



EMODnet Ingestion and safe-keeping of marine data

7th Quarterly Report

Reporting Period: 01/01/2018 – 31/03/2018

Date: 15/04/2018

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1. Highlights in this reporting period

- The number of **published data submissions ‘as is’** in the **View Submissions service** (aka Summary Records service) has almost doubled from **55 to 106 submissions** (metadata forms and related data sets) and of these **6** submissions have been elaborated to **Phase II** and their data sets are now also available at national and European portals;
- Partners have made further progress with promoting EMODnet Ingestion and encouraging data submitters. Next to the **106** published submissions more than **50** additional submissions are under processing and also further activities are underway for phase II.
- EMODnet Ingestion was promoted at the Oceanology International 2018 exhibition in London – United Kingdom, both at stands of MARIS and of the EMODnet Secretariate, and as part of presentations for Ocean-ICT-Expo, the EMODnet Bathymetry Workshop, and the SWE Workshop.

2. Work package progress

WP0 – Project Management:

In the quarterly reporting period the coordinator of EMODnet Ingestion has participated in the following relevant meetings:

Date	Location	Topic	Short Description
21 – 23 March 2018	Majorca, Spain	EMODnet Steering Committee meeting	Participation and presentation of progress.

The coordinator prepared the 6th quarterly progress report which was accepted by the EU (EASME and DG MARE). Moreover, preparations were undertaken for the coming EMODnet Ingestion plenary meeting, which will take place 16 – 17 April 2018 at CSIC in Barcelona – Spain.

WP1 – Construct and operate central Data Ingestion portal with services:

In the present quarter only a few updates have been implemented to the EMODnet Ingestion portal and service.

WP2 – Implement pathways to forward submitted data to the appropriate repository:

The number of qualified data centres from the EMODnet Ingestion network and EMODnet Thematic networks that are included in the Data Centre Matrix of engaged data centres has consolidated at 49. These can be actively involved in the processing of data submissions that are relevant for their expertise and country. This might be expanded with additional data centre members of EMODnet thematic networks.

In France there is a national science ingestion portal active: ‘SEANOE - Sea scientific open data publication’ at www.seanoe.org, which is operated by IFREMER. It started in 2015 and now has > 300 entries. It has been agreed with IFREMER to work on a (semi-)automatic coupling of SEANOE and EMODnet Ingestion, so that (selected) scientific submissions from SEANOE will be harvested by EMODnet Ingestion for further metadata completion, publishing ‘as-is’, and elaboration of data sets for inclusion and publishing in national and European portals.

A comparable plan has been earlier agreed with the United Kingdom where Crown Estate has set up and operates the portal www.marinedataexchange.co.uk. In deliberation with BODC and Crown Estate further analysis is planned for a (semi-)automatic harvesting from the UK portal to EMODnet Ingestion.

In the meantime both IFREMER and BODC have made some manual selections and submissions from these portals.

WP3 – Facilitate machine-to-machine transfers:

The **NRT machine-to-machine ingestion** aims at identifying and arranging additional NRT data stations for EMODnet Physics. These can originate from additional operators that are willing to get connected and share their NRT data freely in EMODnet Physics. The portal explains how the NRT exchange is organised between operators of observing stations and EuroGOOS – Copernicus and it gives a link to the EMODnet Physics portal to show how NRT stations can be displayed and used.

In the reporting period the guidelines and stepwise instructions for observing platform operators, as published at the EMODnet Ingestion portal, have been reviewed and amended in direct communication with CMEMS-INSTAC (Copernicus) and EuroGOOS.

Further promotion towards potential operators has been undertaken and is planned in a cooperation between EMODnet Ingestion and EMODnet Physics. For instance, end April 2018 a half-day colloquium is planned in Sopot – Poland to make the Polish ocean observing community with representatives from government, science and industry more aware of modern standards for data management (including

Sensor Web Enablement (SWE)), and to encourage them to participate and share their historical and NRT data with BOOS, EMODnet Physics and EMODnet Ingestion.

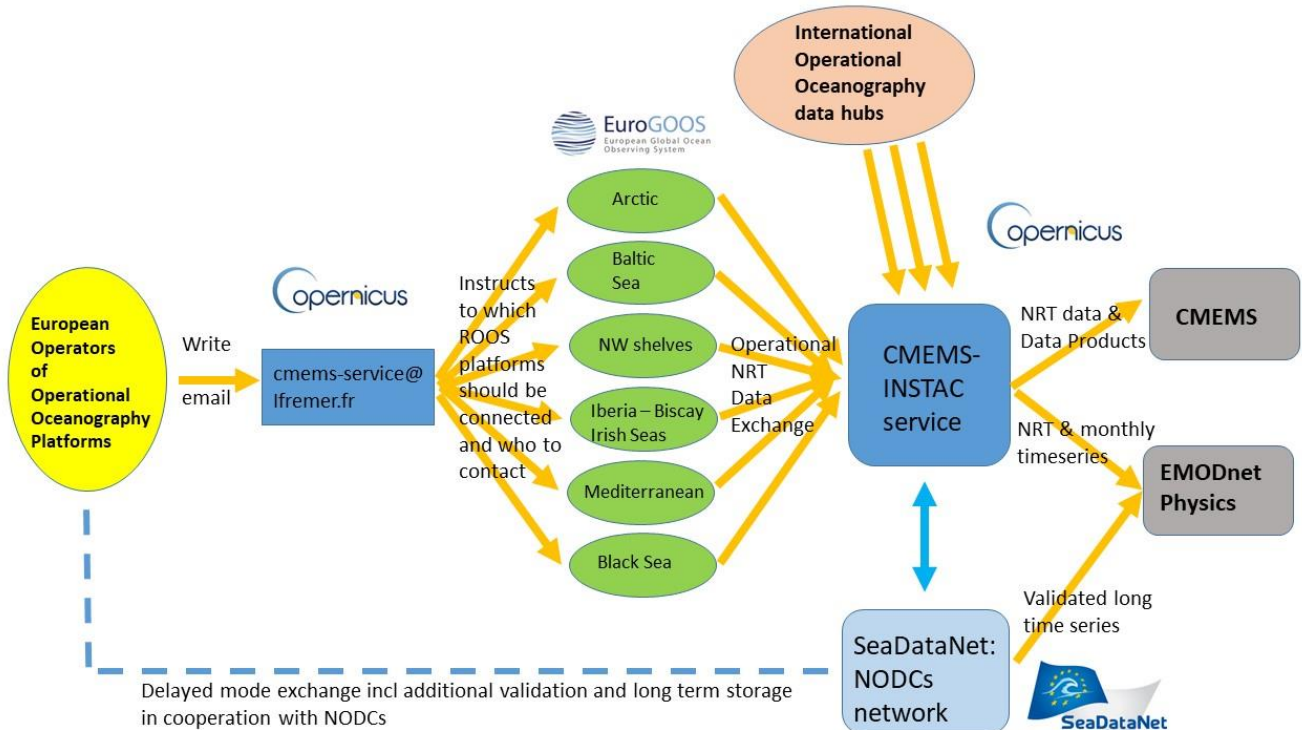


Image: amended workflow as published at the EMODnet Ingestion portal

The **Sensor Web Enablement (SWE) pilot** concerns real time monitoring systems, allowing direct standardised access to selected data types from selected monitoring instruments. This activity is executed by BODC, IFREMER, ETT and OGS. In the last quarter further progress has been made. The SWE profiles can be found at: <https://odip.github.io/MarineProfilesForSWE/>

At the EMODnet Physics portal a dedicated page has been developed and published by ETT at: www.emodnet-physics.eu/RealTime

This gives a Viewing service which gives discovery and access to a number of Sensor Observation Service (SOS) instances which are connected to Real-Time observing platforms. The viewer allows users to find locations of observing platforms and to retrieve and visualise observations, both historic time-series and real-time. ETT, with contributions of BODC and 52North, has also drafted a guideline document to explain to users how to operate the SOS Viewing service.

Furthermore BODC has drafted a guideline for platform operators how to adopt SWE standards, how to set up and configure an SOS service, and how to connect their platforms to the SOS service.

The next activity for MARIS is to develop a section at the Ingestion portal to highlight to platform operators the benefits of adopting SWE standards and services, and how to get connected to the

EMODnet SOS Viewer. And to make it clear to users what and how they can retrieve and visualise data streams from connected SWE platforms.

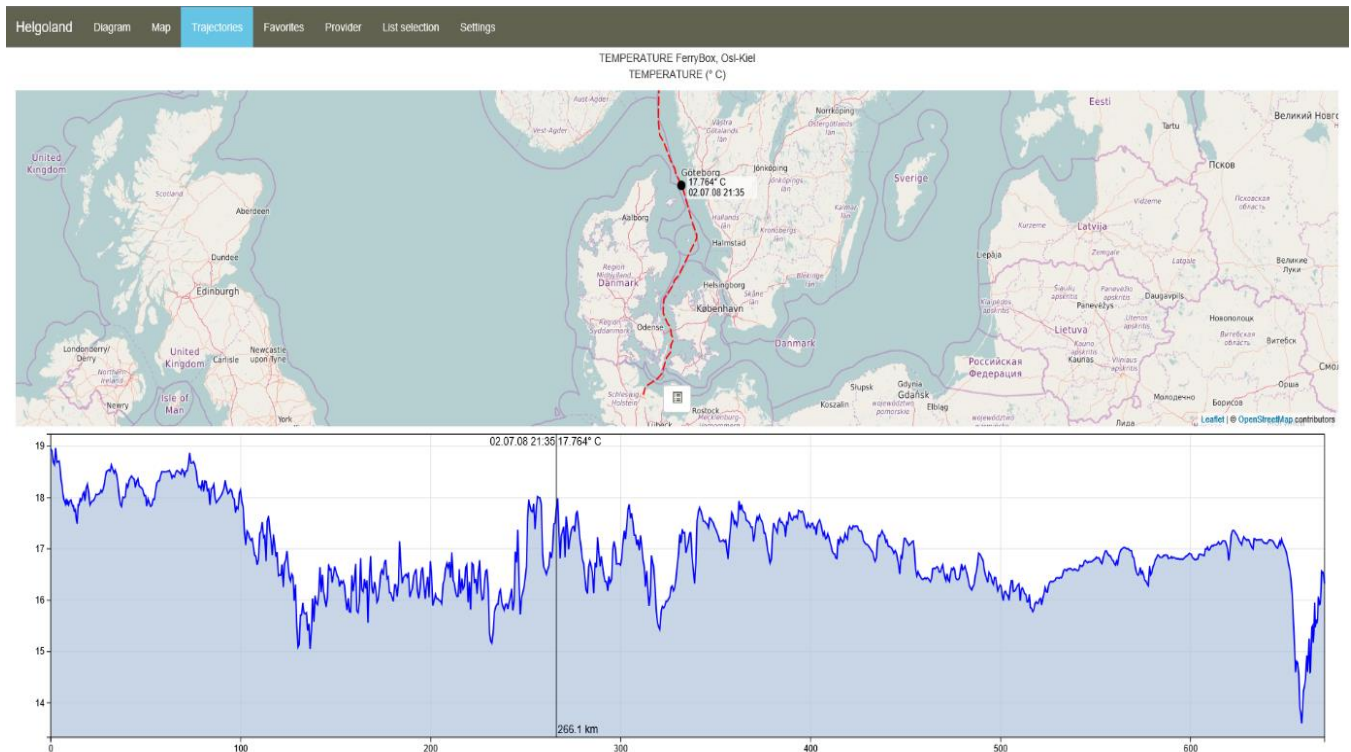


Image: example page from the SOS Viewing service

WP4 – Marketing and outreach activities:

Marketing and outreach activities are undertaken by all consortium members and aim at promoting the EMODnet Ingestion portal and services as well as identifying, encouraging and supporting potential data providers to submit relevant marine data sets by means of the Ingestion portal. Consortium members give a follow-up to the earlier compiled inventory and also explore other opportunities. Thereby partners are supported by the central promotion campaign, promoting EMODnet Ingestion at almost all EMODnet portals, and the set of promotion materials as produced by RBINS. At the coming EMODnet Plenary meeting in April 2018 detailed reports will be collated from each country in the EMODnet Ingestion consortium in order to provide a detailed overview of activities, results, best practices, and plans in the 2nd Annual Progress Report which is due in May – June 2018.

EMODnet Ingestion was presented and promoted at Oceanology International 2018 in London – United Kingdom by a poster and leaflets at the MARIS stand, by leaflets at the EMODnet Secretariate stand, and as part of EMODnet presentations at the Ocean ICT Expo, the EMODnet HRSM Workshop, and the SWE Workshop. This included presenting the EMODnet Ingestion animation movie.



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Further progress was made with the **use case for the Netherlands** by Deltares and RWS concerning monitoring data from renewable energy projects in the North Sea has made further progress. A number of data submissions have been completed to the Ingestion portal and are published 'as-is'. Deltares is underway with elaborating the metadata and data from the national AQUO standards to the SeaDataNet standards for inclusion in SeaDataNet and EMODnet portals. The conversion procedure will be used for additional submissions from the Offshore Wind Ecological Program (WOZEP) as well as from the nationaal Rijkswaterstaat marine database. Note: The Netherlands governmental ecological programme WOZEP is part of a larger WIND/ENERGY related international network on the North Sea. The Netherlands by means of RWS is also actively promoting EMODnet in this network.

Also further progress was made with the **use case for the United Kingdom with Crown Estate** concerning renewable energy projects. See also the report under WP2. BODC has selected a number of interesting datasets from the Crown Estate portal which have been submitted and published at the EMODnet Ingestion portal.

Key indicators:

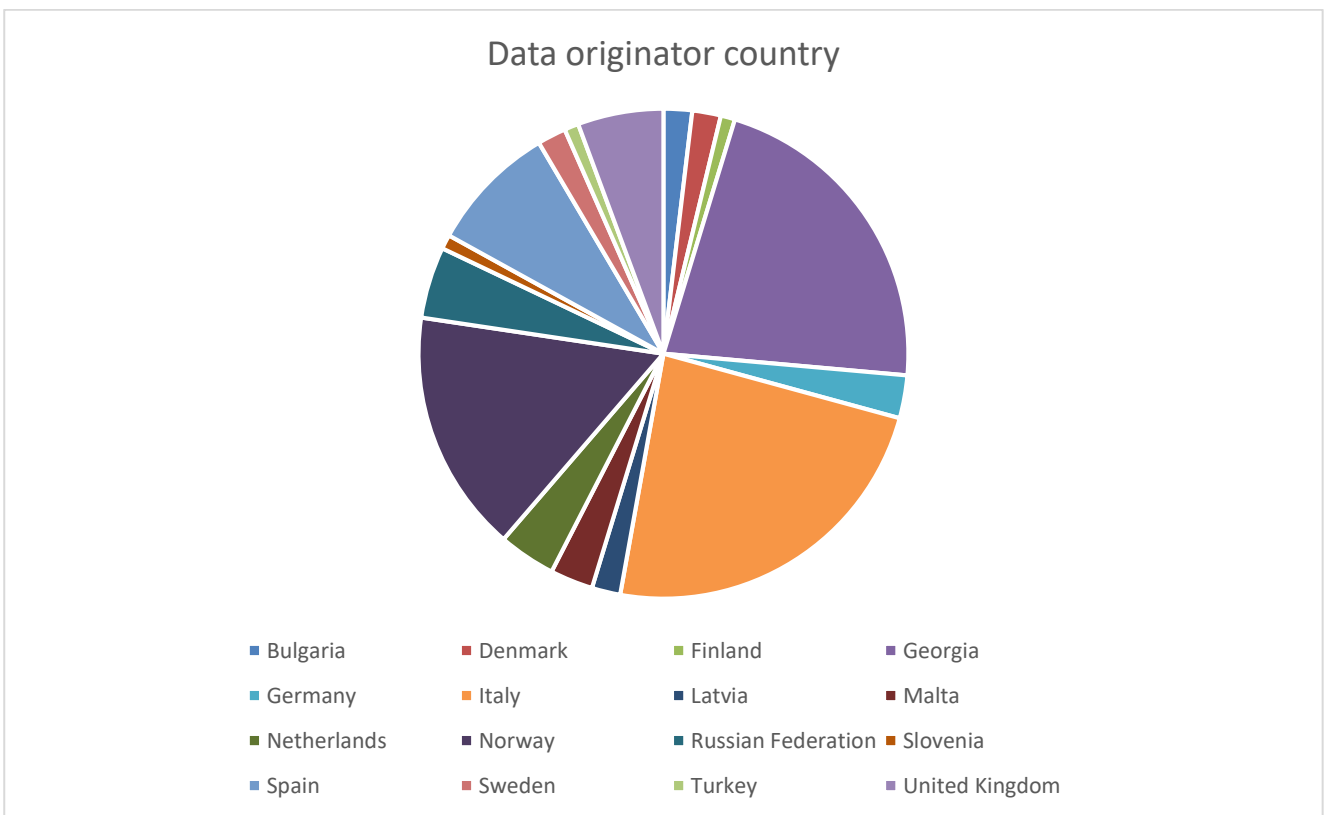
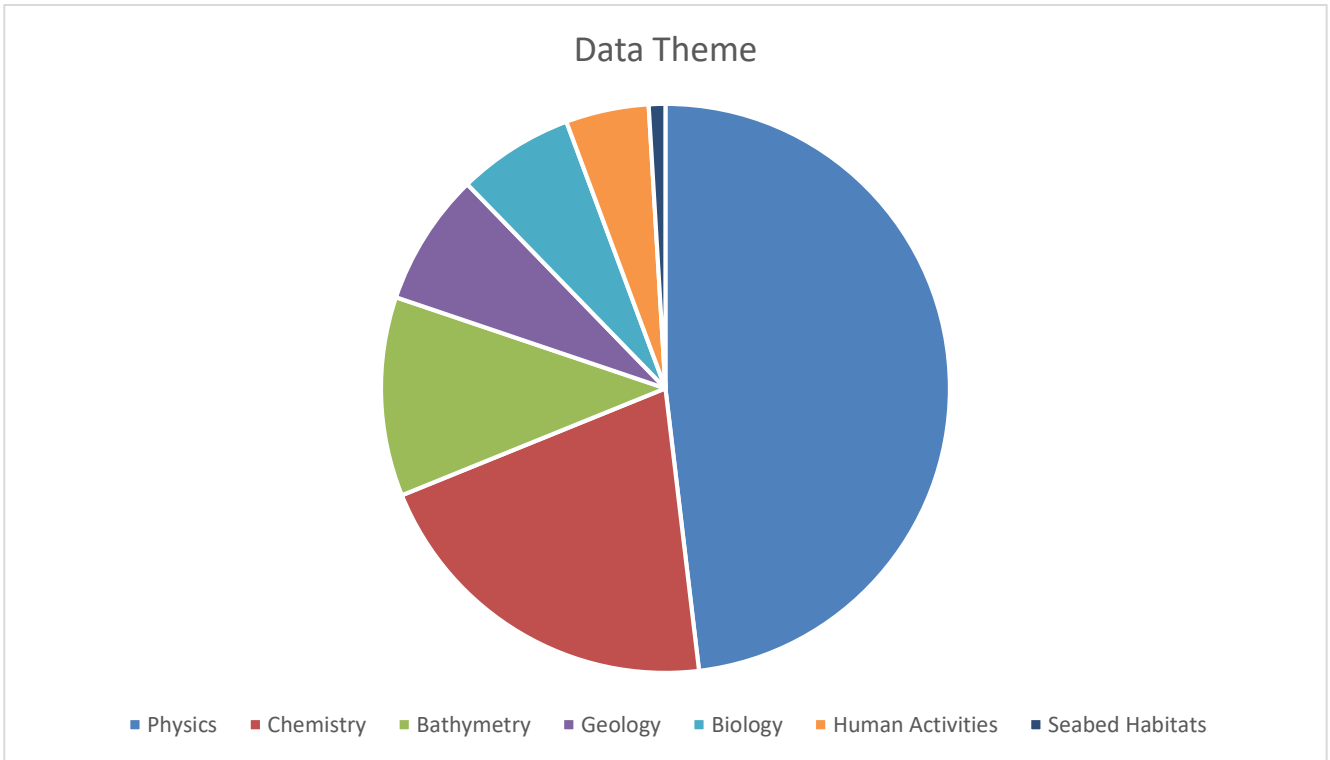
Portal statistics:

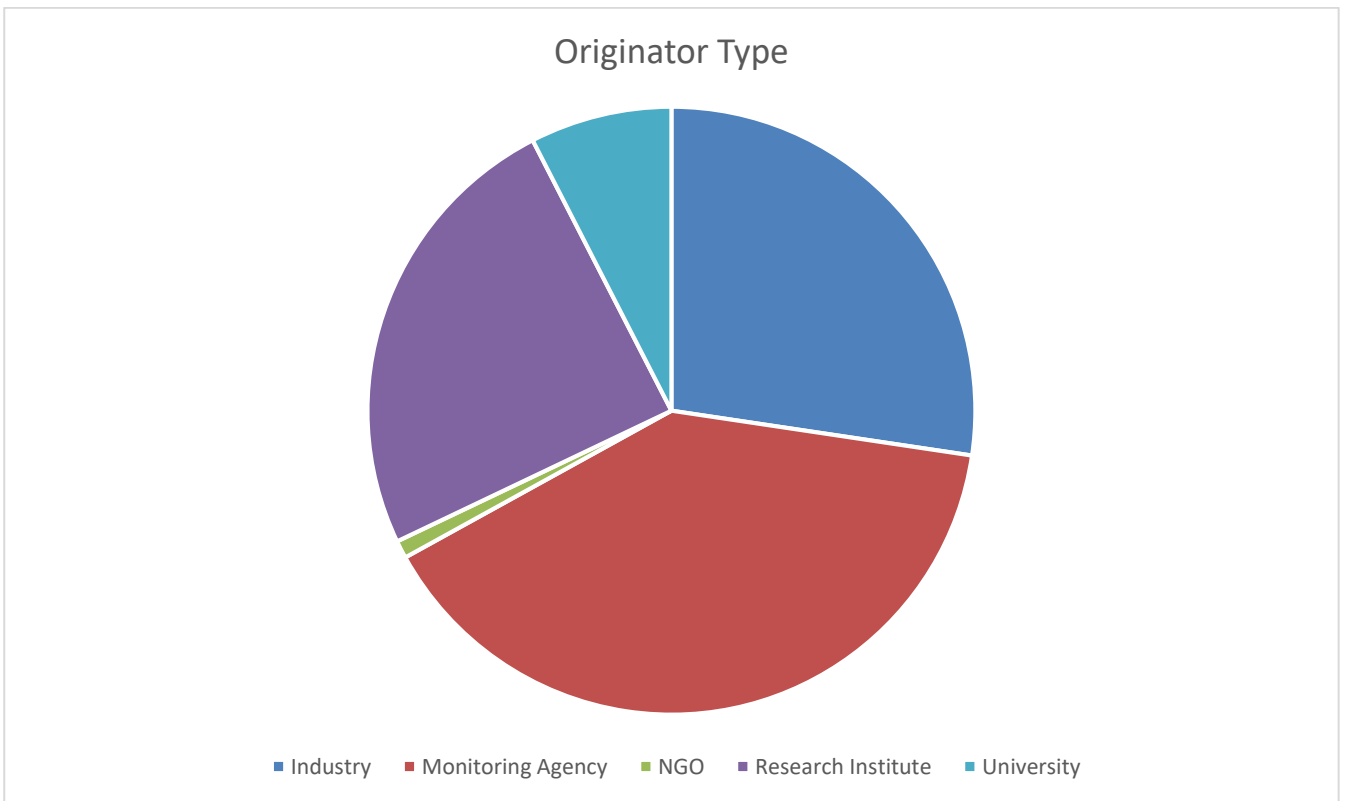
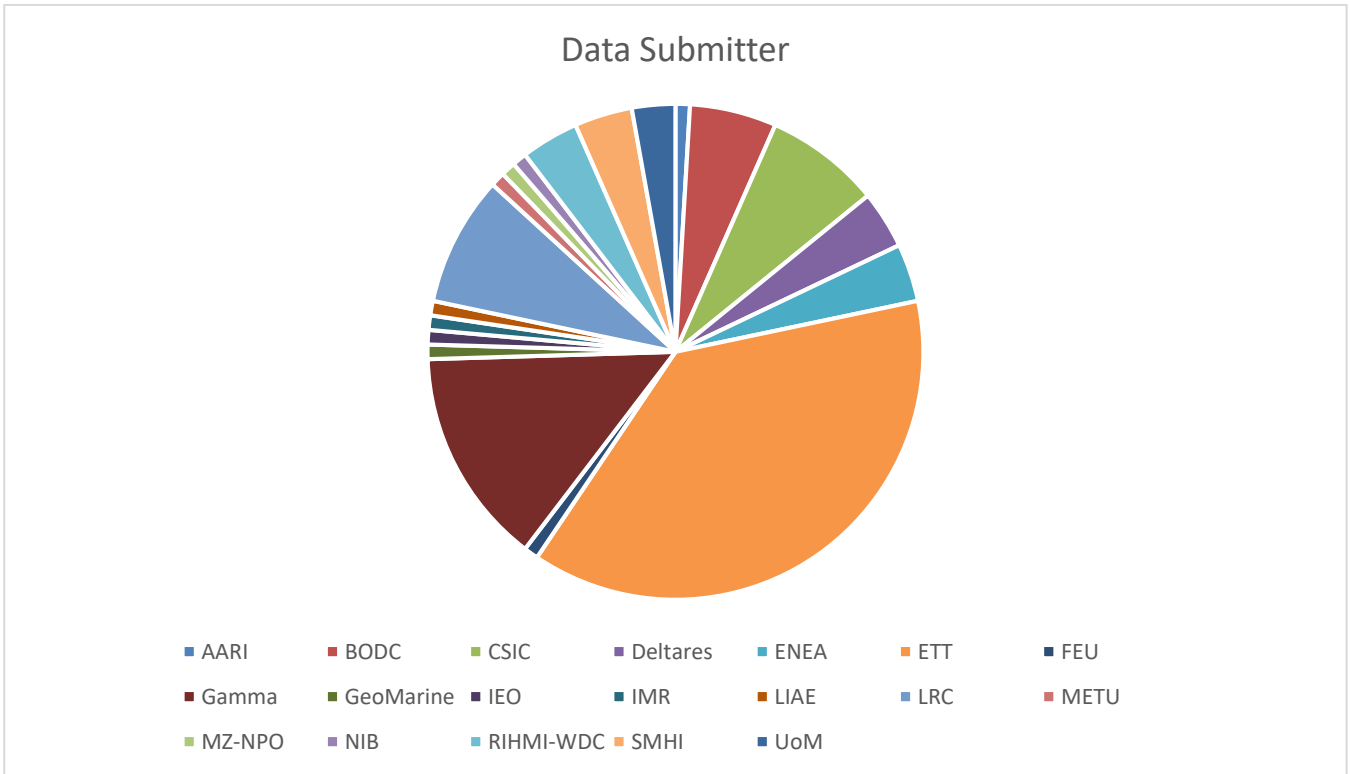
Most of the EMODnet Thematic portals and the Central EMODnet portal have included references and links to the EMODnet Ingestion portal.

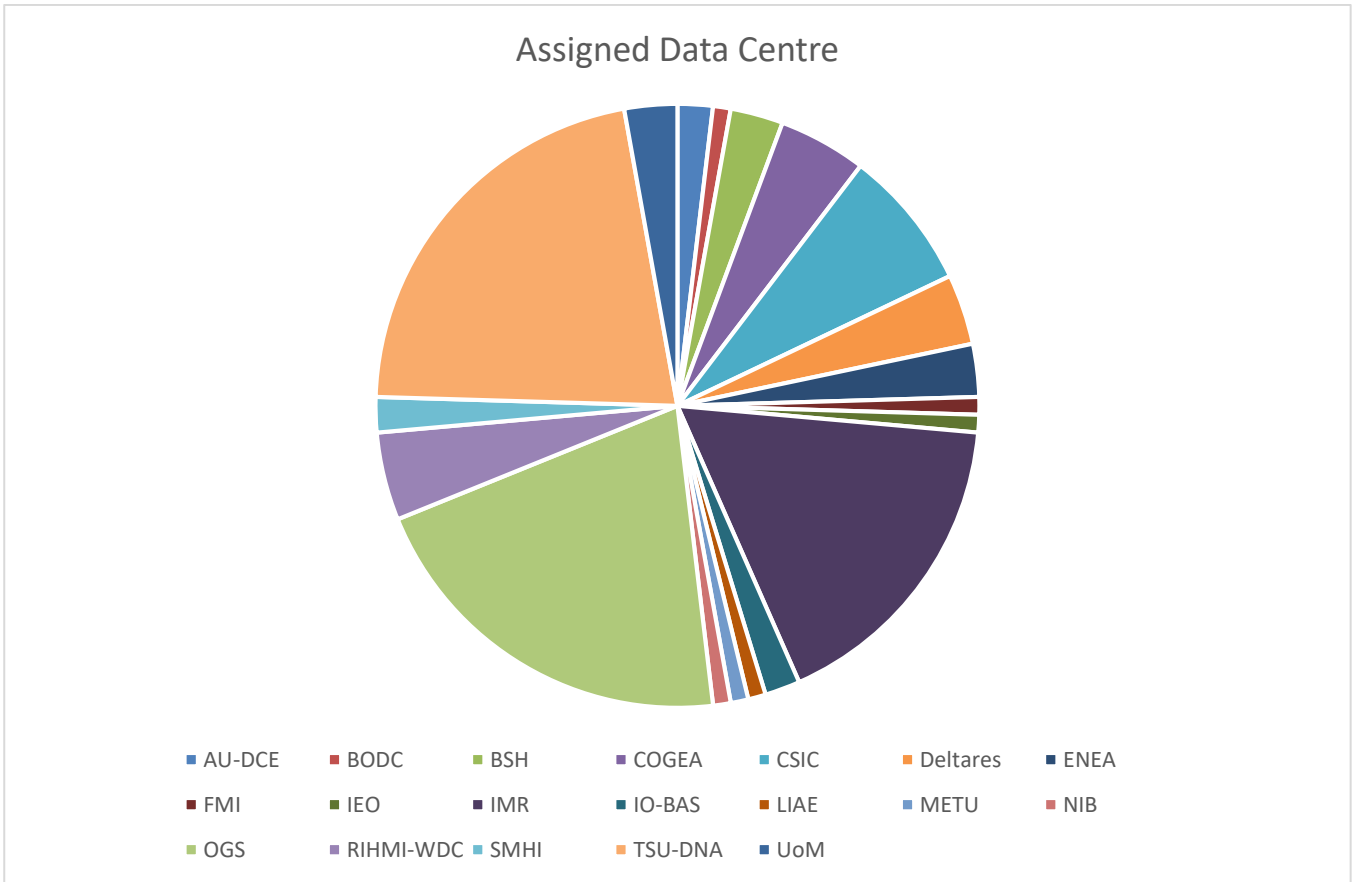
Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan-18	9,207	10,342	62,154	73,552	1.63 GB
Feb-18	7,653	8,569	60,311	70,556	1.53 GB
Mar-18	8,318	9,279	58,554	71,636	1.81 GB

Statistics of submissions.

End of March 2018 there are > 150 submissions in the Submission service, of which **106** already have been published in the Summary service. The following figures give characteristics of those published submissions.







3. Unexpected difficulties encountered

Nothing to report.