



LOOKBOOK 2023

# BlueSwell

LAUNCHING CONCEPTS INTO SCALABLE OCEAN IMPACT

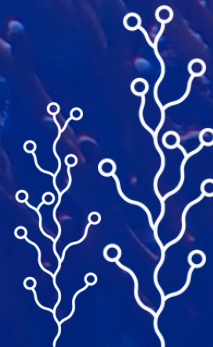


**SeaAhead**  
BLUETECH INNOVATION



**New England  
Aquarium**

*Protecting the blue planet*



# BlueSwell



SeaAhead  
BLUETECH INNOVATION



New England  
Aquarium

*Protecting the blue planet*

Bluetech ventures have substantial potential for impact.  
We believe that encouraging this type of innovation requires a dedicated and focused support infrastructure.

## OUR GOAL:

The BlueSwell approach is to take a whole-ocean view in fighting climate change and advancing the blue economy. We seek to instill ocean conservation from the inception of ocean tech-based startups and build the capacity of early-stage founders to convert their ocean-focused concepts into profitable and sustainable businesses.

## OUR FOCUS AREAS:



01 | Sustainable  
Food from the  
Ocean



02 | Low  
Carbon Ocean  
Transportation



03 | Renewable  
Energy in the  
Ocean



04 | Marine  
Debris  
and Pollution



05 | Coastal  
Resilience

# Why Bluetech?

Let's talk about it.

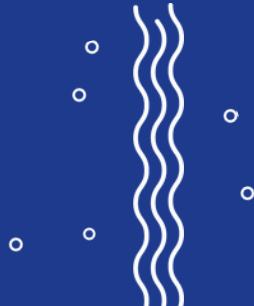


## 1: THE PROBLEM

Anthropogenic stressors on the ocean have led to severe negative effects. Warming, acidification, plastic pollution, overfishing, and the movement of invasive species are just a few of the threats the ocean faces today.

## 2: THE FACTORS AT PLAY

As a result, various regulations have emerged, imposed on almost all ocean-related industries by many different authorities. Simultaneously, R&D has opened up a wealth of new opportunities ranging from aquaculture efficiency measures to eco-friendly alternatives to conventional plastics.



## 3: OUR RESPONSE

Regulatory pressures and R&D advances together demand that we take advantage of this unique moment in time by implementing in the ocean the kind of technological development that we have begun to utilize on land. This space is what we are calling ***bluetech.***





# About Our Founders







**SeaAhead**  
BLUETECH INNOVATION

The venture ecosystem  
the ocean's been  
waiting for.

## OUR WORK

We founded SeaAhead in 2018 to bring support infrastructure and access to funding to the blue economy. In just a few years, we've formed an open-innovation ecosystem that produces scalable commercial solutions to modern-day challenges. Through solutions that address climate change and support resilient ecosystems, our startups also provide triple-bottom-line impact by creating jobs, building workforce equality, and delivering returns for their investors.

## OUR BLUETECH PLATFORM



### Startup Programs

Build robust programs that launch startups and help them grow.

BlueSwell

GULF BLUE ◆ NAVIGATOR



### Investments

Invest in Seed and Series A startups with scalable ocean solutions.

SeaAhead  
Blue Angels

SeaAhead  
Ventures



### Bluetech Ecosystem

Catalyze an active network of founders, industry leaders, technical experts, and key stakeholders.

**\$900k+**

awarded to program  
participants by SeaAhead

**\$19M+**

raised by program participants

**50+**

companies that have gone  
through our programs

**770+**

hours mentoring companies in  
our programs

STATISTICS ARE AS OF FEBRUARY 2023



New England  
Aquarium

*Protecting the blue planet*



## OUR WORK

The New England Aquarium is a non-profit conservation organization that has protected and cared for the ocean and marine animals for more than 50 years. In the Aquarium's Anderson Cabot Center for Ocean Life, scientists conduct applied marine research that informs ocean management, policy, and industry practices, and contributes to the innovation of new technologies.

## SUPPORTING OCEAN HEALTH

Our scientific expertise helps grow a blue economy that puts ocean health first. By partnering with SeaAhead to form BlueSwell, we support the creation and growth of startups with scalable solutions that enhance ocean health, sustainable ocean industry, and global resilience.

*Over the course of the program,  
Aquarium scientists:*

- Mentor selected founders with scientific and conservation expertise
- Offer technical advising on ocean conservation issues
- Help start-ups network and develop scalable ocean solutions
- Assess environmental impact of applications

**The Northeast region contains both a thriving innovation landscape and robust set of ocean experts and assets, and through the BlueSwell program, we aim to combine these elements to foster sustainable, balanced, and equitable use of the ocean.**

– John Mandelman, VP of the Anderson Cabot Center for Ocean Life, New England Aquarium





# BlueSwell Timeline



SPRING  
Investor  
Day



EARLY FEB  
Demo Day



MID SEPT  
Program  
Start



EARLY SEPT  
Cohort  
Announced



LATE JUNE  
Semifinalist  
Pitches



MID JUNE  
Application  
Deadline



LATE APRIL  
Application  
Open

## TARGETED OUTREACH

Outreach efforts to underrepresented student groups in regional universities (Women in STEM, NSBE chapters, LGBTQ+ entrepreneurship orgs, etc.) and international innovation support organizations

# Program Key Activities

## WORKSHOPS

ENTREPRENEURS-IN-RESIDENCE

HANDS-ON MENTORSHIP

SITE VISITS


STAKEHOLDER CONNECTIONS

ALUMNI ENGAGEMENT

PEER INTERACTION & NETWORKING

DEMO DAY

- Business model development
- Product market fit and customer discovery
- Leadership strengths
- DEI programming
- Marketing, branding, & storytelling
- Legal and financial
- Impact metrics
- Fundraising

A woman with dark hair and glasses, wearing a blue blazer over a white shirt, is seated and speaking. She is gesturing with her right hand. In the background, there are blurred lights and a dark setting. In the top right corner, there are three white decorative symbols: two plus signs and one star-like symbol.

**By the end of the program, our goal is that everyone within the cohort should be prepared to raise funding and have the resources they need to get started.**

– Alissa Peterson, SeaAhead Co-Founder



# Impact of Cohort Members

...using 1000 Ocean Startups' ocean health and climate change impact areas



1000  
OCEAN  
STARTUPS

A COALITION TO ACCELERATE OCEAN IMPACT INNOVATION

STARTUPS	SUSTAINABLY MANAGED OCEANS	A CLEAN OCEAN	THRIVING & RESTORED MARINE HABITATS	TOWARDS A 1.5C WORLD	RESILIENT COASTAL COMMUNITIES	POSITIVE SOCIO-ECONOMIC OUTCOMES
AKUA	✓	✓	✓	✓	✓	✓
Aloft Systems				✓		✓
Aquatic Labs		✓	✓		✓	✓
Berkeley Marine Robotics			✓	✓		✓
Can I Recycle This?(CIRT)		✓		✓		✓
Current Lab					✓	✓
Fathom				✓		✓
H20k Innovations		✓				✓

STARTUPS	SUSTAINABLY MANAGED OCEANS	A CLEAN OCEAN	THRIVING & RESTORED MARINE HABITATS	TOWARDS A 1.5C WORLD	RESILIENT COASTAL COMMUNITIES	POSITIVE SOCIO-ECONOMIC OUTCOMES
HydroNet	✓		✓	✓	✓	✓
Ithaca Clean Energy	✓			✓	✓	✓
Mabel Systems	✓				✓	✓
Ocean Data Network					✓	✓
Organicin Scientific	✓	✓			✓	✓
Radmantis	✓		✓			✓
SeaDeep	✓				✓	✓
USEFULL		✓		✓		✓
VINCI VR				✓	✓	✓



# AKUA

AKUA is an innovative, sustainable food company creating plant-based foods from ocean-farmed kelp.

## FIRST LOOK



Sustainable Food from the Ocean



Consumer Product



Cotuit, MA



[akua.co](http://akua.co)

## SEEKING

- Hiring a full-time Operations Director
- Hiring a part-time Food Service Director
- Raising a strategic financing round (SAFE note, 10% discount into Series A, \$15M cap)

## MILESTONES

- Raised over \$3M at a \$10M pre-money valuation
- Over \$1.35M in product sales
- Sold 300,000 Kelp Burgers, 11,000 Krab Cakes, and 6,200 lbs of our Ground Meat
- Named one of America's Best Veggie Burgers by TastingTable
- Launched in over 500 grocery stores

## PROBLEM

The oceans are absorbing so much CO2 from the atmosphere that our ocean temperatures are rising, the ice caps are melting, and we're witnessing biodiversity loss at an alarming rate.

## SOLUTION

We create plant-based, meat-alt products from ocean-farmed kelp, which absorbs 5-20x more CO2 from the ocean than land-based plants do from the air. By utilizing regeneratively grown, ocean-farmed kelp in our food products, we are helping to remove vast amounts of CO2 from our oceans.

## IMPACT

To date, we have purchased approximately 120,000 lbs of ocean-farmed kelp, responsible for removing over 6 tons of harmful CO2 from our sea.

## FOUNDERS

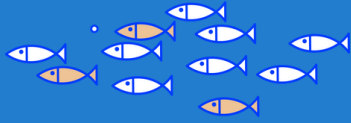


**COURTNEY BOYD MYERS**  
CEO & PRESIDENT

- Entrepreneur, environmentalist, and writer
- Helped build the Summit Community, Four Sigmatic, and Unframed Ice Cream
- Previous journalist at Forbes Magazine and the Next Web
- One of Fast Company's Most Creative People In Business
- Advisor to GreenWave







**AKUA is an innovative,  
sustainable food  
company creating  
plant-based foods from  
ocean-farmed kelp.**





# Aloft Systems Inc.

Reducing emissions with  
wind propulsion for every ship

## FIRST LOOK



Low Carbon Ocean  
Transportation



Hardware: Robotics,  
Sensing, & Observing



Boston, MA



[aloft.systems](https://aloft.systems)

## SEEKING

- Vessels to pilot test our prototype

## MILESTONES

- Built ¼-Scale Prototype
- Developed novel shape-shifting sail to optimize performance

## PROBLEM

The maritime industry generates 2.7% of all greenhouse gas emissions globally. The industry has committed to a 50% reduction in emissions by 2050, but vessel operators have no good options to retrofit existing vessels to reduce emissions.

## SOLUTION

Aloft is developing modular sails that can be retrofitted to nearly any ship, immediately reducing emissions and fuel costs. Aloft's sails autonomously capture wind and help propel the vessel without intervention by the crew.

## IMPACT

In addition to emitting CO<sub>2</sub>, commercial vessels are a major contributor of coastal pollution. Aloft's retrofit solution will reduce emissions in fragile coastal ecosystems.

## FOUNDERS



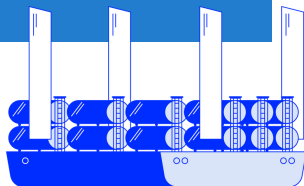
**MILES KEENEY-RITCHIE**  
CEO

M.S. Mechanical Engineering,  
University of Colorado Boulder  
Robot farmer.



**SACHEL DOUGLAS**  
CTO

B.S. Naval Architecture & Marine  
Engineering, Webb Institute  
Lifelong sailor.



# Aquatic Labs

Industrial innovation  
for ocean conservation

## FIRST LOOK



Sustainable Food  
from the Ocean



Hardware: Robotics,  
Sensing, & Observing



Cambridge, MA



[oceanic-labs.org](http://oceanic-labs.org)

## FOR MORE INFO

Please reach out to the founder at  
[allan@aquatic-labs.com](mailto:allan@aquatic-labs.com)

## PROBLEM

As ocean-related industries grow, financial incentives are not always aligned with ecological responsibility, leading to negative impacts and wasted profits.

## SOLUTION

We offer a range of cutting-edge instruments produced on an industrial scale to solve global business problems while ensuring good environmental stewardship.

## IMPACT

We tackle key bottlenecks in marine instrumentation at an industrial scale without compromising the environment, allowing clients to overcome obstacles with responsibility. For example, our aquaculture nutrient sensor significantly improves productivity and reduces excess nutrient pollution.

## FOUNDERS



**ALLAN ADAMS**  
CEO

Previous Professor of Physics  
at MIT and PI at MIT's Future  
Ocean Lab; Adjunct  
Oceanographer at WHOI

# Berkeley Marine Robotics

Reducing maritime emissions  
and protecting ocean biodiversity

## FIRST LOOK



Low Carbon Ocean  
Transportation



Hardware: Robotics,  
Sensing, & Observing



Oakland, CA



[berkeleymarinerobotics.com](http://berkeleymarinerobotics.com)

## SEEKING

- Pilot projects in global commercial shipping
- Grants and funding for next prototype field testing
- R&D partnerships with laser/hardware manufacturers

## MILESTONES

- Field testing in Port LA/Long Beach with diving co-alliances.
- Customer support letters from Chevron and Hempel
- Invited by the U.S. Navy to perform an advanced tech field demo for dual use-cases.

## PROBLEM

Ship hull biofouling increases fuel costs and GHG emissions by at least 25% while also spreading invasive species. The industry currently uses manual diving surveys, which are unreliable and lack prediction metrics.

## SOLUTION

We are developing an autonomous robotic swarm system with underwater wireless laser communication to rapidly scan all ship hulls coming into a port. The gathered data will generate metrics and ML models for ship/port managers to predict cost trends, detect damage/anomalies, and optimize routes/schedules.

## IMPACT

With imminent IMO regulations to reduce maritime CO2, hull management driven by our data can reduce fuel and GHG emissions by 10% (i.e. 100 million tons/year globally).

## FOUNDERS



**SUSHIL TYAGI**  
CEO

MBA Finance, Wharton UPenn; M.S. Ocean Engineering, UC Berkeley



**ALEXANDRE IMMAS**  
CTO

PhD Marine Robotics, UC Berkeley; M.S. Engineering, École Polytechnique (France)



**“We are developing an autonomous robotic swarm system with underwater wireless laser communication to rapidly scan all ship hulls coming into a port.”**

– Berkeley Marine Robotics Team







# CIRT (Can I Recycle This?)

## FIRST LOOK



Marine Debris and  
Pollution



Tech: Analytics,  
Digitization, and AI



Athens, GA



[cirt.tech](http://cirt.tech)

## SEEKING

- A Chief Technology Officer
- Seed funding
- Partnerships with retailers and multi-unit corporations

## MILESTONES

- Since graduating BlueSwell, we have brought on our first customers and have been accepted into Google for Startups 2022 Cohort.

Actionable intelligence  
for materials recovery

## PROBLEM

There are over 9,000 recycling areas in the U.S. These areas and their rules and regulations change frequently for a multitude of reasons. This, coupled with archaic recycling communication, leads to confusion, contamination, landfilling of recyclable material, and litter leakage into the environment.

## SOLUTION

We developed the world's first geospatial database of "wastesheds," materials, and products to provide businesses and customers with accurate, on-demand, location-specific product recovery information. When embedded on a product's webpage, our tech can intake a visitor's location and output how and where to recycle that product and/or its packaging.

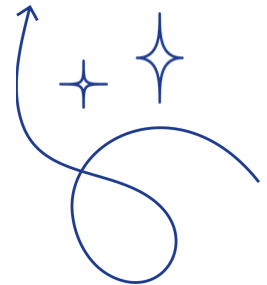
## IMPACT

Our database will eventually grow large enough to service large multi-unit organizations (i.e. hotel groups, airlines, co-working space). This will reduce their waste and carbon footprint, lower their costs to landfill material, and make it easier to buy sustainable products.

## FOUNDERS



**KATHERINE SHAYNE**  
CEO



**“An in-depth, hands on experience that helped us prepare our company to make profit and planet work together.”**

– Katherine Shayne, founder of CIRT





# Current Lab



The underwater weather forecast.

## FIRST LOOK



Low Carbon Ocean Transportation



Tech: Analytics, Digitization, and AI



Providence, RI



[current-lab.com](http://current-lab.com)

## SEEKING

- B2B customers in unmanned vehicles
- Naval contacts, particularly in Task Force 59

## MILESTONES

- 400+ registered users on the Current Map platform.
- Exclusive oceanographer for the US Olympic Sailing Team.

## PROBLEM

Ocean currents cause ships to burn extra fuel and unmanned vehicles to drain their batteries. Public forecast models of ocean conditions lack sufficient detail and accuracy to enable efficient maritime navigation.

## SOLUTION

Current Lab's hyperlocal ocean forecasting system combines over a dozen smaller regional ocean models to achieve up to 50x finer resolution than standard public ocean models. This data can be viewed instantly in our Current Map web app or integrated into navigation systems via our API.

## IMPACT

Current Lab enables next-generation navigational efficiency in order to decarbonize maritime transportation. Our data can support a range of industries including shipping, surveying, offshore wind, aquaculture, and defense.

## FOUNDERS

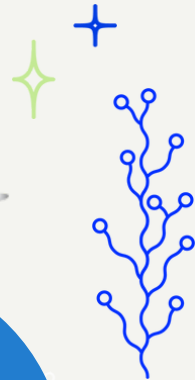
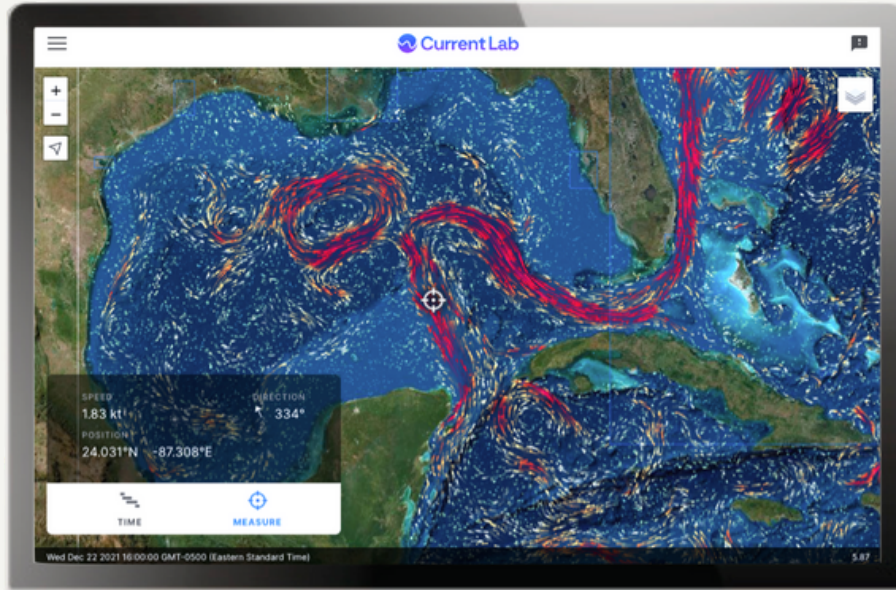


**KEVIN ROSA, PHD**  
CEO

PhD Physical Oceanography & B.A. Physics, University of Rhode Island

**"The SeaAhead team has developed an absolutely invaluable program and network for bluetech founders."**

– Kevin Rosa, CEO



**Current Lab enables next-generation navigational efficiency in order to decarbonize maritime transportation.**





# Fathom Carbon



Reducing risk and uncertainty to enable better monitoring, reporting, and verification of carbon removal in the ocean.

## FIRST LOOK



Coastal Resilience



Tech: Analytics, Digitization, and AI



Boston, MA



[fathomcarbon.com](https://fathomcarbon.com)

## SEEKING

- Potential customers (sustainability managers and financial traders)
- Potential partners (blue carbon project developers)

## MILESTONES

- Partnerships with blue carbon developers

## PROBLEM

Companies and investors buy high-quality carbon credits to offset their carbon emissions and meet their net zero goals. However, sourcing and evaluating high-quality credits, especially for ocean-based projects, is expensive and time consuming.

## SOLUTION

Fathom Carbon reduces purchasing risk for companies and investors by evaluating uncertainty in ocean carbon removal projects. We combine remote sensing with deep scientific expertise and machine learning to conduct due diligence faster and more effectively.

## IMPACT

We help accelerate the growth of blue carbon projects, which themselves enable carbon removal and storage, coastal resilience, healthy reefs and fisheries, and increased livelihoods for local communities.

## FOUNDERS



**SARA REMSEN**  
CEO

SaaS product executive with a background in enterprise tools and IoT. Co-founder of Waypoint acquired by PTC in 2018.



**ADRIENNE HOARFROST**  
Chief Science Officer

Oceanographer and machine learning scientist, professor at UGA. Expert in modeling carbon cycling in marine environments.







# H2Ok Innovations

IoT-enabled data analytics platform  
helping industrials optimize  
liquid systems through predictive diagnostics

## FIRST LOOK



Coastal Resilience  
and Climate Change



Tech: Analytics,  
Digitization, and AI



Boston, MA



[h2okinnovations.com](http://h2okinnovations.com)

## SEEK

- \$5.2 million dollar SEED round over summer 2022

## FOR MORE INFO

Please reach out to the founders at [annie@h2okinnovations.com](mailto:annie@h2okinnovations.com) and [david@h2okinnovations.com](mailto:david@h2okinnovations.com)

## PROBLEM

Industrials are highly dependent on water, using 18.2 billion gallons of water per day in the United States. Current methods do not offer enough visibility into their liquid systems, causing high resource and operating costs, as well as inefficiency.

## SOLUTION

H2Ok Innovations is an IoT-enabled management platform helping industrials improve liquid systems through predictive diagnostics. We provide real-time granular visibility of water and liquid composition/quality in your facility and data-driven intelligence to optimize facility performance and reduce operating costs.

## IMPACT

We help our clients significantly reduce biosolids and chemical usage in their wastewater treatment, minimize operating and resource costs, and avoid surcharge fees by decreasing the number non-compliance events.

## FOUNDERS



**ANNIE LU**  
CEO

Economics & Computer  
Science, Harvard University



**DAVID LU**  
CTO

BS Chemistry & Computer  
Science, Brown University



# HydroNet



Building high-speed wifi communication  
for scalable underwater networks

## FIRST LOOK



Multisectoral



Tech: Analytics,  
Digitization, and AI



Burlington, MA



[hydronet.tech](http://hydronet.tech)

## MILESTONES

- Tested HydroNet at Naval Undersea Warfare Center (NUWC) Division Newport's Narragansett Bay Test Facility

## FOR MORE INFO

Please reach out to the founders at [tommaso@bionetsonar.com](mailto:tommaso@bionetsonar.com)

## PROBLEM

We have high-tech capabilities for ground, aerial, and cyber assets, but there's a lack of real-time connectivity and intelligence for underwater assets.

## SOLUTION

We bring the internet underwater with AI-driven software-defined technologies. Our proprietary modular underwater networking system allows for safer and sustainable fishing/aquaculture, better monitoring of offshore energy infrastructure, and more.

## IMPACT

Our services reduce maintenance costs, insurance costs, and inspection costs of underwater assets by 20-50%. We also reduce the risk and environmental impact of clients, preventing accidents and supporting sustainability.

## FOUNDERS



**TOMMASO MELODIA**  
PRESIDENT

Director of Wireless IoT Institute and  
Professor of Electrical & Computer  
Engineering, Northeastern



**EMRECAN DEMIRORS, PHD**  
DIRECTOR OF R&D

PhD Electrical & Computer Engineering  
and Research Assistant Professor,  
Northeastern



# ITHACA

# Ithaca Clean Energy

We facilitate seamless communication between different marine stakeholders and offer marine data analytics.

## FIRST LOOK



Renewable Energy  
in the Ocean



Tech: Analytics,  
Digitization, and AI



Fairhaven, MA



[IthacaCleanEnergy.com](http://IthacaCleanEnergy.com)

## SEEKING

- New team members as we meet our business and product development milestones
- Partnerships with other marine stakeholders

## MILESTONES

- We have signed multiple contracts with offshore wind projects and are about to launch our first digital product, WATERFRONT

## PROBLEM

Offshore wind (OSW) farms face permitting, development, and operations problems, oftentimes due to the obstacles they pose to other marine stakeholders.

## SOLUTION

Our WATERFRONT app is a multi-sided communication platform that enables different marine stakeholders to share information securely, privately, and seamlessly. Marine impact zones due to OSW development and operations can be predicted and mitigated with our machine learning models.

## IMPACT

Seamless communication makes ocean navigation safer for all. Our digital network helps to create opportunities between OSW and coastal communities while minimizing impact on fishing. This enables the deployment and growth of OSW in harmony with its marine co-users.

## FOUNDERS



**KHALID KAMHAWI, PHD**  
CEO

B.S. Mechanical Engineering from Carnegie Mellon, PhD in Mathematics from Imperial College



**MARK ABDALLA, CFA**  
CFO

B.S. from Carnegie Mellon, MBA from Cornell University



**MABEL**  
SYSTEMS

# Mabel Systems

BlueSwell

Digital traceability and inventory management for seafood producers

## FIRST LOOK



Sustainable Food from the Ocean



Tech: Analytics, Digitization, and AI



Sydney, NS Canada



[mabelsystems.com](http://mabelsystems.com)

## SEEKING

- Mentorship from experienced seafood executives, especially in Sales and Marketing
- Retail partners who want to integrate global seafood traceability standards into their procurement process

## MILESTONES

- Launched our Traceability Product
- Certified by the Global Dialogue on Seafood Traceability (GDST) Data Standard

## PROBLEM

Seafood Traceability and Inventory Management are typically done with manual paper-based systems, but stringent regulations make this method too slow and labor-intensive. Also, a one-size-fits-all solution does not work with all seafood companies.

## SOLUTION

Mabel Systems has developed an easy-to-use, easy-to-customize digital traceability and inventory management system. Our solution is one of the first certified by the Global Dialogue on Seafood Traceability (GDST) Data Standard.

## IMPACT

Illegal, Unreported and Unregulated (IUU) fishing is a prevalent issue and a significant contributor to declining fish stocks. Mabel's traceability system helps seafood producers, retailers, and consumers ensure their product is sustainably caught or produced.

## FOUNDERS



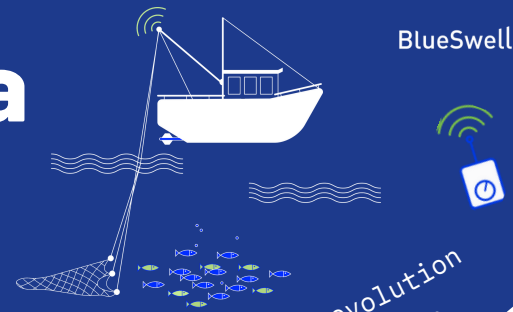
**GAVIN ANDREWS**  
CEO

**"BlueSwell was a turning point which focused us on the right solution for our customers. I particularly liked working with amazing mentors and the other cohort members."**

– Gavin Andrews, CEO



# Ocean Data Network



Unlocking the blue data driven revolution through integrated collaboration.

## FIRST LOOK



Multisectoral



Tech: Analytics, Digitization, and AI



Portland, ME



[oceandata.net](http://oceandata.net)

## SEEKING

- Strategic investors
- Expanding our team (CFO, Cyber security, front end, and more)

## MILESTONES

- Selected as a Top Innovator in the World Economic Forum's Ocean Data Challenge
- Expanding data collection to North Africa, Mexico, the Arctic, and more
- Profitable

## PROBLEM

The blue economy, scientific advancement, maritime safety, and undersea defense are all strangled by a lack of data in specific ocean regions: mainly subsurface shelf, convergence, and frontal mixing zones.

## SOLUTION

We integrate ocean observation tech with fishing vessels, collecting data where it is scarcest yet most needed. Sensors go along for the ride during normal fishing operations, profiling through the water column. Combined with our specialized data management, we are driving the next revolution in ocean observation.

## IMPACT

Fishing vessels are now the main subsurface data collection platform in many regions around the world. At scale, our data could improve weather forecasts, climate policy, and the search and rescue forecast used by the U.S. Coast Guard.

## FOUNDERS



**COOPER VAN VRANKEN**  
CEO

Commercial fisherman, mechanical engineer, and fisheries oceanographer



**CARLES CASTRO MUNIAIN**  
CTO

Data scientist, electrical engineer, and seine net guru





**ORGANICIN**  
SCIENTIFIC

# Organicin Scientific, Inc.

Using AI and bacteria to develop bacteriocins for niche applications in aquaculture, agriculture, and human health.

## FIRST LOOK



Sustainable Food  
from the Ocean



Tech: Analytics,  
Digitization, and AI



Amherst, MA



[organicinscientific.com](http://organicinscientific.com)

## SEEKING

- We are raising a seed round in January 2023. Happy to have an intro call with any investors earlier than the formal start date.
- Leads to animal health and nutrition companies for research collaborations.

## MILESTONES

- Raised fundraising round.
- Successful preliminary in vivo challenge trial
- Letters of support for USDA and NSF grants from major feed/nutrition/aquaculture companies

## PROBLEM

Society's over-reliance on antibiotics has led to weaknesses in our healthcare & food systems. As the antibiotic pipeline dries up and farming intensifies, crucial food sources are becoming increasingly vulnerable to disease. Nowhere is this more clear than in shrimp aquaculture.

## SOLUTION

We're developing a bacteriocin-based feed additive that adds \$4.6B in value back to shrimp aquaculture. Our AI-first drug discovery platform identifies novel bacteriocins to prevent & treat disease for niche applications in animal health. Through the power of computational biology, we aim to develop the world's first bacteriocin pipeline.

## IMPACT

We are improving animal health in an effort to enable the aquaculture industry to continue to intensify and grow sustainably, reducing stress on our oceans.

## FOUNDERS



**GRIFFIN O'DRISCOLL**  
CEO

B.S. Biochemistry &  
Molecular Biology, UMass  
Amherst; M.S. Management  
Studies, Boston University



**MAT MITCHELL**

B.S. Biochemistry & Molecular  
Biology, UMass Amherst; M.S.  
Biophysics and Physiology,  
Georgetown University



**DR. MARGARET RILEY**

Professor of Biology, UMass Amherst



# Radmantis

Smart aquaculture to feed a hungry planet

## FIRST LOOK



Sustainable Food  
from the Ocean



Tech: Analytics,  
Digitization, and AI



Toledo, OH & Boston, MA



[radmantis.com](http://radmantis.com)

## SEEKING

- Industry connections
- Access to interesting use cases

## MILESTONES

- 3 current SBIR grants (NOAA Phase I and II, NSF Phase I)
- Tested our in-house steelhead trout RAS commercial scale systems at the Freshwater Institute
- Pilots with industry partners

## PROBLEM

Sustainable management of natural aquatic resources is key to bringing food security to an ever-expanding human population. However, aquaculture remains painfully reliant on outdated and damaging manual handling practices.

## SOLUTION

We provide autonomous management devices that detect, classify, and separate fish by their physical and behavioral characteristics. Key use cases are precision aquaculture workflow management, invasive species capture, bycatch reduction, and preventing fish entrainment at utility intakes.

## IMPACT

Our automated and human-assistive tools enhance profits by improving operational efficiency, increasing production, improving better health and well-being of the resident population, and reducing occupational hazards.

## FOUNDERS



**MOIRA VAN STAADEN, PHD, MOD**  
Managing Director

PhD Zoology, Texas Tech University;  
Professor of Biology, Bowling Green  
State University

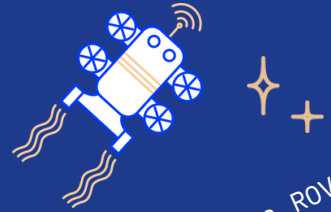


**ROBERT HUBER, PHD, MBA**  
Senior Researcher & Tech Lead

PhD Neuroscience, Texas Tech University;  
Postdoctoral Fellow Neurochemistry,  
Harvard University



# SeaDeep



SeaDeep's AI empowers subsea ROV to autonomously visually assess environments and structures in near-real-time.

## FIRST LOOK



Multisectoral



Tech: Analytics, Digitization, and AI



Boston, MA



[seadeep.io](http://seadeep.io)

## SEEKING

- Currently raising a \$1 million SEED round

## MILESTONES

- Grant funded by MassTech
- Received MassCEC grants
- Part of Equinor & Techstars Energy portfolio
- Piloted with a Fortune 500 company

## PROBLEM

From the Gulf of Mexico to the North Sea, underwater assets are at risk of excessive damage, foreign interference, and negative environmental impact. Performing frequent subsea visual inspections mitigate this risk but are costly, slow, inaccurate, & not easily automated.

## SOLUTION

Breaching the limitations of current technologies, our AI affords real-time, automated, & high fidelity image enhancement and data classification. We deploy our AI on off-the-shelf cameras to empower legacy vehicles.

## IMPACT

By detecting biofouling and invasive species in kelp farms, we prevent crop loss & increase yield by 10%. For bridges, we can reduce cost and carbon utilized for maintenance and repair by 20%. We also enable a 30% time reduction in subsea energy infrastructure inspections, increasing profit by 50% and decreasing carbon emitted through vessels proportionally by 30%.

## FOUNDERS



**ERIC OSHEROW**  
CEO



**ALOK CHAND**  
COO



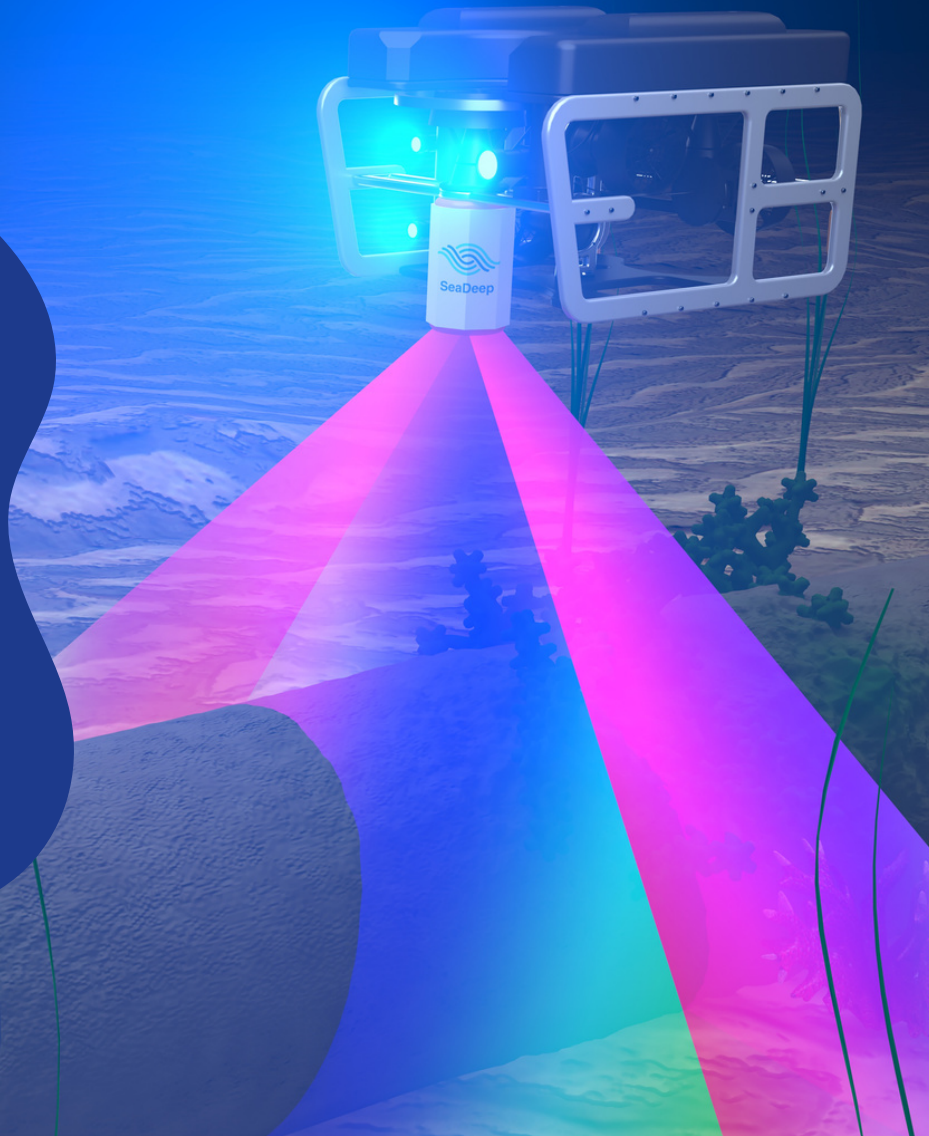
**SHISHIR RAO,**  
**PH.D**  
CTO



**DR. KAREN PANETTA**  
CRO



**SeaDeep's AI  
empowers subsea ROV  
to autonomously  
visually assess  
environments and  
structures in real-time.**





# USEFULL

We enable organizations  
to meet their zero waste goals.

## FIRST LOOK



Marine Debris and  
Pollution



Tech: Analytics,  
Digitization, and AI



Cambridge, MA



[usefull.us](https://usefull.us)

## SEEKING

- Raising a Seed round of investment to take our 5 live beta projects to market
- Introductions to university campuses ready to fulfill their zero waste and plastic-free goals!

## MILESTONES

- Raised \$1.7M pre-seed in 2022
- Launched 2 college campus & 3 community implementations
- Designed, manufactured, and purchased inventory
- Grew our team, refined our technology & offering, honed the sales process, <1% loss rate

## PROBLEM

Single use packaging is terrible for the environment and consumer health. Many organizations understand this and seek to achieve zero waste but struggle to find feasible, easy-to-manage, enduring solutions.

## SOLUTION

USEFULL eliminates the need for single use take out containers by providing a technology backed, stainless steel container system. It's a library system for returnable packaging.

## IMPACT

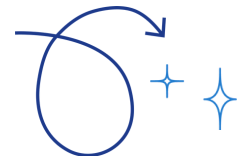
In less than 7 months, USEFULL has eliminated 90,023 single use containers from the landfill, saving 7,969 lbs of trash, 223,131 gallons of water and mitigated 25,038 lbs of emissions.

## FOUNDERS



### ALISON ROGERS COVE CEO & Founder

- An avid sailor, biker, and outdoors adventurer
- Founded the company to solve a personal dilemma - she loved eating takeout food, but got frustrated with the mountain of waste it left behind
- Previous management consultant and ORISE Fellow at the US EPA





**The USEFULL team  
may as well be  
BlueSwell groupies.  
We love the  
SeaAhead and New  
England Aquarium  
teams and grew so  
much as a result of  
the program.**



- The USEFULL Team



# VINCI VR

Unlocking the potential  
of virtual reality for  
high-skill training in offshore wind

## FIRST LOOK



Coastal Resilience



Tech: Analytics,  
Digitization, and AI



Boston, MA



[vinci-vr.com](http://vinci-vr.com)

## SEEKING

- Partners
- Software Testers

## MILESTONES

- 2019 VR partnership with Siemens Gamesa Offshore
- July 2022: certified 12 union workers with Siemens Gamesa Offshore
- VINCI VR's software is now a required training tool for USAF maintenance training

## PROBLEM

Installing and operating blue energy tech is labor intensive and requires special training. Current simulator solutions are not only expensive but also inflexible to student needs and unable to provide performance feedback, leading trainees to forget 90% of lessons.

## SOLUTION

VINCI VR provides CODEX, an end-to-end VR training platform. Our software allows clients to easily customize and create their own highly realistic 3D simulations and gain insights into training trends with robust analytics.

## IMPACT

Our simulations have shown to improve pass rates by 30%, improve material retention for 83% of students, and increase hands-on training time by as much as 495 hours – all while reducing costs by as much as 90%.

## FOUNDERS



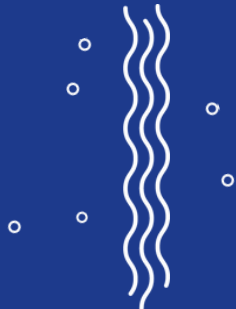
**EAGLE WU**  
CEO



# Stay tuned for more...

Think your startup would be a good fit for BlueSwell?  
Get a jumpstart in the application process:

COHORT IV INTEREST FORM



One planet, one ocean, endless possibility. We've done a lot in a few years, but SeaAhead's just getting started – stay up to date here:

SUBSCRIBE TO OUR NEWSLETTER

Interested in mentoring? We'd love to get you involved. Please let us know a little more about yourself by filling out this form:

APPLY TO BE A MENTOR

For more information, reach out to us at [blueswell@sea-ahead.com](mailto:blueswell@sea-ahead.com)



# Our Sponsors

The BlueSwell program is made possible by sponsoring foundations, companies and individuals that prioritize the ocean as a source of solutions.



**THE INNOVATION INSTITUTE**  
at the MassTech Collaborative

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**ENERGY**

Energy Efficiency &  
Renewable Energy

WATER POWER  
TECHNOLOGIES OFFICE



BUILDERS  
INITIATIVE

**Orsted**



**oceankind**

This program is also supported by the US Economic Development Agency, through their Build-to-Scale Initiative, as well as the generous support of private family foundations and individuals.

# Our Program Partners



GIANT  
SHOULDERS



WOLF  
& COMPANY, P.C.



Join us in making our vision a reality.

Contact us to learn more about partnering at [blueswell@sea-ahead.com](mailto:blueswell@sea-ahead.com).