



BLUE ECONOMY INCUBATOR

HIGHLIGHTS REPORT

SEVENTH EDITION

2026

LEADERSHIP INSIGHTS

Jason Giffen

Chief Sustainability & Innovation Officer

As the Port of San Diego's Blue Economy Incubator (BEI) marks its 10-year anniversary, we are celebrating a decade of bold ideas becoming real-world solutions for San Diego Bay and the broader ocean economy. What began in 2016 as an innovative launch pad for sustainable aquaculture and Port-related blue technology ventures has grown into a globally recognized model for a variety of ocean-based, port-led innovations, built on collaboration, practical testing, and measurable impact. Today, the Incubator continues to expand its portfolio of pilot projects spanning opportunities in nature-based solutions, coastal resilience, shellfish and seaweed aquaculture, maritime decarbonization, environmental protection and remediation, and ocean intelligence. As we look ahead, the Port remains proud to lead from San Diego's Blue Tech Bay and to champion the entrepreneurs, researchers, public agencies, and community partners helping shape a more resilient, sustainable, and prosperous blue economy.



Paula Sylvia

Director - Aquaculture & Blue Technology/Blue Economy Incubator



The Port of San Diego's Blue Economy Incubator continues to inspire innovation. The momentum of the companies and projects that have emerged from the BEI have launched it into its next frontier. The BEI started as a bold idea to support sustainable aquaculture and Port-related blue technology and is now regarded as a trusted platform for innovators to test solutions in real-world conditions, build partnerships, and move promising concepts closer to commercialization. Companies emerging from the Incubator are attracting research and development support, producing tangible environmental benefits, generating international attention, and demonstrating how working waterfronts can help scale solutions that protect, restore, and enhance our coast. Just as important, the projects that began here are showing what is possible by creating environmental benefits for San Diego Bay and helping position the Port as a leader in the global blue economy.



▲ Sustainability and innovation supports established and emerging blue economy industries in and around San Diego Bay.

PORT OF SAN DIEGO'S BLUE ECONOMY

Driving ocean-positive innovation in and around San Diego Bay

The blue economy encompasses ocean and water-dependent industries that sustainably use marine resources to drive economic growth, create jobs, and support healthy ecosystems. With its natural deep-water harbor, robust infrastructure, and thriving science and tech sectors, San Diego is solidifying its reputation as Blue Tech Bay.

The Port of San Diego plays a central role in uniting government, businesses,

conservation, and academia to drive innovative solutions that support economic growth and environmental stewardship. As the state-legislated trustee of 34 miles of waterfront and submerged waters in and around San Diego Bay, the Port is a leader of the region's blue economy – fostering entrepreneurship, collaborating on research, innovation, investment, and building pathways for ocean innovation to scale.

THE PORT'S BLUE ECONOMY INCUBATOR



A core element of the Port's commitment to promote the development of a sustainable ocean economy is the creation of its Blue Economy Incubator (BEI), which serves as a launch pad for Port-related sustainable ocean-based and blue technology ventures. Established in 2016, the BEI was designed to remove barriers to early-stage companies and provide pilot project facilitation services including funding, key assets, and permitting assistance. Through its BEI, the Port is building a portfolio of new businesses and partnerships that deliver multiple social, environmental, and economic co-benefits to the Port and the region.

The Port's Unique Roles as a Blue Economy Champion:



Landlord



Operator



Regulator



Environmental Steward

◀ BEI Company MarineLabs has deployed five sensor units throughout San Diego Bay, collecting wind, wave, and wake data.

Our Impact in Numbers

14 Pilot Projects

launched through a port-wide collaboration process, with more in the pipeline

\$3.3M

in funding to support the launch of sustainable ocean-positive pilot projects

429+

inquiries received from organizations seeking partnership and pilot project opportunities

\$9.1M

additional external research/development & grant funding leveraged by BEI companies



Blue Economy Incubator Objective

Inherent to the Port of San Diego's mission is to utilize its various assets in leading and accelerating the blue economy in our region. The Port has a long-standing track record of supporting blue economy industries. The sustainable future of these industries is critical to the region's long-term success. Specifically, the Port has established the BEI as a business incubator and investment program to assist in the creation, early development, and initial scaling of new business ventures targeted at sustainable ocean-positive technologies in support of a regenerative blue economy. The Port is accepting proposals for new business plans from potential partners whose core purpose shares this mission.

BEI Value Proposition: *Pilot Project Facilitation*

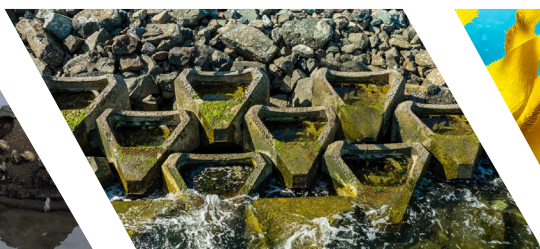
- Funding
- Port-based testbed and pilot sites
- Pilot project facilitation services
- Regulatory and permitting assistance
- Subject matter expertise
- Access to global network of partners
- Public relations and media visibility
- Support to leverage grant opportunities

INNOVATION OPPORTUNITIES

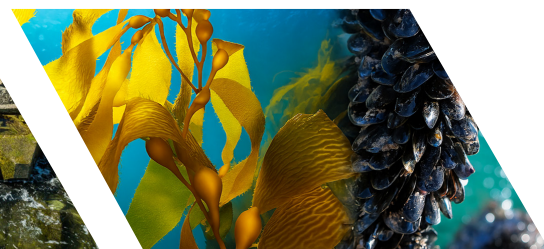
The BEI seeks to support various innovation opportunities within the blue economy, including:



Nature-Based Solutions



Coastal Resiliency



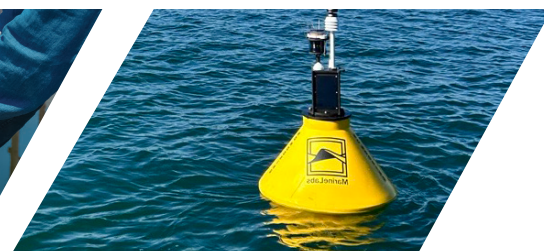
Shellfish & Seaweed
Aquaculture



Environmental Protection &
Remediation



Maritime Decarbonization



Ocean Intelligence



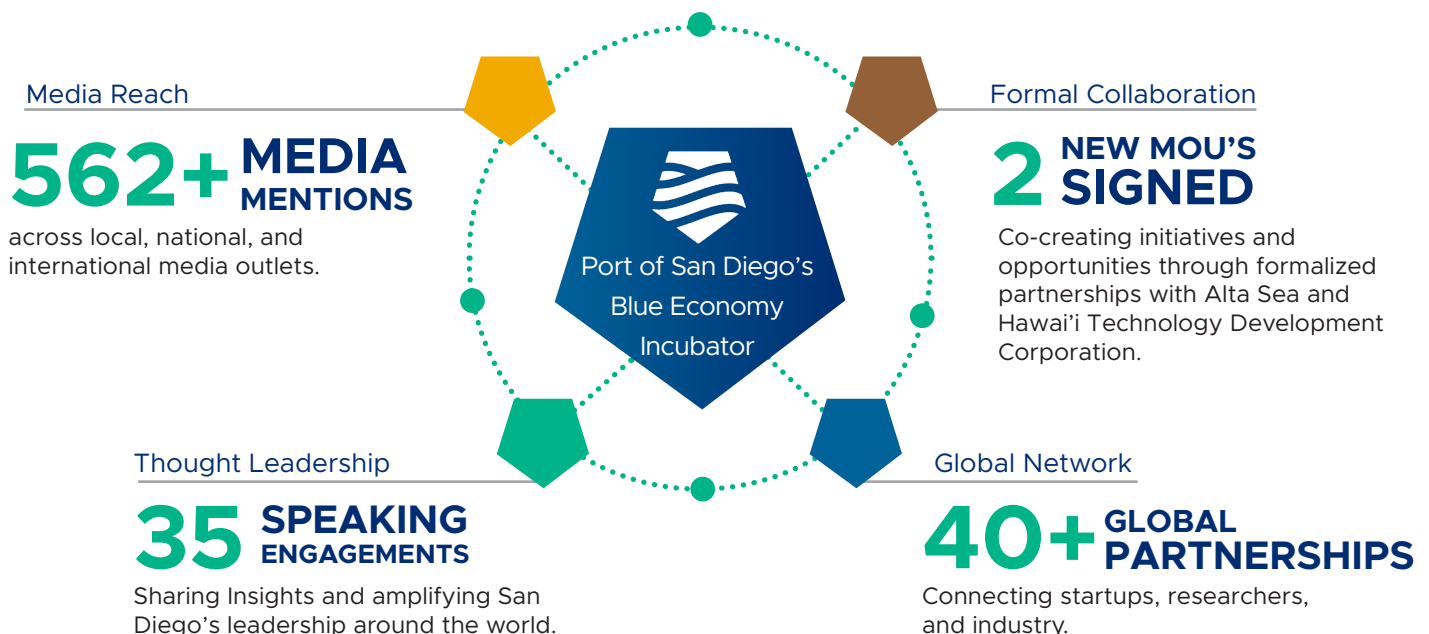
GLOBAL ENGAGEMENT DRIVING OCEAN-POSITIVE INNOVATION

Leveraging communications, storytelling, international outreach, and industry engagement

The Blue Economy Incubator helps the Port reach a global audience through strategic partnerships, communications and community engagement, and relationship building across public, private, and academic sectors. By actively representing the Port on the global stage – through participation in international conferences, innovation forums, diplomatic collaborations, and media opportunities – the team amplifies the BEI's impact, elevates awareness of the Port's work, showcases the Port's commitment to sustainable maritime innovation, and creates new business opportunities.

▲ The Port of San Diego's Chief Sustainability and Innovation Officer, Jason Giffen, participated in a panel titled "Advancing Pacific Collaboration: Ports, Coastal Resiliency, and Ocean Innovation" at Hawai'i Tech Week, building relationships and collaboration across the Pacific.

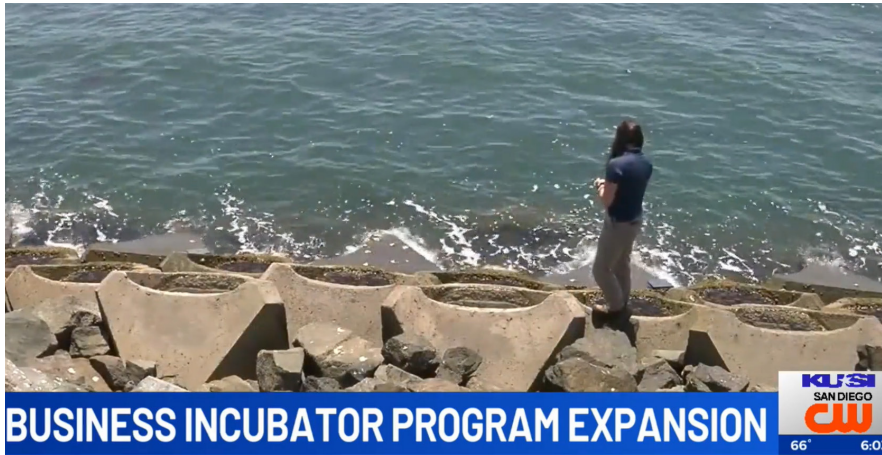
Expanding reach through strategic engagement



Blue Economy Incubator IN THE NEWS

The Port of San Diego has a robust media relations team. In coordination with this team, the Port creates individualized communications plans for each of the BEI projects. Successful media placements have resulted in increased exposure and brand recognition nationally and worldwide. In the past 12 months, the Port's BEI projects generated over 562 mentions in local, national, and international media, reaching millions of viewers and readers.

Some key media stories that have helped the BEI reach wider audiences include:



Fox 5 - Port of San Diego expanding Blue Economy Business Incubator program

KUSI - 'Smart' buoys being deployed around San Diego Bay

NBC7 San Diego – Pilot program at San Diego marinas aims to reduce energy consumption



Helping companies succeed

Strategic communications and media support elevate program partners like VoltSafe (pictured above), amplifying their visibility and enabling continued growth and success.

Our Impact in Numbers

617+
MILLION

impressions from local, national, and global media coverage around BEI innovation and investment.

\$5.7
MILLION

in earned media coverage secured or Advertising Value Equivalency (AVE)* showcasing Port pilot projects and the Blue Economy Incubator program.

**Monetary value of coverage by calculating what it would have cost to purchase the same amount of advertising space or airtime.*

Our Year in Motion

Through participation in conferences, forums, workshops, and industry events around the world, the Port's Blue Economy Incubator team shares lessons learned, highlights emerging technologies, and builds relationships with innovators, researchers, investors, and policymakers. These interactions help strengthen collaboration, foster new opportunities, and advance sustainable ocean innovation.

SEPTEMBER 2025



Honolulu, HI

Hawai'i Tech Week

NYC, New York

New York Climate Week

OCTOBER - NOVEMBER 2025



Valencia, Spain

Port Innovators Network annual meeting

Barcelona, Spain

Tomorrow Blue Economy World Congress



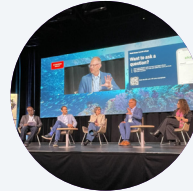
San Diego, CA

TMA BlueTech Blue Tech Month

Brooklyn, New York

World Conference Cities & Ports by AIVP

MARCH 2026



Montreal, Canada

13th World Oceans Summit

London, UK

Oceanology International

JUNE 2026



Quebec, Canada

Green Marine GreenTech

Halifax, Canada

H₂O Home to Overseas Conference

STRENGTHENING PARTNERSHIPS WITH OUR NORTHERN NEIGHBORS

The BEI continues to strengthen relationships within Canada's growing blue economy sector. Through collaboration with Canadian organizations the Port is expanding connections with innovators and emerging companies while identifying technologies that align with the incubator's focus areas and the Port's broader mission. These efforts have supported the inclusion of five Canadian companies within the incubator portfolio and created new opportunities for knowledge sharing and collaboration.



Port staff met with members of the Port Innovators Network (PIN) at the H₂O Home To Overseas Conference in Halifax, Nova Scotia. The PIN facilitates the growth of new technologies including blue technology, climate resilience, and community engagement in port environments on a global scale.



PARTNERSHIP SPOTLIGHTS

Growing our global network of partnerships within the Blue Economy ecosystem

The Port maintains a global network across the blue economy, connecting with academia, technology clusters, accelerators, governments, ports, and local communities. These partnerships create diverse pathways to advance innovation and strengthen the region's collective impact.



OCEAN IMPACT ORGANISATION

Sydney, Australia

The Ocean Impact Organisation is Australia's first ocean impact ecosystem and accelerator, focused on restoring ocean health and supporting sustainable blue economy ventures. This collaboration will help scale the BEI by sourcing high-potential ocean and port technologies from across the Asia-Pacific and beyond, while positioning San Diego as a gateway to the U.S. market and strengthening the pipeline for future pilot opportunities.

"[The Port of San Diego's] leadership and commitment to real-world application create the conditions for adopting emerging solutions with confidence, driving both economic and environmental value."

— Elisa-Marie Dumas, Head of Programs & Partners



ALTASEA AT THE PORT OF LOS ANGELES

Los Angeles, California

AltaSea at the Port of Los Angeles is a leading ocean innovation campus that advances research, workforce training, and commercialization in areas like renewable energy, aquaculture, and climate solutions. This collaboration between two of California's leading port innovation hubs presents a unique opportunity to grow the Southern California blue economy ecosystem by strengthening the linkage between San Diego and Los Angeles.

"Together, AltaSea and the Port of San Diego can transform our ports into living laboratories that demonstrate how economic growth and environmental stewardship can thrive side by side"

— Terry Tamminen, President & CEO



HAWAI'I TECHNOLOGY DEVELOPMENT CORPORATION

Honolulu, Hawai'i

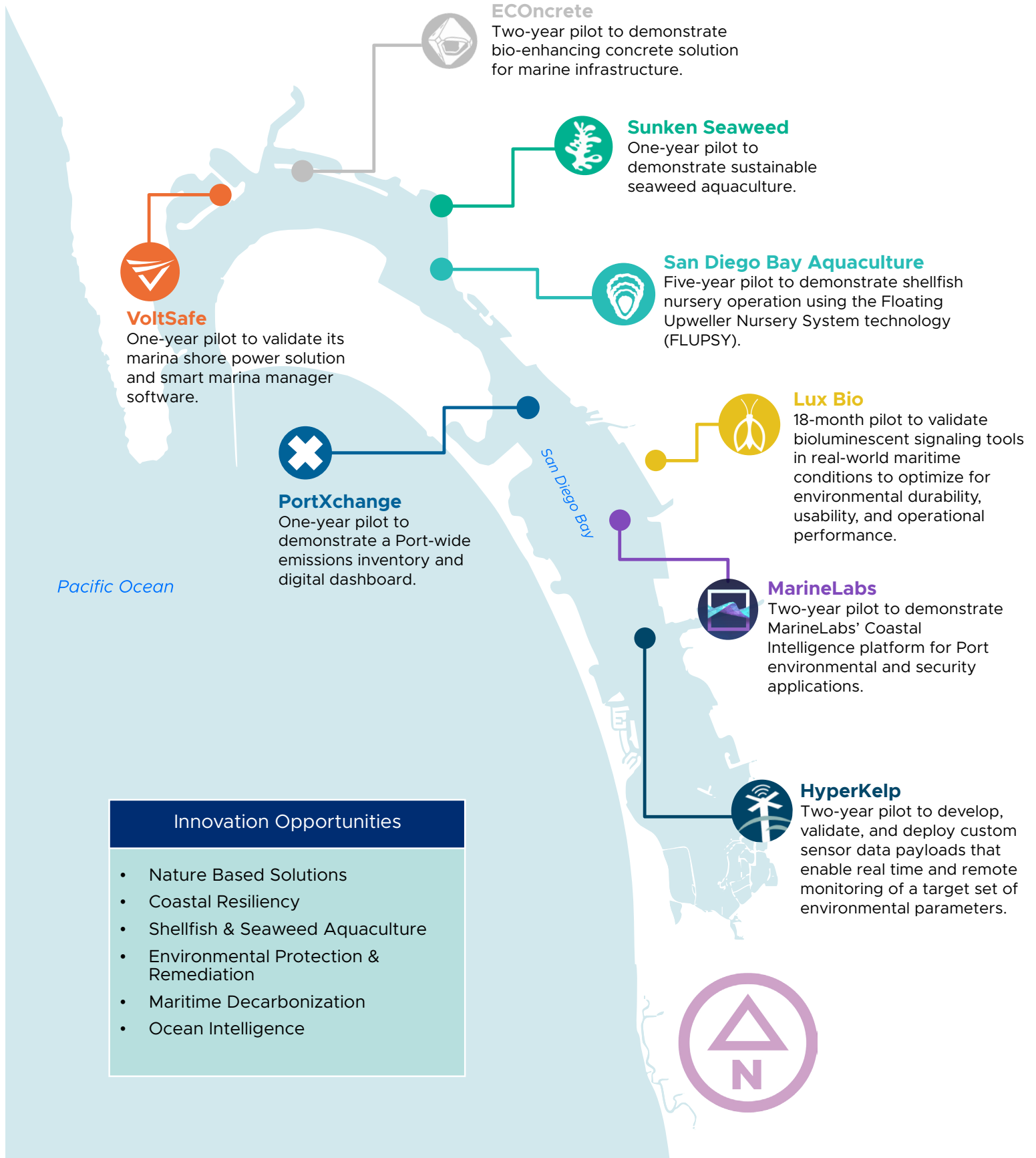
The Hawai'i Technology Development Corporation (HTDC) serves as the State of Hawai'i's lead entity for technology-based economic development, with a mandate to create quality jobs and long-term economic resilience. Hawai'i's vibrant ocean innovation ecosystem is seeking stronger ties with U.S. mainland partners. Building on San Diego's regional connections and blue economy growth goals, this partnership will advance collaboration and alignment between the two regions.

"The Hawai'i Technology Development Corporation (HTDC) is proud to partner with the Port of San Diego to advance the development, deployment, and exchange of ocean technologies while supporting thriving blue economies across the Pacific"

— Trung Lam, Executive Director & CEO



ACTIVE PROJECTS



PILOT PROJECT UPDATES

To date, the Port's Blue Economy portfolio includes 14 pilot projects spanning resilient shoreline infrastructure, aquaculture, smart buoy technologies, emissions tracking, and environmental remediation solutions. Through its Blue Economy Incubator (BEI), the Port advances pilot projects aligned with coastal resilience, environmental protection, decarbonization, and maritime innovation priorities. The following pages provide updates on active pilot projects and selected completed projects. Additional information on all the pilots is available at portofsandiego.org/blue-economy

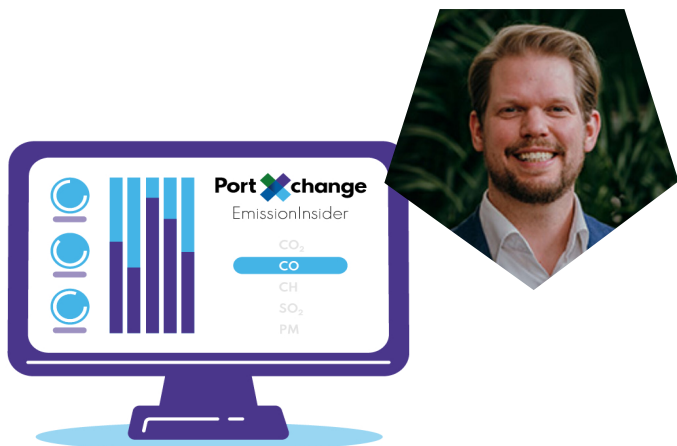
PORTXCHANGE

Emissions Inventory Platform

PortXchange is piloting a port-wide emissions inventory and dashboard tailored to operational data. The project tracks emissions from vessels, trucks, rail, and cargo equipment using California Air Resources Board (CARB) aligned methods and AI analytics. It will assess streamlined data collection, integration, and reporting to support compliance and long-term decarbonization planning, offering a faster, more cost-effective, data-driven approach to emissions management.



"We are truly proud to partner with the Port of San Diego, a port that has long set the standard for environmental leadership in the United States. Decarbonization is the defining challenge of our time, and moments like these remind us why we do what we do. With EmissionInsider, we're giving ports the tools they need to bring their Scope 3 emissions into full view, because you can't reduce what you can't see."
- Sjoerd de Jager, Co-Founder & Managing Director



OUTCOME #1:
Data collection of Port
emissions and validation



OUTCOME #2:
Delivery of emissions
inventory report



FINAL OUTLOOK:
Scale validated emissions
platform across North America

VOLTSAFE

Smart Marina Shore Power

In November 2025, VoltSafe installed five VoltSafe Marine units and deployed its Marina Dashboard at Sun Harbor Marina, marking the project's first live pilot installation. The system was deployed without modifications to existing marina infrastructure or disruption to operations, validating the technology's scalable and non-invasive design. Since commissioning, the units have operated reliably with stable connectivity, continuous power delivery, and no major incidents have been reported. Marina staff continue using the dashboard for real-time monitoring and have provided positive feedback on the system's safety features, remote monitoring capabilities, and operational visibility.



VOLTSAFE

OUTCOME #1:

Safety Certification via
Underwriters Laboratories +
Canadian Standards Association



OUTCOME #2:

Pilot Deployment
and Infield Testing



FINAL OUTLOOK:

Scale shorepower solution to
existing marinas in California



LUXBIO

Bioluminescent Lighting Solution

LuxBio is developing a non-toxic, ocean-biodegradable alternative to conventional glow sticks used in fishing, emergency response, defense, and public events. Through its pilot project with the Port, Lux Bio will validate the performance and durability of its patented bioluminescent technology across operational and public-facing applications. The project supports the Port's environmental stewardship goals by reducing reliance on single-use plastic and chemical-based lighting products while advancing innovative blue economy solutions.

LUXBIO

OUTCOME #1:

Information gathering
and product run of units



OUTCOME #2:

Field trials with multiple
end-user groups



FINAL OUTLOOK:

Scale lighting solutions for
safety, commercial fishing, and
recreation based groups

MARINELABS

Coastal Intelligence Platform

The MarineLabs deployment team installed five operational sensor units on private floats within the San Diego port area, with locations determined in coordination with the Port and stakeholders. Deployment was completed in December 2025, and all units have since been collecting wind, wave, camera, and wake data. Full deployment was partially delayed due to government shutdown-related impacts on U.S. Coast Guard permitting timelines. Approval for five additional Aids to Navigation (ATON) sites is currently pending and represents the next phase of deployment.



MarineLabs
DATA SYSTEMS

OUTCOME #1:

Validate platforms on
5 private buoys



OUTCOME #2:

Validate platform on
5 Coast Guard ATON
buoys



FINAL OUTLOOK:

Commercialization of the
hardware and software as a
service platform



SUNKEN SEAWEED

Sustainable Seaweed Aquaculture

Over the past year, Sunken Seaweed expanded its processing capabilities on its Humboldt Bay Farm with the addition of a commercial dehydrator, welcomed community members to hands-on volunteer days, and connected with new buyers through the Humboldt Made Buyers Tour. The company also continued research at its Grape Street Pier site in San Diego Bay through a California Sea Grant-funded project with UC San Diego to evaluate the potential of cultivated seaweeds for heavy metal bioremediation, depuration, and downstream market applications. Sunken Seaweed also played a key role in the Kelp Guardians Initiative – funded by the California Ocean Protection Council and California Sea Grant – partnering with the Tolowa Dee-ni' Nation to support tribal-led kelp restoration, workforce development, and the cultivation of culturally significant seaweeds. Together, these milestones mark continued progress toward scaling California's regenerative seaweed industry while increasing public awareness and market opportunities.



OUTCOME #1:

Hatchery and pilot farm
established/macroalgae
growth rates achieved



OUTCOME #2:

Scale operations, expand
commercialization,
measure bioremediation



FINAL OUTLOOK:

Continued R&D and
expansion



HYPERKELP

Sensor Agnostic Smart Buoys

Over the past year, HyperKelp was selected as one of the 150 companies worldwide to join the North Atlantic Treaty Organization (NATO) Defence Innovation Accelerator for the North Atlantic (DIANA) 2026 Challenge Program, where it is advancing its distributed sensing technology for maritime operations. The company also expanded its international market presence through the Metro Connect World Trade Center Program, was featured in *The Economist*, and continued advancing U.S. Air Force and Navy contracts for next-generation ocean sensing technologies. From international recognition to operational testing, this year's milestones demonstrate HyperKelp's continued transition from innovative startup to trusted technology provider.



OUTCOME #1:
Validate payload
platforms in lab trials



OUTCOME #2:
Collect, transmit, and
aggregate data in real time



FINAL OUTLOOK:
Commercialization of the smart buoy
and software as a service platform

ECONCRETE

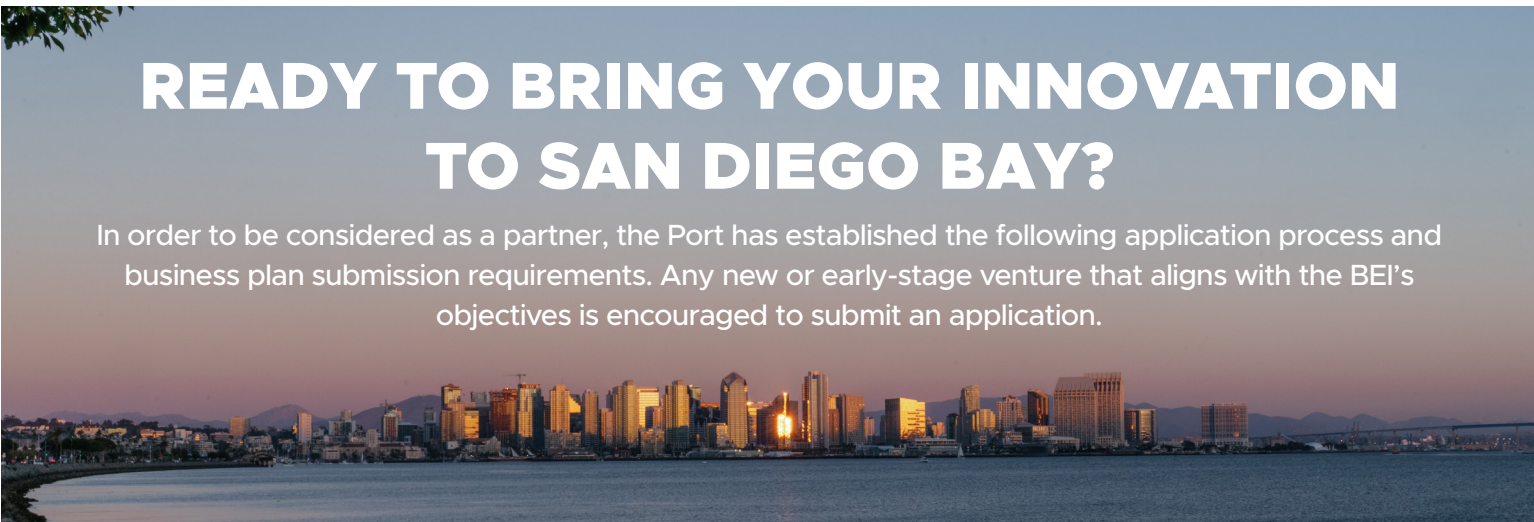
Eco-engineered Shoreline Protection

In March 2026, the Board of Port Commissioners awarded a \$2.9 million construction contract for two shoreline resilience projects along Harbor Island Park and the Sweetwater Channel. Both projects will incorporate ECONcrete's COASTALOCK system, previously piloted at Harbor Island in 2021. Following several years of monitoring, the system demonstrated both structural durability and ecological benefits, supporting more than 60 marine species, including naturally filtering organisms that contribute to improved water quality. With a combined total of 1060 linear feet of COASTALOCK being added, the new projects represent a continued investment in nature-positive shoreline infrastructure within San Diego Bay.



READY TO BRING YOUR INNOVATION TO SAN DIEGO BAY?

In order to be considered as a partner, the Port has established the following application process and business plan submission requirements. Any new or early-stage venture that aligns with the BEI's objectives is encouraged to submit an application.



APPLICATION PROCESS

Blue economy entrepreneurs interested in working within the Port of San Diego are invited to connect with Blue Economy Incubator (BEI) program staff at **incubator@portofsandiego.org**. This contact may spark a live or virtual meeting to briefly introduce the pilot project proposal, assess alignment of the project intent with Port goals, explain the processes to submit an application and approval, and answer general questions. If the project proponent decides to apply to the Port's Blue Economy Incubator, they should complete the following stages:

Step 1

Receipt
and Initial
Screening

Step 2

Deep Dive
Review

Step 3

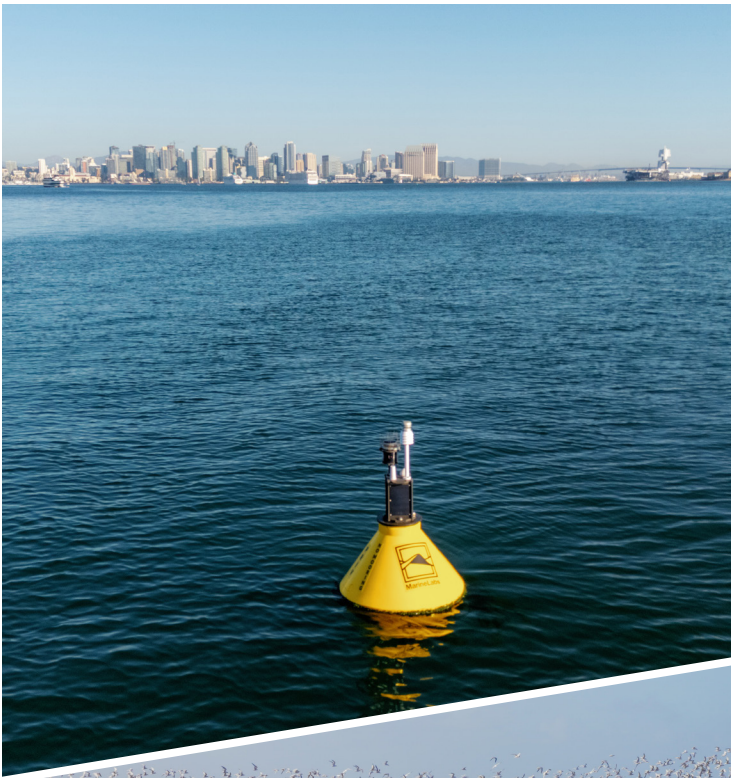
Executive
Review

Step 4

Board Review &
Consideration
of Approval



Learn more about the
application process, proposal
requirements, and evaluation
criteria at:
[portofsandiego.org](https://portofsandiego.org/blue-economy)
[/blue-economy](https://portofsandiego.org/blue-economy)



For more information on the
Aquaculture & Blue Technology Department go to:
portofsandiego.org/blue-economy

