

UNESCO contribution to the
Background note of the Secretary-General
for the preparatory meeting of the 2020 United Nations Conference
to support the implementation of Sustainable Development Goal 14

I. Activities, challenges and opportunities relating to the implementation of Sustainable Development Goal (SDG) 14

A. Science and innovation - a central theme of the Conference

Ocean Science, as defined in the Global Ocean Science Report in 2017 (IOC-UNESCO, 2017), encompasses: human resources; the observation and data infrastructures that support ocean science; the application of knowledge generated through science for societal benefits, including capacity development through the transfer of marine knowledge; and the science-policy-society interface. The ocean's significant contribution to the 2030 Agenda and the dependence of many Sustainable Development Goals and their targets on ocean science may not be obvious for some stakeholders. Setting ocean on a path to sustainability is a necessary condition for achieving such societal objectives as equity, sustainable economic development, food security, gender equality, and mitigation of climate change, among many others. Naturally, SDG14 targets are science-intensive and rely on innovation to deliver results. For instance, marine biodiversity assessments are critical for the fisheries management process and for the adoption of conservation and management measures, relevant to multiple targets under SDG14, such as 14.4, 14.6 and 14.7. Science has an important role in understanding and managing human pressures on the marine environment, including local impacts such as marine pollution, coastal development and resource extraction that superimpose the global impacts of climate change.

Tracking progress on SDG 14 targets, and more broadly all ocean-related SDGs, depends on monitoring of the ocean state: physical, biogeochemical, ecosystems, and the human impact on the ocean. This systematic ocean monitoring as part of the Global Ocean Observing System also has the power to generate profits and jobs in the marine economy with information services. It is clear, however, that to meet the growing demands of policy makers, private sector users and the general public, we need a step change in the breadth and extent of the ocean observing system. The *Global Ocean Observing System 2030 Strategy* provides a framework to achieve this in the UN Decade for Ocean Science for Sustainable Development (2021-2030).

The whole value chain, from marine research, ocean observation, early warning systems, and development of knowledge and information products that can support sustainable management of the ocean, need to be strengthened throughout all SDG 14 targets and ocean dimensions of the Agenda 2030. Innovation, technological development, capacity development and ocean literacy are the enabling factors that can support actions at all levels of society. As such, it is recommended that these aspects be reflected in all partnership dialogues and main events of the Conference. Furthermore, the UN Decade of Ocean Science for Sustainable Development (2021-2030) provides the framework for leveraging further investment in ocean research, as well as building transformative partnerships in a multi-stakeholder context.

In developing the Decade's Implementation Plan, every effort is being made to ensure the strategic approach is truly transformative. It aspires for a real change – not only in the level of knowledge of the ocean, but also in the way we manage cooperation, decision-making and partnerships in support of sustainable development and healthy oceans, including in terms of gender equality. This assumes a gender sensitive approach in identifying and addressing ocean science capacity and knowledge, which is a guiding principle for the Decade – connecting SDG 5 and SDG 14. UNESCO aims to develop a flagship event at the Ocean Conference on the Decade and its Implementation Plan. It will build on existing partnerships and technologies and create new ones to enhance and expand the global scientific capacity **required** to quickly collect issue-specific information to meet the constantly evolving needs of sustainable management in a rapidly developing global blue economy. It will seek commitments from governments, private sector, philanthropic organizations, civil society, science and academic communities for the implementation of the plan.

B. Progress, gaps and further action needed in relation to select SDG 14 targets

(i) Ocean acidification (Target 14.3)

One fourth of the carbon dioxide released into the atmosphere from anthropogenic activities is taken up by the ocean, considerably helping to limit climate change. But this is not without consequence: when carbon dioxide enters the ocean it changes seawater chemistry, resulting, among other changes, in increased seawater acidity (decreased pH). The SDG target 14.3 addresses the impacts of ocean acidification. IOC-UNESCO is the custodian agency for this related indicator and developed the related methodology together with the active science community and in particular the Global Ocean Acidification Observing Network (GOA-ON). The SDG Indicator 14.3.1 database supports the regular reporting of ocean acidification data by Member States and enables regular regional and global analysis, tracking ocean acidification. Further research investments are needed to determine the capacity of important species to acclimate or adapt to changing ocean conditions; as well as research that examines acidification impacts on biodiversity and biotic interactions as well as impacts on ecosystem services and the economy. Many gaps in ocean acidification observation prevail, particularly in the Southern Hemisphere.

(ii) Ocean science capacity (Target 14.a)

Tracking change in ocean science capacity through a gender sensitive approach, and its impacts on sustainable development is still in the early stages. The first edition of the Global Ocean Science Report of 2017 (IOC-UNESCO, 2017) analyses the state of ocean science by reviewing human resources, availability of supporting observation and data infrastructures, the process of converting scientific knowledge into societal benefits, and efficiency of the science-policy-society interface. Nations around the world are increasing investment in ocean science, which manifests in the number of ocean scientists, research and education institutions and growing infrastructure for ocean observations. There is fast progress in observations, data and information flows, understanding the processes in and state of the ocean, various services, especially in provision of food, support to transport, weather and climate predictions, disaster risk reduction, and some other areas. However, gaps in human and institutional capacities, or inadequate governance of ocean science, often resulting in insufficient financial support, still hamper a large number of countries, including many

developing nations, from participating in ocean science and even from using the existing knowledge to act on factors that degrade ocean health and affect marine biodiversity.

In support of SDG target 14.a, focusing on ocean science capacity and the transfer of marine technology. IOC-UNESCO is the custodian for the related indicator and developed the related methodology in the context of the Global Ocean Science Report (GOSR). GOSR also acts as the system to collect data related to for SDG Indicator 14.a.1, thus allowing reporting on the status and trends in ocean science at the global level. The second edition of the Report (GOSR2020) will be launched at the 2nd UN Ocean Conference and will provide a baseline on ocean science capacity for the UN Decade on Ocean Science for Sustainable Development (2021–2030). It will look at existing physical infrastructure/facilities, human resources (with disaggregated data on gender), financial investments, scientific productivity, scientific collaborations within and outside of nations, achievements in ocean science, future challenges, capacity development, and investment strategies of Member States in relation to ocean science. In support of the IOC Guidelines and Criteria for the Transfer of Marine Technology (TMT) referenced in SDG target 14.a, IOC-UNESCO is elaborating a concept for a global clearing-house mechanism on TMT with the potential to inform several communities and ocean policy processes (e.g. such as the 2030 Agenda, CBD and BBNJ).

(iii) Managing and protecting marine ecosystems (Target 14.2)

Since 2017, more countries are now developing marine spatial plans to manage their national waters, and protect important marine and coastal resources. Marine spatial planning is a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are typically specified through a political process. Characteristics of marine spatial planning include ecosystem-based, area-based, integrated, adaptive, strategic and participatory. Presented at the 1st UN Conference, the EU, in cooperation with the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), has committed to work on accelerating Marine Spatial Planning processes worldwide. In this regard, the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO) and the Directorate-General for Maritime Affairs and Fisheries of the European Commission (DG MARE) adopted a "Joint Roadmap to accelerate Maritime/Marine Spatial Planning processes worldwide". This Roadmap will contribute to outlining a vision and a role for MSP in implementing the Agenda 2030 for Sustainable Development, and in particular the dedicated goal SDG 14, in a comprehensive, consistent and holistic way, both within the EU and at the international level. This roadmap identifies common priorities and concrete proposals for actions to be implemented in the coming years to encourage the development of marine/maritime spatial planning. Progress has also been achieved in developing MSP approaches in a transboundary context through the development of international guidance and demonstration cases in Europe and Latin America.

Indigenous knowledge is also an important aspect of protecting and managing marine ecosystems that must also be taken into account. Over thousands of years of observation and culturally transmitted learning, indigenous peoples have developed complex conservation strategies to steward marine resources¹.

¹ Berkes et al.2000, Turner and Berkes 2006, Berkes 2012).

(iv) Conserving marine areas (Target 14.5)

Through the UNESCO 1972 World Heritage Convention, there are currently 50 marine sites recognized for their unique marine biodiversity, singular ecosystem, unique geological processes, or incomparable beauty. Together these places cover about 7% by surface area of everything that is protected in the ocean today. Managers from these flagship marine protected areas hold an unparalleled reservoir of experience about what works and what does not in ocean conservation and management, and are uniquely positioned to bring change at a global scale. In addition to the sheer size and reach of the World Heritage marine network, the sites that comprise it also have unparalleled visibility and influence. When they demonstrate that it is possible to balance preservation with progress, the world takes notice. There is a reason countries work for a decade or more to secure World Heritage Status. It represents care for the natural world. Healthy and prosperous communities. Responsibility to future generations. The very same values we can and must tap into to achieve the SDGs. UNESCO also has a network of coastal and biosphere reserves which are testing sites for new approaches to sustainable development.

(v) Integrated approach to multiple ocean stressors (link to SDG Targets 14.1, 14.2, 14.3, 14.5, 14.a)

There are growing pressures on our oceans due to human activities. These include more harvesting to feed our growing human population, disposal of a wide range of materials such as plastics, and changes to oceanic conditions due to rising anthropogenic emissions of greenhouse gases. Such alteration of the ocean exposes marine life to conditions that deviate from the norm (for example, eutrophication, coastal pollution including plastics in the food web, and extreme events such as heat waves) resulting in a suite of changes without precedent, termed here as multiple stressors or drivers. Some sources of changes to the ocean are local and transient in scale (e.g. episodic nutrient runoff from land), but others are global and long term (e.g. ocean warming and acidification).

There is an urgent need to better understand what environmental changes are putting the ocean under stress; how marine life responds to this stress; which individual stressors are most influential; and how responses to multiple stressors at the same time varies between organisms and/or communities. The IOC Working Group on Multiple Ocean Stressors aims at identifying main ocean stressors and their interaction, with a view to elucidating possible actions related to ecosystem-based management, including through comprehensive approaches to the management of the oceans and freshwater ecosystems (Source to Sea).

Improved understanding of de-oxygenation processes in the ocean is also required. As result of climate change, warmer water holds less oxygen and also leads to increased stratification. Open ocean deoxygenation has been measured in nearly all ocean basins. In coastal areas, the combined effects of climate change and eutrophication can lead to severe oxygen loss and so-called 'dead zones' – areas where deep waters have insufficient levels of oxygen to sustain life. The IOC Global Ocean Oxygen Network (GO₂NE) addresses these issues via supporting

capacity building efforts, assessing the mechanisms behind deoxygenation, preparing policy briefs and facilitating ocean oxygen data accessibility.

C. Cross cutting issues

(i) Cultural dimension of SDG 14

In the Call for Action “Our Ocean, Our Future”, launched at the first UN Ocean Conference in 2017, Member States recognized that the ocean “forms an important part of our natural and cultural heritage (paragraph 3)” and called on stakeholders to “develop comprehensive strategies to raise awareness of the natural and cultural significance of the ocean” (paragraph 13.d). Yet, inconsiderate industrial activities, large-scale trawling and clandestine looting threaten the underwater cultural heritage of the ocean, while climate change effects, overfishing, pollution or declining water quality impact the natural marine sites inscribed on UNESCO’s World Heritage List. In line with the Call for Action, and in response to these challenges, UNESCO undertakes a number of normative and operational actions to protect the cultural and natural heritage of the oceans and contribute to SDG 14.

The UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage provides a unique international cooperation framework permitting the protection of elements of cultural significance to humanity in all waters, including international waters. A first model case concerning international waters is under way with concerted efforts to protect the Skerki Bank site, located in the Tunisian Exclusive Economic Zone. This model could, among others, inform efforts to protect marine biological diversity in areas beyond national jurisdiction in the BBNJ process. UNESCO moreover builds capacities of its Member States in the protection of and research in underwater heritage through training programmes and assists in efforts to achieve legal protection and sound management of sites. These programmes under the 1972 World Heritage and 2001 Underwater Cultural Heritage Conventions contribute to the achievement of SDG 14.2, 14.5, 14.7 and 14.c.

(ii) Education for Sustainable Development, Ocean Literacy and Youth engagement

ESD is a key instrument to achieve sustainability for the oceans and achieve SDG 14. Educating about the oceans should be interdisciplinary and holistic, integrating scientific, social, gender, economic, cultural and ethical dimensions and also incorporating local, traditional and indigenous knowledge perspectives and practices. It should emphasize the interlinkages between SDG 14 and other SDGs. In its publication “Education for Sustainable Goals: Learning Objectives (2017)”, UNESCO proposes specific ESD learning objectives for SDG 14 in the cognitive, socio-emotional and behavioural domains of learning ([access to Learning objectives for SDG-14](#)). The Intergovernmental Oceanographic Commission is also further advancing the concept of ocean literacy and developing tools to mainstream ocean awareness with different type of stakeholders (e.g. private sector, decision makers, citizens, etc.).

ESD, as it relates to oceans, seeks to teach, inspire and empower people to make the right decisions in order to protect our oceans. This is about teaching people to better understand the oceans as a complete, complex and diverse system. It is about inspiring people to explore the marine environment and develop a better understanding of the role of oceans for the

survival of life on Earth. Educating people about oceans is about empowering people, youth in particular, with knowledge, skills, values and attitudes so that they are able to take responsible and informed decisions for the future of our oceans and of our planet.

It is crucial that people are informed and aware of the importance of the ocean to our lives, so that they can grow up caring and protecting our ocean. Education and ocean literacy for all and at all levels should therefore focus on enhancing awareness of the state of our ocean and on action-oriented responses. Learners should be involved in hands-on experiences such as adopting coastline areas, beach clean-up campaigns, and efforts to save endangered species and their habitats.

Only education, complemented by greater public awareness through the media, can change our unsustainable consumption and production patterns. People, as responsible consumers, should be encouraged to understand that there are major sustainability challenges with the ocean and that their daily efforts and attitudes can ultimately prevent a global disaster. The problem the world faces now concerns not only fish, coral, plankton, or even merely the ocean, but rather is a part of the global exploitation of the Earth's resources. The effects of changes in oceans will affect everyone on the planet, from consumers, to businesses, to governments, to international organizations. Education is an essential part of successfully encouraging making more responsible and sustainable choices when it comes to the ocean. Policy makers responsible for the achievement of SDG 14 should recognize the key role of education, specifically ESD, in protecting the oceans. Learning – widely understood as education and public awareness – should be integrated into all policy measures that address SDG 14. Policy makers responsible for education, should integrate 'ocean literacy' (the knowledge, skills, values and attitudes needed to protect and sustainably use the oceans) into education policies, so that learning about the oceans becomes a reality at all levels of education.

(iii) *Science/policy interface and integrated ocean management*

SDG 14 implementation would benefit from improved coordination mechanisms within national authorities to elevate science-based policy discourses on ocean governance and marine resources management. In this regard, countries should consider the establishment of national Ministries of Oceans/Marine Resources that place oceans at the center of their national development policies. Established Ministries should adopt an integrated approach to the management of human activities affecting the oceans and their resources and consider fisheries, agriculture, watershed and coastal management, forests, and biodiversity conservation. They should recognize the value that marine science and technology can contribute towards better informed decision making on the broad range of oceans and marine resources issues, including the effective designation of managed and protected areas, enhanced integrated coastal management, improved ocean zoning, improved sustainable marine resources management, improved tourism policies and capitalizing on the holistic "ridge to reef" approach.

(iv) *SIDS*

As reflected in UNESCO's SIDS Action Plan, the Organization emphasizes the importance of *interdisciplinary* cooperation and *multiple knowledge systems* in achieving SDG14 and related SDGs (3, 10, 13, 17). Considering the central theme of the conference, UNESCO proposes that

this effort would benefit from including indigenous and local knowledge systems, the involvement of youth and coastal community engagement with ocean knowledge through new technologies, participatory research and citizen science. Such complementary knowledge mobilisation increases the diversity of data, observations and value systems; it further addresses multidimensional representation of vulnerability, needs and capacity. Land-to-sea participatory mapping is a valuable example of ocean-users being able to represent indigenous and local knowledge of coastal and marine environments for policy and science interaction. These tools are usually low cost and help create new partnerships and intergenerational learning. Specific efforts should be targeted to SIDS in order to assist them to strengthen their national, sub-regional and regional enabling environment through Science, Technology and Innovation (STI) policy framework and institutional mechanisms that not only deploy modern marine STI but also mainstream traditional marine technologies for the socio-economic and inclusive development of SIDS.

(v) Indigenous peoples

The role of indigenous peoples and their respective knowledge systems should be acknowledged and mobilised across the themes of the interactive dialogues of the Conference. Whether in the Arctic, mainland coastlines or SIDS, indigenous peoples are marine resource users, custodians and knowledge holders, often with holistic intimate knowledge of ocean currents, weather and climate patterns, as well as biodiversity. Practices such as customary resource management and contemporary Locally Managed Marine Areas (LMMAs) provide valuable models of stewardship, conservation, and ecosystem-based adaptation. Detailed knowledge of open ocean navigation provides a wealth of knowledge on biodiversity beyond national jurisdiction. This wealth of knowledge and practice could provide a foundation for an inclusive and equitable 2020 UN Oceans Conference.

II. Scaling up ocean action based on science and innovation

A. UN Decade of Ocean Sciences for Sustainable Development

The UN Decade of Ocean Science for Sustainable Development offers a unique opportunity to scale up ocean action based on science and innovation. It aims to create a global process to generate the body of ocean science and knowledge the world needs to achieve a healthy and sustainable planet. It will build on existing partnerships and technologies and create new ones to enhance and expand the global scientific capacity **required** to quickly collect issue-specific information to meet the constantly evolving needs of sustainable management in a rapidly developing global blue economy.

In order to meet these needs the Decade will need to:

- Develop new technologies, including new sensors and new methodological approaches, to measure and monitor the ocean,
- Identify and routinely measure essential variables related to the ocean, climate, and ecosystems that can serve as sentinels of ocean function and health,
- Develop a comprehensive digital atlas of seabed topography and conditions,
- Establish new public-private partnerships in ocean observing, data distribution, and information product delivery (e.g. Ocean Data Platform), and

- Develop new tracking and prediction capacities to support integrated multi-hazard early warning systems, including improved community preparedness and awareness.

The Decade will drive the generation of interdisciplinary science, data, and information needed by multiple stakeholders to meet sustainable development goals by breaking down barriers and finding new ways of better integrating data and providing the analytical tools to aid decision-making for sustainable development. This “whole earth” approach to ocean modelling will allow communities to better account and plan for the complex and often non-linear processes that drive ocean systems and the many pressures impacting them.

A globally coordinated effort to better observe, understand and predict the ocean is urgently needed to reverse current ongoing declines in ocean ecosystem health and function and to meet the development and security needs of a growing world. Achieving the Sustainable Development Goals will require a clear and unbiased understanding of how human activities impact ocean health, how ocean ecosystems and biodiversity benefit people, how ocean and coastal hazards threaten lives and livelihoods, and how healthy ocean ecosystems contribute to the present and future well-being of the world’s growing population. The current pace of scientific advances and oceanic data collection has generated a solid foundation for better management of the ocean, but it is not enough if we are to realize a future sustainable ocean.

Only with a global effort that brings together scientists, engineers, and scholars from all disciplines to work with stakeholders from all sectors of the community, will we achieve the accelerated ocean science needed for better stewardship of ocean resources.

The Decade plans are being developed by the IOC of UNESCO through regional consultations and co-designed approaches. These will be unveiled at the Lisbon UN Ocean Conference in June 2020 at a flagship event on the Ocean Decade. Commitments to support Decade activities will be sought from governments, private sector, philanthropic organizations, civil society, science and academic communities. These should also be seen as commitments to the 2nd UN Conference, hence bringing a new generation of science focused partnerships in support of SDG 14.

B. The Global Ocean Science report: A baseline for measuring science capacity and innovation

The GOSR2020 will include an analysis of the contribution of ocean science to development of patents. Patents constitute a proxy of ocean science production while highlighting the benefits and opportunities of intellectual property rights. A technometric analysis of patents based on ocean science allows to measure the types and degree of innovation generated through strategic investments in ocean science, in support of solutions to the sustainability issues faced by the world ocean. This analysis will also be unveiled at the 2nd UN Ocean Conference. The GOSR will provide an essential tool to identify where further investments in research are needed, and therefore for upscaling the impact of ocean science.

III. Developing partnerships for the implementation of SDG 14 through voluntary commitments

Emerging partnerships in critical areas of relevance to the 2nd UN Ocean Conference and their contribution to the Voluntary Commitments

A. Global Ocean Decade Alliance

The purpose of the Decade Alliance will be to stimulate support and participation in the UN Decade of Ocean Science for Sustainable Development from governments, businesses, foundations, NGOs and all other stakeholders. The idea is to form a network of leaders that will stimulate and motivate others to take ambitious action in advancing ocean science toward addressing societal needs. Through the promotion of scientific innovation, science-based approach to ocean management, and targeted investment in ocean research infrastructure and capacities, the Alliance aims to create a movement for delivering fit-for-purpose ocean knowledge for all components of the ocean science value-chain, benefitting all users, from citizens to policy makers. The Alliance will be included as part of the proposed flagship event for the Lisbon Conference on the Ocean Decade, organized in cooperation with the two host countries.

B. Integrated partnership on ocean and climate research

The IOC had partnered with the main programmes and organizations dealing with carbon research to develop an integrated ocean carbon research plan. IOC, IOCCP, SOLAS, IMBeR, CLIVAR and GCP experts gathered in Paris to matchmake the knowledge needs elaborated by the UNFCCC and its SBSTA in relation to the role of the world ocean in the climate system and its contribution to mitigation of climate change. This initiative constitutes a concrete partnership between science and policy in support of robust knowledge underpinning informed timely and responsible decisions to guarantee the sustainability of our climate system, of which the ocean is a critical element.

C. Partnerships on integrating biological ocean research and observations in current and future efforts

Ocean chemistry and physics research and observation are widely established, human and technical capacity is improving at the global level. However, information on the impacts of unsustainable use of ocean resources is still limited. Integrating biological research in future science efforts and aligning biological ocean observation, addressing the use of ocean resources and impacts of anthropogenic multiple stress, will help to develop adaptation and mitigation strategies, sustaining ocean services. An international partnership will be formulated to foster cooperation on these activities.

D. Ocean Decade Heritage Network

In preparation of the UN Decade of Ocean Science for Sustainable Development 2021-2030 and the second UN Ocean Conference, UNESCO established a partnership with the Ocean Decade Heritage Network representing various marine and underwater cultural heritage stakeholders to raise awareness in the cultural heritage community about the Decade objectives and coordinate activities towards it. UNESCO, through the 2001 Convention on the Protection of the Underwater Cultural Heritage, is also pursuing the establishment of a public-private partnership with a major private entrepreneur actively engaged in the protection of

oceans with a view to developing research capabilities in underwater cultural heritage safeguarding and inventorying.

IV. Possible themes for interactive dialogues

UNESCO and its IOC stand ready to contribute to several interactive dialogues, and propose a dialogue on ocean science and capacity development, which would focus on the Plan of Action for the Decade of Ocean Science for Sustainable Development (2021-2030). In addition it stands ready to mainstream science and innovation as a cross cutting element of the interactive dialogues, including through the identification of experts, innovative projects and partnerships, and through developing policy statements on science knowledge in relation to specific SDG 14 related elements. Together with WMO and IMO, UNESCO and its IOC propose an interactive dialogue on Safe and Healthy Ocean - considering innovative ways of using science, monitoring and services to improve early warning systems to protect lives, infrastructure and ecosystems in marine and coastal areas.

Topics and discussion could address:

- multi-hazard early warning systems
- coastal barrier protection (e.g. coral reefs, mangroves) to protect the coast from the impacts of physical hazards such as waves, storm surge, tsunami.
- marine environmental emergency response (e.g., from oil spills, nuclear fallout, HABs) and innovative ways of modelling, forecasting and responding to such disasters
- early warning in sub-seasonal to seasonal time scales could be considered (e.g., El Nino impacts on ecosystem health) including international coordination for regions subject to impacts
- ship observations helping to improve forecasts and warnings for mariners at sea
- Examples could be given in SIDS, Polar regions
- International Partnerships WMO, IOC, IMO, IAEA, UNISDR, Future Earth
- Regional partnerships including SPC, SPREP, CPPS, ERFEN, CMCC, Arctic Council (PAME; EPPR), Antarctic Treaty.

UNESCO also proposes an interactive dialogue on “Protecting the Heritage of the Ocean” to illustrate the importance of understanding past developments in the oceans and their impact on human life, as demonstrated by heritage sites showing sea level rise and climate change impact. UNESCO could leverage its vast network of marine world heritage sites and its coastal and marine biosphere reserves, as well its expertise on underwater cultural heritage. The dialogue showcase examples of cooperation n between World Heritage marine and Biosphere Reserve sites from different countries, which led to tangible conservation gains and sustainable development models. Several marine sites have established site-to-site agreements or collaborate through pioneering initiatives on building resilience in coral ecosystems, zero-emission zones, scientific research, sustainable partnerships with the private sector, or equitably sharing benefits.