Developing a methodology to measure & certify durable tons of OIF sequestered carbon

Considering the process, benefits, and risks involved in developing an approved OIF carbon methodology in collaboration with independent carbon standards bodies

Is this a fast-track to commercialization?

- “No”.
- The purpose of the methodology for EXOIS is to align stakeholders so that we are all talking in precise terms about “what” it is.
- It helps in discussions w/ some funders who want to know whether we are focused on something that is well described in terms they understand.
- There is precedence to limit a carbon credit’s ability for secondary sale. We suggest these tons could automatically be retired by the funders as a contribution without claims against their targets or commitments.

What is a Methodology

A Carbon Methodology is an approved technical process that may be used by project developers to quantify the GHG benefit for a specific project type.

A Carbon Dioxide Removal Methodology must include the following details:

- Unique: distinct from existing approved Methodologies
- Measurable: A robust CDR quantification method
- Durable: demonstrates assured timeline (i.e. minimum 100-year sequestration)
- Additional: technology or process covered requires carbon financing
- Verifiable: describes how third-party verification will be carried out
- Environmental and Social Safeguards: demonstrates procedures for mitigating environmental and social risks

Why would a methodology benefit OIF?

- Creates a path to quantify achievement in terms that are broadly understood.

- This enables convergence of Science with Carbon Policy and Carbon Markets. A Methodology, could harmonize science, policy and markets to agree on how to quantify the value of OIF for humanity, in the same language.

- A Methodology would create an accepted convention to quantify scientific success in terms that the current carbon understands. This is true even if these credits are automatically retired by funding parties as a contribution to the climate, without the potential for secondary sales.

What is the role of scientists

- To develop and articulate whether this works
- What its impacts are
- How to measure it
- How to model it
- How to assure social and environmental safeguards
- And to agree the balance between measurement and modeling

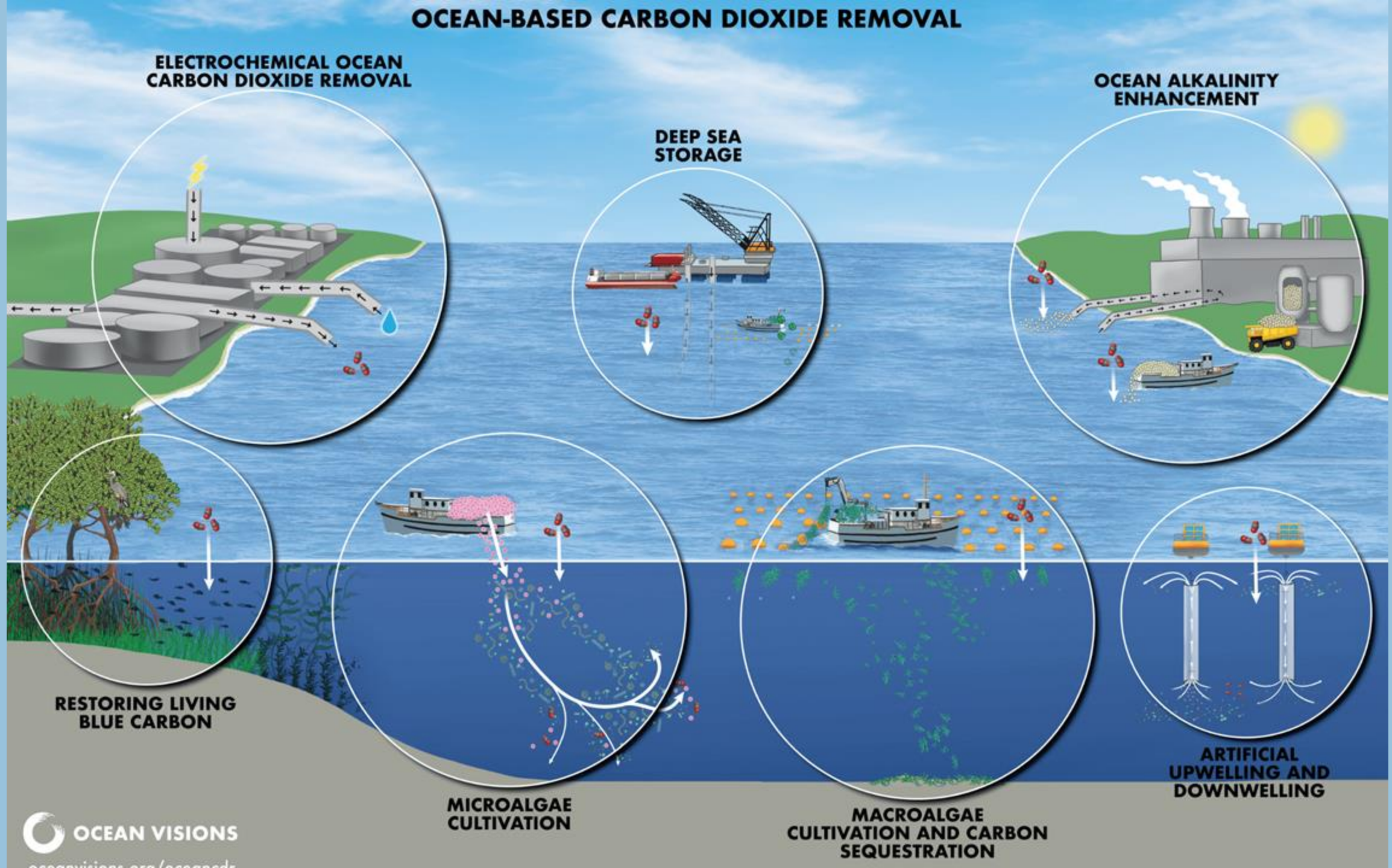
An OIF Methodology? Or a larger category…?

Activities have been referred to as MarineCDR (mCDR), OceanCDR and blueCDR

Ocean Vision has broken down Ocean-Based CDR into following categories:

- Microalgae Cultivation
- Macroalgae Cultivation and Carbon Sequestration
- Artificial Upwelling and Downwelling
- Deep Sea Storage
- Electrochemical Ocean Carbon Dioxide Removal
- Blue Carbon Restoration and Carbon Sequestration
- Ocean Alkalinity Enhancement

Should we refer to the methodology as OIF or Microalgae Cultivation?


OCEAN-BASED CARBON DIOXIDE REMOVAL
ELECTROCHEMICAL OCEAN CARBON DIOXIDE REMOVAL
DEEP SEA STORAGE
OCEAN ALKALINITY ENHANCEMENT
RESTORING LIVING BLUE CARBON
MICROALGAE CULTIVATION
MACROALGAE CULTIVATION AND CARBON SEQUESTRATION
ARTIFICIAL UPWELLING AND DOWNWELLING
OCEAN VISIONS

Registries, Independent Standards and Claims

The Independent Carbon Standards:

- Verra
- The Gold Standard
- ACR by Winrock
- CAR (Climate Action Registry)
- GCC (Global Carbon Council)

Carbon Removal Registries:

- C-Capsule (by the I-TRACK Foundation)
- Puro.Earth

Q&A and Discussion

Addendum: The Process to Create C-Capsule CDR Methodology

1. The Methodology Concept Note must include the following details:
   - Unique: distinct from existing approved Methodologies
   - Measurable: robust CDR quantification method
   - Durable: demonstrates minimum 100-year sequestration
   - Additional: technology or process covered requires carbon financing
   - Verifiable: describes how third-party verification will be carried out
   - Environmental and Social Safeguards: demonstrates procedures for mitigating environmental and social risks

2. C-Capsule evaluates Concept Note against above stated criteria.

3. Evaluation Outcome from C-Capsule:
   - Acceptance: The process can continue.
   - Revise and Resubmit: Acceptance contingent on addressing comments and re-submitting.
   - Rejection: Not approved. Developer may re-submit after addressing reasons for rejection.

C-Capsule Process to Create a New CDR Methodology (cont)

4. Developer Creates Methodology Documentation: After the Concept Note is approved, the Methodology Developer prepares the Methodology documentation in accordance with the C-Capsule Code and Methodology Guidelines. Documentation should be logical, clear, and precise.

5. Methodology Review by C-Capsule: to ensure compliance with the Code and Guidelines. If the review reveals issues that may impact the integrity of the C-Capsule Code or broader carbon market, C-Capsule reserves the right not to advance the Methodology.

6. Expert Group Assessment: C-Capsule engages Advisory Council & Expert Group for independent assessment.

C-Capsule Process to Create a New CDR Methodology (cont.)

7. Public Stakeholder Consultation: A 30-day public consultation period invites public comments on the Methodology. C-Capsule may also host presentations during this period.

8. Amend and Update Methodology: The Methodology Developer amends the Methodology according to the public comments or demonstrates the irrelevance of the comments.

9. Final Approval: The Advisory Council provides a final recommendation based on collective evaluation, and the decision is presented to the I-TRACK Foundation Board for the final decision.

10. Outcome Notification: Approved Methodology posted on the C-Capsule website with a unique reference number, indicating compliance with the C-Capsule Code as an approved Methodology.