

Partners



Project coordinator: Toste Tanhua, GEOMAR
Helmholtz Centre for Ocean Research Kiel

✉ biogeosea@geomar.de

🌐 biogeosea.eu

🌐 [linkedin.com/company/biogeosea](https://www.linkedin.com/company/biogeosea)



BIOGEOSEA

Ocean Insights for the Future

Biogeochemical observation
to better understand and
protect our ocean.

Our vision

An integrated observing system delivering timely, transparent biogeochemical knowledge for society, the blue economy, science, and policy – enabling informed decisions.

Mission

BioGeoSea enhances biogeochemical Essential Ocean Variables, integrates observing systems, advances data products, improves models, and develops ocean indicators. We deliver the knowledge and tools needed to protect the future of our blue planet by turning trusted data into insight that enables the development of solutions for sustainable ocean management.



3.5 years

09/2025 – 02/2029



4 phenomena

analyzed



16 partners

from 10 countries



Funded by
the European Union

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Objectives

- **Enhance monitoring** by advancing the maturity level of all ocean BGC EOVs and indicators.
- Integrate **multiple observing platforms** for enhanced monitoring, assessment, and projections of BGC EOVs.
- Enhance the representation of **key BGC processes** in ESMs.
- Advance **Scientific understanding** by linking biogeochemical, physical and biological components.
- Deliver **evidence-based solutions** for addressing emerging threats to Ocean Health.
- Strengthen **international cooperation** and promote European leadership in the ocean-climate-biodiversity science nexus.

Key Exploitable Results



1. **Updated BGC EOVS Specification Sheets** – Co-developed with stakeholders and published on GOOS to improve global ocean monitoring.



2. **Guidelines for Ocean Observing & Data Standardization** – Ensuring interoperability and consistency in ocean data collection.



3. **Multidisciplinary Ocean Indicators** – Integrating BGC, physical, and biological EOVS to assess key ocean phenomena and inform policy.



4. **Enhanced Earth System Models** – Improving projections of global BGC cycles to support climate policies and environmental management.



5. **High-Resolution BGC Data for Global Databases** – Contributing to GO2DAT, MEMENTO, and CARIMED, and supporting marine debris monitoring.



6. **Policy Paper with Foresight Recommendations** – Synthesizing findings to guide policymakers in tackling ocean health challenges.



7. **Freemium BioGeoSea Software** – Providing free access to critical BGC indicators, with premium features for tailored forecasting.