



EMODnet



European Marine
Observation and
Data Network

EMODnet Ingestion and safe-keeping of marine data n.2

EASME/EMFF/2018/1.3.1.8/01/SI2.810021

Start date of the project: 11/10/2019 - (24 months)

EMODnet Phase IV – Quarterly Progress Report

Reporting Period: 01/07/2021 – 30/09/2021



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Disclaimer

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1. Highlights in this quarter

Task 1. Maintain and further develop the existing web portal and its services:

The EMODnet Ingestion portal has been maintained in the reporting period, whereby also care is taken that all services keep functioning as required. The dedicated endpoint to retrieve the downloadable volumes per submission as requested for the quarterly key indicators has been activated.

Task 2. Implement pathways for delivering data to final repositories, on condition that they are made freely available and that open access to the data is ensured:

EMODnet Ingestion 2 has a network of 50 data centres which act as 'assigned data centres' for processing received data submissions. In the reporting period 130 new submissions have been recorded, passing the magic border of 1000, and implicating a massive increase. The total number of submissions at the end of September 2021 is now 1063. For the new submissions, data centres have been assigned. A plenary project meeting of EMODnet Ingestion 2 with participation of all partners took place at 21 – 22 September 2021. At the meeting the progress and number of outstanding submissions were discussed. This has led to extra efforts, also considering the fact that the EMODnet Ingestion 2 contract will finish by 10th October 2021. After processing, 101 new phase I publications and 36 new phase II publications have been achieved in the reporting quarter. Of the 1063 submissions, now 916 have been processed and published as phase 1 (517) and phase 2 (399) records. So it can be concluded, that this last quarter of the current project has been very fruitful, for a major part due to the extra sprint by the consortium members. More details about population can be found in Chapter 6.

Task 3. Facilitate machine-to-machine transfers:

Progress was made in the cooperation between EMODnet Ingestion and EMODnet Physics towards identifying and convincing more Near Real Time operational oceanography sources (operators, platforms, sensors) to get connected to the European ocean data exchange which is organised together with CMEMS-INSTAC for NRT data and SeaDataNet for archived data. A summary of activities is given:

- A dialogue has started with SBM Offshore. They provide floating production solutions to the offshore energy industry, over the full product lifecycle. The company leads the market in leased floating production systems, with multiple units currently in operation worldwide, e.g. in Guyana, Brazil, Angola, Equatorial Guinea and Malaysia. In the light of progressing on their long-term Sustainable Development Goals 14 targets, SBM Offshore explores the possibility of using their offshore installations as metocean data collecting points and sharing these data. Therefore, a dialogue has started with EMODnet Ingestion – EMODnet Physics to explore options for equipping and data exchanges. A first meeting took place 5th July 2021. A follow-up meeting is planned 29th October 2021;
- NAUTILUS – “New Approach to Underwater Technologies for Innovative, Low-cost Ocean observation” is an H2020 project funded under the EU Future of Seas and Oceans Flagship Initiative and coordinated by CNR. NAUTILUS will fill-in marine observation and modelling gaps for chemical, biological and deep ocean physics variables through the development of a new generation of cost-effective sensors and samplers, the integration of the aforementioned technologies within observing platforms and their deployment in large-scale demonstrations in European seas;
- IADC – “Italian Arctic Data Center” is being developed by CNR-ISP in the frame of the Italian Arctic Programme (PRA). Observations over the sea collected through monitoring activities carried out by Italian research groups (not only CNR-ISP researchers) in the Svalbard Archipelago as well as data collected via cruises performed by R/V Laura Bassi in the Arctic will be collected and managed by IADC. In this context the actions promoted by EMODnet for an Arctic marine portal are of great relevance. IADC will be developed following FAIR principles, paying great attention to interoperability services to be well connected with other relevant data centers and initiatives related to the Arctic. Therefore, IADC is very interested to exchange its metadata and data with EMODNet Physics – EMODnet Ingestion for contributing to the Arctic Data Portal activities.

The current Viewing Service, hosted at the EMODnet Physics portal, has been upgraded to provide more visibility to the NRT platforms/sites that have been arranged as part of the activities together with EMODnet Ingestion. This is illustrated below.

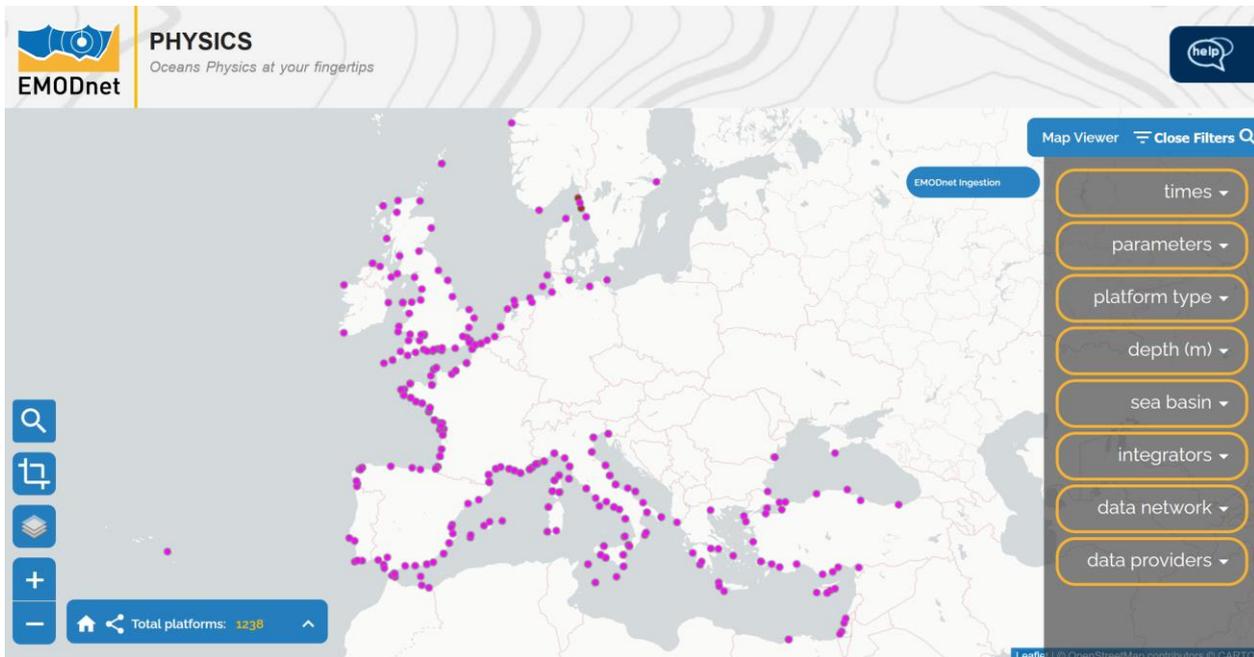


Image: View of EMODnet Physics Mapviewer of NRT sources added with EMODnet Ingestion as Data Integrator

Task 4. Operate a help-service for users to provide their data in the most appropriate format:

The portal has a service-desk, which is operated on working days. Users can either email their questions or ask for a call back. Emails are sent to a generic service desk mailbox. All queries are saved and tracked in the Open-source Ticket Request System (OTRS), allowing providing statistics on the questions received. Recorded queries are analysed in order to elaborate a Frequently Asked Questions (FAQ) page at the portal. In the reporting period five questions were received and answered.

Task 5. Allow providers of data to track the progress of their data from submission through to their storage in a repository:

Data providers can follow the processing of their data submissions in the Submission Service, which is done in several steps each indicated by a status field. Data providers are contacted by assigned data centres, in case there are additional questions about the ingested data sets.

Task 6. Include a "data wanted" function that allows users seeking certain types of information to specify their needs:

This function is offered by the Data Wanted service which facilitates users to submit post-its, which are then matched with published datasets. Users will receive alert messages every time new matches have been established. In practice this service is not really functioning and it is advised not to continue with this service in a possible future continuation of EMODnet Ingestion.

Task 7. Participate in discussions with EMODnet partners in order to improve the efficiency of the whole collection, assembly and dissemination process. Including participating to EMODnet Steering Committee meetings and EMODnet stakeholder conferences:

The coordinating team of EMODnet Ingestion 2 participated and presented its progress in the EMODnet Steering Committee and Technical Working Group meetings which took place in the period of 8 – 10 October 2021. Furthermore, the EMODnet Ingestion 2 plenary project meeting (21 – 22 September 2021) was joined by all coordinators of EMODnet Thematic lots, which added to the horizontal coordination. Moreover, interesting developments were discussed, such as promotion by EMODnet Human Activities and actual adoption by the EU MSP (Marine Spatial Planning) committee of offering Member States the option to submit their completed MSPs through EMODnet Ingestion for uptake in EMODnet Human Activities. In a comparable way, EMODnet Chemistry has successfully promoted such an approach for Marine Litter reporting by Member States, supported by EU JRC and TG ML. In the near future, more such arrangements might be made, promoting EMODnet Ingestion as a structured instrument for Member States reporting on specific marine topics, which then are processed and elaborated by EMODnet Thematic lots for inclusion and publishing as EMODnet data products.

Task 8. Maintain a summary record of data delivered:

This function is offered by the View Submissions service. Each completed submission is migrated to that service for publishing as part of a discovery and access service. Distinction is made in phase I and II which has been added as a new search facet. Editing activities take place aimed at replacing so-called orphan data for organisations from free text into controlled EDMO terms and orphan data for projects into controlled EDMERP terms in order to improve the integrity and richness of the metadata. See Chapter 6 for statistics.

Task 9. Engage in outreach activities towards significant holders of marine data whose data are not already available:

Despite the difficulties of the COVID crisis, multiple meetings and web presentations have taken place which are instrumental for increasing data submissions. These events and meetings are listed in Chapter 4. An interesting exchange took place with the Atlantic REMP project. This project, funded by the European Union, coordinated by SeaScape Consultants, worked together with stakeholders to produce a draft Regional Environmental Management Plan (REMP) for the Area in the North Atlantic, with a focus on the polymetallic sulphide deposits of the Mid-Atlantic Ridge which are of interest for deep-sea mining. There was close collaboration with the International Seabed Authority (ISA) and a consortium of scientific organisations. Marine data from multiple data services underpinned the environmental management plan development. A selection of the data sets is included in EMODnet Ingestion for wider distribution. No new data was collected, but all data sets are existing and are considered to be open. In dialogue with the REMP coordinator and REMP data management partner (Duke University), it was decided to submit these data sets into EMODnet Ingestion by which potentially more users can be served. This has been effectuated by Duke University by preparing and submitting 17 data packages, which all have been processed and published 'as-is' by EMODnet Ingestion. Note that these submissions will not be elaborated to Phase 2 as the data sets are already published by other established data centres in the world.

RBINS worked further on the digital poster highlighting a selection of 9 success stories of the project. The extended description of the 9 cases was published online over the summer. An extended description for 6 additional cases is under preparation. A special use case will be published separately on the website on Marine Litter datasets coming from 8 countries bordering the Baltic Sea, the Black Sea and the Mediterranean Sea. Moreover, the web portal has been updated with news, highlighting the new promotion movie and the success stories. See also Chapter 5.

Task 10. Service continuity:

Coordination of the consortium is undertaken by MARIS and HCMR to ensure the continuity of the EMODnet Ingestion portal and its array of services. The current contract is close to its finalisation which will be at 10th October 2021. For that reason, the coming 2 months will be used to draft and deliver the Final Report and the Transfer Protocol. Luckily,



there is perspective that EMODnet Ingestion activities and services will be continued as the EU has published a new Call for Tender, inviting market parties to continue and expand its activities. The deadline for submission is set by EU CINEA to 14th October 2021, giving an outlook that a new service contract possibly might be expected early 2022. In the meantime, the existing EMODnet Ingestion 2 consortium will keep services operational, in order to provide a sustained service till transfer has been established. This is required as there are cooperations ongoing with several data providers, Member States, and EU sections, which might be damaged otherwise.

2. Identified issues: status and actions taken

A. Priority issues identified and communicated by CINEA/ DG MARE/ SECRETARIAT			
Priority issue	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due
EM-254: DIP - Banner UPDATE - deadline extension	Resolved	Survey Banner placed for specific period, extended, and removed	9 July 2021
EM-356: Ingestion to report on number and volume of downloaded data and data products	Pending	Must cover whole year from 1 October 2020 to 30 September 2021	29 October 2021

B. Issues / challenges identified by the thematic assembly group itself			
(Priority) issue / challenge	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due
The EMODnet Ingestion contract runs till 10 October 2021 and there is no news yet whether the option for another 2 years continuation under the same ToR will be used by CINEA.	Resolved	CINEA has indicated not to make use of article 1.3.5. to continue the current contract with another 24 months. Alternatively, CINEA has published at 9 th September 2021 a new Call for Tender with a submission deadline of 14 th October 2021 (!).	

3. User feedback (Contact Us form, online chat & other communication means)

Overview of user feedback and/or requests received in this quarter							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query: resolved/pending	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
29/07/2021	Cyprus University	Request to change account details	Helpdesk email	Next day	resolved	Change made	
29/07/2021	Cyprus University	Reformulated request to change account details	Helpdesk email	Next day	resolved	See above	
30/07/2021	OceanEye	Request for more info about advised formats for submitting marine litter data	Helpdesk email	Three days later	resolved	Guidance information given and offer to have a short webconf	
20/08/2021	OceanEye	Request to have a webconf for support	Helpdesk email	Same day	resolved	Set up a Doodle for webconf, which took place 18 th October 2021	
01/09/2021	GFZ	Question about regular updating of submissions for timeseries and need for DOI	Helpdesk email	Same day	resolved	Advised to make use of SEANOE service for DOI and follow-up by EMODnet Ingestion	

4. Meetings/events held/attended & planned

A. Meetings/events Organized and attended					
Date	Location	Type event (internal or external meeting, training/workshop)	Indicate if a ppt was given (yes/no + short description)	Meeting attended (A) / organised (O)	Short description and main results (# participants, agreements made, etc.)
July - September 2021	Online	Earth Observation Data for Science and Innovation in the Black Sea (EO4SIBS) Project partners meetings, with NIMRD	No	A	Partners discussions resulting in submission of data obtained with the support of EO4SIBS project (ADCP data) (about 7 participants)
5 July 2021	Online	Meeting - SBM Offshore with MARIS, ETT, SMHI, HCMR	Yes	O	To discuss equipping SBM Offshore installations as oceanographic stations and setting up operational data exchange
5-7 July 2021	Vitoria (Spain)	10th Spanish Geological Congress. Conference in the Marine Geology session, with CSIC	Yes	A	Presentation: The European Marine Observation and Data Network
6 July 2021	On line	Meeting – CNR ISP with ETT and SMHI	No	O	Follow up on linking ARICE project data
6 July 2021	Online	Meeting with possible data submitter, Oceana, by JNCC	Yes	O	Oceana have data on multiple themes from multiple countries.
6 July 2021	R/V “Bat Galim”	Training/workshop – IOLR- Haifa University	Yes	O	To discuss CTD data processing and submission to IOLR
6 July 2021	online	Meeting of CSIC with IGEOTEST (SME) working on offshore and onshore engineering works	Yes	O	EMODnet and ingestion portal. were introduced and data sharing was discussed.
10 July 2021	online	Internal meeting with Marine Ecology Group of CEAB-CSIC.	Yes	O	To discuss data sharing about sponges



20 July 2021	online	Meeting of CSIC with MEDGAZ	Yes	O	To discuss data sharing.
21st July 2021	Online	Geospatial Commission Coastal Zone Mapping, with UKRI-BGS	Yes	A	This project focused on understanding the data landscape of agencies involved in the collection and use of geospatial data in the coastal zone
28 July 2021	online	Meeting of CSIC with of the BASAN-Group: BASIN ANALYSES (XM-3, University of Vigo).	Yes	O	To discuss sharing of bathymetric and geological information about the Rias of Vigo.
29 July 2021	online	The Open Sea Monitoring Activities - A National meeting organized by Ministry of Environment and Urbanisation, with METU	Yes	A	A national open sea monitoring program will be started.
30 July 2021	Onboard the RV Sarmiento de Gamboa	Meeting of CSIC with PI of the BOCATS project, geology part.	Yes	O	To discuss sharing of bathymetric information about the Mid-Atlantic Ocean Ridge.
30 July 2021	online	Meeting of ENEA with scientific team from CNR and Stazione Zoologica Anton Dohrn	Yes	O	To discuss data sharing
3 August 2021	Barcelona, Spain	Meeting of CSIC with scientists from University of Granada in the framework of AGORA and PAPEL projects.	Yes	O	Commitment to ingest data coming from future projects to EMODnet; Master class about EMODnet in the GeoRec Master of the U. Granada, and Geodesy and Geophysics master of the U. Jaen.
5 August 2021	Liepaja, Latvia	World Environmental day, public event on the beach, wide range of attendants, with LHEI	Yes, poster	O	Promotion
16 August 2021	Online	Training/workshop – IOLR-Nobel Energy	Yes	O	To discuss CTD data processing and submission to IOLR



17 August 2021	Ulkokrunnit island, Finland	An international marine field course for students from University of Oulu (Finland) and Umeå University (Sweden), with GTK	Yes	A	GTK lecture about marine geology of the Baltic Sea to master students
21 August 2021	Saulkrasti (Zvejniekciems), Latvia	Port Festival, public event in town, with LHEI	Yes, poster	O	Promotion
24 August 2021	online	Training/workshop - IOLR-FUGRO	Yes	O	To discuss CTD data processing and submission to IOLR
25-26 August 2021	Rostock (Germany) and online	External meeting, with 52North	Yes	A	Conference dealing with different topics about the collection and management of ocean data. Core topic was the creation of a digital twin of the ocean.
2 September 2021	online	Meeting of CSIC with Project Magnetic data analysis in the Alborán Sea)	Yes	A	Magnetic and gravimeter data were provided for ingestion. More promised.
7 September 2021	Online	GOOS-OECD-MEDIN Webinar, with UKRI-BGS	Yes	A/O	Presentation of the paper - Value Chains in Public Marine Data: A UK case study. Webinar: https://www.youtube.com/watch?v=36dRXGO7Nqs
8-10 September 2021	On line/hybrid	EMODnet Steering Committee and Technical Working Group meetings with MARIS and HCMR	Yes	A	To discuss results of project and finalising present contract phase
14-16 September 2021	Online	11 th Crowdsourced Bathymetry Working Group (CSBWG - IHO), with Shom	No	A	75 participants from 20 countries (8 in Europe), GEBCO Seabed2030 and industry representatives.

16-20 September 2022	Porto Argolida, Greece	Heli, Panhellenic Conference, with HCMR	Yes	O	The Marine and Inland Waters Research Symposium (former Panhellenic Symposium on Oceanography & Fisheries) is the biggest event in Greece related to marine environment.
21-22 September 2021	Online	EMODnet Ingestion Final meeting with all partners	Yes	O	To discuss results of project and finalising present contract phase
20-24 September 2021	Online	Workshop – Polar Data Forum with ETT and SMHI	Yes	A	Co-organising a conference session on 'Documenting data flows into aggregators'
28 September 2021	Helsinki, Finland	Lecture at the Faculty of Biological and Environmental Sciences, University of Helsinki	Yes	O	GTK lecture about marine geology

A. Meetings/events planned in the future

Date	Location	Type event (meeting, training (workshop), etc.)	Meeting to be attended (A) / organised (O)	Short description and main expected outcomes
1 October 2021	La Spezia (Italy)	Sea Future -exhibition with ENEA	A	Promotion
1 October 2021	online	Meeting of CSIC with MEDGAZ	O	To continue discussion about data sharing.
7 October 2021	Piran Slovenia	Workshop, with NIB	A	The second workshop will gather all marine data providers. Discussions on establishing a

				national data platform. OGS will join as lead of SHAREMED project.
7 October 2021	Online	Webinar, with VLIZ	A	Best Practice Webinar & Study Launch: Offshore Biodiversity Data and Monitoring - What have we yet to learn?
11-12 October 2021	Online	EMODnet Geology 5 kick-off meeting, with GTK and BGS	O	To discuss project plans and products
28 October 2021	Constanta/Romania (online)	International Black Sea Action Day -Workshop, with NIMRD	O/A	Promotion of EMODnet Lots and EMODnet Data Ingestion
18 – 22 October 2021	Aarhus University, Aarhus, Denmark	BSSC2021: 13th Baltic Sea Science Congress hosted by Aarhus University, with AU-DCE and GTK	A	AU-DCE and GTK are going to promote the EMODnet Ingestion project at the Baltic Sea Science Congress through a poster and sharing of informative material
29 October 2021	Online	Meeting - SBM Offshore with MARIS, ETT, SMHI, HCMR	O	To continue discussion on equipping SBM Offshore installations as oceanographic stations and setting up operational data exchange
October 2021	Online	EMODnet Seabed Habitats kick-off meeting with JNCC network	O	Kick-off for next phase of EMODnet Seabed Habitats, organised by JNCC. Will promote Ingestion and make sure that all partners are signed up as data centres for habitat data in their countries.
30 November 2021	Varna, Bulgaria	BSHC-annual seminar, with IO-BAS	A	IO-BAS plans to present EMODnet Data Ingestion and distribute promotion material.
October 2021	online	B-Blue meeting with ENEA	O	ENEA is going to promote the EMODnet Data Ingestion portal in the B-Blue project towards Blue Biotechnology community of the Mediterranean area, including sharing of informative material
October / November 2021	Batumi, Georgia	Science picnic, with TSU	O	Science picnic – science popularisation country-wide event (TSU will have its own facility, where results of all ongoing marine

				projects (including EMODnet Ingestion) will be introduced.
October-December 2021	Online	Sea EU Marine Data Literacy Course, with University of Malta	O	This is a formative, intensive course intended to inform, train and empower students on marine data sourcing, exploration, elaboration, valorisation and added-value creation.
Last quarter 2021	Online	MOOC course, with VLIZ	A	To share various videos relating to EMODnet Biology and Ingestion as additional resources for course participants (free and open course)
19-21 January 2022	Aalborg University, Aalborg, Denmark	The Danish Marine Research Meeting, with AU-DCE	A	AU-DCE is planning to participate with a poster and/or dissemination of EMODnet brochures and promotion of EMODnet Ingestion to the The Danish Marine Research Meeting
TBC	Gandia (Spain)	Master class at Univ Polit. Valencia, with IEO	A	IEO giving lecture to master students and their profsors at university
TBC	Madrid (Spain)	Master class at Univ Compl. Madrid, with IEO	A	IEO giving lecture to master students and their profsors at university
TBC	Hatay, Turkey	Clean Sea Hatay Project Meeting, with METU	O	METU-IMS will promote EMODnet Ingestion. Meeting is about new monitoring stations in Iskenderun bay
TBC	Antalya, Turkey	Clean Sea Antalya Project Meeting, with METU	O	METU-IMS will promote EMODnet Ingestion. Meeting is about new monitoring stations in Antalya bay
TBC	Strandbúnaður, Iceland	Aquaculture Conference, with MFRI	A	Annual conference with discussion between all those who are involved in the aquaculture industry in Iceland. MFRI will give presentation including EMODnet Ingestion and data sharing.
TBC	Iceland	The Icelandic Biology conference, with MFRI	A/O	MFRI will distribute flyers and poster introducing EMODnet Ingestion. Targeted against the science community.

TBC	Reykjavik, Iceland	MFRI annual public meeting	A/O	MFRI will promote EMODnet Ingestion
TBC	La Spezia, Italy	33 rd Mariperman, with ETT	A	It is the annual event of the Italian Navy to PA services presentation and demonstration. The event hosts a scientific/dissemination session to present relevant projects and programs. ETT plans to present EMODnet Physics and Data Ingestion
TBC	Gandia (Spain)	Master class at Univ Polit. Valencia , with IEO	A	IEO giving lecture to master students and their profesors at university
TBC	Madrid (Spain)	Master class at Univ Compl. Madrid	A	IEO giving lecture to master students and their profesors at university
TBC	Hatay, Turkey	Clean Sea Hatay Project Meeting, with METU	O	METU-IMS will promote EMODnet Ingestion. Meeting is about new monitoring stations in Iskenderun bay
TBC	Antalya, Turkey	Clean Sea Antalya Project Meeting, with MEU	O	METU-IMS will promote EMODnet Ingestion. Meeting is about new monitoring stations in Antalya bay

5. Communication assets

A. Communication products				
Date	Communication material	Short description (of the material, title, ...) of the asset	Main results	Name of event at which material was disseminated (if applicable)
Sept 2021	Poster / Leaflet	Updating e-poster highlighting nine success stories of the project	Promotion	Website

B. Planned communication products			
Date	Communication material	Short description (of the material, title, ...) and/or link to the asset	Main results expected

List of known publications using EMODnet data or data products

Date	Type and name of journal, conference, ...	Publication title including DOI (if known)	Author(s)	Organisation(s)
July 2021	10 th Spanish Geological Congress	Valencia and Ercilla, 2021. The European Marine Observation and Data Network (EMODnet). GEOTEMAS, 18, 773. ISSN: 1576-5172 (printed version);2792-2308 (digital version)	Javier Valencia (IGME) ; Gemma Ercilla (CSIC)	Spanish Geological Society
30 July 2021	OECD Science, Technology and Industry Working Papers, No. 2021/11	Value chains in public marine data: A UK case study, https://doi.org/10.1787/d8bbdcfa-en	Claire Jolly, James Jolliffe, Clare Postlethwaite and Emma Heslop	OECD, NOC, IODE
9 September 2021	Marine Pollution Bulletin	Chernobyl still with us: 137Caesium activity contents in seabed sediments from the Gulf of Bothnia, northern Baltic Sea. Marine Pollution Bulletin. 172. https://doi.org/10.1016/j.marpolbul.2021.112924	Kotilainen, A.T., Kotilainen, M.M., Vartti, V.-P., Hutri, K.-L., Virtasalo, J.J.	Geological Survey of Finland (GTK), Helsinki University, Radiation and Nuclear Safety Authority in Finland (STUK)
17 September 2021	EU Publication	Proposal for making harmonized MSP plan data available across Europe	CINEA	CINEA, contribution COGEA
Sept 2021	Proceedings of the 9th EuroGOOS International Conference 'Advances in Operational Oceanography: Expanding Europe's Observing and Forecasting Capacity'; 3 - 5 May 2021; V. Fernández, A. Lara-López, D. Eparkhina, L. Cocquempot, C. Lochet, I. Lips (Eds); EuroGOOS. Brussels, Belgium. 2021.	EMODnet preliminary high-resolution temperature and salinity climatologies for the northern Adriatic Sea. DOI: 10.13155/83160	Damiano Delrosso, Simona Simoncelli, Paolo Oliveri, Antonio Guarnieri, Antonio Novellino.	INGV, ETT, and others
Sept 2021	Proceedings of the 9th EuroGOOS International Conference 'Advances in Operational Oceanography: Expanding Europe's Observing and Forecasting Capacity'. 3 - 5 May 2021; V. Fernández, A. Lara-López, D. Eparkhina, L. Cocquempot, C.	SeaDataCloud Data Products for the European marginal seas and the Global Ocean DOI: 10.13155/83160	Simoncelli, S., Coatanoan, C., Myroshnychenko, V., Back, O., Sagen, H., Scory, S, Oliveri, P., Shahzadi, K., Pinaridi, N., Barth, A.,	INGV, METU, SMHI, IMR, RBINS, UB, ULg, AWI, IFREMER, MARIS

	Lochet, I. Lips (Eds); EuroGOOS. Brussels, Belgium. 2021. DOI: 10.13155/83160		Troupin, C., Schlitzer, R., Fichaut, M, Schaap, D. EuroGOOS	
In press	Book	Ocean Science Data: Collection, Management, Networking and Services, Elsevier, 2022, ISBN: 978-0-12-823427-3; eBook ISBN: 9780128225950, 386 pages: https://doi.org/10.1016/C2019-0-05509-4	edited by G. Manzella and A. Novellino:	HOS, ETT, with many contributors
In press	Book Chapter in "Ocean Science Data". Ed. Manzella, G.M.R. and Novellino A., Elsevier.	"A collaborative framework among data producers, managers, and users" https://doi.org/10.1016/C2019-0-05509-4	S. Simoncelli, G.M.R. Manzella, A. Storto, A. Pisano, M. Lipizer, A. Barth, V. Myroshnychenko, T. Boyer, C. Troupin, C. Coatanoan, A. Pititto, R. Schlitzer, D.M.A. Schaap, S. Diggs (2021)	INGV, HOS, OGS, ULg, METU, IFREMER, COGEA, AWI, MARIS
In press	Book Chapter in "Ocean Science Data". Ed. Manzella, G.M.R. and Novellino A., Elsevier.	"Data management infrastructures and their practices in Europe" https://doi.org/10.1016/C2019-0-05509-4	D.M.A. Schaap, A. Novellino, M. Fichaut and G.M.R. Manzella	MARIS, ETT, IFREMER, HOS
In press	Ocean and Coastal Research	The Mediterranean Sea we want http://doi.org/10.1590/2675-2824069.21019mc	M. Cappelletto, R. Santoleri, L. Evangelista, F. Galgani, E. Garcés, A. Giorgetti, ..., S. Simoncelli, ..., M. Fichaut, et al.	
In press	Monograph, Russia, RIHMI-WDC, 2021.	The digital transformation of hydrometeorological support for consumes	E. Viazilov	Russia, RIHMI-WDC
In review	Book Chapter in: Ocean Governance. Pasts, Presents, Futures. Anna-Katharina Hornidge and Maria Hadjimichael Eds. MARE Publication Series, Springer.	"Ocean acidification impact on the aquaculture and fisheries as governance challenge in the Mediterranean Sea".	N. Bednaršek, ..., S. Simoncelli, ... (202X)	
TBC	Marine Pollution Bulletin	Marine macrolitter on the Greek coasts (in preparation)	Kaberi H., Zeri C., Tsangaris C., Papatthanassiou V., Vlachogianni T	Hellenic Centre for Marine Research (HCMR)



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6. Monitoring indicators

Comments on the progress indicators in the excel template		
Progress indicator	Means of collecting figures	Comment
1A) Volume and coverage of available data	Submission Viewing service	The total number of new phase 1 + phase 2 submissions in the last quarter is 101 which is more than double as in previous quarters with 45, 49 and 47 new phase 1 + 2 submissions. The overall number of published submissions went from 815 to 916. There was a sprint by consortium members as we are nearing the end of the project and there was a Plenary Project meeting which always stimulates members.
1B) Usage of data in this quarter	Cloud storage of Submission Viewing service	The total number of download transactions and volume decreased considerably compared to the previous quarter which was quite exceptional. Also the holiday period might have an influence.
3) Organisations supplying/ approached to supply data and data products	Submission Viewing service	There is a good mix in organisation types and countries. The total number of data providers has increased with 6 in the last quarter to 150
9. Visibility & Analytics for web pages	Grafana	The grafana application has just been configured for Ingestion a while ago, so there is not much yet to report in trends. Issue is that this Grafana graph has not been updated for the last quarter. And it only shows the homepage. Therefore, there is an action in JIRA for Trust-IT to look into this and also report on the Submission service.
10. Visibility & Analytics for web sections	Grafana	The grafana application shows the visit stats of several sections, such as the Guidelines and Operational data. The total quarterly data views are moderate, but this is also expected as EMODnet Ingestion is more a dedicated site to get new data providers in. The grafana monitoring of the data viewer has been added by Trust-IT and it works well. It shows quite good activity of users as was expected considering the download stats. Still missing are stats from the Submission service for which a JIRA action is open (see also comments above).
11. Average visit duration for web pages	Grafana	The grafana application only shows the visit durations for the homepage while this functions more as a menu for starting, while real action takes place at other pages. This also needs further action by Trust-IT as it now misses data

Some additional statistics on Submissions.

In the reporting period, the number of **Submissions** went **from 933 to 1063**, the number of **published data submissions 'as is'** in the View Submissions service increased **from 815 to 916** (metadata forms and related data sets), while the number of **submissions** that have been elaborated **to phase II**, implicating uptake in national and European marine data infrastructures, feeding into EMODnet, increased **from 363 to 399**. The following figures give characteristics of those published submissions.

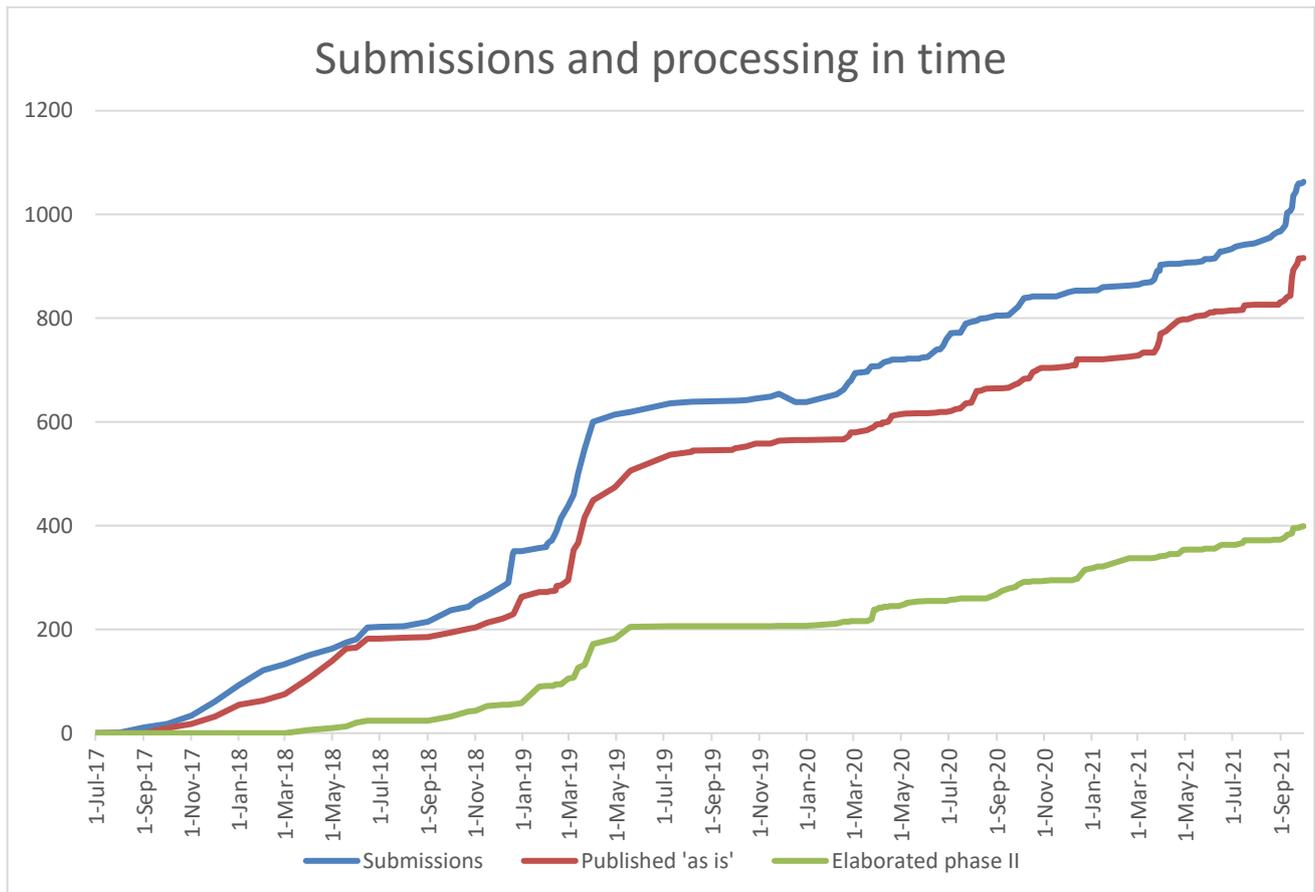


Image: Submissions and processing in time

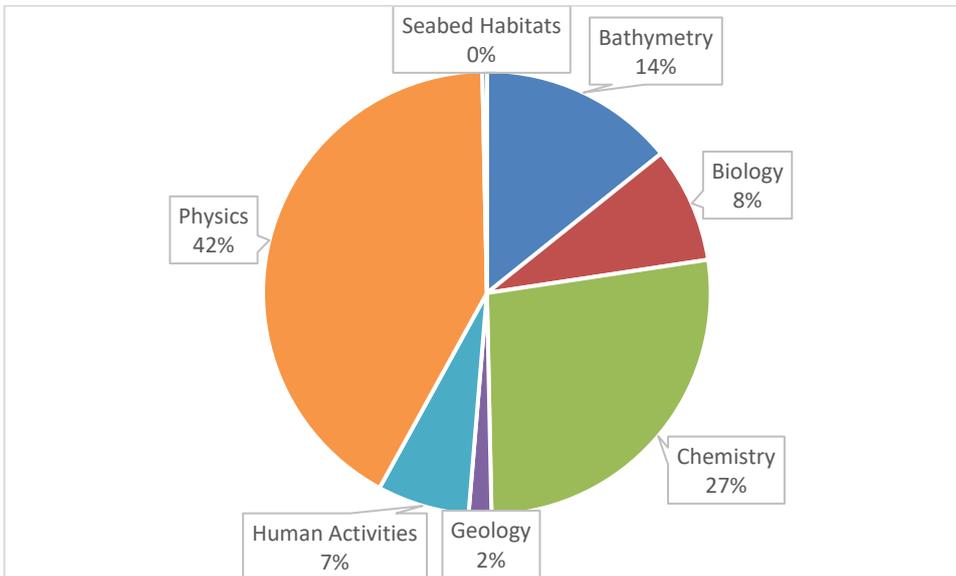


Image: Published submissions (916) by theme

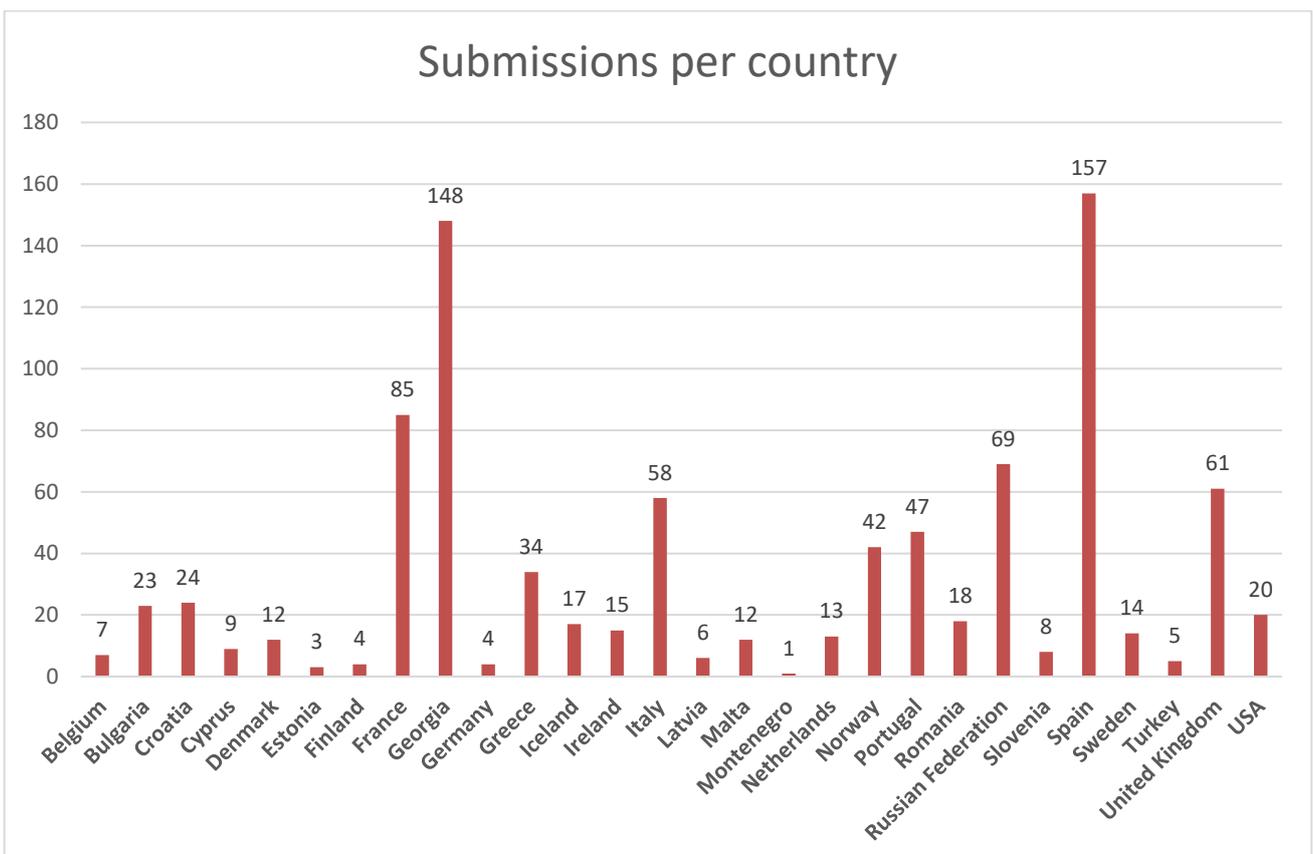


Image: Published submissions (916) by country of submission

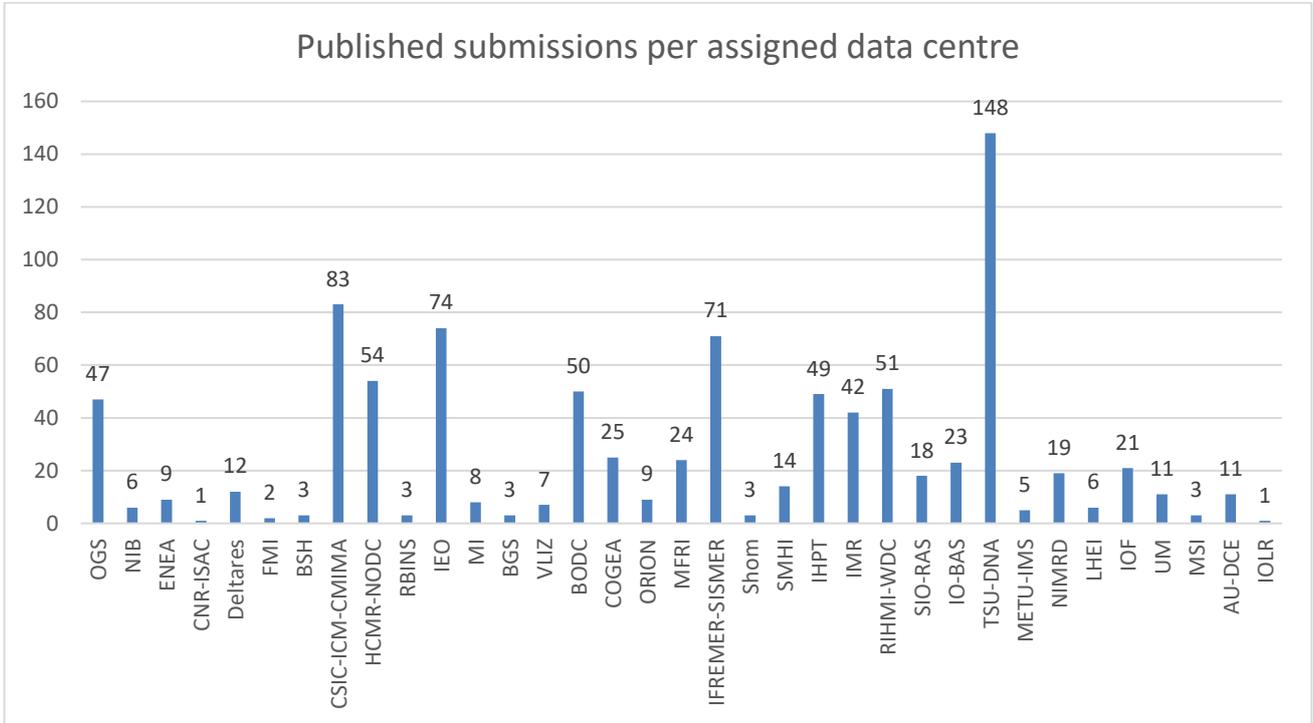


Image: Published submissions (916) by assigned data centres

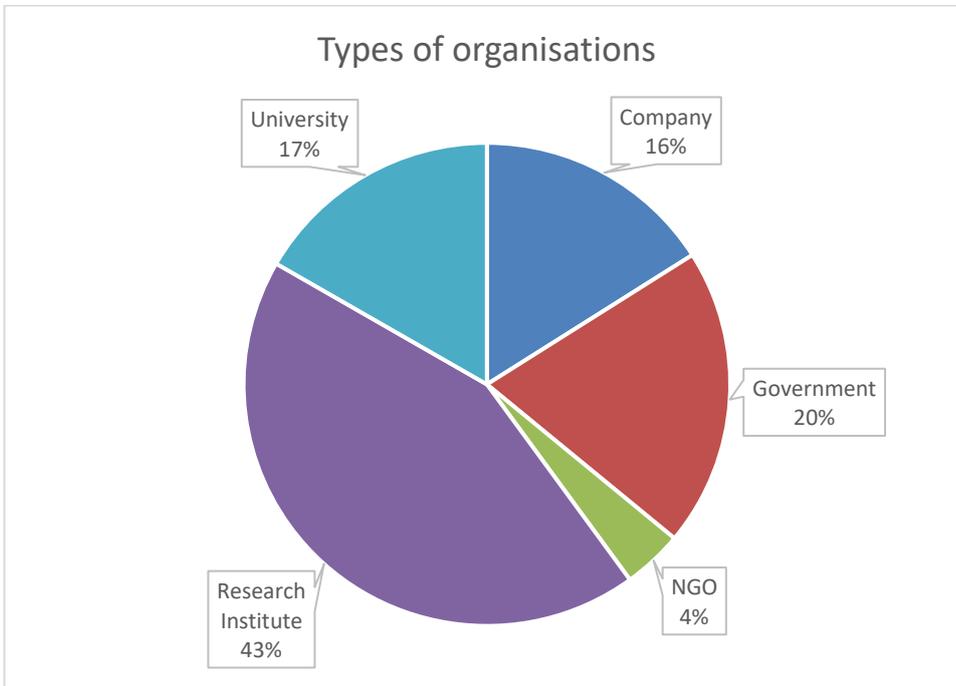


Figure: Division by sector of organisations (150) for data originators and holding centres

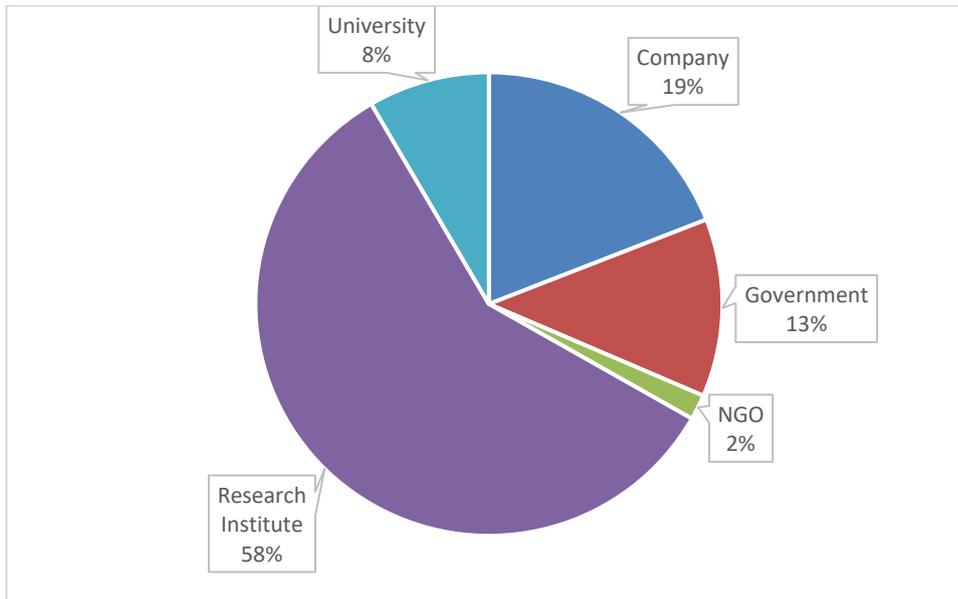


Figure: Division of number of submissions (916) by sector of data originators and holding centres

The above reported Ingestions all concern submissions of data sets made to the Submission service and then completed for publishing at the View Submission service which total 916 records with 517 records at Phase I publication and 399 records at Phase II publication.

Differences over the reporting quarter:

	Begin Q3 2021 Phase 1	End Q3 2021 Phase 1	Begin Q3 2021 Phase 2	End Q3 2021 Phase 2	Total Begin Q3 2021 Phase 1 - 2	Total End Q3 2021 Phase 1 - 2
Theme						
Bathymetry	84	95	35	35	119	130
Biology	50	59	15	18	65	77
Chemistry	62	87	150	161	212	248
Geology	14	14	1	1	15	15
Human Activities	47	50	7	11	54	61
Physics	194	209	155	173	349	382
Seabed Habitats	1	3	0	0	1	3
TOTAL	452	517	363	399	815	916

Table: number of submissions in phase 1 and 2 per theme at begin and end of reporting quarter

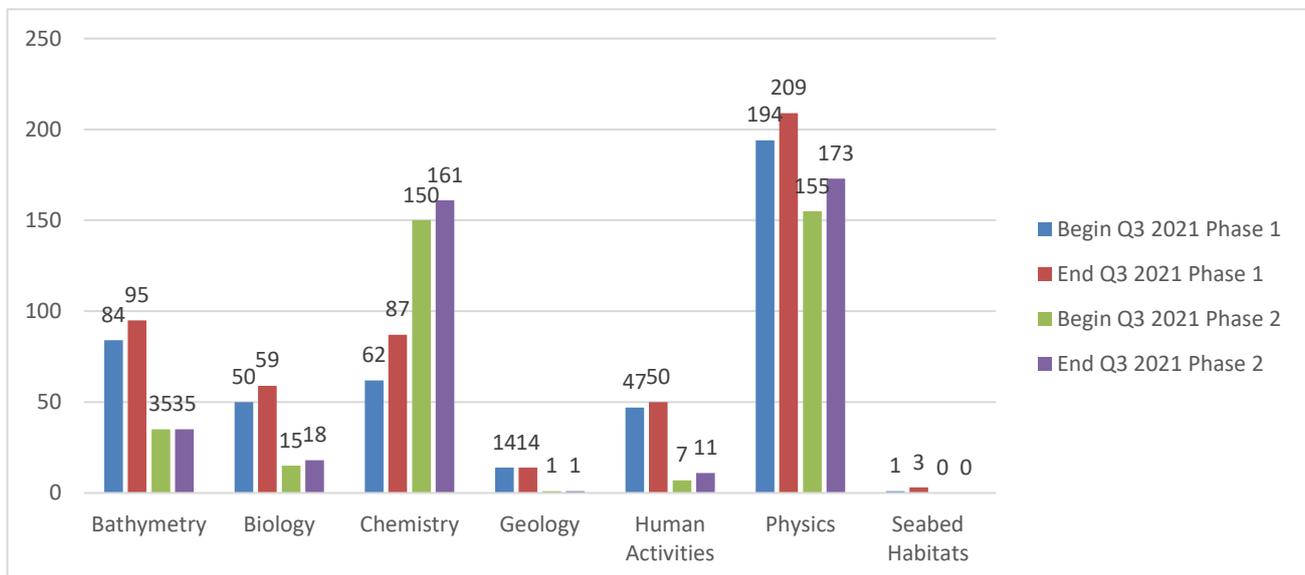


Image: number of submissions in phase 1 and 2 per theme at begin and end of reporting quarter