



# Integrated Marine Biogeochemistry and Ecosystem Research

## IMBER: REGIONAL CONNECTIONS FOR INTEGRATION AND SYNTHESIS

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The goal of IMBER is “to investigate the sensitivity of marine biogeochemical cycles and ecosystems to global change, on time scales ranging from years to decades”.

Theme 1– Identify and understand the interactions between biogeochemical cycles and marine food webs impacted by global change

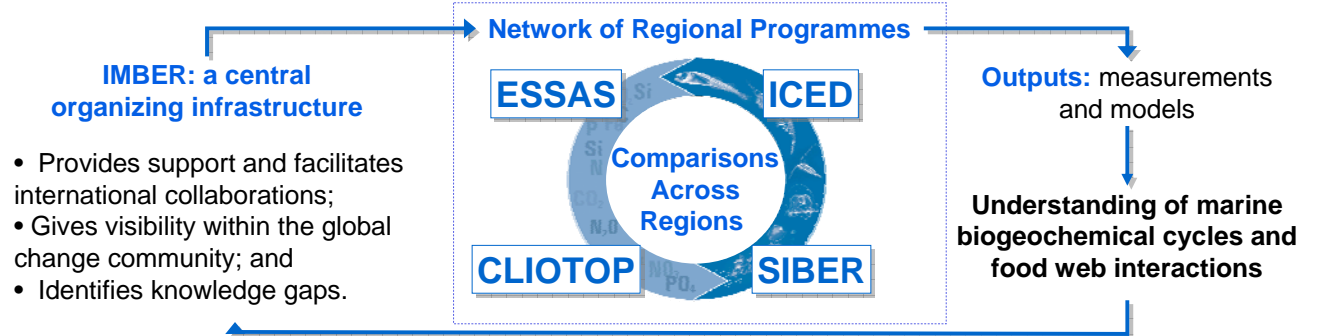
Theme 2 – Understand the sensitivity of marine biogeochemical cycles and ecosystems and their interactions to global change



Theme 3 – Understand feedbacks to the Earth System - Capacity of the ocean to control the climate system

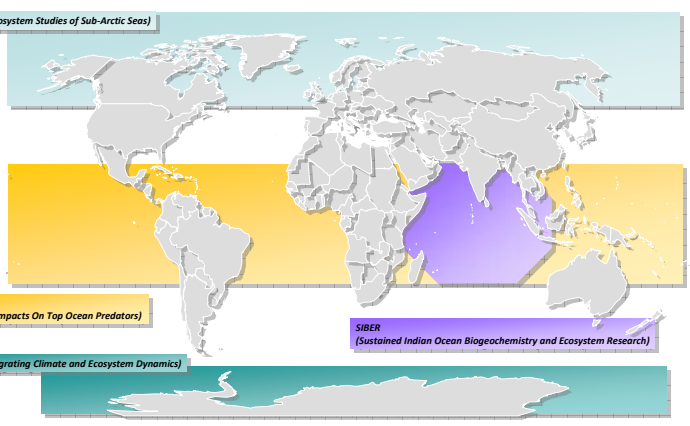
Theme 4 – Responses of Society Understand feedbacks between human and ocean systems including adaptation and mitigation

### IMPORTANCE OF A REGIONAL NETWORK FOR IMBER SCIENCE IMPLEMENTATION



**ESSAS**  
Ecosystem Studies of Sub-Arctic Seas

How climate change affects the marine ecosystems of the Sub-Arctic Seas and their sustainability?



**CLIOTOP**  
Climate Impacts On Top Ocean Predators

What are key processes involved in the impact of climate change and fishing on the open ocean pelagic ecosystem?

**SIBER**  
Sustained Indian Ocean Biogeochemistry and Ecosystem Research

What is the role of the Indian Ocean in global biogeochemical cycles and the interaction between these cycles and marine ecosystem dynamics?

**ICED**  
Integrating Climate and Ecosystem Dynamics

How climate processes affect the structure and dynamics of ecosystems and biogeochemical cycles in the Southern Ocean?

**IMBER IMBIZO II**  
10-14 Oct 2010 - Créteil (France)

**Synthesis and integration activities: IMBER IMBIZO Series**

- Compare processes occurring in the widely diverse ecosystems of the world’s oceans (polar regions – Arctic and Antarctic – sub-polar regions, subtropical and tropical ecosystems, upwelling regions);
- Integrate biogeochemical and ecological processes across regions;
- Benefit from the understanding provided by different approaches used in the regional programmes;
- Compare results from the regional programmes to understand the potential effects of climate and human-induced changes.

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