

The UN Decade of Ocean Science for Sustainable Development (2021-2030)



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



Sustainable
Development
Goals

Proposal for an International
Decade of Ocean Science for
Sustainable Development
(2021-2030)



One Planet, One Ocean

Het Verenigde Naties Decennium van Oceaan Wetenschappen voor Duurzame Ontwikkeling (2021-2030)

- UNDOSSD: context, traject, proces, doel
- Bijdrage van Vlaanderen
- Relevante processen en instrumenten
- Brainstormsessie



Proposal for an International
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Sustainable Development
[2021-2030]



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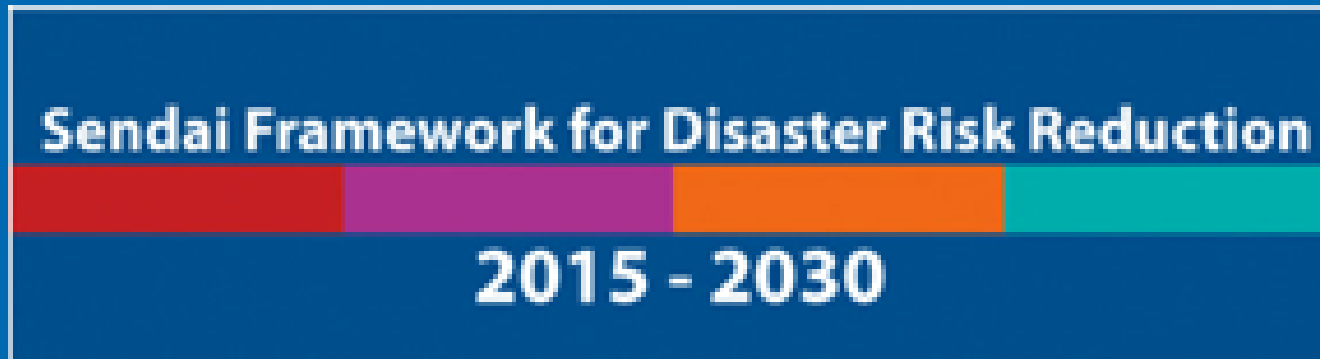
(slightly modified from) Dr Vladimir Ryabinin,
Executive Secretary of IOC,
Assistant Director General, UNESCO



Proposal for an International
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CONTEXT: Ocean and the UN Frameworks



Conserve and Sustainably Use Oceans, Seas and Marine Resources for Sustainable Development



Conserve and Sustainably Use Oceans, Seas and Marine Resources for Sustainable Development



1. Reduce marine pollution



2. Manage & protect of marine & coastal ecosystem



3. Address impacts of ocean acidification

4. Eliminate overfishing, manage stocks scientifically

5. Conserve > 10% of coastal and marine areas

6. Prohibit harmful fisheries subsidies

7. Ensure economic benefits to SIDS & LDCs from sustainable use of marine resources (e.g. fisheries, aquaculture, tourism)



a. Build science capacity through IOC Criteria and Guidelines on the Transfer of Marine Technology

b. Access of artisanal fishers to resources and markets



c. Conventions, UNCLOS

TRAJECTORY:

2016: Thinktank of IOC, the idea!

2017: discussions, massive support
from UN, IGOs, NGOs, ...

Proposal to UN

6 December 2017

72nd UN General Assembly Resolution

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One Planet, One Ocean



GENERAL ASSEMBLY OF THE UNITED NATIONS

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

The UNGA decided (Para. 292) to proclaim
the United Nations Decade of Ocean Science for Sustainable Development for the 10-year period beginning on 1 January 2021,
within existing structures and available resources,
and called upon the Intergovernmental Oceanographic Commission
to prepare an implementation plan for the Decade
in consultation with Member States, specialized agencies, funds, programmes
and bodies of the United Nations, as well as other intergovernmental
organizations, non-governmental organizations and relevant stakeholders.

Further, the UNGA:

- Requested that the Intergovernmental Oceanographic Commission **provide information on the development of the implementation plan and regularly consult with, and report to, Member States** on the United Nations Decade of Ocean Science and its implementation;
- Invited the **Secretary-General to inform the General Assembly about the implementation of the** United Nations **Decade** of Ocean Science through his report on oceans and the law of the sea, on the basis of information to be provided by the Intergovernmental Oceanographic Commission;
- **Invited UN-Oceans and its participants to collaborate** with the Intergovernmental Oceanographic Commission on the United Nations Decade of Ocean Science.



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

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

PROCESS: 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



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2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development



2021 United Nations Decade
2030 of Ocean Science
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Societal outcomes



A clean Ocean

Sources of pollution are identified, quantified and reduced, and pollutants removed from the Ocean.



A healthy and resilient Ocean

Marine ecosystems are mapped and protected, multiple impacts, including climate change, are measured and reduced, and the provision of Ocean ecosystem services is maintained.



A predicted Ocean

Society has the capacity to understand current and future Ocean conditions, forecast their change and impact on human wellbeing and livelihoods.





The Decade will be mission-oriented



A safe Ocean

Human communities are protected from ocean hazards and the safety of operations at sea and on the coast is guaranteed.



A sustainable productive Ocean

The provision of food supply and alternative livelihoods are secured.



A transparent and accessible Ocean

All nations, stakeholders and citizens have access to ocean data and information, technologies, and are capable of making informed decisions.





Implementation Plan

Between 2018 and 2020, the UNGA tasked IOC with preparing the Decade and coordinating the development of an Implementation Plan, which will include:

- Science Plan
- Capacity Development Plan
- Resource Plan
- Communications & Engagement Plan
- Monitoring & Reporting





Principles: Inclusive & transformative, focused on solutions

Science breakthroughs → top-down designed

- Mapping
- Observations
- Eco-systems
- Data and Information
- Multi-Hazard Warning Systems
- Ocean in Earth System Science
- CD, Education, Ocean Literacy

Pickup by **practice** → stimulated bottom-up



Coastal zone
management



Marine Spatial
Planning/
Blue economy



Fishery
management



Disaster Risk
Reduction
(Re-)insurance



Adaptation
Mitigation



Governance:
Policies
Peace
Security

Solutions



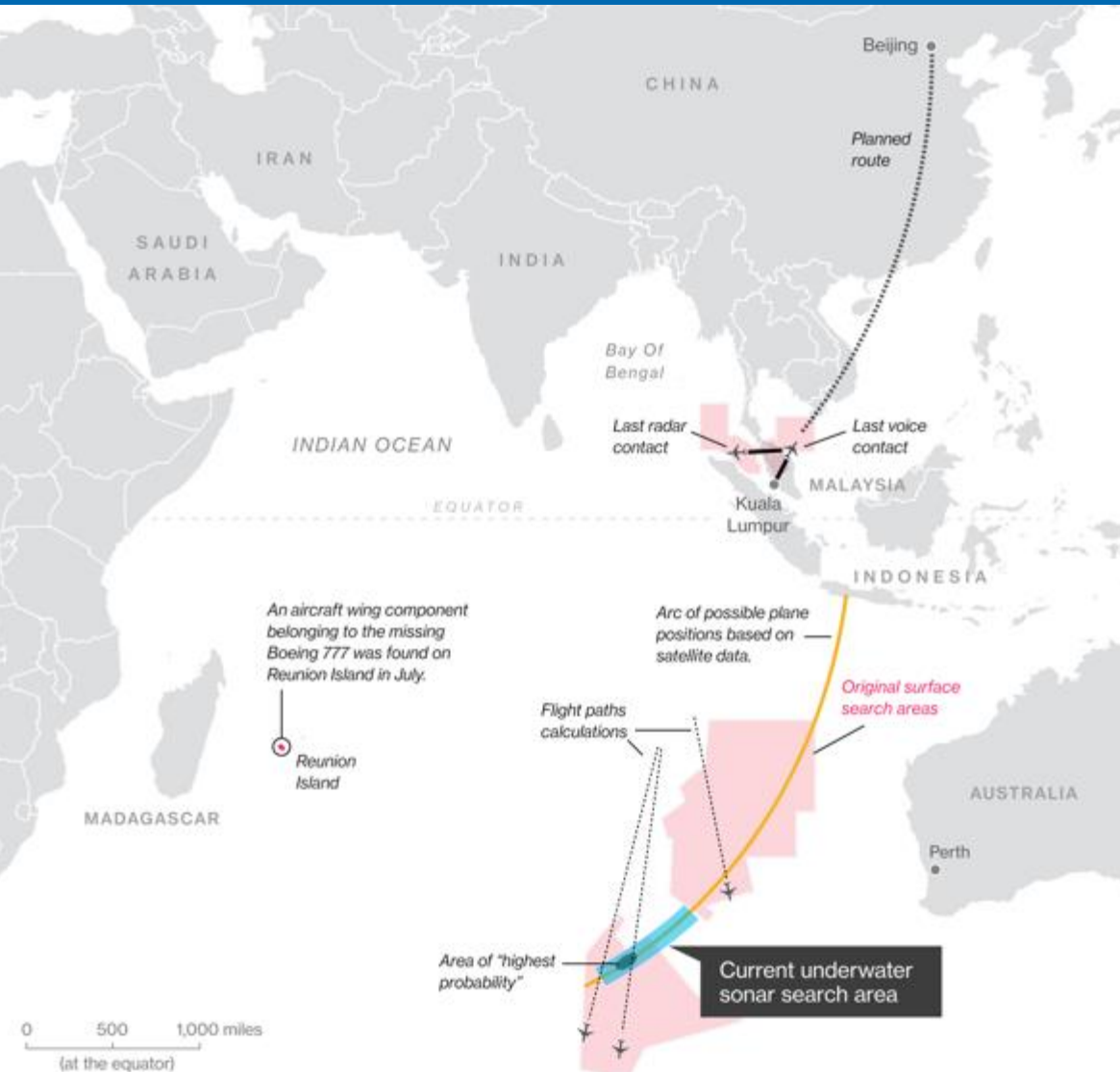
Resources

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Priority Research and Development Areas

R&D Priority Area 1:
Comprehensive map
(digital atlas) of the ocean

(Scope:
well beyond topography)

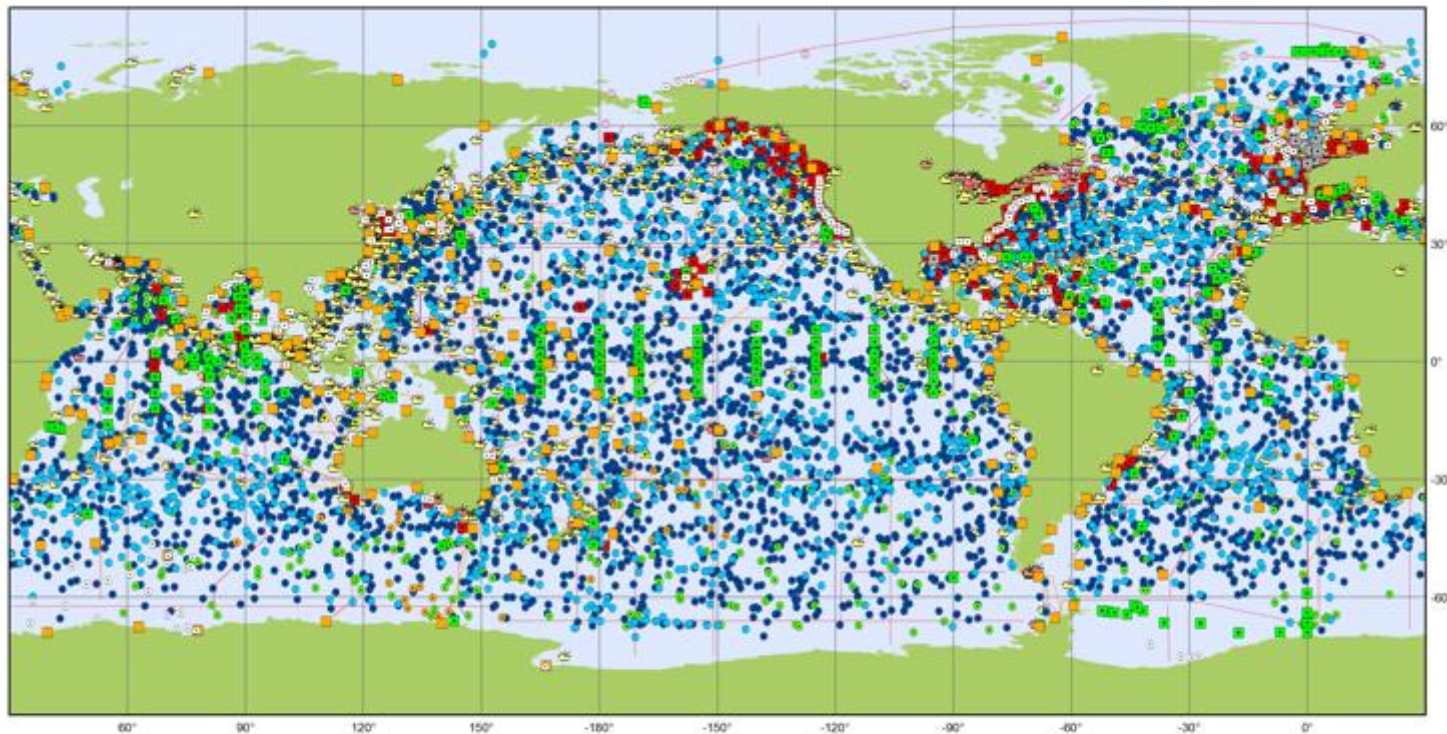


UN Decade of Ocean Science for Sustainable Development

Priority Research and Development Areas

R&D Priority Area 2:
A comprehensive ocean
observing system

(polar, bio, eco, BGC,
eDNA, deep ocean, +)



Main in situ Elements of the Global Ocean Observing System

April 2018

| Profiling Floats (Argo) | Data Buoys (DBCP) | Timeseries (OceanSITES) | Ship based Measurements (SOT) | Other Networks |
|--|--|--|---|--|
| <ul style="list-style-type: none">Core (3815)Deep (57)BioGeoChemical (305) | <ul style="list-style-type: none">Surface Drifters (1408)Offshore Platforms (96)Ice Buoys (11)Moored Buoys (387)Tsunameters (32) | <ul style="list-style-type: none">Interdisciplinary Moorings (338)Repeated Hydrography (GO-SHIP)<ul style="list-style-type: none">Research Vessel Lines (61)Sea Level (GLOSS)<ul style="list-style-type: none">Tide Gauges (252) | <ul style="list-style-type: none">Automated Weather Stations (248)Manned Weather Stations (1767)Radiosondes (8)eXpendable BathyThermographs (37) | <ul style="list-style-type: none">HF Radars (270)Animal Borne Sensors (53)Ocean Gliders (31) |

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Priority Research and Development Areas

Large Marine Ecosystems of the World and Linked Watersheds



- | | | | | | |
|-------------------------------------|-------------------------|---------------------------|--|----------------------|-------------------|
| 1 East Bering Sea | 13 Humboldt Current | 25 Iberian Coastal | 37 Sulu-Celebes Sea | 49 Yellow Sea | 60 Farnes Plateau |
| 2 Gulf of Alaska | 14 Patagonian Shelf | 26 Mediterranean Sea | 38 Indonesian Sea | 49 Kuroshio Current | 61 Antarctic |
| 3 California Current | 15 South Brazil Shelf | 27 Canary Current | 39 North Australian Shelf | 50 Sea of Japan | 62 Black Sea |
| 4 Gulf of California | 16 East Brazil Shelf | 28 Guinea Current | 40 Northeast Australian Shelf- Great Barrier Reef | 51 Oyashio Current | 63 Hudson Bay |
| 5 Gulf of Mexico | 17 North Brazil Shelf | 29 Benguela Current | 41 East-Central Australian Shelf | 52 Okhotsk Sea | 64 Arctic Ocean |
| 6 Southeast U.S. Continental Shelf | 18 West Greenland Shelf | 30 Agulhas Current | 42 Southeast Australian Shelf | 53 West Bering Sea | |
| 7 Northeast U.S. Continental Shelf | 19 East Greenland Shelf | 31 Somali Coastal Current | 43 Southwest Australian Shelf | 54 Chukchi Sea | |
| 8 Scotian Shelf | 20 Barents Sea | 32 Arabian Sea | 44 West-Central Australian Shelf | 55 Beaufort Sea | |
| 9 Newfoundland-Labrador Shelf | 21 Norwegian Shelf | 33 Red Sea | 45 Northwest Australian Shelf | 56 East Siberian Sea | |
| 10 Insular Pacific-Hawaiian | 22 North Sea | 34 Bay of Bengal | 46 New Zealand Shelf | 57 Laptev Sea | |
| 11 Pacific Central-American Coastal | 23 Baltic Sea | 35 Gulf of Thailand | 47 East China Sea | 58 Kara Sea | |
| 12 Caribbean Sea | 24 Celtic-Biscay Shelf | 36 South China Sea | | 59 Iceland Shelf | |

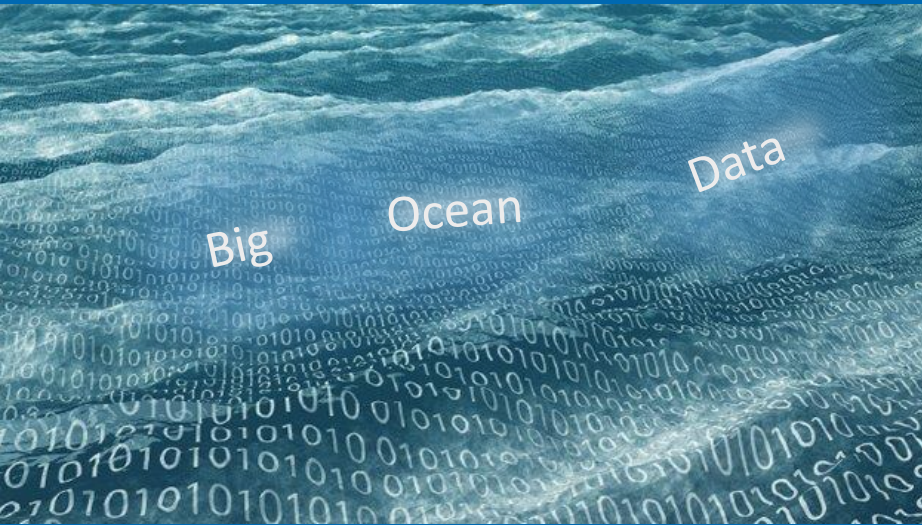
R&D Priority Area 3:

A quantitative understanding of ocean ecosystems as the basis for their integrated ocean management

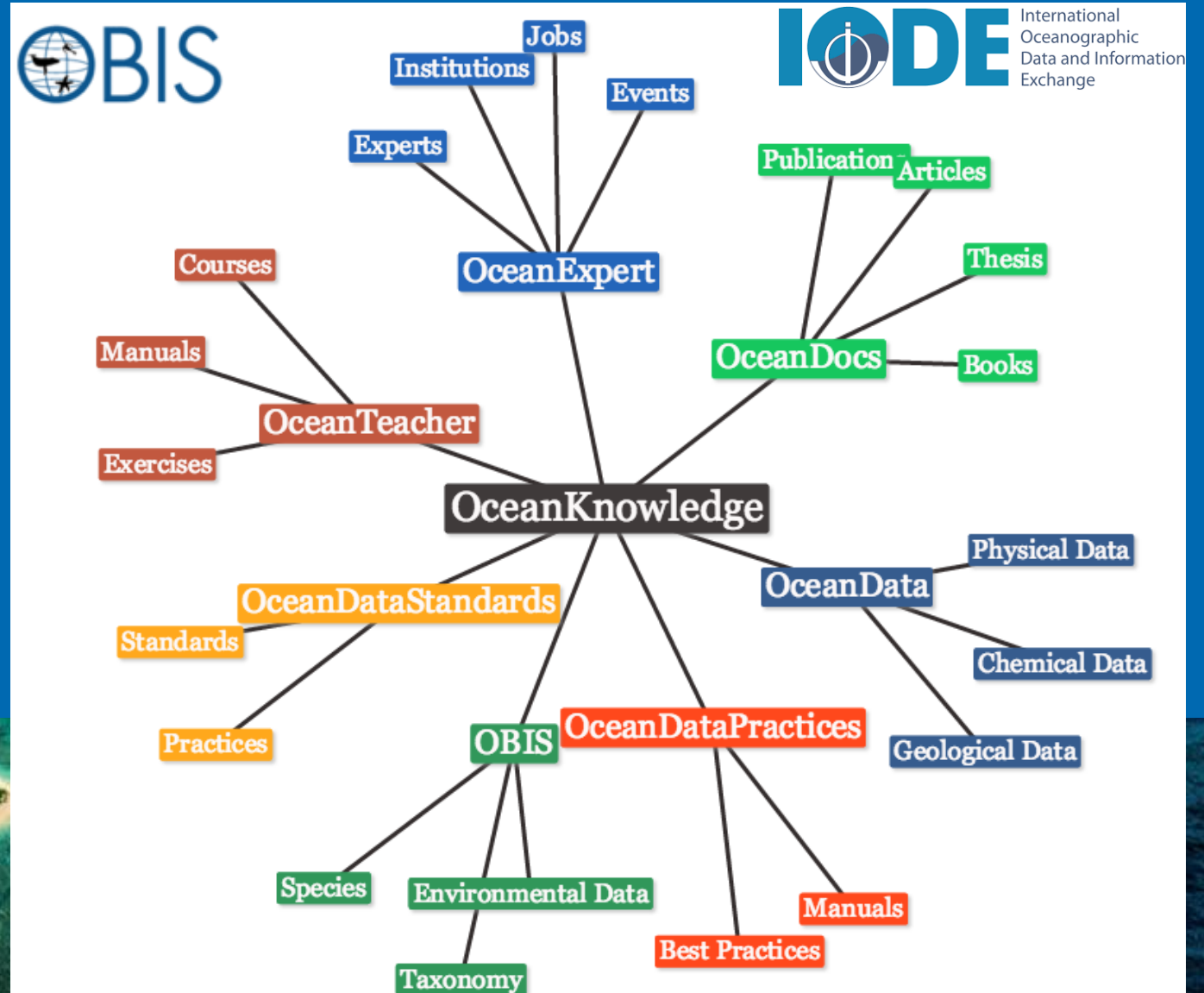
(multiple stressors, deep ocean, bottom, predictive, assisted adaptation, e.g. of coral reef ecosystem)

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Priority Research and Development Areas



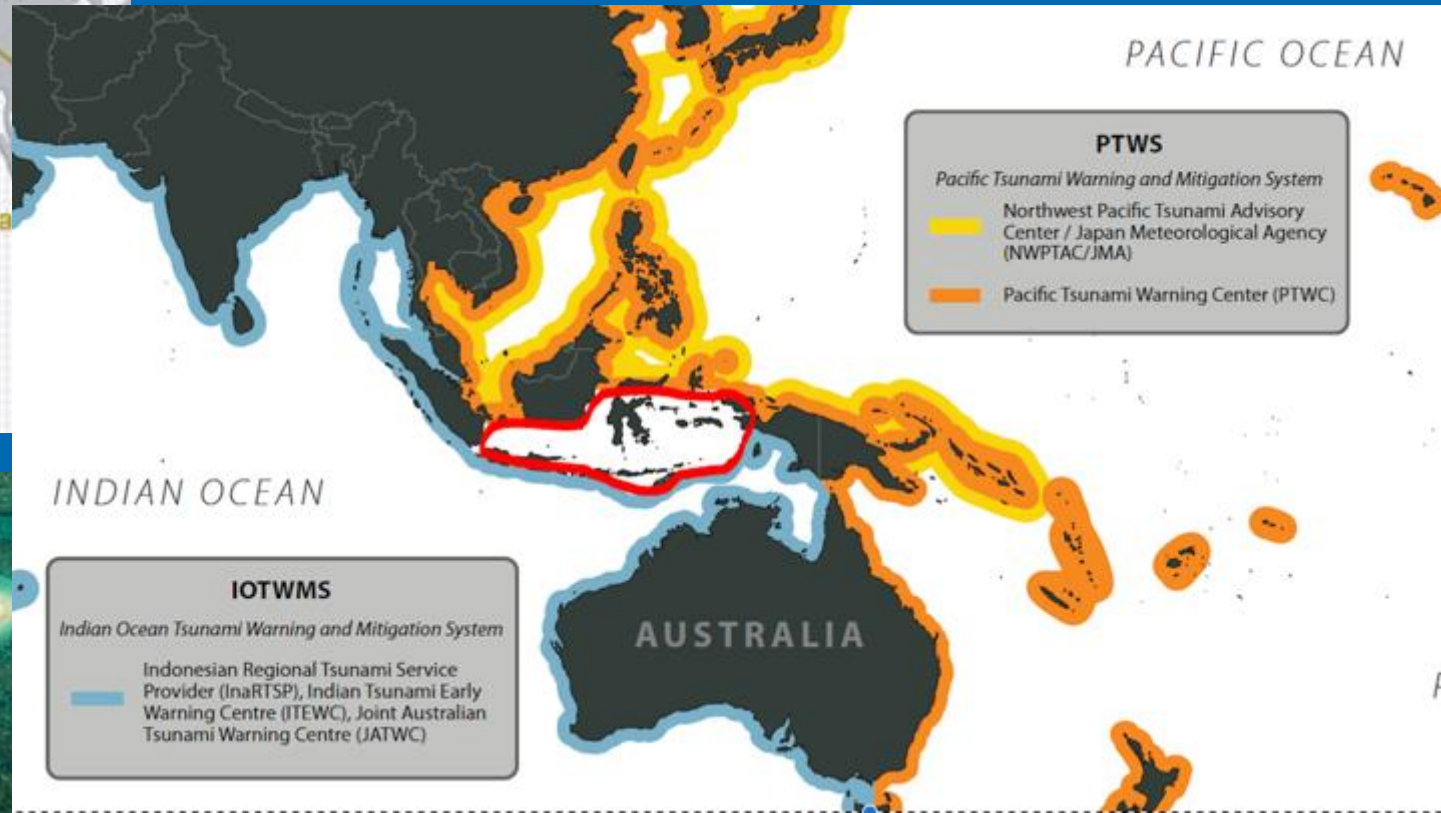
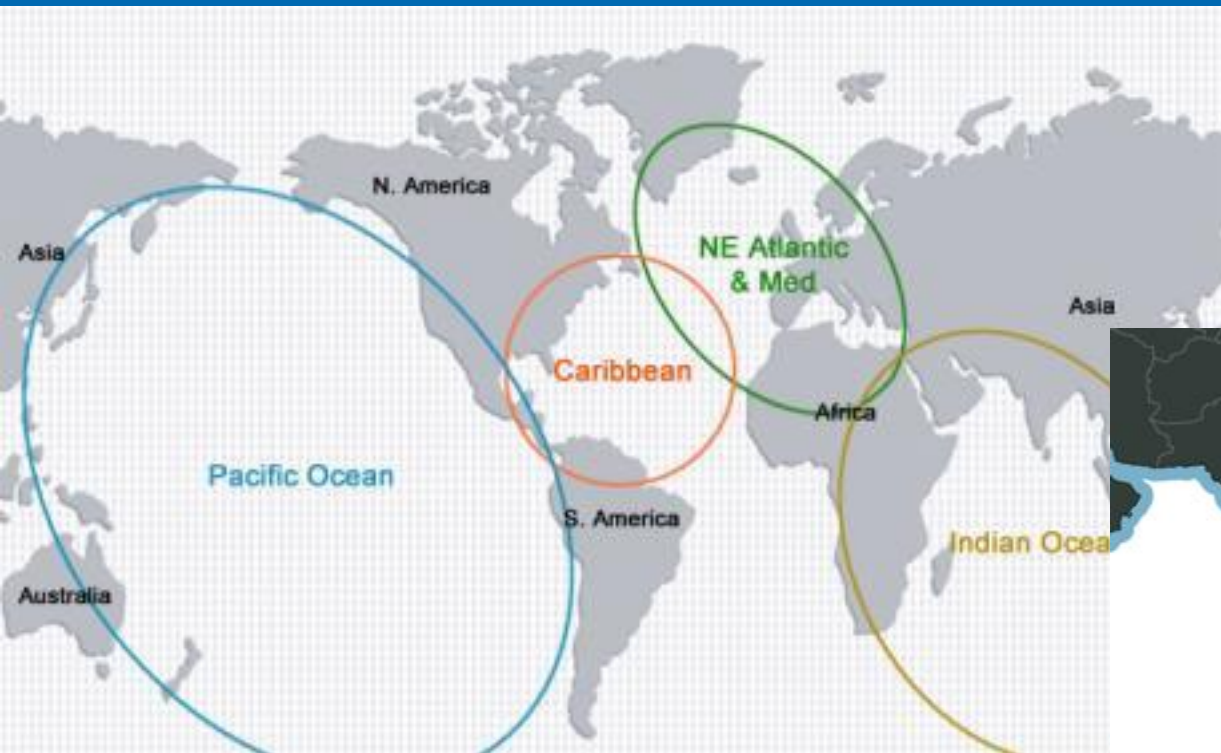
R&D Priority Area 4: Data & information System



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Priority Research and Development Areas

R&D Priority Area 5: Ocean dimension in an integrated multi-hazard warning system



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Priority Research and Development Areas

R&D Priority Area 6: Ocean in earth-system observation, research and prediction, with engagement of social and human sciences and economic valuation



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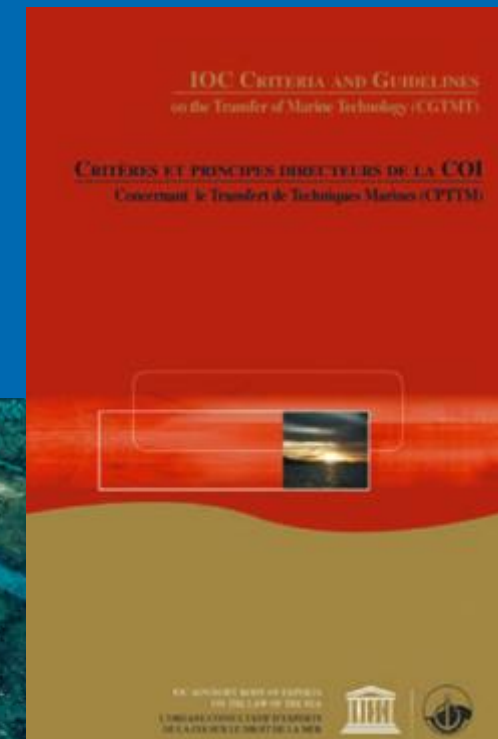
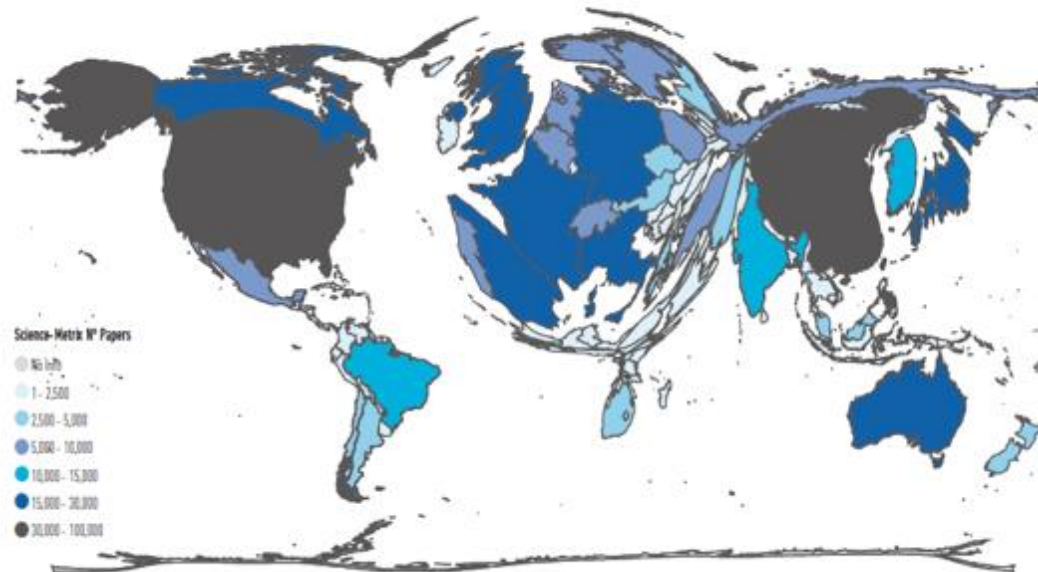
Priority Research and Development Areas



"FAR AND AWAY, THE GREATEST
THREAT TO THE OCEAN, AND
THUS TO OURSELVES, IS
IGNORANCE".

Sylvia Earle, President of [Mission Blue](#)

R&D Priority Area 7: Capacity Development Education and Training Ocean Literacy



Regional Stakeholders

Arctic Council

EC
JPI Oceans
ICES
EMB

Black
Sea
Com

MAP/
CIESM

PICES/
WESTPAC

PICES/
WESTPAC

IOCARIBE
OECS

IOCAFRICA

PERSGA

UNESCAP

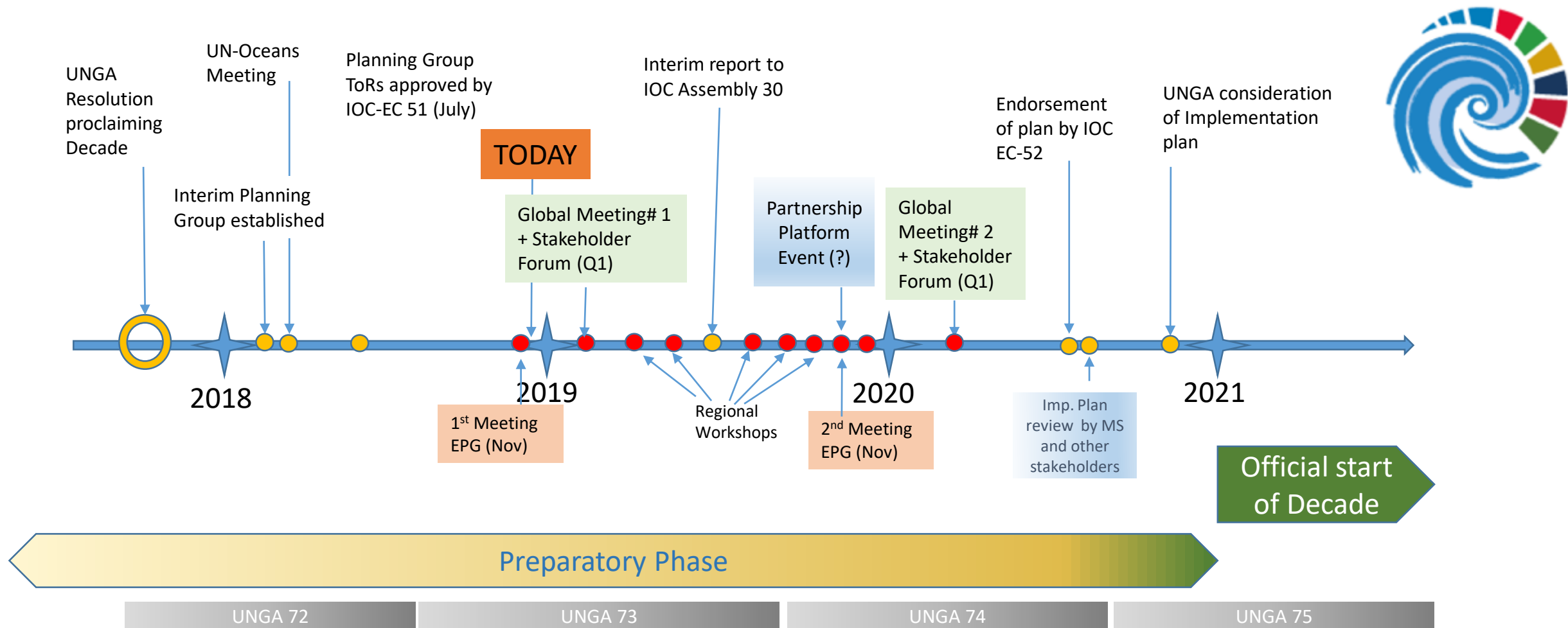
AORA

CPPS

Indian Ocean
Commission/
IORA
WIOMSA

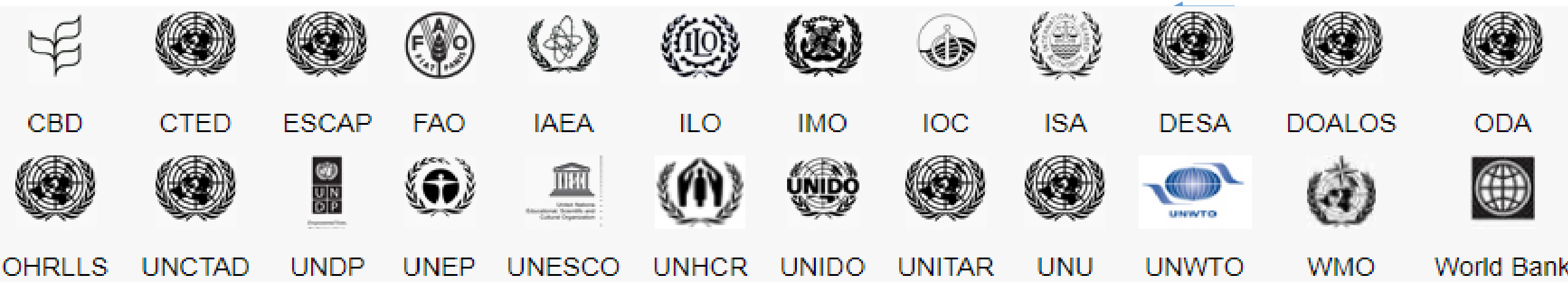
Pacific
Community
/SPREP

CCAMLR / SCAR



Preparing for the Decade: Next Steps

HOW TO PREPARE THE DECADE: PREPARATORY PHASE (2018-2020) GOVERNANCE



Executive Planning group

- **Francisco Arias**, Director General, Invemar, Colombia
- **Elva Escobar Briones**, Institute of Marine Sciences and Limnology, UNAM, Mexico
- **Karen Evans**, Senior Research Scientist, CSIRO Oceans and Atmosphere, Australia
- **Kristina Gjerde**, Senior High Seas Advisor to IUCN's Global Marine & Polar Programme
- **Anna Jöborn**, Director, Science Affairs Department, Agency for Marine and Water Management, Sweden
- **Suzan Kholeif**, Director, National Institute of Oceanography and Fisheries, Egypt
- **Jens Kruger**, Head of the Ocean & Coastal Geoscience Sector, Pacific Community (SPC)
- **Youn-Ho Lee**, Professor, Korea Institute of Ocean Science and Technology, Republic of Korea
- **Margaret Leinen**, Director, Scripps Institution of Oceanography, USA
- **M.A. Atmanand**, Director of the National Institute of Ocean Technology, India
- **Craig McLean**, Acting Chief Scientist, NOAA, USA
- **Linwood Pendleton**, Global Ocean Lead Scientist, World Wide Fund for Nature
- **Fangli Qiao**, Vice-Chair, National Scientific Committee of Global Change and Mitigation, Ministry of Science and Technology of China
- **Ricardo Serrao Santos**, Member of the European Parliament, Portugal
- **Sergey Shapovalov**, Head of the Center for Coordination of Ocean Research of RAS, Russian Federation
- **Gilbert Siko**, Director in the Department of Science and Technology (DST), South Africa
- **Mitsuo Uematsu**, Emeritus professor, University of Tokyo, Japan
- **Martin Visbeck**, Professor for Physical Oceanography, GEOMAR Helmholtz Centre for Ocean Research Kiel and Kiel University, Germany
- **Christa von Hillebrandt-Andrade**, Manager of the NOAA National Weather Service Caribbean Tsunami Warning Program, USA

2019 planning events

| Decade meetings | Possible side-events at international meetings | Planning and consultative meetings |
|-----------------|--|--|
| January | | |
| February | IODE-XXV Scientific Conference, 18-19, Tokyo | |
| March | AtlantOS General Assembly, 26-29, UNESCO HQ, Paris | 1st Global Planning Meeting & Stakeholder Forum, March/April, Denmark |
| | IOCARIBE 15th Intergovernmental session, 11-15, | Regional workshop 1: Caribbean (back-to-back with IOCARIBE 15th session) |
| April | | Regional workshop 2: Pacific Islands, SPC, April/August |
| | | Regional workshop 3: Southeast Pacific, CPPS, April/August |
| May | European Maritime Day, 16-17, Lisbon | Regional workshop 4: South Atlantic, Brazil, Brazil, |
| June | IOC Assembly 26th June-4th July | Regional workshop 5: North Atlantic, European Marine Board/JPI Oceans, |
| | EurOCEAN 2019, 11-12, UNESCO HQ, Paris | |
| July | IOC Assembly 26th June-4th July | |
| August | 11th WIOMSA Scientific Symposium, 8-13, Mauritius | Regional workshop 6: North Pacific, WESTPAC, August |
| | GOOS Regional Alliances | Regional workshop 7: Indian Ocean, Mauritius, Mauritius, August (back-to-back with 11th WIOMSA Scientific Symposium) |
| September | | |
| October | OceanObs' 19 – An Ocean of opportunity, 16-20, Honolulu, Hawai | Cross-regional wrap-up workshop back-to-back with OceanObs'19 |
| November | | |
| December | | |
| TBD | | Regional workshop 8: Arctic, Norway, TBD |
| | | Regional workshop 9: Mediterranean, TBD |
| | | Regional workshop 10, Antarctic, SCAR, (?) |
| | | Regional workshop 11, Red Sea & Gulf of Aden, PERSGA, Saudi Arabia(?) |

UN Decade UNDOSSD Vlaanderen-België



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- Bevraging december – maart 2019
- Klankbordgroep 7 december 2019:
brainstormsessie-uw mening!
- Keynote IOC Marine Science Day maart 2019
- Online surveys

UNDOSSD Relevante processen in instrumenten



- Voorbereidende teksten KaderProgramma 9
- Voorbereidende teksten Strategisch
Werkplan HorizonEurope 2021
- Onderzoeksagendas – lokaal, regionaal, EU, thematisch,..
- Flanders UNESCO Science Trust Fund FUST

Get in touch

Write to us:
oceandecade@unesco.org

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<http://oceandecade.org>

Social media:



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