

EXECUTIVE SUMMARY

Rhode Island's 2030 Blue Economy Action Plan

Presented by



The Blue Economy Partnership
for Rhode Island

Rhode Island's Leadership Moment in the Blue Economy

Rhode Islanders have long benefited from their proximity to the ocean and numerous waterways. 2023 can be the year that the community moves from an opportunistic use of these assets to a strategic leadership approach, from a disconnected distribution of economic impact to securing equitable prosperity for individuals across the state with an emphasis on historically marginalized populations.

Known as the Ocean State, Rhode Island, and its leaders, should focus on their strengths in the Blue Economy sector rather than being caught in the endless introduction of “the next big economic development opportunity.” **The Blue Economy is the big economic development opportunity.** The Blue Economy is at once both a legacy economic driver, employing over 36,500, and an economic opportunity of the future. This opportunity takes advantage of the state's longstanding assets and infrastructure, while focusing on inclusive stakeholder-led strategies and actions that welcome all.

To date, much activity occurs in this sector, but it is under-resourced, disjointed, and at times conflicting due to a lack of coordination. This weakens Rhode Island's position in the regional, national, and global market. With sustained and properly resourced leadership, Rhode Island can scale its existing activities and provide immediate impact for thousands of the state's residents.

Worldwide, economic and political leaders recognize that the Blue Economy is poised for growth. From renewable energy to increased food opportunities, from systems innovation to adaptation and resilience in the face of climate change, the Blue Economy can bring both economic prosperity and environmental protection for coastal areas. Various Blue Economy industry sectors are creating good jobs for a range of skill levels and can be Rhode Island's path to equitable economic opportunity.

This Blue Economy Action Plan identifies the actions that Rhode Islanders can take to claim its leadership position in this emerging sector.

What is the Blue Economy?

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

INDUSTRY OVERVIEW

With the ocean covering 71% of the Earth's surface, human life and commercial activity are inextricably linked to the water. The global ocean economy is worth over \$2.5 trillion annually and growing according to a recent United Nations Conference on Trade and Development (2021)¹ Industries contributing to this impact include:



Ports and Shipping



Tourism & Recreation



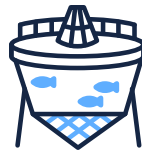
Offshore Renewable Energy



Marine Trades



Education and Training



Aquaculture & Fisheries



Defense



INDUSTRY OVERVIEW

This large economic impact is often driven by industry clusters, or “geographic concentrations of interconnected companies and institutions in a particular field.” In coastal areas across the US, Blue Economy industry clusters are driven by population and activity centers, robust natural assets, and critical infrastructure for commerce, R&D, and collaboration. Often supported by public-private partnerships and other authorities, industry clusters support local and state economies, drive innovative thinking, and position the US as a leader in Blue Economy activity alongside the likes of China, the European Union, and Mexico.

The US's Blue Economy continues to grow at a rate 2x faster than the national economy as a whole, presenting an opportunity for American coastal communities to continue capturing the growing market share of jobs, business, and general productivity. These businesses range from fishermen and conservation labs to innovative aquaculture researchers and offshore wind turbine producers. As America's Blue Economy clusters continue to compete and grow in tandem, geographic areas become increasingly impactful due to overall productivity and specializations in specific forms of research, production, and technology.



Number of jobs in the Blue Economy across the US's Coastal Communities (2018).
Source: *Blue Tech Clusters of America*

The Blue Economy in Rhode Island

This Blue Economy includes, but is not limited to:



The people working to build and maintain offshore wind turbines.



The people sustainably fishing and harvesting food from the ocean.



The people working to protect coastal communities from climate change.



The people serving others as they experience our water-based recreational assets and communities.



The people building boats as well as advanced manned and unmanned underwater vehicles.



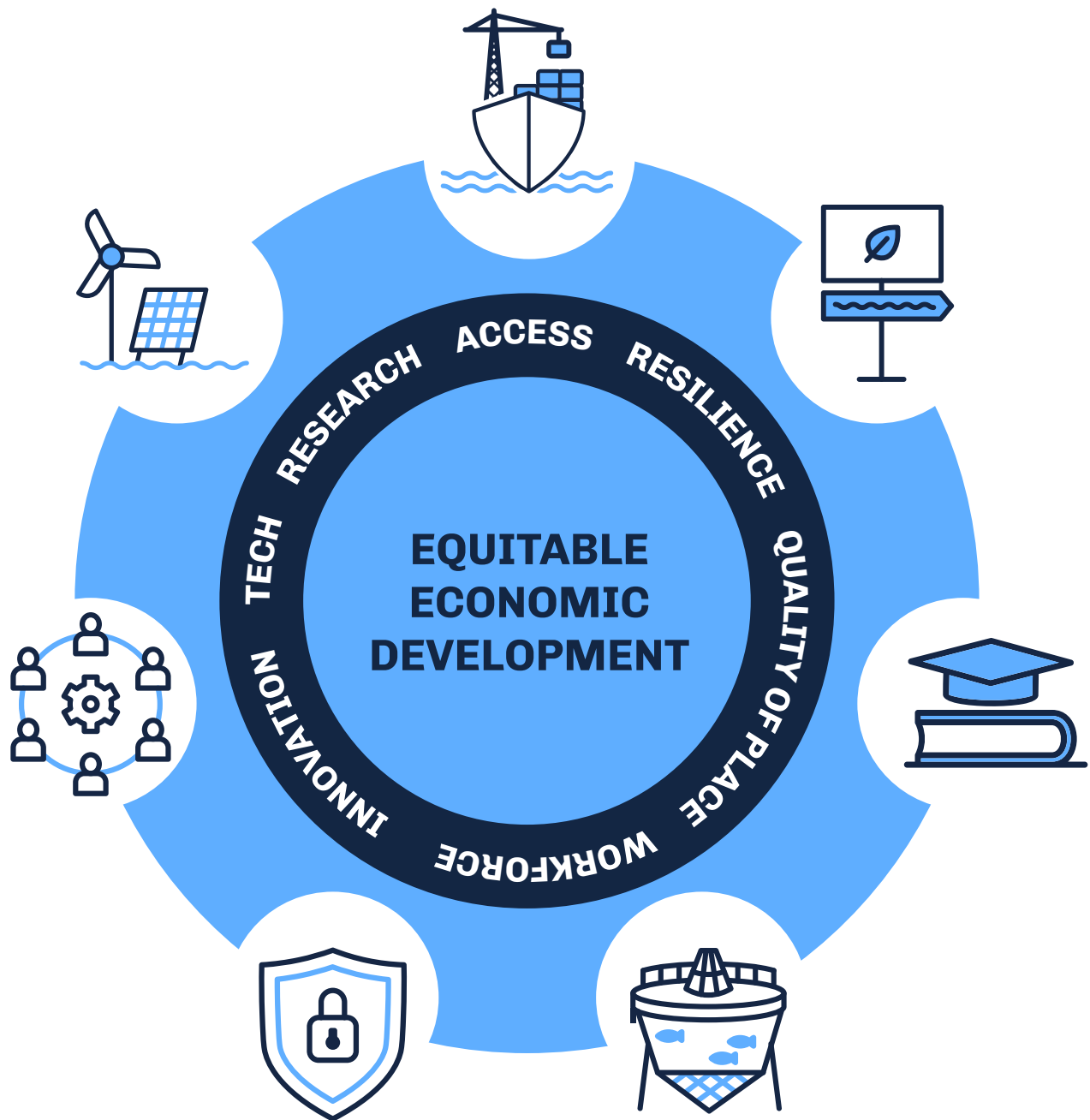
The people working in our defense sector to protect our citizens, coastlines, and critical assets.

The American Blue Economy—including goods and services—contributed about \$373 billion to the nation's gross domestic product, supporting 2.3 million jobs, and grew faster than the nation's economy in its entirety.

NOAA Blue Economy Strategic Plan 2021-2025

The Big Picture

While Rhode Island has historically benefited from the ocean, we see an opportunity to act more strategically in this next chapter. The Blue Economy opportunity can be both economically impactful and inclusive if we execute a series of actions defined in the Action Plan.



By the Numbers

The total impact of the Rhode Island Blue Economy is estimated to be \$5.2 billion and more than 36,500 jobs².

The table below defines the direct value and employment across aquaculture, defense, fisheries, marine trades and hotel and lodging. This definition includes federal data from the Economics: National Ocean Watch (ENOW) program gathered by the National Oceanic and Atmospheric Administration (NOAA), as well as data defined and gathered by Rhode Islanders in sectors with no significant overlap with federal data

Sector	Value	Jobs	Description	Source
Aquaculture	\$6.95 M (farm gate)	222	Farm gate for shellfish aquaculture	CRMC 2021
Defense	\$3.16 B (direct effect)	16,011	Federally funded defense activities and industries	SENEDIA 2017
Fisheries and Related (net of charter)	\$151.5 M (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 B (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 M (direct effect)	3,999	Hotel and lodging establishments located in Rhode Island zip codes adjacent to the coast	ENOW 2019
Total	\$5.2 B	36,534		

Notes: Farm gate: The price of the product available at the farm, excluding any separately billed transport or delivery charge. Direct effect: The changes in local business activity occurring as a direct consequence of public or private business decisions, or public policies and programs.



The Blue Economy is an important economic driver to the state of Rhode Island, including the following job and productivity impacts:

- **Jobs:** Employment within the Blue Economy represents 5.7% of Rhode Island's overall employment – nearly twice the concentration of Blue Economy workers of Massachusetts, Connecticut, California, and Texas.³
- **GDP:** The Blue Economy is responsible for 8.8% of Rhode Island's overall gross domestic product (GDP).⁴
- **Productivity:** Because the Blue Economy contributes a higher share of state GDP (8.8%) than the employment share of Blue Economy workers (5.7%), Blue Economy jobs generate more economic impact than those of an average worker, “produc[ing] a higher value-add per employee than the economy as a whole.”⁵



Grow Blue

The Blue Economy Partnership

The Grow Blue Partnership will serve in response to the feedback from over 250 Rhode Islanders who have participated in the development of the Blue Economy Action Plan 2030. These blue economy actors shared their interest in having some entity support a variety of needed roles including:

- Coalition building to create opportunities for increased collaboration.
- Centralize resources and provide public access to all.
- Educate and market RI's Blue Economy assets to diverse audiences.
- Collaborate for impact through the state and across state lines.
- Provide a resource for guiding competing priorities or gaps between sectors.

WHAT IS THE STRUCTURE?

Core partners deliberated and determined that a two-phase approach to launching the Grow Blue Partnership was the most optimal.

PHASE 1:

Grow Blue Partnership will launch with an independent Advisory Board and staffed as an initiative of the URI Research Foundation.

Launching an Advisory Board supported by the URI Research Foundation will require the foundation to secure new funding in order to support a two-year implementation cycle and prepare to transition into a new independent nonprofit organization in the future.

These funds should support an estimated 2.5 FTE staffing level that will include a Project Lead, coordinator and communications/ logistics support. They will also support the continued industry liaison role being led by the URI Coastal Resource Center.

PHASE 2:

The current plan envisions that the Grow Blue Partnership will evolve into a separate nonprofit organization.

The establishment of a separate nonprofit organization will allow for an increased level of service and an increase in impact potential. Centralizing this work in a dedicated organization will allow for the eventual execution of some of the recommended actions that currently lack an existing lead organization and will take time to develop.

WHAT ARE THE VALUES?

Diverse, Equitable, and Inclusive

Ensure the opportunity to access Blue Economy benefits is available to all, with a recognition of the need to eliminate barriers, build trust, and listen to the needs of our most vulnerable and disadvantaged communities.

Interdisciplinary

While taking pride in our 'small state' status, our size requires us to foster collaboration and leverage resources in order to realize an oversized impact.

Intentionality

As we focus on connecting our communities with our Blue Economy assets and defined actions, we must work collaboratively to identify and pursue key resources from outside and within the state.

Advocacy

The partnership will advocate for those individuals and organizations in the Blue Economy that do not have a centralized body to advocate for themselves.

Balance

The Blue Economy provides many opportunities to balance economic prosperity with environmental protections and social justice.

WHAT DOES THE PARTNERSHIP DO?

In addition to the actions recommended in the Blue Economy Action Plan 2030 the Grow Blue Partnership will advance five key actions identified as opportunities and needs by community stakeholders:

1. Act, in partnership with Compete RI, as a facilitator of information on upcoming and current funding opportunities from Federal, State or other entities.
2. Embed equity into Grow Blue communications, stakeholder and community involvement, and access with the goal of eliminating economic and social disparities.
3. Serve as a network to centralize marketing and engagement efforts of the Blue Economy to expand our message from a local one to a national brand. Utilize this neutral organization to build trust and support throughout the state.
4. Identify and map all Blue Economy assets across the state and region. Provide them to the public as a resource to support collaboration. Identify the gaps to inform strategic planning efforts for the future.
5. Serve to identify and advise on cross-sector opportunities and intersections between efforts that can lead to greater economic and community impact.

Grow Blue 2030: The Blue Economy Action Plan

WORKFORCE AND TALENT DEVELOPMENT

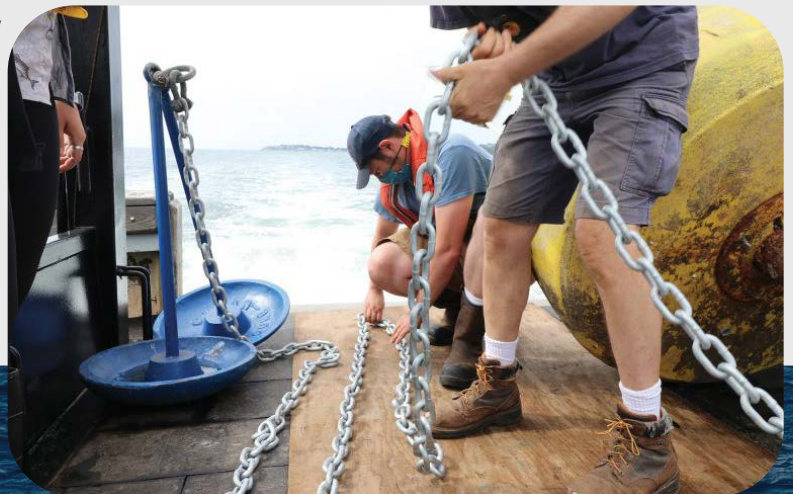
The industry sectors that comprise the Blue Economy employ 36k+ today and are poised for significant growth. The job opportunities in the Blue Economy will require a range of skill and education levels. Entry level jobs can support people early in their careers and people that are transitioning between 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

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



BUSINESS GROWTH AND INVESTMENT

As noted in the industry overview section, employers in the Blue Economy in Rhode Island are already 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.

Aligning on Business Growth

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

Attracting and Retaining Blue Economy Businesses

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

Capture Capital Investment

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

Flux Marine, a trailblazing developer of all-electric outboard motors and battery systems for watercraft raised \$15.5 million in an oversubscribed Series A funding round led by Ocean Zero LLC. Flux Marine will leverage the new funding to expand manufacturing, recruit additional talent, and continue to develop its advanced technologies.



INFRASTRUCTURE AND ACCESS

A variety of critical infrastructures and assets support Rhode Island's Blue Economy, none more so than working waterfronts. Waterfronts are critical pieces of recreation and industry for residents, fishermen, entrepreneurs, and corporations alike to share. Blue Economy stakeholders believe a critical step towards a stronger sector is to capture and understand the current state of these waterfronts: how are Rhode Island's coastlines used? Who is using them? Are there opportunities for growth, optimization, or a more equitable distribution across different industries and uses? As the purposes of physical assets across the state are better understood, the state and its numerous Blue Economy partners can begin to take concrete actions towards enhanced collaboration in Research and Development (R&D). Actions for successful R&D that grows Rhode Island's Blue Economy and establishes the state as an international sector leader include unlocking collaborative incentives, building co-use workspace and assets, and innovating on open-source data. Efforts will also include education of public officials and community leaders and advocacy for the needs of water-based businesses.

Making Waterfronts Work

12. Develop a working waterfront plan that ensures a diverse mix of businesses and sectors have affordable access to needed commercial waterfront and dock space.
13. 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

14. Develop a physical hub for Blue Economy R&D, in partnership with industry officials and higher-education institutions.
15. Create digital, open-source assets that allow for increased efficiency in multiple Blue Economy partners moving towards 'smart' assets.
16. 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.

Implementation for Impact

This action plan offers two primary implementation priorities:

1. Launch the Grow Blue Partnership and the defined first year actions that it can lead.
2. Prioritize the Blue Economy Action Plan opportunities and needs through broad based community engagement.

The Grow Blue Partnership and Action Plan opportunities can solidify Rhode island's leadership position in the Blue Economy sector and most importantly make an impact in the following ways:

Action

Impact

Educate Rhode Island residents to the career opportunities in the sector

- Increase in employment in the Blue Economy
- Increase in jobs held by historically disadvantaged populations

Promote Rhode Island Blue Economy assets to a regional and global audience

- Increase in inbound inquiries from business and individuals looking to locate or collaborate with RI assets

Prepare RI projects and initiatives for federal, state and private investment

- Increase in the number of projects advancing
- Increase in federal funding being allocated to projects/ initiatives in the state

Foster adaptation and mitigation strategies to protect our assets

- Increase in local, state, federal and private funding to support adaptation and mitigation efforts

Here in Rhode Island, the Ocean State, legacy industries including fishing, boatbuilding, and marine trades are combining with the emerging offshore renewable energy industry and exciting new advanced ocean technologies to create powerful intersections that will propel our economy into the future. The Grow Blue Action Plan 2030 proposes 16 Action Steps that when taken will improve our physical infrastructure, invest in our workforce and strengthen our business development initiatives to ensure we are ready for this economic growth. Over 250 Rhode Islanders representing businesses, nonprofits, and government agencies guided the development of these Action Steps and will now work as a Blue Economy Partnership to see them adopted. Ready to join us? To learn more about how you can be part of this effort and add your voice to our story, visit www.growblue.org.



References

1. United Nations Center on Trade and Development
2. McCann, J., Poli, S., Kennedy, S., O'Neill, E., Robadue, D., and Kotowicz, D. (2020). The Value of Rhode Island's Blue Economy. Coastal Resources Center and Rhode Island Sea Grant College Program, Graduate School of Oceanography, University of Rhode Island.
3. McCann, J., Poli, S., Kennedy, S., O'Neill, E., Robadue, D., and Kotowicz, D. (2020). The Value of Rhode Island's Blue Economy. Coastal Resources Center and Rhode Island Sea Grant College Program, Graduate School of Oceanography, University of Rhode Island.
4. McCann, J., Poli, S., Kennedy, S., O'Neill, E., Robadue, D., and Kotowicz, D. (2020). The Value of Rhode Island's Blue Economy. Coastal Resources Center and Rhode Island Sea Grant College Program, Graduate School of Oceanography, University of Rhode Island. In 2017 Rhode Island's employment was 639,244 (includes 565,758, private nonfarm; 1,461 agriculture; 72,025, government jobs) and its Gross State Product (GDP) was \$59.25 billion (Reserve 2019).
5. McCann, J., Poli, S., Kennedy, S., O'Neill, E., Robadue, D., and Kotowicz, D. (2020). The Value of Rhode Island's Blue Economy. Coastal Resources Center and Rhode Island Sea Grant College Program, Graduate School of Oceanography, University of Rhode Island. Tom Sproul, personal communication, November 5, 2019.

Acknowledgements

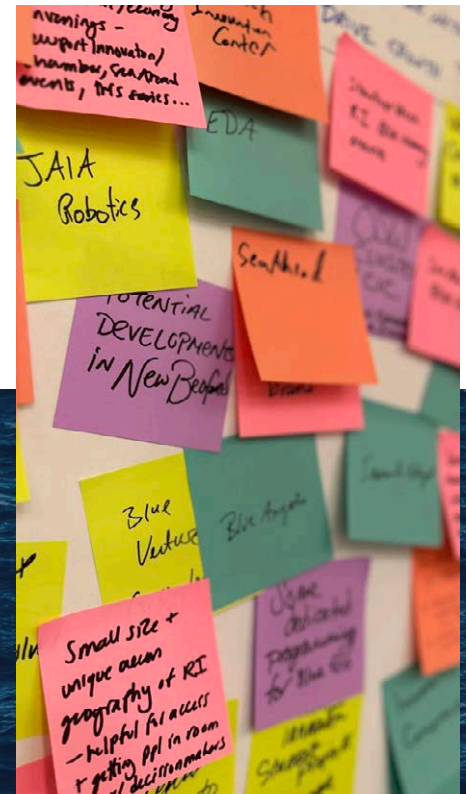
Blue Economy Partnership Project Core Team

The Core Team, which included 29 industry stakeholders, served as the advisory body over this strategic planning effort. The team convened 4 times throughout the project to establish goals,, drive forward recommendations, and refine the plan's final recommendations. The team was funded in part by the RI Blue Economy Tech Cluster's (RI BETC's) Build Back Better Phase 1 award, and formed as an expansion of the initial working group body of the 2022 Build Back Better Regional Challenge Phase 2 Grant application. The Core Team met 4 times throughout the project.

Blue Economy Sprint Teams

Sprint Teams served as community-focused ideation groups to create innovative solutions and action-items for the planning team to push forward into this Action Plan. Eight different Sprint Teams convened throughout the planning process, bringing forward opportunities, issues, ideas, and expertise. Over 250 people participated across these Sprint Team engagements in December 2022 and February 2023. The Sprint Teams included:

1. Blue Tech Innovation Ecosystem
2. Infrastructure for Innovation and Business
3. Adaptation & Mitigation
4. Ocean-based Renewable Energy
5. Defense Sector Resilience
6. Aquacultures & Fisheries
7. Sustainable Tourism, Outdoor Recreation, and Marine Trades
8. Workforce and Talent Development



Rhode Island's 2030 Blue Economy Action Planning Process was led by the following organizations:



Fourth Economy Consulting: Fourth Economy is a national community and economic development consulting firm. Our approach is centered on principles of competitiveness, equity and resilience. We partner with communities and organizations, public and private, who are ready for change and equip them with the tools and innovative solutions to create strategic, resilient, and equitable futures.

Huckel Inclusive: Huckel Inclusive provides clients with strategic diversity and inclusion consulting services representing best practices and innovation from a highly-skilled team of change-makers harnessing practical experience and passion, with a specialty in LGBTQ+ topics. In addition to strategic consulting services, Huckel Inclusive is experienced in providing curriculum development for organizational change, workshop facilitation, executive coaching, and more.

OneRhode Consulting: One Rhode Consulting provides strategic consulting services to businesses, non-profits, and government entities as they develop or expand projects, programs, and special initiatives. We specialize in deploying mission-driven strategies, encouraging collaboration, and convening diverse voices to achieve the best possible outcomes.

Partnership for Rhode Island: The Partnership for Rhode Island is a nonprofit CEO roundtable made up of the state's largest employers and focused on initiatives in K-12 Education, Infrastructure, Workforce Development and Business & Investment Attraction.

The Rhode Island Commerce Corporation: The Rhode Island Commerce Corporation works with public, private and nonprofit partners to create the conditions for businesses in all sectors to thrive and to improve the quality of life for our citizens by promoting the state's long-term economic health and prosperity. We offer business assistance, access to funding and red tape reduction for companies of all sizes.

University of Rhode Island Research Foundation: The URI Research Foundation promotes industry/academic collaboration and new technology ventures for economic growth and job creation in Rhode Island, the U.S., and the world. The Foundation has been leading the State's Blue Economy-related efforts including commissioning this Action Plan.



info@growblue.org



This report was funded by the US Economic Development Administration through a Phase 1 Build Back Better Regional Challenge planning grant.