VISION: The most vibrant version of Rhode Island’s future is bright “Blue.” The proposed RI Blue Economy Technology Cluster (RI BETC) will establish Rhode Island and Southern New England as the leading global center of the Blue Economy, building upon existing regional, national, and global assets and backed by a consortium of industry, government, non-profit, and academic partners. Rhode Island’s Blue Economy spans 6 sub-industries: ports & shipping, defense, marine trades, ocean-based renewables, aquaculture & fisheries, and tourism & recreation. The RI BETC Coalition has identified over $44 million in State and private funds, as well as opportunities for multi-state regional collaboration in Phase 2 with neighboring CT and MA across their Blue Economy efforts (see Letter of Support – RI, CT, MA Pledge of Cooperation).

The RI BETC aims for ambitious but achievable targets, based on international Blue Economy benchmarks from jurisdictions such as Denmark, the Netherlands, and Portugal. Namely we aim over the next 10 years to reach up to 5X growth in Gross Regional Product (GRP) and up to 6X-8X faster job growth in jobs in this sector over the economy-wide baseline. The RI BETC proposes 5 Component Projects, to catalyze the outsized growth potential of Blue Economy and benefit populations that have historically been excluded in high-paying job and wealth-building pathways, both in RI and Southern New England (see Appendix 4. Equity). All the Component Projects are aligned with the EDA-accepted 2020 RI Comprehensive Economic Development Strategy (CEDS, “RI Innovates 2.0”).

The Component Projects have the potential to transform RI’s Blue Economy and nearly double its size, with up to 54,000 additional Blue Economy jobs with a projected annual Blue Economy GRP of $15-25 billion within 10 years. In addition, the growth of Blue Economy in RI will create additional multipler jobs in related industries across Southern New England.

RI BETC Coalition: The RI BETC Coalition brings together 37 entities that are regional leaders across state and local governments, educational institutions, workforce organizations and service providers, economic development districts, non-profits, philanthropy, trade organizations, small business coalitions, and private companies, all under the leadership of University of Rhode Island Research Foundation (URIRF), RI Commerce, and the RI Governor’s Office. URIRF is the Lead Institution for this Phase I Application, supported by RI Commerce and the RI Governor’s Office.

The Coalition is designed to build on and scale existing partnerships to deliver the vision of the RI BETC: achieve significant regional economic growth through technology-based investments in the Blue Economy, increase the number of jobs and wages across the State and the region, and provide pathways to high-paying jobs and business ownership for populations that have historically been excluded from the benefits of maritime industry and technology-based growth. The Coalition represents the many different historically excluded populations and has crafted strategies to address the different economic disparities they face. The Lead Institution and its RI Commerce colleagues have had multiple individual engagements and workshops with the Coalition members in the past six months, which have been instrumental in prioritizing the Component Projects, and developing the Sustainability and Equity strategies. The Coalition plans to use the Phase 1 Grant (together with private sector contribution) to onboard key staff and establish the RI BETC process as a blueprint for crafting State-wide infrastructure, economic development, and budgetary planning exercises in the future, as RI Innovates 2.0 calls for.
Current State of Rhode Island’s Economy: In 2019, Rhode Island’s Gross Regional Product (GRP) was $55.2 billion, and the total workforce was 568,000 with 3.5% unemployment, the lowest rate since the 1980s. In the years before the pandemic, RI’s focus on advanced industries was a key strategy for addressing the State’s historic economic challenges: vulnerability to downturns, low wages and productivity, an aging workforce close to full employment, and historic disparities in access to stable and high-paying jobs, wealth creation, and business ownership. In light of these challenges, RI Innovates 2.0, the EDA-accepted CEDS for RI, identifies the State’s path forward to equitable and inclusive economic growth: continue to grow advanced industries that increase the average economic output of the workforce, build upon existing efforts to upskill the workforce, and drive efficiency improvements across industries. RI BETC’s Component Projects and success metrics are designed to fulfill RI Innovates 2.0’s goal to achieve equitable growth leveraging the leading-edge maritime technology platform through catalytic investments in infrastructure, workforce, and small business & startup support.

Current State of Rhode Island’s Blue Economy: Rhode Island’s Blue Economy supports approximately $5.0 billion in sectoral output, ~9% of RI’s total GRP and employs approximately 67,600 people (12% of the workforce). Between 2010-2019, Rhode Island’s Blue Economy grew 2X faster than the economy at large, registering the largest Blue Economy growth over the Statewide baseline in the US. Similarly, RI’s Blue Economy jobs grew 3X faster over total employment growth baseline. While the Blue Economy is already an important driver of economic development for Rhode Island, nevertheless it registers the lowest average employee productivity across the peer Blue Economy regions in the US, primarily because the majority of RI’s Blue Economy jobs are supported by Tourism & Recreation (81%).

Blue Economy as the driver of regional economic development: The Blue Economy is a strong engine of regional economic development, both in terms of employment and economic value. Between 2010-2019, job growth in Blue Economy outpaced total economic growth, all throughout the US. In peer Blue Economy regions across the US, Blue Economy jobs grew ~2X faster, and generated up to 25% additional growth over respective GRP growth baselines. Europe is at the cutting-edge of Blue Economy growth. Denmark and the Netherlands, the two most advanced Blue Economy regions in Europe with the highest Blue Economy GDP per capita, saw 6X and 4X faster job growth in Blue Economy over national baselines, in part by making technology-based investments that transform the composition of the Blue Economy workforce towards advanced sub-industries. A region in the earlier stages of becoming an established Blue Economy, Portugal experienced an 8X faster job growth in its Blue Economy compared to its national baseline. Portugal also registered one of the largest growths in Blue Economy across Europe, with a 45% growth in GPP, over 5X faster than baseline. Now, Portugal is dedicating a disproportionately large share of its R&D budget, to sustain this growth, while moving a larger portion of its Blue Economy workforce into the advanced sub-industries.

RI BETC Economic Development Goals: The RI BETC has identified the following 4 economic development goals and associated success metrics to position Rhode Island’s Blue Economy to not only surpass regional, national, and global baselines, but achieve the overarching goal of closing disparities in access to jobs, high wages, wealth, and business ownership (see Appendix 4: Equity). The RI BETC’s 5 Component Projects are designed to collectively achieve these 4 goals.
**Goal 1.** Attract new companies and retaining existing ones, by becoming the world’s foremost center for advanced Blue Economy sub-industries  
**Success metrics:** Net growth in Blue Economy output; Growth of Blue Economy output over regional/US baselines; Number of companies in Blue Economy

**Goal 2.** Increase number of workers in advanced Blue Economy jobs with high wages and high economic output  
**Success metrics:** Net growth in Blue Economy jobs; Growth of Blue Economy jobs over regional/US baselines; Increased wages per worker; Increased economic output per worker

**Goal 3.** Increase the productivity of the existing workforce  
**Success metrics:** Combined success metrics for Goal 1 and Goal 2.

**Overarching Goal.** Close disparities in access to jobs, high-wages, workforce training, and business ownership, as well as geographic disparities  
**Success metrics:** % of placements for new high paying jobs and % of new business ownership in the Blue Economy of racial minorities and women, above these populations’ respective %s in the total population

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**The RI BETC Component Projects:**

1. **The RI Smart Bay Platform and Infrastructure Development** Provisional Lead Institution: URI RF, with RI Commerce support  
   We have received input from our Industry and Coalition Partners that the ability to access underwater testing facilities and data would make a major impact in their ability to innovate and grow. However, without major capital investment or government clearance processes, this would not be feasible. The Smart Bay will be the world-leading R&D, prototyping, and testing platform for Blue Technology. The unique geography of Narragansett Bay enables the cost-effective deployment of infrastructure, sensors, equipment, and 5G, currently unavailable and economically infeasible at any other location in the world. The physical infrastructure will be combined with an unmatched institutional ecosystem, bringing together Blue Technology leaders in government, industry, and academia (see Letters of Support), and a regulatory environment designed to support Blue Technology R&D and testing. Unlike its peers, the Smart Bay’s unique physical, institutional, and regulatory offerings will be able to span all sub-industries of Blue Economy, and democratize access to cutting-edge data and equipment capability, which is currently only reserved for the largest industry and governmental organizations for startups, small businesses, non-profits, government, and academic institutions.

2. **RI/URI Blue Tech Innovation Center (BTIC)** Provisional Lead Institution: URI RF, with RI Commerce support  
   The BTIC will serve as a central node for the Coalition and the Smart Bay’s partner ecosystem to collaborate and innovate around some of the Blue Economy’s most significant challenges – from capturing wave energy to building a nimble, local supply chain for Blue Economy powerhouse companies to understanding the impact of sea level rise (and beyond). The BTIC will bring together globally leading Blue Technology accelerators, venture capital, startup ventures, research faculty, ocean and coastal resilience experts, and innovative non-profits -- all collocated and co-programmed in one space (see Letters of Support). The BTIC will emerge as one of the best interwoven and most consequential ocean-related innovation hubs in the world. As a key point of emphasis, the BTIC’s Pilot Technologies Fund and Minority Business Accelerator, together with the Supply RI initiative, will support innovation in Blue...
Technology across populations that have historically been excluded from technology-based pathways to business ownership and wealth-building (see Appendix 4. Equity). The BTIC will build on the URI Narragansett Bay Campus’ globally renowned academic leadership in Blue Technology, Engineering, and Policy, with the unique programming, emulating the innovative practices of and establishing international partnerships with other global centers such as the COVE in Canada and the DOCK in Israel (see Letters of Support). The BTIC will also work closely with the planned Center for Coastal Resilience and Economies to integrate climate-centered economic development.

3. Blue Economy Workforce Development Pipeline Provisional Lead Institution: RI Department of Labor and Training The Coalition will implement a combination of strategies to train the workforce that world-class Blue Economy companies look for. Building on the foundations of Real Jobs RI (see Appendix 1. Regional Assets), an innovative, business-led “train and place” program which served 12,229 Rhode Islanders between 2016 and July 2021, we will use investments to scale up existing programs, and develop new ones focused on the Blue Economy’s workforce needs. These will include workforce training centers across RI, a center for the Global Wind Organization (GWO) standard for offshore wind (OSW) workforce training and advanced certifications in building trades, hiring commitments by industry partners, and “earn & learn” programs, which make it possible for trainees to receive the longer-term training necessary for upskilling into the advanced sub-industries of Blue Economy while continuing to meet their own financial needs. RI BETC will collaborate with CT and MA on a cross-state workforce education center, integrating job-placement services across states, and planning for state reciprocity for certain certifications and degrees (see Letter of Support – RI, CT, MA Pledge of Cooperation).

4. Ocean-based Renewables Infrastructure Provisional Lead Institution(s): RI Commerce and Quonset Development Corporation Rhode Island is the home state of the US’ first commercial Offshore Wind (OSW) farm. OSW capacity on the East Coast is projected to reach 20GW in 2035, exceeding current European capacity. However, one of the greatest challenges for OSW in the East Coast is the lack of deep-water ports with sufficient available capacity. The RI BETC proposes to support the East Coast’s OSW growth by providing two of its greatest needs: 1) the Quonset Multi-Modal OSW Transport and Training Center (QMT2C) and 2) a new and state-of-the-art Regional OSW Deep Water Port in East Providence. RI is at the very center of the East Coast waterfront, making the State the most financially rational location to support OSW construction, assembly, deployment, operations, and maintenance. The QMT2C will serve the entire East Coast by bringing together marine and aviation transport centers, and a center for the global standard for OSW and Blue Economy workforce training. More than ten companies have made requests for deep-water port space in the past 3 years, which the State had to turn away due to a lack of available sites, costing millions of USD in economic activity and hundreds of jobs. With these investments, RI will help accelerate the East Coast’s OSW future. (see Appendix: Regional Assets)

5. Aquaculture, Fisheries, and Seafood Technology Provisional Lead Institution(s): URIRF, RI Commerce, RI Department of Environmental Management Two technology-based investments are identified to improve the productivity of the large workforce in Tourism & Recreation (T&R) and Aquaculture & Fisheries (A&F), thus increasing economic output, jobs, and wages. The RI BETC proposes a smart shellfish hatchery to support RI’s 84 oyster farms, and to help fulfill the
growing demand along the East Coast, taking advantage of RI’s uniquely favorable regulatory landscape that allows out of state shipping while many other states have restrictions. The RI BETC also proposes to invest in seafood wastewater processing infrastructure, the single largest barrier for the squid processors, who land over half of the East Coast’s squid catch, a significant portion of which is sent overseas for processing before being reimported and need this investment to maintain their competitiveness in the scale-driven global market. Investment in critical infrastructure and equipment could increase processing volumes by up to 20 million pounds per year, creating up to $40 million in new economic output and 300-400 direct and indirect jobs.

**Matching funds:** The RI BETC has secured provisional commitments for over $44 million in matching funds with line of sight to more matches in the Phase 2 Application process. From the RI Innovation Campus Program, $7 million is provisionally designated to the RI BETC, with at least $7 million expected in private sector matching funds (inclusive of $1M+ from the Herreshoff Marine Museum for **Component Project 2**) for a total of at least $14M. RI Waterfront Enterprises (RIWE) committed a total of $30 million in matching funds for **Component Project 4**. Skills for RI’s Future has committed $100,000+ of in-kind support for planning efforts for the **Component Project 3**. For **Component Project 1**, Raytheon Technologies has committed to considering future investment if it meets their business strategy. The Partnership for RI has committed to covering 50% of the Regional Economic Competitiveness Officer, as a match to the Phase 1 TA Grant.

**Barriers to Implementation:** (1) **Equitable access to economic benefits:** Historically disadvantaged populations have so far been excluded from the economic benefit from advanced industry growth. **Appendix 4: Equity** describes strategies to close these disparities, including the hiring of a Director of Equity who will lead the RI BETC Equitable Development Plan. (2) **Construction and financial risk:** The Coalition will leverage its unmatched technical and financial capacity to mitigate construction and financial risk, through an iterative process during Phase 2 Implementation that will continuously refine Component Projects and defining risk mitigation plans. (3) **Coalition engagement:** Continued engagement of our strong regional Coalition is critical to its success. The RI BETC will hire the Regional Economic Competitiveness Officer, Director of Equity, and Industry Liaison, who will build and maintain relationships across all partners.

**Timeline:** The RI BETC Coalition anticipates a three-year timeline for completion of the Component Projects. Implementation will begin as soon as funding is made available in September 2022. The estimated completion for all projects is August 2025.

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<thead>
<tr>
<th></th>
<th>Year 1: 9/22 – 8/23</th>
<th>Year 2: 9/23 – 8/24</th>
<th>Year 3: 9/24 - 8/25</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Smart Bay</td>
<td>Construction of 1st phase of infrastructure</td>
<td>Construction of 2nd phase of infrastructure</td>
<td>Construction of 3rd phase of infrastructure</td>
</tr>
<tr>
<td>2. Blue Tech Innov. Center</td>
<td>Renovation of facilities Programming</td>
<td>Programming</td>
<td>Programming</td>
</tr>
<tr>
<td>3. Blue Economy WF Pipeline</td>
<td>Prog/Curriculum design Delivery of programs</td>
<td>Delivery of programs</td>
<td>Delivery of programs</td>
</tr>
<tr>
<td>4. Ocean-based Renewables</td>
<td>Constr. of facilities</td>
<td>Constr. of facilities OSW training programs</td>
<td>OSW training programs</td>
</tr>
<tr>
<td>5. Aqua. &amp; Fish., &amp; Seafood Tech.</td>
<td>Constr. of facilities Equipment installation</td>
<td>In operation</td>
<td>In operation</td>
</tr>
</tbody>
</table>