

Les nouveautés du projet EMODnet Chimie

Journée Sextant 2023



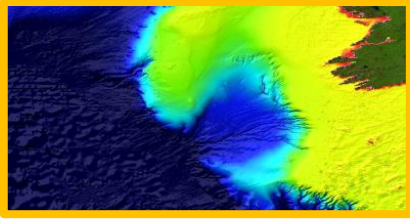
Ifremer

GATTI Julie

CAËR Gwenaël

Projet européen EMODnet (DG MARE)

Bathymétrie



Habitats marins



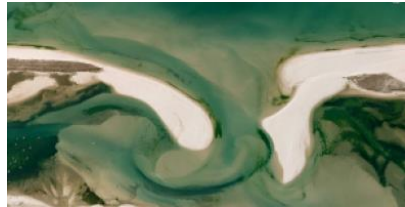
Biologie



Activités humaines



Géologie



Chimie

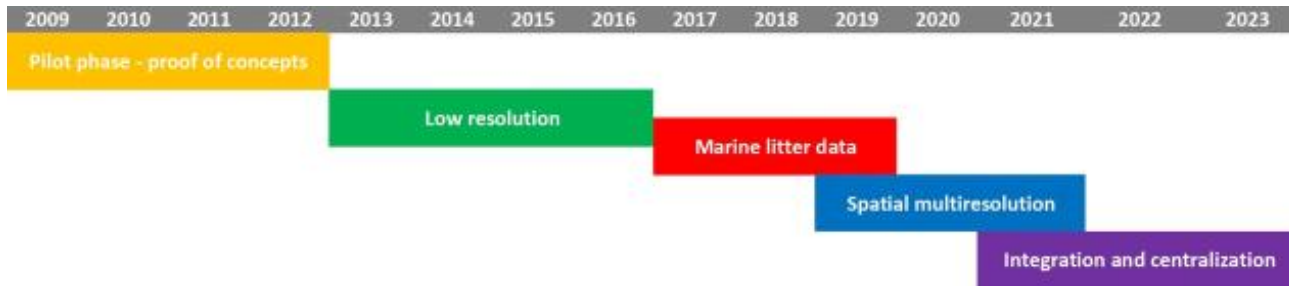


Physique



- Proposer une **infrastructure d'observation marine** qui offre le meilleur soutien : - à l'économie marine et maritime
- aux besoins de protection de l'environnement
- Assembler les **données existantes** d'organismes **publics et privés**, les **qualifier**, les transformer en des **formats interopérables**, et en créer des **produits**,
- Mettre en place et maintenir **un portail d'accès public** et de visualisation de ces données, de leurs métadonnées et de leurs produits.

EMODnet Chimie 5

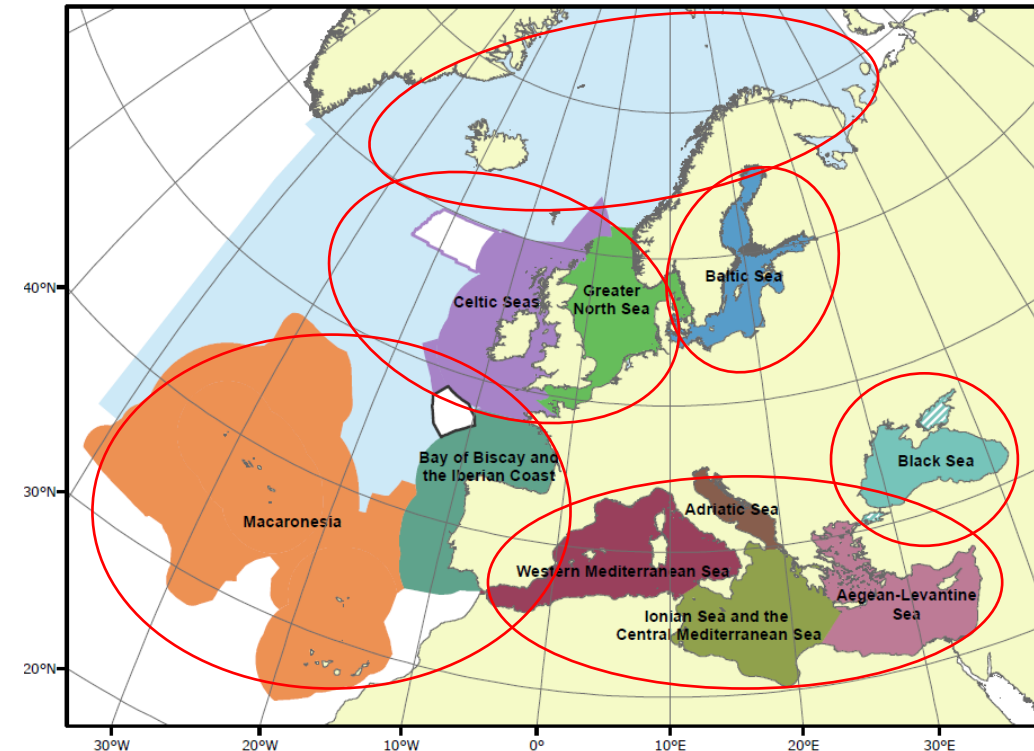


- Débute en octobre 2021 pour 2 ans, 44 participants, 2.25M€
- Repose sur l'**infrastructure SeaDataNet** pour son volet technique : standards SDN, mécanisme CDI, portail d'accès SDN, format ODV, DIVA,...
- Décrit ses produits dans le **catalogue SEXTANT**
- Se concentre sur **4 thématiques** :
 - L' **Eutrophisation** et l'**Acidification des océans**
 - Les **Contaminants**
 - Les **Déchets Marins**



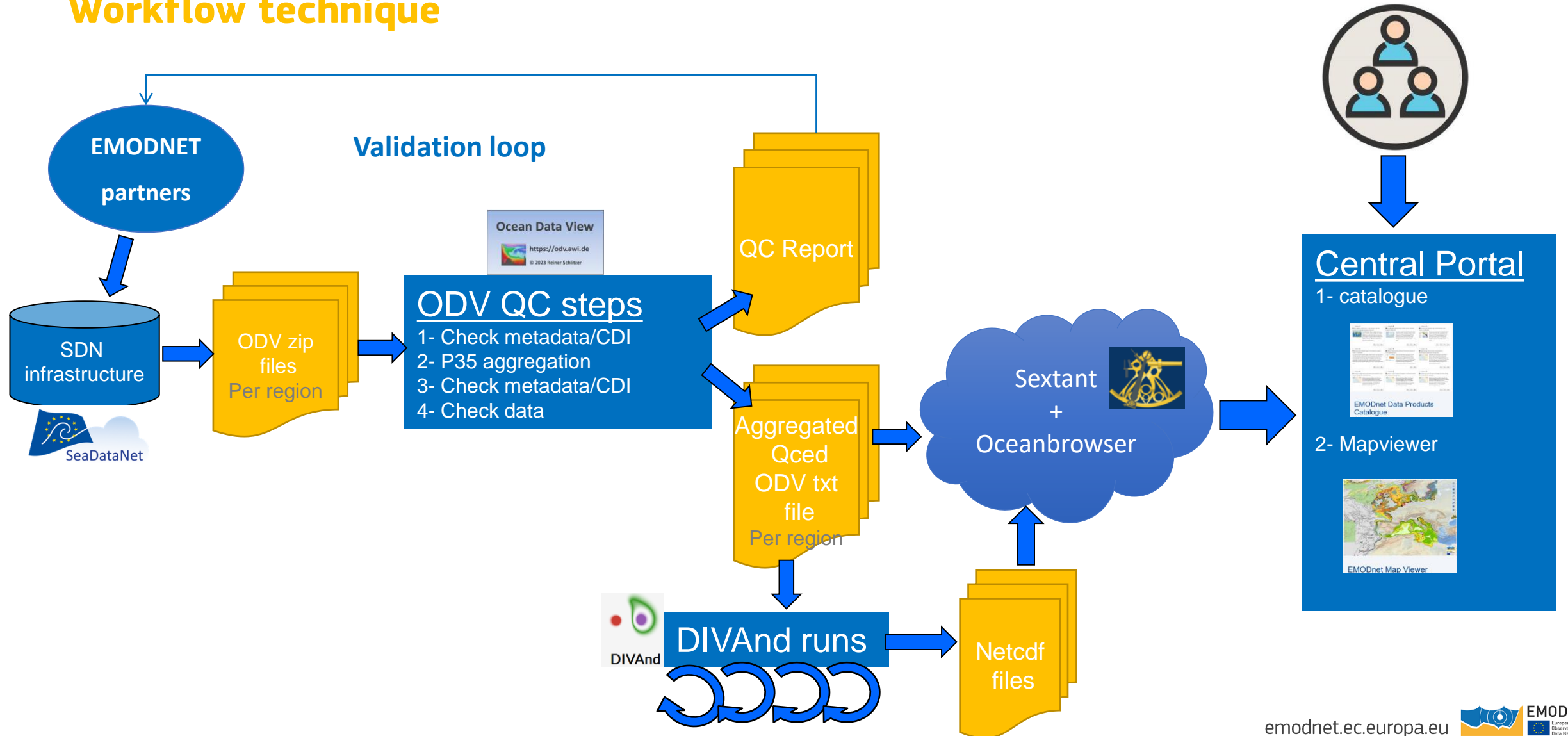
Produits Eutrophisation + Contaminants

- Le **moissonnage des données** et la **génération de produits** se font dans **6 régions marines** :
 - la mer du Nord élargie (+ mer Celtique)
 - l'océan Atlantique NE (côte atlantique + Macaronésie + Caraïbes)
 - la mer Méditerranée
 - la mer Baltique
 - la mer Noire
 - les mers au Nord de 60°N (Barents+Norvège+Arctique,...)
- Génération de **2 types de produits** :
 - **Jeux de données agrégés/harmonisés & qualifiés**
 - **Cartes** interpolées ou de distribution



Products Eutrophication + Contaminants

Workflow technique



EMODnet Chimie : 244 fiches dans Sextant

- **Par phase du projet**, les nouveautés :
 - 12 fiches «jeux de données» :
 - 6 Eutro/Acidification (1/region)
 - 6 Contaminants (1/region)
 - 50 fiches «cartes grillées» Eutro:
 - 5 climato mensuelles paneuropéennes (1/param)
 - 30 climato saison_6ans régionales (5/region)
 - 20 climato saison côtières (5/region)
 - XX fiches «cartes de distribution» Conta
- Le catalogue **SEXTANT** donne accès :
 - aux métadonnées
 - aux DOI
 - aux services visualisation & téléchargement

The screenshot displays the 'Sextant' web application interface. The header includes the Sextant logo and the text 'Infrastructure de données géographiques marines et littorales' along with the 'Ifremer' logo. Navigation tabs for 'Présentation', 'Données', 'Services', and 'Ressources' are visible, with 'Données' selected. A search bar and a 'S'IDENTIFIER' button are also present. The main content area shows a grid of data product cards. Each card features a map thumbnail, a title, a brief description, and the source 'EMODnet Chemistry'. The cards include: 'North East Atlantic Ocean - Eutrophication and Acidity aggregated datasets 1921/20...', 'North East Atlantic Ocean - Contaminants aggregated datasets 1966/2021 v2022', 'Mediterranean Sea - Eutrophication and Acidity aggregated datasets 1911/2022 v2022', 'Arctic Ocean - Eutrophication and Acidity aggregated datasets 1923/2022 v2022', 'Baltic Sea - Eutrophication and Acidity aggregated datasets 1902/2022 v2022', and 'Greater North Sea and Celtic Seas - Eutrophication and Acidity aggregated datasets 19...'. A 'filtres' button is located at the bottom left of the grid. The interface also shows pagination information: 'Résultats 1 à 30 sur 244 : 30 par page' and a sorting option 'Tri par : Dernières mises à jour'.

Choose one of the following datasets:

①

Search

▼ emodnet-chem_2022_contaminants

- > Arctic
- > Atlantic
- > BalticSea
- > BlackSea
- > MediterraneanSea
- > NorthSea

▼ emodnet-chem_2022_eutrophication

- > Arctic
- > Atlantic
- > BalticSea
- > BlackSea
- > MediterraneanSea
- > NorthSea

> older_versions

Choose one of the following services:

②

The data extraction service provides fast and easy to use cruise, domain and variable selection functionality and download of different file formats (netcdf, odv, ASCII). More information is given in the [webodv-data-extractor-howto.pdf](#).

③ DATA EXTRACTION

The data exploration service allows *ODV-like* interactive analysis and visualization of the data. More information and HowTo descriptions of frequent tasks can be found in the [webodv-data-explorer-howto.pdf](#) document. As easiest way to get started use *View > Load View* to activate one of the prepared views.

④ DATA EXPLORATION

USER MANUAL : <https://doi.org/10.13120/c4zb-6772>

③ DATA EXTRACTION

webODV data > emodnet-chem_2022_eutrophication > Atlantic > Eutrophication_Atlantic_profiles_2022_unrestricted.odv

← 1. SELECT CRUISES / DOMAIN / TIME RANGE 2. Select variables 3. Download 4. Exit →

Click *Zoom in* to define a sub-region, *Apply* to select the sub-region, or *Zoom out* to return to full domain.
Select *Time Range* in the format mm/dd/yyyy.

CRUISES

767 ITEMS SELECTED

MAP DOMAIN

ZOOM MODE

ZOOM OUT

FULL RANGE

GLOBAL

TIME RANGE

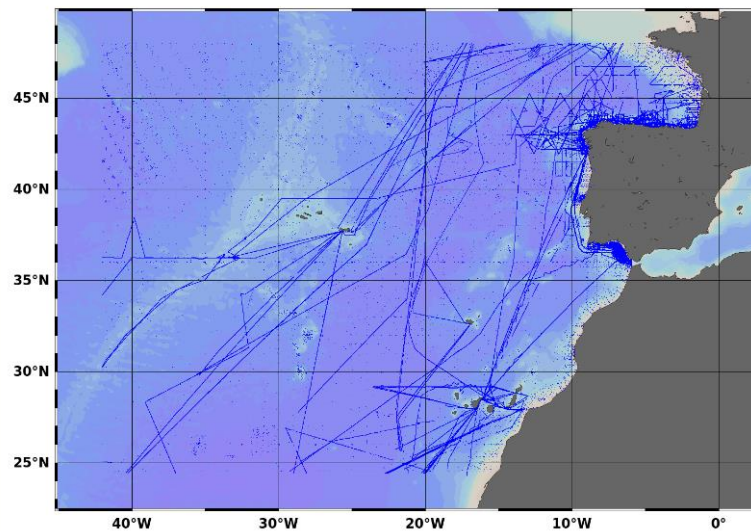
from: 01/01/1850

to: 12/31/2023

RESET

PAGE

GLOBAL



SELECTION STATUS

Stations: 388212 of 388212

Output variables: 0 of 24

EXPORT IMAGE

Download

DATA PREVIEW

Scatter plot



SELECTED VARIABLES (OR)

DOWNLOAD

ASCII SPREADSHEET (.TXT)

ODV COLLECTION (.ODV)

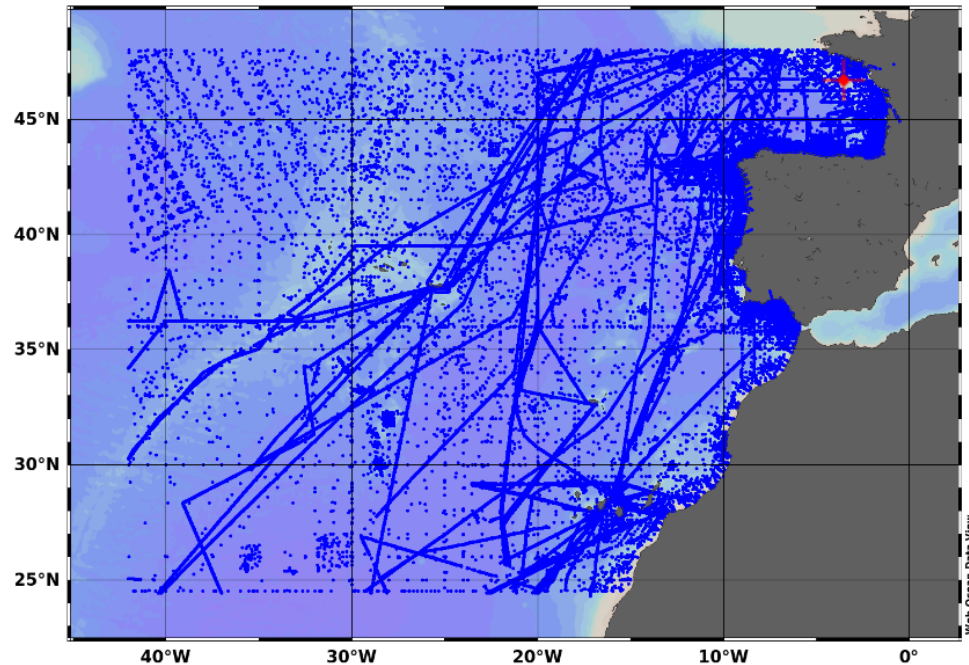
NETCDF (.NC)

STATION INFO

④ DATA EXPLORATION

webODV data > emodnet-chem_2022_eutrophication > Atlantic > Eutrophication_Atlantic_profiles_2022_unrestricted.odv

Eutrophication_Atlantic_profiles_2022_unrestricted Collection View Help



Station ID: 164908

Accession Number 164908
Cruise PELGAS 2018
Station W0315 (C)
Longitude 3.473°W
Latitude 46.654°N
Date 27 May 2018

Sample: 1 / 118

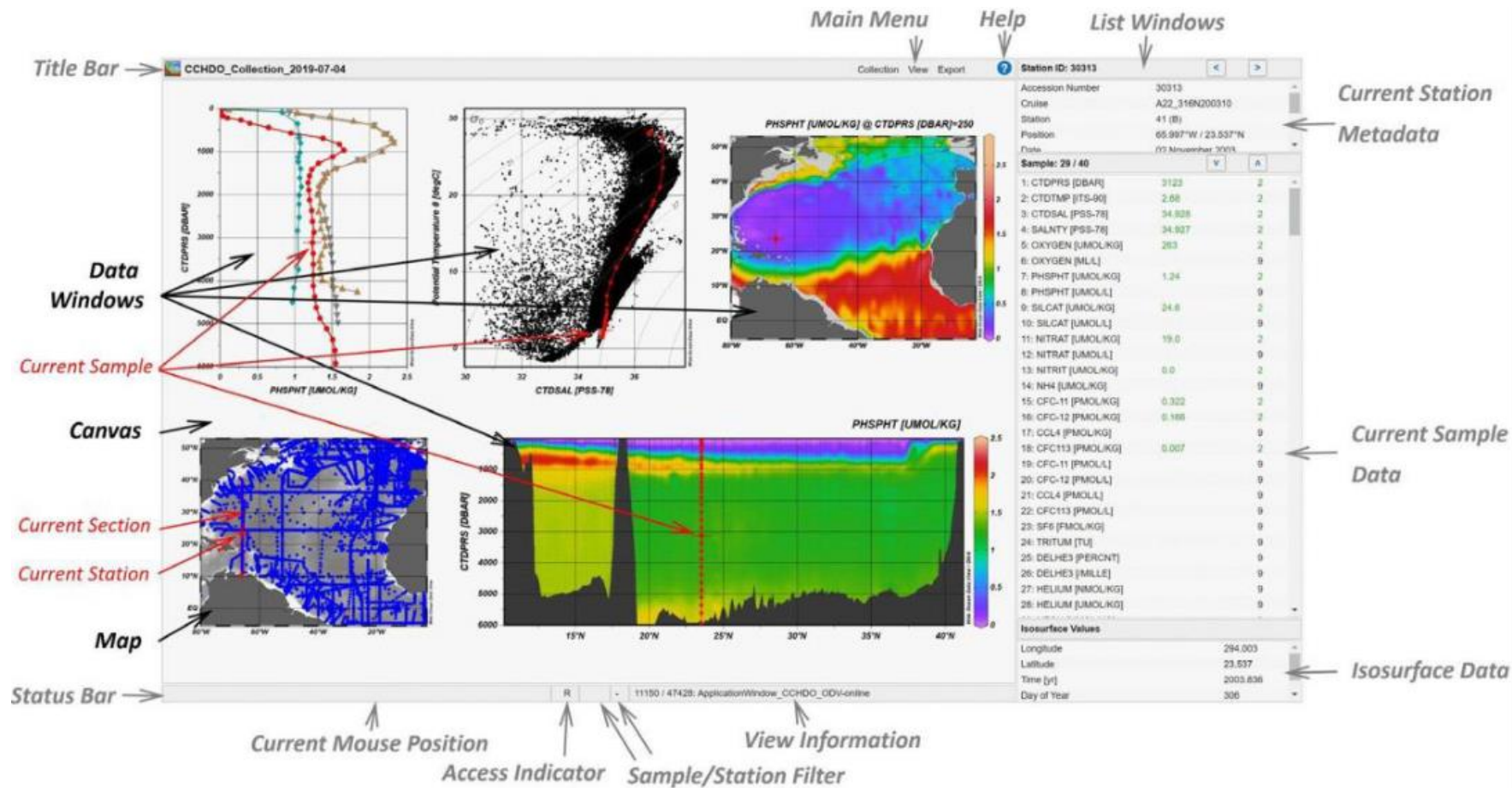
1: Depth [m]	2.98	1
2: ITS-90 water temperature [degrees C]	17.27	1
3: Water body salinity [per mille]	33.61	1
4: Water body dissolved oxygen concentration [umol/l]	263.67	1
5: Water body dissolved oxygen saturation [%]		9
6: Water body phosphate [umol/l]		9
7: Water body total phosphorus [umol/l]		9
8: Water body silicate [umol/l]		9
9: Water body nitrate [umol/l]		9
10: Water body nitrate plus nitrite_origin [umol/l]		9
11: Water body nitrite [umol/l]		9

Isosurface Values

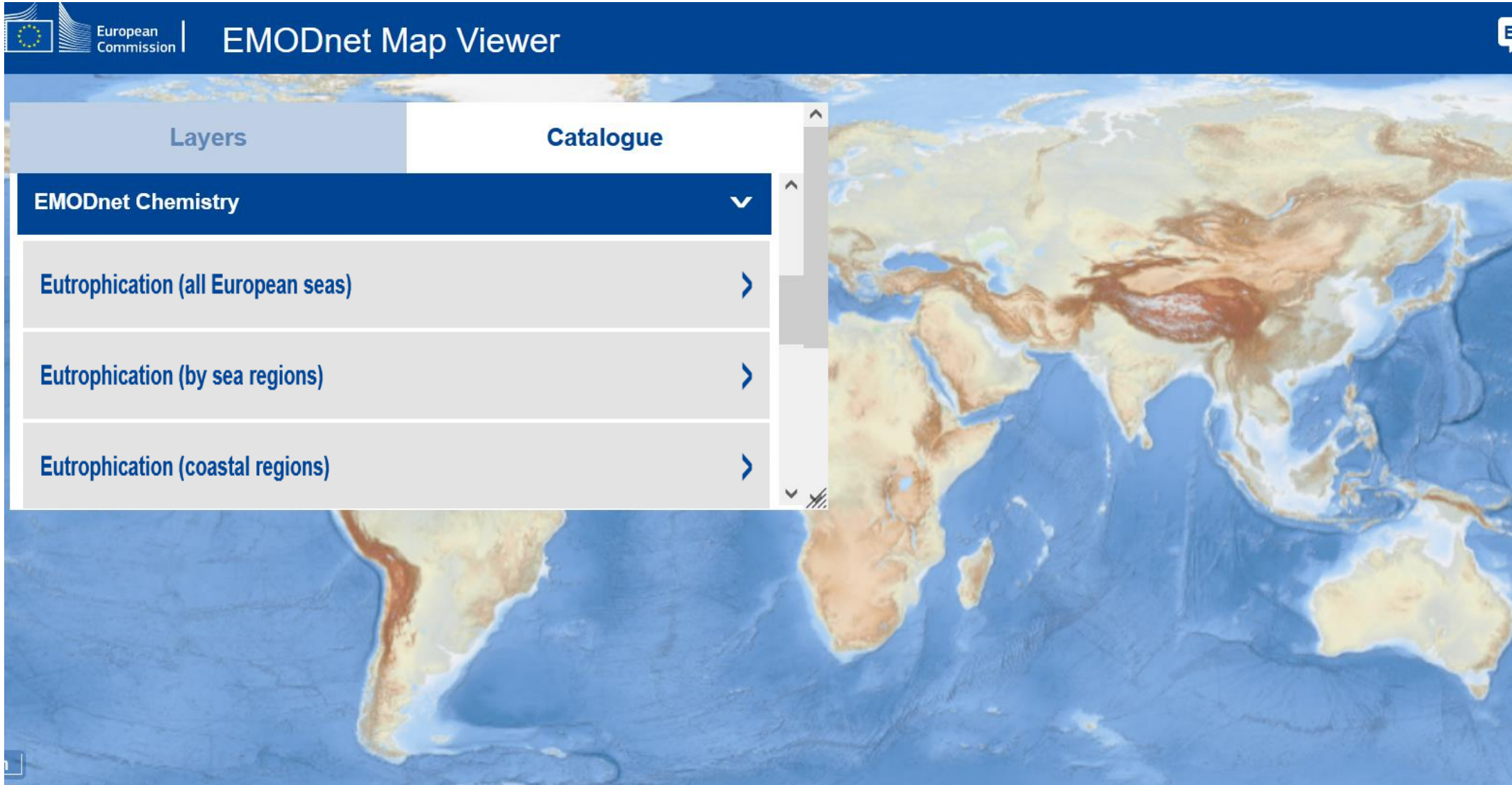
Longitude -3.473
Latitude 46.654
Time [yr] 2018.402

R - 388212 / 388212: FullScreenMap

④ DATA EXPLORATION



<https://emodnet.ec.europa.eu/geoviewer/>

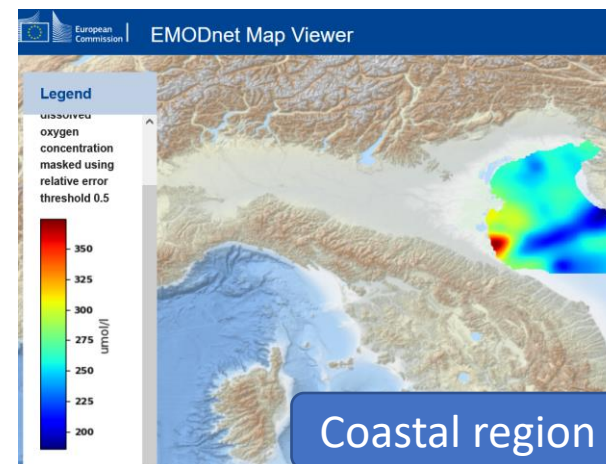
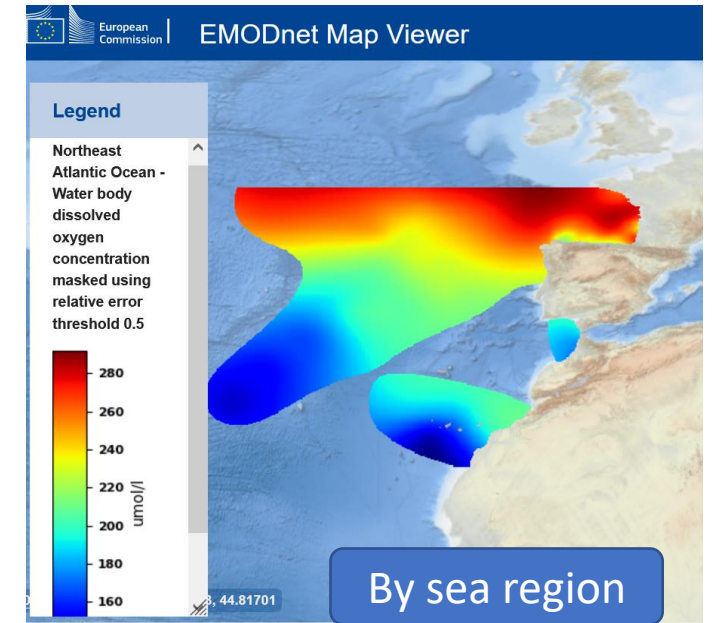
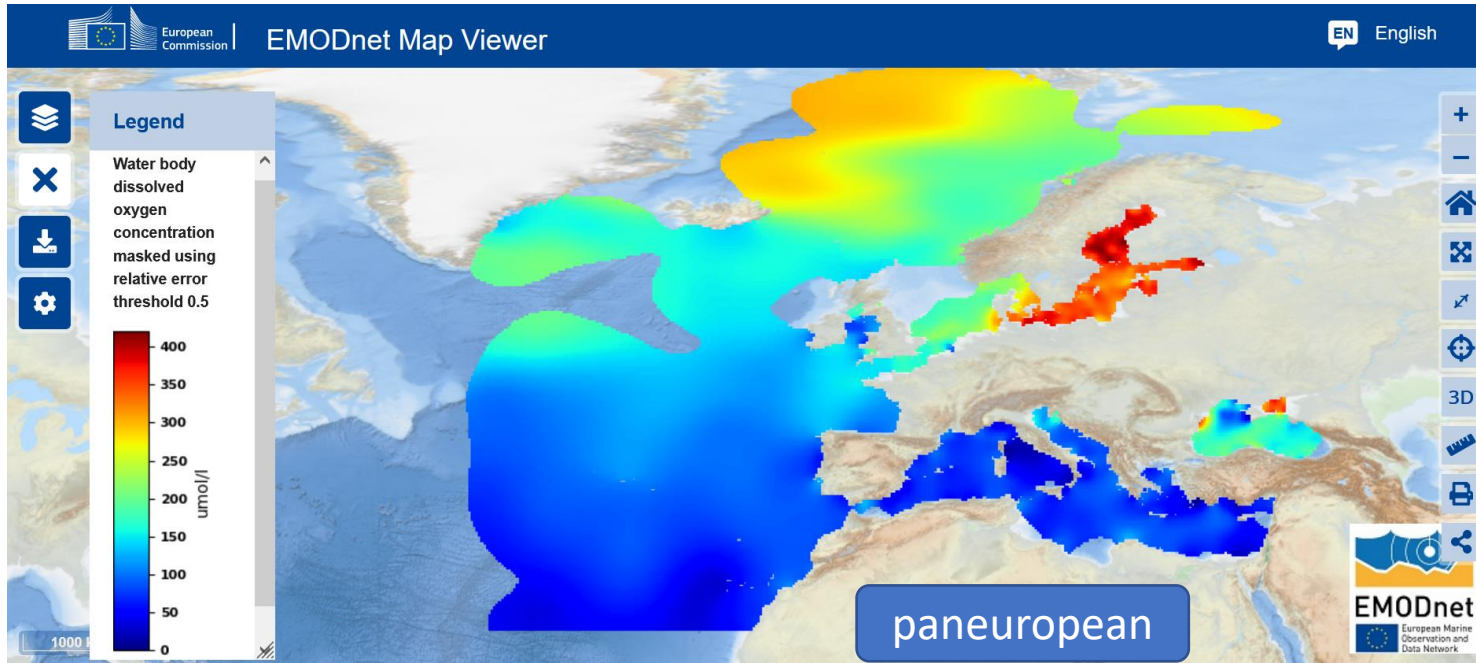


The screenshot displays the EMODnet Map Viewer interface. At the top left, the European Commission logo and the text "EMODnet Map Viewer" are visible. The main area shows a world map with a semi-transparent catalogue overlay on the left. The catalogue has two tabs: "Layers" and "Catalogue". Under the "Catalogue" tab, there are four items:

- EMODnet Chemistry** (with a downward arrow icon)
- Eutrophication (all European seas)** (with a rightward arrow icon)
- Eutrophication (by sea regions)** (with a rightward arrow icon)
- Eutrophication (coastal regions)** (with a rightward arrow icon)

The map in the background shows a global view with a color scale representing ocean health or eutrophication levels, ranging from blue (low) to brown (high).

<https://emodnet.ec.europa.eu/geoviewer/>



Focus sur les déchets marins

EMODnet Chimie développe et gère la 1^{ère} base de données paneuropéenne sur les déchets marins (MLDB)

3 types de déchets:

Beach litter

- Identifications et dénombrements des déchets sur les plages
- Différents protocoles (OSPAR, UNEP, TSG-ML, ..)

Seafloor litter

- Identifications et dénombrements des déchets sur les fonds
- Différentes campagnes (Ex: CGFS, MEDITS, EVHOE, IBTS, ..)

Micro litter

- Issue de prélèvements opportunistes via des filets Manta.

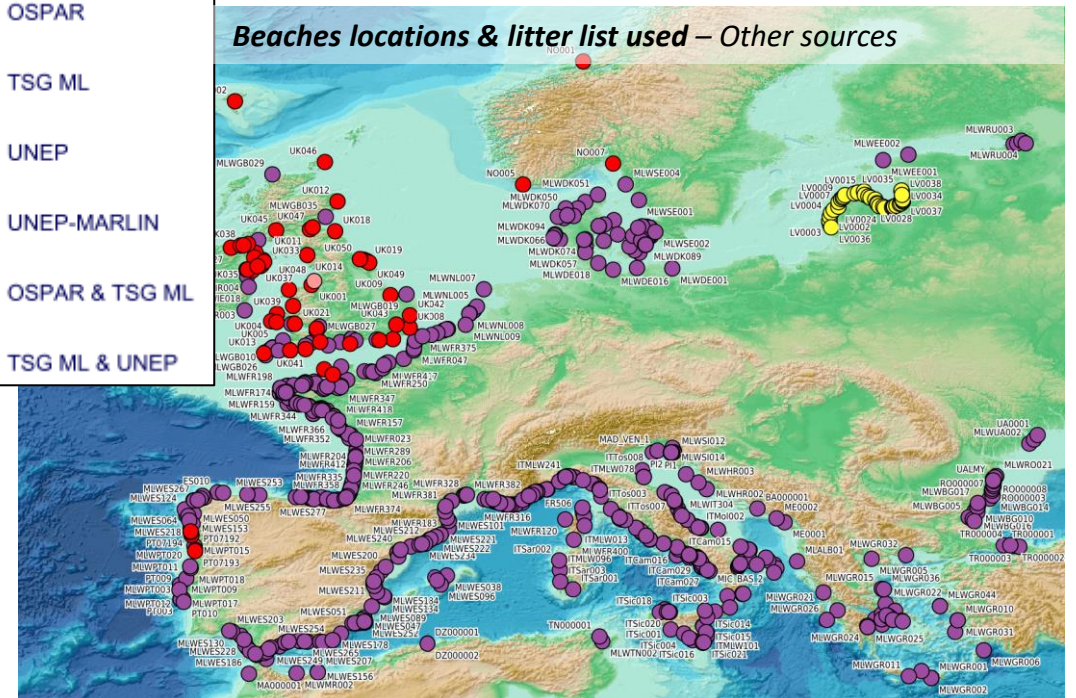
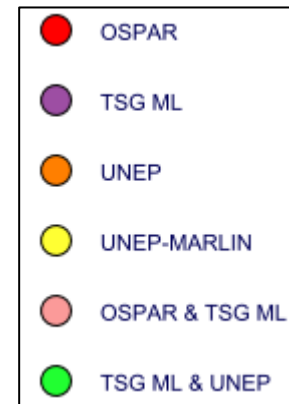
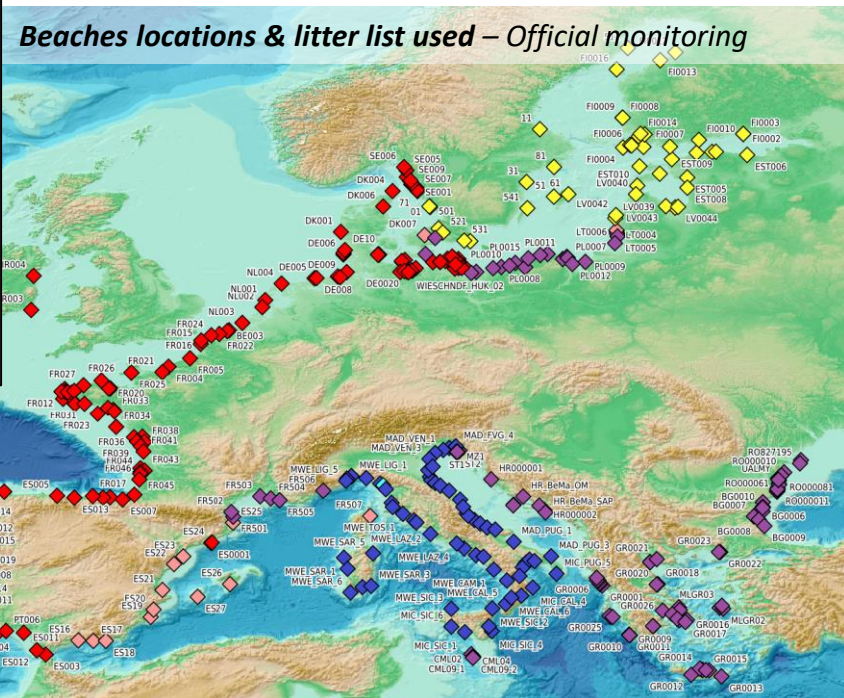
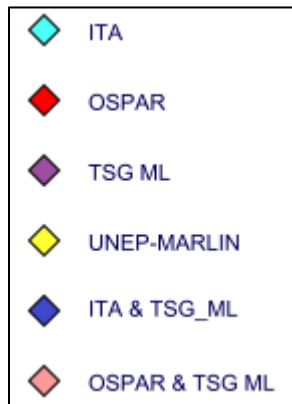


Focus sur les déchets marins

Des produits cartographiques sont ensuite réalisés à partir de ces données.

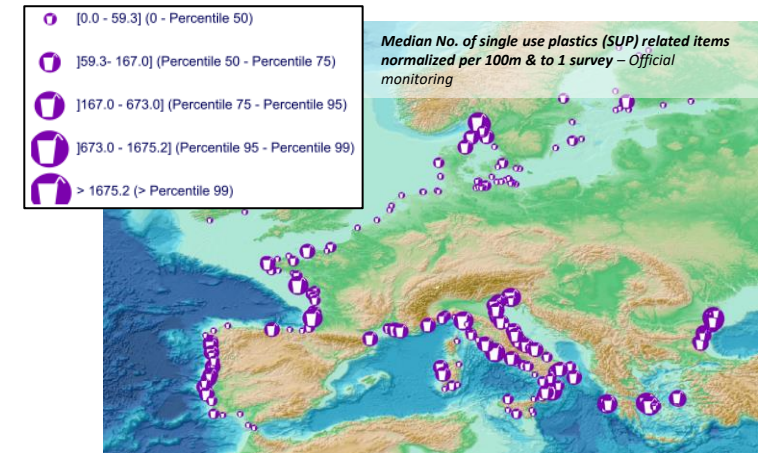
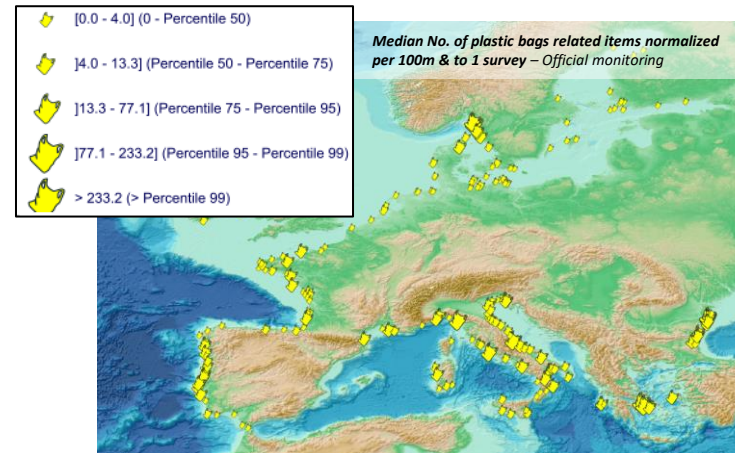
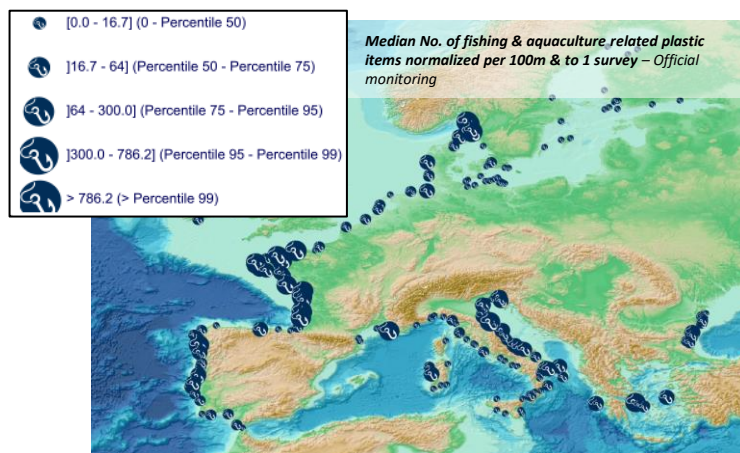
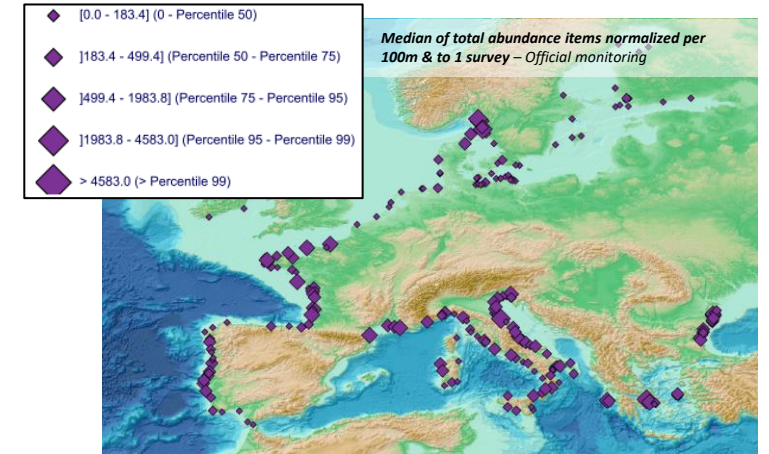
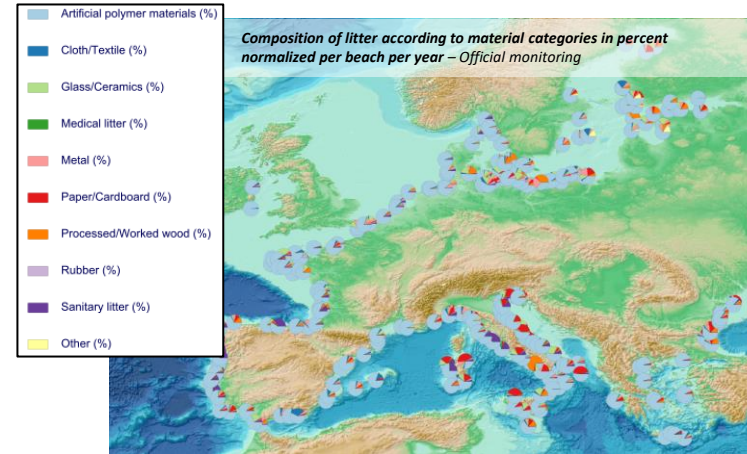
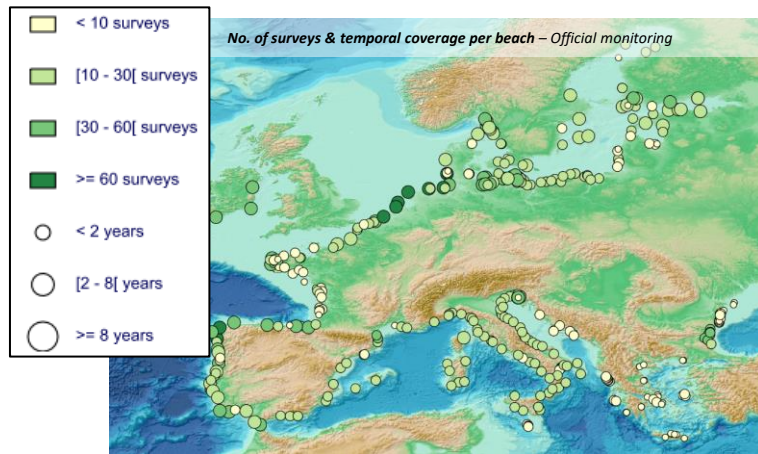
Beach litter: (19 produits)

- 10 produits **‘Official monitoring’** issus des relevés acquis dans le cadre de la DCSMM.
- 9 produits **‘Other sources’** issus des autres relevés.



Focus sur les déchets marins

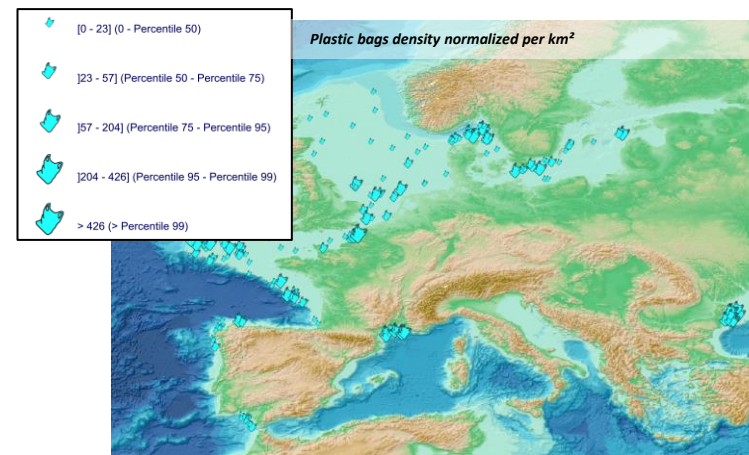
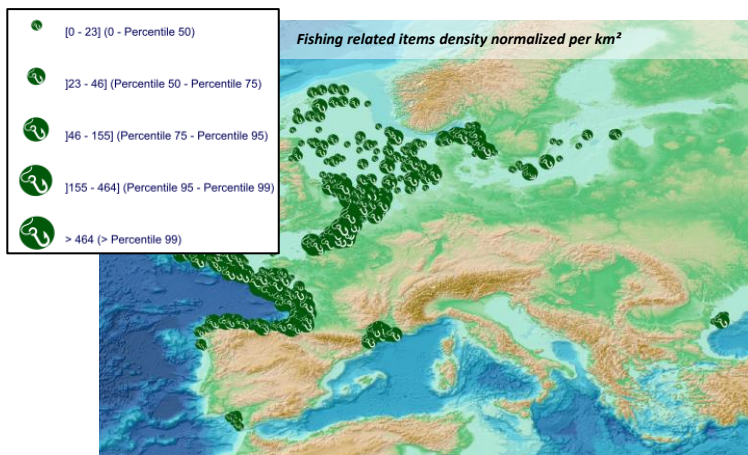
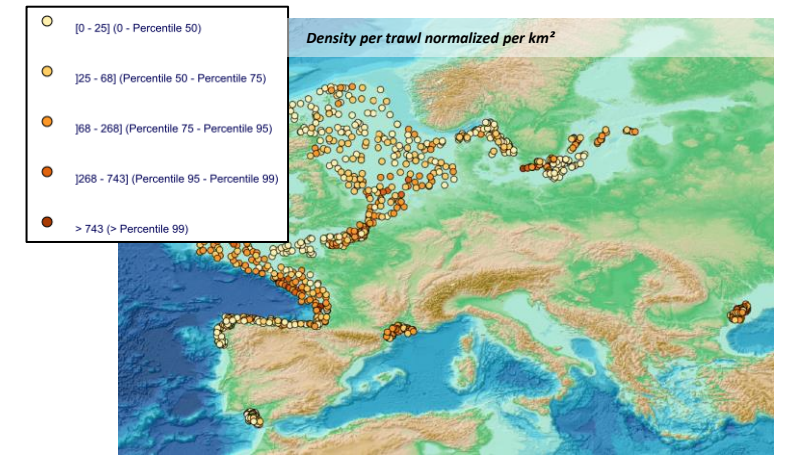
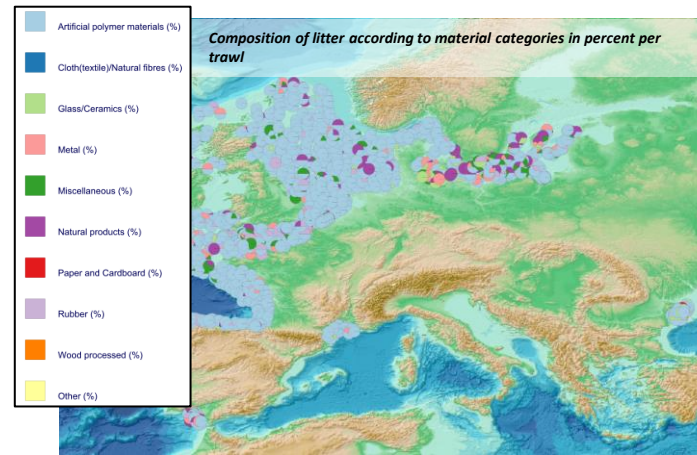
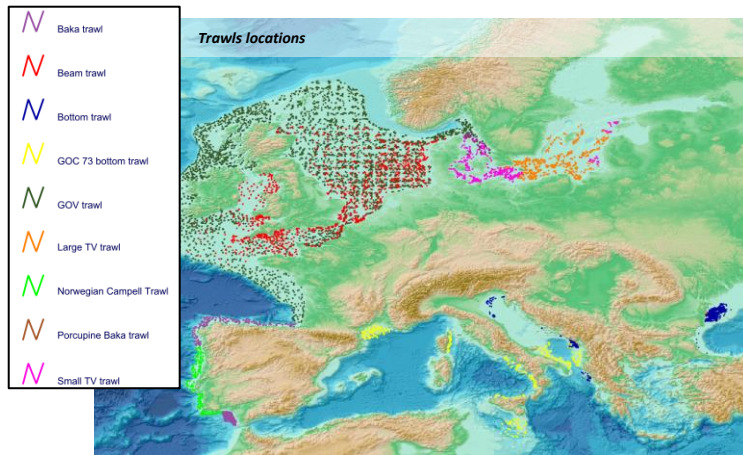
Beach litter: (19 produits)



... + des nouveaux produits en 2023

Focus sur les déchets marins

Seafloor Litter: (5 produits)



+ des nouveaux produits en 2023

Focus sur les déchets marins

Workflow technique

- Beach litter
- Seafloor litter
- Micro litter

Agrégation des données européennes par l'OGS



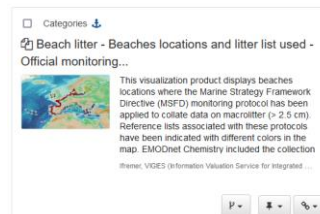
Transmission
à l'Ifremer

3 jeux de données



Portail central

Products Catalogue



Map Viewer



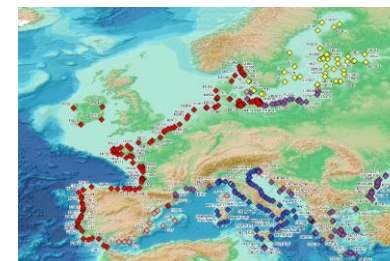
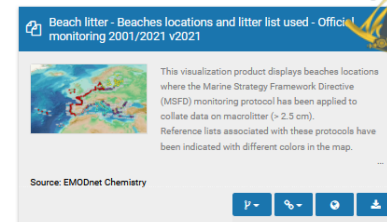
Moissonnage CSW



Services WMS & WFS

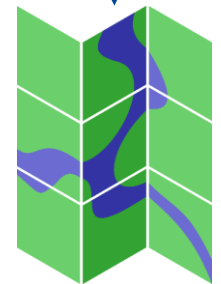
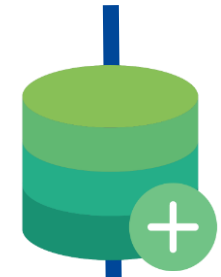


Métadonnées

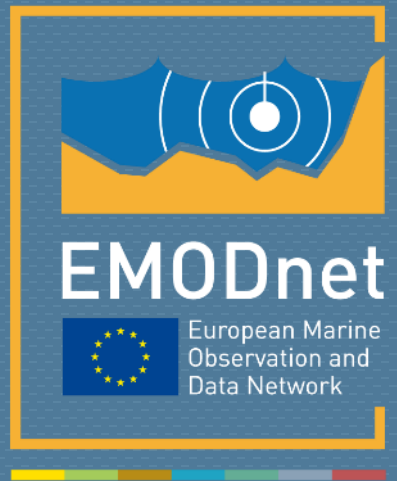


Produits cartographiques

Création des vues



MapServer



emodnet.ec.europa.eu

Your gateway to marine data in Europe





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Slide X: top image from EMODnet Open Sea Lab II, source: Dirk Leemans