Status EMODnet Central Portal

EMODnet
European Marine Observation and Data Network

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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.).

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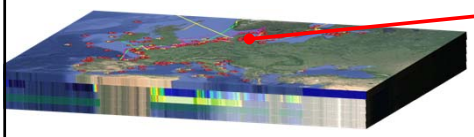
Use Case 1: Query products simultaneously



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 abundan	Nitrates (5m -µmol/L)	ICES Statitical Area	EEZ
2,546153,7123	28,0	mud to sandy mud	Infralittoral mixed	0,37	16,1	XIIb	French EEZ
3,746154,7123	27,4	mud	Circalittoral sandy r	0,45	34,1	VIIa	Dutch EEZ
6,546155,7123	87,5	course-grained sedi	Circalittoral muddy	1,89	27,1	VIb	Danish EEZ

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Use Cases

- functionality will make use and integrate geographic webservices provided by the different thematic lots.
- It will provide the user with a tool that easily integrates the output from the different thematic products.
- The tool will be based upon OGC compliant webservices – and more specifically, requires operational Web Feature Service (WFS) and Enhanced Web Map Service (WMS) that support the "GetFeatureInfo". Once the tool is operational, new OGC compliant data products, developed within the context of EMODnet can be added to this tool

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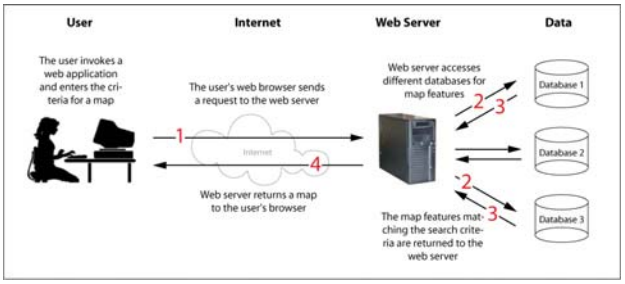
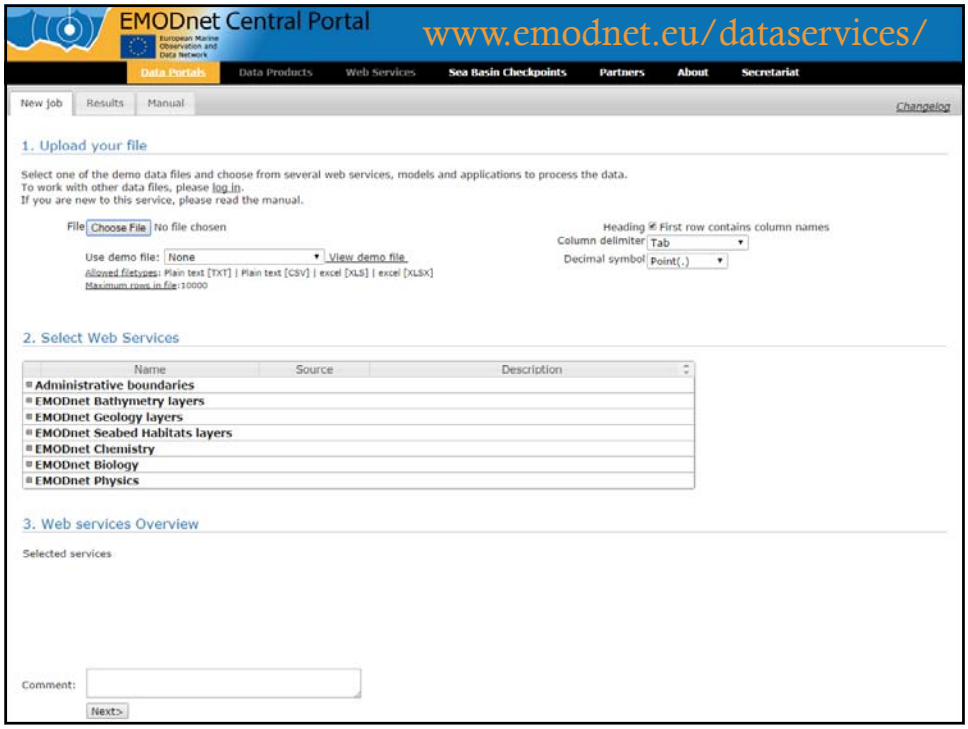
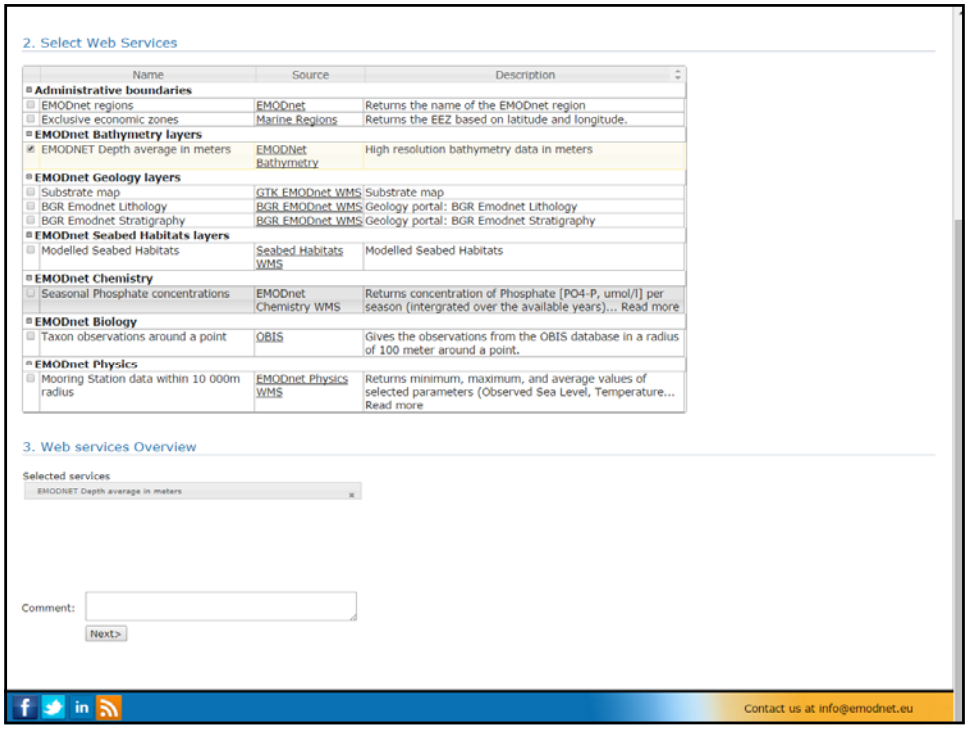
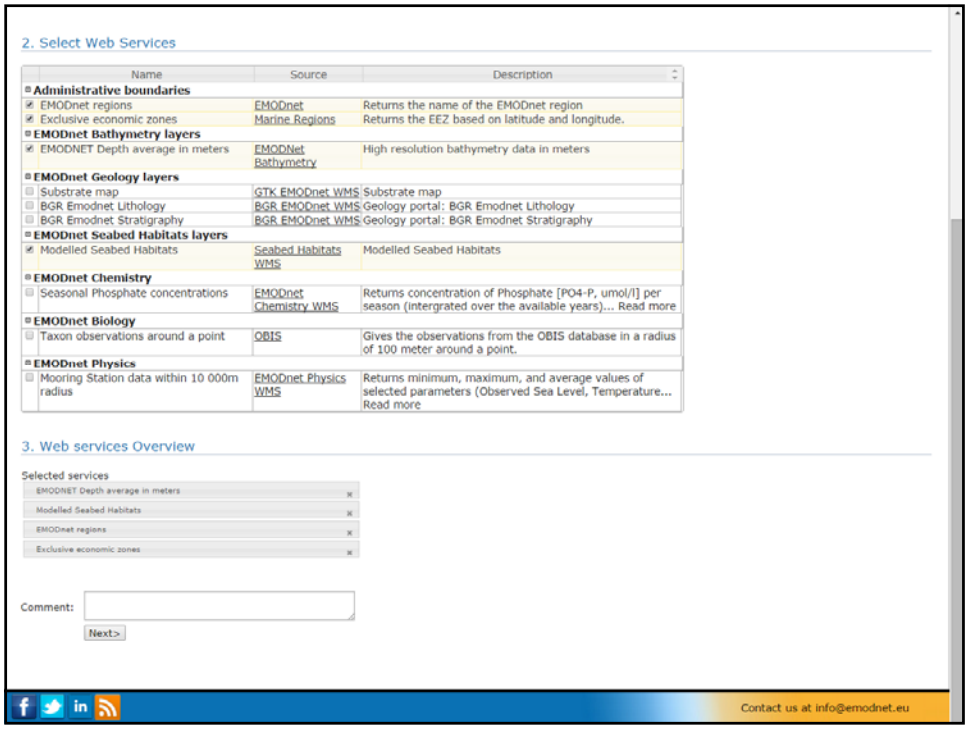
EMODnet Central Portal does not hold data!

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






2. Select Web Services
Name
Source
Description
Administrative boundaries
EMODnet regions
EMODnet
Returns the name of the EMODnet region
Exclusive economic zones
Marine Regions
Returns the EEZ based on latitude and longitude.
EMODnet Bathymetry layers
EMODNET Depth average in meters
EMODNet Bathymetry
High resolution bathymetry data in meters
EMODnet Geology layers
Substrate map
GTK EMODnet WMS
Substrate map
BGR Emodnet Lithology
BGR EMODnet WMS
Geology portal: BGR Emodnet Lithology
BGR Emodnet Stratigraphy
BGR EMODnet WMS
Geology portal: BGR Emodnet Stratigraphy
EMODnet Seabed Habitats layers
Modelled Seabed Habitats
Seabed Habitats WMS
Modelled Seabed Habitats
EMODnet Chemistry
Seasonal Phosphate concentrations
EMODnet Chemistry WMS
Returns concentration of Phosphate [PO4-P, umol/l] per season (intergrated over the available years)... Read more
EMODnet Biology
Taxon observations around a point
OBIS
Gives the observations from the OBIS database in a radius of 100 meter around a point.
EMODnet Physics
Mooring Station data within 10 000m radius
EMODnet Physics WMS
Returns minimum, maximum, and average values of selected parameters (Observed Sea Level, Temperature... Read more
3. Web services Overview
Selected services
EMODNET Depth average in meters
Comment:
Next>
Contact us at info@emodnet.eu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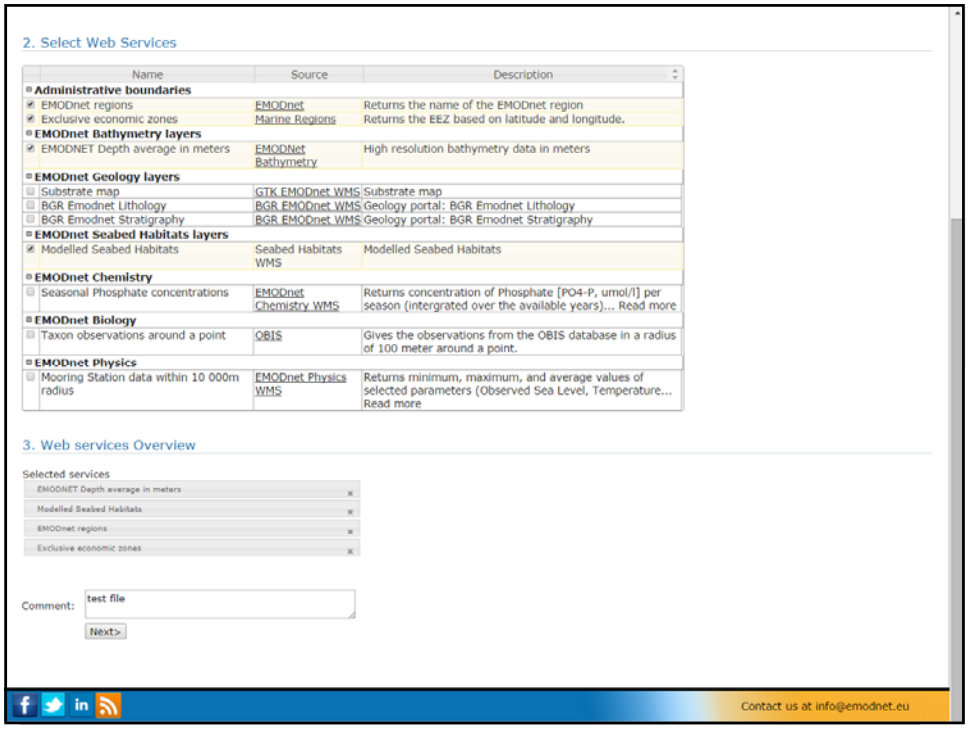
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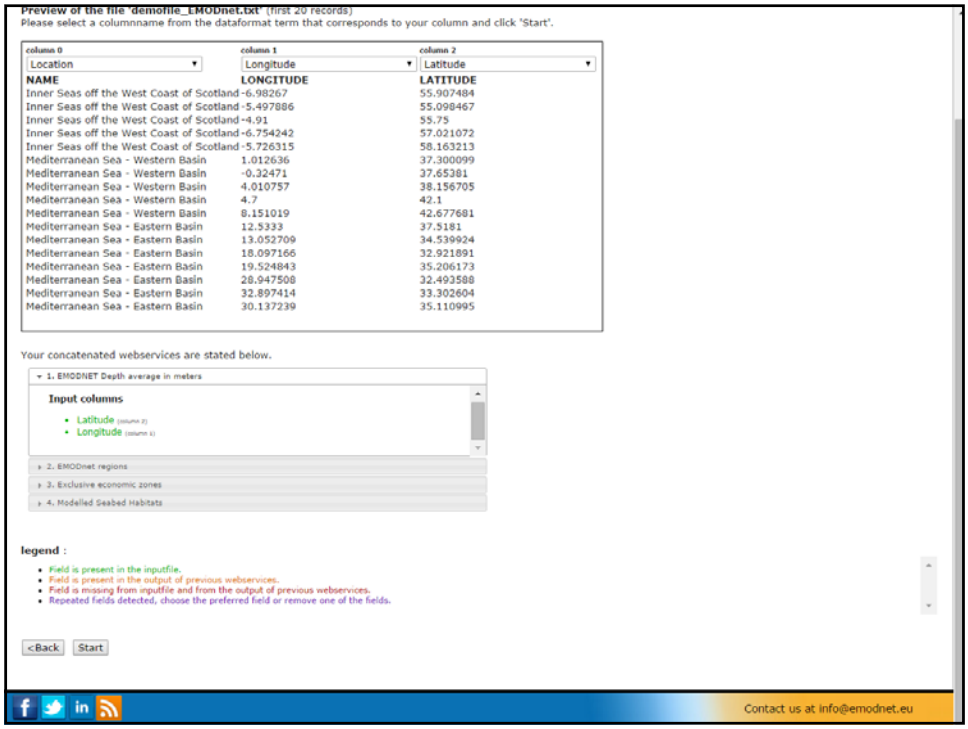
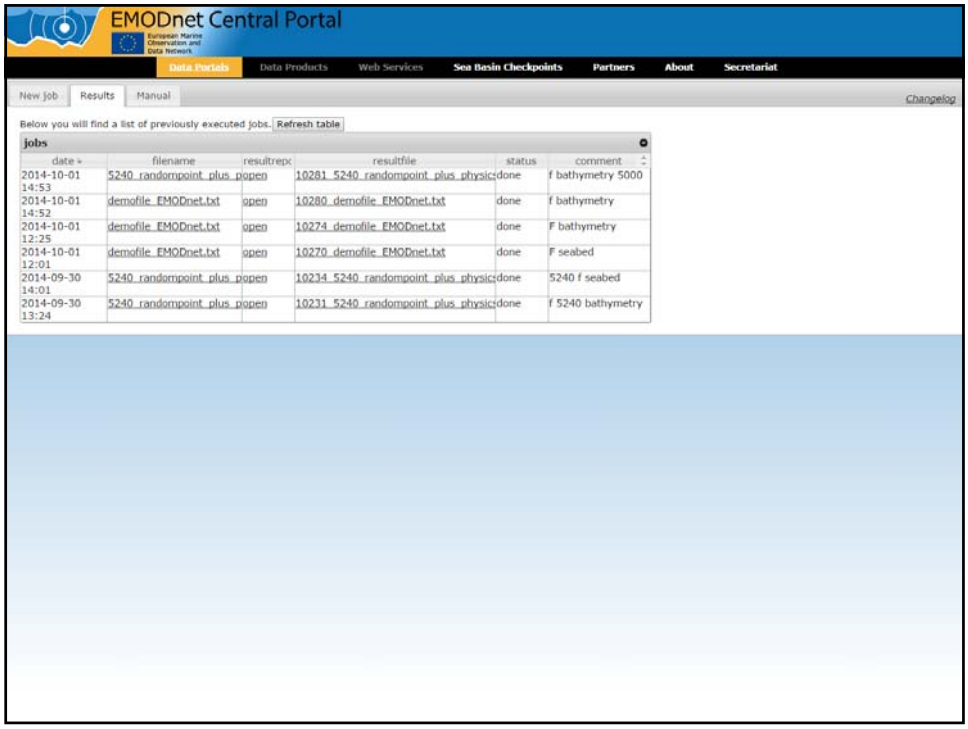
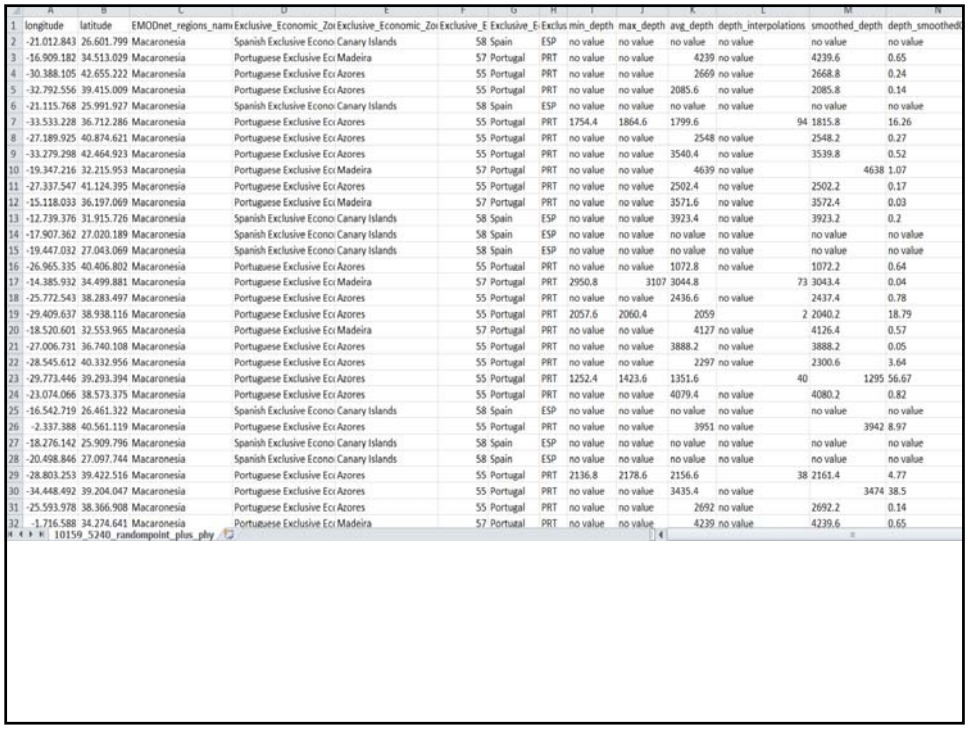
EMODnet regions
Exclusive economic zones
Comment:
test file
Next>
Contact us at info@emodnet.eu


Preview of the file 'demofile_EMODnet.txt' (first 20 records)
Please select a columnname from the dataformat term that corresponds to your column and click 'Start'.
column 0
Location
NAME
column 1
Longitude
LONGITUDE
column 2
Latitude
LATITUDE
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 37.300099
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
Mediterranean Sea - Eastern Basin 32.897414 33.302604
Mediterranean Sea - Eastern Basin 30.137239 35.110995
Your concatenated webservices are stated below.
1. EMODNET Depth average in meters
Input columns
Latitude
Longitude
2. EMODnet regions
3. Exclusive economic zones
4. Modelled Seabed Habitats
legend :
Field is present in the inputfile.
Field is present in the output of previous webservices.
Field is missing from inputfile and from the output of previous webservices.
Repeated fields detected, choose the preferred field or remove one of the fields.
<Back
Start
Contact us at info@emodnet.eu





	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	longitude	latitude	EMODnet_regions_nam	Exclusive_Economic_Zo	Exclusive_Economic_Zo	Exclusive_E	Exclusive_E	Exclus	min_depth	max_depth	avg_depth	depth_interpolations	smoothed_depth	depth_smoothed
2	-21.012.843	26.601.799	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
3	-16.909.182	34.513.029	Macaronesia	Portuguese Exclusive Ec	Madeira	57	Portugal	PRT	no value	no value	4239	no value	4239.6	0.65
4	-30.388.105	42.655.222	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2669	no value	2668.8	0.24
5	-32.792.556	39.415.009	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2085.6	no value	2085.8	0.14
6	-21.115.768	25.991.927	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
7	-33.533.228	36.712.286	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	1754.4	1864.6	1799.6		94 1815.8	16.26
8	-27.189.925	40.874.621	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2548	no value	2548.2	0.27
9	-33.279.298	42.464.923	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	3540.4	no value	3539.8	0.52
10	-19.347.216	32.215.953	Macaronesia	Portuguese Exclusive Ec	Madeira	57	Portugal	PRT	no value	no value	4639	no value	4638	1.07
11	-27.337.547	41.124.395	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2502.4	no value	2502.2	0.17
12	-15.118.033	36.197.069	Macaronesia	Portuguese Exclusive Ec	Madeira	57	Portugal	PRT	no value	no value	3571.6	no value	3572.4	0.03
13	-12.739.376	31.915.726	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	3923.4	no value	3923.2	0.2
14	-17.907.362	27.020.189	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
15	-19.447.032	27.043.069	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
16	-26.965.335	40.406.802	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	1072.8	no value	1072.2	0.64
17	-14.385.932	34.499.881	Macaronesia	Portuguese Exclusive Ec	Madeira	57	Portugal	PRT	2950.8	3107	3044.8		73 3043.4	0.04
18	-25.772.543	38.283.497	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2436.6	no value	2437.4	0.78
19	-29.409.637	38.938.116	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	2057.6	2060.4	2059		2 2040.2	18.79
20	-18.520.601	32.553.965	Macaronesia	Portuguese Exclusive Ec	Madeira	57	Portugal	PRT	no value	no value	4127	no value	4126.4	0.57
21	-27.006.731	36.740.108	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	3888.2	no value	3888.2	0.05
22	-28.545.612	40.332.956	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2297	no value	2300.6	3.64
23	-29.773.446	39.293.394	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	1252.4	1423.6	1351.6		40 1295	56.67
24	-23.074.066	38.573.375	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	4079.4	no value	4080.2	0.82
25	-16.542.719	26.461.322	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
26	-2.337.388	40.561.119	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	3951	no value	3942	8.97
27	-18.276.142	25.909.796	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
28	-20.498.846	27.097.744	Macaronesia	Spanish Exclusive Econo	Canary Islands	58	Spain	ESP	no value	no value	no value	no value	no value	no value
29	-28.803.253	39.422.516	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	2136.8	2178.6	2156.6		38 2161.4	4.77
30	-34.448.492	39.204.047	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	3435.4	no value	3474	38.5
31	-25.593.978	38.366.908	Macaronesia	Portuguese Exclusive Ec	Azores	55	Portugal	PRT	no value	no value	2692	no value	2692.2	0.14
32	-1.716.588	34.274.641	Macaronesia	Portuguese Exclusive Ec	Madeira	57	Portugal	PRT	no value	no value	4239	no value	4239.6	0.65

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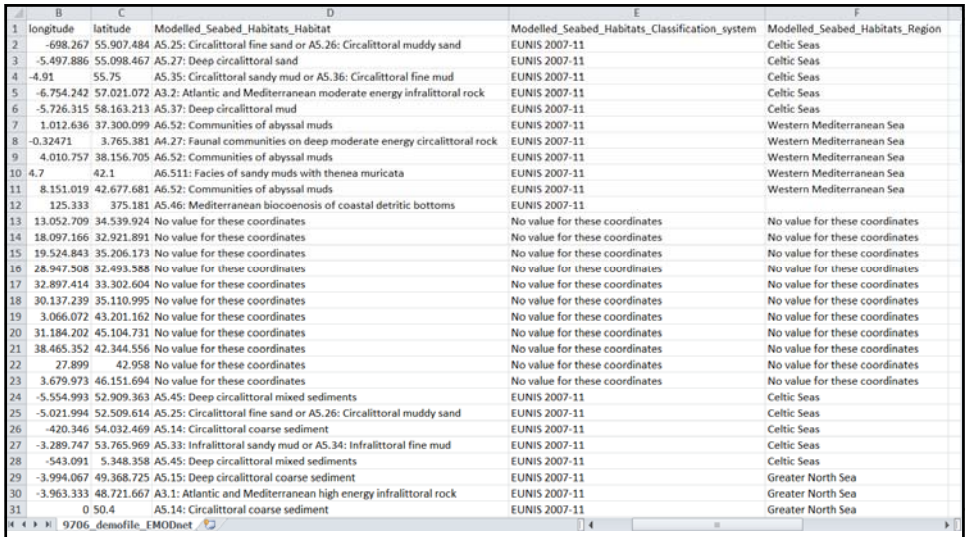

	B	C	D	E	F
1	longitude	latitude	Modelled_Seabed_Habitats_Habitat	Modelled_Seabed_Habitats_Classification_system	Modelled_Seabed_Habitats_Region
2	-698.267	55.907.484	A5.25: Circalittoral fine sand or A5.26: Circalittoral muddy sand	EUNIS 2007-11	Celtic Seas
3	-5.497.886	55.098.467	A5.27: Deep circalittoral sand	EUNIS 2007-11	Celtic Seas
4	-4.91	55.75	A5.35: Circalittoral sandy mud or A5.36: Circalittoral fine mud	EUNIS 2007-11	Celtic Seas
5	-6.754.242	57.021.072	A3.2: Atlantic and Mediterranean moderate energy infralittoral rock	EUNIS 2007-11	Celtic Seas
6	-5.726.315	58.163.213	A5.37: Deep circalittoral mud	EUNIS 2007-11	Celtic Seas
7	1.012.636	37.300.099	A6.52: Communities of abyssal muds	EUNIS 2007-11	Western Mediterranean Sea
8	-0.32471	3.765.381	A4.27: Faunal communities on deep moderate energy circalittoral rock	EUNIS 2007-11	Western Mediterranean Sea
9	4.010.757	38.156.705	A6.52: Communities of abyssal muds	EUNIS 2007-11	Western Mediterranean Sea
10	4.7	42.1	A6.511: Facies of sandy muds with thenea muricata	EUNIS 2007-11	Western Mediterranean Sea
11	8.151.019	42.677.681	A6.52: Communities of abyssal muds	EUNIS 2007-11	Western Mediterranean Sea
12	125.333	375.181	A5.46: Mediterranean biocoenosis of coastal detritic bottoms	EUNIS 2007-11	
13	13.052.709	34.539.924	No value for these coordinates	No value for these coordinates	No value for these coordinates
14	18.097.166	32.921.891	No value for these coordinates	No value for these coordinates	No value for these coordinates
15	19.524.843	35.206.173	No value for these coordinates	No value for these coordinates	No value for these coordinates
16	28.947.508	32.493.588	No value for these coordinates	No value for these coordinates	No value for these coordinates
17	32.897.414	33.302.604	No value for these coordinates	No value for these coordinates	No value for these coordinates
18	30.137.239	35.110.995	No value for these coordinates	No value for these coordinates	No value for these coordinates
19	3.066.072	43.201.162	No value for these coordinates	No value for these coordinates	No value for these coordinates
20	31.184.202	45.104.731	No value for these coordinates	No value for these coordinates	No value for these coordinates
21	38.465.352	42.344.556	No value for these coordinates	No value for these coordinates	No value for these coordinates
22	27.899	42.958	No value for these coordinates	No value for these coordinates	No value for these coordinates
23	3.679.973	46.151.694	No value for these coordinates	No value for these coordinates	No value for these coordinates
24	-5.554.993	52.909.363	A5.45: Deep circalittoral mixed sediments	EUNIS 2007-11	Celtic Seas
25	-5.021.994	52.509.614	A5.25: Circalittoral fine sand or A5.26: Circalittoral muddy sand	EUNIS 2007-11	Celtic Seas
26	-420.346	54.032.469	A5.14: Circalittoral coarse sediment	EUNIS 2007-11	Celtic Seas
27	-3.289.747	53.765.969	A5.33: Infralittoral sandy mud or A5.34: Infralittoral fine mud	EUNIS 2007-11	Celtic Seas
28	-543.091	5.348.358	A5.45: Deep circalittoral mixed sediments	EUNIS 2007-11	Celtic Seas
29	-3.994.067	49.368.725	A5.15: Deep circalittoral coarse sediment	EUNIS 2007-11	Greater North Sea
30	-3.963.333	48.721.667	A3.1: Atlantic and Mediterranean high energy infralittoral rock	EUNIS 2007-11	Greater North Sea
31	0	50.4	A5.14: Circalittoral coarse sediment	EUNIS 2007-11	Greater North Sea

9706_demofile_EMODnet

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Next steps

- Launch the central portal interface
- Implement remaining services available from each lot
- Implement user log-in
- Use map interface to select area of interest
- Improve time of response of the web services
- List all web services and associated documentation
- Test concurrent use

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Difficulties

- Web Services running on multiple servers (ArcGIS, MapServer)
- Currently, there is no track of Web Services versioning
- Data Products - fit for purpose
- Discrete products vs. Continuous products

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Thank you! Questions?