

One Ocean Science Congress: 'Science for Ocean Action'

Nice, 4-6 June 2025

**A Special Event of the Third
United Nations Ocean
Conference (UNOC3)**

The Ocean at the core of the 2030 Agenda for Sustainable Development

There is but One Ocean, a global common, a critical resource to human prosperity and well-being. The Ocean plays a key role in regulating the climate, it is a source of solution for climate mitigation and adaptation. It also plays a crucial role in supporting the livelihoods of three billion people, the vastmajority in developing countries. Its importance extends to fostering sustainable development through means such as marine renewable energies, which contribute to the decarbonization of the economy.

The importance of the seas and the Ocean is recognized in the United Nations' 2030 Agenda for Sustainable Development, notably through Goal 14 "Conserve and sustainably use the oceans, seas and marine resources for sustainable development". The Ocean's relevance also extends to the other 16 Sustainable Development Goals (SDGs), underscoring its essential role in achieving a sustainable future (see the figure below, taken from von Schuckmann et al., 2020).

Regardless, the Ocean is under threat from combined pressures, including climate change, overfishing, pollution, conflicting uses, etc.

Reports from authoritative bodies such as the Intergovernmental Panel on Climate Change (IPCC), the International Panel on Biodiversity and Ecosystem Services (IPBES), and the World Ocean Assessment (WOA) have highlighted the alarming state of ocean health and marine ecosystems, signaling a dire need for action.

Yet, the global response to this crisis is still far from sufficient to stop and reverse the Ocean decline.



The Ocean urgently needs decisive, swift, and unified efforts to address its critical condition. This is the challenge facing the global community at the Third United Nations Conference on the Oceans (UNOC3), to be held in Nice from 9 to 13 June 2025.

Leveraging insights from the previous two conferences, Costa Rica and France, the co-hosts, aim for UNOC3 to galvanize nations and stakeholders at the highest levels. Their goal is to reach a consensus on a political declaration designed to invigorate efforts towards the realization of SDG14, the sustainable development goal receiving the least funding among all the sustainable development goals. This declaration is expected to outline an action plan featuring voluntary contributions and financial commitments from member countries, the United Nations, international and regional entities, the private sector, as well as mobilizing the global scientific community, civil society, and all stakeholders.

To support these ambitions, UNOC3 will feature three special events: a Blue Economy and Finance Forum (BEFF), hosted by the Principality of Monaco; a Summit of Coastal Cities and Regions focusing on Ocean Rise & Resilience (ORR), led by the city of Nice and the Ocean-Climate platform; and an international scientific congress organized by CNRS and IFREMER that will gather 2,000 experts.

Bridging the gap between Science and Action

The aim of the One Ocean Science (OOS) Congress is to provide Heads of State, Government, all participants of UNOC3, and the broader society, with comprehensive scientific insights on the Ocean's health, dynamics and future trajectory, on its conservation and sustainable uses, and on the services and benefits it provides to humanity.

To reach that goal, the OOS Congress will draw upon recent findings from authoritative sources such as the IPCC, IPBES, WOA, the High-Level Panel for a Sustainable Ocean Economy, and the strategic review of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030).

The Congress aims to explore various scenarios for the ocean in terms of the changing pressures it faces, its resilience, its restoration ability and the impact on public policy and management practices at local and global levels. It will assess the ocean's capacity to support significant transitions as outlined in the 2030 Agenda for Sustainable Development.

Building on this wealth of knowledge, science-based recommendations will be formulated to the Heads of State and Government, who will meet in Nice at UNOC3, and to the wider international community, urging them to prioritize the ocean within the sustainable development framework and to increase funding for research into ocean solutions, infrastructure and the intersection of ocean policy and society. The Congress will also highlight the work of the International Panel for Ocean Sustainability (IPOS) and its inaugural roadmap.

The OOS Congress is designed to attract top-tier contributions from the global ocean science community, with a focus on interdisciplinary collaboration for a holistic understanding of maritime challenges, encompassing topics from coastal zones to the open ocean and considering the perspectives of diverse ocean basins, island and coastal nations, as well as landlocked countries, emphasizing the universal impact of the health and state of the ocean.

Scheduled to be held in Nice from June 4-6, 2025, the OOS Congress is set to precede the Ocean Rise & Resilience (ORR) Summit of Coastal Cities and Regions, the Blue Economy and Finance Forum (BEFF), and UNOC3. This timing positions the Congress ideally to provide valuable insights to the other two special events and the Conference itself.

The OOS Congress is expected to attract 2,000 attendees, mainly experts and scientists. In order to ensure a wide range of participants, those from low-income countries will not be required to pay registration fees (specific criteria have yet to be established). Special efforts will be made to include early-career ocean scientists, underlining the event's commitment to fostering diversity among its participants.



Overview of the OOS Congress

GOVERNANCE OF THE OOS CONGRESS

Organizers

The OOS Congress is jointly organized by CNRS and IFREMER, under the supervision of UNOC3 Chairs, H. E. Gina Guillen (Costa Rica) and H. E. Olivier Poivre d'Arvor (France). Jean-Pierre Gattuso (CNRS) and François Houllier (IFREMER) are the co-chairs the OOS Congress.

Organizing Committee (OC)

The organizing Committee comprises representatives of:

- Two Costa Rican Universities –the National University of Costa Rica and the University of Costa Rica–, and the Monaco Scientific Center;
- The Intergovernmental Oceanographic Commission of UNESCO, and the European Commission (DG RI RTD.4);
- French public agencies, research organizations, and universities: ANR, CNES, CNRS, IFREMER, IRD, MNHN, OFB; Aix-Marseille Université, La Rochelle Université, Sorbonne Université, Université de Bretagne occidentale, Université Côte d'Azur, Université de Toulon, Ecole centrale de Nantes, École nationale supérieure des techniques avancées; Ministry of Foreign Affairs.

The organizing committee will be completed by a committee dedicated to communication and outreach.

International Scientific Committee (ISC)

The ISC comprises 17 members:

- Janine Adams, Nelson Mandela Univ. (South Africa)
- Diva Amon, SpeSeas (Trinidad and Tobago)
- Tamatoa Bambridge, CNRS (French Polynesia)
- William Cheung, University of British Columbia (Canada)
- Sanae Chiba, PICES (Canada/Japan)
- Carlos Duarte, KAUST (Saudi Arabia)
- Thomas Frölicher, University of Bern (Switzerland)
- Jean-Pierre Gattuso, CNRS, co-chair (France)
- Stefan Gelcich, Pontificia Universidad Católica (Chile)
- Jessica Gephart, American University (USA)
- Kristina Gjerde, IUCN (USA)
- Deborah Greaves, University of Plymouth (UK)
- Peter Haugan, Institute of Marine Research (Norway)
- François Houllier, Ifremer, co-chair (France)
- Daoji Li, East China Normal University (China)
- Mere Takoko, Conservation International (New Zealand)
- Arthur Tuda, West Indian Ocean Marine Science Association (Tanzania)

STRUCTURE OF THE OOS CONGRESS

Similar to many international scientific gatherings, the Congress will feature a combination of plenary sessions, including keynote and opening addresses, as well as parallel oral communication sessions and poster presentations. In order to strengthen the interactions between science and society, action and policy, and to engage civil society more broadly, 'town halls' such as panels and roundtables will also be organized.

In organizing parallel sessions and town halls, diversity and openness will be key considerations to achieve a gender and geographical balance among participants.

The exact organization of the Congress will be adapted to the facilities available, including the number and capacity of rooms designated for parallel sessions.



THEMES OF THE OOS CONGRESS

The development and selection of themes for the Congress are guided by a commitment to align with the UN Decade of Ocean Science for Sustainable Development and the broader objective of supporting decision-making, actions and the international discussions and negotiations that will take place in Nice.

Following preliminary discussions with various entities, including UNESCO's Intergovernmental Oceanographic Commission (IOC), and within the Organizing Committee, the International Scientific Committee drafted the themes. These scientific themes will be solution-oriented, transcending narrow disciplinary boundaries.

A key focus will be ensuring alignment between the themes of the Congress and the Ocean Action Panels of UNOC3 (which will be known by July 2024), enhancing the synergy between scientific discussions at OOS Congress and the international and national commitments, initiatives, and actions deliberated at UNOC3.

Consequently, submissions for scientific oral presentations and posters will be invited under the following provisional themes:

- Inspire responsibility and respect for the ocean integrating across knowledge systems
- End illegal, unreported and unregulated fishing, and improve transparency

- Ensure sustainable, equitable, and safe ocean-based food systems
- Pause deep-sea mining while improving knowledge for sustainable and equitable use of the deep-sea
- Effectively protect and restore marine and coastal ecosystems (30-by-30 target) and ensure sustainable management in all areas
- Ensure equitable sharing of benefits of genetic resources in areas beyond national jurisdiction
- Adopt comprehensive measures to end plastic pollution
- Decarbonize shipping and reduce environmental impacts of maritime transport
- Enable effective, fair and environmentally safe ocean-based approaches to reach the mitigation and adaptation goals of the Paris Agreement
- Ensure science always informs ocean action including through ambitious investment in inclusive fundamental research and interdisciplinary knowledge generation.

Beyond fundamental and applied research findings, oral presentations and posters will also be encouraged to address interdisciplinary topics, including ocean observation, monitoring, management, and governance; capacity building; fostering international scientific cooperation; incorporating indigenous and local knowledge; and promoting ocean awareness and public education.

ONE OCEAN SCIENCE CONGRESS

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