#EMD2024

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EUROPEAN MARITIME DAY

Svendborg

30-31 May 2024

European Commission

Svendborg Kommune

Danish Maritime Authority

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EUROPEAN MARITIME DAY
Svendborg
30-31 May 2024

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Friday, 31 May 2024 | 11:15 - 12:30

Co-organized by EMODnet, EU Blue Economy Observatory and EEA

EMODnet
European Marine Observation and Data Network

European Commission
Energy, Climate change, Environment
EU Blue Economy Observatory

European Environment Agency

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Friday, 31 May 2024 | 11:15 - 12:30

Moderator:

- **Kate Larkin,** Head of EMODnet Secretariat, Seascape Belgium

Speakers:

- **Jordi Guillen,** Project Leader, JRC
- **Michela Ghiani,** Project Leader, JRC
- **Kate Larkin,** Head of EMODnet Secretariat, Seascape Belgium
- **Alessandro Pititto,** Coordinator EMODnet Human activities, COGEA - Bip Group, EMODnet
- **Stéphane Isoard**, Head of Group, Oceans and sustainable blue economy, European Environment Agency (EEA)

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Friday, 31 May 2024 | 11:15 - 12:30

Agenda

Introduction:

11:15-11:20: **Welcome and Introduction, with Slido wordcloud 1: Where are data sourced?** (Kate Larkin, Moderator)

Presentations:

11:20-11:30: **EMODnet** (Kate Larkin and Alessandro Pittito)

11:30-11:40: **European Blue Economy Observatory** (Michela Ghiani and Jordi Guillen)

11:40-11:50: **European Environment Agency** (Stéphane Isoard)

Audience Reflections:

11:50-12:00: **Audience reflections on presentations**

Panel:

12:00-12:02: Introduction to Panel Discussion (incl. Slido wordcloud 1 results & Slido 2 launch (Kate Larkin, Moderator)

12:02-12:15: Panel Discussion: Reflect on audience inputs and Slido poll 1 (2' per panelist)

12:15-12:18: Slido poll 2 results

12:18-12:27: Panel Discussion: Quick-fire round to close on gaps and data provision (Slido poll 2) and emerging user requiremen service evolution

Conclusions and next steps:

12:27-12:30: Concluding remarks (Kate Larkin, Moderator)

slido

Where do you get the data that you need for your marine and maritime activities?

ⓘ Start presenting to display the poll results on this slide.

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Presentations:

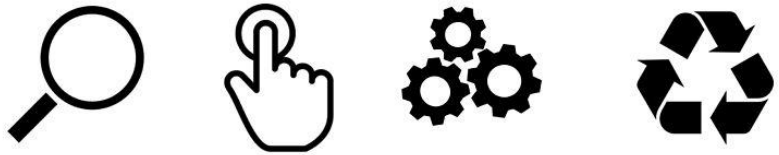
EMODnet
European Marine Observation and Data Network

Kate Larkin: Head, EMODnet Secretariat, Seascape Belgium
Alessandro Pittito: Coordinator, EMODnet Human Activities, COGEA BIP-Group

EMODnet

European Marine Observation and Data Network

Findable Accessible Interoperable Reusable



- The EC marine data service of EC DG MARE, funded by EMFAF;
- The most comprehensive and diverse EU public service for *in situ* (field/survey) marine environmental and human activities data provided as pan-European, integrated, FAIR data and data products;
- Delivered by > 120 partners and hundreds of experts across Europe, aggregating, standardizing and harmonizing Europe's ocean observing and data collection efforts in European regional sea-basins, Northeast Atlantic Ocean, Arctic Ocean, and increasingly EU Overseas territories.

One central map viewer

to visualise all EMODnet data

1 OCEAN 1 EMODnet

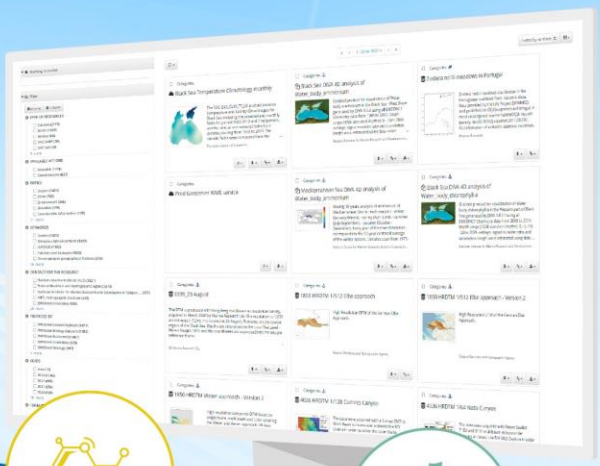
One single portal

120 partners

+100 use cases

One central metadata catalogue

to enhance data search and discovery



Discover, visualise and download marine data and products across 7 thematics and hundreds of parameters

BATHYMETRY

HUMAN ACTIVITIES

PHYSICS

GEOLOGY

SEABED HABITATS

CHEMISTRY

BIOLOGY

EMODNET.EC.EUROPA.EU

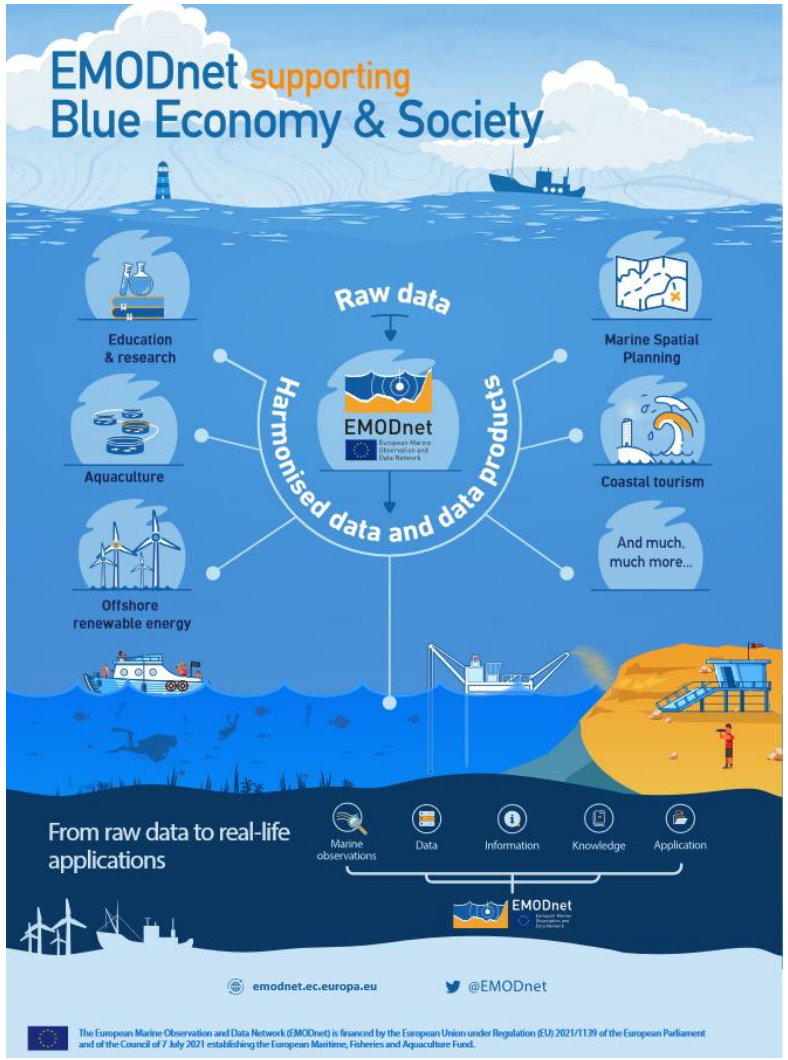
The European Marine Observation and Data Network (EMODnet) is financed by the European Union under Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund.

YOUR GATEWAY TO *IN SITU* MARINE DATA IN EUROPE AND BEYOND

EMODnet
European Marine Observation and Data Network

Multidisciplinary, interoperable marine data, information and knowledge

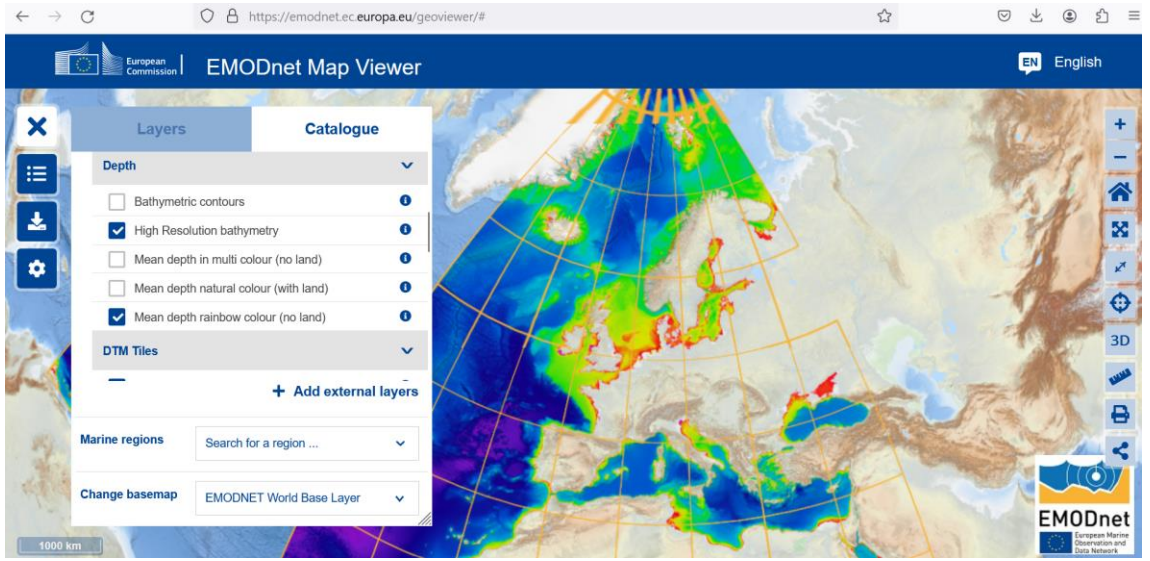
Supporting the Blue Economy in Europe and beyond



Ørsted

"We use hundreds of datasets throughout the lifecycle of an offshore wind farm, and EMODnet is one of our main sources of data, especially in the early phases of development e.g., EMODnet Bathymetry is our «go to» dataset until our own geophysical surveys are carried out and compared, EMODnet Seabed Habitat data are also used for Environmental Impact Assessments"

Kieran Bell, Ørsted, EMODnet for ORE workshop, 20-21 September 2022



EMODnet Portal: Pan-European Bathymetry and Digital Terrain Model

Ørsted
EMODnet
European Marine Observation and Data Network

EMODnet for the Blue Economy: Win-win partnerships

EMODnet for Business workshops:

- Free online Blue Economy workshops;
- Experts spanning the sector value chain, EU Policy officials, EMODnet experts and more;
- *Coming soon:* 2024 workshop: Marine data for Ports, Marinas, Boating and Shipping;

Join the EMODnet Associated Partnership to increase your company's visibility, gain access to expert EMODnet knowledge experts on marine data uses and requirements, data/metadata best practice, digital services, and more.

EMODnet
European Marine Observation and Data Network
EMODnet Associated Partners

Contact secretariat@emodnet.eu for more information!

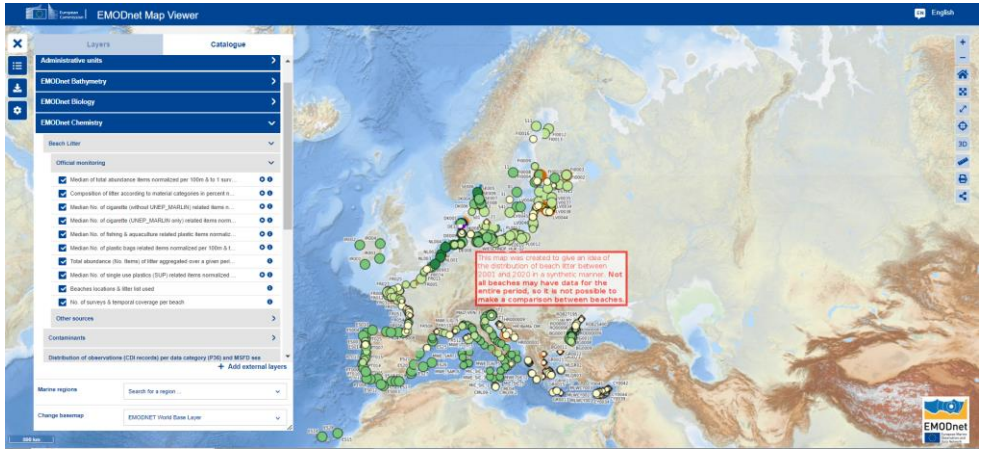
EMODnet
European Marine Observation and Data Network

Multidisciplinary, interoperable marine data, information and knowledge

Supporting EU policy

Multidisciplinary, interoperable marine data, information and knowledge

Supporting EU policy e.g., MSFD



EMODnet offers a pan-European beach litter database, produced in collaboration with and used by the EU JRC/MSFD Technical Group on Marine Litter. Used by national authorities, policy makers and European projects.

Chemistry

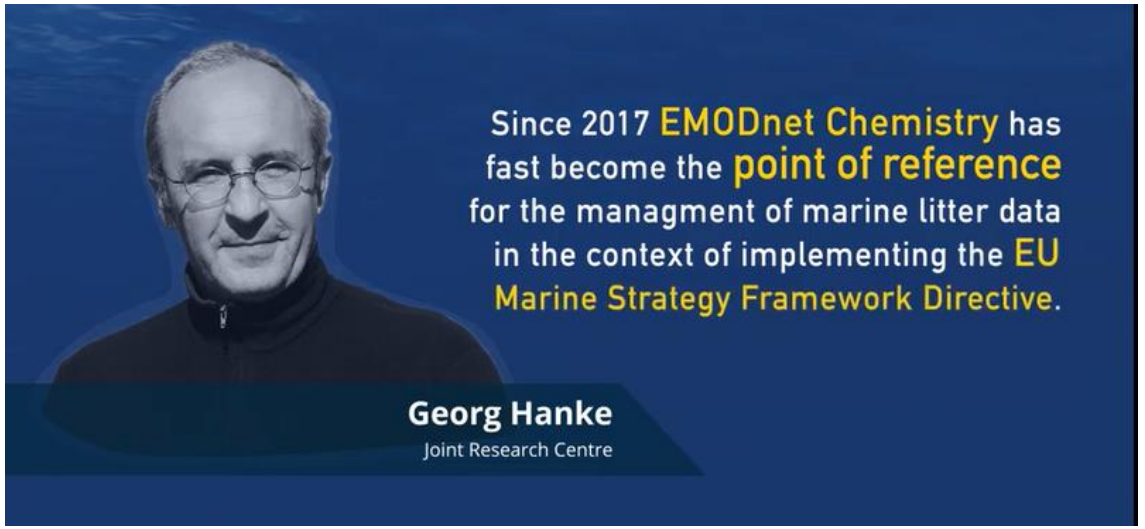
11 May 2021

EMODnet Chemistry: a point of reference for management of marine litter data in the context of the EU Marine Strategy Framework Directive

EMODnet Chemistry provided valuable contributions to the completion of **a Joint List of Litter Categories for Marine Macrolitter Monitoring** that includes the litter types occurring in the coastal and marine environment. The list can be used to enable comparable monitoring across the European Seas and beyond, as well as across different compartments of the marine environment.

GOVERNMENT/PUBLIC ADMINISTRATION

Continue reading



Chemistry

08 May 2024

EMODnet Marine litter data used to develop and test the first Marine Litter Assessment Tool

EUROqCHARM is an EU-funded H2020 project that lasted from 01 November 2020 – 31 October 2023. The project provided harmonised methodologies for the monitoring and assessment of marine plastics (macro-, micro- and nano-) in all environmental compartments: water, soil/sediment, air, and biota. Additionally, it released blueprints for standards of marine litter monitoring and data management and recommendations for policy and legislation.

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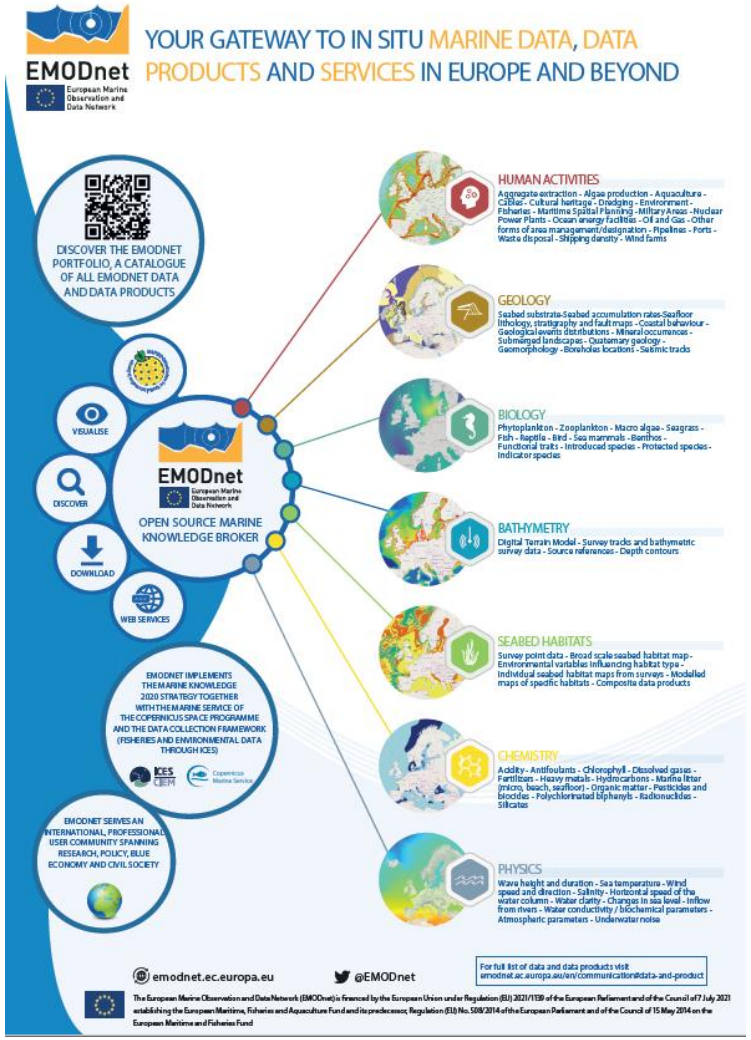
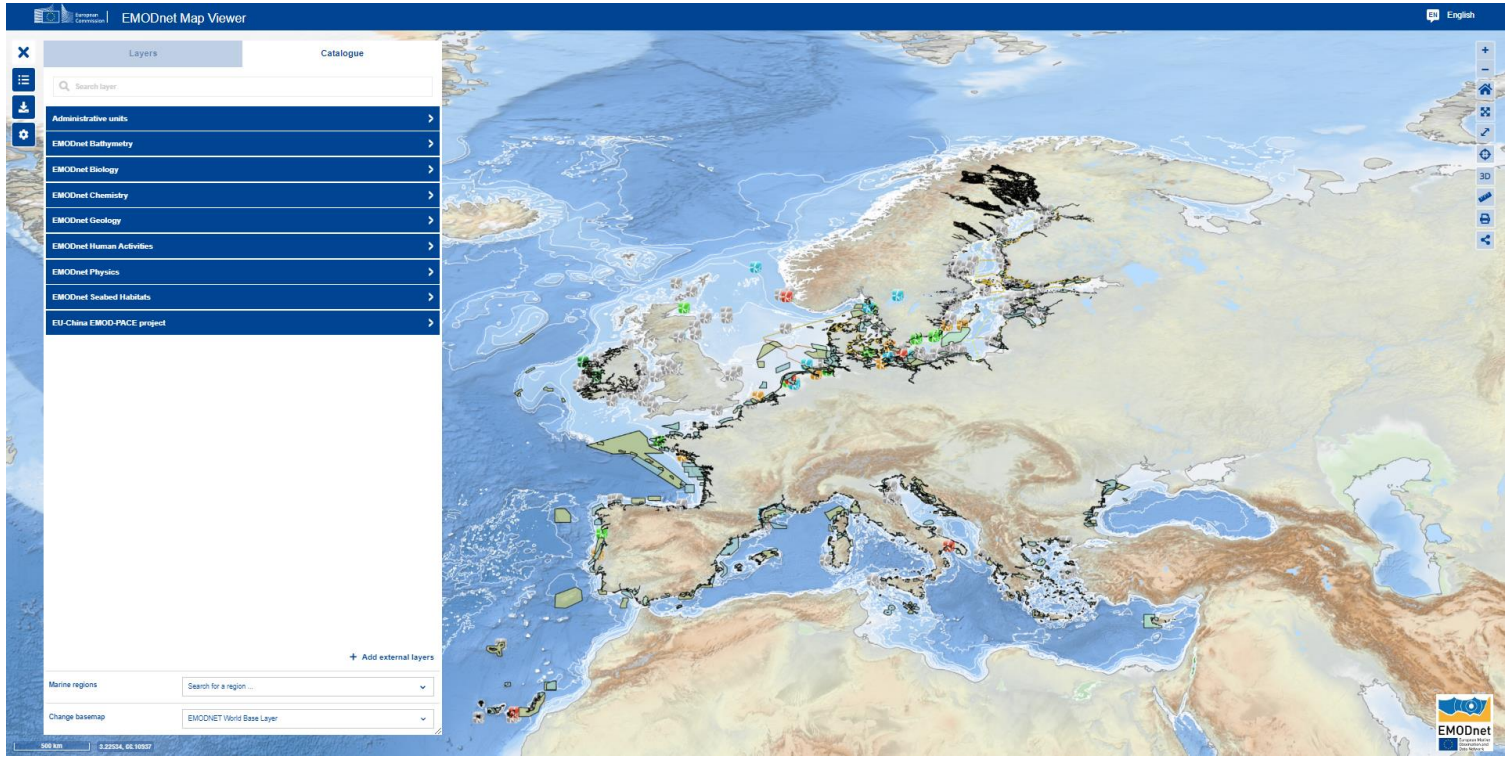
European Marine Observation and Data Network

Multidisciplinary, interoperable marine data, information and knowledge

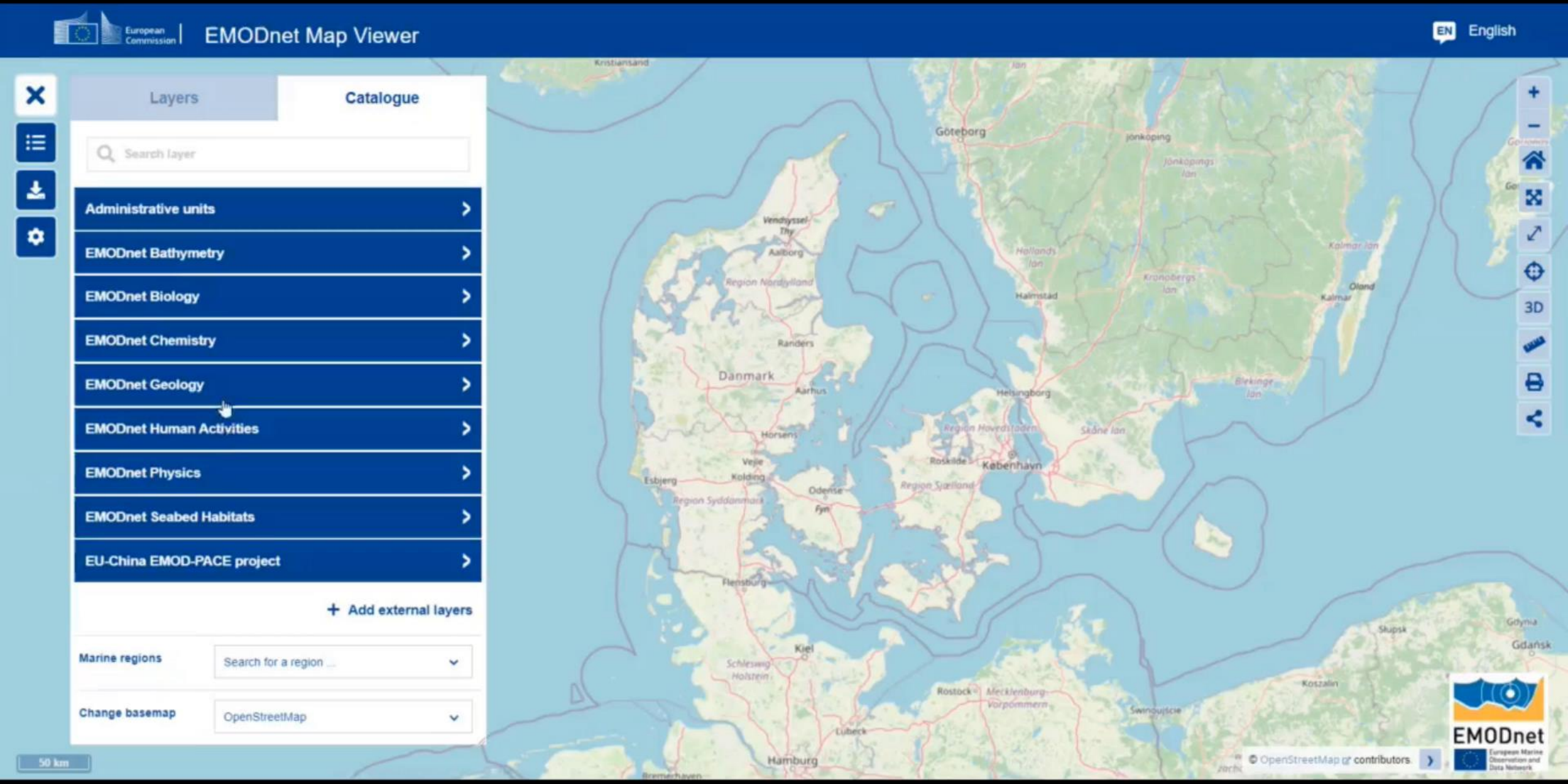
Supporting EU policy e.g., MSPD





EMODnet hosts Member State Maritime Spatial Plans and is a hub for information on ocean health and human activities across European regional seas, to inform National and transboundary MSP, including climate-smart MSP.

EMODnet
European Marine Observation and Data Network


European Commission
EMODnet Map Viewer
EN English
Layers
Catalogue
Search layer
Administrative units
EMODnet Bathymetry
EMODnet Biology
EMODnet Chemistry
EMODnet Geology
EMODnet Human Activities
EMODnet Physics
EMODnet Seabed Habitats
EU-China EMOD-PACE project
+ Add external layers
Marine regions
Search for a region ...
Change basemap
OpenStreetMap
50 km
3D
Göteborg
Jönköping
Halmstad
Kalmar
Oland
Danmark
Aalborg
Aarhus
Randers
Horsens
Vejle
Kolding
Esbjerg
Odense
Fyn
Helsingborg
Roskilde
København
Flensburg
Kiel
Rostock
Lübeck
Hamburg
Gdańsk
Gdynia
Słupsk
Koszalin
EMODnet
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EMODnet wind farm and hydrocarbon extraction datasets to support the development of wind farm projects

An innovative Danish company, C2Wind, employing ten specialists divided between its two offices located in Copenhagen and Fredericia, aims to **reduce the cost of energy associated with offshore wind power** by providing a holistic approach to the design of offshore wind turbines. Since its establishment in 2015, C2Wind has hit the ground running, working with some of the largest players in the offshore wind industry, both in Denmark and internationally.

Operating in a country which is regarded as the home of modern wind energy and a world leader in research and development of wind energy, C2Wind draws on all resources including EMODnet Human Activities to get the job done.

For the last several years, **the EMODnet Human Activities portal has become a vital tool for C2Wind**. **Wind farm and hydrocarbon extraction datasets** are the most commonly explored datasets, identifying locations of already existing structures. Additional datasets on occasion are surveyed to provide the full extent of human activities. **This crucial information is used in** the preliminary phases of projects, **determining areas of interest for the development of wind farm projects.**

EMODnet plays a role in building the first submarine electricity interconnection between Spain and France

The Biscay Gulf project aims to build the first submarine electricity interconnection between Gatika (near Bilbao, Spain) and Cubnezais (near Bordeaux, France). The project will increase the exchange capacity from 2,800 to 5,000 MW, increasing the safety, stability and quality of electricity supply between the two countries and also with the rest of Europe.

To do so, the existing Gatika-Lemoiz infrastructure comprising two 400 kV electricity power lines will be used. The underground section will run for less than 100 km from the right bank of the River Dordogne, passing beneath this river and the Garonne to reach the Aquitaine coast via the Médoc region, fully respecting the environment and human activity. Numerous factors must be considered in this coastal region, such as: environmental awareness, busy beaches, urban centres, awareness of coastline regression and the possibility of using infrastructures that already exist to sleave rapidly the coastline.

EMODnet is assisting the building of the infrastructure supporting a set of studies, carried out in accordance with the Spanish Environmental Impact Assessment procedure, needed to make the territorial and environmental diagnosis of the effects caused by the project. One example of these studies is represented by the paper published by the consultancy company Biosfera XX Estudios Ambientales where the data made available by EMODnet Bathymetry, Human activities and Seabed Habitats have been used.

EMODnet is the *in situ* pillar for the European Digital Twin Ocean

Evolving digital data services for next generation EU Policy, R&I and Blue Economy user requirements

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WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Presentations:

Michela Ghiani: European Commission, JRC, Project Leader
Jordi Guillen: European Commission, JRC, Project Leader

European Commission
THE 2018 ANNUAL ECONOMIC REPORT ON

European Commission
THE EU BLUE ECONOMY REPORT 2020

European Commission
THE EU BLUE ECONOMY REPORT 2022

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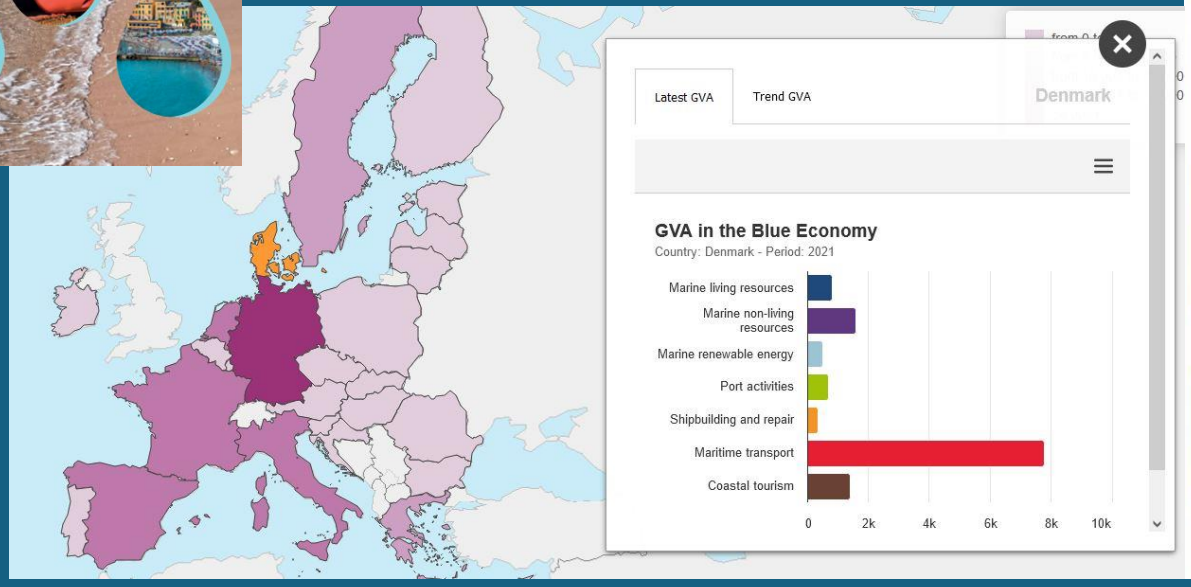
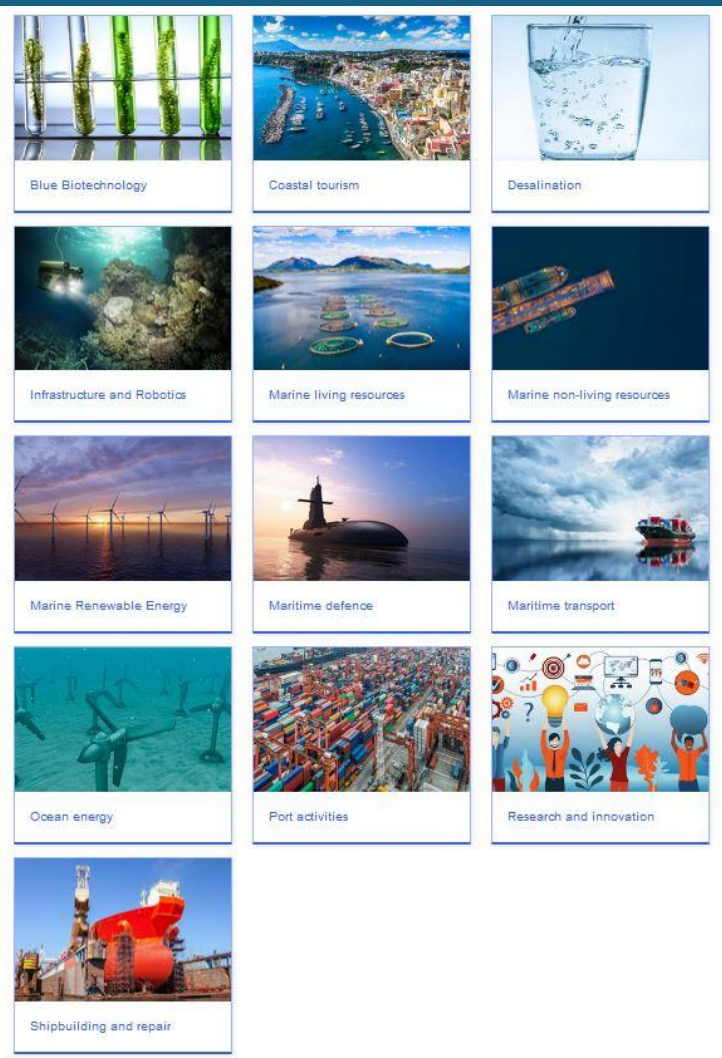
The EU Blue Economy Observatory





European Commission

Upcoming developments

Denmark

The Danish established Blue Economy sectors employ about 98 000 people and generate around €13.1 billion in GVA in 2021. The Blue Economy has a positive impact on the Danish workforce, employing about 3.4% of the national workforce. This share has increased on a year-to-year basis (3.2% in 2020), but is still far from the pre-Covid levels (4.7%). Denmark has recorded a decrease in contribution of Blue Economy sectors to the overall GVA, moving from 4.9% in 2020 to 4.4 % in 2021.

The Danish Blue Economy is dominated by Coastal tourism in terms of people employed (48% of Danish blue jobs). This share is declining over time, with pre-Covid value of 65% and 2020 value of 53%. In addition, in terms of GVA the sector only contributes to the overall national Blue Economy GVA to less than 11% in 2021. Maritime transport generates 59% of the GVA in 2021, an increase compared to 58% in 2020 and 43% in 2019.

Mykines Island, Faroe Islands, Denmark

Fishing boats, Jütland, Denmark

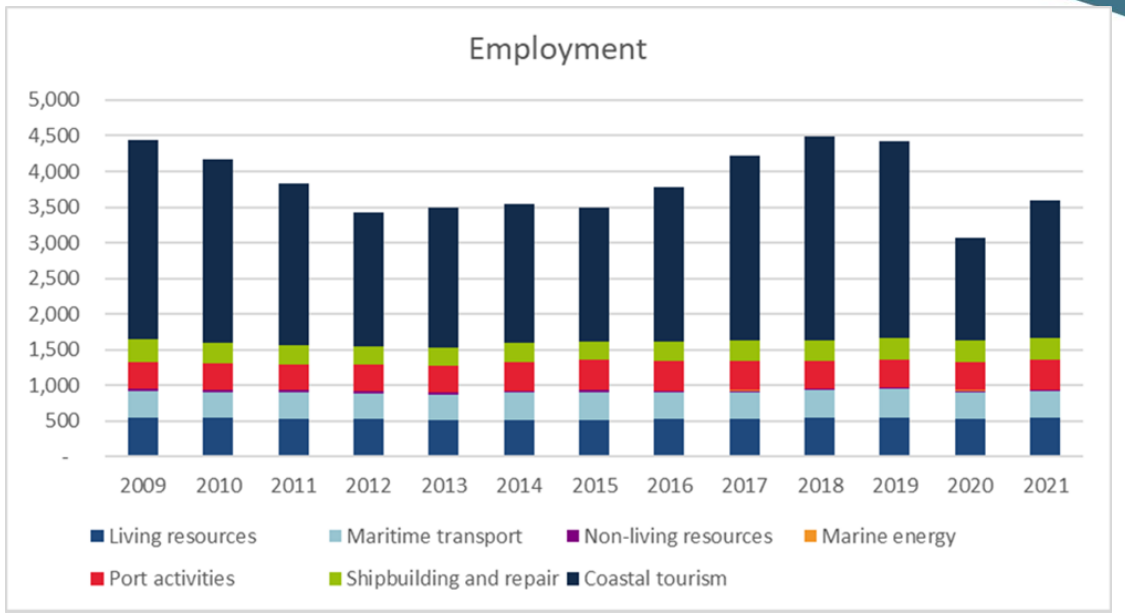
In the EU, Denmark is the 2nd-largest contributor in terr
transport and Non-living resources in 2021. It is also th
contributor to the employment within Non-living resourc
important for Maritime transport in EU.

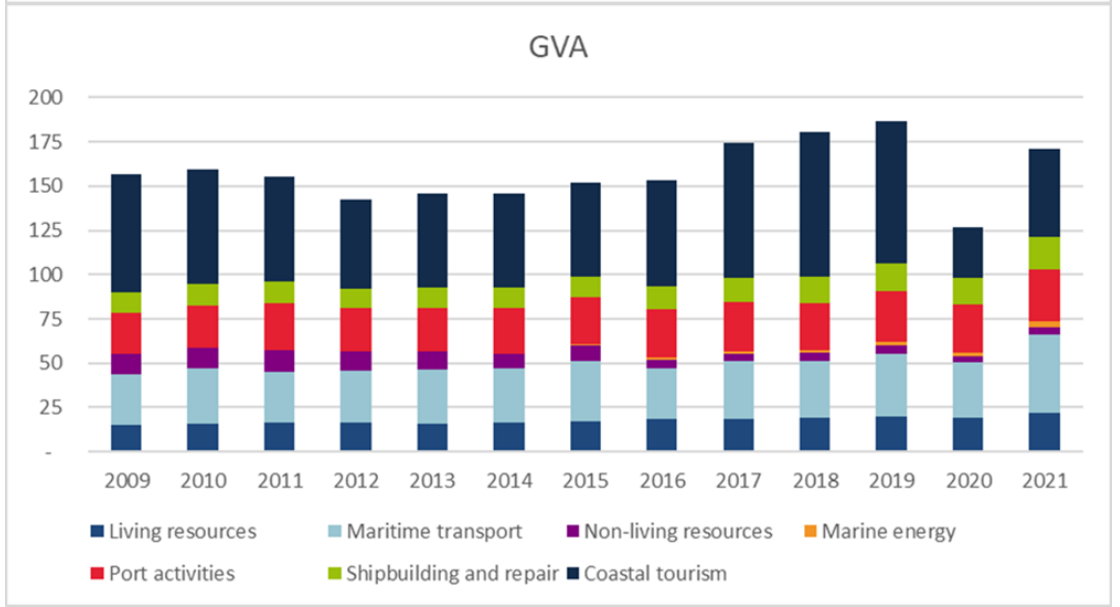
The busiest container ports in Denmark are: Port of Årh
port in EU in terms of gross weight of goods handled),
(Færgehavn) (101st) and Port of Statoil-Havnen (111th).

In terms of passengers embarked and disembarked in
(Elsinore) is the first ranked Danish port (ranked 14th bu
2021), followed by Sjællands Odde (18th) and Århus (1

European Commission

Employment	GVA	Gross Operating Surplus	Turnover
3.6 million people	€171 billion	€76 billion	€624 billion



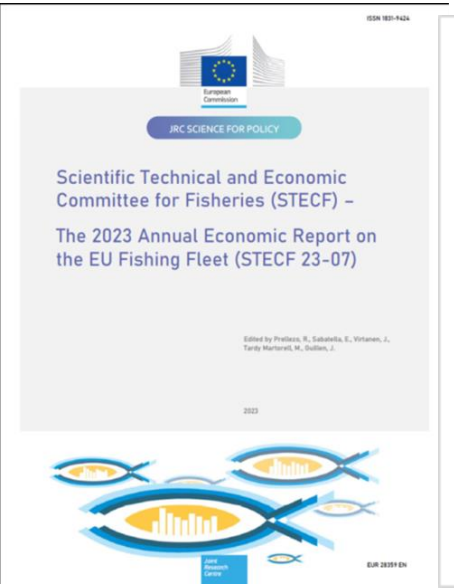


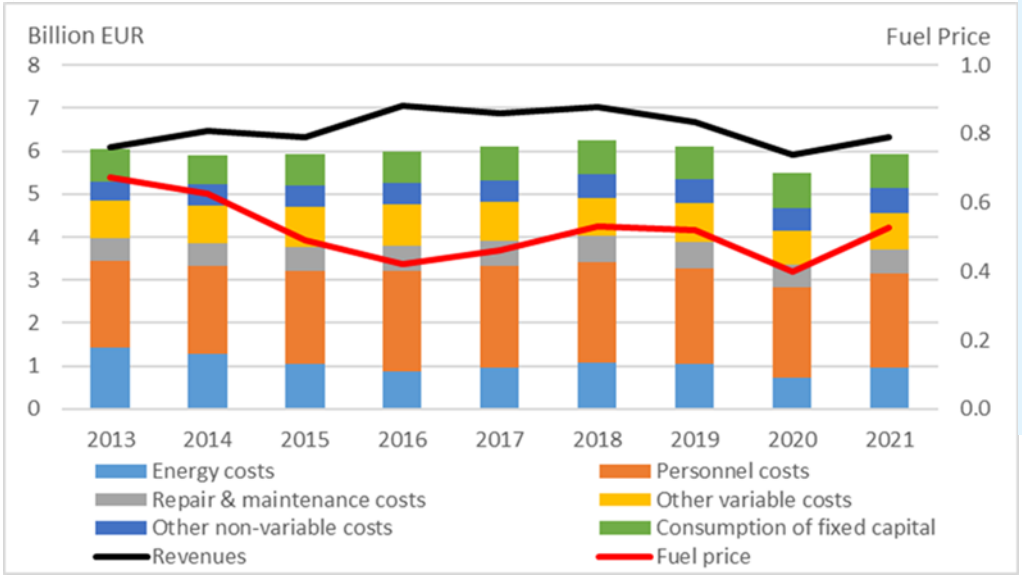
Most of the data for the established (data-rich) sectors comes from Eurostat.

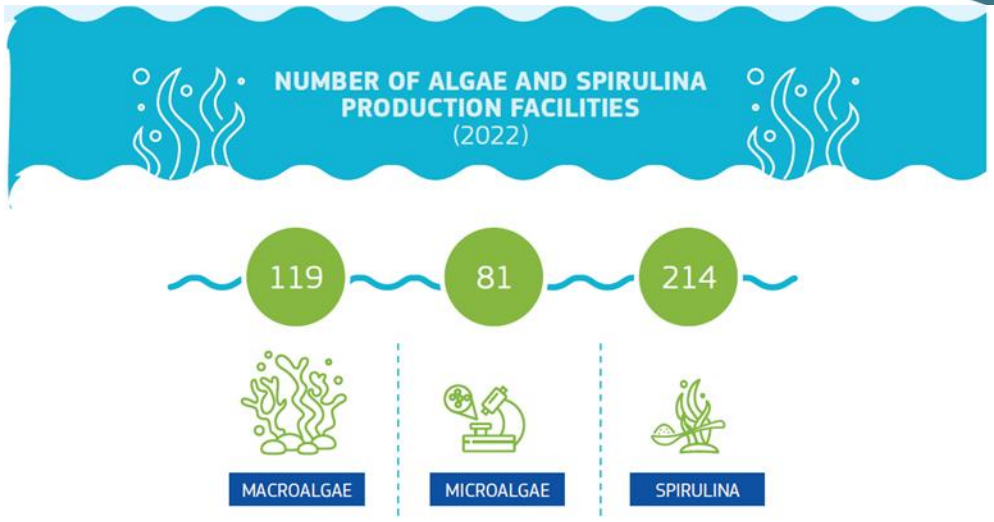
- Sometimes we have to estimate the maritime proportion.
- Ensures harmonization across sectors & countries.
- But implies a significant time-lag.

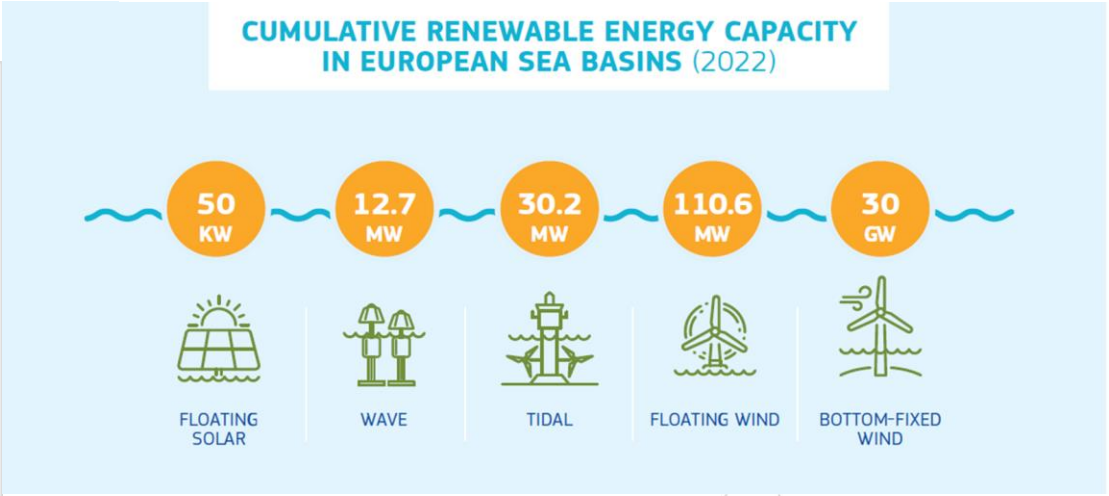
For fisheries and aquaculture, we have a specific data collection, resulting in a lower time-lag and use of nowcasts.
This allows more detailed and specific analyses.

For some other sectors, such as biotechnology and desalination, data is more scarce and we are working to obtain more data and information.









European Commission

SCAN ME

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Presentations:

11:40-11:50: **European Environment Agency** (Stéphane Isoard)

European Environment Agency

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European Environment Agency

Data, indicators and knowledge services to support EU policies implementation and a sustainable blue economy

Integrating data from diverse sources

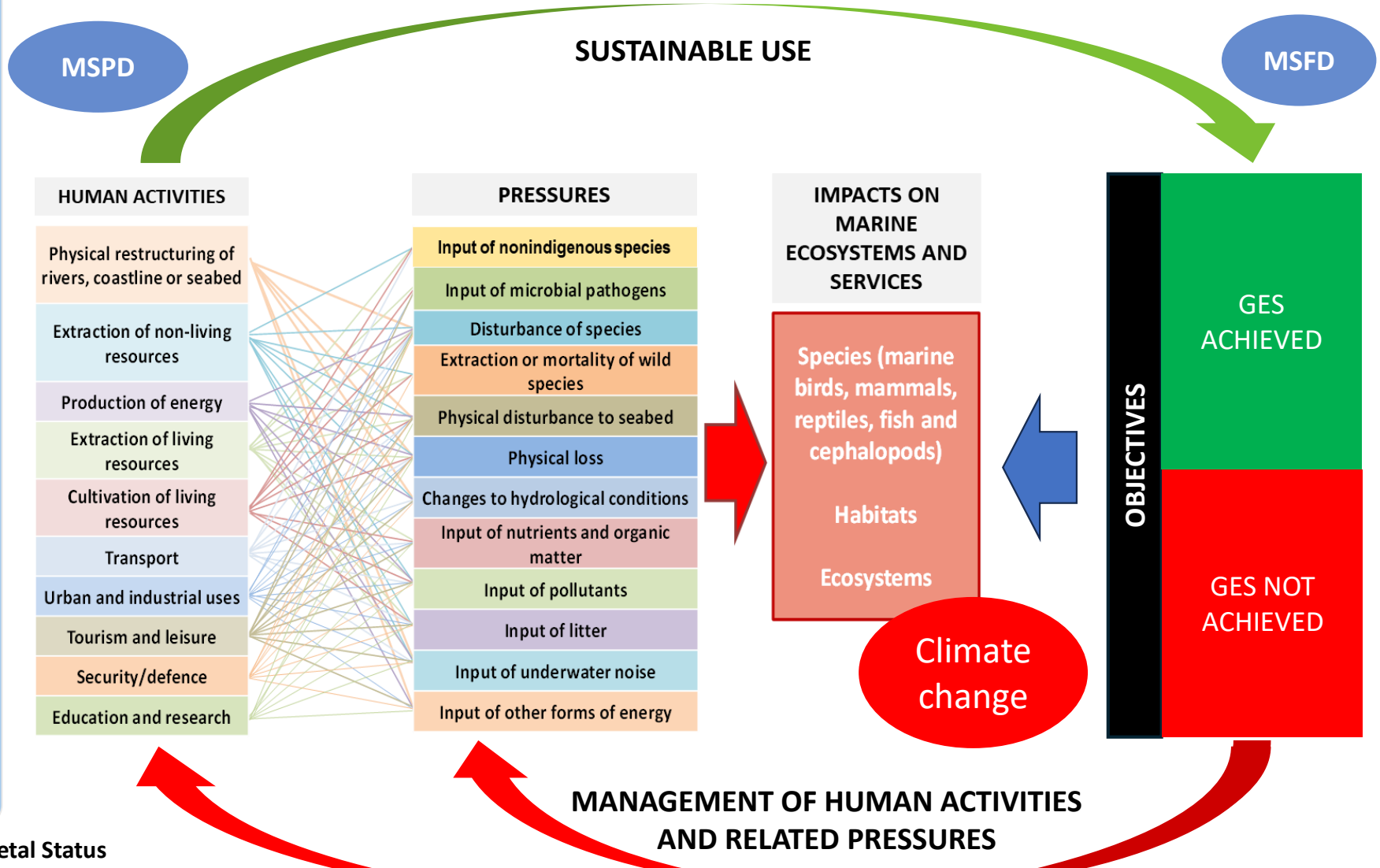
Data needs

Policy context

- **Data: MSFD Art. 19.3**
- **MSPD**
- **EBM**
- **11 Descriptors:**
  - D1 Biodiversity
  - D5 Eutrophication
  - D8 Contaminants
  - D9 Contaminants in the seafood
  - D2 Non-indigenous species
  - D3 Commercial fish and shellfish
  - D4 Food webs
  - D6 Seafloor integrity
  - D7 Hydrographic conditions
  - D10 Marine litter
  - D11 Underwater noise

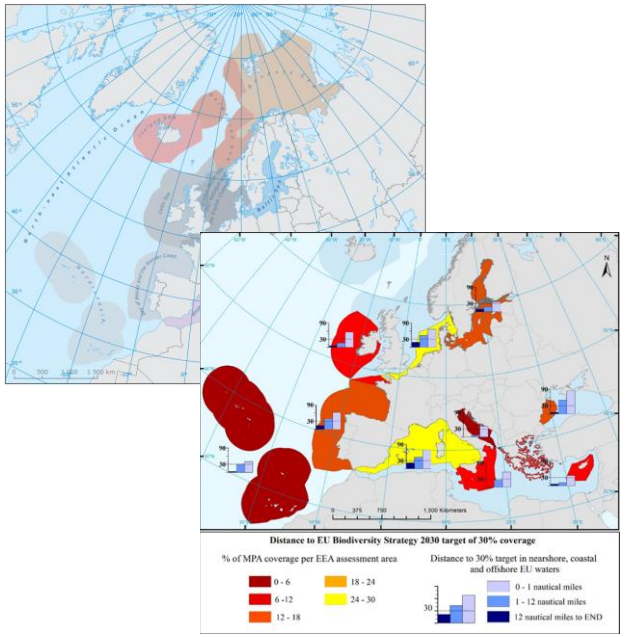
Use of data to support:

- **MSFD** art 20 (2024 reporting), Review
- Integrated Maritime Policy incl. **MSFD & MSPD**, CFP, HD, BDS, NRL
- WFD land based sources, coast
- Inform EGD, BD Strategy, ZPAP



GES: Good Environmetal Status

Developing multi-faceted spatial assessments for policy support

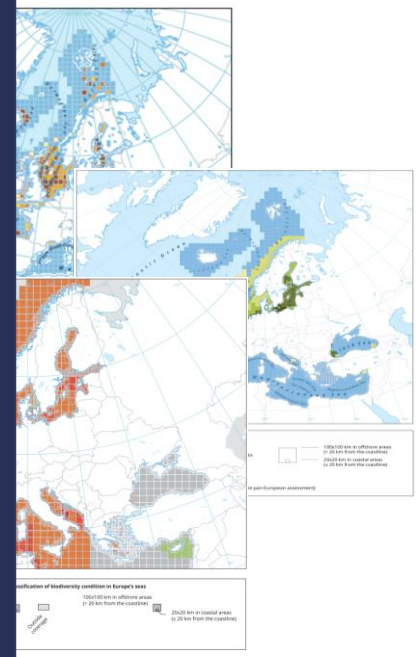


Functional maps for direct policy support (e.g. MSFD regions, MPA coverage (MSEG) etc.)

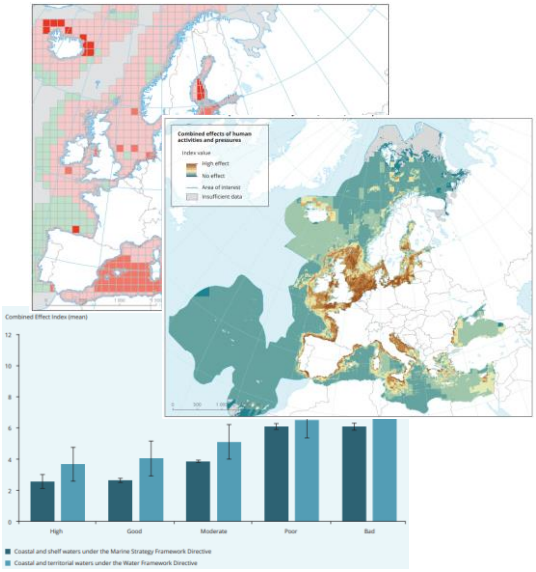
Key elements

- Ecosystems take time to recover
- Showed the 'implementation gap'
- Explored 'solutions'
- Development of a spatial approach to assess combined impacts from multiple pressures as required by MSFD (art 8/ 20), EIONET Strategy & BD Strategy
- Developed indicator tools (MIBATs)
- Used trends where available
- Complex integrated assessment
- A ray of hope

Individual spatial descriptions of human activities (23), pressures (15) and ecosystem features (30)



assessments on biodiversity, nutrient and contaminants. Harmonization of environmental assessments (pressures & state) across EU, RSCs, and individual States



Integrated assessments of combined effects of multiple pressures & ecosystem health connecting marine ecosystem use with its state

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Integrated and actionable knowledge for EBM in Europe's seas

Policy context

Direct policy support:
- EEA/EIONET Strategy WA1 and SO 1-4
- MSFD art 20 progress reporting (using 2024 data reporting – if any)
- Support MSFD review in Council & EP co-decision phase
- MSPD

Supporting the integration & coherence across policies:
- EGD, Fit-for-55, BD Strategy
- Maritime Policy incl. CFP; adoption of revised MSFD
- EU Climate Law, HD art 17, BD, NRL, WFD

Additional support:
- ECA interest incl. Special report 26/2020
- Commission – EEA expanded cooperation

Key questions

Key Assessment Questions:
- What is the state?
- What are the causes?
- What are the solutions for achieving sustainable use of our seas?

Demonstrate how to:
- Make EBM operational in an EGD context
- Rebuild resilience step-by-step
- Actionable solutions for healthy seas
- New 'state' assessment

Messaging & narrative
- Layered messaging (overarching, thematic, factual)

Content

Synthesis:
- Integrated assessment of multiple pressures and their combined effects
- State assessments (MIBATs)
- Addressing 5 of drivers of change, state, use, & trends of these

Demonstrate solutions:
- Rank pressures & develop spatially explicit good environmental status scenarios
- Assess cumulative impacts of maritime sectors and land-based sources
- Demonstration the use maritime spatial planning as a tool for healthy, resilient seas & sustainable use
- Support sustainability of the maritime sectors
- **Data/information**: EU reporting, spatial assessments, RSC QSRs, GES4SEAS, CHASE, HEAT, BEAT MALT, CIMPAL, CCI

Thank you!

Stéphane Isoard
Head of Group, Ocean and Sustainable Blue Economy
Biodiversity, Health and Resources Programme
European Environment Agency
stephane.isoard@eea.europa.eu

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Panel and Audience Reflections:

Moderator:

- **Kate Larkin,** Head of EMODnet Secretariat, Seascape Belgium

Speakers:

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- **Stéphane Isoard**, Head of Group, Oceans and sustainable blue economy, European Environment Agency (EEA)

slido

Where do you get the data that you need for your marine and maritime activities?

ⓘ Start presenting to display the poll results on this slide.

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Panel and Audience Reflections:

Panel Discussion: Round 1

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Panel and Audience Reflections:

Audience reflections and Q&A

slido

What are the gaps in data provision (parameters, coverage, other)?

(1-2 word answers)

ⓘ Start presenting to display the poll results on this slide.

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Panel and Audience Reflections:
Panel Discussion: Round 2

WS B-4. Diverse data serving EU policies and the Blue Economy for a sustainable future

Conclusions and next steps:

Concluding remarks (Kate Larkin, Moderator)