



KEYNOTE SPEAKER

## Fabrice Messal

*Visualisation Tools Manager  
@Mercator Ocean International*





# Copernicus Marine Service

Understanding Our Ocean



European leader in  
operational oceanography

 Toulouse, France  >100



Producing oceanographic  
data, information and  
knowledge



Development of  
digital systems and  
cloud infrastructures



Coordination of  
communities, projects  
and programmes

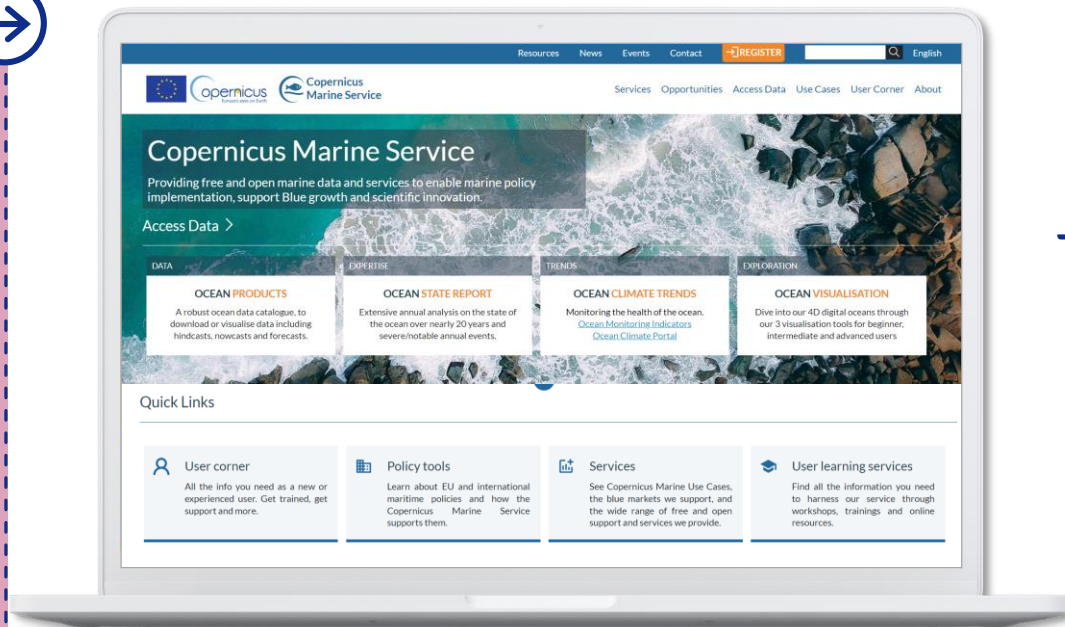
FULL, FREE AND OPEN  
ACCESS TO DATA



- ATMOSPHERE MONITORING
- MARINE ENVIRONMENT MONITORING**
- LAND MONITORING
- CLIMATE CHANGE
- EMERGENCY MANAGEMENT
- SECURITY



**copernicus**  
Europe's eyes on Earth



[marine.copernicus.eu](https://marine.copernicus.eu)



Open & free access to more than 300 scientifically qualified products



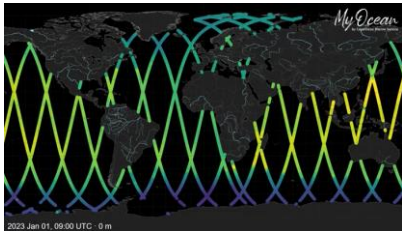
More than 50 000 subscribers and 700 000 users





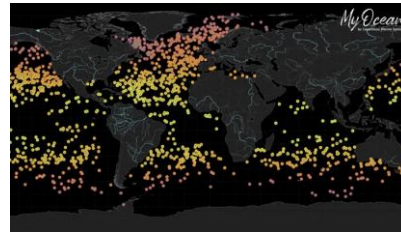
## Satellite Observations

Sentinel Constellation + Contributing missions



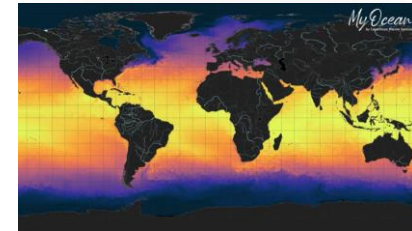
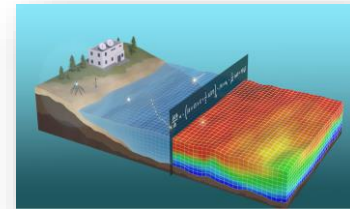
## In Situ Observations

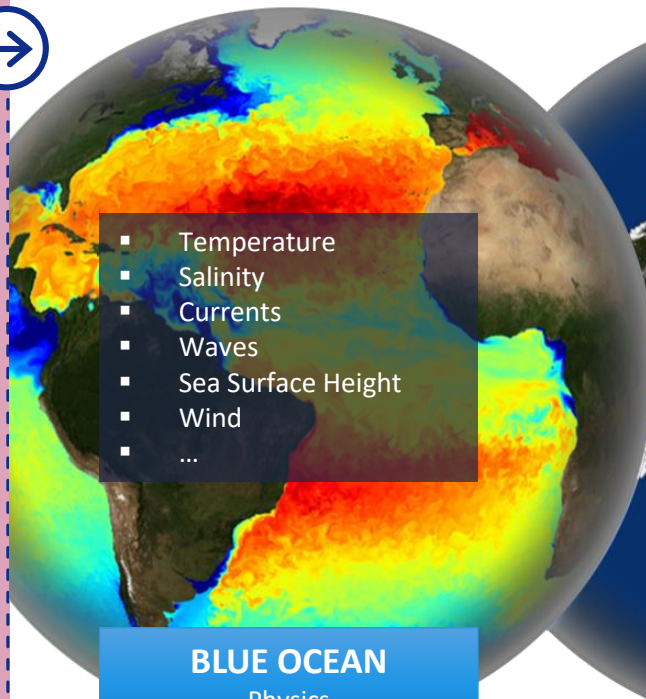
International Networks



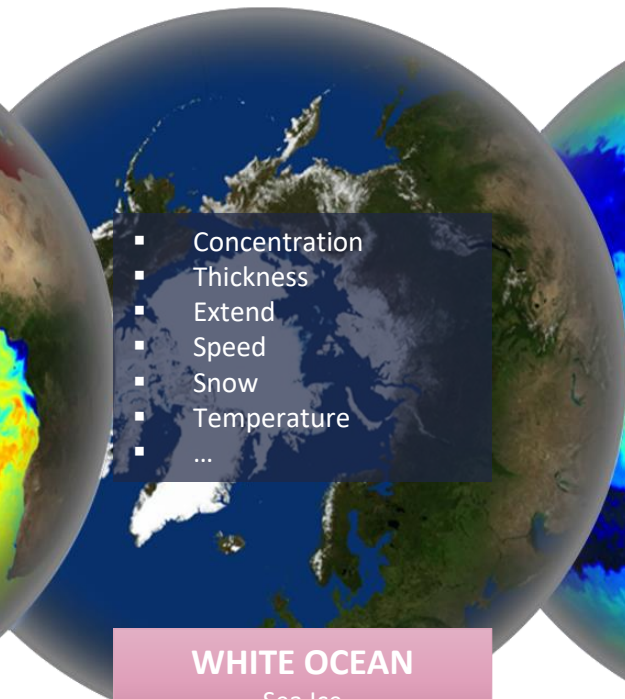
## Models

Global and Regional Models

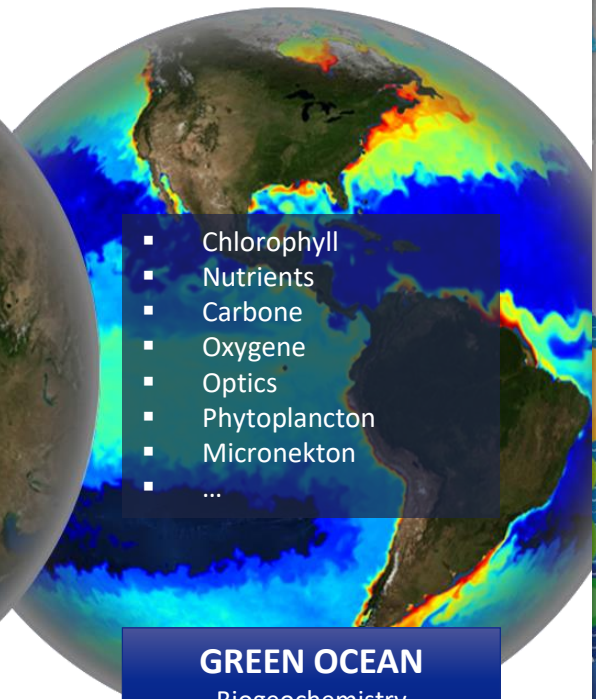




**BLUE OCEAN**  
Physics



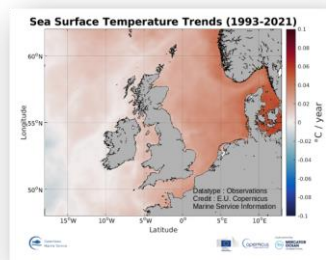
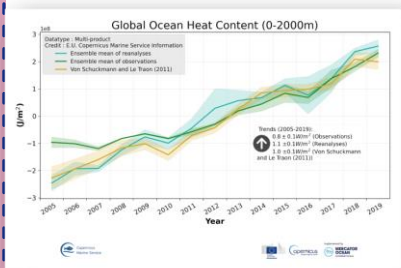
**WHITE OCEAN**  
Sea Ice



**GREEN OCEAN**  
Biogeochemistry

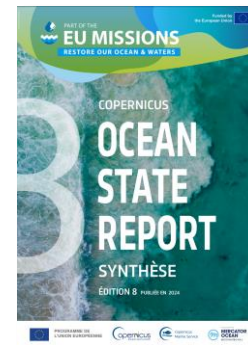


## Oceanic Monitoring Indicators



Production of **ocean indicators** based on key variables used to monitor ocean trends in relation to climate change (sea ice, heat transport, primary production, acidification, etc.).

## Ocean State Report



Production of an **annual report** highlighting research, data and analyses that can be used by the scientific community, policy-makers and society as a whole to improve the way we monitor and manage the ocean.

