

4TH GEO

BLUE PLANET SYMPOSIUM

4-6 July 2018 – Toulouse, France

IOC-UNESCO



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

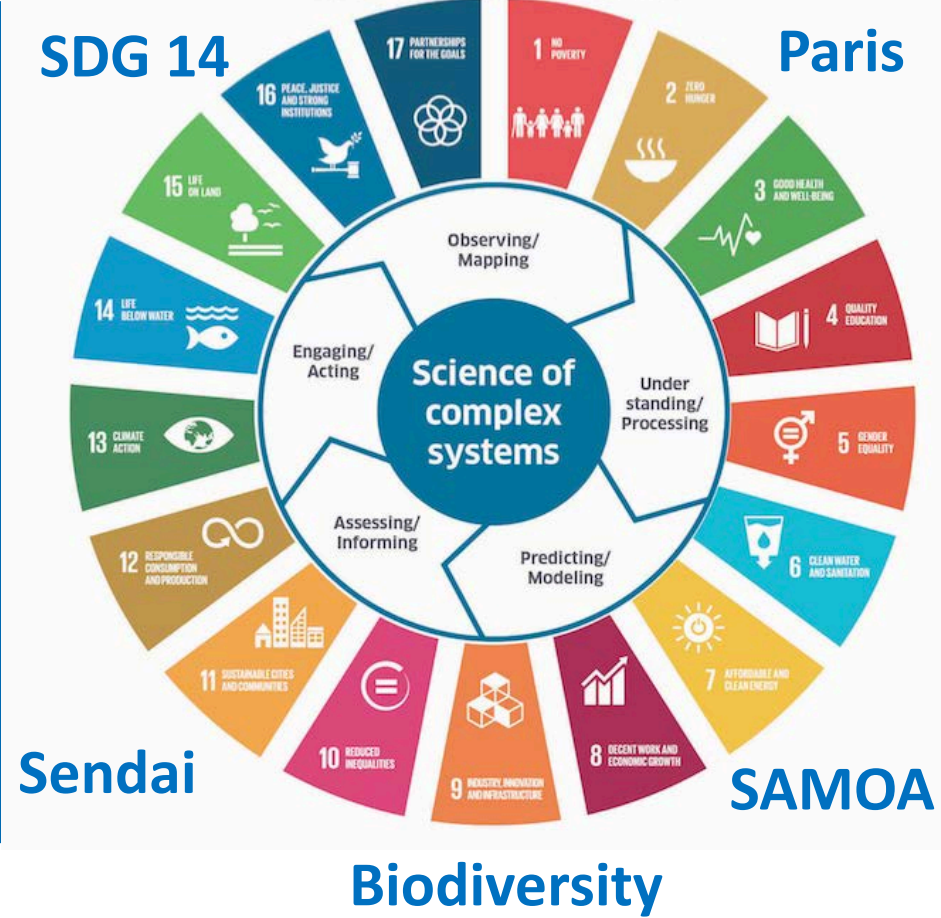
Vladimir Ryabinin (IOC-UNESCO)

presented by Emily Smail (GEO Blue Planet)



#GEOBluePlanet4

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



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

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



Proposal for an International
Decade of Ocean Science for
Sustainable Development
[2021-2030]



One Planet, One Ocean

An aerial photograph of a coral reef system, showing various shades of blue and brown. A semi-transparent white rectangular box is overlaid in the center, containing text. The text is in a bold, black, sans-serif font. The background shows the intricate patterns of the reef, with shallow lagoons and deeper channels.

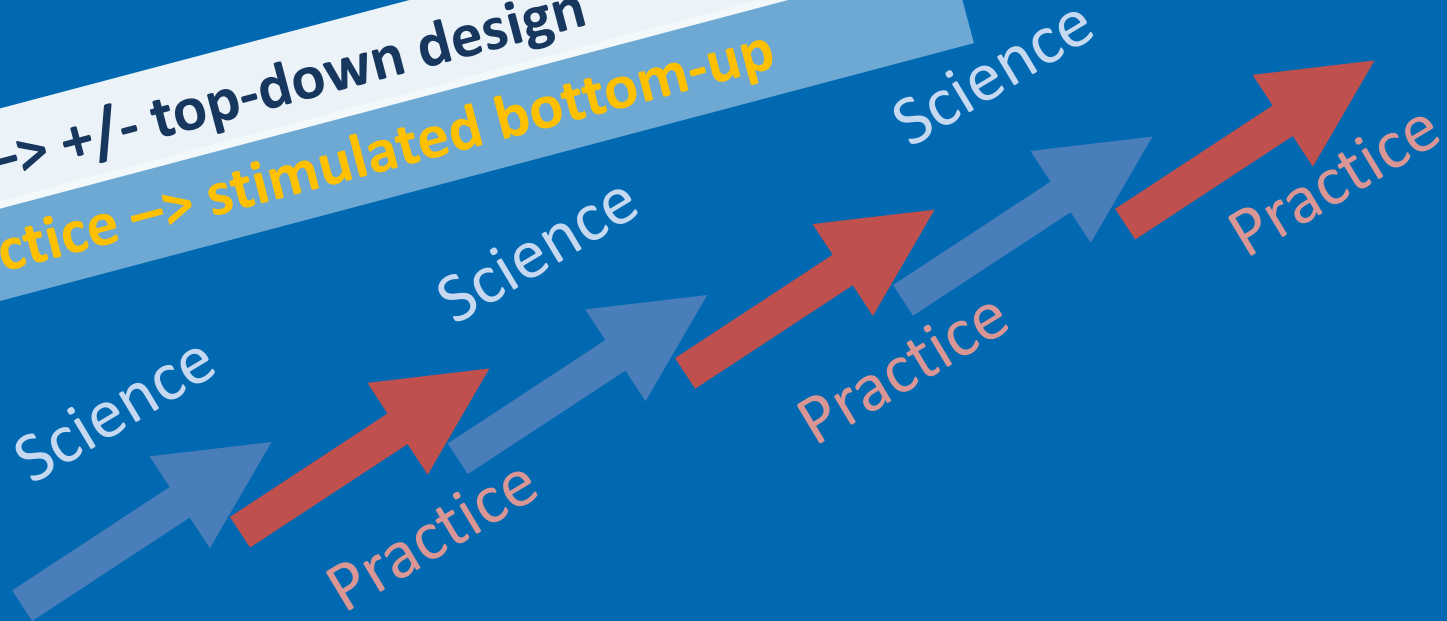
A Vision for the Decade

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

Decade: Mutual Acceleration of Science and Practice

Planned R&D → +/- top-down design

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



United Nations
Educational, Scientific and
Cultural Organization

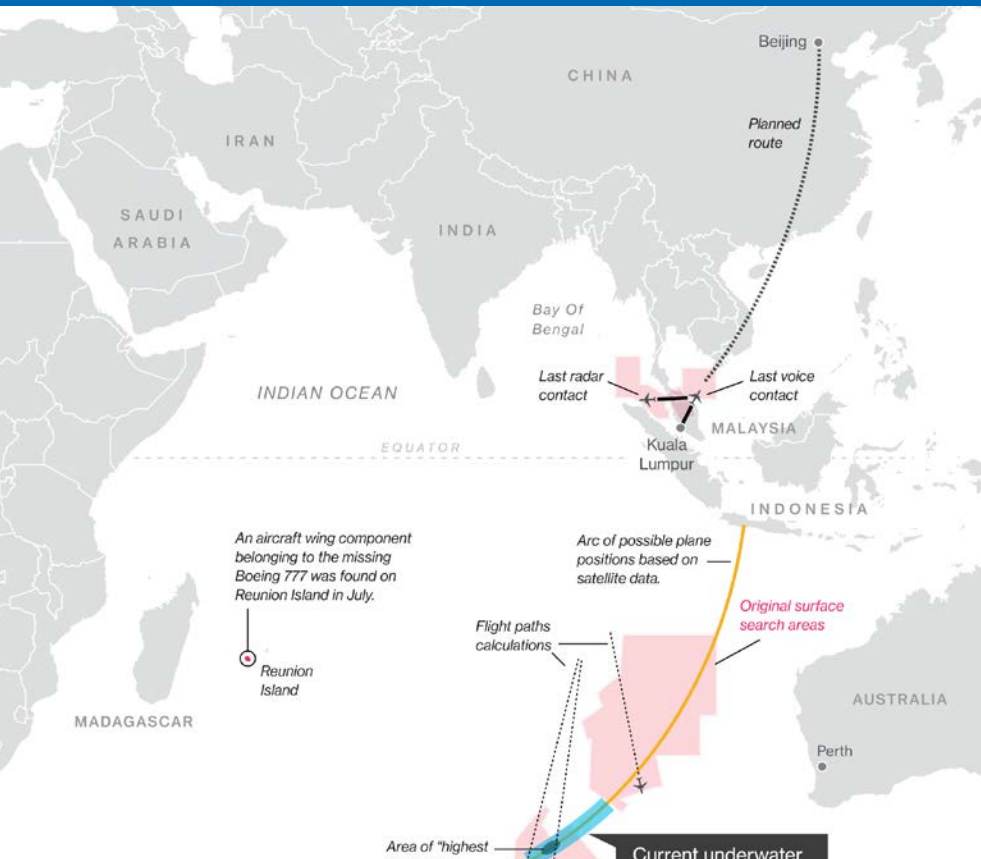


Intergovernmental
Oceanographic
Commission



Sustainable
Development
Goals

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



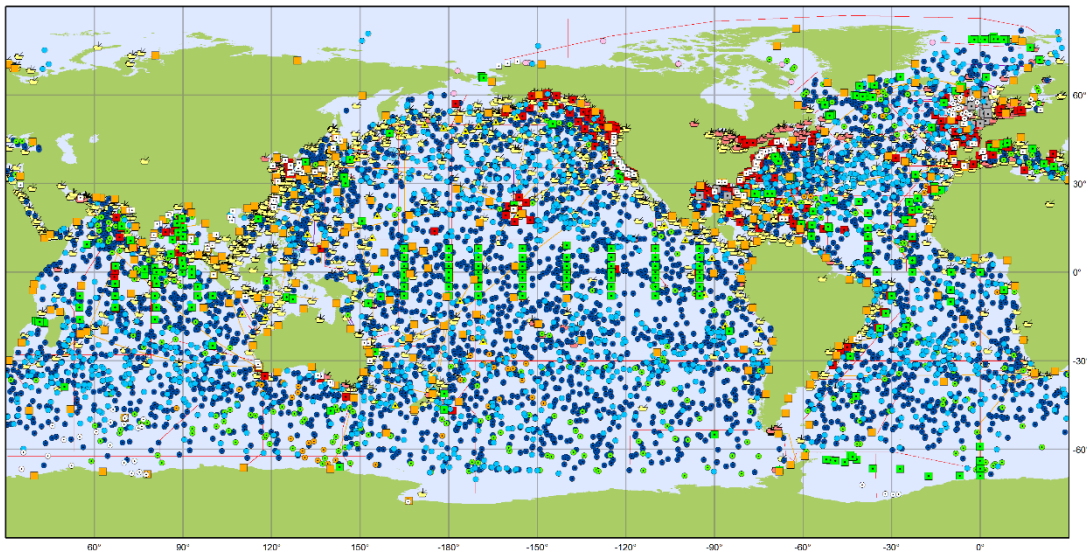
R&D Priority Area 1:
Comprehensive map
(digital atlas) of the ocean
(Scope:
well beyond topography)



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) Research Vessel Lines (61) Sea Level (GLOSS) ■ 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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UN Decade of Ocean Science for Sustainable Development Priority Research and Development Areas

Large Marine Ecosystems of the World and Linked Watersheds

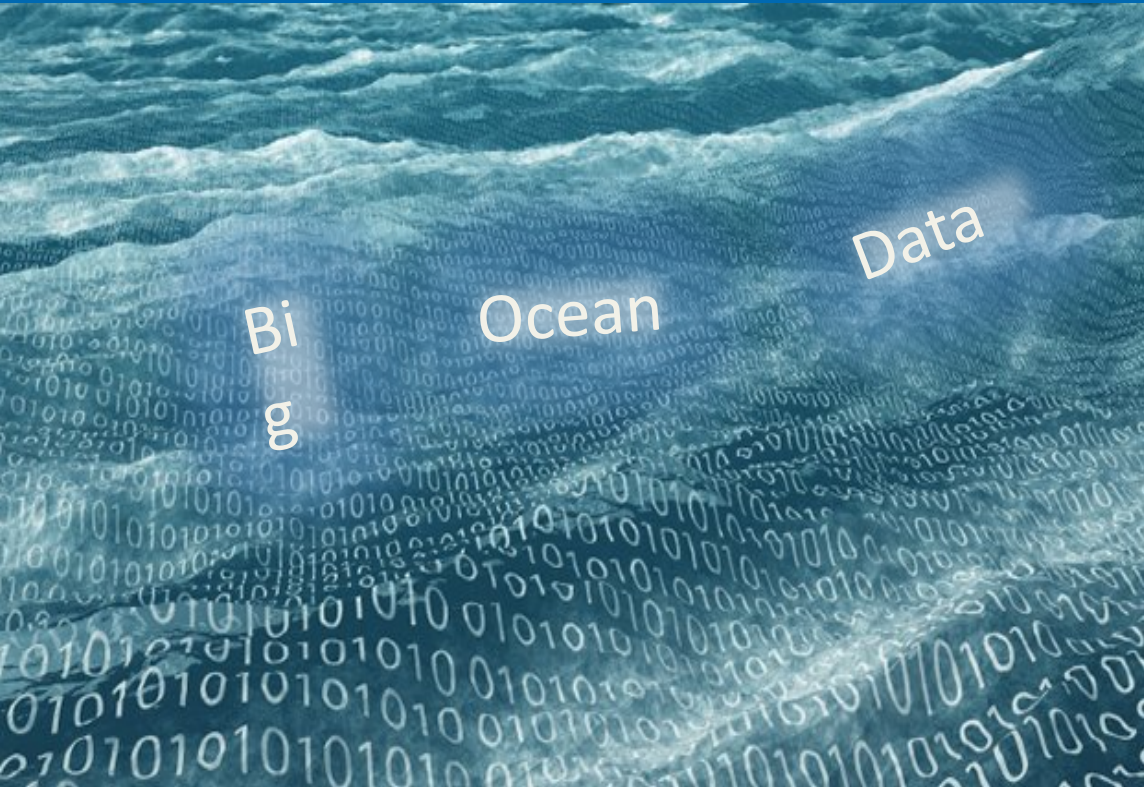


- | | | | | | |
|-------------------------------------|-------------------------|---------------------------|--|----------------------|-------------------|
| 1 East Bering Sea | 13 Humboldt Current | 25 Iberian Coastal | 37 Sulu-Celebes Sea | 48 Yellow Sea | 60 Fiarne Plateau |
| 2 Gulf of Alaska | 14 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 management
and adaptation

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

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



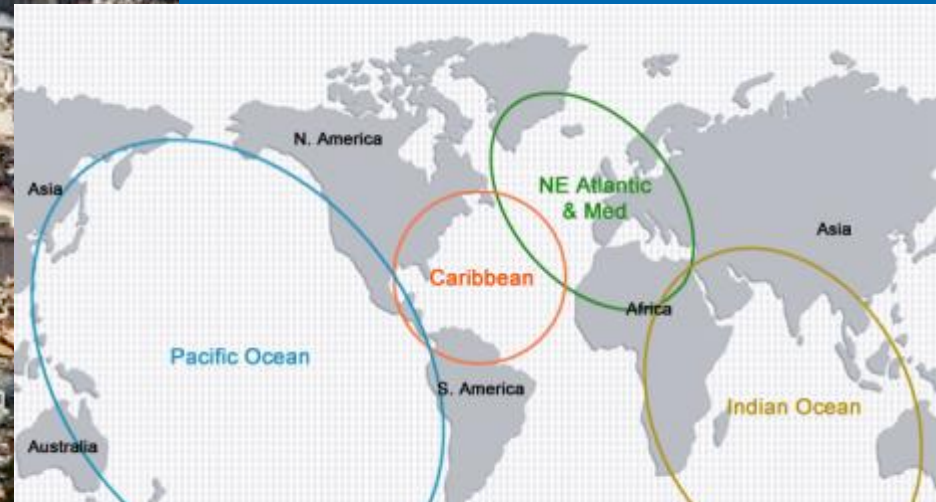
**R&D Priority Area 4:
Data & information
System**

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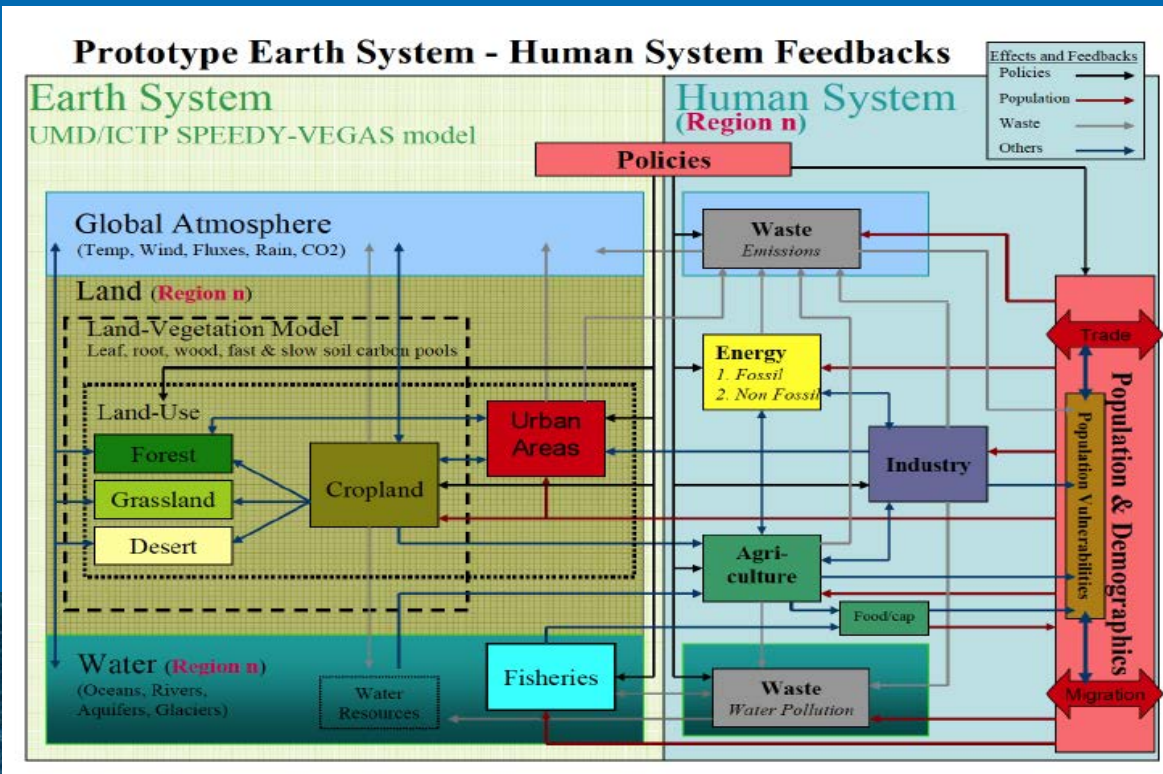
Priority Research and Development Areas



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



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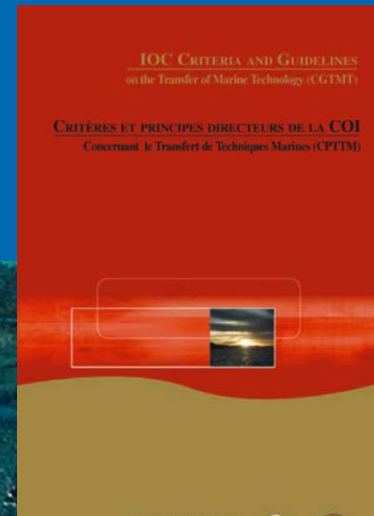


R&D Priority Area 6:
Ocean compartment
of the Earth System
Science and
Observations

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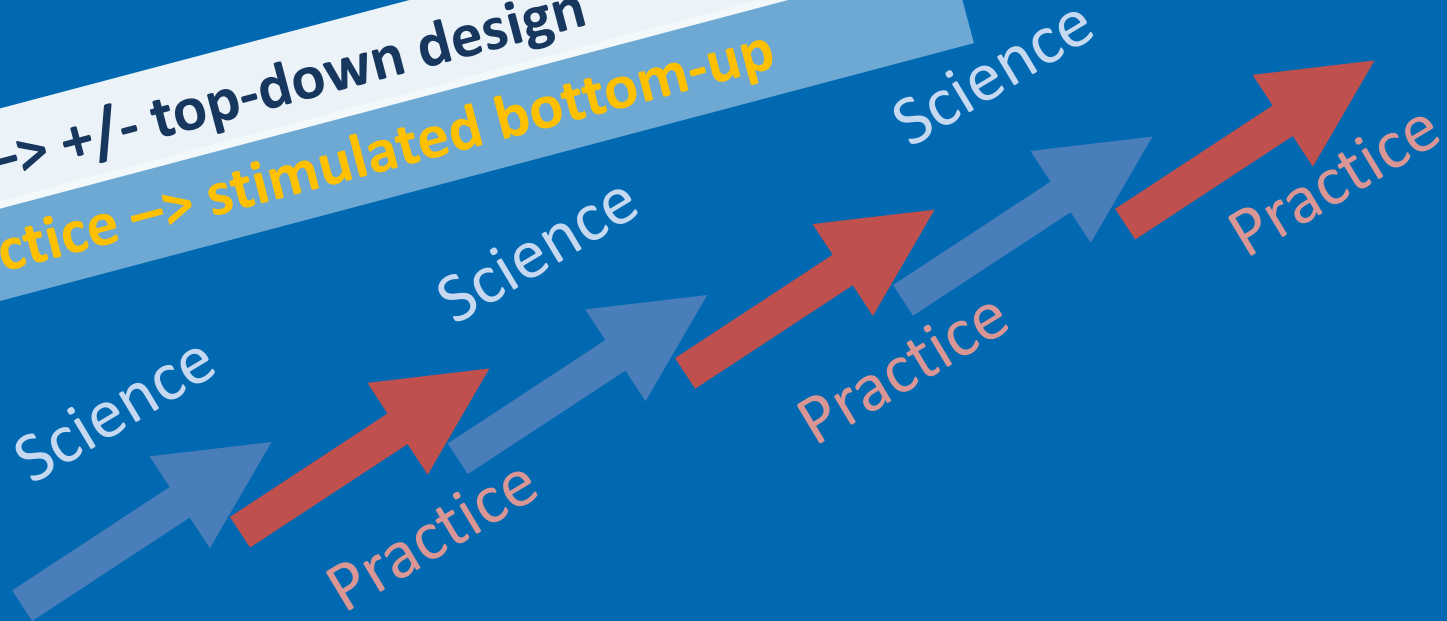
R&D Priority Area 7: Capacity Development Education and Training Ocean Literacy



Decade: Mutual Acceleration of Science and Practice

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Sustainable
Development
Goals

Key Societal Benefit Areas



**Coastal zone
management
and adaptation**



**Marine
Spatial
Planning/
Blue economy**



**Establishment of
Marine Protected
Areas**



**Fishery
management**



**Nationally
Determined
Contributions
to UNFCCC**



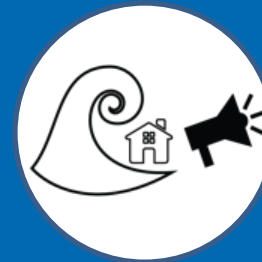
**Governance:
Implemented
national ocean
policies**



**Development
of national
R&D strategies**



**Regional and
national capacity
development
planning**



**Early warning
systems**

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#OceanDecade

The Ocean
We Need
for the
Future
We Want

Proposal for an International
Decade of Ocean Science for
Sustainable Development
[2021-2030]



Your UN Decade of Ocean Science for Sustainable Development!

Your once-in-a professional-life time
opportunity to make the difference!

