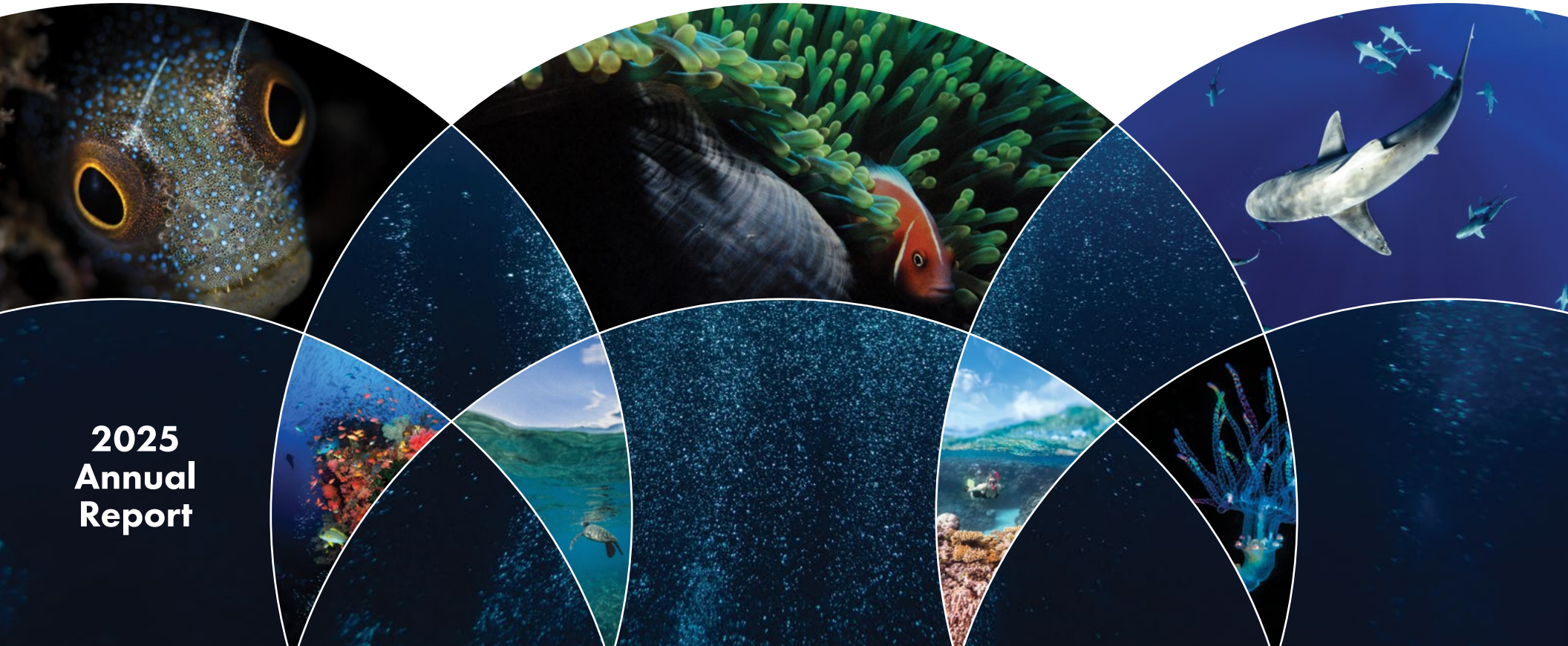
OCEAN VISIONS

Pursuing Solutions for Ocean & Climate Recovery



2025 Annual Report

OUR MISSION

To pursue bold solutions, guided by science, to stabilize the climate and regenerate the ocean.

CONTENTS

Letter from the CEO

Dear Friends,

2025 was a profoundly difficult year for people concerned about our oceans and our planet. Among the painful news stories, the *Global Tipping Points Report* released for COP30 reported that warm-water corals are now crossing their thermal tipping point. In plainer language: rising ocean temperatures, caused by the ocean's absorption of 93 percent of the excess trapped heat on the planet, have pushed "large regions of tropical coral reefs into irreversible decline or collapse." This has grave implications for the spectacular array of marine life associated with coral ecosystems, which harbor some 25 percent of all marine species. The report described this as a "new reality" and went on to warn humanity that polar ice sheets, the Amazon rainforest, and major ocean currents are also perilously close to tipping points.

In a rational world, news like this would be met with a response equivalent to someone telling you your house was on fire; you would treat it like an emergency. In the world of 2025, political leadership across the globe largely ignored the news. Worse, some governments actively discredited the climate scientists who brought us such information, labelling it a hoax, and acted to de-fund them and dismantle the tools that they need to track and predict the changes.

We are at a metaphorical 'tipping point' in our collective response to what is a true ocean and climate emergency. Our house is effectively on fire, and the climate agenda the world has been pursuing for the past 30 years to avoid this outcome has not measured up to the task.

Against this sobering backdrop, I am proud of the leadership and progress of Ocean Visions over the last year, and deeply appreciative of all our partners, staff, and funders who make it happen. Thank you all for your commitment, especially when the news is hard to hear, and the work is uncelebrated.

We urgently need an expanded agenda, with new tools and approaches, to slow, stop, and ultimately reverse the damages and rebuild the only home we have. Throughout 2025, we continued to advocate for a more urgent view of the problem and the need for accelerated and expanded action. We elevated an ocean-focused climate agenda where we believe Ocean Visions can have the greatest impact; a strategy we call the 4 Rs—Reduce, Remove, Repair, and Reach:

- **Reduce** is the foundational work to transition from fossil fuels, which we pursue through support for ocean-based, low-carbon technologies in the energy, food, transportation, and product sectors.
- **Remove** is the necessary global clean-up of carbon dioxide pollution already in the atmosphere and the ocean, which we pursue by advancing research and development of ocean-based sequestration technologies.
- **Repair** encompasses the rebuilding of degraded natural systems which increases climate resilience and helps us avoid additional tipping points that threaten the overall health of the ocean and the planet.
- **Reach** is our global community-building work to expand the breadth of actors engaged in this shared enterprise, bringing diverse sectors, geographies, disciplines and perspectives to create, test, and advance the solutions we need.

This "4R" agenda is grounded in a fundamental assessment: Our planetary climate emergency is the biggest driver of ocean deterioration, and that if we don't directly halt and reverse this driver, the oceans cannot thrive. And without a healthy functioning ocean, there is no climate stability.

Our work pursues three main objectives: 1) Identifying and advancing RD&D of innovative technologies in Reduce, Remove, and Repair to meet this moment; 2) Reaching and supporting a global community of solutionists to accelerate the pace and scale of innovation; and 3) Building the needed social and political support for an expanded and accelerated agenda.

One of the most visible representations of our growing community was the 400-plus people, from across more than 20 countries, who attended our Biennial Summit in March 2025 in Vancouver, Canada. Together we were re-energized by the advances we learned about, explored ideas for how to expand the work, and forged new partnerships. Many of us left the Summit (Ocean Visions' fourth to date) feeling inspired and revitalized by the talent, passion, and commitment of the community.

Another manifestation of this growing community is our Global Ecosystem for Ocean Solutions (GEOS) program. In 2025 we strengthened our support for leaders and emerging hubs for ocean-climate innovation in Kenya, Tanzania, and Colombia and we added two new hubs, along with two Senior Fellows, in Chile and South Africa. Collectively, these hubs are working to expand the dialogue and strengthen the policy, scientific, and community foundations necessary to advance ocean-climate innovation in their respective countries.

Equally important is our work to identify and advance the technologies of the future that can accomplish the ambitious goals needed to restore the ocean and the climate. We have a now-proven methodology, that starts with the identification and evaluation of a wide range of potential technologies; from there we develop open-access knowledge products that lay out what we know and don't know about these technologies; we profile the critical high-leverage actions for increasing knowledge; and we then work to mobilize resources and people to move that work forward.

In our newest program, *Reduce*, over the last year we have been in the beginning of that process. We completed an intensive analysis of more than 20 ocean-based decarbonization pathways that identified a number of under-invested and high-impact opportunities. From that work we have chosen to focus our efforts in 2026 on the development of low-carbon, high-value products derived from seaweeds. A road map to identify gaps and priorities is now nearing completion, and based on that we will work to mobilize resources for research, development, scaling, and supportive policy for the highest priority actions identified.

Our *Repair* program is at the next stage of this approach. In August 2025 we launched a global call for proposals to help deepen understanding around three potential pathways to slow the loss of Arctic sea ice. These three approaches were identified during our assessment of 21 potential approaches, published in our Arctic Sea Ice Road Map in 2024. This year's RFP was focused on three nascent technologies: blocking sea ice export, marine cloud brightening, and mixed-phase cloud thinning. In early 2026, we will award approximately $2.5 million of research grants across the three areas, and we will support the selected teams with additional expert advisors to accelerate the development of critical knowledge.

In *Remove*, our most mature program arena, we continued to help accelerate RD&D through diverse approaches, including fielding experts to work with the inventors of emerging innovations; creating and providing shared data resources; and advocating around the globe for supportive governance structures to advance the needed research. Our Launchpad accelerator program, mCDR Ecosystem and Field Trial databases, Phytoplankton Carbon Solutions project, and work on international policy frameworks are all examples of Ocean Visions' field-building activities, and they are discussed more in the pages that follow.

Looking ahead, the challenges before us are undoubtedly daunting. But inaction is not an option. Recognizing the reality of the situation we face is a precursor to 'right-sizing' the response. We need to act as if our house is on fire, because our broader home is on fire, and it will take a herculean response at a global scale to meet the immensity and complexity of the challenge. Only together can we shift the world to a low-carbon future, clean-up 150 years of carbon pollution, and in the meantime shore up critical components of the earth system to avoid tipping points. In this work lies the course toward a stable climate and regenerated ocean.

Thank you for being with us on this journey. Together we can make a difference.

Unwaveringly,

Brad Ack, Chief Executive Officer

Who We Are

LEADERSHIP

Board of Trustees *(as of January 2026)*

Emanuele Di Lorenzo, Chairman & Co-Founder of Ocean Visions and Professor at Brown University

Paul Bunje, Co-Founder and President of Conservation XLabs

Nancy Knowlton, Sant Chair in Marine Science Emerita, Smithsonian National Museum of Natural History

Fiorenza Micheli, Co-Director of Stanford's Center for Ocean Solutions and of Hopkins Marine Station, and the David and Lucile Packard Professor of Marine Science at Stanford University

Julie Pullen, Climate tech investor and Adjunct Research Scientist at Columbia Climate School

Brad Ack, CEO at Ocean Visions

Leadership Team *(as of January 2026)*

Andrew Babbin, Associate Professor of Chemical Oceanography and Marine Microbiology Mission Co-director, MIT Climate Project: Restoring the Atmosphere, Protecting the Land and Oceans

Jim Barry, Senior Scientist and Chair of the Research Division at the Monterey Bay Aquarium Research Institute (MBARI)

Nicolas Cassar, Professor of Biogeochemistry at Duke University's Nicholas School of the Environment

Giovanni Coppini, Director of Global Coastal Ocean Division at the Euro-Mediterranean Center on Climate Change

Jennifer Dianto Kemmerly, Vice President of Global Oceans at Monterey Bay Aquarium

Rob Dunbar, Professor at Stanford Doerr School of Sustainability

Adrienne Hoarfrost, Assistant Professor of Marine Sciences, University of Georgia

Debora Iglesias-Rodriguez, Professor of Biological Oceanography at the University of California, Santa Barbara

Kristin Kleisner, Lead Senior Scientist and the Associate Vice President for Oceans Science at EDF

Kate Moran, President & CEO, Ocean Networks Canada

Tuba Ozkan-Haller, Dean of Oregon State University's College of Earth, Ocean, and Atmospheric Sciences & Professor in the Colleges of Earth, Ocean, and Atmospheric Sciences and Engineering

Anne Park, CEO, Sustainable Ocean Alliance

Christopher Pearce, Principal Marine Geoscientist, National Oceanography Centre

Millicent Pitts, Chief Executive Officer and Director, The Ocean Exchange

Patrick Rafter, Assistant Professor of Chemical Oceanography at the University of South Florida's College of Marine Science

Chris Reinhard, Associate Professor of Biogeochemistry and Georgia Power Chair in the School of Earth and Atmospheric Sciences at Georgia Tech

Kate Ricke, Associate Professor; Edward A. Frieman Endowed Presidential Chair in Climate Sustainability at UC San Diego

Mark Shimamoto, Director, Global Outreach Programs, American Geophysical Union

Rohit Shukla, Founder and CEO, Larta

Eric Siegel, Chief Innovation Officer, Ocean Frontier Institute

Jill Storey, Ocean Carbon Dioxide Removal Advisor at World Ocean Council

Benjamin Twining, Henry L. and Grace Doherty Vice President for Education, Senior Research Scientist, Bigelow Laboratory for Ocean Sciences

Benjamin Van Mooy, Senior Scientist and Interim Deputy Director and Vice President for Science & Engineering, Woods Hole Oceanographic Institution

Un Hyuk Yim, Principal Research Scientist at the Korea Institute of Ocean Science and Technology (KIOST)

Emanuele Di Lorenzo, Ex Officio

Brad Ack, Ex Officio

STAFF

(as of January 2026)

Brad Ack, Chief Executive Officer

Laura Anderson, Program Officer

Amelia-Juliette Demery, PhD, Program Officer

Ruth Driscoll-Lovejoy, Program Director

Jessica Keith, Senior Communications Director

David Koweek, PhD, Chief Scientist

Sarah Mastroni, Senior Program Officer

Nikhil Neelakantan, Senior Program Officer

Jennifer Ruvolo, Director of Finance and Administration

Ginny Selz, PhD, Senior Program Director

Bridget Shayka, PhD, Program Officer

Shannon Sutherland, Communications Officer

Leonardo Valenzuela Pérez, PhD, Senior Director, International Partnerships and Policy

"The next phase of climate action is about more than technology; it is about trust. By elevating territorial perspectives and leadership from emerging regions, Ocean Visions provides a generous platform for building that trust and enabling meaningful contributions from the Global South to global climate goals. Participation like this is essential to designing responsible climate repair at scale."

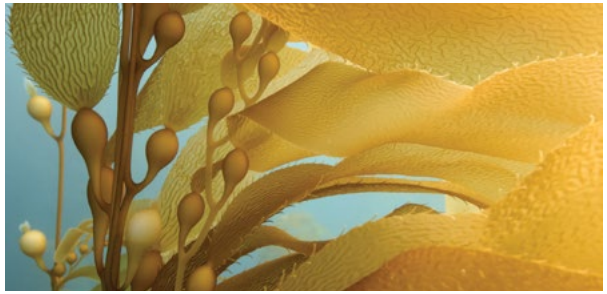
—MARÍA JOSÉ URRUTIA, Ocean Visions Ocean-Climate Innovation Senior Fellow

Our Work in 2025

REDUCE CO_2 Emissions

Maximize low-carbon food, energy, and transportation from the ocean

Society must quickly and dramatically reduce overall levels of CO_2 emissions globally. The ocean has enormous potential to provide more of the low-carbon goods and services needed by humanity, such as food, energy, and materials.



Low-Carbon Seaweed-Based Products Road Map

Building on an intensive analysis of more than 20 ocean-based decarbonization pathways, Ocean Visions identified high-leverage opportunities that have not yet received sufficient investment or attention. The original analysis—informed by published reports and insights from more than 40 experts—highlighted two priority focus areas: Low-Carbon Seaweed-Based Products and Marine Renewable Energy to Power Marine Carbon Dioxide Removal and the Blue Economy. In 2025, we advanced the Low-Carbon Seaweed-Based Products Road Map, a strategic blueprint to align the sector around the scaling of seaweed-based low-carbon products. Building on our expertise in ocean science and conservation, this effort expands our scope into industrial processing and value chains highlighting the scientific, policy, and market challenges that prevent scaleup. The complete road map will be released as an open-access, interactive platform in early 2026, following public comment and expert review.

Learn More → oceanvisions.org/our-strategy/reduce/

REMOVE CO_2 Emissions

Engage the size and power of the ocean to draw down and safely store carbon pollution

Atmospheric CO_2 is already well beyond safe levels for the ocean and people. The only way back to safety from the dangerous zone where those levels eventually peak is to physically remove CO_2 from the air and water. The ocean offers multiple potential pathways to safely remove the legacy emissions needed to rebalance the earth system.

Launchpad Program

Developed in 2021, the Ocean Visions Launchpad program supports innovators working on marine carbon dioxide removal (mCDR) pathways, as well as those who are enabling or improving our understanding of these pathways. In 2025, Ocean Visions continued its support for the second cohort of the Launchpad program, welcoming new advisors to support startups such as Carboniferous, CarbonBlue, SeaO2, and Vycarb—connecting technical expertise directly to innovation and investment opportunities. Through these efforts, startups gained exposure to investors via the Carbon Removal Investor Summit and support in securing EPA research permits for in-field testing. The program's "Lessons from Launchpad" session at the Ocean Visions Summit brought Cohort 1 and 2 teams together with experts in an interactive learning environment.

Meet the Second Cohort → oceanvisions.org/launchpad/

"Ocean Visions has brought in subject matter advisers who have helped us overcome some technical challenges. Some of it is related to software, some on optimizing process flow. And some have been hardware experts who can help us improve the accuracy of our measurements or independently validate our measurements."

—Garrett Boudinot, PhD, Founder and CEO of Vycarb

Comprehensive Marine Carbon Dioxide Removal Ecosystem Database

205
actors captured in the mCDR Ecosystem Database

To support collaboration and innovation in the growing marine carbon dioxide removal (mCDR) field, Ocean Visions developed the mCDR Ecosystem Database—an updated and expanded version of an mCDR Ecosystem Map originally built by [C]Worthy and transferred to Ocean Visions. This comprehensive resource connects stakeholders across research, government, NGOs, and the private sector to foster transparency and knowledge-sharing in the shared pursuit of viable and responsible ocean-based climate solutions.

Explore the Database → oceanvisions.org/mcdr-database/

Getting Needed Answers on mCDR: Can It Be a Climate-Relevant Solution?

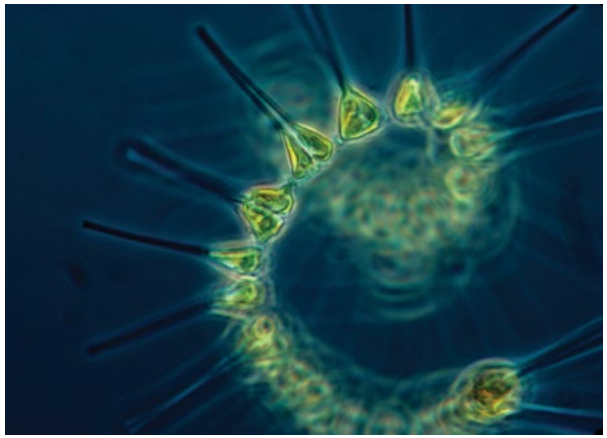
The climate solutions world is at a critical inflection point; we need to move much faster to determine which solutions are viable and which can scale. This includes the marine carbon dioxide removal (mCDR) field. With that goal, Ocean Visions has been facilitating a collaborative effort that aims to align efforts across academia, industry, government, and philanthropy into a sharp focus on generating the evidence and data needed for decisions about possible deployment at scale. In 2025 we released an interim report that identifies the most critical gaps and priorities. A final report is slated to be released in early 2026.

Learn More → oceanvisions.org/mcdr-collective-strategy

Phytoplankton-Based Carbon Dioxide Removal

Ocean Visions' Phytoplankton-Based Carbon Dioxide Removal Project aims to help increase the understanding of phytoplankton-based carbon dioxide removal as a potential climate solution. In 2025 a core team—comprised of scientists and conservation experts and guided by an international group of scientific advisors—developed a research, development, and demonstration (RD&D) program with detailed recommendations to guide potential future funding of research and field-building activities that are responsible, safe, and well governed. The final RD&D program will be released in early 2026.

Learn More → oceanvisions.org/phytoplankton-CDR



Development of a Comprehensive Environmental Impact Assessment Framework for Marine Carbon Dioxide Removal

Ocean Visions is spearheading the development of a comprehensive Environmental Impact Assessment Framework (EIAF) for marine carbon dioxide removal (mCDR). mCDR approaches have potential as a climate solution—if they can be proven to be safe, effective, and equitable. One needed tool is a standardized way to assess the potential impacts of the field trials necessary for improving our understanding. We're addressing this gap by facilitating the creation of the first-ever mCDR EIAF. Once built, this tool will help researchers, regulators, and stakeholders assess the risks, benefits, and ecological impacts of emerging mCDR approaches in order to minimize negative impacts and empower local communities as decisionmakers.

Learn More → oceanvisions.org/mcdr-eiaf

"The Ocean Visions Arctic Sea Ice Road Map enabled us to develop the early prioritization heuristics that informed the design of the Arctic Climate Emergencies Response Initiative. The living nature of the road map is what made it so helpful. It is continuously updated with community contributions that highlight who is addressing which part of the road map. This visibility allowed us to pinpoint high-potential, under-resourced areas where we could maximize impact."

—Charlotte Dewald, PhD, Fellow and Program Director, Advanced Research for Climate Emergencies

REPAIR

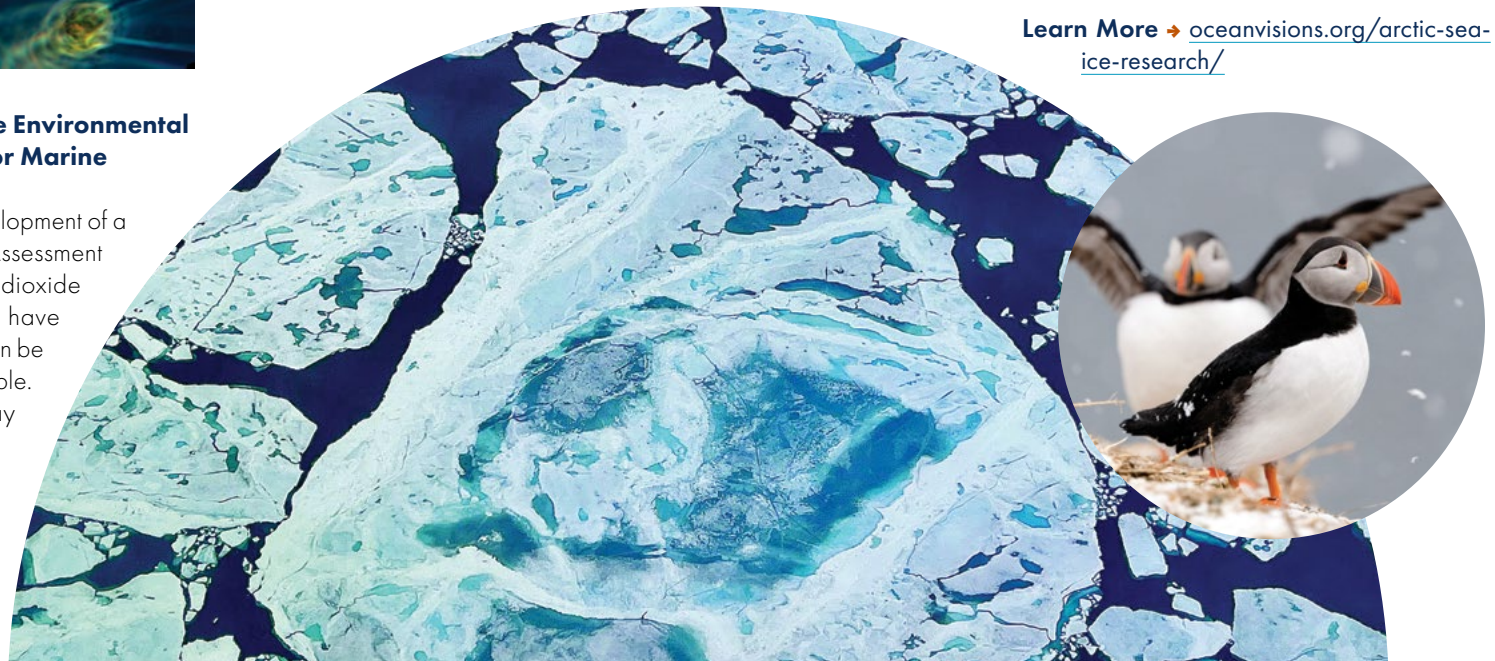
Develop tools to avoid loss of critical marine ecosystems while we rebalance global carbon cycles

The massive heat energy imbalance on the planet, most of which is accumulating in the ocean, is pushing key parts of the earth system towards tipping points that, if surpassed, will dramatically affect people and nature. Forestalling these tipping points by rebuilding key ecosystems and their climate stabilizing functions in the ocean and the cryosphere is critical at the same time we work to rebalance global energy and reduce climate pollution

Advancing Arctic Sea Ice Restoration Research

This past year, Ocean Visions launched a global call for research proposals to increase understanding of three of the 21 potential pathways to slow the loss of Arctic sea ice assessed in our Arctic Sea Ice Road Map: blocking sea ice export, Arctic marine cloud brightening, and mixed-phase cloud thinning. These three were selected due to their relatively high potential and relative low levels of research investment to date. Of the more than two dozen initial applications received, 13 were chosen to submit full proposals. At the close of 2025, these proposals are undergoing review by an independent panel of leading experts in Arctic, ocean, and atmospheric science. Selected projects will be announced in early 2026.

Learn More → oceanvisions.org/arctic-sea-ice-research/



REACH

Build a global community to innovate and develop ocean-climate solutions

This massive human endeavor to restore the ocean and climate requires major mobilization. Success will depend on engaging a wide range of people, disciplines, and sectors in the race to develop innovations and enabling frameworks to deploy effective and just ocean-climate action.

The Ocean Visions Biennial Summit 2025

The 4th Ocean Visions Biennial Summit took place in Vancouver, BC, in March, bringing together nearly 400 participants from 24 countries, including scientists, innovators, entrepreneurs, and policy leaders. Over three days, attendees explored emerging ocean-based solutions to climate challenges, with sessions on advancing marine carbon dioxide removal, navigating shifting policy landscapes, and accelerating research. The Summit also highlighted regional initiatives, introduced the new Reduce program, and provided space to address the emotional and psychological demands of ocean-climate work. Post-event feedback was overwhelmingly positive, with all respondents recommending the Summit to others.

100
percent of Ocean Visions Biennial Summit survey respondents that would recommend the event

Global Ecosystem for Ocean Solutions (GEOS) Program

An endorsed program of the UN Ocean Decade, Ocean Visions' Global Ecosystem for Ocean Solutions (GEOS) serves as a hub for 30 UN Decade-endorsed projects focused on ocean and climate solutions. These 30 project partners are distributed across five continents. Two key initiatives are at the heart of the GEOS program: Ocean-Climate Innovation Hubs and the Ocean-Climate Innovation Fellowship Program. In 2025 we were pleased to welcome two Senior Fellows to our Ocean–Climate Innovation Hubs initiative: María José Urrutia Rivas, lead of the Chilean Ocean–Climate Innovation Cluster (CINCO–Chile); and Caitlin Wale, lead of the South African Innovation Lab for Ocean–Climate Resilience (SAILOR, South Africa). With the additional support from Ocean Visions, the fellows and the hubs will advance responsible ocean-based climate solutions, from pilot design and governance frameworks to innovative finance and public engagement. Additionally, this year Ocean Visions played an important role in advancing the African mCDR Road Map by convening multi-country workshops, facilitating collaboration, and supporting African-led strategies. Through our support of regional Ocean-Climate Innovation Hubs and engagement in capacity-building, we're helping operationalize the mCDR Road Map and accelerate pilot projects, standards, and governance frameworks.

5
fellows supported through the Ocean-Climate Innovation Fellowship Program

Learn More → oceanvisions.org/geos/

Advocating for Ocean and Climate Solutions on the Global Stage

Ocean Visions participates in a number of global processes—from ocean summits to climate negotiations—to ensure a new generation of ocean-climate solutions are considered in international agendas. In 2025, Ocean Visions engaged at key events like Climate Week NYC, COP30, London Convention/London Protocol, the Third United Nations Ocean Conference, and many more. We also proudly co-hosted the first Ocean-Climate Solutions Pavilion at the Africa Climate Summit. Forums like these provide critical opportunities to advocate for the ocean's role in addressing climate disruption, including pathways like marine carbon dioxide removal (mCDR) and prolonging the health of Arctic sea ice.

As an example of how we engage, Ocean Visions supported development of a white paper by the Sabin Center for Climate Change Law, which outlined updated international legal guidance for governing mCDR and recommended a more facilitative approach under the London Convention and London Protocol, a critical instrument for governance of mCDR RD&D.

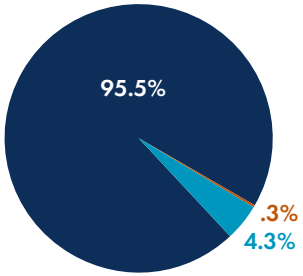
By working with governments, scientists, and funders, Ocean Visions helps shape emerging guidance, promote policy coherence, and address major gaps in ocean policy and finance.

Financial Summary & Ocean Visions Network

The Ocean Visions Network

The Ocean Visions Network is a growing international community of diverse academic, research, and mission-aligned organizations collaborating to advance ocean–climate solutions. It serves as a platform for knowledge exchange, project partnerships, and expert guidance, allowing members to engage in ways that align with their capacities and interests while collectively strengthening the field. Ocean Visions was proud to welcome the following members in 2025: Bigelow Laboratory for Ocean Sciences and Korea Institute of Ocean Science and Technology

2025 Functional Expenses



- Programs: $8,235,979
- Fundraising: $24,918
- Admin & General: $366,905

Total: $8,627,802

Ocean Visions is grateful for the generous support it received for 2025 from the following:

Builders' Initiative
CarbonFix
Carbon Technology Research Foundation
Crankstart
Georgia Aquarium
Grantham Environmental Trust
Iconiq
Kissick Family Foundation
Massachusetts Institute of Technology (MIT)
Navigation Fund
Schmidt Family Foundation
Spitzer Charitable Trust

2025 Ocean Visions Biennial Summit Sponsors:

Carbon to Sea
Dalhousie University
Georgia Tech
Monterey Bay Aquarium
Monterey Bay Aquarium Research Institute
National Oceanography Centre
Woods Hole Oceanographic Institution

"There is no other organization that is really like it [Ocean Visions]. It has provided a real community-building service to this new and growing field."

—**ADAM SUBHAS**, PhD, Associate Scientist, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution

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OCEAN VISIONS

Pursuing Solutions for Ocean & Climate Recovery

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