



IMBeR

Integrated Marine Biosphere Research

**Ocean sustainability under global change
for the benefit of society**

www.imber.info |  @imber_ipo |  @IMBeR-IPO

IMBeR is a Large-Scale Ocean Research Project under SCOR
and a Global Research Network under Future Earth

The IMBeR International Project Office is fully sponsored by
State Key Laboratory of Estuarine and Coastal Research (SKLEC)

East China Normal University (ECNU)

Shanghai, China

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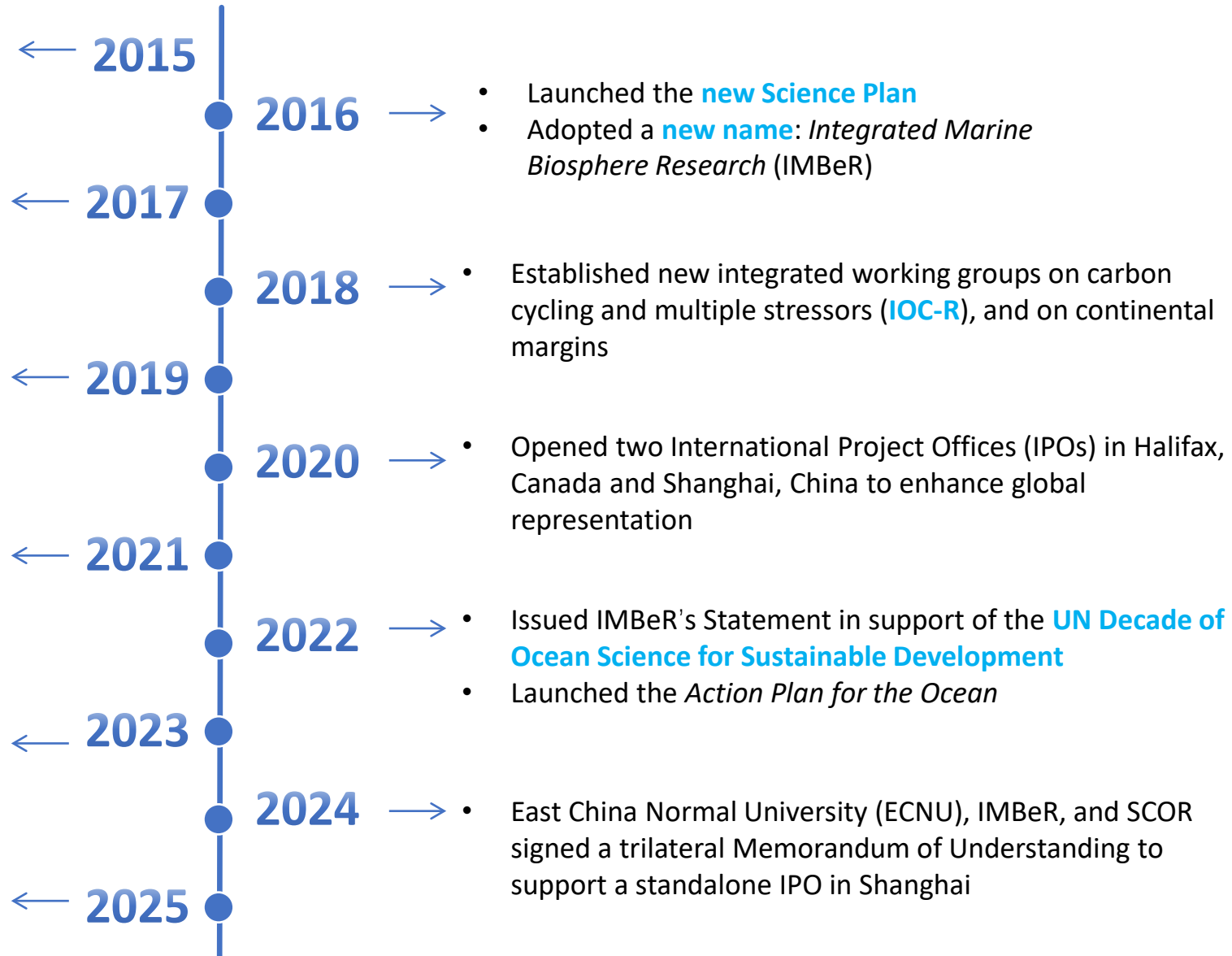




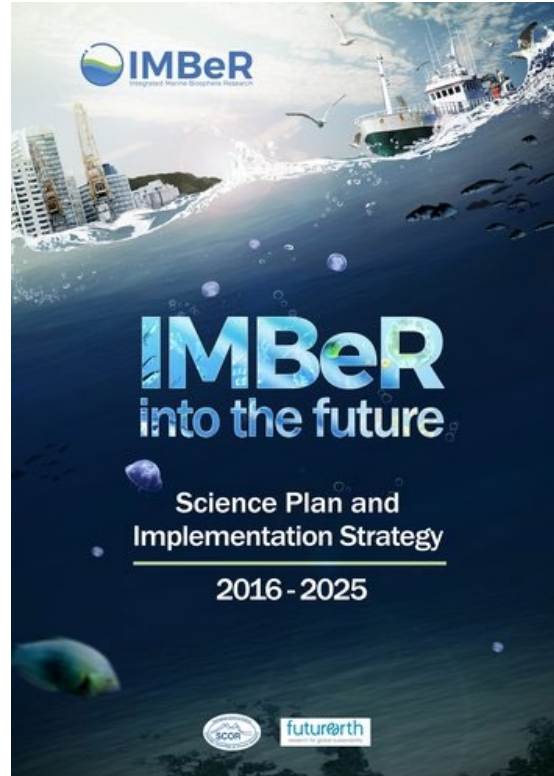
IMBeR Timeline

Integrated Marine Biosphere Research

- Science Plan and Implementation Strategy (SPIS) draft to guide IMBER research for the next decade
- Submitted the SPIS to SCOR for review and approval in Fall 2015
- Advanced three Grand Challenges and four Innovation Challenges with appointed champions
- Held the IMBIZO 5 conference: “*Marine biosphere research for a sustainable ocean: Linking ecosystems, future states and resource management*”
- Launched the second Open Science Conference: **Future Oceans 2**
- Officially launched the Interdisciplinary Marine Early Career Network (**IMECaN**)
- Successfully completed the **Midterm Review** with positive outcomes
- Launched the **IMBeR West Pacific Symposium** and initiated three **Study Groups**
- Published the Marine Ecosystem Assessment for the Southern Ocean: Summary for Policymakers
- Hosted the **Future Oceans 3 Conference** for synthesis and future strategic planning



SCIENCE

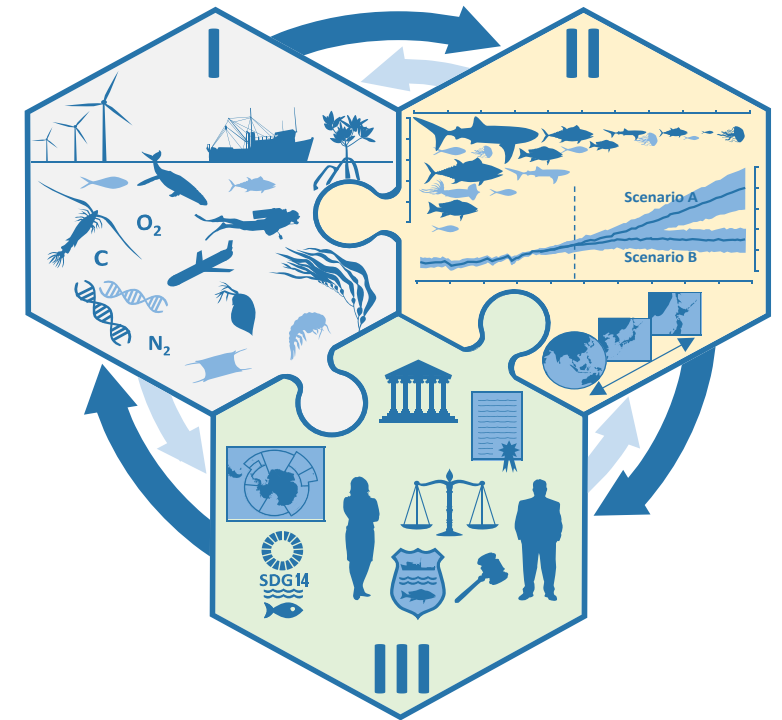


Hofmann, E.E. and the IMBeR Scientific Steering Committee (eds.) (2016): IMBeR 2016-2025: **Science Plan and Implementation Strategy**

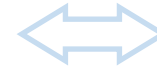
Grand challenge I
Understanding and quantifying the state and variability of marine ecosystems

Grand challenge II
Improving scenarios, predictions and projections of future ocean-human systems at multiple scales

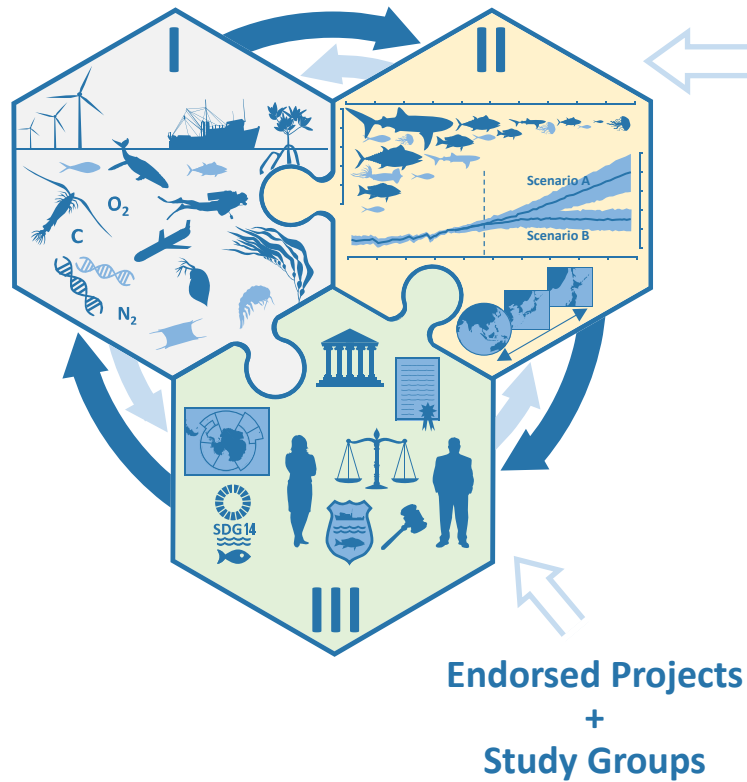
Grand challenge III
Improving and achieving sustainable ocean governance



Scientific Steering Committee



International Project Office



Regional Programmes

+ Working Groups



Climate Impacts on
Oceanic Top Predators



Continental Margins
Working Group¹



Ecosystem Studies of
Sub-arctic and Arctic Seas



Human Dimensions
Working Group



Integrating Climate and
Ecosystem Dynamics



Integrated Ocean
Carbon Research²



SOLAS-IMBeR Ocean
Acidification³



Sustained Indian Ocean
Biogeochemistry and
Ecosystem Research

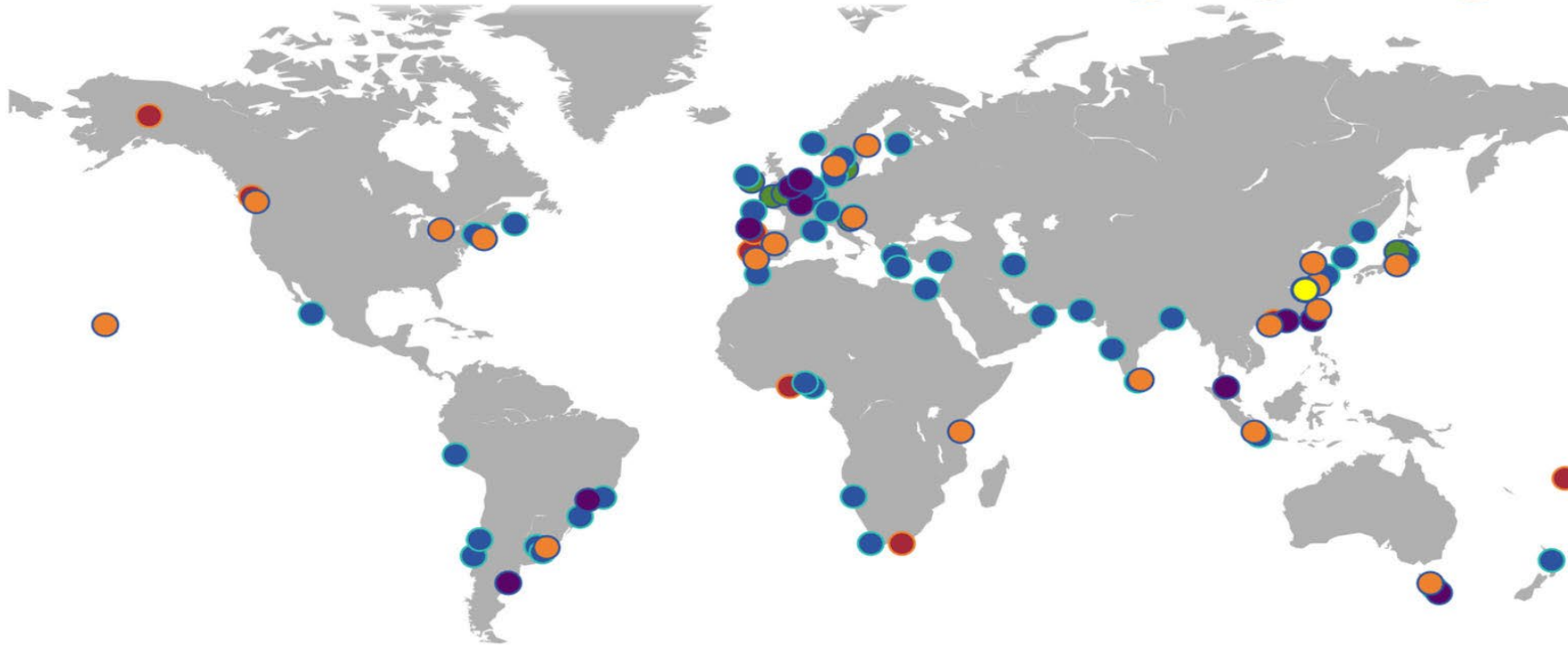


Submarine Groundwater
Discharge Working Group

 **1100+ Publications (2016-2025)**

4 Regional Programmes | 5 Working Groups | 6 Endorsed Projects | 4 Study Groups

6000+ Scientists | 48 National Contacts | 1300+ Early Career Researchers from 110+ Countries



-  **Scientific Steering Committee Members**
-  **IMBeR Fellows**
-  **National Contacts**
-   **IMECaN Organising Committee Members**
-  **Endorsed Projects**
-  **IMBeR International Project Office**



JSPS CREPSUM



MEBM-PEG

NUTS & BOLTS

IPR Study Group

OC-PC Study Group

CMWG Chinese Case Study

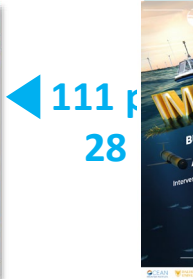
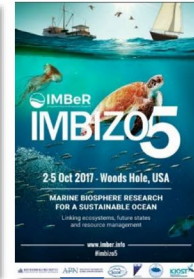
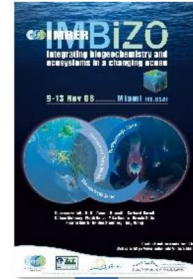
Eutrophication Study Group

Future Oceans IMBeR Open Science Conferences



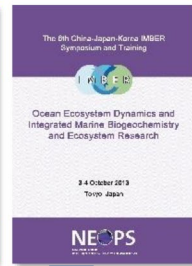
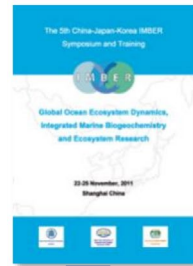
1579 participants
28 countries
8 regions

IMBIZO Conference Series: 3 separate but interacting workshops



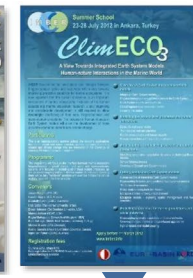
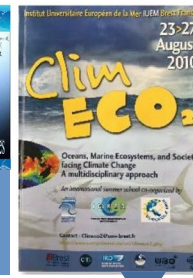
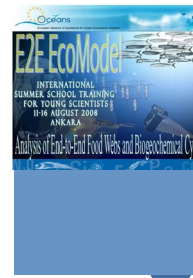
111 participants
28 countries

IMBeR China-Japan-Korea Symposia Series

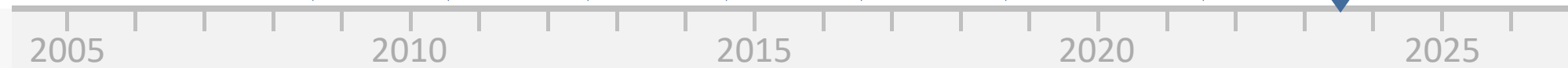


200+ participants
9 countries

ClimEco Summer School Series



61 participants
21 countries



Interdisciplinary Marine Early Career Network (IMECaN) endorsed by the IMBeR SSC in 2016 and officially established in 2019.

IMECaN aims to:

- Provide a networking platform for early career marine researchers to develop collaborations;
- Provide training and development in areas not traditionally provided through formal education and training programmes; and
- Provide leadership opportunities for ECR marine researchers, particularly from developing nations.

Opportunities
Collaboration | Training | Leadership



1,322 members
103 Countries



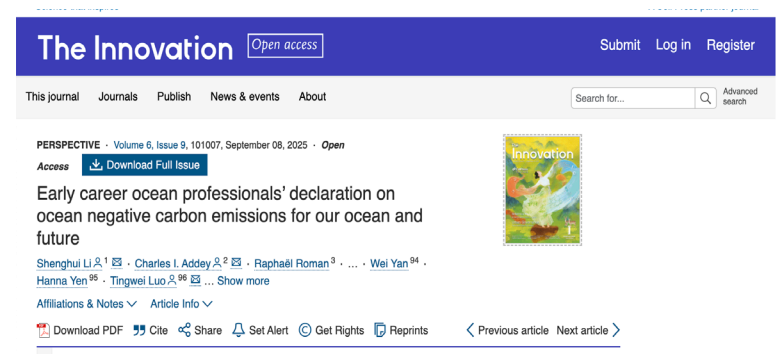
EDITORIAL
 09 May 2022



Editorial: Solving Complex Ocean Challenges Through Interdisciplinary Research: Advances from Early Career Marine Scientists

Stephanie Brodie, Charles Izuma Addey, Christopher Cvitanovic, Beatriz S. Dias, 11 more and Natasa Vaidianu

Anthropogenic impacts on the world's coasts and oceans are accelerating at an unprecedented rate, threatening marine biodiversity and ecosystem functioning, and with it the sustainability of the goods and services marine systems provide, with downstream impacts on societal well-being and livelihoods. Embedded within complex





Anthropocene 12 (2015) 42-53

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Anthropocene

journal homepage: www.elsevier.com/locate/ancene

ELSEVIER

IMBeR – Research for marine sustainability: Synthesis and the way forward

Eileen Hofmann^{1*}, Alida Bundy², Ken Drinkwater³, Alberto R. Piola⁴, Bernard Avril^{5,1}, Carol Robinson⁶, Eugene Murphy⁶, Lisa Maddison⁶, Einar Svendsen⁷, Julie Hall⁸, Yi Xu¹

CrossMark

Editorial: Integrated marine biosphere research: ocean sustainability, under global change, for the benefit of society

Carol Robinson^{1*} Alistair J. Hobday² Eugene J. Murphy³
Prateep Kumar Nayak⁴ Alice Newton⁵

2025

Bulletin
LIMNOLOGY AND OCEANOGRAPHY

ASLO
Association for the Sciences of Limnology and Oceanography

Community News

A Decade of IMBeR: Advocating at a Transition Point

Fang Zuo ✉, GiHoon Hong, Kai Qin, Suhui Qian

First published: 17 April 2025 | <https://doi.org/10.1002/lob.10702>

Bulletin
LIMNOLOGY AND OCEANOGRAPHY

ASLO
Association for the Sciences of Limnology and Oceanography

Community News

The Role of the Interdisciplinary Marine Early Career Network (IMECaN) in Supporting Capacity Building, Ocean Literacy, and Collaborative Leadership of Early Career Researchers

Juliano Palacios-Abrantes ✉, Beatriz S. Dias, Ignacio Gianelli, Mia Strand, Shenghui Li, Gabriella Akpah Yeboah

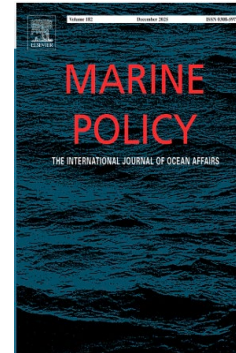
First published: 17 April 2025 | <https://doi.org/10.1002/lob.10704> | Citations: 3



Murphy, E.J., et al. (in revision). Ecological feedbacks in the Earth System. *Earth's Future*



Hobday, A. et al. (in preparation). Building an international research community: The IMBeR IMBIZO approach. TBD.



Prado, D. et al. Supporting sustainability of the human-ocean system in the context of global change: a decade's lessons from a large-scale international research project. For submission to *Marine Policy*



The integrated marine biosphere research (IMBeR) project : contributions to interdisciplinary marine research and next steps. (In preparation)



Developing an Action Plan for the Ocean (IMBeR led Initiative)

306

Participants

129

Affiliations

28

Countries & Regions

41

Invited Presentations

44

Oral Presentations

55

Posters

132

On-site

174

Online



May 13-16, 2025



Envisioning the Future of Marine Biosphere Research - *Ongoing Efforts*

Summary from the Breakout Group Discussion Activity

Themes

- Land-Ocean-Climate & Pollutant Nexus and Tipping Points in Coastal Ecosystems
- Integrative Interventions: Climate Mitigation, Adaptation, and Nature Repair
- Coupling Blue Transitions with Food System Transitions

Pathways

- Connecting and Synthesizing Across Regional Programmes
- Community-Based Capacity Building and ECRs Engagement
- Methodological Lab for Interdisciplinary Research

<https://imber.info/machform/view.php?id=207939>



MachForm

Comments and Suggestions: Envisioning the Future of Marine Biosphere Research — Summary of Breakout Group Discussions at Future Oceans 3

1 General Information

Name *

First Last

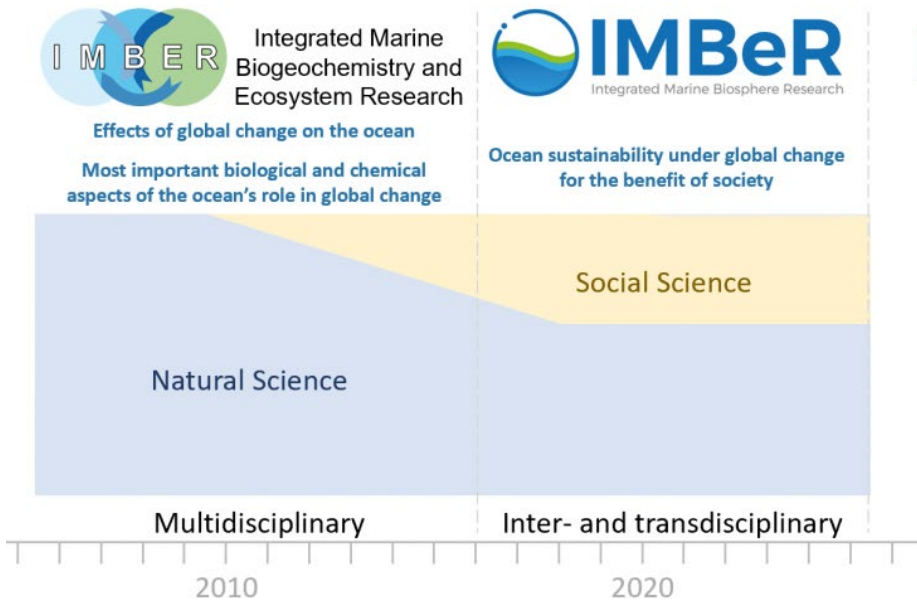
Affiliation

Email *

IMBeR Future Planning

Integrated Marine Biosphere Research

- Exploratory period to develop a new science plan and implementation strategy.
- On-going processes to solicit broad input from the ocean science community

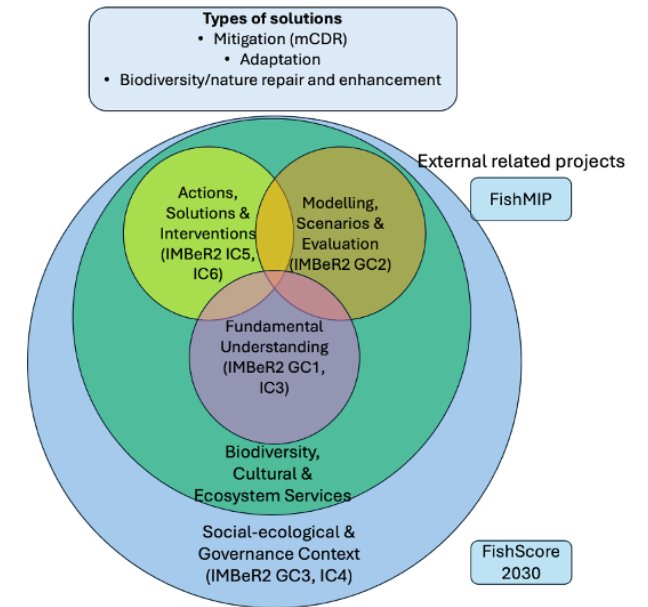


IMBeR 3.0



- Build on legacy of inter/trans-disciplinarity, augment science-policy focus
- Stronger interactions across activities (e.g., grand challenges, regional programs, and working groups)
- Rapid response expertise to emergent challenges and ocean conditions (evidence synthesis)
- Blue economy, food systems and geo-engineering (eg., mCDR), tipping points
- Solutions oriented interventions → what leads to success or failure in implementation of interventions
- Commitment to ECR network
- Emphasise the value-added contributions of IMBeR

Emerging themes



Source: Trebilco 2025

Where are we at?

- Clarifying interim governance structure and process (Advisory Board)
- Developing initial 2–3 page concept note for IMBeR³
- Developing outline of Science Plan for IMBeR³

Proposed/potential engagement activities

- Town Hall to discuss science plan and strategy
- Targeted surveys and engagement with IMBeR science community and partners
- Engage new stakeholders (e.g., World Ocean Council, key NGOs such as WIOMSA, Oceana, etc.)
- Participation in relevant meetings/events to engage science community

29-31 October 2025
Santa Marta, Colombia

- Discussion, feedback at the SCOR 2025 Annual Meeting

22-27 February 2026
Glasgow, Scotland

- Town Hall at the Ocean Sciences Meeting (OSM26)
- Community consultation and feedback on IMBeR³ concept

12-16 May 2026
Montreal, Canada

- ASLO-SIL 2026 Meeting, Aquatic Confluence: Science, People, Knowledge.
- Community consultation and feedback on IMBeR³ concept

January—August 2026

- National and partner engagement
- Draft science plan finalized for sponsor review

September-December 2026

- Preparation for the official launch of the IMBeR 3.0 Science Plan

