

SDGs-EYES User Uptake Webinar Report

**Eutrophication and acidification in the North Sea: Advancing SDGs
Indicators Monitoring, Reporting, and Accounting**

27 February 2025





On Thursday, 27 February, EARSC held the second webinar of the user uptake series within the SDGs-EYES project, which is running from January to May, to engage stakeholders, foster collaboration, and promote Copernicus-based services across five pilot areas. This second webinar focused on [Eutrophication and acidification in the North Sea: Advancing SDGs Indicators Monitoring, Reporting, and Accounting](#). SDGs-EYES aims to enhance Europe's capacity to monitor SDGs using Copernicus data, aligning with the EU Green Deal. By integrating data from six core services, the project develops accurate SDG indicators and decision-making tools. Continuous user engagement is key, ensuring co-design, adaptability, and successful service uptake adoption throughout the project's duration.

The [Eutrophication and acidification in the North Sea: Advancing SDGs Indicators Monitoring, Reporting, and Accounting](#) webinar was attended by 35 online participants, from Europe and internationally and representing communities of private, public, research and statistical agencies. It introduced a Copernicus-based service, developed through a [Pilot study in the North Sea](#), designed to estimate and monitor eutrophication and acidification while directly supporting the SDG 14 – Life Below Water.

The pilot's service addresses a key challenge in the North Sea, where coastal areas have historically experienced, and continue to experience, eutrophication conditions. Along with other marine regions, it also faces the increasing pressure of seawater acidification. **Tomas Lovato and Dmitry Kondrik, the pilot leaders at CMCC**, showcased a methodology that integrates Copernicus Marine Service data with other sources into an automated system, improving the efficiency of monitoring these past and ongoing environmental changes.

Building on previous SDGs-EYES co-design workshops and test validation activities, where potential users helped shape the pilot services, this webinar marked a crucial step toward the pre-operational deployment of the platform, ensuring that it meets user needs. The session featured a moderated panel discussion and targeted breakout sessions, offering a space for productive **expert dialogue to refine the platform, identify synergies with existing services, and explore opportunities for wider adoption across other communities and EU countries.**

The panel discussion, moderated by **Monica Miguel-Lago from EARSC**, brought together a **broad range of users**, including those from research, statistical and commercial communities:

- **Lianne Wilmink** from the [Ministry of Infrastructure and Water Management, Government of the Netherlands](#), represented the governmental perspective, sharing insights from her work on data innovation and strategy for water management, and advising on Earth Observation (EO)-based tools for policy decisions. Lianne suggested linking SDGs-EYES with [OSPAR](#) and JMP-EUNOSAT¹ project for enhanced data harmonisation.

¹ JMP-EUNOSAT stands for Joint Monitoring Programme of the Eutrophication of the North-Sea with Satellite data. Find out more about this initiative [at this link](#).

- **Tina Silovic** from [Mercator Ocean International](#), provided insights from the [Copernicus Marine Service](#), for which Mercator Ocean acts as the designated service provider, also known as the Entrusted Entity². She also discussed opportunities in the Digital Twin of the Ocean to improve forecasting.
- **Paola di Lauro** from [Planetek Italy](#), a private sector company, discussed the synergies between the SDGs-EYES and Eu-Mon projects, for which Planetek provides EO-based approaches to eutrophication monitoring, focusing on scalable cloud computing solutions. She advocated for more scalable tools for SDG monitoring.
- **Mihallaq Qirjo** from the [Resource Environmental Center Albania \(REC Albania\)](#), shared insights from another European region, highlighting REC Albania's involvement in integrating EO data into national statistical offices, particularly through the Eu-Mon³ project, and its efforts to apply EO-based monitoring tools for SDG reporting. He suggested capacity-building initiatives to enhance user adoption in emerging markets.

Three participants from the audience contributed additional perspectives to the panel:

- **Aino Ahvo** from [HELCOM](#), the Regional Sea Convention for the Baltic Sea, highlighted data interoperability challenges and the importance to harmonise eutrophication and acidification indicators, stressing the need for alignment with international SDG monitoring frameworks.
- **Audrey Hasson** from [GEO Blue Planet](#), contributed an international perspective, highlighted efforts to harmonise EO-based indicators at the global level and stressed the need for interoperability between different data platforms.
- **Conor Delaney** representing [EMODnet](#) also joined the conversation, stressing the need for enhanced interoperability between EU marine data platforms to improve access to harmonised environmental data for monitoring and policy-making.

Moderated panel discussion with audience



Tina Silovic,
Mercator Ocean



**Lianne Wilmink, Ministry of
Infrastructure and Water Management
of the Netherlands**



Paola Di Lauro,
Planetek Italy



Mihallaq Qirjo,
Resource Environmental
Centre (REC) Albania



Mónica Miguel-Lago
EARSC (Moderator)

² Find out more about the role of Copernicus Entrusted Entities [at this link](#)

³ Find detailed insights into the Eu-Mon project and its achievements [at this link](#)

Key Highlights

Enhancing coastal monitoring remains a priority. The panel underscored significant data gaps, especially in coastal areas, where monitoring is either insufficient or fragmented. Although Copernicus Marine Service provides global to regional data, along with in situ observations and satellite surveys, more local scale data are needed to better capture punctual variations in eutrophication and acidification.

Data integration and validation remain major challenges. A key barrier to wider adoption of EO-based marine monitoring is the complexity of integrating different data sources (satellite, in situ, and model-based) into a single, validated framework. Scientific validation processes take time, and ensuring the accuracy and consistency of EO-derived indicators for policy use remains a challenge.

Automation and cloud-based tools play a key role in simplifying marine data processing. Advancements in automated workflows, cloud computing, and AI-driven tools were highlighted as key enablers in making marine monitoring more efficient, scalable, and accessible. User-friendly platforms that integrate EO data lower the barrier to entry for policymakers and non-expert users, but greater awareness and training are still needed for widespread adoption.

Bridging the gap between scientific indicators and policy frameworks. A major challenge discussed was harmonising research-grade indicators with policy-driven frameworks, such as SDG reporting. Institutions like HELCOM and GEO Blue Planet are working to align regional monitoring methodologies with global standards, ensuring that EO-based indicators are both scientifically robust and policy-compatible.

Capacity-building is key to increasing adoption of EO-driven marine monitoring. Panelists stressed the importance of training programmes and institutional support to help stakeholders understand and apply EO data in marine management. Long-term sustainability requires accessible tools, continuous knowledge transfer, and integration of training within national statistical offices, academia, and policy institutions.

The future of marine monitoring towards a Digital Twin of the Ocean. The European Digital Twin of the Ocean was identified as a major opportunity for centralising and improving access to marine environmental data. By creating an interoperable, high-resolution digital representation of the ocean, the initiative aims to enhance forecasting, facilitate policy making, and support environmental conservation efforts on a broader scale.

Following the panel discussion, participants attended two breakout rooms, “Hands-on Technical Demo” and “End-Users’ Insights,” exploring the practical use of EO-based marine monitoring tools.

- In the **technical demo**, the pilot’s lead guided participants through platform functions used to compute eutrophication and acidification indicators, showcasing data processing workflows and outputs. The session highlighted the potential for users to engage with the platform as validation testers, following technical guidelines developed under the project.

- The **end-users insights** session focused on indicator usability and localisation challenges. While ocean acidification indicators are well-established, eutrophication indicators require further refinement due to regional differences. Discussions emphasised the need for tailored methodologies, particularly in complex environments like the North Sea.

Key Takeaways and Next Steps

The webinar underscored the importance of **collaboration, awareness, and innovation** in enhancing EO-based marine monitoring and supporting SDG reporting. Discussions highlighted the need for **stronger partnerships** between governments, research institutions, and the private sector to ensure that EO tools are not only accessible but also effectively harmonised and integrated into decision-making. A key challenge identified was the **lack of awareness and technical capacity among some end-users**, reinforcing the need for tailored capacity-building initiatives.

The session further highlighted the **critical role of interoperability** between EU marine data platforms, facilitating improved access to harmonised environmental data. While the Copernicus Marine Service provides extensive datasets, gaps remain in high-resolution coastal monitoring and in situ observations, necessitating further refinement of marine indicators to better capture local variations in eutrophication and acidification. The increasing role of automation and cloud-based tools was also highlighted as a means to **streamline marine data processing and improve scalability**.

Looking ahead, the project will prioritise user engagement and further uptake of the pilot's service, with several participants already showing interest in applying the methodology within their own monitoring frameworks. Continued feedback and collaboration will be essential to refining and integrating these tools into broader environmental monitoring efforts.

If you missed the live session, you can review the webinar recording [here](#).

Save the date for the second SDGs-EYES User Uptake Webinar on 15 April 2025, from 14:00 to 16:00 CET, titled ***"Extreme Temperatures Risk: Advancing SDG Indicators Monitoring, Reporting, and Accounting."*** This webinar will explore further advancements in environmental monitoring, focusing on the pilot's use of Earth Observation to develop a Copernicus-based platform for advanced SDG climate hazard and health risk mapping, integrating new indicators beyond mean near-surface temperature.

To learn more about the SDGs-EYES pilots and future webinars, visit www.sdgs-eyes.eu



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