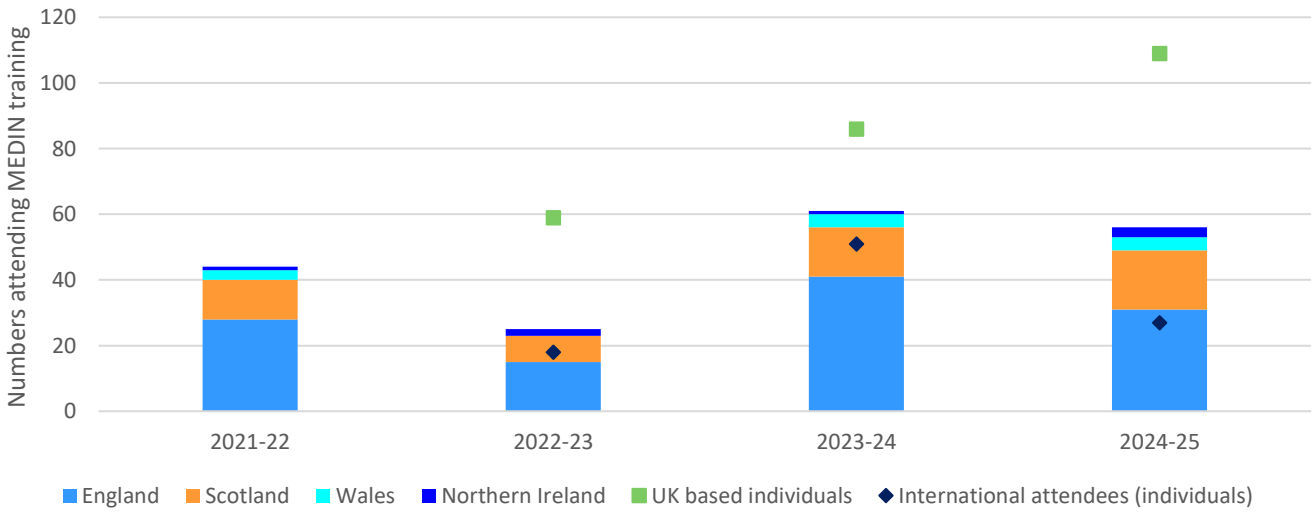


Figure 3. Breakdown of organisation location attending MEDIN training workshop by financial year. Also shown is the total number of UK based individuals (green squares) and international attendees (dark blue diamonds).

Following feedback from 41 respondents in last year's consultation, we have developed a new training plan featuring a seminar series and self-led online resources to better meet user needs and broaden our reach.

Web portal, products and services

This year we engaged with our stakeholders to understand their marine monitoring data needs

Effective online tools are key to providing users with access to marine data. The MEDIN discovery metadata portal is by far the most comprehensive online catalogue of UK marine environmental data available. We meet the needs of the marine community in finding marine data and information with two main tools: the MEDIN portal and the UK Directory of Marine Observing Systems (UKDMOS). Our users access UKDMOS to discover information about sustained monitoring programmes undertaken in the UK and access the MEDIN portal to search for actual data. The two search interfaces are distinct, allowing users to interrogate the metadata to answer different questions.

We support people to find marine data and information

MEDIN portal usage has fluctuated this year with a large decrease in pages accessed, visits and unique visitors over the winter months but a sharp increase in January (Figure 4). This could be a result of a questionnaire we launched around that time as recipients may have used the MEDIN portal to search for marine monitoring data. The average number of unique users per month was 2494, with an average of 9877 visits per month. The overall trend of MEDIN portal usage is increasing, as shown in Figure 5, which has data going back to 2018 for number of pages accessed per month.

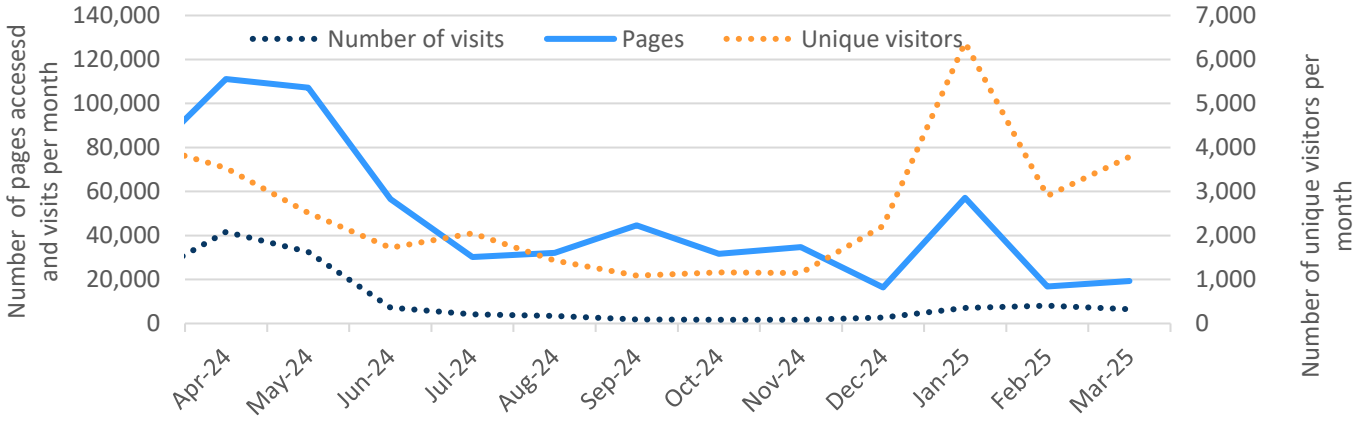


Figure 4: MEDIN Portal web traffic (Pages, unique visitors and number of visits per month) (Source: AW Statistics)

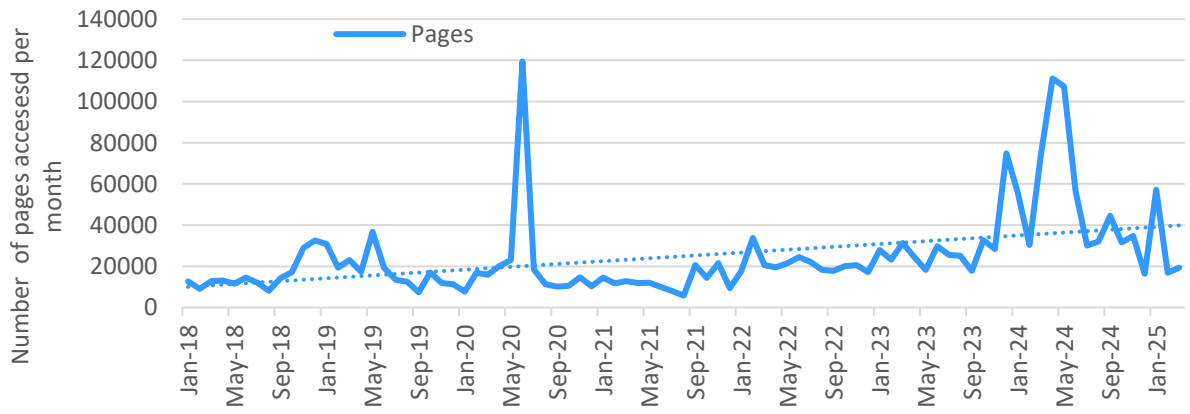


Figure 5: MEDIN Portal web traffic (numbers per month) from January 2018 to March 2025 (source: AW Statistics)

The total number of metadata records in the portal is 18,646, an increase of 759 since last year. The top 3 most viewed portal records between April 2024 and March 2025 are outlined in the table below. The data holders for these records are either The Crown Estate (TCE) or UK Hydrographic Office (UKHO).

Rank	UUID	Number of views	Title of record	Year of publication	Data holder
1	aaa37e75ceef66a1320b2728dcb69287	306	The Crown Estate, Offshore Wind Evidence and Change Programme, Nature Inclusive Cable Enhancement Programme (NICE)	2013	TCE
2	1dea3c8a67ed6a9a379bbb5940ddd134	287	The Crown Estate, Habitats Regulations Assessment (HRA), Marine Aggregates Licensing Round 2021-2022	2024	TCE
3	7e17763f-733f-4124-a8d2-57dc854b6a83	256	River Mersey - Liverpool Landing Stage - 2m - Bathymetric Survey	2024	UKHO

We consult the marine community to improve access to marine information

In January 2025, we launched a questionnaire that began some discovery work to investigate whether there is a stakeholder need for an online database of marine monitoring data and metadata. The questionnaire received 156 responses, from which we captured 246 user stories. The data from the questionnaire and subsequent discovery sessions (to which 34 people attended) is being analysed and will further be used to support the creation of a business case to provide a central online database of marine monitoring information.

Figure 6 shows the decrease in use of UKDMOS since 2016, where it peaked at nearly 8,000 visits in December 2017 and has fluctuated around 1,000 visits per month since then. This evidence has driven the discovery work launched in January 2025 so that we can assess whether people need access to marine monitoring information and how best to provide it to them.

Figure 6. Number of visits per month to the UK Directory of Marine Observing Systems (source: AW Statistics)

We support more people to find marine data

The MEDIN Metadata Helpdesk at DASSH is on hand to help metadata suppliers having technical difficulties generating metadata. This financial year it received 77 requests for assistance, with a total of 282 follow-up email correspondences. This is an increase in enquiries and significant increase in follow up emails since last year (44 enquiries last year and 150 follow up emails in 2023-2024). The Helpdesk continues to be a service in constant use.

International awareness and coordination

We grew our visibility on the global stage

The UK marine environment is a small part of an ever-changing global system that crosses national boundaries; it influences and is influenced by conditions in distant regions. UK scientists and decision-makers rely on marine data from global databases, as well as national ones, to take a wider view of our marine environment. It is therefore crucial that UK marine data can easily flow to global databases and that our Data Archive Centres keep their systems linked in, aligned to and interoperable with international data management initiatives. The key international drivers for ensuring a transparent and efficient flow of marine data are shown below (Table 1). Many of these international drivers inform UK legislation for the marine environment.

International	**European**
OSPAR Quality Status Reports	Marine Strategy Framework Directive
United Nations Convention on the Law of the Sea	Water Framework Directive Assessment of Ecological and Chemical Status
United Nations Sustainable Development Goals	Common Fisheries Policy Annual Assessment
	Habitats and Birds Directive reporting
	INSPIRE Directive compliance
	Copernicus Marine Environment Monitoring Service

Table 1: The key international drivers for ensuring a transparent and efficient flow of marine data.

We facilitate international knowledge exchange

During 2024-25 we acted as a hub for promoting global developments in interoperability to the UK marine data community. We did this by facilitating knowledge exchange between UK experts and international initiatives such as the:

- International Council for the Exploration of the Sea (ICES) Data and Information Group (DIG)
- International Conference on Marine Data and Information Systems (IMDIS)
- Intergovernmental Oceanographic Commission (IOC) International Oceanographic Data and Information Exchange (IODE).

MEDIN actively participated in the ICES DIG Annual Meeting in May 2024, in addition to shorter interim meetings that took place during September 2024 and February 2025. MEDIN also contributed to ICES Working Groups that were established to enable ongoing delivery of DIG work outside of these core meetings. Over the course of the year key MEDIN work included the continued coordination of the review of ICES data guidelines, ensuring that these resources remain relevant and available to the wider ICES community. In the last year this Working Group also looked at broader endorsement of these published guidelines by the international Ocean Best Practices System (OBPS). Other Working Group activity with MEDIN involvement included provision of a standardised framework and workflow to better assess challenges and opportunities relevant to DIG and publication of best practices concerning reference management.

In May 2024 we had the honour of sponsoring the 2024 edition of IMDIS – an international conference organised by the European SeaDataNet community with the objective of promoting best practice in marine data and information management. As part of IMDIS 2024, which took place in Bergen, Norway, MEDIN delivered a presentation on

improving the findability of marine data, drawing on recent collaborative successes with IODE's Ocean Data Information System (ODIS). The conference also featured various additional presentations highlighting the work of the broader MEDIN community.

In March 2025 the MEDIN community took part in two key events organised by the IODE programme of IOC and hosted by the José Benito Vives de Andréis Marine and Coastal Research Institute (INVEMAR) in Santa Marta, Colombia. The first of these was the third International Ocean Data Conference (IODC-3), a global event with similar aspirations to IMDIS. We delivered a presentation during IODC-3 to promote our recent developments in publishing non-spatial marine data – a capability that will enrich the MEDIN contribution to ODIS. Our overall efforts to align with and help to further develop the ODIS initiative were also highlighted on several occasions during the conference.

Following IODC-3, MEDIN, as an IODE Associate Data Unit (ADU), formed part of the UK delegation to the 28th Session of the IODE Committee (IODE-28). The IODE Committee meetings are an important networking event and an opportunity to help steer global initiatives around the sharing of marine data and information. The wider UK delegation consists of BODC, Cefas and MBA – all key members of the MEDIN community, thereby ensuring excellent cohesion and alignment between the national and international landscape.

We deliver data to international systems

Our Data Archive Centres deliver their data holdings to international databases to support science, policy and sustainable development of our seas. For example, MEDIN Data Archive Centres (BODC, Cefas and Marine Scotland) deliver marine contaminants and fisheries data to the International Council for the Exploration of the Sea (ICES). These data are used to make regional assessments of the state of our seas by OSPAR. Similarly, DASSH, the MEDIN Data Archive Centre for marine species and habitats, is the UK node for submitting data to the Ocean Biodiversity Information System (OBIS), part of IODE.

During 2024-2025, systems development work was carried out at BODC to enable the flow of data to the ICES Oceanography database in the revised ICES delivery format. Similarly, a BODC pipeline for biodiversity data to OBIS was built with support from the European DTO-BioFlow project. We anticipate this groundwork paving the way for routine data flow to these key communities during 2025-2026.

We reach global audiences

This year MEDIN and its Data Archive Centres contributed to over 50 national and international conferences, workshop and webinars, including those named in Annex A.

Communication, outreach, forums and publicity

We raise awareness of MEDIN with more people than ever before

The UK marine community is a large and varied group of organisations spanning government departments and agencies, academia, commercial and industrial partners, and non-governmental organisations, to name a few. It is only by working together that we can realise the full financial, scientific and environmental benefits of sharing our marine data. By bringing together the different sectors of the UK marine community, we share knowledge through different channels and provide opportunities for MEDIN Sponsors and Partners to communicate to audiences they may not otherwise be able to access. Communication with these varied stakeholders is key to developing a network that serves all our partners.

We raise the profile of MEDIN in the marine community

The MEDIN Communications Working Group (WG) continues to share knowledge, exchange marine data management communication ideas and progress the MEDIN vision for communication. A total of 26 people from 16 different organisations from across the marine community attended MEDIN Communications WG meetings this year.

National conferences and events are efficient ways to promote MEDIN services and resources and share marine data knowledge with a targeted audience. In April 2024, we held a hybrid MEDIN Open Meeting entitled “The next 5 years in marine data and how you can help”. With 183 registrations for the event, this is an increase of 25 people expressing interest in the event. Around 40 people attended in person at The Crown Estate‘s London Head Office and there were 60 people present online. The day consisted of presentations, polls, flash talks from the MEDIN DACs and discussions addressing the following questions:

- What are our ambitious, but currently unfunded, marine data management priorities and what collaboration opportunities exist to pursue these?
- How can MEDIN empower the marine community to improve marine data management?

MEDIN hosted a trade stand and presented at the Marine Alliance for Science and Technology for Scotland (MASTS) Annual Science Meeting, as well as delivering an in-person training workshop. Our presentation at the online Offshore Energy Technology 4.0 conference highlighted our relationship with The Crown Estate and our collaboration with Ocean InfoHub. We also get involved with outreach events. For example, the ScotMer Symposium in February 2025. We presented posters at the Challenger Society conference and the NERC Digital Gathering event and a presentation at the National Environment Monitoring conference in Liverpool.

We reach new audiences

MEDIN uses multiple online platforms to promote services and marine data news around the globe. X (formerly Twitter) followers have decreased this year to 1840. It should be noted that all our X follower and engagement metrics have reduced since 2023 and metrics are no longer available to view for MEDIN on a free profile. It is possible that followers have moved onto a new platform called BlueSky. MEDIN created a BlueSky account after receiving recommendations in the MEDIN Communications WG and now has 828 followers. Our follower count on LinkedIn continues to increase steadily (Figure 7), allowing our content to reach a wider global audience. As of March 2025, there are a total of 1374 followers of the MEDIN profile and business page. The total number of followers of MEDIN social media is now 3726, an increase of 2710 since March 2024. LinkedIn and BlueSky are currently the most popular platforms for public engagement. Our aim is to increase audience and engagement to generate more visitors to our website, more registrations for our training events and more awareness of marine data management best practice.

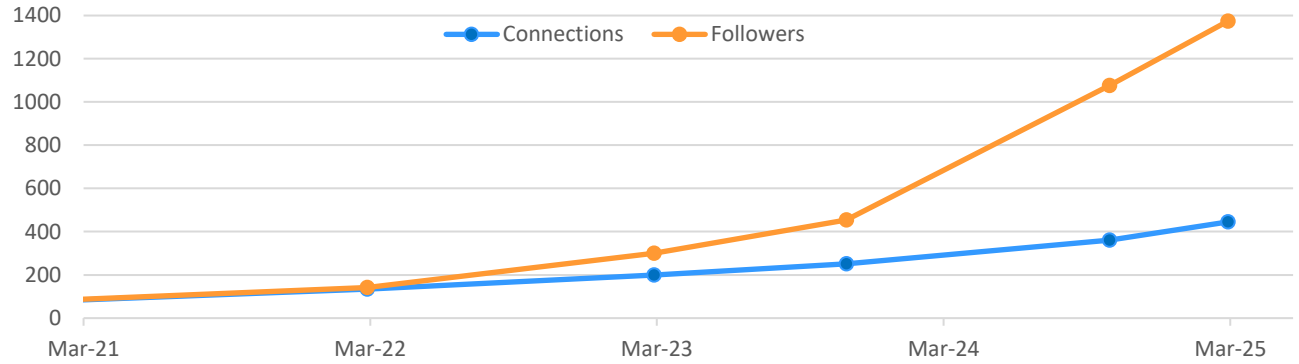


Figure 7: The growth of MEDIN's LinkedIn followers and connections with time.

We share marine data knowledge

Two regular editions of Marine Data News, our free online newsletter, were published to an average of 590 recipients. This is an increase of 35 since March 2024. Published in July and December 2024, Marine Data News has an international readership. This year, Marine Data News included articles from 8 different MEDIN Partners (see logos below) and advertised 5 different events.

Our website, www.medin.org.uk, continues to be a major source of information and resources for our users. A challenge we have experienced this year is difficulty accessing accurate website statistics. Most users arrive at the website directly, with significant numbers also arriving via Google and Bing.

Management, planning and coordination

This year we supported and shaped ocean policy

The seas and coasts surrounding the UK have a complex range of stakeholders who manage, monitor, explore, conserve and sustainably exploit the marine environment. We seek to provide tools and services that support all UK users of marine environmental data. This requires significant coordination to address the (sometimes conflicting) requirements of our users. This work stream provides our partners with overarching coordination, alignment and oversight of marine data management activities in the UK. Long-term strategic planning, annual operational planning and reporting, project and financial management, all essential for the success of MEDIN as a collaborative endeavour, are also covered by this work stream.

We support policy

MEDIN provides ongoing support and expertise to UK Government departments as well as to cross-agency groups such as the Marine Assessment and Reporting Group (MARG) and its four Evidence Groups. This year we gave new visibility and momentum to the vital work of the UK's biodiversity monitoring community, represented by the Healthy and Biologically Diverse Seas Evidence Group (HBDSEG). Through key enhancements to the MEDIN website, we now provide a dedicated online platform for the biodiversity monitoring community. Before this partnership, HBDSEG had no formal web presence. Now, with support from MEDIN, their work is more accessible, supporting a stronger, evidence-based foundation for marine policy and decision-making.

We support innovation through trusted data sharing

In January 2025, the UK government released its strategy to accelerate the development of artificial intelligence, including plans to establish a National Data Library (NDL) to support research and innovation. The Department for Science, Innovation and Technology (DSIT) is leading this important initiative. Given the marine sector's strong track record in data collaboration, MEDIN was one of fourteen established data initiatives reviewed by DSIT. Over the years, we have developed the standards, infrastructure, expertise and culture needed to enable the effective sharing of marine data across public and private sectors.

In DSIT's internal review, MEDIN stood out as a leading example of a mature, federated data system—highlighting our role in setting the pace for how trusted, collaborative data frameworks can underpin the UK's innovation ecosystem.

We shape ocean policy

In January 2025, MEDIN was invited to contribute to a meeting of the All-Party Parliamentary Group for the Ocean, focusing on the vital role of data and artificial intelligence in advancing ocean and climate research. At the session, MEDIN Coordinator Dr Clare Postlethwaite highlighted how MEDIN's holistic approach to marine data management positions it as a key player in the development of the UK's National Data Library. From setting standards and ensuring data quality to building capacity, fostering partnerships, and promoting open access, MEDIN is helping to transform how marine data is shared and used. By supporting evidence-based policymaking and enabling better stewardship of our marine environment, MEDIN plays a vital role in ensuring that decisions about our oceans are grounded in robust, accessible data. Further information available in this LinkedIn post

We expand our network

This year we welcomed Crown Estate Scotland (CES) as our latest Sponsor. MEDIN has been liaising with CES since it was established in 2017, and we are delighted that CES are keen to take a strategic role in MEDIN's future. CES investment in MEDIN recognises the importance of MEDIN's tools and standards in underpinning the data in the Marine Data Exchange – the digital infrastructure created by The Crown Estate for making data from offshore industries freely available.

We facilitate FAIR data

As we kicked off a new 5-year business plan, we seized the moment to evaluate just how Findable, Accessible, Interoperable, and Reusable (FAIR) our Data Archive Centres (DACs) truly are. Leveraging a publicly available, semi-automated tool, we analysed a sample of metadata from the MEDIN portal to pinpoint where we can further enhance the tools and services we offer the UK marine community. Our overarching goal was to ensure that our high-quality marine data are not only accessible but actively support scientific research, sustainable development, food security, and marine conservation. Of the records assessed, 94% achieved a moderate overall FAIR rating, while 6% were rated at the initial level - primarily due to outdated metadata standards. Interoperability scores were strong, with 88% reaching the advanced level, but all records scored only at the initial level for reusability. The variation in scores across DACs suggests differences in metadata practices, and further analysis is needed to refine the MEDIN standard and enhance FAIR performance, especially for reusability.

We unlock the value of marine natural capital

At MEDIN, we are driving progress in how the UK understands and protects its marine assets. To support smarter, more integrated assessments of marine natural capital, we have upgraded our tools and training to ensure socio-economic data can be made as accessible as environmental data within our data portal. As the importance of marine ecosystems in policy and decision-making grows, so too does the demand for robust, joined-up data. By bringing socio-economic insights alongside environmental evidence, MEDIN is helping shape a more informed and sustainable blue economy for the future.

With thanks to our 2024-2025 sponsors

and our 60 partner organisations working with us to deliver MEDIN's vision

afbi AGRI-FOOD & BIOSCIENCES INSTITUTE

Department of Agriculture, Environment and Rural Affairs www.daera-ni.gov.uk

Crown Estate Scotland Oighreachd a' Chrùin Alba

Department for Energy Security & Net Zero

Department for Environment Food & Rural Affairs

JNCC Joint Nature Conservation Committee

Maritime & Coastguard Agency

Met Office

National Oceanography Centre

NERC SCIENCE OF THE ENVIRONMENT

Cyfoeth Naturiol Cymru Natural Resources Wales

OceanWise

THE CROWN ESTATE

The Scottish Government Riaghaltas na h-Alba

UK Hydrographic Office

Llywodraeth Cymru Welsh Government

A list of all our 60 partners is available at https:/ onsors-and-partners

Annex A

MEDIN and its Data Archive Centres contributed to over fifty national and international conferences, workshops and webinars, including those named below

Archaeology, Heritage Science, and Humanities Data

1. **National Conference for Open Archaeology** – Stockholm, Sweden
2. **University of Copenhagen (UCPH) School of Archaeology Retreat** – Snekkersten, Denmark
3. **Avifauna in Archaeoecological Networks (AviArch) Kick-off Meeting** – Turin, Italy
4. **European Research Infrastructure for Heritage Science (E-RIHS) Public Celebration** – Florence, Italy
5. **Open Research Data in Humanities** – Barcelona, Spain
6. **Sharing Heritage and Archaeological Data Effectively (SHADE) National Workshop** – Athens, Greece
7. **ARIADNE Research Infrastructure (ARIADNE RI) Training School** – Heraklion, Greece
8. **Digital Preservation Coalition (DPC) Members Unconference and Networking Event** – Dublin, Ireland
9. **International Conference on Digital Preservation 2024** – Ghent, Belgium
10. **European Association of Archaeologists (EAA) 2024 Annual Meeting** – Rome, Italy
11. **Europae Archaeologiae Consilium (EAC) Presentation: 'Life after Life of Archaeological Archives'** – Gdańsk, Poland
12. **Ocean Heritage and Marine Archaeology: Waves of Change** – Edinburgh, UK
13. **42nd International Shipwreck Conference** – Plymouth, UK

Marine & Ocean Data Meetings

14. **European Marine Observation and Data Network (EMODnet) Ingestion Meeting - Malta**
15. **EMODnet Geology Meetings**
16. **EMODnet Biology Annual Meeting** – Romania
17. **EMODnet Annual Meeting** – Romania
18. **EMODnet Project Meetings** – Various
19. **Ocean Biodiversity Information System (OBIS) Global Steering Group Meeting** – Korea
20. **International Oceanographic Data and Information Exchange (IODE) – 28th Session** – Colombia
21. **International Ocean Data Conference (IODC III)** – Colombia
22. **International Conference on Marine Data and Information Systems (IMDIS) 2024** – Norway

23. **Ocean Data Action Day** – Norway
24. **Seabed 2030 – Atlantic/Indian Oceans Regional Mapping Workshop**
25. **Argo Project Meetings** – Various
26. **General Bathymetric Chart of the Oceans (GEBCO) Meetings** – Various
27. **Ecopath with Ecosim (EwE) Workshop** – Institute of Marine Sciences (ICM-CSIC), Spain
28. **International Workshop to Advance Ocean Carbon and Acidification Data Management and Interoperability** – Italy
29. **International Underwater Glider Conference 2024** – Sweden

---

International Policy, Strategy, and Data Coordination

31. **CSA Geological Service for Europe (GSEU) Meetings**
32. **Offshore Energies Digital Strategy Group – Open Data Portals Workshop** – London, UK
33. **Biocides Europe Conference** – Vienna, Austria
34. **E-surfMAR (EUMETNET Surface Marine Observation Programme) Workshop** – Location not specified
35. **The State of Marine Biodiversity Monitoring in Europe Workshop** – Online
36. **Integrated Carbon Observation System (ICOS) Away Day** – Norway
37. **Blue-Cloud 2026 General Assembly** – Portugal
38. **2024 Climate and Forecast (CF) Workshop** – Sweden
39. **Helmholtz Metadata Collaboration Conference 2024** – Location not specified

---

Scientific Standards, Interoperability, and Research Infrastructure

40. **Research Data Alliance (RDA) Plenary Meeting** – Costa Rica
41. **InteroperAble Descriptions of Observable Property Terminology (I-ADOPT) and Open Geospatial Consortium (OGC) Observations and Measurements Standards (OMS) Modelling Workshop** – Vienna, Austria
42. **Integrated European Long-Term Ecosystem, critical zone and socio-ecological Research (eLTER) Semantic Workshop** – Location not specified

---

International Council for the Exploration of the Sea (ICES) – Scientific and Technical Meetings

43. **ICES Working Groups, Advisory, and Technical Meetings** – Includes:
    - WGSPF – Working Group on Southern Pelagic Fisheries

- WGNSSK – Working Group on North Sea Stock Assessments
- IBTSWG – International Bottom Trawl Survey Working Group
- WGECO – Working Group on Ecosystem Effects of Fishing Activities
- ADGPULSE – Advice Drafting Group on Pulse Trawling
- WGINOSE – Working Group on Integrated Assessments of the North Sea
- WGCSE – Working Group on Celtic Seas Ecoregion
- ADG Baltic – Advice Drafting Group for the Baltic
- WKENSEMBLE – Workshop on Ensemble Forecasting
- WGTAFGOV – Working Group on Governance of Aquaculture
- WGHANSA – Working Group on Harp and Hooded Seals
- WGSFD – Working Group on Spatial Fisheries Data
- RDBES – Regional Database and Estimation System
- WKMSEMAC – Workshop on Management Strategy Evaluation
- WGCEPH – Working Group on Cephalopods
- WGTRUTTA – Working Group on Trout and Salmon
- WGML – Working Group on Marine Litter
- WGBIOP – Working Group on Biological Parameters
- WGMIXFISH-Methods – Working Group on Mixed Fisheries Advice Methodology
- WKSTATUS – Workshop on Status Reporting
- WGVHES – Working Group on Vulnerable Habitats and Ecosystems
- WKNSCodID – Workshop on North Sea Cod ID
- WGGRAFY – Working Group on Graphical Assessment Frameworks
- ASC – Annual Science Conference
- WGScallop – Working Group on Scallop Assessment
- WGCRAB – Working Group on Crab Stocks
- WGACEGG – Working Group on Acoustic and Egg Surveys
- WGEEL – Working Group on Eel
- DIG – Data and Information Group
- SCICOM – Science Committee
- ACOM – Advisory Committee

Additional Intergovernmental and Multilateral Bodies

44. **OSPAR Convention Meetings** – Including:
    - EIHA – Environmental Impact of Human Activities Committee
    - ICG-Noise – Intersessional Correspondence Group on Underwater Noise
    - ICG-QSR – Intersessional Correspondence Group on Quality Status Report
45. **COST – European Cooperation in Science and Technology / NSF – National Science Foundation Joint Session** – New York, USA
46. **Ship Observations Team (SOT-13), WMO Task Team on Voluntary Observing Ship Delayed Mode Data** – Location not specified
47. **NUTEC Plastics (Nuclear Technology for Controlling Plastic Pollution, IAEA)**
48. **United Nations (UN) Ocean Decade Conference** – Barcelona, Spain
49. **iNaturalist Global Members Network Meetings** – Online (multiple dates)
50. **Marine Imaging Workshop** – Monterey Bay, USA
51. **Digital Twin Ocean (DTO) BioFlow 2nd General Assembly** – Seville, Spain
52. **Marine Coastal Biodiversity Long-term Observations (MARCO BOLO) 2nd General Assembly** – Seville, Spain
53. **MICRO 2024, Plastic Pollution from Macro to Nano** - Lanzarote