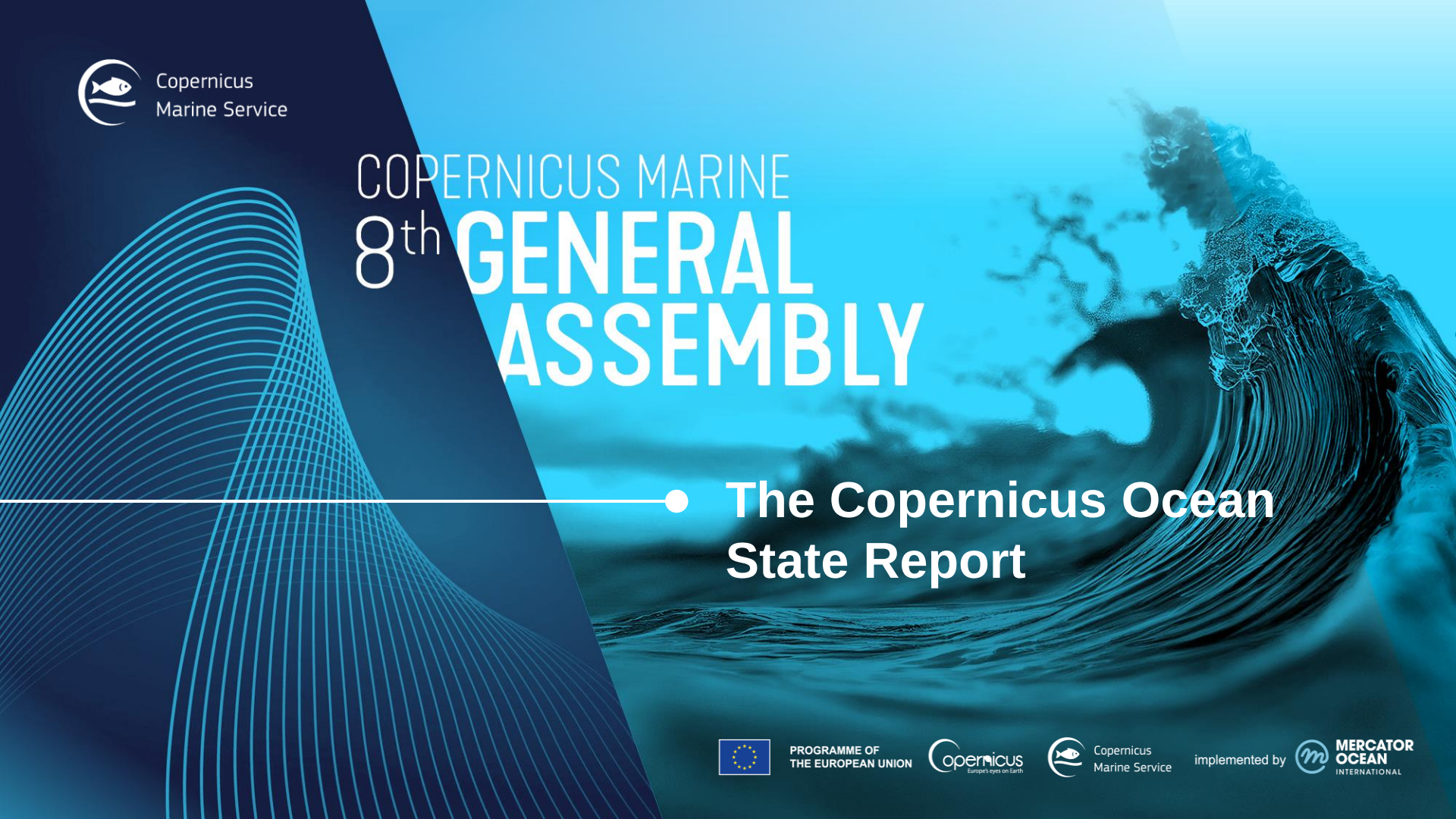
Copernicus Marine Service

COPERNICUS MARINE
8th GENERAL ASSEMBLY

The Copernicus Ocean State Report



PROGRAMME OF THE EUROPEAN UNION

Copernicus Europe's eyes on Earth

Copernicus Marine Service

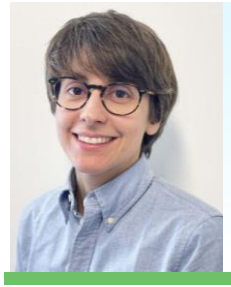
implemented by MERCATOR OCEAN INTERNATIONAL

SESSION #1

Copernicus Ocean State Report

Karina VON SCHUCKMANN

Oceanographer specialized in Ocean Climate Monitoring



Lorena MOREIRA

Project Scientist Monitoring the State of the Ocean

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Research engineer in Oceanography

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Director of Communications

Copernicus Marine Service

The Copernicus Ocean Reporting activity

Copernicus Marine Service

Implemented by MERCATOR OCEAN INTERNATIONAL

Ocean Reporting

SCIENCE:
Ocean State Report

SCIENCE to SERVICE :
Ocean Monitoring Indicators

SCIENCE to COMMUNICATION :
Ocean State Report Summary

With the publication of the Copernicus **Ocean State Report** (OSR), its **summary** for policy makers, and the dissemination of **Ocean Monitoring Indicators** (OMIs), the **Copernicus Marine Service** provides expert assessment on the state of the European regional seas and the global ocean.

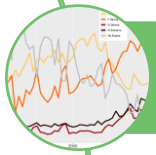
Building up the foundation for the transfer of science-based knowledge on the variability, change and status of the ocean across the Blue, Green and White Ocean to a wide range of audience.

Co-construction between science & communication for wide knowledge transfer based on Copernicus Ocean Reporting activities and beyond

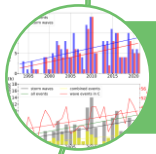
The Copernicus Ocean State Report (OSR)

ISSUE 8: Under review => to be published: Sept. 2024
ISSUE 9: In preparation

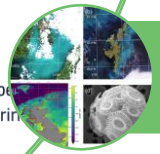
Chapter 1: Synopsis of the ocean state and marine environment over the past decades



Chapter 2: Scientific roadmaps of novelties with respect to indicator methods or analytical capacities for monitoring the ocean



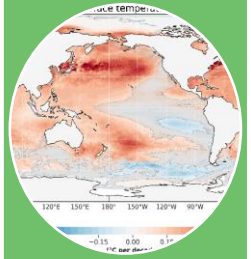
Chapter 3: Introduces ocean case studies with socio-economic relevance



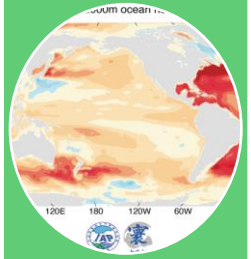
Chapter 4: Highlights unusual events during the target year

Snapshot of the OSR8 Chapter 1: Global Ocean

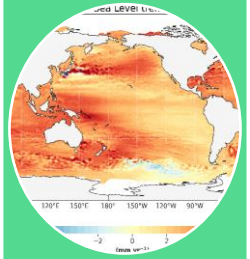
Under review: Editorial Board State of the Planet journal



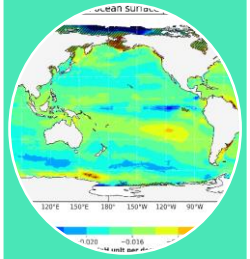
The global Ocean continues to warm, particularly in the northern hemisphere.



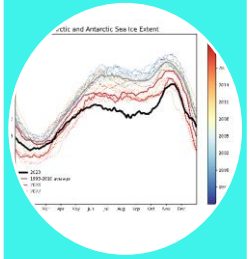
Strongest upper 2000 m ocean warming occurs in the Southern Ocean, the North Atlantic and South Atlantic ocean areas



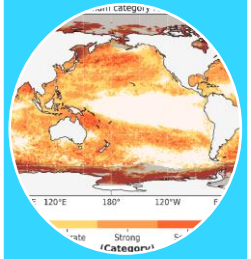
Global mean sea level has risen more than 10 cm over the past 30 years.



Around 47 % of the sampled ocean is getting more acidic at a faster rate than the global average.



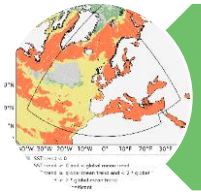
Sea ice extent in the world's polar regions fell to its lowest point in 2023.



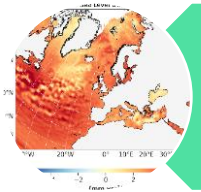
In 2023, 22 % of the global ocean surface experienced at least one severe to extreme marine heatwave event.

Snapshot of the OSR8 Chapter 1: Northeast Atlantic Ocean and adjacent seas

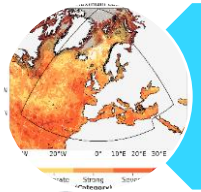
Under review: Editorial Board State of the Planet journal



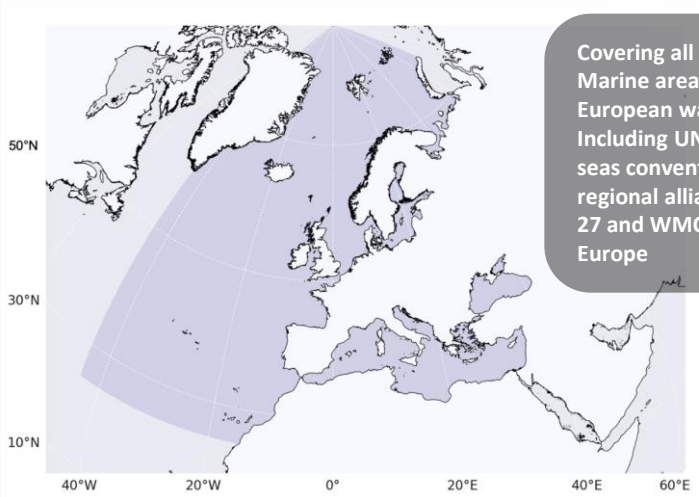
Warming across all ocean subbasins doubles the global average trend



Absolute sea level rises over the region, particularly in the Baltic Sea and the Mediterranean Sea.



In 2023, 32 % of the region's ocean surface experienced at least one severe to extreme marine heatwave event.



Covering all Copernicus Marine areas and all European waters. Including UNEP regional seas conventions, GOOS regional alliances, FAO-27 and WMO region VI-Europe

Outlook for OSR8

17 sections: 11 accepted

Chapter 2: Novelties

- Geodetic Ocean Heat Content
- Gulf Stream path
- Currents Iberian Biscay Irish
- Altimetry-based Significant Wave Heights
- Marine Heatwaves North West Shelf
- Marine Heatwaves Barents Sea

Chapter 3: Socioeconomic relevance

- Sea water heat pumps Baltic Sea
- Event-based wave statistics Baltic Sea
- Marine Heatwaves: role air-sea fluxes Mediterranean Sea
- Manometric Sea level Arctic and North Atlantic Ocean and Mediterranean Sea

Chapter 4: Recent events

- Marine Heatwaves: forecasting Mediterranean Sea
- Marine Heatwaves: coastal response Mediterranean Sea
- Deep water formation and phytoplankton bloom Cretan area
- Marine Heatwaves Baltic Sea
- Marine Heatwaves IBI
- Marine Heatwaves: subsurface warming Mediterranean Sea
- Record breaking wave event SW Mediterranean Sea

Outlook for OSR9

19 sections

Chapter 2: Novelties

- Low and mid-trophic level biomass trend
- Micronekton indicators evolution in biophysically defined provinces
- Phytoplankton functional types
- Primary production
- Surface wind speed variability North Atlantic and global ocean
- State of Baltic Sea
- Marine heatwaves and cold spells Northwest Atlantic Ocean
- Sea level variability Nordic Seas and Barents Sea

Chapter 3: Socioeconomic relevance

- Record-breaking temperatures and proliferation of bioinvaders: impacts Mediterranean Sea
- Marine heatwaves long-term trends Mediterranean Sea
- Metocean study for floating regasification terminal Baltic Sea
- Potential Eutrophication Indicator SDG reporting
- WEC for decision makers
- Abnormally cold bottom water 2023 Scotian shelf

Chapter 4: Recent events

- Freshening event northern Adriatic Sea early summer 2023
- Summer 2023 marine heatwaves Newfoundland and Labrador shelf North Atlantic marine heatwave 2023
- North Atlantic marine heatwave 2023
- El Niño 2023
- Baltic Sea inflow late 2023

OSR7 and Beyond – interactive Summary

- Ocean State Report, Ocean Monitoring Indicators, and beyond
- Targets primarily **policy-makers** and journalists.
- **Ocean Literacy:** Written in language and with visuals adapted for the general public with little to no knowledge about the ocean,
- Wide distribution: multiple formats, channels

Copernicus Marine Service

Wide outreach and wide readership, with the support and recognition of European Commission

EU Copernicus Ocean State Report recognised under the EU Mission "Restore Our Ocean and Waters"

Articles

- Copernicus Marine Service Website
- Copernicus Observer (provided to DG DEFIS)
- Placed articles in specialist magazines

Video

- Shared across newspaper articles and social media
- Provides a few key takeaways, and available in multiple languages

Social Media and adds

- Organic campaign coordinated with partners and stakeholders (DG DEFIS, DG MARE, DG ENV etc.)
- Paid and organic campaign social media
- Teads: views in the journals: Reuters, Forbes, laTribune, etc. and Google search

Ocean State Report Summary and Outreach Tools

- Evolving journey, with strong response
- Hundreds of articles covering the OSR reports with circulation reaching millions, over 2.5 million since 2020
- Over 450 press mentions globally, strongest across Europe, especially Germany, France, Spain, Italy, UK since 2020
- Campaign paid and organic – 9.5 million impressions
- Online Press event, hosted by MOi to present the OSR and findings, with experts and dedicated materials

Ocean State Report 7 KPIs