



## EMODnet Thematic Lot n° 6

EMODnet Phase III - Trimonthly Report

Reporting Period: 14/07/2017 – 13/10/2017

Date: 13/10/2017

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# 1. Highlights in this reporting period

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- The following datasets have been updated: ocean energy facility, wind farms, fisheries (monthly first sales), hydrocarbon extraction (boreholes), cables (schematic routes)
- 5 new blogs have been published (August, September, October)
- Live Chat has been implemented on all pages of EMODnet HA website
- Meeting on Shipping density maps from AIS signals
- Ideas have been exchanged with the JRC to collect data on seaweed aquaculture from producers

## 2. Meetings held since last report

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Date	Location	Topic	Short Description
7 September 2017	Bruxelles	Shipping density maps from AIS signals	The aim of this meeting was to discuss the preparation of vessel density maps by Human Activities
13-15 September 2017	Rome	8 <sup>th</sup> EMODnet Steering Committee Meeting	The aim of this meeting was to revise progress and set the priorities for future developments
22-23 September 2017	Antwerp	OpenSeaLab Kick-off event	A presentation of EMODnet HA potential and actual use cases was given at OpenSeaLab kick-off event
4-6 October 2017	Bruxelles	FAO-COST workshop algae production	EMODnet HA's work on aquaculture was presented to producers and stakeholders.

## 3. Work package updates

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### ***WP 1 – Project management***

After noting that nearly 50% of users who download data from EMODnet HA are from the business sector, it was decided to change the information asked to users for statistical purpose. Currently, users who download data are simply asked their name (not mandatory field), their country (not mandatory field) and the sector they work in (mandatory). This system was conceived with idea of making as easy as possible for users to download the data.

However, in the current phase of EMODnet it has become extremely important to understand how users do with our data, especially businesses which might generate value added if they use them to produce their products or services.

Therefore, it has been decided to create a new mandatory field in which users who want to download the data will have to type their email address. A disclaimer will reassure users that the email address will not be communicated to third parties, will not be used for commercial purposes, and will not be included in any newsletter, unless they authorise us to do so. The email address might be used by the EMODnet HA team to get in touch with a user and enquire on how they have used our data. It is believed that this will make it possible to find out more about what users are doing with EMODnet HA's data. Particularly interesting use cases will be described on EMODnet HA's portal.

The data collection form has not been modified yet, but a new version will be available over the next few weeks.

### ***WP 2 – Data Collection***

#### **Cultural heritage**

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- **Underwater archaeological sites & wrecks**

A “Protected Wrecks” dataset has been downloaded from “Historic England” website. GIS objects are polygons delimiting protected areas. This is a new approach compared to current points actually provided on EMODnet portals (Bathymetry and Human activities). We are investigating to what extent similar datasets are available in other EU areas.

Protected areas concerning cultural heritage could be interesting for MSP approaches and less problematic to disclose by data providers than precise coordinates of wrecks. These areas are official and based on national regulatory frameworks.

- **Maritime Heritage – lighthouses**

Investigations have been engaged regarding two objectives:

- (i) improving accuracy of coordinates / actual dataset
- (ii) enlarge the geographic coverage to new areas (South Med, Black Sea, Baltic....)

Contacts are being reactivated with the two more relevant data providers: Lighthouses R'us and Marine Traffic. Quotations for data extractions, including metadata, are under preparation.

## **Aquaculture**

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The bulk of the work for aquaculture since the 1<sup>st</sup> progress report has been on data harmonization for the new freshwater aquaculture dataset. Therefore, data collection has been fairly limited.

Data collection tasks have included: (i) new data collection: freshwater aquaculture in Czech Republic; (ii) exchanges with some MS (especially Poland and Slovenia) to clarify some issues with the data (SCR used, definitions, etc.); (iii) data updates: marine and freshwater aquaculture in Scotland; (iv) contacts with previous source providers for updates:

- Ireland: the Irish Ministry of Agriculture has some updated data, but they wanted us to sign a confidentiality agreement that would be contrary to the use of the data under EMODnet portal. We are currently in discussion to get an agreement that would be compatible with EMODNet purpose;
- Spain and Finland: contacts have not answered yet on possible updates and requests for additional data (Galician shellfish and Finnish freshwater aquaculture);

During a workshop on seaweed aquaculture, it was discussed with the JRC how to collect information on algae aquaculture. Producers were also attending the meeting and they declared they would be available to sharing data on farm location and possibly production. The Human Activities team and the JRC will develop together a reporting template, which producers will use to share their data. The dataset will be submitted by the JRC via the Data Ingestion project.

## **Ocean energy facility**

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The “waves4power” project promoter send us updated data that has been included in our dataset.

## **Other forms of area management**

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Update of the new approved Advisory Councils, i.e. Aquaculture, Markets.

## Waste disposal

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A data-set on Waste Disposal sites in Scotland has been acquired in August.

We are reviewing all the current data sources and searching for new ones.

## Wind farms

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The data set has been updated with the latest available information until July 2017. It will soon be made available online.

## Fisheries

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- **Monthly first sales**

The 2017 update of the dataset also includes information on fish presentation (e.g. whole, headed, gutted, etc.) and preservation state (e.g. fresh, frozen, etc.). Information on presentation and preservations state are also retrieved from EUMOFA. The geographical coverage of data is: Belgium, Germany, Denmark, Estonia, France, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Spain, Sweden and the UK. The dataset is updated twice a year. It covers a time series from 2007 to 2017 (not complete). The EUMOFA is a fully-fledged observatory, but is also a work in progress: its coverage may be extended in the future.

## Hydrocarbon extraction

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- **Boreholes**

The dataset was updated in September 2017, and is already available for viewing and download (geodatabase and shapefile) on EMODnet Human Activities. Compared with the previous version, this new version contains updates concerning the field 'STATUS' of the boreholes.

## Pipelines and cables

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- **Cables - Schematic routes**

Compared with the previous version, this version includes the gigabit per second values that come from the Cable System Database of the Packet Clearing House organization and are available online at <https://prefix.pch.net/applications/cablesystem/>. The database contains lines and points representing cables and related landing points. Cables are represented as stylised paths, as actual cable routes locations are not available in most cases. The dataset includes any cable that crosses EU waters (Marine regions). Marine regions and subregion boundaries are defined in Article 4 of the Marine Strategy Framework Directive (MSFD) and available online on <https://www.eea.europa.eu/data-and-maps/data/msfd-regions-and-subregions>.

## Major ports

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- **Waste collected in ports**

The activities conducted since the last progress report have been:

- Port authorities, Member States ministries related to ports management and navigation issues and state agencies have been contacted and requested data on waste collected in ports (more than 250 requests have been sent by email)
- Four data-sets for concrete ports have been acquired
- On-going review-searching of data sources and data sets analysis
- DG MOVE (Maritime Safety Unit) has been contacted in order to obtain feedback on the possible sources for this dataset.

## Spatial planning zones

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The activities conducted since the last progress report have been:

- The MSP Working Groups of each Member State have been contacted and requested data on plans in a geographic format (more than 50 requests have been sent by email).
- We have also contacted the European Maritime Spatial Planning Platform manager requesting datasets of “MSP adopted plans”.
- DG MARE will also be contacted to facilitate communication with the Member States Expert Group on MSP.

## ***WP 3 – Data Harmonisation***

### **Cultural heritage**

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Data concerning protected wrecks areas in England are being checked, so as legal conditions for dissemination.

### **Aquaculture**

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The new dataset for freshwater aquaculture is now in staging. It includes data from 10 EU MS (Austria, Bulgaria, Denmark, Greece, Ireland, Poland, Slovenia, Spain, UK-Scotland and Czech Republic) and Norway.

The preparation of this new dataset involved important data harmonization work, including:

- Transposition of some data into a database format (e.g. Poland);
- Translation of species, production stages and farm types ;



- Harmonisation of species names: it was decided to keep the original description, translated into English in the dataset in order not to lose information and to harmonise species names in different columns for filtering options. Filters are available for the following main species: Carp, Catfish, “Other freshwater pond fish” (zander, pike, perch, tench, etc. – mostly cyprinidae), Trout, Salmon (smolts and juveniles), Eel, Sturgeon, Tilapia, Ornamental Fish and Other
- Harmonisation of production stages (Grow out, Hatchery, Nursery, Brood stock, Research, Other) and farm types (Closed systems, Ponds, Tanks-Raceways, Quarantine facility, Research facility, Other);
- Creation of geodatabase entities from Excel and CSV files (using XY fields);
- Conversion of all entities into WGS 84 SCR.

Distance to coast for is not relevant for this dataset as points are all inland.

## ***WP 6 – Maintenance of the portal***

### **Progress:**

- Numerous updates to data and metadata
- Update of contact page
- Implementation of Live Chat on all pages

### **Next Steps:**

- Review of search page and WFS for OpenSeaLab
- Implementation of other new datasets as they become available
- Implementation of development site using elements from the visual guidelines (pre-approval from EASME).

## ***WP 7 – Development of data products***

A meeting took place in Brussels on 7/9/2017 to discuss whether and to what extent EMODnet Human Activities and EMSA can collaborate to develop a series of vessel density maps.

The meeting was attended by:

- DG MARE
- JRC
- EMSA
- EMODnet Secretariat

- EMODnet Human Activities
- HELCOM
- Institute for Water of the Republic of Slovenia
- Lux Space
- Norwegian Coastal Administration (NCA)
- Norwegian Defence Research Establishment

EMSA has been mandated to start preparing vessel density maps, so this exercise could be conducted in conjunction with EMODnet Human Activities. EMSA has access to raw terrestrial and satellite AIS data, because of a service contract with a commercial provider (Lux Space). This raw data cannot be shared with EMODnet HA for legal reasons. However, EMSA might decide to develop the maps based on a method agreed with EMODnet HA.

A concept note has been prepared by the Human Activities team. The note was shared with the participants in the Brussels meeting, as well as with the EMODnet community for review. The final draft of the note will be shared with EMSA mid-October. EMSA will discuss the note at a High Level Steering Group meeting in November to decide whether it can carry out the exercise based on EMODnet HA's requirements. Should this be impossible, EMODnet HA will buy the raw AIS data from a commercial provider and develop the map anyway.

### ***WP 8 – Involvement of regional sea conventions***

The objective of this WP is to ensure maximum coherence with data delivery to and from Regional Sea Conventions. In order to do so, a structured form of cooperation with RSCs will be established.

After a conference call with all the partners of our Consortium it was agreed that we will get in touch with all the four Regional Sea Conventions in order to fix a date for a first face-to-face meeting (first meeting should take place by the end of this year). A common agenda for the meetings will be defined. The main issues to discuss will regard the progress of EMODnet HA and what action should be taken to ensure that HA is consistent with and can support the work of RSCs, especially in the framework of the MSFD process. The action plan should also outline what measures are to be taken to ensure data flow to and from RSCs.

We envisage two more meetings in 2019 to assess the degree of implementation of the actions decided during the previous meeting

### ***WP 11 – Setting-up and operation of a help-desk***

In September the Live Chat has been implemented on all pages of the EMODnet HA website.

## ***WP 13 – Dissemination and communication***

Five blogs have been published since the last progress report:

- What dredging dataset is available on EMODnet (August)
- Looking at EU maritime freight transport countries and ports (August)
- Blowing in the wind, mapping the sea (September)
- Waste disposal at sea: what and where (September)
- Contribution of EMODnet Ocean Energy to Maritime Spatial Planning (October)

## **4. Specific challenges or difficulties encountered during the reporting period**

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Nothing to report.

## 5. User Feedback

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Date	Name	Organization	Type of user feedback ( <i>e.g. technical, case study etc</i> )	Response time to address user request
28/7/17	Isaac Durá	Heraspace	Technical: enquiry on how to use fisheries and marine protected areas for a project proposal	2 days
11/9/2017	César Real	IESE	Enquiry on missing data on shellfish aquaculture in Galicia (new source proposed)	Same day
19/9/2017	Jean-Baptiste Jouffray	Stockholm Resilience Centre	Technical (enquiry on how to use data on aggregates extraction)	Same day

## 6. Outreach and communication activities

Date	Media	Title	Short description and/or link to the activity
07/08/2017	Blog of EMODnet HA	“What dredging dataset is available on EMODnet”	<a href="http://www.emodnet-humanactivities.eu/blog/?p=354">http://www.emodnet-humanactivities.eu/blog/?p=354</a>
21/08/2017	Blog of EMODnet HA	“Looking at EU maritime freight transport countries and ports”	<a href="http://www.emodnet-humanactivities.eu/blog/?p=318">http://www.emodnet-humanactivities.eu/blog/?p=318</a>
06/09/2017	Blog of EMODnet HA	“Blowing in the wind, mapping the sea”.	<a href="http://www.emodnet-humanactivities.eu/blog/?p=385">http://www.emodnet-humanactivities.eu/blog/?p=385</a>
21/09/2017	Blog of EMODnet HA	“Waste disposal at sea: what and where”	<a href="http://www.emodnet-humanactivities.eu/blog/?p=398">http://www.emodnet-humanactivities.eu/blog/?p=398</a>
09/10/2017	Blog of EMODnet HA	“Contribution of EMODnet Ocean Energy to Maritime Spatial Planning”	<a href="http://www.emodnet-humanactivities.eu/blog/?p=417">http://www.emodnet-humanactivities.eu/blog/?p=417</a>
10/10/2017	Eurofish Magazine no 5	<ul style="list-style-type: none"> <li>• Open Sea Lab</li> </ul>	Promoting of the OpenSeaLab - A short article on OpenSeaLab created in issue of the Eurofish magazine (October 2017).

## 7. Updates on Progress Indicators

### *Indicator 1 - Volume of data made available through the portal*

Activity			Type/format				
			Points	Lines	Polygons	Related tables/records	Raster tiles/cells
Cultural heritage (Lighthouses)							
Mariculture	Shellfish						
	Finfish						
Aggregate extraction							
Dredging							
Ocean energy facility	Projects						
	Test sites						
Other forms of area management/designation	International conventions						
	Maritime boundaries						
	Advisory councils						
Waste disposal (solids, including dredge material, dumped munitions, marine constructions)	Dumped munitions						
	Dredge spoil dumping						
Wind farms							
Fisheries	Fishery zones (FAO and ICES)	FAO Fishery Statistical Areas					
		ICES Statistical Areas					
	Fishery catches by FAO statistical area						
	Monthly first sales, EUMOFA		2.035			1 related table containing 1.078.519 records	
Hydrocarbon extraction	Boreholes		24.763				
	Active licenses						
	Offshore installations						
Pipelines and cables	Landing stations (schematic cables)		415				
	Schematic cables			166			
	Actual route locations (cables)						
Environment	Protected areas	Nationally designated areas (CDDA)					

		Natura 2000					
	State of bathing waters						
Commercial shipping, recreational shipping							
Major ports traffic	Goods						
	Passengers						
	Vessels						

### ***Indicator 4 - Volume of each type of data and of each data product downloaded from the portal***

***1<sup>st</sup> July 2017 to 30<sup>th</sup> September 2017***

*Included are instances of downloads and initial requests for WFS links. Statistics exclude Human Activities and Central Portal partners.*

Wind Farms	62
Telecommunication Cables (schematic)	48
Telecommunication Cables (actual)	37
Main Ports	23
Offshore Installations	22
Dredge Spoil Dumping	19
Shellfish Production	18
Hydrocarbon Extraction Active Licenses	16
Dumped Munitions	15
Hydrocarbon Extraction Boreholes	15
Ocean Energy Facilities	15
CDDA	13
Natura2000	12
Aggregate Extraction	9
Dredging	9
Finfish Production	9
ICES Statistical Areas	9
Maritime Boundaries	9
State of Bathing Waters	8
Fish Catches	6
Lighthouses	4
Advisory Councils	2
Barcelona Convention	0



Bucharest Convention	0
FAO Fishery Statistical Areas	0
Fish Sales	0
HELCOM Maritime Area	0
OSPAR Maritime Area	0
Telecommunication Landing Stations	0
Ship Wrecks	n/a
Submerged Prehistoric Archaeology and Landscapes	n/a

### ***Indicator 5 - Organisations that have downloaded each data type***

*Users are asked for their organisation name when downloading data or requesting WFS links. It is a non-mandatory field. Only those organisations that can be easily validated online as genuine are listed.*

#### ***1<sup>st</sup> July 2017 to 30<sup>th</sup> September 2017***

- ADEDE (Research), BE
- Atlas Engineering (Energy), FR
- Royal Boskalis Westminster N.V. (Other), NE
- Carl von Ossietzky University of Oldenburg (Environment), DE
- Cerema (Physical planning), FR
- CS Canada (Other), CA
- Cranfield University (Research), UK
- Deltares (Research), NL
- DG3 (Energy), PT
- dpa-infografik (Education), DE
- DROTA (Environment), PT
- DTU (Fisheries and agriculture), DK
- Federal Institute of Technology in Lausanne - EPFL (Education), CH
- Ecologic (Research), DE
- EDPR UK (Energy), UK
- Energy and Water Associates (Energy), UK
- Eni (Mining), IT
- Envision Mapping Ltd (Environment), UK
- Esri UK (Research), UK
- Eticas (Other), ES
- ExxonMobil Development Co. (Energy), US
- Faroe Petroleum (Energy), NO

- Flanders Marine Institute (Fisheries and agriculture), BE
- Fugro Survey (Energy), Netherlands
- Genesis Oil and Gas Ltd (Energy), UK
- The Geological Survey of Denmark and Greenland - GEUS (Research), DK
- Greenpeace (Environment), UK
- G-tec (Other), BE
- Institute of Interim Management (IIM) (Other), IT
- innogy SE (Energy), DE
- Intertek (Environment), UK
- ISMAR-CNR (Research), IT
- Italia Hydrographic Institute (Other), IT
- Jenrick (Environment), NE
- Joint Nature Conservation Committee (Environment), UK
- KIOST (Energy), KR
- Leidos (Environment), US
- MESL (Research), UK
- MFRC - GMIT (Education), IE
- Mita Drius (Environment), IT
- National University Agraria La Molina - UNALM (Environment), PE
- National Institute of Oceanography and Experimental Geophysics (Fisheries and agriculture), IT
- Natural Power (Energy), UK
- Nanyang Technological University (Education), SG
- NLMOD (Research), NE
- Pelagian (Other), UK
- Portuguese Institute of the Sea and the Atmosphere - IPMA (Research), PT
- PwC (Energy), NE
- Région Nouvelle-Aquitaine (Energy), FR
- Roland Berger (Research), UK
- RPS (Environment), UK
- RWTH Aachen University (Energy), DE
- Scottish Association for Marine Science (Research), UK
- Shell (Other), NG
- Shom (Other), FR
- Siggis (Energy), BE
- SMRU Consulting (Environment), UK
- Stockholm Resilience Centre (Research), SE

- Swansea University (Education), UK
- Swire Seabed (Physical planning), NO
- TC Vode – ETCICM (Environment), SI
- Technical Education Copenhagen - TEC (Other), DK
- Tesco (Environment), UK
- University College Cork - UCC (Education), IE
- uDolap Technische Ecologie (Environment), NE
- Ulster University (Research), IE
- University of Malaga (Tourism), ES
- UN-IHE Delft (Education), NE
- University of Veterinarian Medicine Hanover Foundation (Environment), DE
- Università Iuav di Venezia (Physical planning), IT
- Wageningen Marine Research (Research), NE

## ***Indicator 6 - Using user statistics to determine the main pages utilised and to identify preferred user navigations routes***

***1<sup>st</sup> July 2017 to 30<sup>th</sup> September 2017***

*Statistics include all visitors including partners.*

### *View Data*

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
Jul-17	305	03:10	433	138	45.25%
Aug-17	255	02:49	401	121	47.45%
Sep-17	397	02:32	557	219	55.16%

### *Home*

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
Jul-17	281	00:32	435	178	63.35%
Aug-17	114	01:27	157	54	47.37%
Sep-17	158	02:05	198	48	30.38%

### *Search Data*

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
Jul-17	305	00:51	452	157	51.48%
Aug-17	156	00:38	230	83	53.21%
Sep-17	326	00:32	541	181	55.52%

***Indicator 7 - List of what the downloaded data has been used for (divided into categories e.g. Government planning, pollution assessment and (commercial) environmental assessment, etc.)***

***1<sup>st</sup> July 2017 to 30<sup>th</sup> September 2017***

*Users must select their sector when downloading data or requesting WFS links.*

1	Energy	21.45%
2	Research	20.75%
3	Education	16.32%
4	Environment	14.22%
5	Other	12.59%
6	Fisheries and agriculture	6.29%
7	Physical planning	4.20%
8	Transport	2.56%
9	Demography	0.70%
10	Mining	0.47%
=	Tourism	0.47%

***Indicator 8 - List of web-services made available and user organisations connected through these web-services***

WFS are available as XML format, or JOSN format (by adding `&OUTPUTFORMAT=json` to the URL).

Active Licenses

<http://77.246.172.208/WFSactivelicenses?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=activelicenses>

Advisory Councils

<http://77.246.172.208/WFSadvisorycouncils?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=advisorycouncils>

Aggregate Extraction

<http://77.246.172.208/WFSaggregates?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=aggregates>

Barcelona Convention

<http://77.246.172.208/WFSbarcelona?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=barcelona>

Boreholes

<http://77.246.172.208/WFShydrocarbons?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=hydrocarbons>

BSH CONTIS Cables

<http://77.246.172.208/WFSbshcontiscables?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=bshcontiscables>

Bucharest Convention

<http://77.246.172.208/WFSbucharest?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=bucharest>

Dredge Spoil Dumping (Points)

<http://77.246.172.208/WFSdredgespoildumping?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=dredgespoil>

Dredge Spoil Dumping (Polygons)

<http://77.246.172.208/WFSdredgespoildumpingpoly?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=dredgespoilpoly>

Dredging

<http://77.246.172.208/WFSdredging?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=dredging>

Dumped Munitions (Points)

<http://77.246.172.208/WFSmunitions?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=munitions>

Dumped Munitions (Polygons)

<http://77.246.172.208/WFSmunitionspoly?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=munitionspoly>

FAO Fishery Statistical Areas

[http://www.fao.org/figis/geoserver/area/ows?version=1.0.0&typeName=area:FAO\\_AREAS](http://www.fao.org/figis/geoserver/area/ows?version=1.0.0&typeName=area:FAO_AREAS)

Finfish Production

<http://77.246.172.208/WFSfinfish?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=finfish>

HELCOM Maritime Area

<http://77.246.172.208/WFShelcom?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=helcom>

ICES Statistical Areas

<http://77.246.172.208/WFSicesareas?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=icesareas>

Kis Orca Subsea Cables

<http://77.246.172.208/WFSkisorcacables?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=kisorcacables>

Landing Stations

<http://77.246.172.208/WFSlandingstations?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=landingstations>

Lighthouses

<http://77.246.172.208/WFSlighthouses?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=lighthouses>

Maritime Boundaries

<http://77.246.172.208/WFSmaritimebnds?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=maritimebnds>

Nationally Designated Areas

<http://77.246.172.208/WFSccda?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=ccda>

Natura 2000

<http://77.246.172.208/WFSnatura2000?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=natura2000>

Offshore Installations

<http://77.246.172.208/WFSplatforms?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=platforms>

OSPAR Maritime Area

<http://77.246.172.208/WFSospar?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=ospar>

Project Locations

<http://77.246.172.208/WFSenergy?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=energy>

Shellfish Production

<http://77.246.172.208/WFSshellfish?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=shellfish>

SIGCables Submarine Cables Routes

<http://77.246.172.208/WFSsigcables?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=sigcables>

State of Bathing Waters

<http://77.246.172.208/WFSbathingwaters?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=bathingwaters>

Telecommunication Cables (schematic routes)

<http://77.246.172.208/WFScablesschematic?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=cablesschematic>

Test Sites

<http://77.246.172.208/WFSoenergytests?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=oenergytests>

Wind Farms (Points)

<http://77.246.172.208/WFSwindfarms?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=windfarms>

Wind Farms (Polygons)

<http://77.246.172.208/WFSwindfarmspoly?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=windfarmspoly>

Attribute data for Main Ports and Fish Catches are complex and are currently not released as WFS.

Users are asked to volunteer their organisation name and sector and country when requesting initial WFS (web feature services) information. Organisation name and country are not mandatory fields. Only those organisations that can be easily validated online as genuine are listed. It is not possible to track user's organisations who have acquired the WFS links from other sources (e.g. from a shared link) or track an organisation's usage once WFS are in use.

Organisations that have made initial requests for WFS links include the following:

**July 2017 to 30<sup>th</sup> September 2017**

- CS Canada (Other), CA
- DG3 (Energy), PT
- Esri UK (Research), UK
- Eticas (Other), ES
- Flanders Marine Institute (Fisheries and agriculture), BE
- Genesis Oil and Gas Ltd (Energy), UK
- The Geological Survey of Denmark and Greenland - GEUS (Research), DK



- Italia Hydrographic Institute (Other), IT
- Jenrick (Environment), NE
- Pelagian (Other), UK
- Shom (Other), FR
- Siggis (Energy), BE
- UN-IHE Delft (Education), NE
- Wageningen Marine Research (Research), NE