

## GEO Participating Organization

### Mercator Ocean International (MOi) Statement for GEO Week 2021

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#### MOi Full Statement

Over the coming decades, a changing climate, growing global population and multiple environmental stressors will have significant impacts on the health of our oceans and coastal areas. The alarm has been raised by international reference reports such as the IPCC assessment reports and World Ocean Assessment reports. It is clear that our oceans, and our planet, are facing multiple challenges, and Earth Observations is our greatest asset in understanding, monitoring and predicting changes in the global ocean and marine ecosystems as well as putting in place adequate mitigation and adaptation strategies.

Over the past 25 years, Mercator Ocean International has been growing and sharing its ocean knowledge and monitoring expertise with society at large focusing on the conservation and sustainable use of oceans, seas and marine resources. We have developed complex ocean simulation systems on ocean observation data (satellite and in situ) that are able to describe, analyse and forecast the state of the ocean at any given time, at the surface or at depth, on a global scale or for a specific zone, in real-time or delayed mode. In essence, our work for a long time has been inherently aligned with GEO's vision to ensure that decisions and actions for society are informed by comprehensive and sustained Earth observation information underpinned by the principles of open data sharing on a global scale.

To officialise our cooperation with GEO, MOi became a Participating Organisation of GEO in 2019. In 2020, we reinforced our commitment by setting up and hosting the European Coordination Office of GEO's Blue Planet Initiative as part of the EU4OceanObs Foreign Policy Instrument Action of the European Commission. MOi was thus entrusted by the European Union to promote the Ocean and Coastal sciences to GEO and vice versa.

Today, I am proud to say that our support for GEO meets its strategic objectives to advocate the importance of Earth Observations, to engage with stakeholder communities and to deliver data, information and knowledge through all our core



activities, and the programmes and services that we implement on behalf of the European Union.

Through the Copernicus Marine Service, we deliver free ocean and regular reference information on the state, variability and dynamics across the global ocean and European regional seas. Through the Copernicus WEkEO Data and Information Access Service, we work to ensure that all Copernicus data is readily accessible via a single access point. Through our ocean literacy and outreach activities, we advocate to improve society's understanding of the ocean and promote sustainable activities. In return, our user engagement activities focus on understanding society's needs for ocean knowledge and also ensure the impact of our activities reaching communities in regions worldwide.

At the dawn of the UN Decade of Ocean Science for Sustainable Development, MOi will continue to foster synergies between the European Union and GEO as well as develop concerted efforts between the UN Decade and GEO, through the EU4OceanObs Action.

In the next decade, MOi will maintain its support to GEO's advocate, engage and deliver strategic objectives by focusing on developing a robust digital component to our activities, capitalising on artificial intelligence and high-performance computing, culminating in the development of a digital twin of the ocean. Integrating a wide range of existing and new data sources, a digital copy of the ocean will allow us to transform ocean and coastal data into knowledge and to connect, engage and empower citizens, governments, and industries by providing them with capacity to make informed decisions. With a digital twin ocean, different users will not only be able to test the effects of climate and disaster scenarios on the ocean climate system, but also be able to test the efficacy of mitigation and adaptation plans, crucial for informed decision-making.

With the start of the Ocean Decade, I am enthusiastic about the foundations that are being laid down in this first year will pave the way to achieve the Decade's outcomes and further consolidate GEO's vision.

MOi will continue to lend its full support to GEO and GEO's strategic vision 2025 by developing and sharing ocean knowledge, integrating digital solutions into sustainable services, and engaging with society to address the challenges facing our oceans and planet.

Pierre Bahurel

Director General

## MOi Quotes

GEO strives to make a valuable contribution to users and policies based on Earth Observations. The European Union Copernicus Marine Service implemented by MOi provides free and open marine data and services to enable marine policy implementation, support Blue Growth and help scientific innovation. The Copernicus Marine Service delivers a state-of-the-art operational monitoring and forecasting of the global ocean and European seas to more than 34,000 registered users. The Copernicus Marine Service Ocean Monitoring Indicators (OMIs) and Ocean State Reports (OSRs) are used to inform European policymakers, and environment and climate reporting agencies, contributing to the set of indicators for the UN Sustainable Development Goals (SDGs). In the next 7 years as part of Copernicus 2, MOi will ensure the continuity of the service and will progressively implement new digital services and new capabilities for an improved monitoring of the coastal ocean, marine biology and Arctic ocean.

**Pierre-Yves Le Traon**  
Scientific Director



Through its Ocean and Coastal arm, the Blue Planet Initiative, GEO fosters synergies to link Ocean and Coastal Information with Societal needs. MOi is fully committed to the GEO Blue Planet initiative by taking part of its Executive Committee and by hosting its European coordination office as an action of the EU4OceanObs project. EU4OceanObs is funded by the European Union and implemented by MOi. It works with the GEO Blue Planet Initiative and the G7 Future of the Seas and Ocean Initiative to improve international access and use of EU global ocean and coastal data and derived applications, critical for ocean knowledge, decision support tools and raising awareness of the societal benefits of ocean observations. The EU Office leads the Marine Debris Working Group, co-leads the Sargassum Working Group, and has organised multi-stakeholders events this year.

**Audrey Hasson**  
GEO Blue Planet EU Office Head



By building the Global Earth Observation System of Systems (GEOSS), GEO intends to facilitate access to open data and knowledge to strengthen the monitoring of the health of the Earth. In line with GEOSS, WEKEO was conceived for providing world citizens with simplified access to Copernicus data and services products, cloud infrastructure and expert user support. As a good example of System of Systems, WEKEO federates existing data repositories without duplication under the Harmonized Data Access Application Programming Interface (API). WEKEO is the Copernicus reference Data & Information Access Service, jointly implemented by EUMETSAT, ECMWF and MOi. It is a single access point for all Copernicus portfolios (Sentinel satellite data sets and 4 Copernicus Environmental Services: #Marine, #Atmosphere, #Climate Change and #Land).

**Alain Arnaud,**  
WEKEO DIAS project manager



GEO's strategic objectives include engaging with stakeholders and mobilizing communities. When raising awareness about the many challenges facing the ocean and coastal areas, MOi works with non-profit organisations and ocean literacy networks to share scientific knowledge with civil society and promote sustainable ocean initiatives. To date, MOi has touched more than 2 million world citizens through its outreach activities. For example, in partnership with Sulitest and the UN DESA, MOi and the Copernicus Marine Service co-produced a Sustainable Development Goal (SDG) 14 pedagogical module, improving our understanding of why the SDG 14 is essential for our planet's health, and how we are all concerned.

**Laurence Crosnier**  
Head of Services and Markets

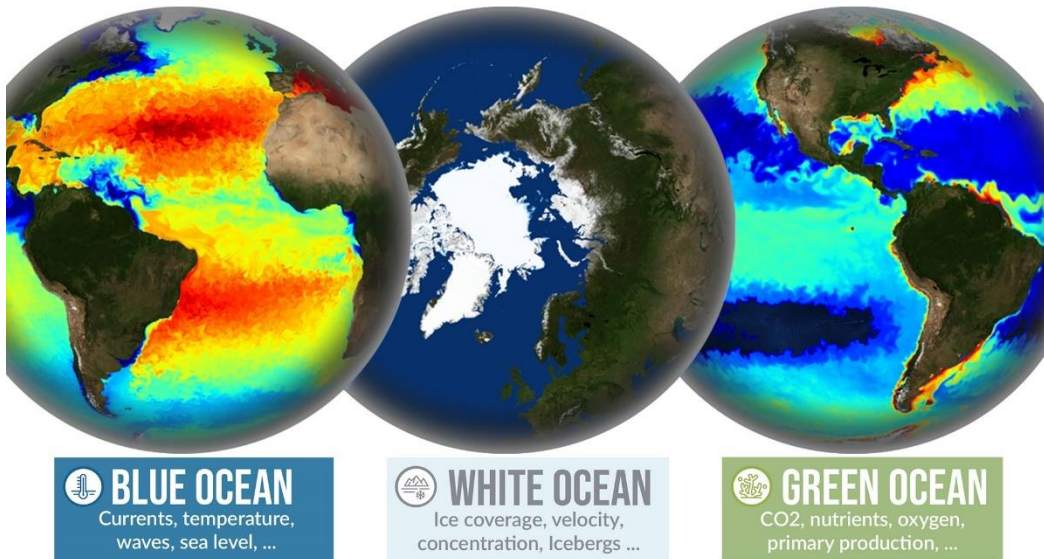




GEO aims to engage with all stakeholders to address global and regional challenges, by increasing the understanding and use of Earth observations. Reaching out to a wider audience, beyond our typical users, is one of the key-commitments of MOi. We serve users on 5 continents through the Copernicus Marine Service and WEKEO. Specific regional training on the use of Marine Data were organised for the Americas, Asia, Europe and most recently for Africa. MOi is partnering with key regional organisations, programmes and projects focusing on regions outside Europe such as 'GMES & Africa', AIRCenter, AANCHOR, AtlantOS and Arctic Passion to ensure the access and use of ocean data to address regional challenges.

**Cécile Thomas-Courcoux**  
International Cooperation

Expanding Copernicus Marine products and services to users in regions worldwide



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implemented by

