

Open Call 1:

Global OAE Field Research Network

Creating a Field Research Network to accelerate learning in real-world OAE

Following Carbon to Sea's announcement of its [Global OAE Field Research Network](#) in March 2025, and [Request for Information](#) in July 2025, we are pleased to launch our Global OAE Field Research Network Open Call.

This Open Call represents a catalyzing step in Carbon to Sea's process for creating a Global OAE Field Research Network. We recognize that there is a need for *considerably* higher quantity and quality of field data to build our empirical understanding of OAE's efficacy, safety, and scaling potential in different scenarios. A network can accelerate the pace of discovery by uniting researchers and organizations into a dynamic, interconnected ecosystem of knowledge exchange and collaboration.

The Request for Information received over 80 submissions from field researchers and prospective field research sites, demonstrating a major growth in the interest and ambition of this field. Submissions represented all major sectors - academic, private sector, independent research facilities, national labs, government agencies, Indigenous communities, aquaculture facilities and more - and we are grateful to these contributions that actively shaped the design and scope of this RFP.



Figure 1: Locations of researchers and potential field sites that responded to the 2025 Global OAE Field Research Network Request for Information. Not intended to represent future sites.

Lab, model, mesocosm, and OAE field trials conducted to date have provided learnings on how OAE works under theoretical, idealized, and limited scale conditions. What remains underexplored is the real-world observations and analysis that better reflect the diverse conditions and practical deployment scenarios under which OAE might scale. Our goal is to build a network of field sites (permitted, reusable research locations) that can jointly build this evidence base and inform decision-making on whether and how OAE could become a scalable climate mitigation solution.

OAE Field Research Priorities

When evaluating proposals in this Open Call, we will be looking for proposals that establish sites that can address multiple research and demonstration goals:

1. **Environmental impact drivers, thresholds, and field-based decision-making:** Identify drivers of [environmental risks and benefits](#) across different ocean conditions, dosage levels, feedstocks, and deployment contexts that can't be simulated in a lab or mesocosm. Develop new and improved monitoring approaches to inform siting, scaling, and engineering decisions in the field.
2. **Systematic reduction of MRV uncertainty:** Prioritize, quantify, and reduce [sources of uncertainties in carbon removal efficiency](#). Explore new combinations of measurements, models, and tools that improve the quality and affordability of MRV.
3. **Dispersal engineering and industry-integration demonstration:** Field test and demonstrate high potential pathways, enable breakthrough industry integrations and dispersal configurations that balance engineering practicality, retention, environmental safety, and monitoring clarity under different oceanographic conditions.
4. **Governance and community engagement:** Work with regulators to clarify research permitting pathways that enable transparent, responsible research projects. Collaborate with communities and rights holders to develop meaningful input on research goals and priorities, informed by effective science communication.

Not in scope for this RFP are proposals that solely focus on lab, mesocosm, or modeling research, without a field research component.

Grant Type Overview

OAE research is conducted by organizations large and small, established and nascent. It is important to develop a grant program that allows us to meet the diverse set of actors in this space with grants and programming that match their different levels of progress:

#	Grant Name	Description
1A	Field Site Exploration	Unlocks new potential locations for research through greater understanding of the risks, opportunities and scientific potential of a site.
1B	Field Site Development	Develops suitable field sites with research-relevant infrastructure, baselines, models, community engagement, and permitting.
1C	Field Research	Funds research trial operations at established sites.
1D	Network Participation	Supports network participation for existing or concluded projects to mobilize knowledge and accelerate learning.

These grant types are designed to seed support for projects across a range of stages. As the network progresses, future funding may become available to successful participants or new cohorts. However, successful applicants will have a plan for multiple, diverse sources of funding.

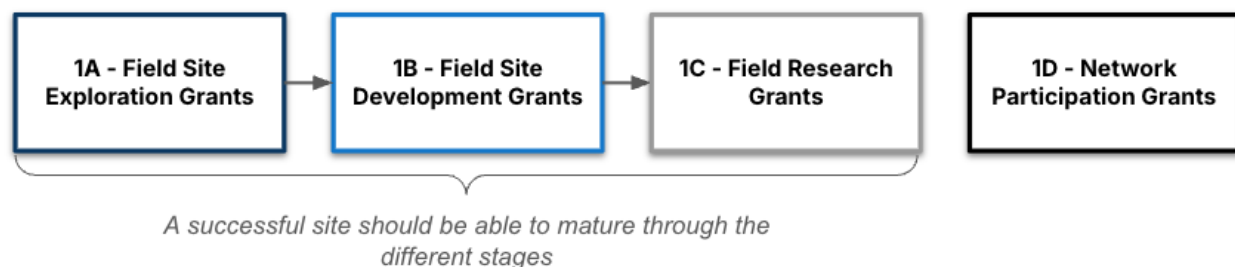


Figure 3: Illustration of possible progression of projects within Field Research Network

1A - Field Site Exploration Grants

OAE is uniquely place-based, meaning the physics, biogeochemistry and biology in a particular area have significant impacts on a project's success. For this reason a diverse portfolio of research locations is essential to understand OAE's potential. However, many regions around the world are just learning about OAE and what it means to contribute to R&D. **Exploration grants** are targeted for leaders at the earliest stages of exploring new and strategic geographies potentially suitable for OAE research. They bring the right partners together, shape priorities and conduct small tests and pilots to determine suitability for research.

1A - Field Site Exploration Grants

Purpose	Projects should evaluate a site's scientific research potential; convene local partners; assess local community and political interest in hosting research; and validate or disprove whether research could be successful and valuable.
Who should apply	Organizations, scientists, community members, or stewards of relevant ocean infrastructure with a strong hypothesis and a plan to validate their assumptions with the right scientific, community, regulatory and technical partners.
Outcomes	• Scientific value proposition of the site • Vetted field site location for OAE research • Inventories of existing data, assets and infrastructure • Clarity on permit feasibility and requirements • Coalition of interested and motivated partners
Funding range	\$30K - \$100K USD

1B - Field Site Development Grants

Some sites have had significant due diligence conducted on their viability for OAE research. Once a site is identified as a promising candidate for an OAE field trial, there is a cross-functional effort required to prepare and characterize that site before a trial can occur. **Development grants** are targeted for field trial planners that have made significant progress in exploring or developing candidate sites, and are ready to prepare one for research. They enable the investment in physical infrastructure, characterize baseline conditions, and work with communities and regulators to develop local priorities and license to operate. Once established these sites can become reusable testbeds for continuing research.

1B - Field Site Development Grants	
Purpose	Projects should validate proposed methods; plug critical gaps in research infrastructure; build necessary dispersal engineering; progress research design; characterize feedstock composition and ecotoxicology; conduct site characterization studies; build models and measurement capabilities; and secure a permit.
Who should apply	Project leaders that can demonstrate scientific value proposition, sound development strategy, deep understanding of scientific research operations, and permitting.
Outcomes	• Robust baseline data • Relevant scientific infrastructure for future fieldwork • Near-field and regional models

	• Permit for alkalinity dosing • Informed community support
Funding range	\$500K - \$1M USD

1C - Field Research Grants

Building on the significant preparation and investment to become ‘research-ready,’ **Research grants** support permitted or permit-pending sites with funding to conduct OAE research. These projects directly advance the OAE Field Research Priorities, building the empirical record to evaluate OAE’s safety, efficacy and scale potential. Findings are published openly, so every trial adds to a shared evidence base rather than standing alone.

1C - Field Research Grants	
Purpose	Projects should conduct in-situ scientific research and demonstration on OAE's safety, efficacy, and potential scalability. They will generate or acquire and dose alkalinity, monitor effects, measure and model results and publish findings with the scientific, local, and other interested communities.
Who should apply	Field site owners or operators that have permits, pending permits, or other license to operate, necessary infrastructure, and the demonstrated support to conduct an active OAE trial.
Outcomes	• Published OAE research on critical open questions • Open datasets, intercomparisons and cross-site synthesis • Relevant operational, technical and engineering learnings to inform scaling decisions • Advancements in regulatory capacity and oversight • Public engagement, education, and participation
Funding range	\$500K - \$1M USD

1D - Network Participation Grants

OAE is a fast-growing but relatively nascent field without long-established forums or practices for collaboration and knowledge sharing. Pockets of researchers organically arise as the climate crisis deepens and our understanding of OAE expands. In addition, adjacent research communities in ocean acidification and marine conservation recognize the applicability of their work in the OAE community. **Network participation grants** are targeted to welcome additional participants who have fully funded or completed trials but

want to build and strengthen their scientific networks, share their data and best practices, and learn from other practitioners around the world.

1D - Network Participation Grants	
Purpose	Projects should attend and contribute to knowledge sharing events, submit to common data repositories, adopt field-wide standards, and publish findings to maximize the value of the Field Research Network.
Who should apply	Scientists at academic institutions, non-profits, research centers, and OAE project developers that have completed OAE research or secured the funding for an upcoming trial and are looking to better connect with the international research community to share their data and experiences and learn from others.
Outcomes	• Lessons learned documented and shared from previously conducted trials • Field data structured for intercomparison via Data Commons • Tightly interconnected and more frequently collaborating international OAE research community
Funding range	\$20K USD

What it means to participate in the Field Research Network

The Global OAE Field Research Network exists to turn individual field trials into a shared, cumulative body of evidence. By creating forums where teams share progress and problem-solve across sites, and by standardizing how data is collected, stored, and accessed, the network lets researchers compare results across trials and draw conclusions no single site could reach alone.

That evidence is only as strong as the range of conditions it reflects. The network prioritizes a global portfolio of sites that vary in physical and biogeochemical setting, deployment pathway, region, industry context, community benefit structure, and permitting regime. In this way, we aim to build a cohort that genuinely represents how OAE may advance in the real world. As sites mature, the network also aims to drive down the engineering and operational costs of field research and monitoring, helping to enable more affordable research and scientific operations over time. The result, over successive cohorts, is a set of durable sites the OAE community can trust and return to.

All grant recipients from this Open Call will join existing Carbon to Sea grantees as members of the Global OAE Field Research Network. Membership comes with a lightweight but defined set of benefits and commitments, outlined below:

Network Benefits	Network Commitments
• Best-practice exchange with functional leads across network (e.g. engineering, research, regulatory, and community engagement) • Connection to global research priorities and the field's most critical open questions • Amplified visibility within international OAE research community • Input on, and support adopting, emerging global standards (e.g. data management, environmental monitoring) • Ad-hoc support from Carbon to Sea program team on field research planning and execution • Increased visibility into future funding opportunities	• Designate a network representative • Attend collaboration forums virtually (~quarterly) and in-person (~annually) • Share regular updates on field research • Host site visits from network researchers and delegates • Contribute best practices and lessons learned along thematic categories • Adopt emerging global standards and upload data and metadata to open access repositories • Respond to reasonable information requests from Carbon to Sea (e.g., updates, publications, surveys) • Provide short, written updates on OAE research annually

Interested parties should **submit their preproposal by September 30, 2026** and refer to the [Application Guidance](#) document for details.