

## EMODnet Thematic Lot n° 7 -Human Activities

2<sup>nd</sup> Bi-monthly Report

Reporting Period: 11/01/2014 - 03/03/2014

Date: 03/03/2014



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## 1. Highlights in this reporting period

Below are the highlights of this reporting period:

- The portal is being developed and will be live by the end of March
- Several data have already been tested in a development version of the map
- The data collection is going on and is covering an increasing number of countries and datasets (an overview of the state of play is provided in Annex)
- A set of rules for the harmonization of "hydrocarbon extraction" across the various sources has been established



## 2. Meetings held since last report

Date	Location	Торіс	Short Description
19-20 February 2014	Ostend	Inauguration of EMODnet Secretariat	Updates from EMODnet thematic lots, sea-basin checkpoints and the Secretariat



## 3. Work package updates

## WP 2 – Development of the portal and maintenance

The URL <u>http://www.emodnet-humanactivities.eu/</u> has been temporarily set-up to forward to the central portal (<u>http://www.emodnet.eu/human-activities</u>).

Two versions of a landing page were submitted to the Secretariat, the second of which was accepted.

Most of the written content has been created/collated for the static pages. This includes written content about:

- EMODnet Human Activities
- Submitting Data
- Support
- Sources
- Partners

This content is currently being implemented into the website.

The e-mail address <u>contact@emodnet-humanactivities.eu</u> has been set-up (currently forwarding to select Lovell Johns e-mail addresses). This will be used to send any messages and attachments sent via online forms (feedback/suggestions; contact; submit data). When the website is live, this e-mail address will also forward to select COGEA staff.

Initial investigation and development of the map portal is underway in a local environment:

- The map portal uses MapServer and OpenLayers technology.
- Google Aerial/Hybrid is currently being used as the base mapping.
- The map portal includes tools for navigation, measuring and identifying features.
- The portal currently serves up test data for passenger port traffic and Hydrocarbon extraction wells (Netherlands). These datasets are held locally and served up as WFS.
- Basic returning of attribute information has been implemented.
- Test data for Hydrocarbon extraction wells (Italy) has been served up from KML files (currently held locally).
- Test data for Fishery zones (FAO) has been successfully served from a live WFS. This data is also dynamically filtered into different layers.

#### Next Steps:

Complete implementation of textual content.

Develop dynamic functionality for sending messages via online forms, uploading documents and updating news feed.

Update version of MapServer on Lovell Johns live webserver, and implement initial map portal.



Go Live with initial website on <u>http://www.emodnet-humanactivities.eu</u> by the end of March. This will include:

- Static pages / content
- Dynamic functionality (online forms; uploading documents; news feed)
- Initial map portal with limited number of datasets and limited functionality.
- Implementation of Google Analytics to initially measure website hit statistics.

The 'Search Data' and 'Register' sections will be marked as under construction.

Map portal development and data implementation will be continued.

Options for 'search data' page (e.g. CKAN; own development) will be reviewed.

## WP 3 – Data collection

#### "Aggregate extraction" and "Dredging"

Some of the countries and conventions contacted in December 2013 have been contacted again (e.g., CEDEX in Spain, Port Authorities in ITALY), since no answer was obtained, and new institutions have been contacted (e.g., IPMA in Portugal, Laboratory of Wave Engineering in Estonia).

In order to obtain shapefiles/datasets available on the Web, a search has been done. The data existing on these shapefiles need to be grouped by dataset, and formats need to be standardised. Since we should prioritise the possibility to establish data transmission via WFS, this possibility is going to be explored by making a request to the data providers.

Shapefiles, dataset and reports get to date are summarised in the excel table attached.

#### "Hydrocarbon extraction"

Additional sources have been contacted since the last report:

- Institute of Geology and Mineral Exploration (Greece)
- Croatian Geological Survey (Croatia)
- Geological Survey of Lithuania (Lithuania)
- Norwegian Petroleum Directorate (Norway)
- Geological Institute of Romania (Romania)
- Continental Shelf Department (Malta)
- Ministry of Economy (Latvia)
- Direcçao Geral de Energia e Geologia (Portugal)
- Polish Geological Institute (Poland)
- Ministry of Economy and Energy (Bulgaria)
- Ministry of Energy (Cyprus)



Additional datasets have been acquired. A complete list of the state of play is provided in Annex.

#### "Other forms of area management / designation"

Although a more specific definition of the data needed for this activity is awaiting (see previous report) validation by DG-MARE, two specific actions have been developed. On the one hand, a total of 71 public sources of information have been identified and contacted. Second, the OSPAR Zones database has been geo-referenced and it is available to be integrated in the GIS database.

#### "Waste management"

A total of 150 public sources of information have been identified and contacted. The high number of potential sources is linked to the plurality of sub-activities comprising waste (solids, dumped munitions, etc.). Currently for the United Kingdom the "Explosive Sites in the UK marine waters" has been geo-referenced and it is available to be integrated in the GIS database.

#### "Wind farms"

Building on previous sources and namely "OSPAR Database offshore wind farms" (see first report), we have identified 34 additional official sources in each target country. Nevertheless the "European Wind Energy Association" is, a priori, the most suitable source of information. Considering that they have collaborated with the DG-MARE for the Atlas, there would be options for the most favourable transmission of data (web-service or ftp) and a smooth transmission procedure.

Following the work plan several contacts have been made with EWEA to request a formal authorisation for the access and use of data with no reply. As a contingency planning an alternative contact with Offshore Energy (Support Company for the Atlas) has been made.

## WP 4 – Design of the GIS database

We created a geodatabase to store, load and edit spatial and non spatial data on activities for which a WFS is not available. Several feature and raster datasets have been created in the GDB to contain the data. Europe Lambert Conformal Conic is the projected coordinate system chosen.

For the time being, data coming from different sources are being kept separated. For instance, as regards "hydrocarbon extraction", we are working on a specific feature class for each country.

Geodatabase's and datasets' properties are being evaluated case by case. This implies the definition of attributes, subtypes, and domains that make it possible to harmonise data, preserve database integrity, and create coherent data products.

More specifically, we are defining subtypes for the following purposes:

• Increase the performance of the geodatabase by representing a variety of real-world objects as a **subset of features** in a given feature class instead of creating new feature classes for each object. At present, the boreholes in a boreholes feature class has been categorized into two subtypes: producing, abandoned.



- Set a **default value** that will automatically apply when importing new features. At present, an active borehole subtype could be created and defined so that whenever this type of borehole is added to the feature class, its hydrocarbon attribute is automatically set to crude oil.
- Apply **coded or ranged domains** to features, enabling us to constrain input information to a valid set of values. At present, in the hydrocarbon extractions dataset, the subtype in production boreholes could have a coded domain for purpose attributes restricting them to be done for exploration, exploitation, other or unknown reasons.
- Create **connectivity rules** between other subtypes and feature classes to maintain the integrity of a network.
- Create harmonized **data products**, such as the distance of boreholes from national coastline feature calculated in metres using a common coordinate system.
- Create **topology rules** between other subtypes and feature classes residing in a topology.
- Develop relationship rules between other subtypes, tables, and feature classes.
- Create **customized rules** between features using written code.

### WP 5 – Data harmonisation

- "Other forms of area / management designation" and Waste disposal": harmonization is in progress. Please note that as regards the first dataset, an answer is pending from DG MARE as to the exact definition of what data should be covered.
- As regards "hydrocarbon extraction", as this activity is fed into by multiple data sources, we have agreed common fields. Each boreholes shown in our map will have the following fields (when available):
  - Code: a unique ID identifier
  - Name: borehole name (if any)
  - Hydrocarbon/fluid type: crude oil or natural gas
  - Purpose: exploration, exploitation, other, unknown. For practical reasons appraisal wells will be shown under "exploration".
  - Status: active, abandoned
  - Year: year of drilling
  - Operator: name of the company in charge of operations
  - Drilling company: name of the company which actually drilled the borehole
  - Water depth
  - Distance from the coast: this is calculated by the Consortium, as per the Tendering Specifications, using the European Coastline shapefile available on EEA online data catalogue as raw data. We have "exploded" this multipart feature into individual



features. In order to obtain the national coastline feature, for each Member State we have selected coastline features which intersect with the respective NUTSO feature (from Eurostat GISCO). After obtaining coastline features by Member State, we have calculated the distance of each borehole from its respective national coastline feature.

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

- Many organisations contacted do not reply to emails: to tackle this problem we are trying to get in touch with different contact persons within the same institutions. In addition, we are also asking assistance to other EMODnet lots when we know that they may have relevant contacts. For instance, in the case of "hydrocarbon extraction", a common strategy to contact relevant data sources is being agreed with the Geology Lot.
- Many organisations have data but do not offer WFS servers: for the time being we are collecting data and storing them in our centralised database. By doing so, we will be able to comply with contract deadlines, and show a complete set of data and metadata for at least three sea basins by the end of the first year of the project. Nonetheless, we will keep trying to establish WFS connections with data sources, in such a way that in the future they will be responsible for data maintenance. Many sources have told us that they plan to implement WFS in the future. On the other hand, should it be impossible to establish a EFS data transmission with a source, we will at least try to set up a specific procedure (on a voluntary basis) with the source, to ensure that each time an update occurs, the source will transmit the new dataset to us, according to the specifications required.
- Lack of information for specific activities (e.g. waste).
- Data sets provided frequently lack geographical information. Those with geographical information have been provided as geographical references into an excel file containing a mixture of polygons, lines and points references.



## 5. User Feedback

Since the portal is not live yet, this section will only report feedback from users who got in touch with us to ask about the status of the project.

Date	Name	Organization	Type of user feedback ( <i>e.g.</i>	Response time to
		-	technical, case study etc)	address user request
11/02/14	Olivier	Netherlands	Case study	The user is collecting
	Beauchard	Institute for		data for the Devotes
		Sea Research		project, and wanted to
				know when Human
				Activities data would
				be available. He was
				made aware of the
				timeline of the project.
				In the meantime, he
				was invited to ask for
				what kind of data are
				of interest for his
				project. Even though
				the portal is not live,
				we could be able to
				provide some data.
03/02/14	Duncan	Marine	Case study	Duncan informed us
	Hume	Management		that at the MMO they
		Organisation		are working on
				shipping and vessel
				traffic. They developed
				a methodology as well
				as open source tools to
				extract AIS data and
				produce GIS products.
				Albeit limited to the
				UK, their work on
				shipping is akin to ours.
				It was agreed to keep
				each other posted on
				future developments of
				our projects. Duncan
				also asked to review
				the work they did, but
				this turned out to be
				impossible, as we
				haven't yet analyzed
				any AIS data.



## 6. Outreach and communication activities

No activities carried out.



## 7. Updates on Progress Indicators

Only Indicator 2 and 3 are reported, as the other cannot be applicable until the portal is online.

## Indicator 2 - Organisations supplying each type of data based on (formal) sharing agreements and broken down into country and organisation type (e.g. government, industry, science).

Country	Organisation	Туре
	Coordination Centre for Integrated Coastal Zone	
BE	Management	Government
BE	The Royal Belgian Institute of Natural Sciences	Research
CY	Ministry of Energy	Government
DE	BSH Federal Maritime and Hydrographic Agency of Germany	Government
DK	Danish Nature Agency	Government
DK	ICES	International Organisation
ES	Ministerio de Agricultura, Alimentación y Medio Ambiente	Government
EU	Eurostat	EC DG
EU	European Environment Agency	EC Agency
FI	Ministry of Environment	Government
FI	HELCOM	International Convention
FR	IFREMER	Research
IE	Marine institute	Government
	Department of Communications, Energy and Natural	
IE	Resources	Government
IT	Ministero dello Sviluppo Economico	Government
LV	Environment Protection Agency	Government
LV	Ministry of Economy	Government
NL	PBL Netherlands Environmental Assessment Agency	Government/Research
NL	Ministry of Economic Affairs	Government
NO	Norwegian Petroleum Directorate	Government
PT	Ministry of Environment, Spatial Planning and Energy	Government
UK	The Crown Estate	Government
UK	Department of Energy & Climate Change	Government
UK	Ministry of Defence- UK Hydrographic Office	Government
	FAO	International Organisation



## Indicator 3 - Organisations that have been approached to supply data with no result, including type of data sought and reason why it has not been supplied.

Country	Dataset	Organization	Reason
CY	Hydrocarbon extraction	Ministry of Economy and Energy	No answer
DK	Hydrocarbon extraction	GEUS - Geological Survey of Denmark and Greenland	No answer
EE	Ocean energy facilities	Estonia-Laboratory of Wave Engineering	No answer
ES	Dredging	CEDEX	No answer
ES	Hydrocarbon extraction	Ministerio de Industria, Energía y Turismo	No answer
FI	Ocean energy facilities	HELCOM	No answer
HR	Hydrocarbon extraction	Croatian Geological Survey	No answer
IT	Dredging	Regione Emilia Romagna	No answer
LT	Hydrocarbon extraction	Geological Survey of Lithuania	No answer
PL	Hydrocarbon extraction	Polish Geological Institute	No answer
РТ	Aggregate extraction	Portuguese Sea and Atmosphere Institute	They said they already provide data for the WGEXT Report (ICES)
РТ	Dredging	National Information System on Water Resources	Suggested to contact other sources
RO	Hydrocarbon extraction	Geological Institute of Romania	No answer
SE	Hydrocarbon extraction	Geological Survey of Sweden	The information requested is stored on paper-based media



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Country	Dataset	Organization	Reason
			OSPAR don't
			collect the
			geographic
			data for the
			aggregate
UK			extraction sites
	Aggrogate extraction		and dredging
	Aggregate extraction and dredging	OSPAR	sites, however
			it has been
			discussed at
			the committee
			level and
			hopefully in the
			future this will
			be available
			OSPAR does
UK	Ocean operate facilities	OSPAR	not collect
UK	Ocean energy facilities	OJFAN	wave, tide or
			current data



## Annex I – Data Collection State of Play

Aggregate extraction

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
BE	Coördinatiepunt Duurzaam Kustbeheer	Sand and gravel extraction	polygon	Greater North Sea	Shapefile available Access to data via WFS to be requested	<u>Shapefile</u>	<u>KUSTATLAS</u>	<u>info@kustbeh</u> <u>eer.be</u>
BE	MUMM (Management Unit of the Norht Sea Mathematical Models), The Royal Belgian Institute of Natural Sciences	Sand and gravel extraction areas	polygon	Greater North Sea	Shapefile available Access to data via WFS to be requested	<u>Shapefiles</u>	MUMM	<u>Serge Scory</u>
BE	MUMM (Managenet Unit of the Norht Sea Mathematical Models), The Royal Belgian Institute of Natural Sciences	Mining data	N/A	Greater North Sea	Minign data for the period 1974-2013, bu extraction area	Excel table	MUMM	Serge Scory
BE	MUMM (Managenet Unit of the Norht Sea Mathematical Models), The Royal Belgian Institute of Natural Sciences	Zones closed for sand and gravel extraction	polygon	Greater North Sea	Shapefile available Access to data via WFS to be requested	Shapefile	MUMM	Serge Scory
ES	División para la Protección del Mar Dirección General de Sostenibilidad de la	Sand extraction s	N/A	Bay od Biscay and Iberian Coast,	Data available for the period 2006-2011	Excel table	N/A	<u>Ainhoa Pérez</u> <u>Puyol</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
	Costa y del Mar Ministerio de Agricultura, Alimentación y Medio Ambiente			Western Mediterra nean Sea				
FI	Ministry of Environment. Department of the Natural Environment - Marine Protection	Permits issued, tonnes licensed, tonnes dumped	N/A	Baltic Sea	"Data": General figures of "permits issued, tonnes licensed and tonnes dumped". 2011-12	Excel table	N/A	<u>Titta Nieminen</u>
FR	IFREMER (France)	Concessio ns and exploratio n permits involved in exploitati on of marine materials	polygon	Greater North Sea, Bay of Biscay	Shapefile available Access to data via WFS to be requested	Shapefile	<u>IFREMER</u>	Laure Simplet
IE	Marine Institute	Aggregate extraction s	polygon	Celtic Seas	Access to data via WFS to be requested	Shapefile	Ireland´s Marine Atlas	
IT	Regione Lazio - Direzione Ambiente - Centro di Monitoraggio GIZC	Marine sand extraction for beach nourishm ent	N/A	Western Maditerra nean Sea, Adriatic Sea	Pdf availbale.	PDF	<u>CMGIZC</u>	



Country	Source	Thematic layers (1997-	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
NL	PBL (Netherlands Environmental Assessment Agency)	2012) Sand extraction s	polygon	Greater North Sea	Data availble: sand extraction 2009 (Zandwingebieden 2009) Access to data via WFS to be requested	Shapefile	Noordzee Atlas (www.noord zeeatlas.nl) The Netherlands INSPIRE portal: http://www. nationaalge oregister.nl/ Dutch National Open Data platform (http://data. overheid.nl) N22	<u>Kees Schotten</u>
РТ	Instituto Portugues do Mar e Atmosfera (IPMA)	Aggregate extraction s	N/A	Bay od Biscay and Iberian Coast	Contacted on 17/02/2014. Answer (17/02/2014): he is responsible for reporting aggregate extraction activities in Portugal, so that information is available in the WGEXT reports every year.	N/A	N/A	<u>Ru Quartau</u>
UK	The Crown Estate (UK)	Permitted areas to extract marine aggregate	polygon	Greater North Sea, Celtic Seas	Shapefile available Access to data via WFS to be requested	<u>Shapefile</u> : Aggregates_Appli cation_20131128. shp	<u>The Crown</u> <u>Estate</u>	Stuart Gibson



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
		from the seabed						
ик	The Crown Estate (UK)	Aggregate exploratio n and options	polygon	Greater North Sea, Celtic Seas	Shapefile available Access to data via WFS to be requested	Shapefile: Aggregates_Explo rationAndOption_ 20131219.shp	<u>The Crown</u> <u>Estate</u>	Stuart Gibson
UK	The Crown Estate (UK)	Aggregate licenses	polygon	Greater North Sea, Celtic Seas	Shapefile available Access to data via WFS to be requested	Shapefile: Aggregates_Licen ce_20131219.shp	<u>The Crown</u> <u>Estate</u>	<u>Stuart Gibson</u>
UK	The Crown Estate (UK)	Aggregate options	polygon	Greater North Sea, Celtic Seas	Shapefile available Access to data via WFS to be requested	<u>Shapefile</u> : Aggregates_Optio n_20131219.shp	<u>The Crown</u> <u>Estate</u>	Stuart Gibson

#### Dredging

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
BE	Coördinatiepunt Duurzaam Kustbeheer (Belgium)	Dredging and dumping sites	polygon	Greater North Sea	Shapefile available on the web. Access to data via WFS to be requested.	<u>Shapefile</u> : baggerzone.shp	<u>KUSTATLA</u> <u>S</u>	<u>info@kustbe</u> <u>heer.be</u>
BE	MUMM (Managenet Unit of the Norht Sea Mathematical Models), The Royal Belgian Institute of Natural Sciences	Dredging area	polygon	Greater North Sea	Shapefile available on the web. Access to data via WFS to be requested.	<u>Shapefile</u> : dredging_areas _dd_ed50.shp	MUMM	Serge Scory
BE, DK, FI, FR,	OSPAR	Dredging sites	N/A	Greater North	Sylvie Ashe (sylvie.ashe@ospar.org) contacted on 12/12/2013.	N/A	N/A	John Mouat



Country DE, IS, IE, NL, NO, PT, ES, SE, UK	Source	Thematic layers	Geographic type	Sea-basin Sea, Celtic Seas, Bay of Biscay and Iberian Coast, Macarone sia	Answer/Status Reply on 27/01/2014 (Jonh Mouat): currently OSPAR don't collect the geographic data for the aggregate extraction sites and dredging sites, however it has been discussed at the committee level and hopefully in the future this will be available. Contact OSPAR Contracting Parties directly.	Service or data available	Link to Web Sources	Contacted persons
DK	Danish Nature Agency	Location and informati on on type of dredging (mainten ance dredging or deepenin g dredging ), water depth before and after the dredging ; composit ion of the	N/A	Baltic sea, Greater North Sea	Contacted on 20/01/2014. Answer on 10/02/2014: For Danish marine waters GIS information and a database available, and can be exchanged.	GIS information and dataset		<u>Jakob</u> <u>Harrekilde</u> Jensen



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
		dredging material (clay, sand etc.) and the amount of dredging in m3 and tonnes per year for each						
DK, EE, FI, DE, LV, LT, PL, SE	HELCOM	location The Baltic Sea Dredging data set includes spatial informati on on all kinds of dredging (harbor mainten ance, harbor capital, sea lanes,	point	Baltic Sea	Shapefile available Access to data via WFS to be requested	<u>Shapefile</u> : Dredging sites.shp	HELCOM	<u>Minna</u> <u>Pyhala</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
		sand/gra vel/bould er/maerl extractio n)						
LT	Environment Protection Agency, Marine Research Department	Dredging at harbours in HELCOM area	point	Baltic Sea	Violeta Juozefaitė contacted on 21/01/2014. Aiste Kubiliute answered on 11/02/2014: She has to prepare information on dredged material and disposal sites, since she is involved in such data submission to HELCOM as well and compiling and in some extent analysing data of Baltic countries. She attached updated report.	Report: Second HELCOM LAND/MONAS Expert Workshop on revision of HELCOM Guidelines for the disposal of dredged material at sea Dataset: in preparation.	<u>HELCOM</u>	<u>Aiste</u> <u>Kubiliute</u>
ES	CEDEX (Centro de Estudios y Experimentación de Obras Públicas)	Dredging sites	points	Bay of Biscay and Iberian Coast, Western Mediterra nean, Macarone sia	José Luis Buceta contacted on 5/12/2013. Answer (9/12/2013): contact CEDEX, Puertos del Estado and Secretaría de Protección de la Costa. Antonio Ruiz (CEDEX) contacted on 13/12/2013 and he resent our mail to Ana Lloret. Ana Lloret recontacted on 28/01/2014. No answer yet. Is oging to be contacted by phone.	N/A	N/A	<u>Ana Lloret</u>
IT		N/A	N/A	N/A	Different Italian port authorities were contacted on 13/12/2013; no answer.	N/A	N/A	Edi Valpreda



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
					Recontacted again on 7/02/2014; answer (Edi Valpreda): in Italy the regulations, projects, authorizations etc. for drillings and dredging compete to Regions, without any real national overview, nor national archives were done or planned, no data set homogeneous, etc. Redirected to Regional offices. He offered to help us in contact one of this Regional department/office (in Emilia-Romagna Region).			
IT	Regione Emilia- Romagna, Direttore Generale Ambiente, Difesa del Suolo e della Costa	Dredging sites	N/A	Adriatic Sea	Contacted on 7/02/2014 for data and contact information. No answer yet.	N/A	N/A	<u>Giuseppe</u> <u>Bortone</u>
PT	Instituto Portugues do Mar e Atmosfera (IPMA)	Dredging at harbours in Portugal	N/A	Bay of Biscay and Iberian Coast	Contacted on 17/02/2014. Answer (17/02/2014): Dredging and disposal are mainly run by the harbor,s but it would be very time consuming to try to get that informations from all of them ( http://pt.wikipedia.org/wiki/Anexo:List a_de_portos_de_Portugal). There's a new institution that maybe has compiled that kind of information; try to contact the Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos and see what they have in their database: http://www.dgrm.min- agricultura.pt/xportal/xmain?xpid=dgr	N/A	N/A	<u>Ru Quartau</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
PT	Sistema Nacional de Informação de Recursos Hídricos (SNIRH)		N/A	Bay of Biscay and Iberian Coast	<ul> <li>m.</li> <li>Contacted on 17/02/2014.</li> <li>Answer (19/02/2014): You should contact : http://www.dgrm.min-agricultura.pt/xportal/xmain?xpid=dgr</li> <li>m</li> <li>Regarding estuary dredged materials permits please contact : arhn.geral@apambiente.pt; arhc.geral@apambiente.pt; arht.geral@apambiente.pt; arhalt.geral@apambiente.pt; arhalt.geral@apambiente.pt; arhalg.geral@apambiente.pt</li> </ul>	N/A	N/A	<u>SNIRH</u>

#### Fisheries zones

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
	FAO	FAO statistica l areas for fishery purposes	Polygon	All EU	Positive. Tested in a map document	WFS	<u>Geonetwor</u> <u>k</u>	<u>Emmanuel</u> <u>Blondel</u>
	ICES	ICES statistica I areas	Polygon	Baltic Sea, Celtic Seas, Iberian Coast and	Positive. Tested in a map document. Needs of R&D testing during the the development phase of the web to see if it is fit for our purpose because ICES have not had a lot of interaction with users of the WFS service until now	WFS	<u>Geoserver</u>	<u>Hans Mose</u> Jensen



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
				Bay of				
				Biscay,				
				Greater				
				North				
				Sea,				
				Macaron				
				esia,				
				Norwegia				
				n Sea				

#### Hydrocarbon extraction

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
IT	Ministero dello sviluppo economico (MISE), Direzione generale per le risorse minerarie ed energetiche, Divisione I	Offhore wells	Point	Adriatic Sea,	Positive. Meeting held in Rome with GIS manager of offshore oil andgas datasets. Needs of R&D/testing during the development phase of the web portal to confirm the KML. A KML file for testing was sent. It is necessary to recontact them to agree a proper data transmission procedure	KML	<u>DGRME</u>	<u>Nicola</u> <u>Santocchi</u>
ES	Ministerio de Industria, Energía y Turismo, Secretaría de Estado de Energía, Dirección General de Política	Offhore wells	Point	Iberian Coast and Bay of Biscay, Macarone sia,	No reply.	WFS	<u>SIGEOF</u>	<u>General</u> <u>enquiries</u> <u>Sergio López</u> <u>Pérez</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
	Energética y Minas, S.G. de Hidrocarburos			Western Mediterra nean Sea				
EL	Ministry of Environment Energy and Climate Change	Offhore wells	Point	Ionian Sea	The Ministry is evaluating our request. There is a geoportal with data on boreholes, but data are not available for download, nor is a WFS in place.	Shapefile	<u>ҮРЕКА</u>	<u>Nikos</u> <u>Nikolau</u> <u>Spyridion</u> <u>Bellas</u>
FR	Bureau de Recherches Géologiques et Minières	Offhore wells	Point	Iberian Coast and Bay of Biscay, Western Mediterra nean Sea	BRGM have data, but they suggested a request is made through the Geology Lot, of which they are partners	WFS	Portail d'accès aux données pétrolières nationales	<u>Jean-Claude</u> <u>Guillaneau</u>
UK	Department of Energy & Climate Change	Offshore wells	Point	Celtic Seas, Greater North Sea	A shapefile is available on the web. At the moment there is no WFS, but it will be implemented in the coming months.	Shapefile	Oil and gas: offshore maps and GIS shapefiles	<u>John</u> <u>Seabourn</u>
DE	Federal Maritime and Hydrographic Agency of Germany (Bundesamt für Seeschifffahrt und Hydrographie , BSH), CONTIS	Offshore wells	Point	Baltic Sea, Greater North Sea	Positive. As regards oil and gas extraction only two platforms are currently existing in German waters: Oil: "Mittelplate" in North Sea coastal waters of the Federal State of Schleswig-Holstein, Gas: "A6/A" In the EEZ of the North Sea. BSH will send a data set with the positions of these shortly. They are planning to provide WFS for most of the data sets within the	Shapefile	<u>GeoSeaPor</u> <u>tal</u>	<u>Bettina</u> <u>Käppeler</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
					GeoSeaPortal, including CONTIS, during the next year (2014)			
DK	Geological Survey of Denmark and Greenland (GEUS)	Offshore wells	Point	Baltic Sea, Greater North Sea	No reply. Data are available on line (also via WFS), but a contact person is needed to solve harmonization issues.	WFS and shapefile	<u>GEUS Oil</u> and Gas Database	Jørgen Tulstrup Mikael Pedersen
IE	Department of Communications, Energy and Natural Resources, Geological (DCENR) Survey of Ireland (GSI)	Offshore wells	Point	Celtic Seas	Data are available online. Harmonization issues may need to be discussed.	WFS services are currently under maintenance	Petroleum Affairs Division Exploration Data Viewer	<u>Maria Judge</u> <u>Ali Robinson</u>
NL	Dutch Ministry of Economic Affairs (the website is managed by TNO)	Offshore wells and platform s	Point	Greater North Sea	Data are available. Harmonization issues need to be discussed, as data is part in English and part in Dutch.	WFS	<u>NL Olie en</u> <u>Gasportaal</u>	<u>Sjoukje</u> <u>Rozeboom</u>
SE	Geological Survey of Sweden	N/A	N/A	N/A	No data available: SGU doesn't have any data regarding hyrdocarbon extraction in our information systems at the moment. Most of the exploration wells was drilled during the period 1940 - 1980's and the information is stored on paper based media.	N/A	<u>SGU Map</u> <u>viewer</u>	<u>Lars Kristian</u> <u>Stölen</u>
HR	Croatian Geological Survey	N/A	N/A	N/A	No reply.	N/A	HGI Geoportal	Josip Halamic
LT	Geological Survey of	N/A	N/A	N/A	No reply.	N/A	www.lgt.lt	<u>Viktoras</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
	Lithuania							<u>Lokutijevskis</u>
NO	Norwegian Petroleum Directorate	Offshore wells	Point	Greater North Sea	No reply. Data are available but we are trying to establish a WFS data transmission.	Shapefile	<u>Factmap</u>	<u>General</u> <u>enquiries</u>
RO	Geological Institute of Romania	N/A	N/A	N/A	No reply.	N/A	<u>http://ww</u> <u>w.igr.ro/</u>	Albert Baltres
MT	Continental Shelf Department	N/A	N/A	N/A	Positive answer. There are ten abandoned offshore exploration wells in Malta. We asked if it's possible to have coordinates, and we're awaiting for a reply.	N/A	https://mti cms.gov.mt /en/Pages/ Continental %20Shelf/O il- Exploration -Unit.aspx	<u>Albert</u> <u>Caruana</u>
LV	Ministry of Economy	N/A	N/A	N/A	No reply	N/A	http://ww w.em.gov.l v/em/2nd/ ?lng=en&ca t=30178	<u>Rota Snuka</u>
РТ	Direcçao Geral de Energia e Geologia	N/A	N/A	N/A	Since the 70's, twenty (27) seven exploration offshore wells have been drilled (the last from 1994). A file with data has been sent. No WFS available	XLS	http://ww w.dgeg.pt/ dpep/intro _pt.htm	<u>Jose Miguel</u> <u>Martins</u>
PL	Polish Geological Institute	Offshore wells	Point	Greater North Sea	No reply. The data are available on line but it's necessary to discuss harmonization issues.	Shapefile and WMS	http://web 3.pgi.gov.pl /website/c bdg_en/vie	<u>General</u> <u>enquiries</u>



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
							wer.htm	
BG	Ministry of Economy and Energy	Offshore wells	Point	Black Sea	No reply.	N/A	http://ww w.mi.gover nment.bg/ en	<u>Valeri</u> <u>Trendafilov</u>
СҮ	Ministry of Energy	N/A	N/A	N/A	The Ministry sent us an excel file with data on boreholes. There are only two offshore exploration boreholes in Cyprus, and they've both been abandoned.	XLS	http://ww w.moa.gov. cy/moa/gs d/gsd.nsf/d mlindex_en /dmlindex_ en?OpenD ocument	<u>Stelios</u> <u>Nikolaides</u>

#### Major ports

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
All EU	EUROSTAT	Major ports	Point	All	The data were downloaded from EUROSTAT website. Since there are no geographic data, the georeferentiation was carried out by the Consortium. Data are complete and have already been tested in the map	XLS table	http://epp. eurostat.ec .europa.eu /cache/ITY _SDDS/en/ mar_esms. htm	



#### Ocean energy facilities

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
BE, DK, FI, FR, DE, IS, IE, NL, NO, PT, ES, SE, UK	OSPAR	ocean energy activities (wave, tidal and current)		Greater North Sea, Celtic Seas, Bay of Biscay and Iberian Coast, Macaron esia	Contacted on 21/02/2014 for data and contact information. Answer: OSPAR does not collect wave, tide or current data			<u>Sylvie Ashe</u>
DK, EE, FI, DE, LV, LT, PL, SE	HELCOM	ocean energy activities (wave, tidal and current)		Baltic Sea	Contacted on 21/02/2014 for data and contact information. No answer yet.			<u>HELCOM.Sec</u> <u>retariat@hel</u> <u>com.fi</u>
EE	Estonia-Laboratory of Wave Engineering	ocean energy activities (wave, tidal and current)		Baltic Sea	Contacted on 21/02/2014 for data and contact information. No answer yet.			<u>Tarmo</u> <u>Soomere</u>



#### **Pipelines and cables**

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
All EU	EEA	National Protecte d Areas, Natura 2000 Network	All MSs except Croatia		Positive. WFS already tested in the map	WFS	<u>Geonetwor</u> <u>k</u>	<u>Sébastien</u> <u>Petit</u>

#### Waste disposal

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
UK	Ministry of Defence- UK Hydrographic Office. External Relations	Explosive Sites	Point	North Sea, Celtic Seas	Positive response, and sending of excel files with data on munitions dumping sites.	Excel files	N/A	Mark Halliwell
BE	Belgian Marine Data Centre. MUMM (Management Unit of the North Sea Mathematical Models)	N/A		North Sea	Positive response. They inform about the data centre web where it is possible to access to datasets of parameters measured in water, in air, in sediment and in biota, but with no data on our specific issue.	http://www.mu mm.ac.be/datac entre/	<u>http://ww</u> <u>w.mumm.a</u> <u>c.be/datac</u> <u>entre/</u>	Serge Scory
BE	Algemene Directie Kwaliteit en Veiligheid	N/A		North Sea	Positive response, but sending of excel files with data on Extraction of marine aggregates;but with no data on our	Excel files	N/A	Patrik Schotte.



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
	Continentaal Plat				specific issue.			
FI	Ministry of Environment. Department of the Natural Environment - Marine Protection	N/A		Baltic Sea	Positive response, and sending of excel files with data on Dredged material, but with no data on our specific issue.	Excel files	N/A	Titta Nieminen
PT	Instituto Portugués do Mar e da Atmósfera	N/A		Iberian coastand bay of Biscay	Positive response, but just sending two reports of the ICES Working Group on the Effects of Extraction of Marine Sediments on the Marine Ecosystem (WGEXT). No data on our specific issue.	Pdf files	N/A	Rui Quartau
Spain	División para la Protección del Mar. Dirección General de Sostenibilidad de la Costa y del Mar. Ministerio de Agricultura, Alimentación y Medio Ambiente	N/A		Iberian coastand bay of Biscay/W est Mediterr anean/M acaronesi a	Positive response, by sending excel files of Extraction of sand,but with no data on our specific issue.	Excel files	N/A	Ainhoa Pérez Puyol
ES	Consejo Superior de Investigaciones Científicas (CSIC)	N/A		Iberian coastand bay of Biscay/W est Mediterr anean/M	Positive response, by sending pdf file "Effects of Marine litter_deep Mediterranean Sea", but with no data on our specific issue.	Pdf file	N/A	Antonio Figueras



Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
				acaronesi				
				а				

#### Wind farms

Country	Source	Thematic layers	Geographic type	Sea-basin	Answer/Status	Service or data available	Link to Web Sources	Contacted persons
BE	EWEA	Specific data on Europea n Offshore Wind Farms		ALL - Europe	PENDING	N/A	www.ewea .org	Florian Becker
DK	Offshore Energy		point / polygon	ALL - Europe	PENDING	N/A	<u>www.offsh</u> <u>oreenergy.</u> <u>dk</u>	Morten Basse Jensen