

EU INTERNATIONAL OCEAN GOVERNANCE FORUM

SETTING THE COURSE FOR A SUSTAINABLE BLUE PLANET: RECOMMENDATIONS FOR ENHANCING EU ACTION



#IOGForum #OceanEU In 2016, the EU was the first economy in the world to develop an International Ocean Governance (IOG) Agenda. Dedicated to ensuring ocean sustainability, the EU's plan of action for the future of our ocean recognises the need for joint efforts built on multilateralism and a rules-based international order – within and beyond Europe. This action plan has helped us shape an integrated approach to the ocean, combined with our commitment to achieve the Sustainable Development Goals for 2030, and especially Goal 13 on Climate action and Goal 14 on Life below water.

Under President Von der Leyen, the European Commission has taken on the SDGs as its own compass for all policies and strategies, in particular through the European Green Deal. The Green Deal is our long-term strategy for sustainable growth which builds on clear ambitions such as climate neutrality, a circular economy, zero pollution and the protection and restoration of biodiversity. It was launched at the end of 2019 and since then we have been steadily transforming its big ambitions into operational sectoral strategies for practical implementation on the ground – and in the water.

Updating the IOG Agenda is a key part of this process, as there is still significant work ahead. Our ocean is facing a state of emergency driven by the triple crises of climate-driven ecosystem disruption, extensive pollution (chemical, waste and noise), and severe biodiversity loss. Exacerbated by the difficulty of governing such a shared global good, these and other pressing ocean challenges highlight the need for more effective, cross-cutting and integrated ocean governance - built on strong partnerships, international cooperation and multilateral dialogue.

To enhance and enrich the reflection process on the future of ocean governance, the EU launched the **International Ocean Governance Forum (IOG Forum)** in 2020, built on the principle of shared responsibility for our ocean and the need for collective progress. Created as a platform for all stakeholders to share their expertise, understanding, experiences and good practices on ocean governance, the IOG Forum has now reached its conclusion: key recommendations for action that emerged from this forum are presented in this report.

These recommendations will guide us in further developing the IOG Agenda. We hope they can also be a source of inspiration worldwide, as well as the starting point for new partnerships and shared commitments to the transformative action urgently needed to protect our one and only ocean.



Josep Borrell High Representative of the EU for Foreign Affairs and Security Policy, Vice-President of EC



Virginijus Sinkevičius European Commissioner for Environment, Oceans and Fisheries



ACTION ON THE AGENDA: THE INTERNATIONAL OCEAN GOVERNANCE FORUM

The European Commission (EC) with the European External Action Service (EEAS) launched the European Union (EU) *International Ocean Governance Forum (IOG Forum)* in 2020. It was created as a platform for ocean stakeholders within and beyond Europe to share knowledge, experiences and good practices on ocean governance, and to support the further development of the EU's International Ocean Governance Agenda (IOG Agenda).

The online engagement of experts and stakeholders from Europe and beyond via webinars, workshops and a targeted public consultation throughout 2020 helped identify key international ocean governance actions that could be implemented by the EU to help set the course for a sustainable blue planet. Contributions obtained have been compiled by the consortium of scientific institutions and think tanks supporting the EC. Through a co-creative process with experts from the EC and the EEAS, these contributions were turned into recommendations for priority EU actions and proposed implementation pathways.

Existing EU contributions to international ocean governance are considered the foundation for the implementation of the recommended actions presented in this report. These recommendations aim to contribute to a number of legal instruments, policy commitments and processes, including but not limited to:

- The United Nations Convention on the Law of the Sea (UNCLOS), the ongoing negotiations for international legally binding instrument for the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ), the Paris Agreement, the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity's (CBD) and the future post-2020 Global Biodiversity frameworks, the 2030 Agenda for Sustainable Development, the UN Decade of Ocean Science for Sustainable Development (2021 2030), and the UN Decade of Ecosystem Restoration (2021 2030).
- Other global policy processes under the United Nations Environmental Assembly (UNEA) relevant to the ocean and seas as well as the specific work streams under relevant Multilateral Environmental Agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Migratory Species (CMS), as well as regional instruments, such as Regional Seas Conventions (RSC) and Regional Fisheries Management Organisations (RFMO).
- EU policies, initiatives and partnerships, in particular: the EU Green Deal, the EU Biodiversity Strategy for 2030, the EU Marine Strategy Framework Directive (MSFD), the Maritime Spatial Planning Directive (MSP), the Common Fisheries Policy (CFP), development and cooperation initiatives, knowledge initiatives related to the Horizon Europe research and innovation framework programme (2021 2027), the Copernicus Programme and its Marine Service-based ocean observations and modelling, partnerships such as the Belém and Galway Statements, the EU-China Partnership, and the Copernicus cooperation agreements.

In this report, **the ocean is defined as the socio-ecological system** encompassing marine ecosystems, humans and all human-ecosystem interactions from the coast to the deep ocean - including marine and land-based human activities that impose pressures on these ecosystems, human activities that benefit from the services delivered, and institutions and governance established to protect these ecosystems and that support the sustainable development and management of activities.

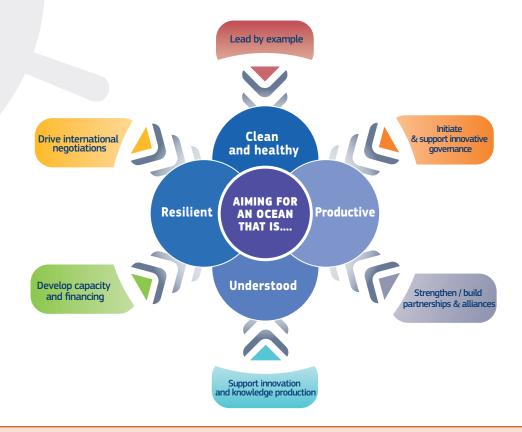
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EU PATHWAYS TO LEVERAGE ACTION IN INTERNATIONAL OCEAN GOVERNANCE

The IOG Forum identifies different pathways the EC and Member States can take to support international ocean governance with the leverages at their disposal and progress further towards a sustainable blue planet. The pathways include:

- Leading by example to inspire progress within international ocean governance and help create a shared global vision for the future of the ocean;
- Acting as a driving force in international negotiations, fora and processes, and supporting the swift adoption of decisions that are essential to sustainable ocean governance;
- Initiating, exploring and supporting innovative governance approaches that overcome silos and strengthen synergies between sectors and management scales to enhance progress towards common goals;
- Supporting innovation and knowledge production to create an inclusive and transparent ocean knowledge system that underpins evidence-based decision-making;
- Developing capacity, knowledge transfer and sustainable financing to turn novel ideas and strategies within ocean governance into realities; and
- Strengthening and building partnerships and alliances that accelerate transformative changes in international ocean governance.

Together, these pathways contribute to **creating an ocean that is Clean and Healthy, Productive, Resilient and Understood**.



Note to reader: The actions presented in the following sections are recommended to be implemented by the European Commission (EC) and, where relevant, by its Member States.

AIMING FOR AN OCEAN THAT IS ... CLEAN AND HEALTHY

There is a need to increase global ambition and action for conservation, restoration and sustainable use of marine ecosystems and biodiversity to ensure the continued provision of ecosystem services, including climate change mitigation and adaptation. The protection and preservation of the marine environment is an obligation under international law, reflected in UNCLOS. Actions to strengthen international ocean governance in relation to biodiversity and marine pollution are proposed for progress towards a clean and healthy ocean.

Priorities for EU action from the IOG Forum

1. Lead by example to champion a global goal for ocean degradation neutrality in 100% of the ocean in order to strengthen ecological resilience.

Opportunities for implementation:

- Phase out or prevent maritime activities that cause ecosystem loss or degradation, and ensure transition towards low impact and no serious harm from maritime sectors such as fisheries, shipping and emerging activities (e.g. deep-sea mining) in line with the precautionary principle.
- Foster the application of ecosystem-based management, addressing cumulative pressures, including through environmental impact assessments, and lead the development of environmental standards, objectives, approaches and measures within competent management organisations and the BBNJ negotiations.
- **2.** Initiate and lead the development of a global "one ocean conservation strategy" to identify, designate and establish networks of well-managed Marine Protected Areas (MPAs) in support of the proposed target of protecting at least 30% of the ocean by 2030 (with 10% under strict protection) under the CBD post-2020 Global Biodiversity Framework. Efforts should build on the CBD's "Ecologically and Biologically Significant Areas" (EBSAs) process and consider the role of "other effective area-based conservation measures" (OECMs) in biodiversity conservation beyond protected areas.

- Establish representative networks of MPAs and protect at least 30% of the ocean, and support the adoption of new MPA proposals in the Southern Ocean by the Commission for the Conservation of Marine Living Resources (CCAMLR).
- Build a coalition of like-minded high ambition States and advocate for provisions in the BBNJ instrument to ensure the inclusion of governance arrangements for designating and managing coherent networks of MPAs in Areas Beyond National Jurisdiction (ABNJ) for the conservation and sustainable use of marine biological diversity.
- Support cooperation and development projects to designate ecologically representative and coherent networks of well-managed MPAs, while securing the rights of local communities as key actors and beneficiaries in conservation. This could be done through capacity building in partner countries, improving coordination and strategic goal orientation among EU donors, and enhancing collaborative approaches across sectoral and regional organisations such as RSCs and their Action Plans and RFMOs.
- Ensure that designation and management of MPA networks, both within and beyond national jurisdiction, are based on best-available data and knowledge, are guided by ecosystem-based management, and include mechanisms for Monitoring, Control and Surveillance (MCS) and a regular review process. Promote adaptive management for, inter alia, climate resilience and sustainable fisheries management, and develop novel governance approaches where necessary (e.g. dynamic measures for migratory species protection).

3. Enhance efforts for ecological restoration of degraded marine and coastal habitats in support of the UN Decade on Ecosystem Restoration and global conservation targets.

Opportunities for implementation:

- Use the restoration targets to be developed within the EU Biodiversity Strategy to lead by example in setting global objectives to restore at least 30% of ocean systems within EU waters that are not of a favourable status, and support similar global action with like-minded States. Moreover, ensure no deterioration in conservation trends and status of all protected marine habitats and species, including through effective ecosystem-based management and avoiding or removing human pressures.
- Support the development of a global network of local scale restoration initiatives, together with a related knowledge hub hosted by an appropriate international body, and support the development of appropriate restoration capacities.
- **4.** Strengthen holistic governance approaches to implement cross-sectoral and ecosystem-based management in pursuit of the United Nations 2030 Agenda for Sustainable Development, the Paris Agreement, the future post-2020 Global Biodiversity Framework of the CBD, and other relevant processes.

- Support and, where not existing, initiate the development of novel collaborative arrangements and strategies among competent management organisations, States, and stakeholders at the scale of marine regions to: 1) develop joint visions for marine regions and adopt complementary objectives, targets and timelines to address interlinked sustainability issues; 2) support regional coordination and implementation of common management and planning approaches such as marine spatial planning and designation of MPA networks; 3) facilitate engagement of civil society and relevant actors to ensure transparency and equitability; and 4) provide a joint knowledge base for informed decision-making.
- Initiate the development of a harmonised and transparent pledge and review system of ocean-related voluntary commitments for key international ocean governance activities and processes, including the UN Ocean Conferences, submitted by States and stakeholders.



5. Pursue a "Zero Marine Pollution Strategy", accounting for land- and sea-based pollution, including plastic (macro and micro), lost and discarded fishing gear, nutrients, and contaminants (persistent organic pollutants in particular), as well as noise and air pollution. This requires strengthening the global governance framework on preventing and combating pollution as well as fostering international capacities to prevent and tackle marine pollution at the source and progressing towards a circular economy.

- Support the development of a holistic global agreement to combat plastic pollution by addressing both land- and sea-based pollution. This should include production standards, circular economy approaches, coordinated monitoring and assessment of pollution levels. Work towards agreement during the fifth session of the UN Environment Assembly and the subsequent negotiation process to complement existing conventions and frameworks for pollution, including at the regional scale.
- Initiate and support the development of "zero-pollution" action plans through competent global and regional organisations to address all forms of pollution in a coherent approach, including pollution types not sufficiently addressed to date.
- Support the adoption of measures by RFMOs and RSCs to fight pollution from land and sea (including in ABNJ) and strengthen Monitoring, Control and Surveillance (MCS), e.g. by submitting proposals to their members and building alliances of co-sponsoring parties.
- Support capacity development through partnerships and development cooperation to combat and prevent marine pollution from land and sea, improve waste management, advance sustainable consumption and production, and promote circular economy approaches.
- Promote coordinated assessment as well as monitoring and surveillance of marine pollution through capacity building and leadership in relevant policy fora, including at the sea-basin scale, for informed governance and decision-making. This should entail, inter alia, data standardisation, monitoring for all relevant types and sources of pollution, strengthened regional cooperation and interregional exchange, and should be aligned with the timelines of SDG 14.1 (2025) and other relevant science policy processes such as the World Ocean Assessment and the UN Decade of Ocean Science for Sustainable Development.
- Support research and innovation to develop novel technological or societal solutions to detect, prevent and reduce marine pollution, including through water stewardship approaches, novel digital and space-based solutions, or cradle-tocradle approaches in product design, consumption and production patterns.



AIMING FOR AN OCEAN THAT IS ... PRODUCTIVE

Integrating sustainability goals and targets across blue economy projects, initiatives and sectors is essential to ensure that they do not harm marine biodiversity and ecosystem functioning and that they contribute to the development of local (coastal) communities. Recognising the role of fishing and aquaculture in the development of many communities and their contribution to food security, dedicated actions are required to support sustainably caught and produced seafood. These include strengthening fisheries governance for the effective implementation of existing instruments that address overfishing, destructive fishing practices and Illegal, Unreported and Unregulated (IUU) fishing, as well as addressing labour conditions in the fishing and seafood processing industries.

Priorities for EU action from the IOG Forum

1. Support the systematic and expanded application of Environmental Impact Assessments (EIA) and Strategic Environmental Assessments (SEA) across all marine spaces including ABNJ. These need to adopt an ecosystem-based management approach, consider the integrity and functioning of marine ecosystems, and address cumulative pressures and ecosystem dynamics including under climate change (see RESILIENT section). Enhanced transparency in how assessment results are used to support decisions is also necessary for these decisions to gain wider social acceptability.

Opportunities for implementation:

- Support the application of sound EIA/SEA with methodological and capacity development beyond the EU (e.g. in the context of Strategic Fisheries Partnership Agreements (SFPAs) synchronized with other international partnership initiatives), and internationally (e.g. supporting the development of guidance through the future BBNJ Treaty).
- Make the results of these assessments publicly available and easily accessible through a dedicated portal/web page (e.g. dedicated page of the European Maritime Forum) in relation to the ecological implications of all investments supported by EU funds.
- **2.** Support the development of blue economy visions at sea basin scales that define development pathways for a sustainable blue economy while accounting for ecosystem functioning and protection including in ABNJ.

- Support the development of strategic sea basin scale visions (e.g. upon request of coastal states, in the context of regional partnerships or in regional sea basins adjacent to the EU) building on existing governance and on experiences with Maritime Spatial Planning (MSP). This should promote open stakeholder processes, sound application of SEAs and the assessment of the ecological, social and economic trade-offs of different (alternative) options and scenarios.
- Take a leading role at the global scale in sharing experiences and practices with private/public organisations and funding agencies on the development and use of strategic visions at regional scales (e.g. addressing the topic in international high level ocean events).



3. Promote the development (where standards do not already exist), adoption and application of common environmental and social standards for all blue economy sectors to drive decarbonisation, zero pollution, circularity and biodiversity protection. This contributes to achieving SDG 14 and SDG 8, as well as to the implementation of labour standards (e.g. as outlined in Work in Fishing and Maritime Conventions) under the International Labour Organisation (ILO).

Opportunities for implementation:

- Develop research initiatives (e.g. Horizon Europe, UN Decade of Ocean Science for Sustainable Development) and partnerships with other international organisations (e.g. ILO, the United Nation Environment Programme, the Organisation for Economic Co-operation and Development, etc.).
- Support the application of existing or new standards by sharing reporting and monitoring experiences, strengthening capacity, and supporting policy dialogues between organisations with social and environmental mandates. This can take place at the regional (e.g. in RFMOs) and national (e.g. in SFPAs) scales.
- Lead by example and include an "environmental and social standard" component, with sufficient resources and capacity building, in all EU funded blue economy projects.
- **4. Strengthen effective fisheries governance towards the sustainable management** of fish stocks, addressing IUU, following ecosystem-based management principles and accounting for climate change.

Opportunities for implementation:

- As contracting parties of RFMOs and in accordance with the CFP, actively promote transparent decision-making based on sound scientific advice for the sustainable management of fish stocks, enhance scientific capacity in organisations, and strengthen compliance committees and performance reviews.
- Facilitate benchmarking of fisheries management practices between RFMOs (building on the experience of the Kobe Process for tuna RFMOs and in synergy with RSCs), and between countries partnering with the EU in SFPAs.
- Support closer cooperation between RFMOs, their scientific bodies and other international organisations (including the UNFCCC and relevant multilateral environmental agreements) to share best practices on matters of common interest including scientific issues, climate change and the sustainable management of fish stocks.
- **5.** Support countries in the uptake and effective implementation of existing instruments (such as the Port States Measures, the Cape Town Agreement, and the Work in Fishing Convention) to address sustainable fisheries practices and management, in addition to current efforts to end harmful subsidies within the World Trade Organisation with regards to overcapacity, overfishing and IUU fishing.

- Support countries with limited capacity in ratifying and implementing existing instruments. This can build on sharing experiences in relevant international fora (e.g. ILO as already practised), capacity building for inspectors and operators on MCS systems (e.g. as part of SFPAs), the deployment of innovative (e.g. satellite) technologies in projects for detecting and monitoring IUU, and the development of harmonized technical guidelines and/or regulations on the information to collect during inspection processes.
- Be exemplary in the implementation and enforcement of regulations for reducing and halting unsustainable fishing practices in line with the objectives of the EU Biodiversity Strategy for 2030 and its philosophy for areas outside EU waters. Support research and innovation for gear selectivity to minimise by-catch and discard rates of targeted and non-targeted species, and for pathways to a sustainable ocean food system.

AIMING FOR AN OCEAN THAT IS ... RESILIENT

Significant attention to resilience is required in light of the central role of the ocean in climate change and related policies, as well as the significant impacts of climate change on ocean ecosystems and resources. This includes increasing ambition for ocean action to combat climate change in line with the Paris Agreement. Resilience needs also to be considered in relation to the capacity of ocean governance to anticipate, absorb, accommodate, and/or recover from the effects of hazardous events in a timely and efficient manner. This is essential to address current risks and uncertainty and to deliver long-term ocean sustainability. Due attention to resilience is required simultaneously on all fronts and from all actors involved, including to: set adequate governance mechanisms and capacity to deliver adaptive ocean management; strengthen ecosystem-based management for ocean resources and ecosystems including in ABNJ; and tailor financing instruments to strengthen ocean and ocean governance resilience, including by supporting nature-based solutions in the ocean.

Priorities for action from the IOG Forum

1. Promote a "whole-of-ocean-governance" approach to combat climate change, which mainstreams climate change mitigation and adaptation in all relevant competent ocean governance organisations and brings together relevant actors to identify and coordinate the implementation of solutions which benefit both the ocean and climate, including in ABNJ.

- Build political will and mobilise actors, partnerships and new alliances with like-minded States, coalitions of States, and civil society for solutions that benefit ocean health as well as climate mitigation and adaptation. These should build on ecosystem-based management principles integrated in ocean related governance processes and instruments, including the Paris Agreement, the CBD's post-2020 Global Biodiversity Framework, the BBNJ negotiations, as well as RSCs, RFMOs and other regional bodies.
- Support ongoing efforts, increase ambition, and, where necessary, mainstream climate change adaptation and mitigation into sectoral ocean management such as conservation, fisheries, shipping and potential deep-sea mining. Foster collaboration between sectoral and regional organisations, e.g. through collective arrangements, common monitoring and assessment, joint actions and measures, and the Green Diplomacy Network, to follow up on the consequences of climate change.



2. Foster ambitious nature-based ocean solutions that will deliver co-benefits for biodiversity conservation, ecosystem resilience and human livelihoods.

Opportunities for implementation:

- Lead by example in line with the EU Green Deal and the Biodiversity Strategy for 2030 to ensure inclusion of nature-based ocean solutions in Nationally Determined Contributions (NDCs) of Member States under the Paris Agreement and support partner countries to do the same, e.g. through development cooperation and capacity building.
- Support the assessment, implementation and monitoring of nature-based solutions, in particular the conservation and restoration of marine ecosystems that are biodiversity hotspots, provide "blue carbon" solutions for climate change adaptation and mitigation, benefit local communities, and contribute to disaster risk reduction. This can build inter alia on dedicated capacity development programmes, partnerships for innovative approaches and the establishment of a community of good practice, e.g. via a virtual platform for contributions.
- Initiate a process under the Paris Agreement to explore new forms of collective commitments by groups of States to trigger collective and coordinated actions, including in ABNJ, for nature-based ocean solutions at ecologically meaningful scales, e.g. via possible "Internationally Determined Contributions" (IDCs).
- **3.** Support a shift towards zero-emission maritime industry, considering all greenhouse gases (GHGs) and air-borne pollutants such as sulphur and nitrogen oxides.

Opportunities for implementation:

- Lead on the agreement of ambitious and time-bound GHG emission reduction targets, standards, and measures for international maritime transport within the framework of the International Maritime Organization (IMO). Initiate a discussion on innovative approaches to control GHG emissions, e.g. spatial approaches for sea basins.
- Foster national action for reducing GHG emissions from international maritime transport and industries.
- Lead by example to initiate/support global strategies for green shipping, and support Action Plans for reducing GHG emissions from international shipping and appropriate Port State control measures.
- **4.** Ensure that resilience is given priority in ocean governance and related policy frameworks at all levels and for all sectors, building on the political momentum to tackle climate change and the COVID-19 pandemic. This requires setting up adequate conditions that helps organisations (public and private) to integrate resilience into priority-setting and operational procedures.

- Establish mechanisms to operationalise resilience in ocean governance systems (e.g. set up emergency budgets and consider redundancy within organisations, program delivery, and learning processes), building on the sharing of experiences (e.g. via the organisation of workshops at different scales).
- Raise the profile of resilience in different UN fora, including in the BBNJ negotiations and in fisheries-related discussions. Propose and steer, for example, a thematic focus on "Ocean Resilience" at the United Nations Informal Consultative Process on Oceans and the Law of the Sea to explore possible adaptations within governance systems and institutions to deliver resilience.
- Bring resilience to the forefront of European research (e.g. in Horizon Europe), by steering the development of new methods and tools (including in research, governance and technology) to support the development of adaptive management strategies at the sea basin scale. Also, support research demonstrating the societal added value and benefits of ecosystem-based management to deliver resilience.
- Make resilience and ecosystem-based approaches a central element of ocean literacy initiatives (including for decision makers) at the EU and international level (e.g. via support to the UN Decade of Ocean Science for Sustainable Development), building *inter alia* on current practices in ecosystem-based management under the MSFD and MSP Directives and on the EU4Ocean initiative.

5. Support an increased allocation of financial resources to resilience-enhancing strategies, including to support ecosystem-based management and the implementation of nature-based solutions. This requires better understanding of the challenges and added value of existing financing instruments, as well as ensuring complementarity between existing and potential new instruments.

- Streamline financial resources allocated to resilienceenhancing management by: sharing experiences in financing instruments that support resilienceenhancing strategies, developing coherent approaches and guidance on financing ocean resilience among financing institutions (e.g. development and cooperation institutions), and seizing opportunities offered by existing financing instruments and initiatives (e.g. linked to Blue Natural Capital, trust funds, RSC resource mobilisation initiatives).
- Ontribute to the creation and sharing of knowledge on the impacts, effectiveness and added value of different financing instruments (e.g. under EMFF, resource mobilisation initiatives carried out by RSCs, new instruments built on the principles of payment for ecosystem services), supporting research (e.g. Horizon Europe), capacity building as well as pilot testing of the application of the most promising financing instruments (e.g. in EU regional seas and in regional partnerships with third countries with strong ocean focus).
- ▶ Lead international discussions on the feasibility and added value of a common financial ocean mechanism (compared to existing instruments focusing more widely on e.g. climate change) to steer actions delivering resilience and sustainability. This could take the form of an "Ocean Bank" possibly linked to CBD, similar to the UNFCCC Green Climate Fund, with mechanisms addressing investment risk.



AIMING FOR AN OCEAN THAT IS ... UNDERSTOOD

International ocean governance can only be successful if based on informed decision-making using the best available knowledge, while simultaneously applying the precautionary principle to deal with uncertainty. Ocean science includes all the steps needed for informed decision-making, i.e. research, observations, data, modelling, and prediction. Informed decision-making requires the co-production of knowledge as a two-way process that can respond to the needs of ocean governance, as well as integration of knowledge from other sources, including the private sector and local and traditional knowledge. Effort is needed to ensure the ocean knowledge system is fit-for-purpose and can effectively support the actions outlined in this report, including a global one ocean conservation strategy, the restoration of degraded marine habitats, and a resilient ocean in light of climate change and sea-level rise. The actions listed below should build on, and contribute to the work of the UN Decade of Ocean Science for Sustainable Development.

Priorities for action from the IOG Forum

1. Lead by example to increase coherency and alignment in reporting on the state of the ocean at EU, regional, and international. This will ensure alignment with priorities for international ocean governance, in feedback between reports for stakeholders, and between relevant stakeholders for each report. Standardised ocean indicators will assist with coherency in science-policy reporting by allowing easier comparison between reports and will assist with developing the 'whole of ocean governance' approach to combating climate change (see Action 2.1). These will help bridge the gap in the value chain between ocean observations, Essential Ocean Variables (EOVs), and the evidence base for ocean monitoring and reporting, and will assist with the design and evaluation of observing systems and ocean literacy initiatives.

Opportunities for implementation:

- Promote coherency in reviewing and contributing to science-policy reports for all relevant stakeholders within and outside of Europe. For example, by advocating at relevant UN fora for coherency in reporting at European (e.g. Copernicus Ocean State), sea-basin (RSC, RFMO), and international level (IPCC, IPBES, WOA).
- Lead in the development of an international framework for Global Ocean Indicators that build on and link to existing frameworks and initiatives interested in collaborating from Europe (e.g. Copernicus Marine Environmental Monitoring Service (CMEMS), the European Ocean Observing System (EOOS), EuroGOOS, EU4OceanObs), and internationally (e.g. the IOC, UN Ocean Decade, and G7 Future of the Seas and Oceans).
- **2.** Optimise the ocean knowledge flow at the science-society-policy interface to improve evidence-based decision-making by implementing innovative solutions to overcome barriers to the integration and uptake of objective knowledge from science, data, models, ocean services, society, industry, local and traditional knowledge into policymaking.

Opportunities for implementation:

- Develop dedicated transdisciplinary social science projects to examine the functioning of current science-society-policy interfaces and to identify options for optimising ocean knowledge flow and policy uptake. Dedicated calls should be developed within EU funding programmes as contributions to the UN Decade of Ocean Science for Sustainable Development.
- Establish new transdisciplinary training programmes to promote knowledge-exchange between scientists, industry, and policy makers in Europe and beyond.
- Support ocean literacy initiatives in Europe and beyond, building on the EU4Ocean initiative.
- **3.** Share good practice and knowledge resources that support objectives for a clean and healthy, productive, resilient, and understood ocean to address the current lack of integration of knowledge sources, to avoid duplicated efforts, and to be able to easily access information.

- Consolidate ocean knowledge resources and good practice into existing knowledge hubs such as the EC Knowledge Centres for Biodiversity and Earth Observation, and develop new knowledge hubs where needed.
- Ensure that EC knowledge hubs support international efforts to centralise ocean knowledge, e.g. the IOC's Ocean InfoHub and Ocean Best Practices portal.

4. Lead by example to strengthen co-designed transdisciplinary science to ensure the development of a knowledge base for international ocean governance that fits users' needs and to effectively underpin the actions outlined in this report. This holistic knowledge co-production approach involves engaging all relevant stakeholders including local and traditional knowledge holders, industry, policymakers, NGOs, citizens and academic disciplines.

Opportunities for implementation:

- Establish a "forum for transdisciplinary research to support international ocean governance" as a space for joint knowledge production and collaboration. It should build on and link to existing EU and international initiatives including the UN Decade of Ocean Science for Sustainable Development and its 'Global Stakeholder Forum', the "Belmont Forum", "Future Earth", the EC's "Science with and for Society" programme, and the EU Horizon Europe's Mission on "Healthy Oceans, Seas, Coastal and Inland Waters", which has co-designed research at its core.
- **5.** Lead by example by supporting the coordination of ocean observations within Europe and take a leading role in increasing their spatial and temporal resolution across the global ocean. Ocean observations are the backbone for the ocean knowledge system: sustained long-term support is needed and critical gaps should be filled so they are fit-for-purpose.

Opportunities for implementation:

- Support sustained long-term capacity for ocean observation management, coordination, integration, and co-design by building on existing European coordination initiatives, e.g. EU40cean0bs and E00S. For example, the EC could play a key role in connecting funders and/or donors to improve the efficiency of national and European infrastructure investments.
- Support capacity development in the Global South to ensure sustained ocean observations within their Exclusive Economic Zones, e.g. via development cooperation, training courses and/or support for developing new low-cost observation sensors to observe biological, biogeochemical, and physical ocean parameters.
- Work with other countries to support ocean observation infrastructure in ABNJ e.g. by building on the substantial investment made by the USA on the development of Argo floats.
- Promote partnerships with, and provide incentives for the private sector in Europe to participate in collecting ocean data that will be useful in e.g. fish stock management. For example, incentives for industrial fishers to install sensors to collect data on e.g. ocean temperature, salinity, pressure, oxygen, etc. The Electronic Recording System (ERS) could be upgraded with the obligation for fishers to declare this data along with catch data.
- **6.** Take a leading role in regional and global data sharing, modelling, and prediction. With the growth in autonomous ocean observing systems there is a need to increase open-access and interoperability of ocean data to enable big data applications and global data products and prediction services to assist decision-making.

- Promote partnerships between the planned "Digital Twin Ocean" and marine data infrastructures and modelling and prediction services outside of Europe. They could be implemented regionally through sea-basin agreements and bilaterally through ocean partnerships.
- Promote the use of global common standards for data that are Findable, Accessible, Interoperable, and Reusable (FAIR) building on experience within Europe.
- Consider the establishment of a Global Data Assembly Centre, which could act as an inventory of ocean datasets that are available regardless of their quality, that could be accessed if needed and that can help identify major global gaps in ocean data. This should be done in cooperation with international partners and in connection to initiatives such as the proposed BBNJ Clearing House Mechanism.
- Establish new training programmes for data literacy among scientists, industry professionals, and policy makers in Europe and beyond.

NEXT STEPS FOR ACTION AND UPDATING THE EU IOG AGENDA

Bringing together ocean stakeholders from Europe and beyond, the International Ocean Governance Forum has voiced broad support for the EU's International Ocean Governance Agenda, both in its scope and its objectives. The Forum's recommendations call for a reinforced strategic orientation of this agenda, backed by full implementation in Europe.

These identified priorities resonate well with the **European Green Deal** and the EU's ambition for global leadership as a strong upholder of multilateralism and a reliable partner in the world. Without being exhaustive in addressing all international ocean governance challenges, these recommendations for action underline the need to upscale efforts on all fronts to tackle ocean crises, as well as to be adaptive in managing new and emerging challenges. This will require a European "all-hands-on-deck approach" benefiting from the full political, diplomatic, scientific and societal capacity of the EU and its Member States, including by:

- Creating greater synergies for international ocean governance between approaches and strategies of the EU Member States, the European Commission and EEAS;
- Fostering integrated governance approaches across ministries of EU Member States as well as EC services to support a holistic EU ocean policy for restoring and protecting the ocean;
- Making full use of the collective diplomatic capacity of the EU and its Member States in international ocean governance processes, similar to what is seen in international climate policy.

Announced at the 3rd IOG Forum event on April 20, 2021, the EC, in association with the EEAS, **aims to present an updated IOG Agenda in 2022** in response to these IOG Forum recommendations. The updated IOG Agenda will be the cornerstone upon which the future of ocean governance will be collectively built with all international partners, taking shared responsibility for the ocean as a vital global public good, as reflected in the inclusive process of the IOG Forum.

The recommendations of this report were made possible thanks to the energy, expertise and impetus contributed by all experts and stakeholders participating in the IOG Forum. Their flexibility in switching to virtual (and climate-friendly) cooperation, and their dedication to multiple rounds of discussions, is confirmation of their commitment to the collective effort required to reshape international ocean governance.





THE IOG FORUM CONSORTIUM

An initiative of the European Commission and the European External Action Service, the International Ocean Governance Forum (IOG Forum) was implemented by a consortium made up of the following European partners:











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Authors: Joe Dodgshun and Pierre Strosser (ACT*eon*), Britt Alexander and Sheila Heymans (EMB), Barbara Neumann (IASS), Ben Boteler and Sebastian Unger (IASS and TMG Think Tank for Sustainability).

