



# **Maine Blue Economy Task Force**

Public Meeting

Tuesday, November 19, 2024

# Welcome and introductions

Our team includes:

- **Michael Conathan** – Michael Conathan Consulting LLC
- **Charles Colgan** – Center for the Blue Economy
- **Dana O'Brien** – BioHarbor Strategies, LLC
- **Laura Taylor Singer** – SAMBAS Consulting, LLC

# Agenda

- 10:00 Welcome/Introductions
- 10:10 Brief Review of Maine's Roadmaps & Strategic Planning related to the Blue Economy
- 10:20 Overview of Consultations
  - *Summary of input to date*
- 10:50 Blue Economy Efforts in Other States and Countries
  - *Washington Maritime Blue, Joshua Berger*
  - *URI Research Foundation, Christian Cowan*
  - *International Overview, Charlie Colgan*
- 11:40 Defining & Describing Maine's Blue Economy
- 11:55 Wrap up and Next Steps

## Objectives for today

1. Receive overview of recent roadmaps and other strategic plans for Maine.
2. Share initial summary of consultations to date.
3. Gain insight into how other states and countries have advanced initiatives in the blue economy space.
4. Review draft working definition of the blue economy.
5. Continue to meet the requirements of the [statute](#).

# Consultations

## Legislatively required consultations

- Relevant state agencies
- Publicly funded institutions
- Blue Economy trade associations
- Boat building, marine tech, construction & engineering
- Blue Economy investors
- SEA Maine, ME Aquaculture Roadmap and OSW Roadmap
- Federally recognized Tribes
- Orgs engaged in conservation & sustainable island development

# Consultations

## COMPLETED (~80 individuals)

- Relevant state agencies
- Publicly funded & other research institutions
- Blue Economy investors
- Orgs engaged in sustainable island & coastal community development
- Aquaculture
- Commercial Fishing
- Ocean Software, Data, & Analytics

## UPCOMING

- Blue Economy trade associations - Nov. 21
- Boat building - Nov. 25
- Marine construction - TBD
- Federally recognized Tribes - will be 1-1 conversations w/Tribal leadership

# Consultation Overview: Key Points

- Maximizing Maine's Blue Economy will require:
  - addressing regulatory and infrastructural barriers
  - engaging communities
  - building effective partnerships across sectors, including leveraging innovation and technology
- Maine's strengths include:
  - alignment with global megatrends in climate resilience, defense, and food security
  - Specifically in biotech, data & monitoring, renewable energy & propulsion, seafood & living marine resources.

# Consultation Overview: Key Points

- Maine's challenges include:
  - access to funding, including for innovation & supporting commercialization of research
  - need to strengthen partnerships between agencies, research institutions, and the private sector
  - competition from other states, regionally and nationally, for resources, including talent
  - our regulatory and permitting landscape
  - social license and community acceptance of emerging industries



# Themes and Emphasis in BETF Report

- Who gets to use the ocean, and how is that determined?
- Heritage v. Innovation Emphasis
- Scale:
  - Small scale community based with no disruptions
  - Global scale competitiveness
- Context
  - Workforce
  - Affordable Housing
  - Food System
  - Infrastructure

# RHODE ISLAND'S 2030 BLUE ECONOMY ACTION PLAN

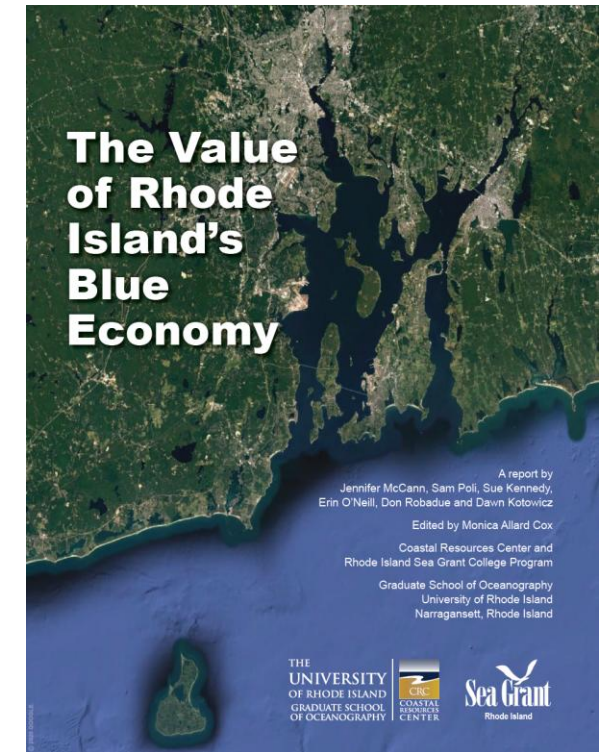
Presented by



The Blue Economy Partnership for Rhode Island

# Rhode Island Blue Economy History

- Evolution from historical sailing and fishing to science, technology and initiatives protecting our national security
- Facing offshore: 400+mi of shoreline transitions to coastal shelf adjacent to gulf stream, home to the nations first offshore wind farm, soon growing into once in a generation offshore operational platform
- Facing inshore: Unique bay bathymetry, surrounded with an unmatched density of old and new and growing industry and military assets & operations, populated by talented historically under represented communities
- EDA Build Back Better Regional Challenge provided an opportunity to create a forward-looking Blue Economy Strategy



**The Value of Rhode Island's Blue Economy** (Author's Calculations)

Sector	Value	Jobs	Description	Source
Aquaculture	\$5.77 million (farm gate <sup>13</sup> )	194	Farm gate for shellfish aquaculture.	CRMC 2018
Defense	\$3.16 billion (direct effect <sup>14</sup> )	16,011	Federally funded defense activities and industries.	SENEDIA 2017
Fisheries and Related (net of charter)	\$151.5 million (direct effect)	2,965	Harvesting and processing capacity of the fishing industry, in addition to support businesses and organizations. No charter.	Sproul, T., personal communication, Nov. 5, 2019
Marine Trades	\$1.45 billion (direct effect)	13,337	Boat building, repair, and retail industries, diving and marine construction industries, and select tourism and recreation industries, including charter.	Sproul 2018a, 2018b, 2018c
Hotels and Lodging (coastal communities)	\$428 million (direct effect)	3,999	Hotel and lodging establishments located in Rhode Island zip codes adjacent to the coast.	ENOW 2019
<b>TOTAL</b>	<b>\$5.2 billion</b>	<b>36,502</b>		



# RI Blue Economy Assets



In Rhode Island, we define the Blue Economy as “the sustainable use of the ocean to create a resilient economy and good-paying jobs”.



Ports and Shipping



Tourism & Recreation



Offshore Renewable Energy



Marine Trades



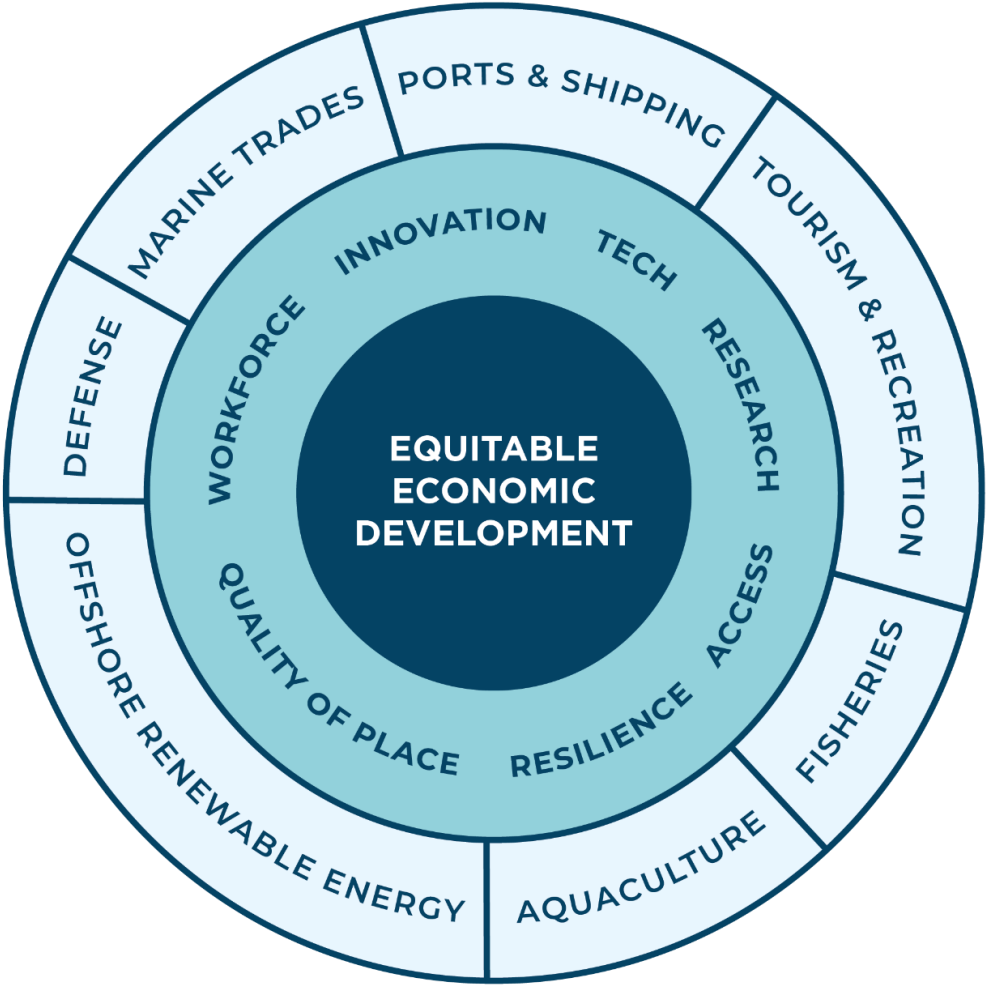
Education and Training



Aquaculture & Fisheries



Defense



# GROW BLUE 2030

## THE BLUE ECONOMY ACTION PLAN

- WORKFORCE AND TALENT DEVELOPMENT
- BUSINESS GROWTH AND INVESTMENT
- INFRASTRUCTURE AND ACCESS
- MAKING WATERFRONTS WORK
- CATALYZING COLLABORATIVE R&D





An aerial photograph of a small white motorboat with a yellow stripe, moving across dark green water. Three people are on board: one at the stern, one in the middle, and one at the bow. The boat has a red fuel tank, a black cooler, and various gear. A red life preserver is floating nearby. The background is a vast expanse of water with some whitecaps.

## THE BLUE ECONOMY ACTION PLAN

# Workforce and Talent Development

The industry sectors that comprise the Blue Economy employ 36k+ today and are poised for significant growth. The job opportunities in the Blue Economy will require a range of skill and education levels. Entry level jobs can support people early in their careers and people that are transitioning between sectors. In addition to new jobs being created, the sector needs replacement workers as many people are nearing retirement age. A focus on preparing individuals for these existing jobs along with future opportunities can build on the growing number of training and education programs, laying the groundwork for future expansion and collaboration.

## Growth For Today

1. Create a statewide Blue Economy Workforce Development Coalition.
2. Create a Blue Economy Jobs Training to Career Unified Service Offering.
3. Recognize and Celebrate the Legacy of the Blue Economy.

## Growth for Tomorrow

1. Invest in early-learning education efforts (K-8) and high school that provide all RI youth with tangible, impactful experiences on the water.
2. Develop a Blue Economy Jobs Now curriculum set that prioritizes delivery in disadvantaged school districts.
3. Create a Blue Economy Jobs Hub and Campaign with jobs, training, profiles etc.



## Making Waterfronts Work

1. Develop a working waterfront plan that ensures a diverse mix of businesses and sectors have affordable access to needed commercial waterfront and dock space.
2. Perform a fit-gap analysis to better understand what businesses and assets are currently utilizing waterfront space, what commercial entities are missing, and where waterfront access may be expanded for businesses.

## Catalyzing Collaborative R&D

1. Develop a physical hub for Blue Economy R&D, in partnership with industry officials and higher-education institutions.
2. Create digital, open-source assets that allow for increased efficiency in multiple Blue Economy partners moving towards 'smart' assets.
3. Motivate industry leaders to collaborate on activities and initiatives that grow the Blue Economy through clearer value propositions, knowledge-sharing opportunities, and alignment on broader statewide economic goals.

# INFRASTRUCTURE AND ACCESS





# Business Growth and Investment - Ocean Tech Hub Application

As noted in the industry overview section, employers in the Blue Economy in Rhode Island are already providing a significant source of employment across a range of sectors. As these companies grow and adapt to changing market opportunities, they can benefit from a supportive network of organizations aligned to focus on their needs. In addition, as Rhode Island's reputation as a home to successful Blue Economy endeavors grows, we will see new companies set up operations in the state. Helping their leadership teams and employees quickly connect to the Blue Economy community will be imperative to their success.

## THE BLUE ECONOMY ACTION PLAN

### Aligning on Business Growth

1. Establish a committee within the Grow Blue Partnership to lead coordinated business growth and expansion efforts for Rhode Island's Blue Economy.
2. Remove business start and growth barriers in the Blue Economy.

### Attracting and Retaining Blue Economy Businesses

1. Develop a Concierge Service for Blue Economy business retention, expansion, and attraction in Rhode Island.

### Capture Capital Investment

1. Advocate for resources and funding on a state and national level.
2. Invest in climate adaptation and mitigation strategies to protect Rhode Island's coast and physical assets.



# Ocean Tech Hub Key Technology Focus Areas

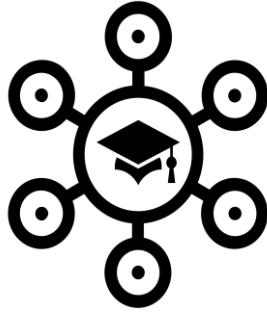
- Undersea / ocean robotics and sensors with autonomous capabilities
- Artificial Intelligence / machine learning (AI/ML) for use with undersea technology
- Advanced materials manufacturing that can withstand the ocean environment



# Ocean Tech Hub Components

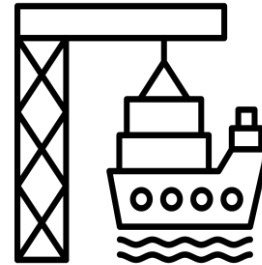
## UNIVERSITY CONSORTIUM

Core Facilities, Dedicated Space +  
Industry Access  
URI Bay Campus: Blue Tech  
Innovation + Testing  
UMASS Fall River: Entrepreneurial  
Services



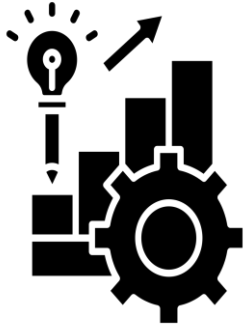
## ON, NEAR, OFF SHORE TESTBEDS

Testing Sites – Various Ocean Access  
Matchmaking  
Pipeline



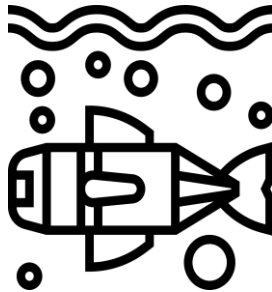
## OCEAN TECH BUSINESS ACCELERATOR

Annual Ocean Tech Challenge  
Connection to Ecosystem Assets  
SeaAhead Stage 2 Accelerator  
Venture Matching



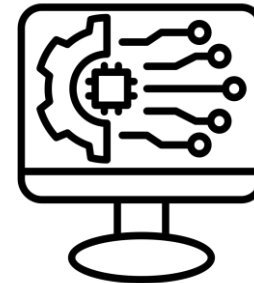
## THE BLUE ROBOTICS LAB

Open Floor Plan = Collaboration  
Shared Equipment  
Business Growth Programs  
Bristol Location



## SMARTBAY – DIGITAL TWIN

Networked Platform  
Sensor Monitoring + AUVs + Digital  
Experience  
Virtual Testing = Accelerated  
Iterations



## NEXT GEN WORKFORCE

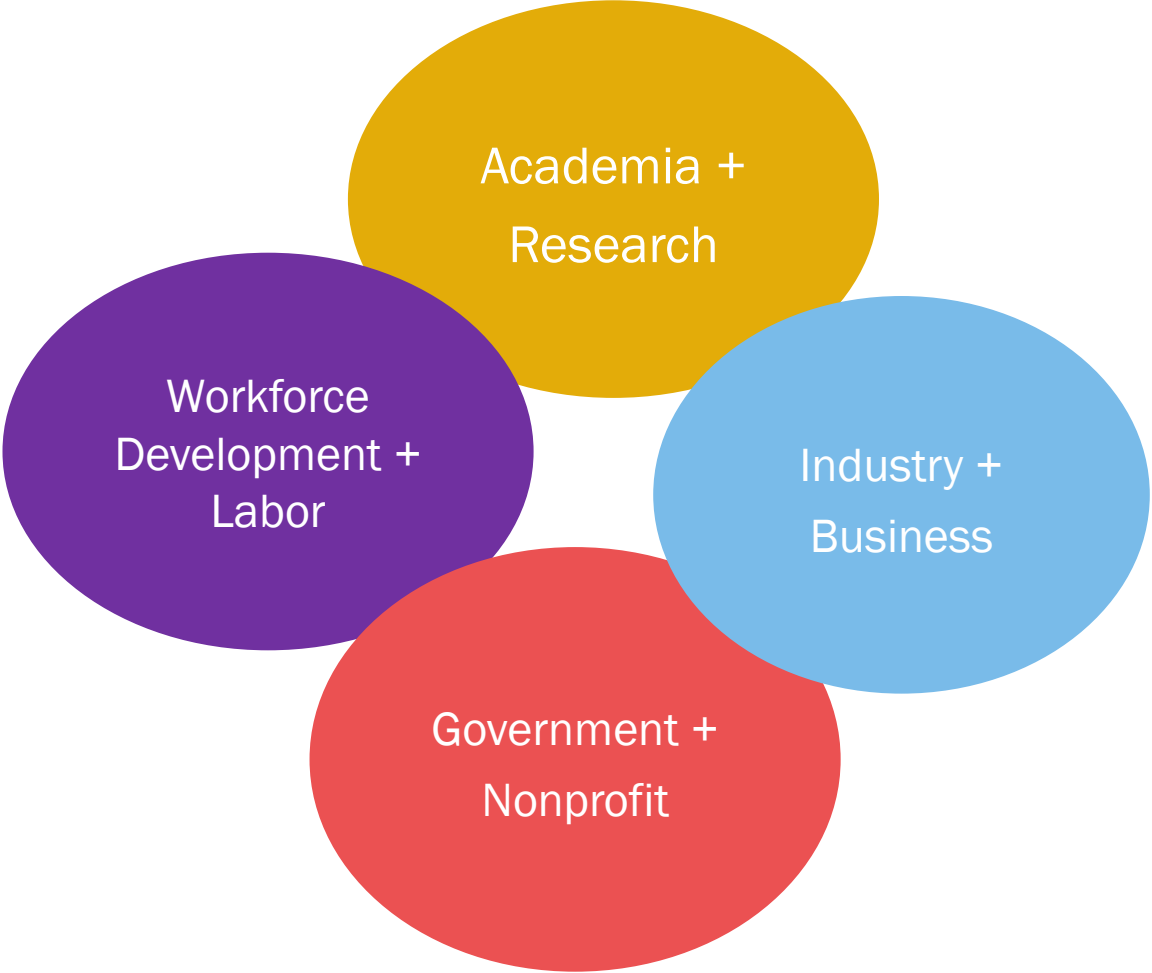
Employer-Driven Skills Training  
Understanding jobs for the future  
Pipeline Dev = K-12  
Equity + Access + Opportunity  
GOOD JOBS



# Built on Regional Partnership



## Linking Regional Assets



# Built on Regional Partnership

## Linking Regional Assets

100+ companies and organizations include (so many more!):



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







## CONTACT US

Want to know more about the Grow Blue Partnership and how you can be part of our equitable economic development efforts? Contact one of our project leads:



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“Employers in the Blue Economy in Rhode Island are already providing a significant source of employment across a range of sectors.”

A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a blue gradient background, resembling a circuit board or a neural network.

# INTERNATIONAL BLUE CLUSTER EXAMPLES

CHARLES COLGAN, CENTER FOR THE BLUE ECONOMY



# BLAUWECLUSTER.

- (Blue Cluster): Ostend, Belgium. (2017)
  - 180 Members (public, private, NGO's, Universities)
  - Training workforce specialists
  - Scientific Research Backing Ideas
  - Entrepreneurship Support



# CANADA OCEAN SUPERCLUSTER. (HALIFAX, NS AND ST. JOHN'S, NFLD)

- Energy, Food Security, Transportation, Climate Change
- 2035 Goal: \$220 billion from ocean economy
- Technology Leadership Program
  - Competitive Funding for R&D and Commercialization
  - Match Required
- Innovation Ecosystem Projects
  - R&D support ecosystem development projects
  - Non-commercial
  - Match required

# EUROPEAN CLUSTER COLLABORATION PROGRAM

- Support for Participation in International Events
  - SME attendance at AI conferences
- Cluster Accelerators
  - Networking and Peer Mentoring
- Cluster Success Case Studies
- Funding Availability Website
- Cluster Library

## **Upcoming Meeting Schedule**

- **Workshop: Thursday, December 12 - 12:00PM – 2:00PM**  
**University of Maine, Orono**  
*Review & prioritize info gathered, prep for report drafting*
- **Final Review: Friday, January 10 – 12:00PM – 2:00PM**  
**Remote only**  
*Review Draft Report, take final input from Task Force*

*All meetings will include a virtual option,  
but in-person participation is strongly encouraged when possible.*