

# EMODnet Central Portal



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## EMODnet

### EMODnet Central Portal

- Access point to all the thematic portals and checkpoints
- Does not hold data – only access to data products
  - Open geospatial data products
  - Metadata in Sextant (geonetwork) (plans to integrate everything under a central catalogue)
- Query Tool
  - Combined output from different data products
  - Interoperability issues

## Use Cases - Use Case 1

- Combined output from different data products: **Query EMODnet data products simultaneously**
- What it is: **Retrieve data from multiple data products** via one single interface
- In what context: **(Example)** For providing Fisheries Authorities with information relevant to perform fisheries assessments
- What is the output: **For a given coordinate** (e.g. current position of a vessel), the **system will return a list of the required parameters** (depth, seabed substrate, seabed habitat, mean temperature/salinity of nearest mooring, fishing zone, national jurisdiction, protected area etc.).

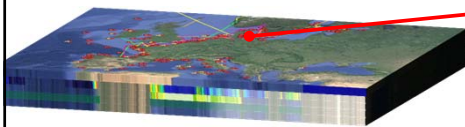
### Next Use Case?

## INSPIRE mediated EMODnet / MSFD

3

EMODnet

## Use Case 1: Query products simultaneously



Retrieve Data from specified coordinates at a given time or for a time interval

Physical Parameters (temperature, salinity)

Bathymetry

Seabed Substrate

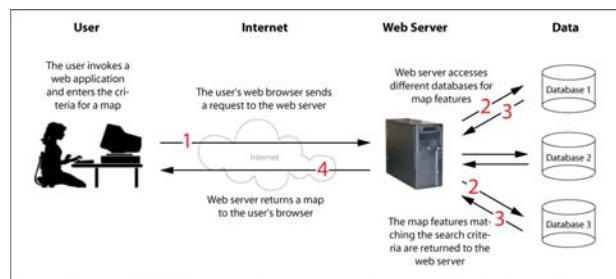
Marine Region (ICES, Protected Area)

Species Abundance

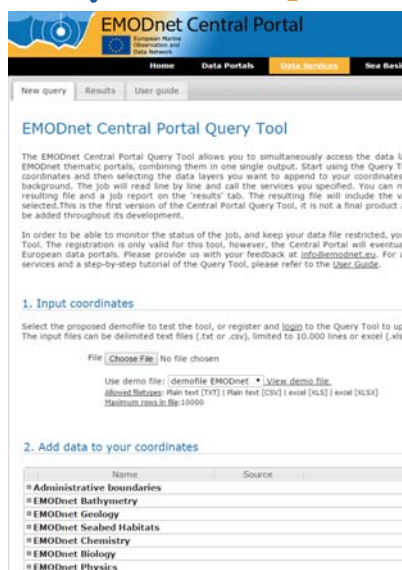
Coordinate	Average Depth (m)	Seabed Substrate	Seabed Habitat	Cod mean abundance	Nitrates (5m -µmol/l)	ICES Statistical Area	EEZ
2,546 1 51,7 123	23,0	mud to sandy mud	Infralittoral mixed	0,37	16,1	XIb	French EEZ
3,746 1 34,7 123	27,4	mud	Circalittoral sandy	0,45	34,1	VIIa	Dutch EEZ
6,346 1 33,7 123	87,5	course-grained sedi	Circalittoral muddy	1,89	27,1	VIIb	Danish EEZ

## EMODnet Central Portal does not hold data!

- Be able to get access to the data via WMS / WFS (GetFeature)
- Perform queries over WMS / WFS
- Return output in different formats (list of features per coordinate point, list of points or area, Indexes etc.)



## Query Tool – <http://www.emodnet.eu>



The screenshot shows the EMODnet Central Portal Query Tool interface. It includes a search form with fields for coordinates and a list of data layers to select. The interface is titled "EMODnet Central Portal Query Tool" and includes a "New query" button and a "User guide" link.

name	longitude	latitude
Mediterranean Sea - Eastern Basin	30.13724	35.111
Black Sea	30.66072	43.20116
Black Sea	31.1842	45.10473
Black Sea	38.46535	42.34456
Black Sea	27.899	42.958
Sea of Azov	36.79973	46.15169
Irish Sea and St. George's Channel	-5.55499	52.90936
Irish Sea and St. George's Channel	-5.02199	52.50961
Irish Sea and St. George's Channel	-4.20346	54.03247
Irish Sea and St. George's Channel	-3.28975	53.76597
Irish Sea and St. George's Channel	-5.43091	53.48358

### 1. Input coordinates

Select the proposed demofile to test the tool, or register and login to the Query Tool to upload your own coordinates. The input files can be delimited text files (.txt or .csv), limited to 10.000 lines or excel (.xls or .xlsx).

File:  No file chosen

Use demo file: demofile EMODnet    First row contains column names

Allowed filetypes: Plain text [TXT] | Plain text [CSV] | excel [XLS] | excel [XLSX] Column delimiter:

Maximum rows in file: 10000

### 2. Add data to your coordinates

Name	Source	Description
<b>Administrative boundaries</b>		
<input checked="" type="checkbox"/> EMODnet Regions	EMODnet regions	Returns the name of the EMODnet region where the given coordinate is located.
<input checked="" type="checkbox"/> Exclusive Economic Zones	Marine Regions	Returns the name of the EEZ where the given coordinate is located.
<b>EMODnet Bathymetry</b>		
<input checked="" type="checkbox"/> EMODnet digital bathymetry	EMODnet Bathymetry RFI-ST	High resolution bathymetry data in meters
<b>EMODnet Geology</b>		
<b>EMODnet Seabed Habitats</b>		
<b>EMODnet Chemistry</b>		
<b>EMODnet Biology</b>		
<b>EMODnet Physics</b>		

### 3. Selection Overview

Selected services

- EMODnet digital bathymetry
- Exclusive Economic Zones
- EMODnet Regions

Add description:

This field will be visible to other users.

New query | Results | User guide | [Login](#)

### 4. Check your coordinates

**Preview of the file 'demofile\_EMODnet.txt'** (first 20 records)  
Select the appropriate header for the required fields term that corresponds to your column and click 'Start'.

Selection Overview - click on each of the selected layers to view the required fields

- 1. EMODnet digital bathymetry
- 2. Exclusive Economic Zones
- 3. EMODnet Regions

column 0	column 1	column 2
(none)	Longitude	Latitude
<b>NAME</b>	<b>LONGITUDE</b>	<b>LATITUDE</b>
Inner Seas off the West Coast of Scotland -6.98267	55.907484	
Inner Seas off the West Coast of Scotland -5.497886	55.098467	
Inner Seas off the West Coast of Scotland -4.91	55.75	
Inner Seas off the West Coast of Scotland -6.754242	57.021072	
Inner Seas off the West Coast of Scotland -5.726315	58.163213	
Mediterranean Sea - Western Basin	1.012636	37.300999
Mediterranean Sea - Western Basin	-0.32471	37.65381
Mediterranean Sea - Western Basin	4.010757	38.156705
Mediterranean Sea - Western Basin	4.7	42.1
Mediterranean Sea - Western Basin	8.151019	42.677681
Mediterranean Sea - Eastern Basin	12.5333	37.5181
Mediterranean Sea - Eastern Basin	13.052709	34.539924
Mediterranean Sea - Eastern Basin	18.097166	32.921891
Mediterranean Sea - Eastern Basin	19.524843	35.206173
Mediterranean Sea - Eastern Basin	28.947508	32.493588

**legend :**

- Field is present in the inputfile.
- Field is present in the output of previous webservice.
- Field is missing from inputfile and from the output of previous webservice.
- Repeated fields detected, choose the preferred field or remove one of the fields.

[f](#) [t](#) [in](#) [r](#) Contact us at [info@emodnet.eu](mailto:info@emodnet.eu)

	A	B	C	D	E	F	G	H	I	J	K
1	longitude	latitude	EMODnet_regions_name	Exclusive_Economic_Zone	Exclusive_Economic_Zone	Exclusive_Economic_Zone	Exclusive_Economic_Zone	Exclusive_Economic_Zone	min_depth	max_depth	avg_depth
2	-21.012.843	26.601.799	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
3	-16.909.182	34.513.029	Macaronesia	Portuguese Exclusive Economic Zone	Madeira	57	Portugal	PRT	no value	no value	4239
4	-30.388.105	42.655.222	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2669
5	-32.792.556	39.415.009	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2085.6
6	-21.115.768	25.991.927	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
7	-33.533.228	36.712.286	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	1754.4	1864.6	1799.6
8	-27.189.925	40.874.621	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2548
9	-33.279.298	42.464.923	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	3540.4
10	-19.347.216	32.215.953	Macaronesia	Portuguese Exclusive Economic Zone	Madeira	57	Portugal	PRT	no value	no value	4639
11	-27.337.547	41.124.395	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2502.4
12	-15.118.033	36.197.069	Macaronesia	Portuguese Exclusive Economic Zone	Madeira	57	Portugal	PRT	no value	no value	3571.6
13	-12.739.376	31.915.726	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	3923.4
14	-17.907.362	27.020.189	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
15	-19.447.032	27.043.069	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
16	-26.965.335	40.406.802	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	1072.8
17	-14.385.932	34.499.881	Macaronesia	Portuguese Exclusive Economic Zone	Madeira	57	Portugal	PRT	2950.8	3107	3044.8
18	-25.772.543	38.283.497	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2436.6
19	-29.409.637	38.938.116	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	2057.6	2060.4	2059
20	-18.520.601	32.553.965	Macaronesia	Portuguese Exclusive Economic Zone	Madeira	57	Portugal	PRT	no value	no value	4127
21	-27.006.731	36.740.108	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	3888.2
22	-28.545.612	40.332.956	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2297
23	-29.773.446	39.293.394	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	1252.4	1423.6	1351.6
24	-23.074.066	38.573.375	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	4079.4
25	-16.542.719	26.461.322	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
26	-2.337.388	40.561.119	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	3951
27	-18.276.142	25.909.796	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
28	-20.498.846	27.097.744	Macaronesia	Spanish Exclusive Economic Zone	Canary Islands	58	Spain	ESP	no value	no value	no value
29	-28.803.253	39.422.516	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	2136.8	2178.6	2156.6
30	-34.448.492	39.204.047	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	3435.4
31	-25.593.978	38.366.908	Macaronesia	Portuguese Exclusive Economic Zone	Azores	55	Portugal	PRT	no value	no value	2692
32	-1.716.588	34.274.641	Macaronesia	Portuguese Exclusive Economic Zone	Madeira	57	Portugal	PRT	no value	no value	4239

## Report

**Job properties**

Demo  
 Number job: 11658  
 Comment: Steering committee demo  
 Inputfile: demofila\_EMODnet.txt  
 Resultfile: 11658\_demofila\_EMODnet.txt

**Requested Services (4)**

- EMODnet digital bathymetry
- Properties from GIS layer: Exclusive Economic Zones [2014]
- Properties from GIS layer: EMODnet regions
- Show on map

**Preview resultfile**

☺

**Map of input coordinates**



## Rating System and Web Service Guidelines











Star Rating	Level of service attained	Technical and service parameters to be met	EMODnet products
One star	Basic Web Map Service (WMS)	Web Map Service (WMS) supporting "GetCapabilities" and "GetMap" requests to deliver map images.	•
Two star	Upgraded Web Map Service (WMS)	<ul style="list-style-type: none"> <li>• One Star requirements met.</li> <li>• Map legend provided.</li> <li>• Minimum metadata available (contact information, abstract, access constraints, cataloguing keywords).</li> </ul>	•
Three star	Enhanced Web Map Service (WMS)	<ul style="list-style-type: none"> <li>• Two Star requirements met.</li> <li>• "GetFeatureInfo" (at least text/html format) request supported.</li> <li>• Web Map Service (WMS) v. 1.3.0 supported.</li> <li>• Additional keywords to make GetCapabilities response ISO19115 core compliant</li> <li>• Clear statement of use relating to data, including licence and charging details (where appropriate).</li> <li>• Access to data must be transparent, simple and fair to all.</li> </ul>	•
Four star	Web Feature Service (WFS)	<ul style="list-style-type: none"> <li>• Three Star requirements met.</li> <li>• "MetadataURL" for each WMS layer and WFS feature type should point to a metadata record conforming at least to the metadata profile.</li> <li>• Web Feature Service (WFS) at a minimum v. 1.1.0.</li> </ul>	•



## EMODnet Web Services guidelines

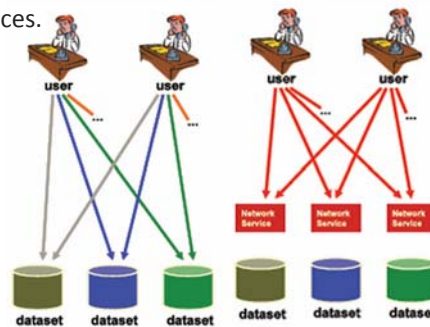
- The existing Rating System applies to OGC compliancy only.
- A service may be fully compliant with the Rating System and still require dedicated scripting to implement in the Query Tool.
- The opposite is also true: Services that are not compliant can be easier to integrate than those featuring 4\*.
- Joint developers Workshop in September.

Most popular date: Wed 9/9/15 | Close poll ▾

September 2015		Mon 7	Tue 8	Wed 9	Thu 10	Fri 11	Mon 14	Tue 15	Wed 16	Thu 17	Fri 18	Mon 21	Tue 22	Wed 23	Thu 24	Fri 25
12 participants																
 Francisco Souza Die		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 bartv		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
 Antonio Novellino							✓	✓	✓	✓	✓					
 Graeme Duncan		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
 Thomas Loubrieu		✓	✓	✓	✓	✓						✓	✓	✓	✓	✓
 Mickael TREGUER		✓	✓	✓	✓	✓						✓	✓			
 Alexander Barth				✓								✓	✓	✓	✓	✓
 Filip Waumans		✓	✓	✓	✓	✓										
 Robin Houthoofd		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Nick Earwaker			✓	✓	✓	✓	✓	✓	✓						✓	✓
 Giuseppe Manzella							✓	✓	✓	✓	✓					
 Jonathan Lowndes			✓	✓	✓			✓	✓	✓						
<input type="text" value="Your name"/>																
		7	9	10	9	8	7	8	8	6	6	5	5	4	6	6

## EMODnet Web Services guidelines

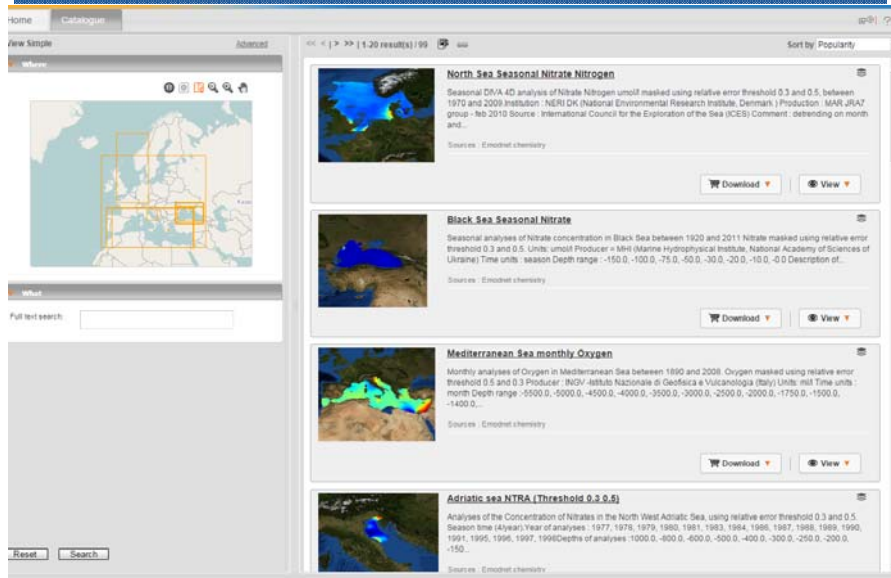
- The true standardization of the services will enable the smooth integration of the remaining services as well as allow the Query Tool to apply filters (depth and time).
- The integration of the remaining services is pending the adoption of the “EMODnet Web Services guidelines” the new standard for the EMODnet web services.



## EMODnet

- a. Export format (OGC doesn't specify export format.)
  - Recommended output format: JSON
- b. Geographical regions (Structure of the services)
  - One layers per data type
  - If the same information is present in different regions, then it should be made available in 1 single web service
- c. Projection
  - Use recommended projection: epsg 4326/ wgs84.
- d. Filter parameters and formats: time and elevation (Naming parameters)
  - Time parameter: time= yyyy-MM-ddThh:mm:ss.SSSZ
  - Elevation= -100 (in meter)

## EMODnet

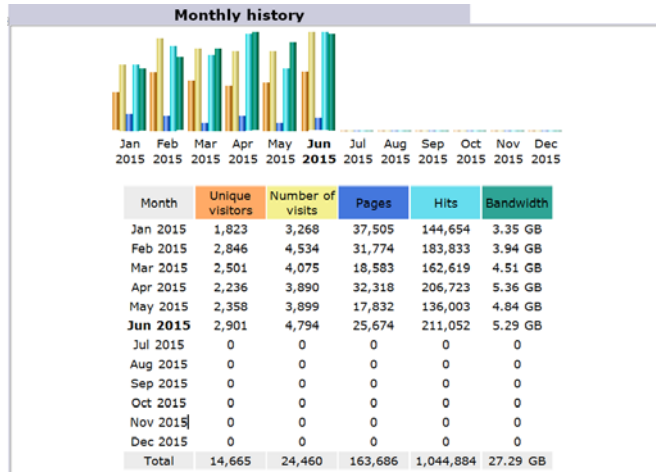


The screenshot displays the EMODnet web application interface. On the left, there is a search bar with a 'Full text search' input field and 'Reset' and 'Search' buttons. The main content area shows a list of search results for oceanographic data. Each result includes a thumbnail map, a title, a brief description, and source information. The results are:

- North Sea Seasonal Nitrate Nitrogen**: Seasonal DA/4D analysis of Nitrate Nitrogen umol/l masked using relative error threshold 0.3 and 0.5, between 1970 and 2009. Institution: NERI DK (National Environmental Research Institute, Denmark) Production: MAR\_JRA7 group - feb 2010. Source: International Council for the Exploration of the Sea (ICES). Comment: depending on month and...
- Black Sea Seasonal Nitrate**: Seasonal analyses of Nitrate concentration in Black Sea between 1920 and 2011. Nitrate masked using relative error threshold 0.3 and 0.5. Units: umol/l. Producer: IMI (Marine Hydrophysical Institute, National Academy of Sciences of Ukraine). Time units: season. Depth range: -150.0, -100.0, -75.0, -50.0, -30.0, -20.0, -10.0, -0.0. Description of...
- Mediterranean Sea monthly Oxygen**: Monthly analyses of Oxygen in Mediterranean Sea between 1990 and 2008. Oxygen masked using relative error threshold 0.5 and 0.3. Producer: INGV (Istituto Nazionale di Geofisica e Vulcanologia (Italy)). Units: mol. Time units: month. Depth range: -5000.0, -5000.0, -4500.0, -4000.0, -3500.0, -3000.0, -2500.0, -2000.0, -1750.0, -1500.0, -1400.0, ...
- Adriatic sea NTRA (Threshold 0.3 0.5)**: Analyses of the Concentration of Nitrates in the North West Adriatic Sea, using relative error threshold 0.3 and 0.5. Season time (4year): Year of analyses: 1977, 1978, 1979, 1980, 1981, 1983, 1984, 1986, 1987, 1988, 1989, 1990, 1991, 1995, 1996, 1997, 1998. Depth of analyses: -1000.0, -800.0, -600.0, -500.0, -400.0, -300.0, -250.0, -200.0, -150.0.












## Website Stats



## Website Stats

**Countries (Top 10) - Full list**

Countries	Pages	Hits	Bandwidth	
 Italy	it	25,651	91,119	2.35 GB
 Great Britain	gb	19,606	138,513	3.08 GB
 Belgium	be	8,647	72,226	1.66 GB
 Spain	es	6,557	84,708	2.72 GB
 Germany	de	6,489	39,742	1.10 GB
 Netherlands	nl	6,103	34,109	858.45 MB
 Ukraine	ua	5,949	15,848	1.41 GB
 France	fr	5,198	67,498	1.82 GB
 United States	us	4,595	26,505	965.58 MB

1,269 different pages-url	Viewed	Average size	Entry	Exit
/	21,853	23.71 KB	12,869	9,577
/project-officer-emodnet-secretariat	2,299	7.56 KB	1,583	1,646
/bathymetry	3,567	12.60 KB	1,183	1,812
/human-activities	2,188	8.45 KB	1,126	1,360
/news-rss	4,823	7.05 KB	850	879
/biology	2,334	24.52 KB	569	782
/geology	1,716	14.52 KB	507	719
/dataservices/	1,803	22.95 KB	286	199
/dataservices/ajaxserver.php	84,883	3.23 KB	120	447
/elfinder/connector	1,819	364.84 KB	28	100

Downloads: 49	Hits	206 Hits	Bandwidth	Average size
/sites/emodnet.eu/files/public/vacancies/ProjectOfficerEMODnet20...	1,536	119	195.82 MB	121.16 KB
/sites/emodnet.eu/files/public/Overview.pdf	151	17	22.18 MB	135.18 KB
/sites/emodnet.eu/files/public/pamflet/EMODnet_leaflet_Jan14_Jor...	118	328	120.99 MB	277.78 KB
/sites/emodnet.eu/files/public/Brochure/EMODNet_brochure_FINA...	75	64	223.00 MB	1.60 MB
/sites/emodnet.eu/files/public/pamflet/EMODnet_leaflet_Jan14_hir...	73	2	373.46 MB	4.98 MB
/system/files/publicdocs/vacancies/ProjectOfficerEMODnet2015.pdf	48	0	6.02 MB	128.33




## EMODnet

### Website Stats

Browsers (Top 10) - Full list/Versions - Unknown						
Browsers	Grabber	Pages	Percent	Hits	Percent	
<b>Google Chrome</b>	No	61,848	37.7 %	322,380	30.8 %	
<b>Firefox</b>	No	60,238	36.8 %	457,021	43.7 %	
<b>MS Internet Explorer</b>	No	34,030	20.7 %	185,617	17.7 %	
<b>Safari</b>	No	3,172	1.9 %	46,451	4.4 %	
<b>Opera</b>	No	1,752	1 %	13,156	1.2 %	
<b>Mozilla</b>	No	1,140	0.6 %	10,437	0.9 %	
? <b>Unknown</b>	?	592	0.3 %	1,279	0.1 %	
<b>Android browser (PDA/Phone browser)</b>	No	339	0.2 %	5,057	0.4 %	
<b>Netscape</b>	No	337	0.2 %	358	0 %	
<b>Acrobat Webcapture</b>	<b>Yes</b>	74	0 %	74	0 %	
Others		164	0.1 %	3598	0.3 %	

- EMODnet Central Portal | Emodnet**  
 The **EMODnet** data infrastructure is developed through a stepwise approach in three major phases. Currently **EMODnet** is in the 2nd phase of development with seven sub ...  
[emodnet.eu](http://emodnet.eu)
- Welcome to the EMODnet Bathymetry portal**  
 Welcome to the **EMODnet** Bathymetry portal The **EMODnet** Bathymetry portal is being developed in the framework of the European Marine Observation and Data Network ...  
[emodnet-hydrography.eu](http://emodnet-hydrography.eu)
- Home | Emodnet Biology**  
 Unlocking European Marine Biodiversity Data. The **EMODnet** biology data portal provides free access to data on temporal and spatial distribution of marine species and ...  
[emodnet-biology.eu](http://emodnet-biology.eu)
- EMODNET Portal**  
 EMODnet Chemistry regional groups are performing quality control and aggregation on these data sets as gathered from many distributed data providers in order to ...  
[emodnet-chemistry.eu](http://emodnet-chemistry.eu)
- EMODnet Physics**  
 T The **EMODnet** Physics provides access to physical data and metadata, and contributes to developing of the Global Monitoring for Environment and Security ...  
[151.125.219/emodnet2dnnv](https://doi.org/10.1511.125.219/emodnet2dnnv)
- Geology | Emodnet**  
 EMODnet Geology data and map products contain information on the sea-bed substrate, including rate of accumulation of recent sediments, the sea-floor geology ...  
[emodnet.eu/geology](http://emodnet.eu/geology)
- EMODnet | Facebook**  
 EMODnet. Ostende, Belgium. 129 likes · 13 talking about this. Welcome to the facebook page of the European Marine Observation and Data Network  
[facebook.com/EMODnet](https://facebook.com/EMODnet)
- EMODnet Human Activities**  
 To find out more about **EMODnet**, please visit the central portal. **EMODnet** Human Activities is a FREE marine data resource for all. VIEW DATA. about  
[emodnet-humanactivities.eu](http://emodnet-humanactivities.eu)
- Home - EMODnet MedSea Checkpoint**  
 EMODnet MedSea Checkpoint. The **EMODnet** MedSea Checkpoint portal for assessment of observational data systems and targeted applications. Challenges  
[emodnet-mediterranean.eu](http://emodnet-mediterranean.eu)



## Icons

**Leading Partner** MARIS

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**Total no. of partners** 35

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**Data Available**


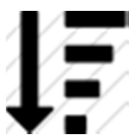

Parameters




DTM (Digital Terrain Models) reference framework

Download

## Thank you!

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<http://www.emodnet.eu/conference>

