OCEAN VISIONS

Advancing Solutions

for Ocean-Climate Restoration

OCEAN VISIONS

Ocean Visions is a nonprofit organization at the center of a robust network.

Ocean Visions catalyzes collaboration for the co-design, development, testing, and evaluation of solutions to the interlocking ocean-climate crisis.

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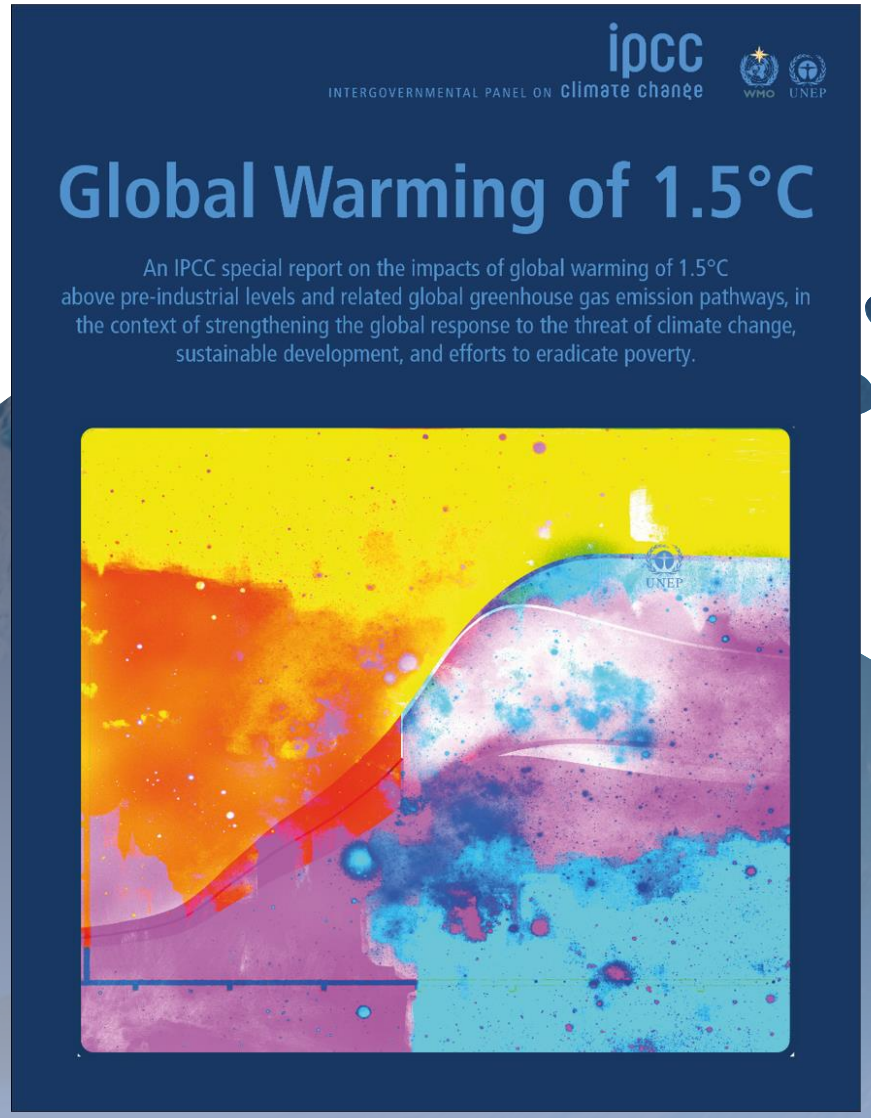

Carbon Pollution Clean-Up

Carbon Dioxide Removal

All pathways that limit global warming **to 1.5°C** with limited or no overshoot project the use of carbon dioxide removal (CDR) on the order of **100–1000 $GtCO_2$** over the 21st century.

REMOVE

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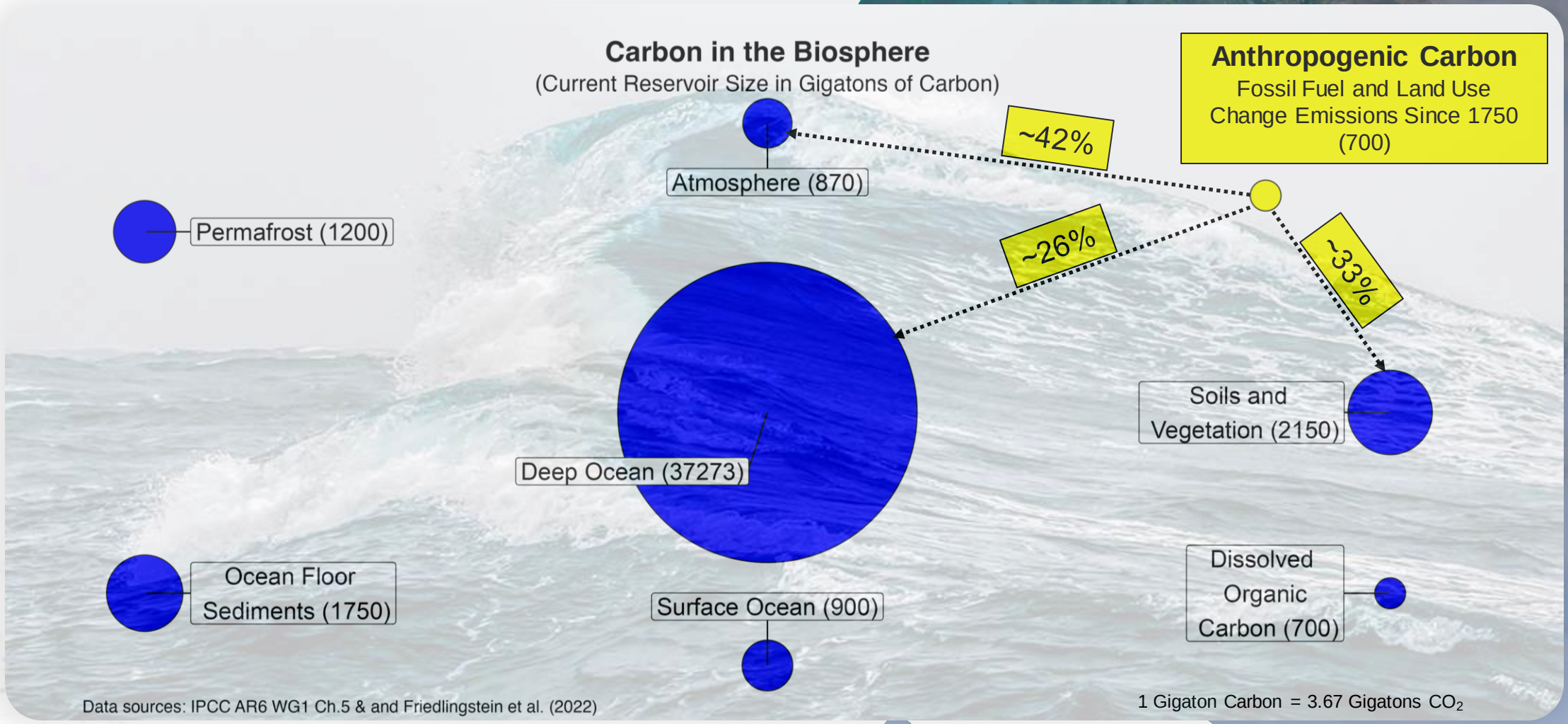
WHY LOOK AT THE OCEAN?



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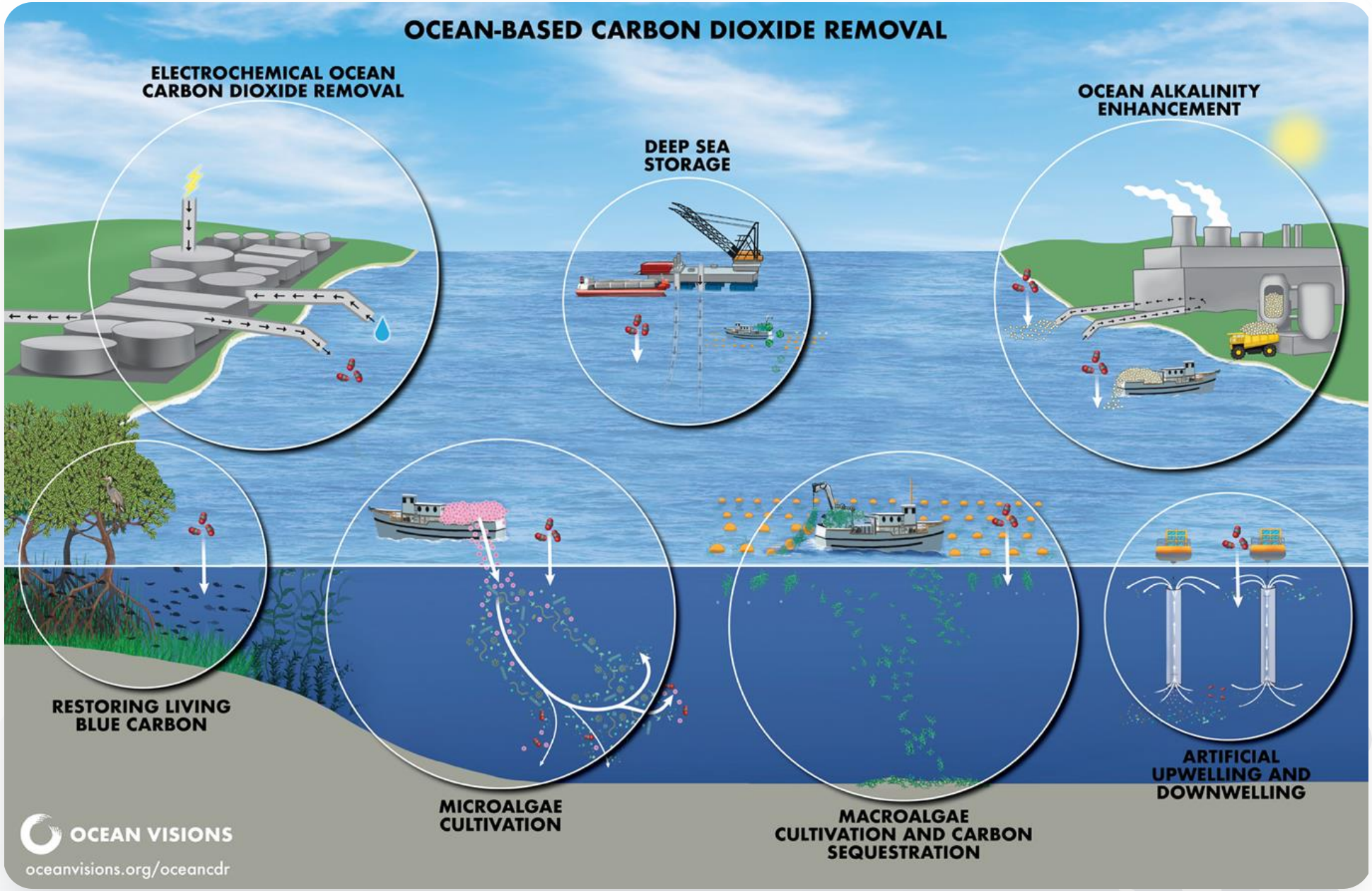

ACCELERATING OCEAN BIOLOGICAL AND CHEMICAL CARBON UPTAKE

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Ocean-Based Carbon Dioxide Removal: Road Maps

Pathways to accelerate the development and testing of ocean-based carbon dioxide removal approaches.

About Road Maps | How to use Road Maps

TECHNOLOGY ROAD MAP

CROSS-CUTTING ROAD MAP

Read the core principles guiding our work on carbon dioxide removal and the ocean.

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Ocean Alkalinity Enhancement

Adding alkalinity to seawater to capture CO_2

State of Technology

Development Gaps and Needs

First-Order Priorities

Bringing It All Together

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Advancing Solutions for Ocean-Climate Restoration

A Comprehensive Program to Prove or Disprove Marine Carbon Dioxide Removal Technologies by 2030

Introduction[1]

The last three years have seen a tremendous growth in the level of awareness, interest, and engagement with carbon dioxide removal (CDR) broadly and especially with marine carbon dioxide removal (mCDR, sometimes also called ocean-based carbon dioxide removal). This interest stems from the increasing recognition that CDR is now an essential part of the path to achieving a safe climate.

In press

Three (Interconnected) Pillars

- Science and Engineering
- Policy
- Scalability

NSF Support for mCDR RD&D

- **Controlled Field Trials**
  - Pre-permitted test beds
- Fundamental laboratory and mesocosm science questions
  - NSF Ocean Acidification Program as an example
- Monitoring, Reporting, and Verification-related R&D
  - Sensors
  - Models
  - Model/data integrations
- A coordinated social science research program
  - OCE collaboration with Directorate for Social, Behavioral, and Economic Sciences?

Thank you

Any questions?

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