



Product portfolio and data access

Copernicus Marine Environment Monitoring
Service



Copernicus

OVERVIEW OF THIS CMEMS SUBMODULE

- **Information about Copernicus Marine Environment Monitoring Service (CMEMS) products:**
 - Presentation of the Copernicus Marine Environment Monitoring Service website.
 - Presentation of the different types of data you can find on CMEMS website.
 - Browsing CMEMS online catalogue and access to specific types of products
 - How to access and download data from the CMEMS service through the online portal
 - How to visualize the downloaded products
- **Use case:**
 - **We want to download temperature data along the Estonian coast for fishery activities**
 - We will show you how to access and download this data from **CMEMS: The Copernicus Marine Environmental Monitoring Service**



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C M E M S Website

- **Website Copernicus Marine Service:** <http://marine.copernicus.eu/>
- **Implemented by Mercator Océan**
- **Data Policy: full, free and open access**

Search & Browse



- 151 products
- Global ocean and 6 regional seas

Discover & Visualise



- Visualise/analyse data
- Access info

Register



Download



- Download
- One-off or by scripts

Compute



- Use data
- Integrate
- Merge

Join Up



- Get trained
- Get inspired
- Meet partners



Copernicus

C M E M S Applications Overview

- Both **Public and Private users** need response to today's climate and marine challenges.
- The Copernicus Marine Environment Monitoring Service provides **regular and systematic** core reference information on the **state of the physical oceans and regional seas**. The observations and forecasts produced by the service support all marine applications:
 - **Marine safety**
 - **Marine resources**
 - **Coastal and marine environment**
 - **Weather, seasonal forecasting and climate.**



Copernicus

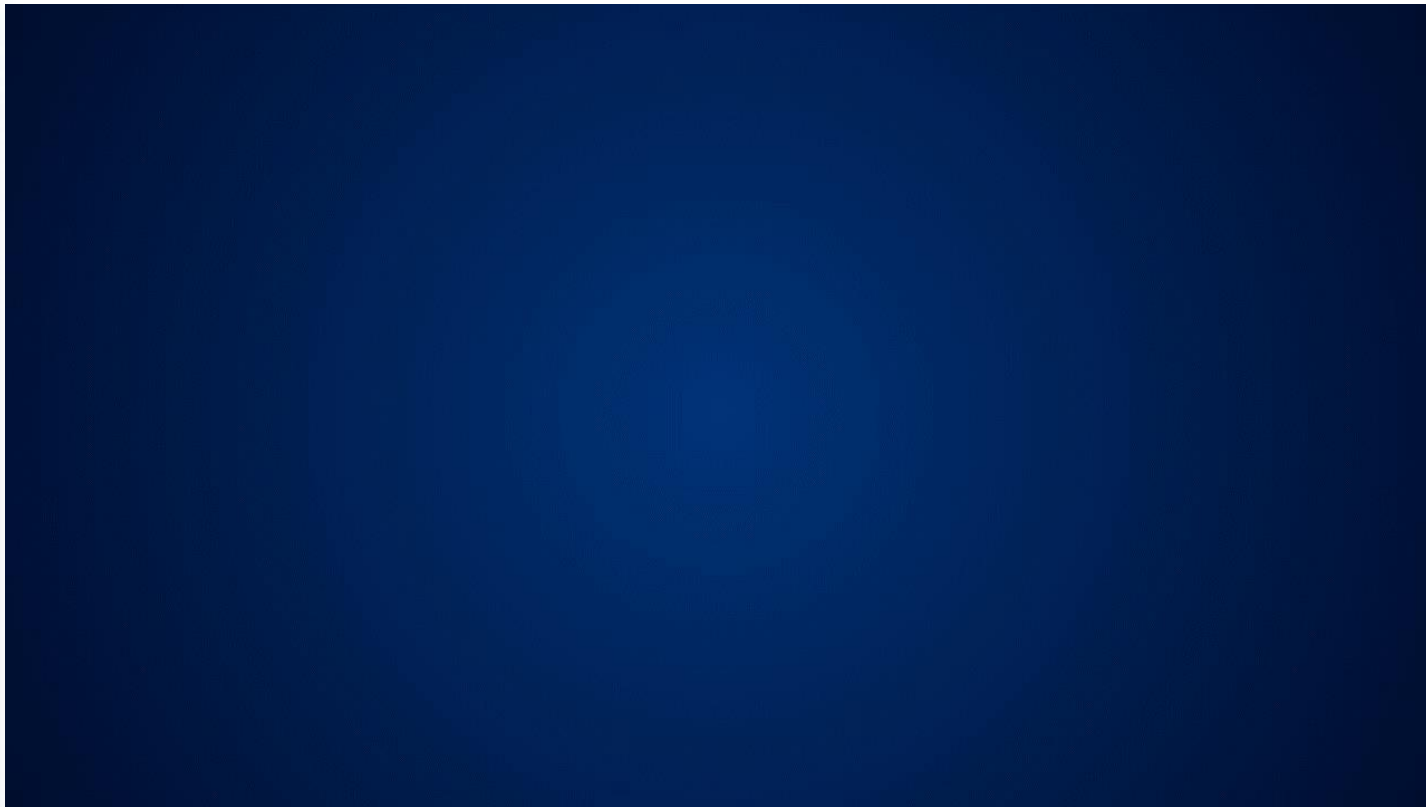
CMEMS Products Overview

- CMEMS is the **one stop shop** for all the Copernicus marine data.
- On CMEMS website, you can find all the **151 products**:
- **Sea Surface Temperature**
 - Different area (Global, Black sea, Mediterranean Sea...)
 - Different resolution (more or less precise)
 - Different sources: altimetry (“reanalysis”), model (“forecast”), in-situ...
- **Sea Salinity**
- **Sea Surface Height**
- **Velocity**
- **Sea Ice**
- **Wind**
- **Plankton**
- **Oxygen**
- ...



Marine
Monitoring

Discover and search for CMEMS products





In our Use case, that means:

- Select the area and the parameter of interest : “Baltic sea” and “Temperature”
- Select your product: « Baltic sea physics analysis and forecast »
- Various criteria:
 - Overview, Variables, Characteristics (geographical coverage, spatial resolution, vertical coverage, temporal resolution ...) → Opportunity to download them in .pdf or .xml formats
- Documentation :
 - Product user manual
 - Quality information document



Marine
Monitoring

CMEMS product: How to view it?

The screenshot displays the Copernicus Marine Environment Monitoring Service (CMEMS) website. The header includes the European Commission logo, the service name, and a search bar. The main navigation menu lists various sections: ABOUT US, MARKETS & BENEFITS, NEWS, SCIENCE & MONITORING, TRAINING & EDUCATION, SERVICES PORTFOLIO, and a SHORT-CUT TO SERVICES dropdown. The breadcrumb trail indicates the user is in the 'Access to products' section of the 'Services portfolio'.

The 'ONLINE CATALOGUE' section features a search bar, a 'CATALOGUE PDF' link, and buttons for 'FIRST VISIT?', 'MY CART' (with 2 items), and 'My Account'. The 'YOUR SEARCH' sidebar on the left shows search criteria: 'REGIONAL DOMAIN' (All areas), 'PARAMETERS' (0.083 degree x 0.083 degree (50 depth levels)), and 'TEMPORAL COVERAGE' (From 1992-01-01 to 2017-10-05). A checkbox indicates that only products containing the whole selected time range will be shown.

The search results show 'Found 151 products matching your criteria.' The first product is 'GLOBAL_ANALYSIS_FORECAST_PHY_001_024', described as 'GLOBAL OCEAN 1/12° PHYSICS ANALYSIS AND FORECAST UPDATED DAILY'. The product details table includes the model 'MLD SSH 3DUV SIT S SIUV SIC T bottomT', the spatial domain 'GLO', and the temporal range 'From 2006-12-27 to Present'. A world map visualization shows the global ocean with a color scale from blue to red. The product is available for download in 'daily-mean, hourly-mean' format. The bottom of the page features a footer with logos for the European Union, Copernicus, and the Service Desk, along with a 'ANY QUESTIONS?' link.



CMEMS product: Download the product

- I want to download the product ...

The screenshot displays the CMEMS ONLINE CATALOGUE interface. At the top, there's a navigation bar with 'CATALOGUE PDF', 'FIRST VISIT?', 'MY CART' (with a '2' icon), and 'My Account'. The main section is titled 'YOUR SEARCH' with a search bar and filters for 'REGIONAL DOMAIN' (Baltic Sea), 'PARAMETERS', 'TEMPORAL COVERAGE' (From 1992-01-01 to 2017-10-05), and 'PRODUCT WITH DEPTH LEVEL'. It states 'Found 25 products matching your criteria.' Two product listings are visible:

- BALTICSEA_ANALYSIS_FORECAST_PHY_003_006**
BALTIC SEA PHYSICS ANALYSIS AND FORECAST
MODEL: 3DUV SIUV SI T SIC S T SSH MLD
2 km x 2 km (25 depth levels)
From 2015-04-01 to Present
daily-mean, hourly-instantaneous
Includes a map of the Baltic Sea and a color scale legend.
- BALTICSEA_ANALYSIS_FORECAST_WAV_003_010**
BALTIC SEA WAVE ANALYSIS AND FORECAST
MODEL: SWH MWT VMDR VSDXY WW SW1 SW2
2 km x 2 km (Surface only)
From 2015-04-06 to Present
hourly-instantaneous
Includes a map of the Baltic Sea.

At the bottom, there's a footer with logos for the European Union, Copernicus, and the European Commission, along with links for 'ABOUT US', 'PARTNERS & STAKEHOLDERS', 'BENEFITS', and a 'ANY QUESTIONS?' service desk link.

- ... To perform this step, the registration to CMEMS is needed !



CMEMS product: Show the product

- With Google Earth
- With a picture (PNG)

