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INFORMATION DOCUMENT

IOC AND THE OCEAN DECADE: CONTRIBUTION AND INTERACTION

Summary

This document prepared by the Secretariat illustrates the continuous alignment and synergies between the UN Decade of Ocean Science for Sustainable Development (2021–2030) and relevant programmes and activities of the IOC, in particular the High-Level Objectives and Functions of IOC defined in its Medium-term Strategy and the Outcomes set out in the Decade Implementation Plan. This information is particularly noteworthy as the Ocean Decade has now received endorsement by the UN General Assembly at its 75th session in December 2021.

1. Motivation: the IOC and the Decade

The Draft IOC Medium-Term Strategy (MTS) for 2022–2029 quotes from the IOC Statutes that:

The purpose of the Commission is to promote international cooperation and to coordinate programmes in research, services and capacity development, in order to learn more about the nature and resources of the ocean and coastal areas and to apply that knowledge for the improvement of management, sustainable development, the protection of the marine environment, and the decision-making processes of its Member States.

This quote can be succinctly summarized that the purpose of IOC is to generate and apply the “science we need for the ocean we want”, which represents the vision of the United Nations Decade of Ocean Science for Sustainable Development (hereinafter referred to as ‘the Decade’).

With the endorsement by the 75th UN General Assembly of its Resolution [A/75/239](#) (Oceans and the Laws of the Sea, December 2020), IOC assumes the duty of the Decade *coordinating agency*. It is the IOC that proposed the Decade to the United Nations, and, after the successful work on the Decade Implementation Plan, is given a further credit of trust to coordinate the Decade. But the Decade also offers IOC a unique (“once-in-a-life-time”) opportunity to increase its *own capacity* to deliver on its very important and constantly expanding mandate.

Concluding the work on the Medium-term Strategy (MTS) for 2022–2029, defining the IOC budget for the next financial period, strengthening IOC programmes and activities, populating the plan of the Decade with appropriate scientific content, developing the vision of the IOC of the future (e.g., in terms of “healthy” and “optimal” IOC) are all connected issues. The IOC success in coordinating, contributing, and self-developing in association with the Decade requires strategic brainstorming. This information document suggests initial elements of this process and the starting benchmark. The IOC Assembly at its forthcoming 31st session will consider the subject and will take a decision.

2. Matching IOC work and the Decade

IOC planning is driven by interests of its Member States and is governed by them, within and outside of IOC. The Decade planning has been a very inclusive process involving many different stakeholders. Because of that, planning of IOC contribution to the Decade and identification of opportunities for IOC development could be informed by an analysis of how IOC focus and programmes map to the different elements of the Decade Action Framework that guides Decade planning. The IOC MTS pillars are High Level Objectives (HLOs) and functions. They translate into IOC programmes and activities. The Decade Implementation Plan outlines outcomes, challenges, and objectives. Proposals for the initial set of Decade actions – in the form of programmes – are currently being collected and analysed.

The Table below lists MTS HLOs and Decade outcomes (DOs).

MTS HLOs	DOs
<ol style="list-style-type: none"> 1. Healthy ocean and sustained ocean ecosystem services. 2. Effective warning systems and preparedness for tsunamis and other ocean-related hazards. 3. Resilience to climate change and contribution to its mitigation. 4. Scientifically-founded services for the sustainable ocean economy. 5. Foresight on emerging ocean science issues. 	<ol style="list-style-type: none"> 1. A clean ocean where sources of pollution are identified and reduced or removed. 2. A healthy and resilient ocean where marine ecosystems are understood, protected, restored and managed. 3. A productive ocean supporting sustainable food supply and a sustainable ocean economy. 4. A predicted ocean where society understands and can respond to changing ocean conditions. 5. A safe ocean where life and livelihoods are protected from ocean-related hazards. 6. An accessible ocean with open and equitable access to data, information and technology and innovation. 7. An inspiring and engaging ocean where society understands and values the ocean in relation to human wellbeing and sustainable development.

IOC HLOs more closely reflect Member States desired capacities stemming from the ocean science. DOs reflect both the desired qualities of the ocean and the desired relationship between humans and the ocean at the end of the Decade. Significant consistency between the HLOs and DOs makes it possible to conclude that working towards IOC HLOs can help achieving most if not all DOs. There are therefore significant synergies between IOC and the Decade.

This strong synergy can be further traced back looking at the (potentially incomplete and approximate) portfolio of IOC programmes in Figure 1.

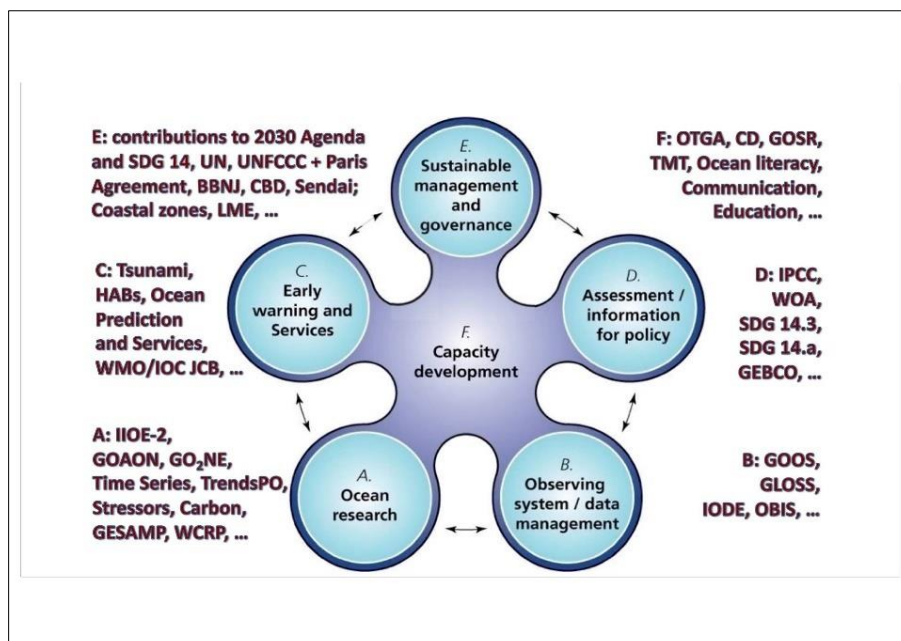


Figure 1. Abbreviated names of main IOC programmes and activities and their approximate attribution to IOC Functions

The Decade process and 10 initial (subject to future changes if necessary) challenges are shown in Figure 2. The challenges represent priority areas for collective action to reach the outcomes.

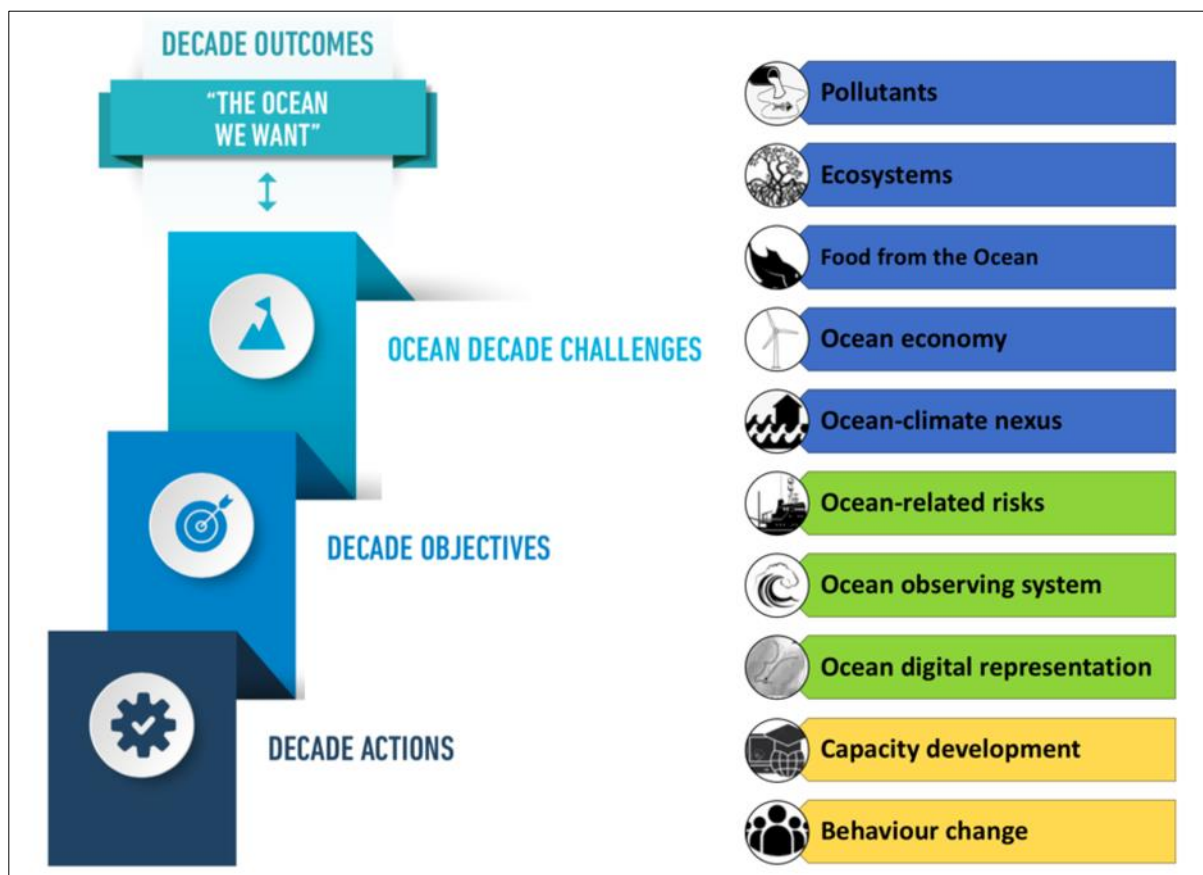


Figure 2. Decade planning and initial challenges

For each of the Challenges, it is possible to identify IOC contributing activities and programmes. Many IOC activities contribute to more than just a single challenge; this is entirely consistent with the inter-connected nature of the challenges.

Ocean Decade Challenge	Existing IOC programme/activity
<p>Ocean Decade Challenge 1: Understand and map land and sea-based sources of pollutants and contaminants and their potential impacts on human health and ocean ecosystems and develop solutions to mitigate or remove them.</p>	<ul style="list-style-type: none"> → IOC-UNEP Nutrients and Coastal Impacts Research Programme (N-CIRP), SDG 14.1.1a → GESAMP WG 40 on Plastics and Micro-plastics in the Ocean: Marine Plastics (SDG 14.1.1b)
<p>Ocean Decade Challenge 2: Understand the effects of multiple stressors on ocean ecosystems, and develop solutions to protect, monitor, manage and restore ecosystems and their biodiversity under changing environmental conditions, including climate.</p>	<ul style="list-style-type: none"> → Ecosystem based management-related work → WG on Multiple Ocean Stressors → GOA-ON and IOC work on ocean acidification, SDG 14.3.1 → Marine Spatial Planning, Coastal Zone Management, Large Marine Ecosystems, decision-support tools

Ocean Decade Challenge	Existing IOC programme/activity
	<ul style="list-style-type: none"> → Global Ocean Oxygen Network (GO2NE) → IOC International Group for Marine Ecological Time Series (IGMETS) → IOC WG on Climate Change and Global Trends of Phytoplankton in the Ocean (TrendsPO) → GOOS → OBIS → GEBCO
<p>Ocean Decade Challenge 3: Generate knowledge, support innovation, and develop solutions to optimise the role of the ocean in sustainably feeding the world's population under changing environmental, social and climate conditions.</p>	<ul style="list-style-type: none"> → Contributions from the Harmful Algal Blooms portfolio of activities, ecosystem based management-related work, Marine Spatial Planning, Coastal Zone Management, Bio-Eco module of GOOS
<p>Ocean Decade Challenge 4: Generate knowledge, support innovation, and develop solutions to contribute to equitable and sustainable development of the ocean economy under changing environmental and social conditions.</p>	<ul style="list-style-type: none"> → IOC Marine Spatial Planning, coastal zone management, and ecosystem based management-related work, decision-support tools
<p>Ocean Decade Challenge 5: Enhance understanding of the ocean-climate nexus and use this understanding to generate solutions to mitigate, adapt and build resilience to the effects of climate change, and to improve services including improved predictions and forecasts for weather, climate, and the ocean.</p>	<ul style="list-style-type: none"> → Integrated Ocean Carbon Research Group (IOC-R) → GESAMP WG 41 on Ocean Interventions for Climate Change Mitigation → Blue Carbon Initiative (BCI) and International Blue Carbon Partnership (IBCP) → IOC-WMO-ISC World Climate Research Programme (WCRP) → GOOS → GLOSS → Coastal Adaptation through coastal zone management (ICAM)
<p>Ocean Decade Challenge 6: Expand multi-hazard warning systems for all biological, geophysical, and weather and climate related ocean hazards, and mainstream community preparedness and resilience.</p>	<ul style="list-style-type: none"> → IOC Tsunami Programme → The Harmful Algal Blooms portfolio of activities and emerging work on ocean and human health
<p>Ocean Decade Challenge 7: Ensure a sustainable ocean observing system that delivers timely data and information accessible to all users on the state of the ocean across all ocean basins.</p>	<ul style="list-style-type: none"> → GOOS → GLOSS → Joint IOC-WMO Collaborative Board

Ocean Decade Challenge	Existing IOC programme/activity
<p>Ocean Decade Challenge 8: Through multi-stakeholder collaboration, develop a comprehensive digital representation of the ocean, including a dynamic ocean map, which provides free and open access for exploring, discovering, and visualizing past, current, and future ocean conditions in a manner relevant to diverse stakeholders.</p>	<ul style="list-style-type: none"> → IOC International Oceanographic Data and Information Exchange Programme (IODE) → IOC Ocean Data and Information System (ODIS) → GEBCO → WCRP CMIP → Ocean Prediction activities → GOOS → GLOSS → OBIS (Ocean Biodiversity Information System)
<p>Ocean Decade Challenge 9: Ensure comprehensive capacity development and equitable access to data, information, knowledge and technology across all aspects of ocean science and for all stakeholders regardless of geography, gender, culture, or age.</p>	<ul style="list-style-type: none"> → IOC Capacity Development activities (implementing the IOC Capacity Development Strategy) → Transfer of Marine Technology (TMT) → A key focus of work of IOC Regional Subsidiary Bodies and their Secretariats → IOC Intergovernmental Oceanographic Data and Information Exchange Programme (IODE) → OceanTeacher Global Academy and its Regional/Specialized Training Centres → Regional Training and Research Centres (WESTPAC) → UNESCO Category 2 Centres associated with IOC → UNESCO Chairs in Marine Sciences
<p>Ocean Decade Challenge 10: Ensure that the multiple values and services of the ocean for human wellbeing, culture, and sustainable development are widely understood, and identify and overcome barriers to behaviour change required for a step change in humanity's relationship with the ocean.</p>	<ul style="list-style-type: none"> → IOC Ocean Literacy activity → IOC communication work

It can be seen that the current set of IOC activities already make a significant direct contribution to almost all initial Decade challenges. The question is how to strengthen the IOC programmes and how to use the opportunity of the Decade to help IOC to deliver on its mandate, simultaneously contributing to the achievement of Decade outcomes. This may take the form of specific IOC Decade initiatives.

3. IOC's direct contribution to the Decade

3.1 Contribution of IOC programmes to the Decade

In the fourth quarter of 2020, the IOC Secretariat conducted an internal assessment of current and likely future mutual alignment of IOC programmes, activities, and potential initiatives with the Decade's Action Framework leading to initial ideas of potential proposals for IOC's contributions to the Decade through its first and subsequent calls for action.

A number of thematic areas and crosscutting issues, offering for IOC a potential to make a strong contribution to the Decade in the future, are presented below.

- IOC would facilitate **ocean research** initiatives focused on:
 - identification of main ocean stressors and their interaction with a view to informing ecosystem based management, through co-design of multiple drivers experiments, identification of ecosystem-level reference points related to multiple stressors, development of indicators for systematic observations on multiple stressors, and integration of the multi-stressor approach in ocean models and predictions;
 - coordination of the ocean carbon research and observation agenda for the next decade, in line with climate change mitigation and adaptation needs of the UN Framework Convention on Climate Change and its Paris Agreement, including the contribution of blue and ocean carbon to National Determined Contributions and scientific and societal assessment of Carbon Dioxide Removal techniques; and
 - ocean and human health, with a view to bringing together the ocean science, environmental science, medical and public health communities for the co-creation and engagement with businesses, governments, local communities and NGOs to enhance the links between ocean and human health in relation to marine biodiversity, biotechnology and medicine; sustainable seafood and healthy people; blue spaces, tourism and wellbeing.

The potential initiatives would mainly contribute to Challenges 2, 5, with positive spill-over effects to many other Challenges.

- As a co-sponsor of **Global Ocean Observing System (GOOS)**, IOC contributes to the articulation of initiatives in support of the Decade through ocean observations. GOOS programme proposals are articulated around a central theme of GOOS integration (in multiple dimensions: across the value chain to users, across disciplines, delivery areas, open ocean and coast) and are:
 - “Observing together” [working title] focused on meeting stakeholder needs and making every observation count, envisioned as having many small projects underneath;
 - “Integrated system design” [working title] focused on building active observing system design capability and infrastructure, with mechanisms to test the observing system for different purposes, identify gaps, and report; and working across observing and modeling communities and representative end users; and
 - GOOS’ engagement in [CoastPredict](#), including the need to engage the IOC Marine Spatial Planning initiatives.

The potential initiatives would be the core contribution to Challenge 7, a strong input to Challenge 8, with positive spill-over effects to many other Challenges.

- IOC will develop a ‘Decade digital ecosystem’ based on inclusive and outward-facing co-design and co-construction of a distributed, integrated and interoperable set of digital solutions that will form components of the overall ecosystem. The system will follow the IOC/IODE **Ocean Data and Information System (ODIS)** concept but will be developed through close collaboration with a wide variety of stakeholders (UN entities, governments, industry, philanthropic foundations, research institutes and other partners). It will further strive towards establishing long-term persistent and secure

archives of ocean data and information. IOC will develop a training and education system to assist Member States with acquiring and applying the capacity necessary to contribute equitably to and access the knowledge available in the Decade digital ecosystem.

The initiative would contribute to Challenge 8 and provide a backbone for the work in many other Challenges and achieving Decade outcomes.

- IOC, through GOOS and IODE, has developed and will further expand a **Ocean Best Practices** System (OBPS) to achieve agreed and broadly adopted methods across ocean research, operations and applications that will facilitate global collaboration on Decade objectives.

The initiative would link the work of many Decade participants and can be thought of as contributing to transformation of ocean science delivery and leading to positive behaviour change (Challenge 10).

- The IOC **Tsunami** Programme, under the guidance of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG) proposes a framework from which actions can be developed to address critical gaps in the system as a whole. It envisions realizing transformational gains related to rapid tsunami detection, measurement and forecasting capability and communities that are Tsunami Ready along with dedicated capacity development efforts, specifically targeted at SIDS and LDCs. This framework may translate into a top-tier UN Decade Programme providing an umbrella to the contributions or actions IOC Member States that align with the components of UNDRR people-centered Early Warning Systems including advances in:
 - Risk Knowledge:
 - Improving our understanding of the tsunami risks through expanded knowledge of past or potential tsunami sources,
 - More full understanding of the impacts to critical infrastructure and marine assets and how to minimize them;
 - Monitoring and Warning:
 - More quick detection of tsunamis and direct measurement of their parameters through ocean observations including instrumentation on undersea cables,
 - Ensuring identification of critical tsunami generation parameters a through the optimal use and real-time sharing of new and existing sensors and data,
 - Leveraging the Seabed 2030 hydrographic survey initiative to ensure nearshore coastal zones have complete bathymetric / topographic data coverage at the required horizontal resolution;
 - Warning Dissemination and Communication:
 - Ensuring full integration of tsunami services within a Multi-Hazard Early Warning Framework,
 - Facilitating timely warning dissemination and communication options that are appropriate for geographic, demographic, and infrastructure conditions;
 - Response Capability:
 - Ensuring availability of tsunami evacuation maps for all coastal communities,

- Ensuring that 100% of tsunami-vulnerable communities around the world meet the indicators outlined in the UNESCO/IOC Tsunami Ready programme,
- Ensuring that plans to minimize impacts to critical infrastructure and marine assets are in place for quicker and more efficient post-tsunami restoration of services;
- Capacity Development and attention to SIDS and LDCs:
 - Enhanced capacity development in understanding of the tsunami hazard, for timely warning, response and resilience,
 - Ensuring that SIDS and LDCs are fully integrated into all phases of the global Tsunami Warning and Mitigation System.

The initiative closely aligns with Challenge 6 and contributes to attainment of the “Safe Ocean” outcome. It should lead to behaviour change (Challenge 10) and positively influence many challenges and outcomes.

- IOC will facilitate the advancement of **knowledge-based ocean management tools** such as marine spatial planning, coastal zone management, marine protected areas, and transboundary management of Large Marine Ecosystems (LMEs) based on science innovation and new technologies so that ocean stakeholders are equipped to set environmental and socio-economic objectives, develop operational plans, define safe boundaries and guidelines for operations, as well as reduce conflicts among multiple uses of ocean space. Partnerships with national marine management organizations, regional ocean management organizations, academia and research, economic actors and civil society organizations will be pursued.

The initiative can serve a foundational role for science – based sustainable ocean management, contributing to the Decade challenges 2,3,4 and 10.

- IOC will develop scientific and technical information, services, and management tools for the responsible growth of a **sustainable ocean economy**. Expected growth in ocean renewable energy, mariculture, mining and tourism will require new observation, data and services that inform industries and regulators to support planning through monitoring and assessment of the sustainability of ecosystem services. New products will be developed in partnership with economically focused organizations, including economic foresight and science planning tools based on innovative science and delivered through science-policy-society interfaces.

The initiative will enable advances in Challenges 4, 7, and 9.

- IOC will implement the Decade strategic framework for **capacity development (CD)**, focusing on the six desired results (human resources, access to infrastructure, institutional mechanisms, ocean research policies, increased visibility and awareness, and resource mobilization). It will develop a training and education system to assist Member States with acquiring and applying the capacity necessary to contribute equitably to and access the knowledge available in the Decade digital ecosystem. The Commission will establish partnerships and cooperation arrangements as essential pillars of all capacity development during the Decade. Collaboration between governments, UN entities, research organizations, NGOs, private sector and others that leverage partner capabilities, expertise, platforms, data, best practice methods, or joint funding opportunities, will lead to optimal efficiencies, effectiveness and impact of capacity development initiatives.

The initiative be a direct defining contribution to Challenge 9, which is determining the global success and long-term heritage of the Decade.

- IOC will continue and expand activities in **Ocean Literacy**. It will enable and scale up action regarding ocean sustainability in all sectors of society.

IOC Ocean Literacy initiative will accelerate a fundamental shift in the way the ocean is valued, understood, and managed. This constitutes the needed behaviour change called for in Challenge 10.

- The IOC's **regional subsidiary bodies** (as well as Member States not part of these bodies) will undertake a broad spectrum of activities including but not limited to:
 - Collaboration and co-design between global programmes and regional bodies in order to achieve the necessary capacity to participate equitably in decade actions.
 - Collaboration between regional bodies and their ocean expert communities in order to share capacities. Examples include: a 'training and education' system enabling experts across all regions to share training and education materials; 'match making'; visiting lecturers, fellowships, etc.;
 - Contributing to relevant regional conventions and frameworks;
 - Undertake regular CD needs assessment surveys to identify gaps in national and regional capacity as well as monitor progress in IOC's CD effort, addressing the objectives of the IOC CD strategy and well as the Strategic framework for capacity development initiatives during the Decade.

While a key focus of IOC regional subsidiary bodies is capacity development, hence Challenge 9, they and Member States will undertake a large number of activities in the domains of all other challenges.

3.2 IOC as key catalyst in the Ocean Decade

Global, regional and thematic coordination

As an integral part of its contribution to the Decade and as the Decade coordinating agency, IOC will take on to establish and sustain a Decade Coordination Unit (DCU). It is anticipated that most positions foreseen in the DCU would be funded through extra-budgetary resources. The three DCU main functions are to act as the: (i) primary coordination office for the implementation of Decade Actions; (ii) Secretariat for the Decade Advisory Board; and (iii) Secretariat for the Ocean Decade Alliance. The Implementation Plan describes in more details the function of the DCU. The Unit will work in close collaboration with the Secretariats of other UN entities and may include seconded staff from UN entities and programmes.

Furthermore, the Decade governance framework includes different types of decentralized coordination structures for which IOC programmes and regional subsidiary organs may take on leading coordinating role acting as 'decentralized' Decade Coordination Units, responsible for a regional portfolio of Decade Actions and/or specific thematic initiatives. Subsequently, with the provision of adequate resources matching these additional responsibilities, secretariats of relevant IOC Programmes and Regional Subsidiary Bodies may take on such role, in accordance with the decisions of their respective parent body.

Convening Stakeholders around Decade themes

IOC is recognized as a competent and leading UN body in several thematic areas corresponding to the Decade Challenges, including role of ocean in climate change,

ecosystem science, global data architecture, observation and early warning systems. Through various IOC programmes and related delivery-mechanisms, the Commission interacts with a whole suite of international and national stakeholders working in ocean research, operational services, the science-policy interface, technology and innovation, education, and science funding. The engagement of these stakeholders is key to the success of the Decade. Existing IOC programmes are well placed to act as convening platforms, contributing to the design of actions, and creating collaboration and partnerships with an increased range of stakeholders that the Decade will bring together through a global stakeholder forum. The Decade will promote a stakeholder ecosystem that builds on existing stakeholder groups and platforms, and that will develop and evolve organically over the next ten years and beyond. Whilst the DCU will facilitate connections between networks and partners who may be able to provide resources, there is a clear role for relevant IOC programmes in terms of curating and managing communities of practice within the Decade framework. For example, GOOS, IODE, Ocean Literacy and Tsunami are emerging as thematic conveners for their respective communities, providing an effective platform for consultations and formulation of Decade actions.

4. Leveraging the Decade’s transformative power for IOC

General considerations

The main transformation to be achieved in the course of the Decade is to strengthen the ocean science so that it can systematically offer effective innovative solutions and motivate the society and elevate its readiness to implement these solutions. The Decade will aim therefore to build science capacity, mobilize scientists, facilitate an enabling environment for engagement of practitioners, decisionmakers, and the private sector in the development and use of science-based solutions to start managing the ocean sustainably (cf. the draft [IOC Medium-Term Strategy for 2022–2029](#)).

The Draft IOC Medium-Term Strategy for 2022–2029 refers to the Decade as ‘an exceptional opportunity to highlight the societal benefits of IOC and its programmes. (...) The Decade will also provide a powerful stimulus for IOC to contribute to implementing collectively-agreed global priorities. Successful realization of the Decade will rely on true ownership by many partners and stakeholders who will use the Decade framework and the opportunities it generates to deliver on their own mandates in sustainable development’.

In embracing and using the leveraging opportunities provided by the Decade, IOC will have the potential to build on and enhance the relevance of its core work. This can occur both in terms of the development of future directions of IOC programmatic work so that the scientific knowledge that is generated increasingly aligns with priority societal and user needs, and in terms of strengthening IOC’s focus on mechanisms, applications, services or tools that can deliver scientific knowledge to users and society. Enhanced focus on science delivery for ocean policy and sustainable blue economy – including links and new partnerships in marine spatial planning services - is one example of how an existing IOC programme could be further built out in the context of the Decade.

Stimulating Member States engagement

While the Decade has a global ambition, much of the tangible action will occur at the regional and national level. Regional and national platforms are already emerging in the framework of the Decade to translate the global priorities identified by the Decade to the local context. It is intended that Member States and partners will host a network of decentralized coordination structures to ensure robust regional and national coordination across the priority themes of the Decade and ensure collective impact and exchanges within and amongst different communities of practice. Via these mechanisms, the Decade has the potential to strengthen national coordination and engagement of Member States in IOC’s work. Existing

national IOC coordinating frameworks are well placed to lead and stimulate the formulation of Decade actions through engagement of national stakeholders going beyond the traditional technical and scientific remit. Engagement of Member States will be key to ensure that the global framework that the Decade offers is translated and supported by national decade programmes. It is encouraging to note that several countries are now establishing such programmes. A key role for IOC will be to facilitate exchanges amongst these national programmes through a dedicated platform.

Impact of the Decade on ocean economy, wellbeing of people, policy making, achievement of goals set up by various international conventions, e.g. UNFCCC, will create conditions for strengthening the converging power and authority of the IOC, its Governing Bodies, and national counterparts (e.g. responsible agencies or interagency committees for liaison with IOC). The Decade may also provide a framework for Member States to contribute resources to IOC's work in a coordinated manner in order to support the global ambition of the Decade.

Partnerships

The Decade has the potential to be transformative for the IOC in terms of diverse facets of resource mobilization and partnerships and to increase the visibility of the IOC and its core activities amongst existing and new actors, both within and outside the UN system. New forms of cooperation and, potentially, stronger formal links of IOC with other UN organizations can be catalysed given the inter-agency nature of Decade and the fact that ocean science represents a crosscutting, underpinning necessity for fulfilling mandates of multiple UN agencies. The enhanced role of ocean science in assisting Member States to achieve the goals of sustainable development, to implement international agreements and to address national priorities may warrant a reinforced coordination between UN agencies and a review of the IOC role and position in the UN system, building on UN-Oceans, the inter-agency coordination mechanism as well cooperative efforts amongst its members.

The Decade has a strong focus on the engagement of diverse stakeholder groups including private sector and philanthropy. It provides clear and tangible entry points for these stakeholder groups to support the generation and use of ocean science for societal benefit. Part of the Decade's mandate is the creation of connections between these partners - both in their role as resource providers and beyond - and contributors to Decade Actions. The IOC through its programmatic contributions to the Decade will have the potential to develop new or strengthened relationships with such partners. It can potentially benefit from new resource mobilization or partnerships with these actors that can support the dissemination and use of its work to generate societal benefit.

Promoting co-design and consolidation

The preparation of the Decade Implementation Plan offered to IOC and its programmes an additional possibility to review their status, interactions, perspectives, societal impact, and propose tangible Actions and coordination functions that they can contribute (either as lead proponents or in partnerships led by others). Alignment with the Decade may help to strengthen the programmes' service to Member States.

Because of the solution-oriented and transdisciplinary approach promoted by the Decade, its framework and anticipated actions offer an opportunity to design and implement new programmes of a more integrated nature, bringing together various IOC programmatic contributions related to science, observation, data, services, assessments, guidance for policy and ocean management, capacity development and technological innovation into one or several flagship initiatives.

It is possible to anticipate more consolidated delivery of the IOC programmes and UN agencies in the course of the Decade. From observations and data exchange, creating a digital representation of the ocean past present and future, though data processing, modelling and prediction, a suite of new services and ocean management approaches can be created, leading to more sustainable use of the ocean and more successful conservation and protection of its health.

All IOC programmes and networks should be encouraged to undertake, with the assistance of the IOC Secretariat and if not already part of an established mechanism, an active co-design process bringing together the ocean science communities beyond the programmes together with businesses and governments, at multiple scales, to identify strategic priorities, key actions and related outputs to be delivered during the time span of the Decade, according to the process presented in the following section.

5. Initial recommendations for planning the contribution of IOC to the Decade

Provisional analysis started in this information document suggests a very high potential synergy between the IOC purpose and activities and the Decade desired outcomes and challenges. Apart from its coordinating role, for the Decade, IOC Member States, programmes, and constituencies can truly help United Nations and peoples of the world to achieve the aspirations of the Decade. The Decade can help IOC to strengthen its delivery and fulfil better its statutory purpose. Very likely, this is a symbiosis.

The following initial considerations can be used for planning contributions of IOC to the Decade:

Role of IOC Programme Governance Structures

It is proposed that the governance structures of IOC programmes consider programmatic contributions to the Decade through the addition of a corresponding standing item on their meeting agendas. It is also proposed that governance structures consider creating Decade specific task teams or working groups to lead inter-sessional discussions and development of proposals for future Decade contributions.

Engagement of IOC Member States and experts in Decade structures:

A number of national, regional and thematic stakeholder initiatives are emerging in the framework of the Decade. Broad discussions take place between different actors on proposed Decade Actions, across themes or geographies. Participation by IOC Member States and IOC – affiliated experts in these initiatives (or leading the establishment of related structures or bodies where they do not yet exist, including, for example, regional and national committees) will provide an important pathway to ensuring that IOC's future contributions to the Decade are developed in keeping with principles of co-design and co-delivery and thus contribute to a shared, collective effort.

Support to IOC Decade activities

Annual reporting of the progress of IOC's contributions to the Decade will be provided to the Governing Bodies; proposals for future contributions will also be communicated. To avoid duplication of efforts in collecting and analysing data on progress of Decade Actions that involve IOC, information on progress will be collated from the annual reports that each Decade Action will prepare and submit to the DCU.