



Item 2.2: IOC Update

36th Meeting of Joint IHO-IOC GEBCO Guiding Committee
Portsmouth, NH, USA
7-8 November 2019

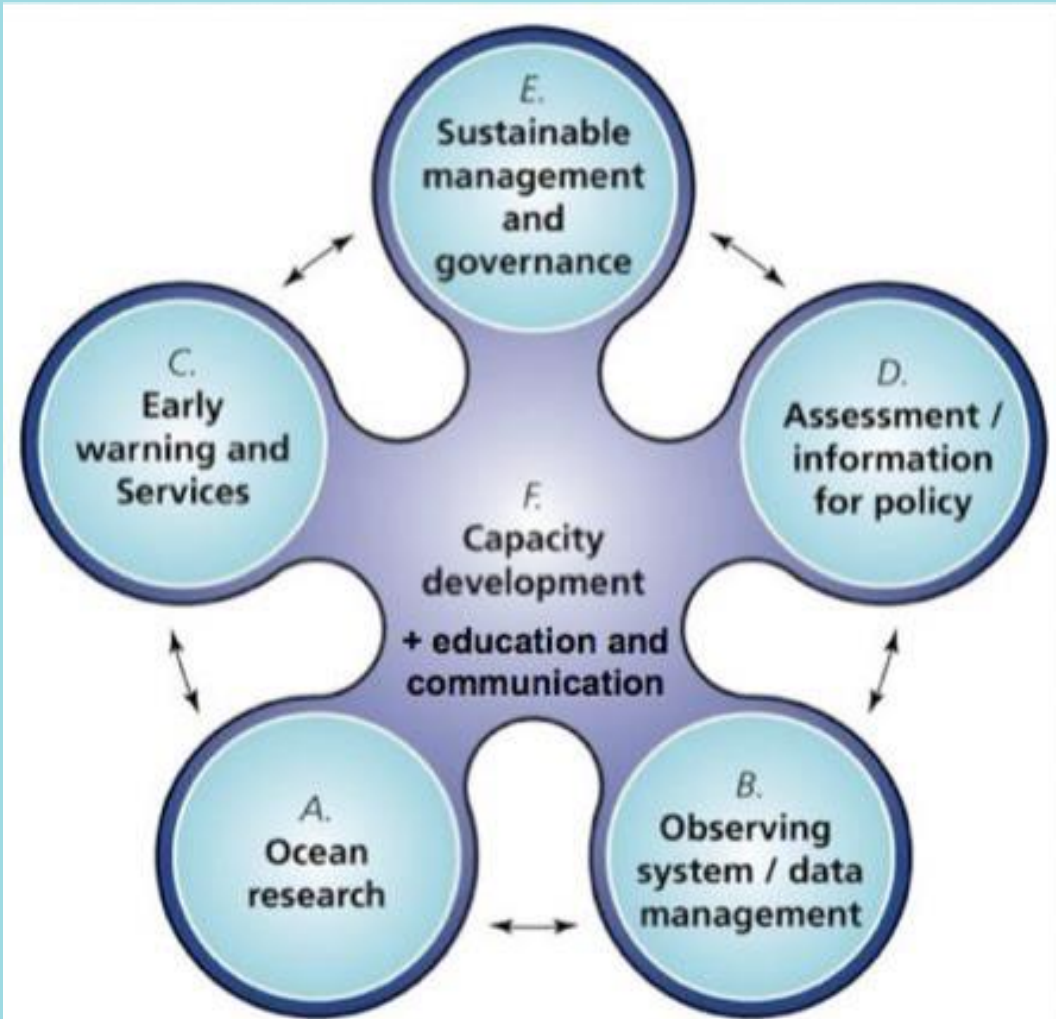
Julian Barbière
Head, Marine Policy and Regional Coordination Section
Intergovernmental Oceanographic Commission/UNESCO

OUR MISSION

The purpose of the Commission is to promote international cooperation and to coordinate programmes in research, services and capacity-building, 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

Member States:

- 150 Member States (as of 1 August 2018)
- Most recent member of IOC: Equatorial Guinea
- Small Islands Developing States (SIDS) membership in IOC: 35



DRAFT MEDIUM TERM STRATEGY – 2022-2029

1. Healthy ocean ecosystems and sustained ecosystem services
2. Effective early warning systems and preparedness for tsunamis and other ocean-related hazards
3. Increased resilience and adaptation to climate change and variability
4. Scientifically-founded services for the development of the sustainable ocean economy
5. Enhanced knowledge of emerging ocean science issues

Recent development since last GCC

- New **GOOS 2030** Strategy approved by co-sponsors
- **Ocean Obs 19**, Hawaii, September
 - codesign of the observing system, end-to-end, with stakeholders and users
 - Democratization of data, best practice, integration of biological and ecological observations, and a growing emphasis on the coast
 - Embracing innovation in technology and governance, and looking to the [#OceanDecade](#) as a vehicle for transformation
- New **JOINT WMO-IOC Collaborative Board** (high level coordination mech.)
 - Incorporating JCOMM functions on observation and forecasting
 - Improve forecasting, application in multi-hazard and risk management

Recent development since last GCC

- 2nd Edition of the **Global Ocean Science Report** (incl. national hydrographic surveying capacity) in preparation
- **IOC Ocean Data and Information System (ODIS) concept endorsed**
 - collaborate with those communities/systems in order to achieve improved accessibility, unrestricted use and interoperability of data and information

GEBCO Decision at 30th IOC Assembly

IHO-IOC GEBCO Guiding Committee

The Assembly,

Recognizing the continued need of the IOC scientific community for bathymetric products and the fact that access to high quality bathymetry is important not only for navigation, but also for other purposes including ocean science, tsunami warning and preparedness and climate modelling,

Takes note of the report of the GEBCO Guiding Committee Biennial Report for the period 2017–2019;

Endorses the amendment to the GEBCO Guiding Committee Terms of Reference and Rules of Procedure proposed by the GGC at its 35th meeting and presented in annex to document IOC/INF-1381, in particular paragraph 2.1 (Office bearers) in annex to this decision;

Encourages Member States to:

- (i) cooperate to advance basin-scale campaign mapping and accelerate the delivery of GEBCO objectives and general knowledge of the ocean in particular by supporting and contributing to the Nippon Foundation–GEBCO Seabed 2030 Project,
- (ii) facilitate GEBCO capacity development, including training opportunities, and
- (iii) actively participate in the next assessment, to be conducted by the Working Group on User Requirements and Contributions to GEBCO Products.

Side Event

30th Session of the Assembly of the Intergovernmental Oceanographic Commission



The Nippon Foundation GEBCO

Seabed 2030 Project

100% of the ocean floor mapped by 2030

Participants

Vladimir Ryabinin, *IOC Executive Secretary*

Shin Tani, *Chair, GEBCO Guiding Committee*

David Wyatt, *Assistant Director, International Hydrographic Organization (IHO)*

Graham Allen, *Acting Director, Seabed 2030 (National Oceanography Centre, UK)*

Peter Burger, *Global Director Safety & Sustainability, Fugro*

The UN Decade of Ocean Science for Sustainable Development calls for a Comprehensive map (digital atlas) of the ocean. Creating such a map of the seafloor bathymetry is a demanding global challenge that can only be accomplished through international collaboration and partnership. Coordination and capacity building is needed at global and regional scales and between governments, industry and academia to ensure that existing data are shared, that new and emerging technology is utilized, and that mapping campaigns are coordinated to efficiently 'map the gaps.'

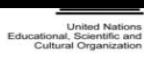
The General Bathymetric Chart of the Ocean (GEBCO) is the IHO and IOC Joint Project on ocean mapping. GEBCO recently embarked on The Nippon Foundation-GEBCO Seabed 2030 Project, a collaborative project to map 100% of the world's oceans by 2030. We will describe the strategy of Seabed 2030, provide an update on progress to date and explore how organizations and nations can contribute to Seabed 2030.

2nd July 2019

2.00 - 3.00 pm

Room VI

Contact: Julian Barbieri
J.barbieri@unesco.org



IOC Working Group on User Requirements and Contributions to GEBCO Products

IOC EXECUTIVE COUNCIL (51St session, 2018)

Decides to **conduct the Review of User Requirements and Potential Contributions to GEBCO on a biennial basis**, with the next assessment to be presented to the IOC Governing body in 2020

Mission

- 1/ Collect, integrate and assess the user needs and requirements to GEBCO data and products.
- 2/ Facilitate and guide the use of GEBCO datasets and products through the user communities that represent relevant IOC technical and regional subsidiary bodies.

Composition: representatives of IOC MS and experts from the GEBCO GC, and relevant IOC technical and regional subsidiary bodies (namely, GOOS, GLOSS, JCOMM, IODE, TOWS-WG, IOCAFRICA, IOCARIBE and WESTPAC).

Report of the IOC Working Group on User Requirements and Contributions to GEBCO Products (to IOC EC 51, 2018)

1) Relevance of GEBCO products (incl possible areas of improvement)

GEBCO's gridded bathymetric data sets

Grid display software

GEBCO Digital Atlas

Undersea Feature Names

IHO-IOC GEBCO Cook Book

2) User needs for GEBCO data and products (various IOC communities: eg Tsunami, ocean obs, Marine Spatial Planning, Ecosystem management, etc....)

3) Contribution to GEBCO data and products

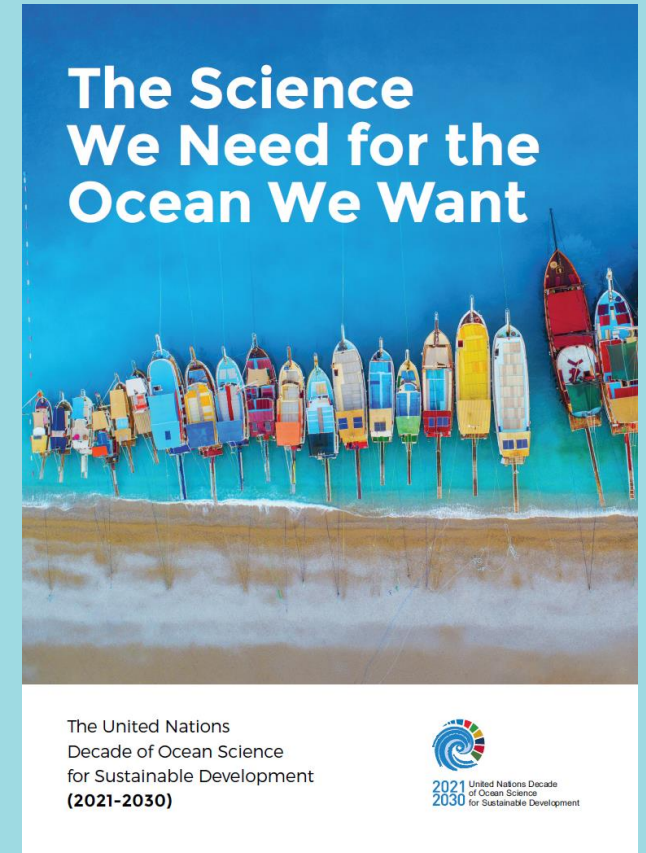
Options for strengthened cooperation for GEBCO data and products

Approach to increase data collected through scientific activities

Capacity-development needs in relation to GEBCO

International development with relevance to ocean mapping

- UN Negotiations on the High Seas (BBNJ process)
- 2nd UN Ocean Conference on SDG 14, Lisbon, 2-6 June 2020
- United Nations Decade of Ocean Science for Sustainable Development 2021-2030

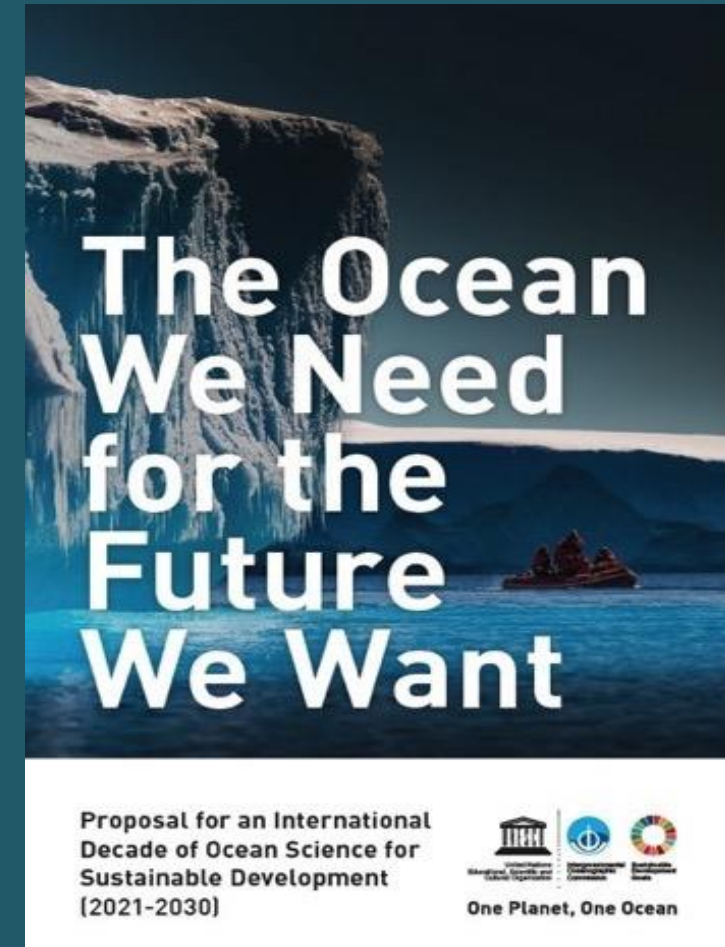




GENERAL ASSEMBLY OF THE UNITED NATIONS

Omnibus Resolution for Oceans and the law of the sea (A/RES/72/73) of 6 December 2017

1. Proclaimed the UN Decade of Ocean Science for Sustainable Development 2021-2030, within existing structures and available resources, and called upon the IOC to prepare an implementation plan for the Decade in consultation with ...(everyone).
2. Requested the IOC provide information on the development of the implementation plan and regularly consult with, and report ...
3. Invited the UN SG to inform the UNGA about the implementation of the Decade through his report on oceans and the law of the sea based on information provided by IOC...
4. Invited UN-Oceans and its participants to collaborate ...





INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

Fifty-first Session of the Executive Council
UNESCO, Paris, 3–6 July 2018

ROADMAP

Item 4.1 of the Revised Provisional Agenda

A Vision for the Decade

Develop scientific knowledge, build
infrastructure and foster partnerships
for a sustainable and healthy ocean

The Science We Need for the Ocean We Want



The United Nations
Decade of Ocean Science
for Sustainable Development
(2021–2030)



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

Process: timeline and milestones

2019

2020

Global Meeting (CPH)

Multistakeholders

Outputs:

- Research priority areas
- Knowledge/policy gaps
- **Participants/Stakeholders engagement**
- Mapping of existing building blocks
- Crosscutting issues (CD, Technology, Data, Partnerships)
- Financing pathways

REGIONAL/THEMATIC WORKSHOPS

Multistakeholders

Regional Workshop 1

Regional Workshop 2

Regional Workshop 3

Thematic consultation 1

Thematic consultation 2

Outputs:

- Contextual enrichment of R&D areas
- CD needs
- Identification of potential projects
- Partnerships

Global Meeting (2020)

Multistakeholders

Outputs:

- Consolidation of results from various consultations
- Structured Implementation plan
- Development of operational plans
- Formalize partnerships for projects
- Address cross-cutting issues

DECADE IMPLEMENTATION

PLAN 1.0

- Science Plan
- Work programme 2021-2023 (Phase I)
- CD Plan
- Governance arrangement
- M & E
- Communication



2nd UN Ocean Conf, Lisbon

UNGA

IOC GB

Stakeholders engagement

Synthesis from GPM/regional meetings/thematic consultations

Science plan scoping + Drafting of Implementation Plan,

EPG/UN+

Arctic Workshops, Tromsø, Norway, January 2020

Preparatory Phase: Consult with regional stakeholders



North Atlantic
Canada
Halifax
7-9 Jan. 2020



Med.
Venice
Jan. 2020



North Pacific
Workshop
(WESTPAC/PICES)
Tokyo
31 Jul./2 Aug.



Caribbean
Mexico
Oct.



Indian Ocean
(January 2020)



South Atlantic
Workshop
Brazil, Rio
25-27 Nov.



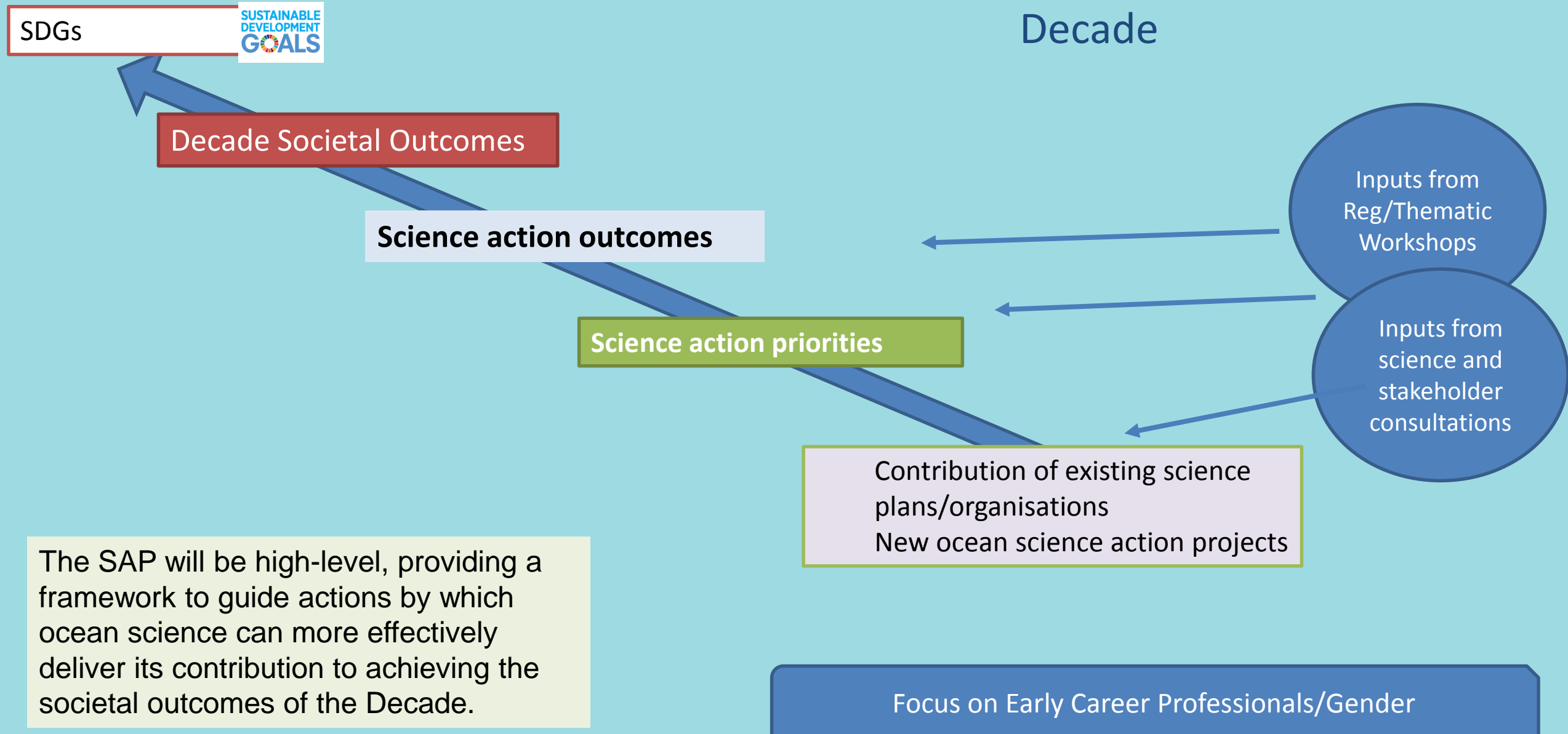
Southeast
Pacific (CPPS)
Ecuador
Guyaquil
23-26 Sept.

Pacific
Community
Workshop
(SPC)
23-25 Jul.



Antarctic Workshop (?)

Science Action Plan for the Decade



Where should we be by 2030

- A new generation of **observing technologies** for the ocean expanded to include more biological, biodiversity and ecosystem related parameters
- Use of **new generation modelling tools for prediction** of ocean conditions, including acidification
- Complete **mapping of the ocean conditions**, bathymetry, subduction zones and hot vents, functions and assessment of biodiversity
- Strengthened and directed **capacity building linked to technology transfer**, including new technologies, and sustained observations with related training
- An **information/data system** responding to the new role of science in communication and use of scientific results, regularly providing and updating information on the state of the ocean

Financing/partnerships



United Nations
Educational, Scientific and
Cultural Organization



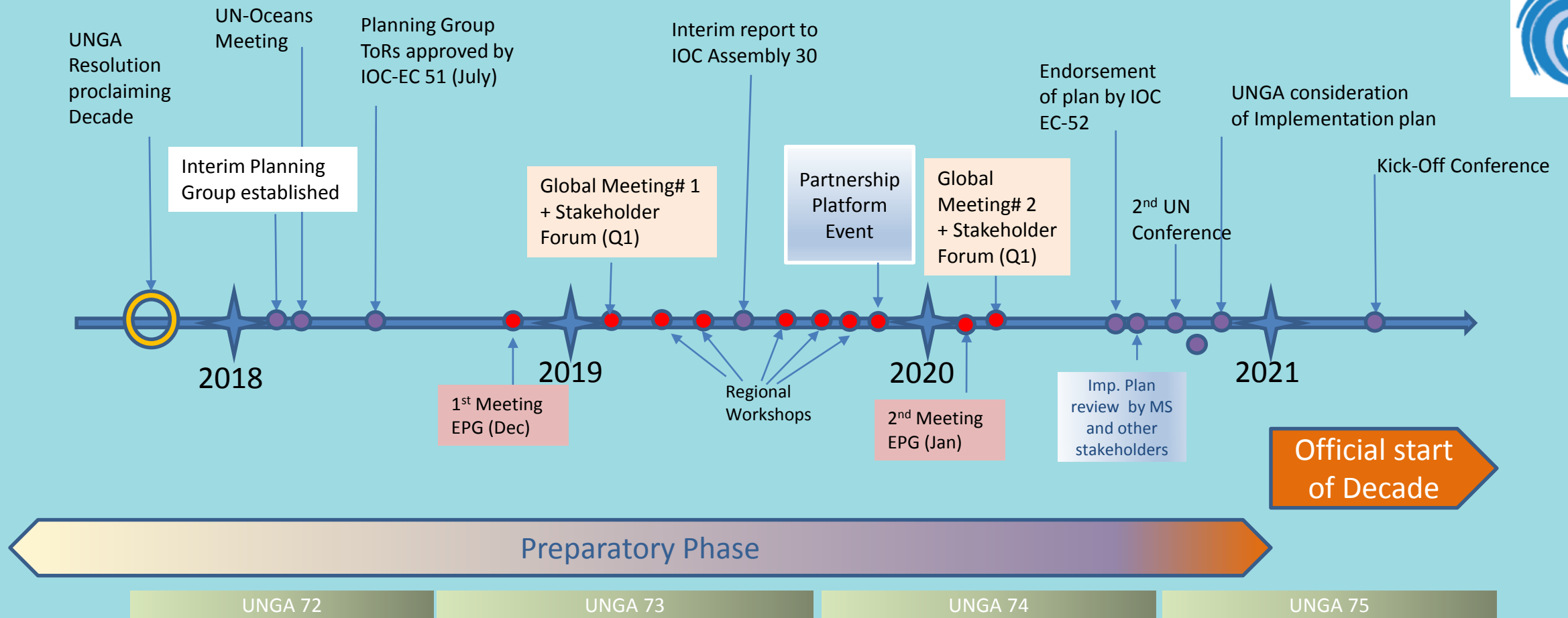
Intergovernmental
Oceanographic
Commission



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

- Allocations / contributions in national budgets to support national and international activities (research & other ocean management sectors)
- In kind contributions - research cruises, research and sustained measurement networks, technical training, data systems, national funded research projects- *nationally-determined voluntary contributions*
- Alignment of global and regional funding mechanisms with Decade priorities - Call for proposals (eg European Commission, Multilateral financing institutions)
- Philanthropic foundations engagement
- Private sector contributions (best practice in PP research)





Preparing for the Decade: Next Steps

What the Decade could do for ocean mapping?



Promote a global campaign to map the ocean floor

Communicate and Increase government/private sector/public awareness of the importance of bathymetry in supporting all human activity in, on or under the sea,

Global efforts to improve the collection, quality and availability of bathymetric data through various communities – also adding value by integrating other types of data

Provide incentives to contribute data to GEBCO/SB 2030 as contribution to the UN Decade

Catalyze investment towards data gathering and management infrastructures (esp national level) but also pooling of resources

Facilitate data systems interoperability, leading to enhanced accessibility

Improved technical capacities worldwide to develop maps and use mapping products for SD (knowledge to policy/management)

Thank you!

