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

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

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

One Planet, One Ocean

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.

2030 AGENDA

UN PROCESSES for SUSTAINABLE DEVELOPMENT

Biological Diversity/Aîchi Biodiversity targets (CBD)

Law of the Sea (UNCLOS + BBNJ + UNFSA)

SIDS Action (SAMOA Pathway)

Disaster Risk Reduction SENDAI Framework

Climate Change/Paris Agreement (UNFCCC)

A global framework that will ensure Ocean Science can help governments and societies achieve the major goals of our generation

climate change
marine pollution
marine ecosystems services
nutrient cycling
degradation of habitats
ocean acidification
loss of species
climate regulation
growing population
primary productivity
seafood

A global framework to support efforts to reverse the cycle of decline in Ocean health & create improved conditions for sustainable development

FUTURE Themes

What determines an ecosystem's intrinsic resilience and vulnerability to natural and anthropogenic forcing?

How do human activities affect coastal ecosystems and how are societies affected by changes in these ecosystems?

How do ecosystems respond to natural and anthropogenic forcing, and how might they change in the future?

Ocean Decade 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.

FUTURE Objectives

To increase understanding of climatic and anthropogenic impacts and consequences on marine ecosystems, with continued leadership at the frontiers of marine science;

To develop activities that include the interpretation, clarity of presentation, peer review, dissemination, and evaluation of ecosystem products and establish a process for engaging interested institutions and other recipients.

The ultimate goal of FUTURE is *to understand and communicate the future of North Pacific ecosystems and the potential impacts from human use*

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.

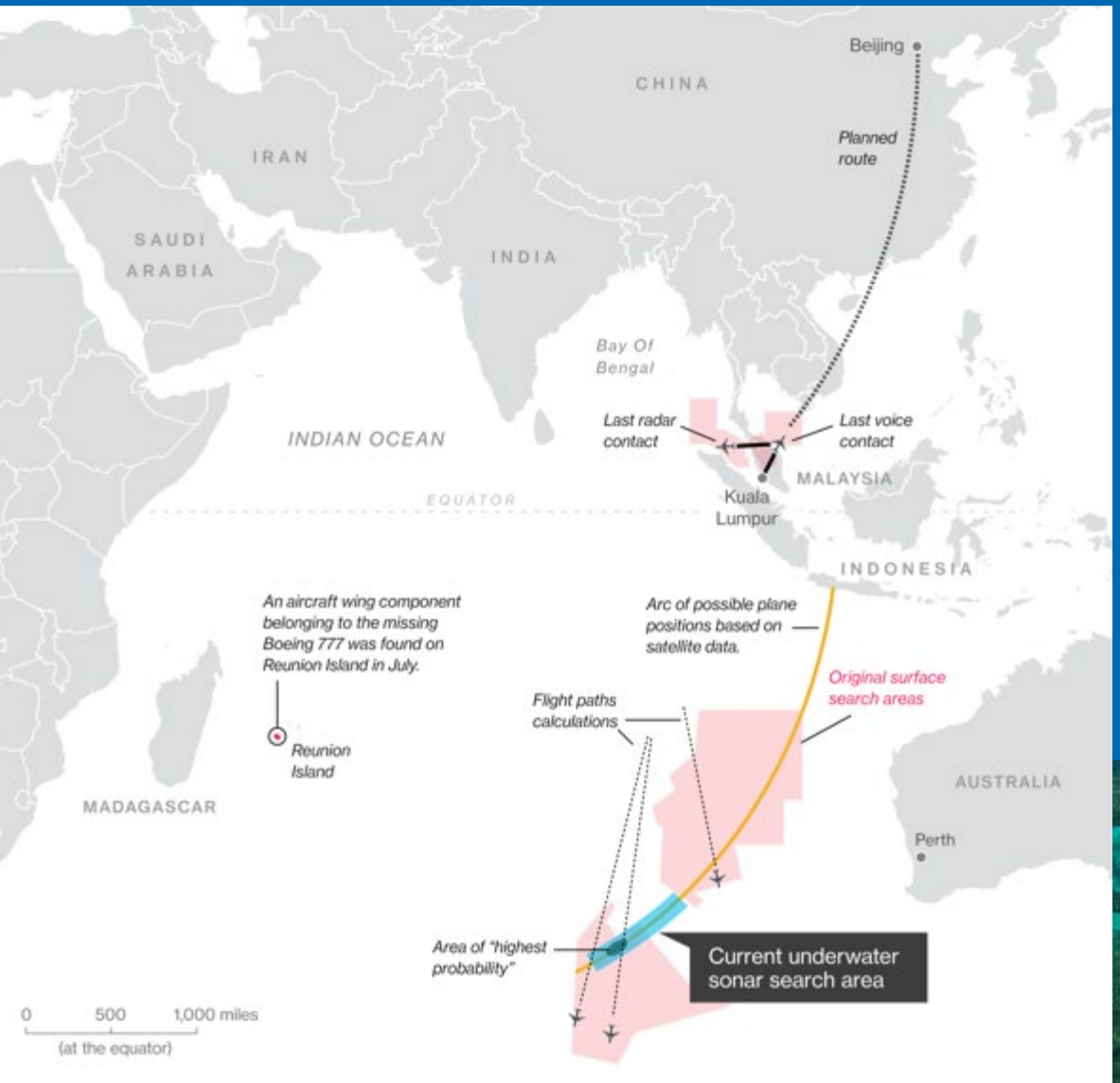
A sustainable productive Ocean

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.

UN Decade of Ocean Science for Sustainable Development
Priority Research and Development Areas



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

(Scope:
well beyond topography)

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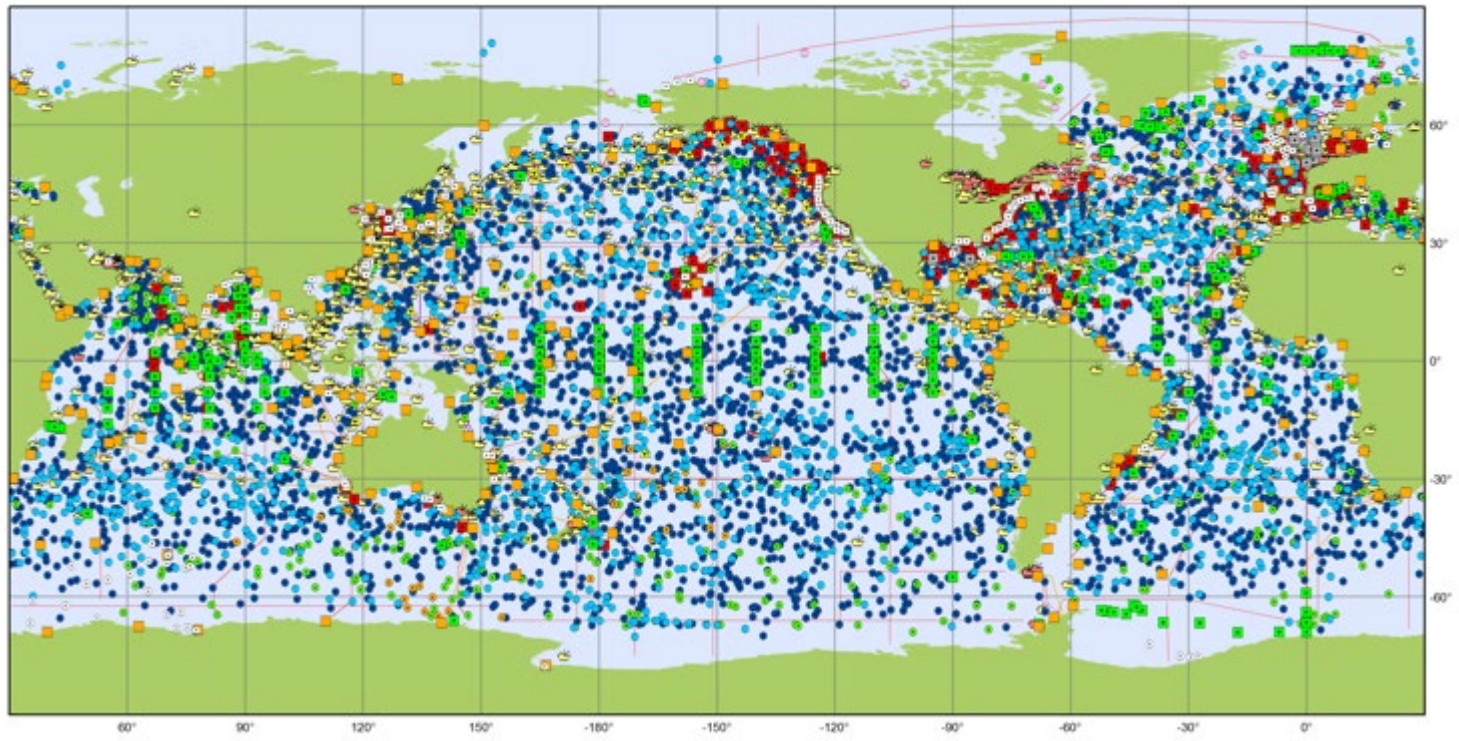

Main in situ Elements of the Global Ocean Observing System — April 2018

Profiling Floats (Argo)
- Core (3815)
- Deep (57)
- BioGeoChemical (305)

Data Buoys (DBCP)
- Surface Drifters (1408)
- Offshore Platforms (96)
- Ice Buoys (11)
- Moored Buoys (387)
- Tsunameters (32)

Timeseries (OceanSITES)
- Interdisciplinary Moorings (338)

Repeated Hydrography (GO-SHIP)
- Research Vessel Lines (61)

Sea Level (GLOSS)
- Tide Gauges (252)

Ship based Measurements (SOT)
- Automated Weather Stations (248)
- Manned Weather Stations (1767)
- Radiosondes (8)
- eXpendable BathyThermographs (37)

Other Networks
- HF Radars (270)
- Animal Borne Sensors (53)
- Ocean Gliders (31

Generated by www.jcommops.org, 14/05/2018

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

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

HIGH Priority in PICES

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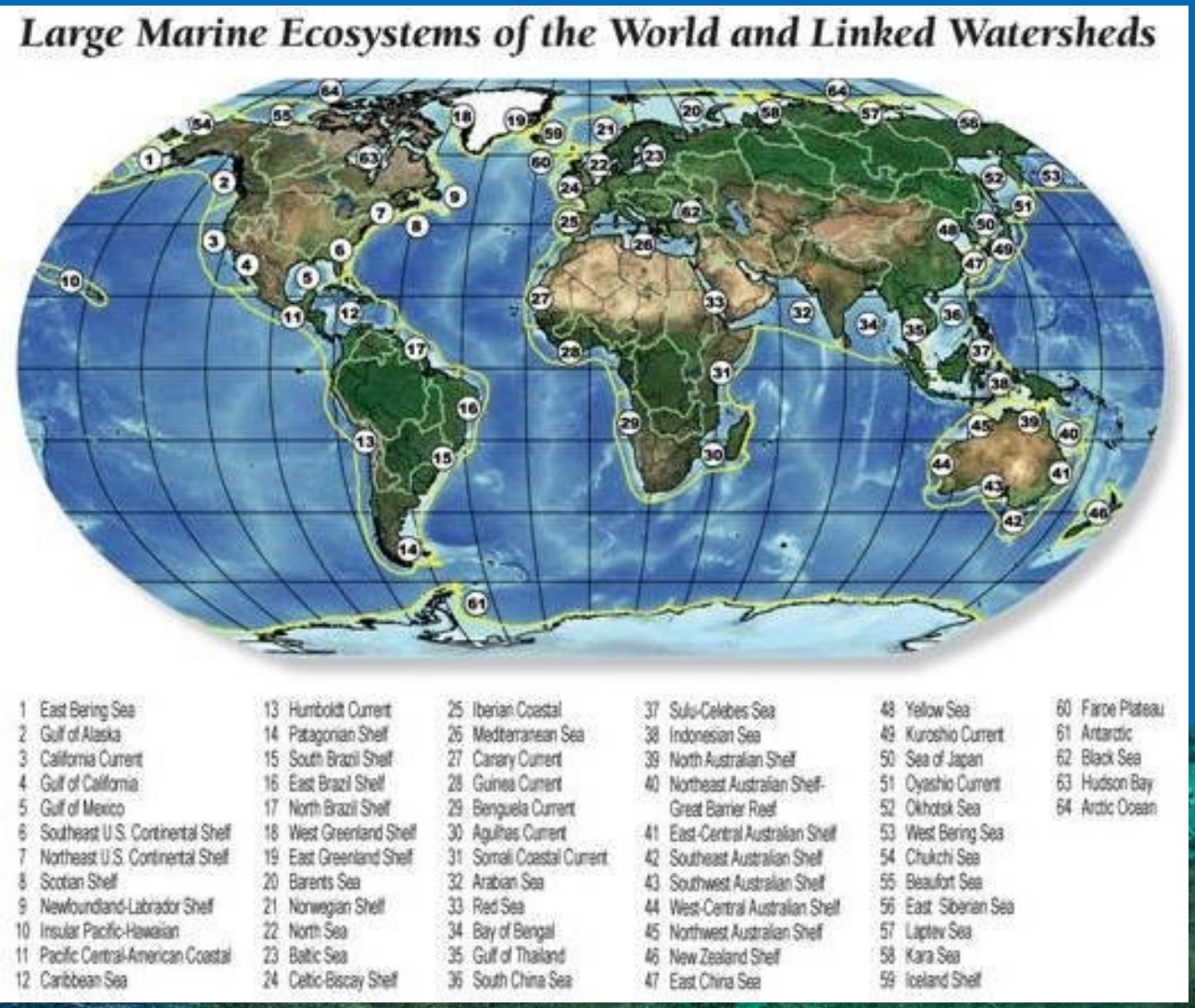
Priority Research and Development Areas



R&D Priority Area 3:
A quantitative understanding of ocean ecosystems as the basis for their integrated ocean management

HIGH Priority in PICES (and joint work with ICES)

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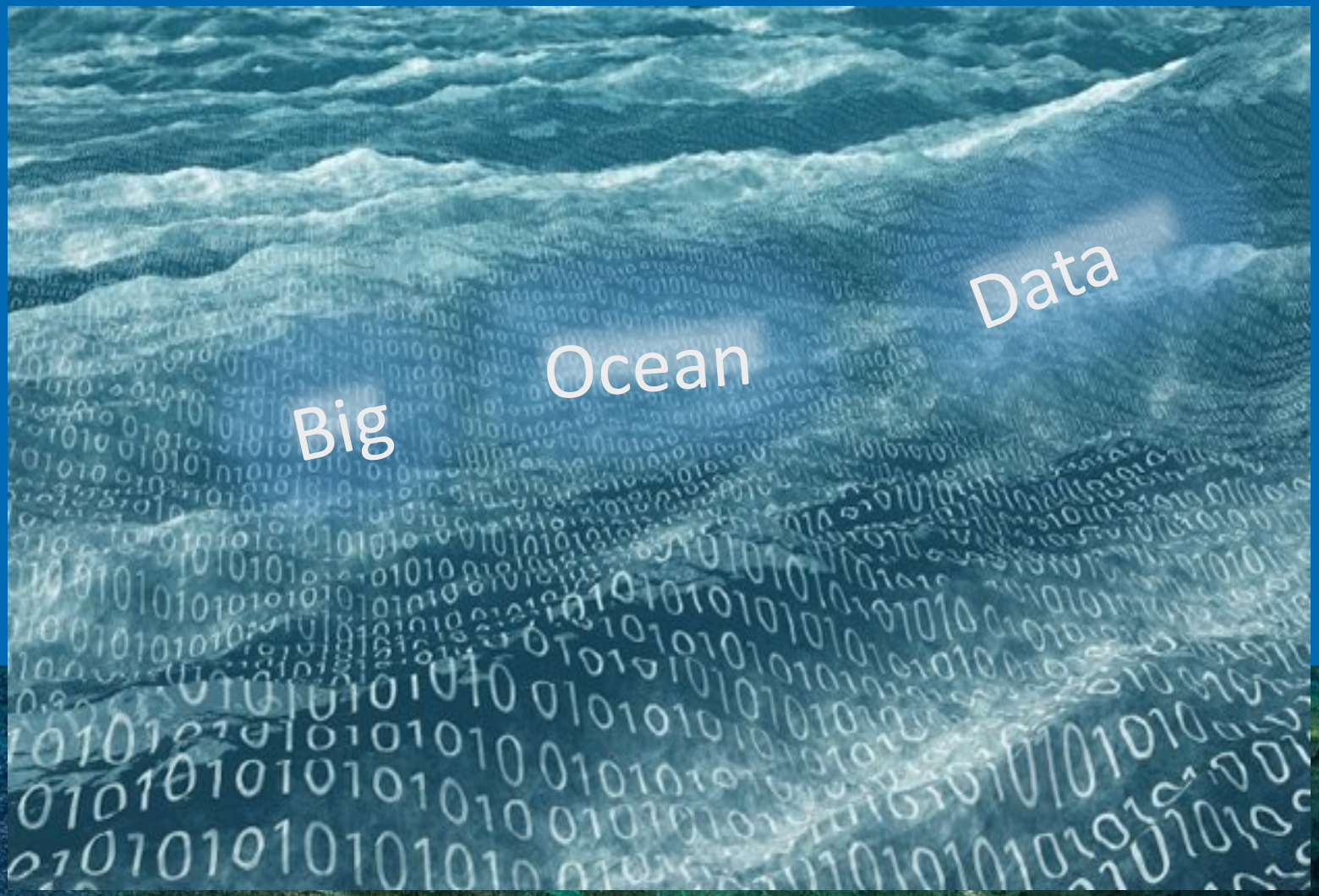

R&D Priority Area 4: Data & information System

LOW Priority in PICES
(we would be users, not developers)

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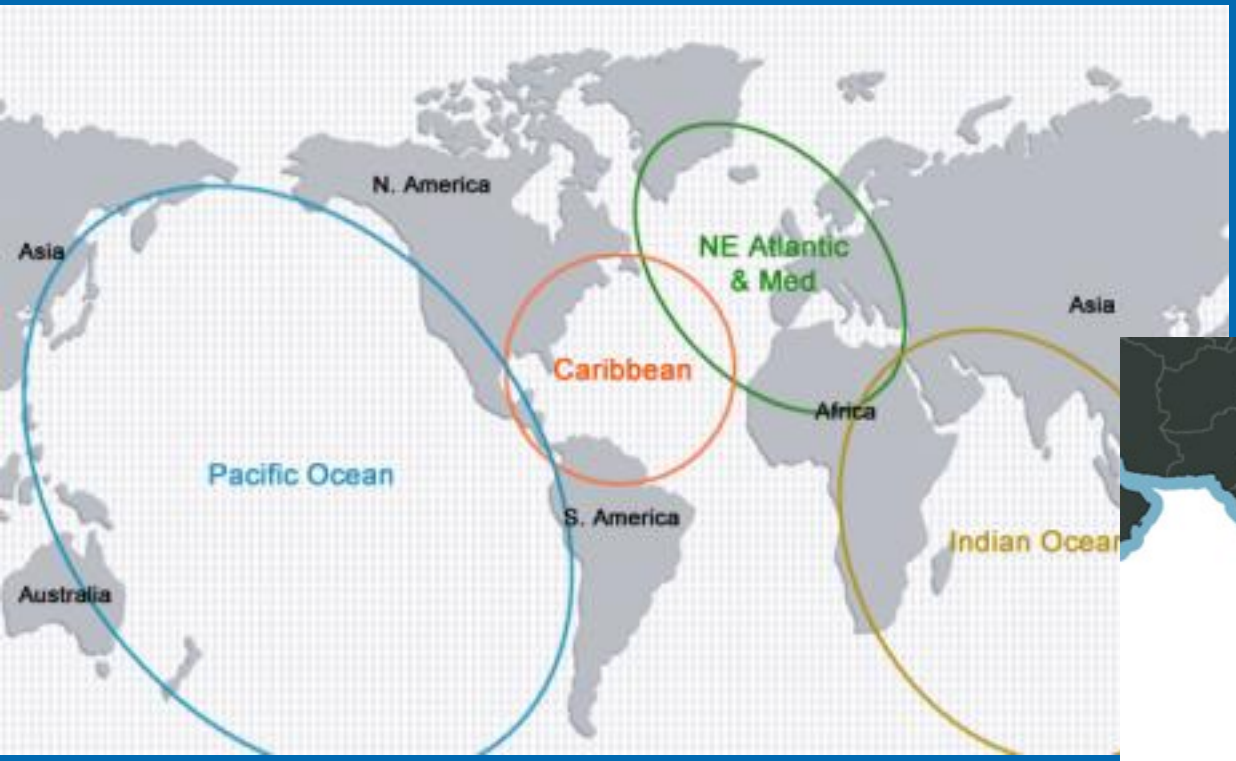
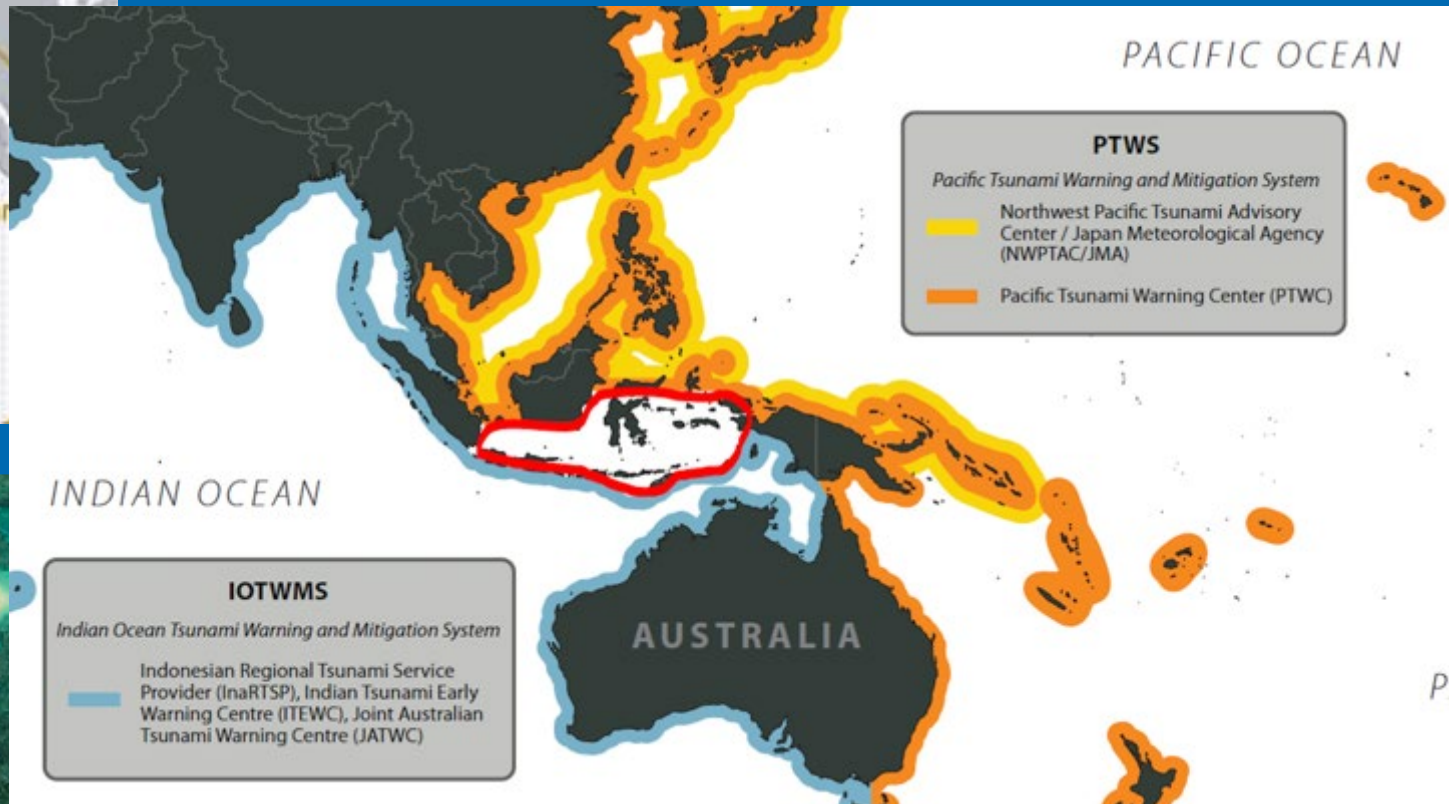


R&D Priority Area 5: Ocean dimension in an integrated multi-hazard warning system

NOT a PICES Priority



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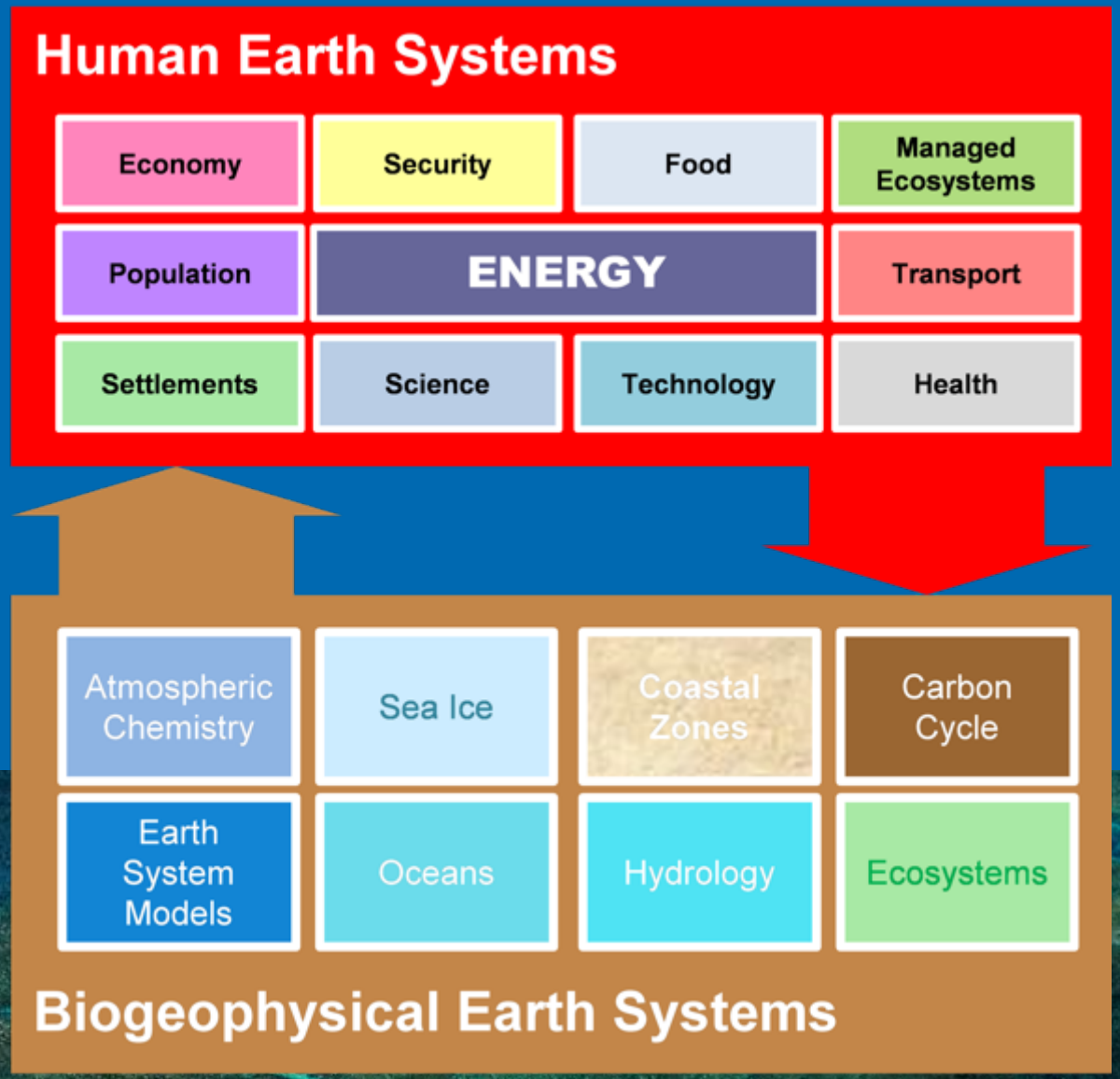
Priority Research and Development Areas



R&D Priority Area 6: Ocean compartment of the Earth System

(The only way to climate prediction)

HIGH Priority in PICES

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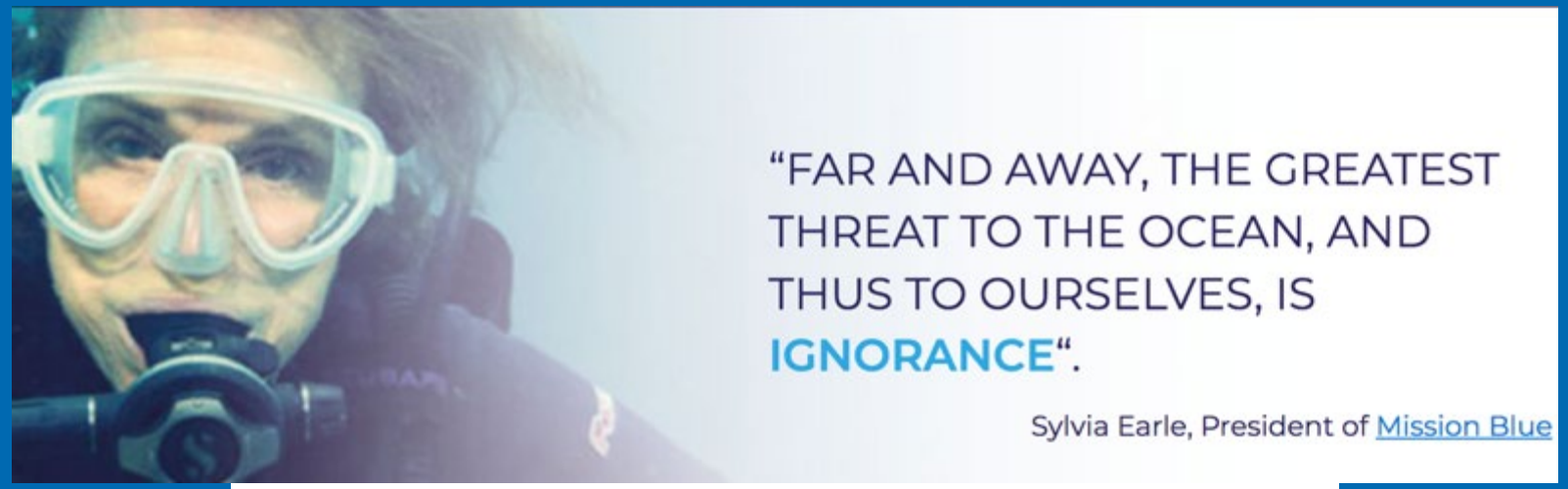
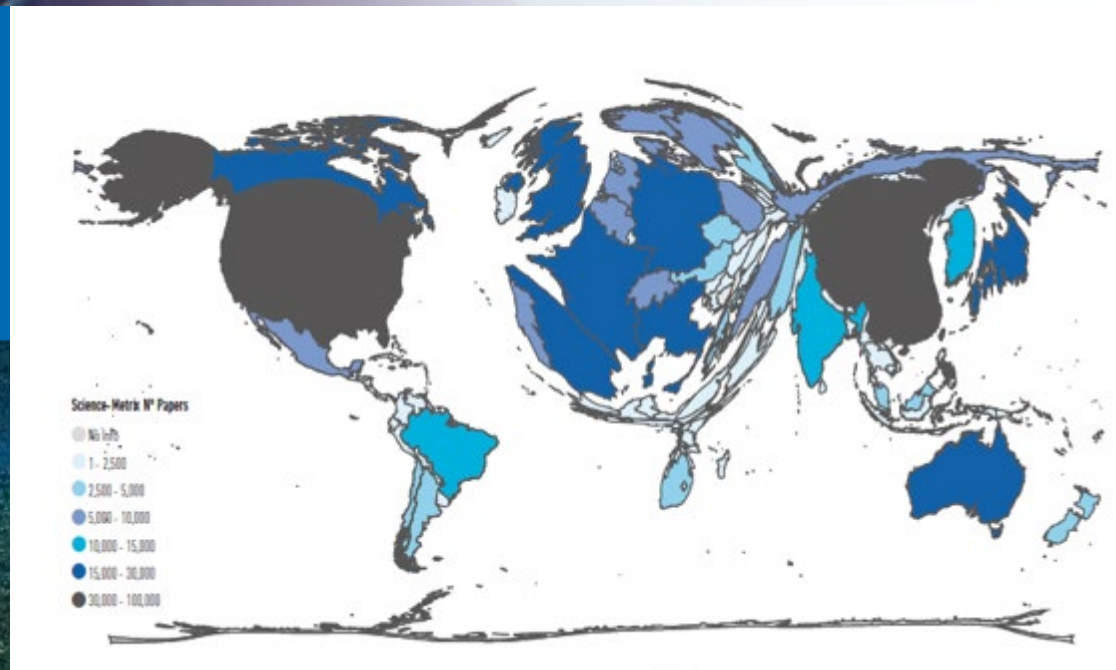
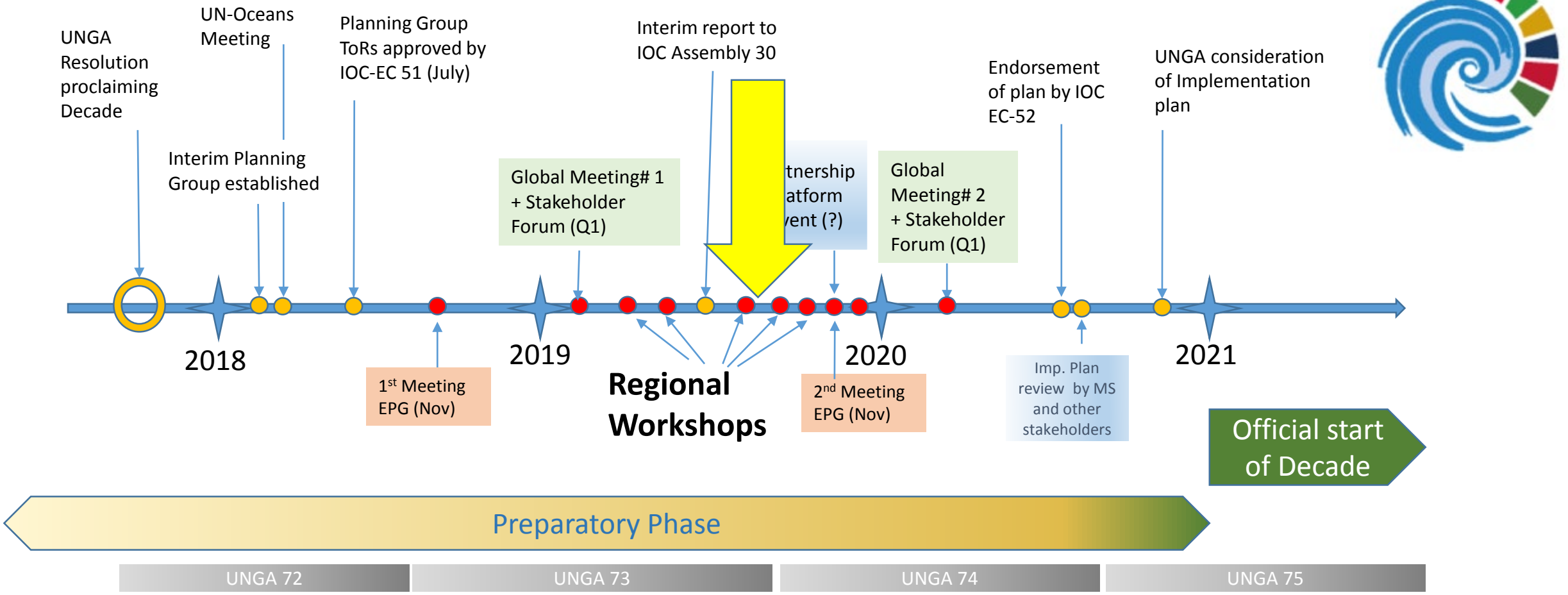


R&D Priority Area 7:
Capacity Development
Education and Training
Ocean Literacy



LOW - MEDIUM
Priority in PICES



Preparing for the Decade: Next Steps

Sustainable Development Goals – PICES arithmetic

- There are a LOT of SDG Goals, Subobjectives and Indicators
- Only a subset are relevant to PICES
- If these, only a few indicators are of **HIGH** importance to PICES
- PICES interests extend beyond SDG 14 – Life Below Water
- PICES would not be the primary source for indicator data
- **There are many important implied (but not yet specified) scientific questions for organization like PICES to identify and address.**

Item	Total	Relevant to PICES
SDG Goals	17	6
SDG Subobjectives	169	22
SDG Indicators	244	25

Get in touch

Write to us:
oceandecade@unesco.org

Follow all Decade news:
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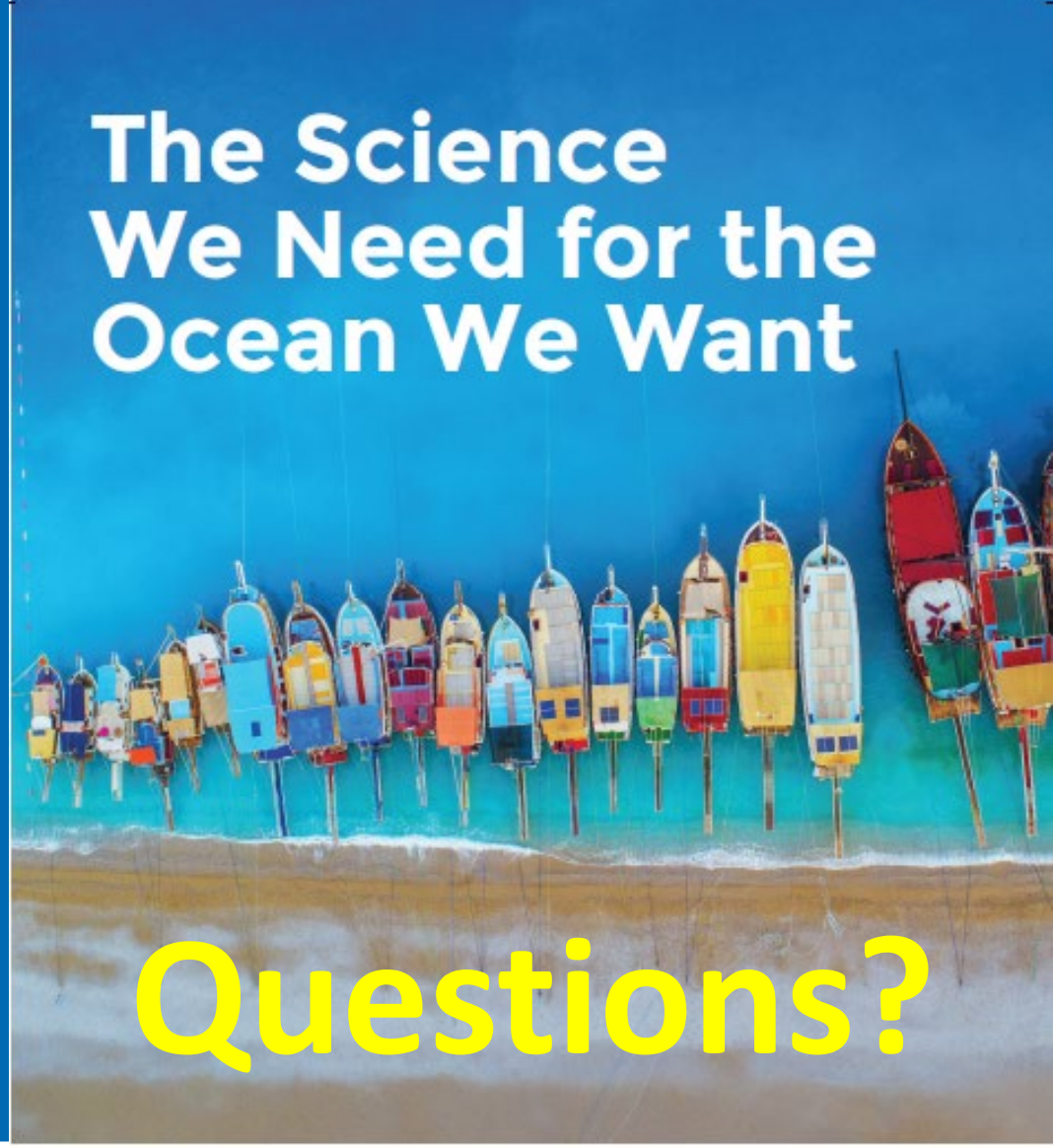
IocUnesco **IocUnesco** **ioc_unesco**



United Nations Educational, Scientific and Cultural Organization · Intergovernmental Oceanographic Commission · 2021 2030 United Nations Decade of Ocean Science for Sustainable Development

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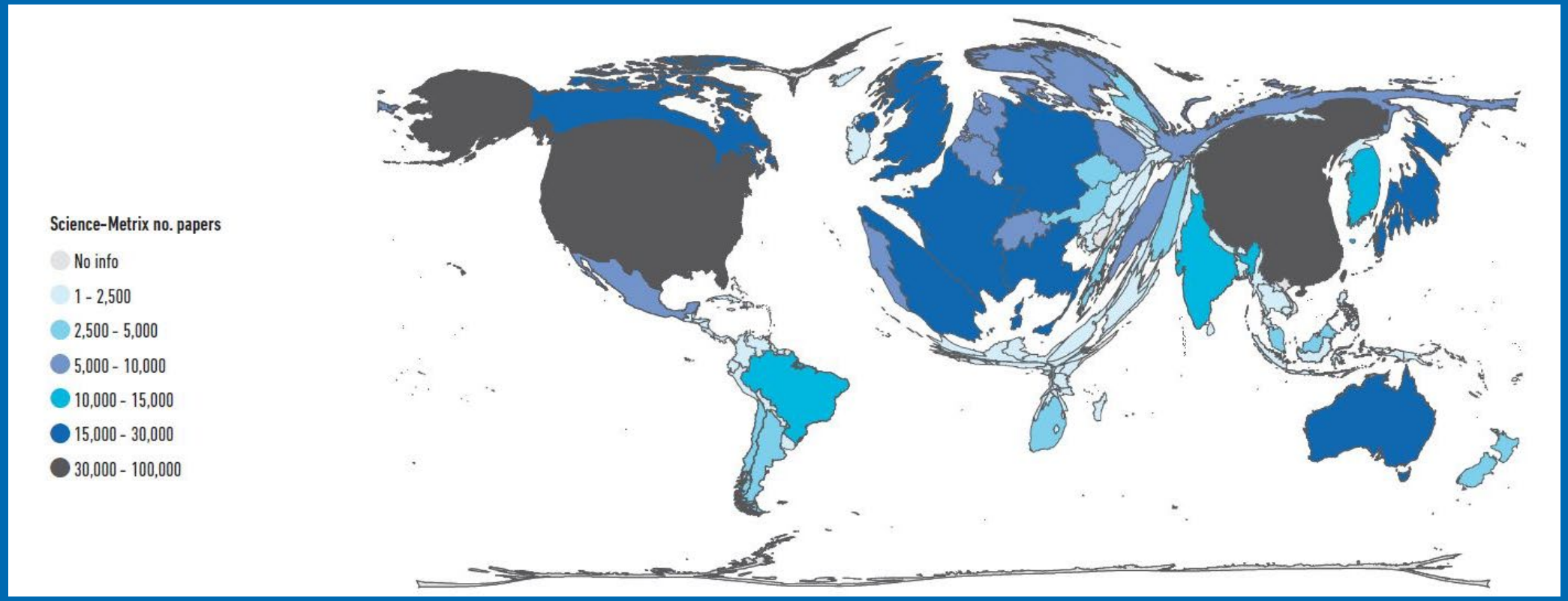
- Slides deemed non-essential moved to end.

A global framework to structure and boost scientific efforts at national and international levels to address global and regional SD challenges



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

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

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.

Key Application Areas

Coastal zone management and adaptation

Marine Spatial Planning/ Blue economy

BBNJ, Marine Protected Areas

Fishery management

Nationally Determined Contributions to UNFCCC

Development of national ocean policies

Development of national R&D strategies

Regional and national capacity development planning

Early warning systems

A global collective research and investment framework to close the knowledge gaps

GLOBAL KNOWLEDGE GAPS

99%
of habitable marine areas lack basic biodiversity knowledge for their management

3
Number of people who have explored the deepest known point of the ocean

Only 5%
of the ocean floor has been mapped at high resolution

1 million
Approximate number of marine species that could still be unknown to science

103 million
square miles of deep sea are in perpetual darkness

A cooperation framework for ocean science

Synthesise existing research
defining trends, knowledge gaps, priorities for future research

Funding /partnerships
Stakeholders engagement

Bridging science, policy and society
Science-policy dialogues, dissemination, access to data, information, communication

Mobilizing scientists on critical ocean priorities relevant to Agenda 2030

Synthesising, assessing results, development of user-driven solutions

New co-designed research strategies

Fostering new joint research and cooperation within & across ocean basins

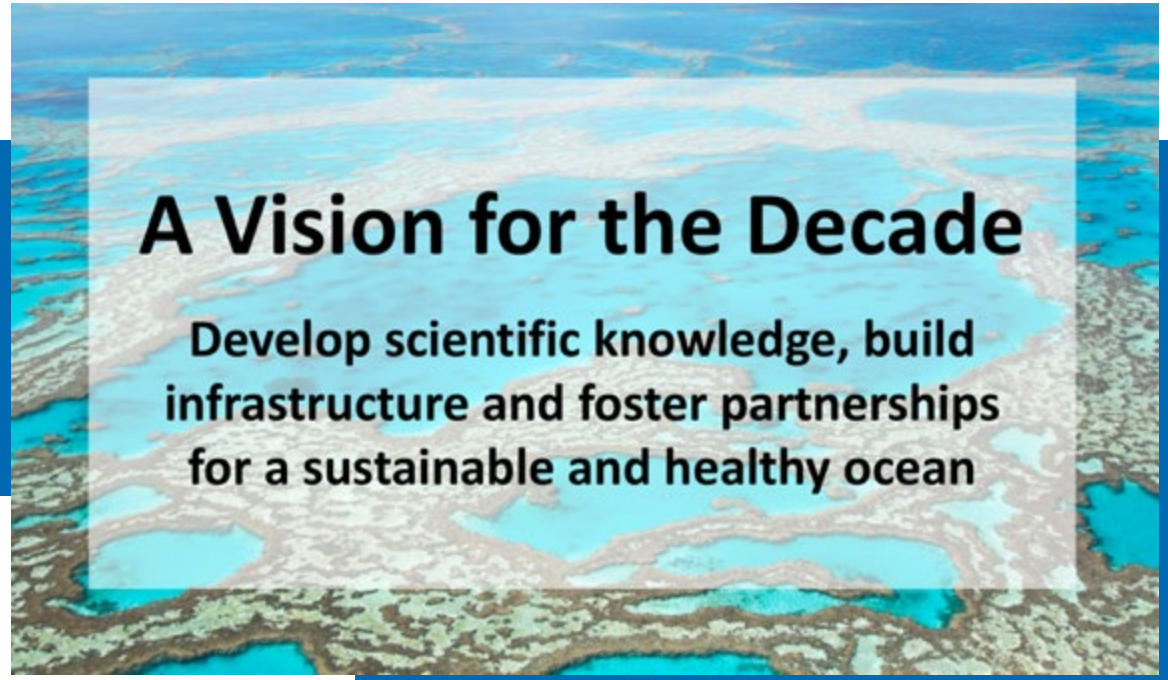
Integration natural & social sciences
Capacity development

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



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