

## **Overarching Narrative**

### A - Synopsis

Gulf Blue Initiative Regional Growth Cluster Description: The "north star" vision for the Gulf Blue Initiative (GBI) is to be a globally recognized transformational driver of economic growth through innovation and the knowledge-based blue economy in the Gulf of Mexico region. Through the six (6) proposed interrelated component projects supported by a governance component project, the GBI is focused on addressing an industry-driven problem statement for 1) enhancing the region's innovation sector of the blue economy, 2) growing its needed workforce to create high-wage professional, scientific, technology, engineering, mathematics, management, and light manufacturing jobs, 3) supporting its communities in developing and implementing knowledge- and innovation-based blue economy economic development strategies and resources, and 4) establishing a robust blue economy cluster governance structure with meaningful engagement to ensure diversity, equity, inclusion, and justice.

The overall global ocean economy is expected to double in value to over \$3 trillion by 2030. The National Ocean Economics Program's current data identifies 1,090 blue economy establishments in Mississippi's coastal counties contributing over \$2.3 billion in GDP. The GBI aims to enhance our region's global competitiveness to capture and take advantage of this more rapidly growing blue economy sector.

Coalition members and partners: The coalition is led by The University of Southern Mississippi working with fellow coalition members: Jackson State University (JSU) – a Historically Black College and University (HBCU), Mississippi Development Authority (MDA) – the States lead economic development agency, Mississippi State Port Authority at Gulfport, Southern Mississippi Planning and Development District (SMPDD) – the EDA recognized regional economic development organization for maintaining the region's Comprehensive Economic Development Strategy (CEDS), Mississippi Gulf Coast Community College (MGCCC), Pearl River Community College (PRCC), Mississippi Enterprise for Technology, Inc. (MSET) – a private, non-profit 501c3 promoting tech-based entrepreneurial development and the University of Southern Mississippi Research Foundation (USMRF) – a non-profit 501c3, supporting the research mission of USM.

Documented in the attached Letters of Support from over 50 partners, the GBI cluster includes federal, state, and local government partners, unions, nonprofits, foundations, small businesses, and industry.

**Component Projects:** The GBI is focused on an industry-driven problem statement for growing the region's innovation sector of the blue economy and its needed workforce to create high-wage professional, scientific, technology, engineering, mathematics, management, and light manufacturing jobs. The GBI's six (6) component projects fall under three broad categories integrated plus an additional cross-cutting governance component project. The overarching goals are: 1) Create a culture of innovation and knowledge economy, 2) Establish a foundation for workforce development and sustainable job growth promoting higher-wage jobs and inclusion of underserved populations, and 3) Build broader capacity for economic development to support a more resilient and equitable regional blue economy.



Category 1, Component Project 1.0: Building a Blue Economy Innovation Ecosystem to foster resilience and job growth is led by The University of Southern Mississippi (USM) working with fellow coalition member Jackson State University (HBCU) in partnership with federal agencies, industry, and other innovation ecosystem partners.



Category 2, Component Project 2.1: Talent and Advanced Labor Force Preparation for Professional, Scientific, Technical, Engineering, Management, and Light Manufacturing Occupations is led by The University of Southern Mississippi.

Category 2 - Component Project 2.2: Construction of USM Executive Education and Technology Building for Sustainable Job Growth led by The University of Southern Mississippi

Category 2 - Component Project 2.3: Community College Career Mapping and Workforce Preparation for a Blue Economy is led with Pearl River Community College (PRCC) with Mississippi Gulf Coast Community College (MGCCC) as the co-applicant.

Category 3, Component Project 3.1: Engaged Communities in the Culture of Innovation is led by the Southern Mississippi Planning and Development District (SMPDD is an EDA EDD). SMPDD will engage county/municipal leadership and economic development agencies to plan and

county/municipal leadership and economic development agencies to plan and prepare communities, especially the rural, underserved communities, to compete in the blue economy. With input from the GBI, the SMPDD will more fully integrate the blue economy in the updated CEDS.

Category 3, Component Project 3.2: Hattiesburg Innovation Hub is led by The University of Southern Mississippi. This construction component project proposes to continue the evolution of USM's technology-focused business park by building out the next phase of manufacturing "at scale" space while providing the GBI with strong technical support for the northern Gulf Blue region.

Category 4, Component Project 4.0: Governance is led by The University of Southern Mississippi and its Regional Economic Competitiveness Officer (RECO). The GBI operates through cooperative management whereby the Coalition Management Team shares responsibility for decisions regarding governance and work associated with the grant and project management through group consensus. A diversity officer will be selected by the team ensuring that diversity, equity, inclusion, and justice (DEIJ) are considered across the entire community by the projects and management decisions. The diversity officer will be someone familiar with learning and living DEIJ principles and knowledgeable of the service region.

**Alignment with regional CEDS:** The GBI component projects support all four economic development goals of the 2018-2022 Community Economic Development Strategy (CEDS) developed by the Southern Mississippi Planning and Development District (SMPDD). SMPDD is the EDA designated EDD for the region and a coalition member. CEDS goals are supported by component projects (CP) as follows:

**Goal 1**: Be recognized as the premier region in Mississippi that thinks and works together regardless of geographic boundaries. <u>Supported by CP – 4: Governance</u>

**Goal 2**: Create new jobs, additional wealth, and a better quality of life for the region by creating new and supporting established economic development programs. Supported by CP - 3: Community

**Goal 3**: Increase the growth and success of small businesses by creating and nurturing a culture of entrepreneurship and innovation. Supported by CP – 1: Innovation



**Goal 4**: Increase the opportunity for individuals to earn family-sustaining wages and meet the needs of employers by collaborating on and supporting workforce development strategies throughout the region. Supported by CP – 2: Workforce

# Additional, complementary initiatives planned by the coalition: Among these efforts are:

- Subject matter expertise to support federal aquaculture legislation, AQUAA Act, S. 3100, Advancing
  the Quality and Understanding of American Aquaculture Act through education, and bill review.
   Success is passing this bill and creating a regulatory path for offshore fish farming.
- Funding from the Nature Conservancy Shellfish Growers Resiliency Fund (SOAR Fund) in partnership
  with Pew, NOAA, state management agencies, and shellfish growers' associations. Success is defined
  for this grant as assisting shellfish growers in Mississippi to establish an industry-based association to
  be a voice for regulatory concerns and the education of members.
- Continuing to support CENOTE legislation, (Commercial Engagement Through Ocean Technology Act
  of 2018) by research development and testing to move uncrewed vessels from research to operations.
   Success is moving uncrewed vessels from developmental to fully operational stage and increasing the
  number in operation by federal, state, and industry partners.
- Funding from the state Gulf Coast Restoration Funds (\$7 million) and Capital Expense funds (\$2 Million) to support improvements to the deep water and shallow water pier for the Center for Ocean Enterprise. The deep-water pier will support three vessels: R/V Gilbert R. Mason, a 199-foot National Science Foundation research vessel servicing the Gulf of Mexico and Caribbean; and two, 200-foot NOAA hydrographic vessels. The shallow-water pier will support service vessels less than 45 feet in length. Success is defined as the completion of the construction projects and birthing of the vessels.
- Blue Angel Fund establishment. Success is equity capital to support blue economy-based companies.

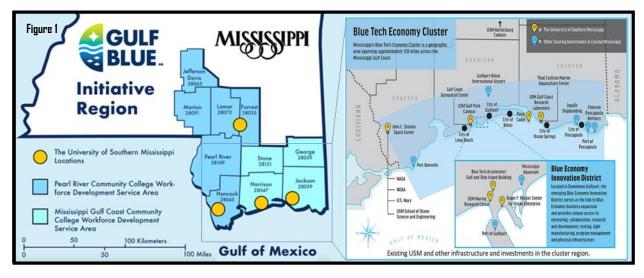
**Specific metrics of success expected from implementing the proposed projects and complementary initiatives:** As detailed in section *G – Detailed Overview on Expected Outcomes*, the GBI coalition working with our partners expect our efforts in the region over the next 5 years to support the creation of over 7000 high-wage jobs, over \$500 million in investments and more than 50 new blue technology startups. An additional 40 micro-grant program awards to individuals in rural and underserved areas to start small businesses while overcoming socio-economic barriers. Due to current economic conditions – high inflation, lingering effects of COVID-19, and global events causing instability – the anticipated regional GDP growth is difficult to predict, however, our current estimate is about 5%, or 2% above the U.S. estimated national GDP projections from the Organization for Economic Co-operation and Development.

A general timeline for implementation, including completion of any construction: All component projects are designed to run concurrently and will begin when the grant is approved. Component projects are anticipated to continue running throughout the two-year grant period with exception of the two construction projects. The two construction projects are anticipated to take approximately 2-3 years to complete. To run the projects concurrently, each one will have a lead coordinator who works alongside the Regional Economic Competitiveness Officer (RECO) to track project progress and meet critical milestones. Detailed timelines included in project applications.

**B – Description of Geographical Region Served:** The Gulf Blue Initiative (GBI) region includes ten Mississippi counties with respective FIPS codes as documented in an associated attachment.



As illustrated in Figure – 1, the GBI region is defined by the service area of the two nationally recognized community colleges, Pearl River Community College and Mississippi Gulf Coast Community College. Along with USM, the community colleges represent the major assets supporting the region's blue economy workforce development and K-12 STEM education and engagement. The GBI region reaches an EDA Equity Investment priority assisting 'Underserved Populations'. The ten-county GBI region qualifies in aggregate as an 'Economically Distressed Region'. The non-white minority population of the ten-county GBI region is 31.7 percent. Three of the counties in the region are recognized as 'Persistent Poverty Counties' and four of the counties qualify as 'Rural Counties'.



A 2019 study by SeaAhead, Inc. found coastal Mississippi hosts one of the nation's most diversified aggregations of commercial, institutional, and government ventures and related assets that employ science and technology to develop and harness the resources of the ocean to benefit society and industry. The diverse efforts in recent years of the coalition members have further developed these critical capacities and regional assets. These assets include a recognized world-class marine aquaculture center, a one-of-a-kind year-round marine test range for testing drones, CUBEnet, spanning riverine to deep ocean conditions, and major industrial assets that include Huntington Ingalls' shipyard located in Pascagoula, MS. It is a leading producer of ships for the United States Navy with over 12,500 employees and is completing a nearly \$800 million investment in a new dry dock, structural robotic manufacturing improvements, ~1M sq. ft. of additional covered construction areas, and reactivation of the original East Bank facility. These and additional assets and details are more fully described in the component project proposals.

### C – Detailed Overview of Private-Sector Engagement

Industry leadership via the GBI's private sector engagement strategy ensures industry needs and private sector leaders are aligned with and inform the goals and objectives of the component projects supporting the GBI's vision. Building from industry engagement experience, the GBI coalition is developing an integrated approach in support of its vision that provides existing and potential industry partners with all options available for engagement. These engagements include but are not limited to 1) Research Collaborations, 2) Workforce Development, 3) Strategic Partnerships, 4) Internships and Externships, 5) Economic and Innovation Ecosystem Development, 6) Recruitment and Talent Pipeline Development, 7) Business Advising and Services, and 8) Startup Funding and Development.



Industry partners, community-based organizations, and stakeholders will participate throughout all aspects of the project and will have a role in guiding the coalition through the initiative. An Advisory Board, including industry partners, will be established that provides expertise to the Coalition Management Team. These board members will be selected from the entities that have provided letters of commitment to the initiative. In selecting this group from committed partners the coalition will be able to receive feedback on what is working well and what needs to be adjusted to assist this group in meeting their commitments.

Collectively industry partner commitments include: the hiring of over 6500 jobs, 500 interns, tenant lease commitments, research and service agreements, research and development investments, monetary support for workforce training and education engagement at high schools, investment funding, mentoring, and active engagement in GBI activities. Details of the commitments are in the industry letters of support.

Philanthropy and non-profits commitments include: \$825,000 Builders Initiative Foundation (Family Office Benton, Arkansas), \$10,000 Mississippi Gulf Coast Community Foundation (Coast Electric Roundup Fund), \$100,000 Nature Conservancy's Supporting Oyster Aquaculture and Restoration (SOAR) Shellfish Growers Resiliency Fund. Other support by labor unions and workforce training groups are outlined in the letters of support along with non-profit commitments.

## D - Detailed Plan for Regional Growth Cluster Sustainability

**Sustainability Plan:** The GBI sustainability plan follows a nested-dependencies model, in that it is recognized that the cluster and its region cannot achieve long-term economic sustainability without having a sustained healthy environment and society. Environmentally-Sustainable Development is an EDA investment priority. With the key natural asset being the Gulf of Mexico (and the world's oceans at large) the environment is critical to the blue economy cluster's existence. The marine environment both drives and defines the GBI's innovation ecosystem which in part aims to preserve the natural **environment**.

It promotes workforce development and education to meet the employment needs of the region's companies leading to better-paying jobs and a higher standard of living. The workforce development approach directly addresses issues of diversity, equity, and inclusion to help ensure all members of the community have access to these opportunities and their benefits for a more equitable and just **society**.

The GBI plan supports the diversification of the **economy** through enhancing the innovation ecosystem to support the startup of new and growth of existing blue-tech companies and those relying on blue-tech.

**Beyond ARPA Funding:** The ARPA funding will allow the GBI to more timely address the impacts of the COVID-19 pandemic and other disasters that have negatively impacted the GBI region and its blue economy. This funding will leverage other sources of funding to help mitigate not only the time to recovery but also the longer-term costs of recovery and better position the region for sustainability beyond the ARPA funding.

Private sector support is represented in part through the investments GBI industry partners have made and are planning to make in the GBI region. In 2015, Ingalls Ship Building began investing in its <a href="Shipyard of the Future">Shipyard of the Future</a> (SYoF) plan to improve Ingalls' competitive position. Ingalls Shipbuilding has invested nearly \$800 million in its SYoF with nine projects still underway. Ocean Aero, a small uncrewed vessel manufacturer, is investing \$30 million in its new offices and manufacturing facility in Gulfport which are expected to employ 40+ people by 2023. AnderCorp is planning on a \$55 million investment in a mixed-use development next



to the USMRF GSI building in Gulfport's Blue Economy Innovation District. Chevron has committed \$1 million to the construction of the Singing River Innovation Hub, a blue-tech incubator in Pascagoula, MS.

After ARPA is completed, state funding available to support GBI includes, but is not limited to, <a href="Gulf Coast Restoration Funds">Gulf Coast Restoration Funds</a> administered by the Mississippi Development Authority (a coalition member) and <a href="RESTORE Act funds">RESTORE Act funds</a> administered by the Mississippi Department of Environmental Quality. Both funding sources resulted from the BP Oil Spill. Another source of funds is the <a href="Gulf of Mexico Energy Security Act">Gulf of Mexico Energy Security Act</a> (GOMESA) funds administered by the Mississippi Department of Marine Resources (DMR), as well as state bond funds.

Additional financial support is being provided through private foundations, such as the Hearin Foundation. The Nature Conservancy recently awarded a grant to The University of Southern Mississippi (coalition lead member) through its 2021 SOAR: Supporting Oyster Aquaculture and Restoration fund to address systemic issues facing the shellfish industry in the region as a result of COVID-19. The USM Research Foundation has received an \$825,000 grant from a major private family foundation supporting the sustainability of fisheries and the environment.

Other federal-state funding sources beyond ARPA that can support the GBI coalition members include other EDA programs, NOAA, the Navy, Bureau of Ocean Energy Management, U.S. Small Business Administration, Department of Homeland Security, National Science Foundation, U.S. Department of Energy, U.S. Department of Agriculture, Job Corps, AccelerateMS, local Workforce Investment Network (WIN) Job Centers, nonprofits, and foundations.

# **E – Detailed Plan for Engaging Specific Organizations**

The Gulf Blue Initiative has received great support from community-based organizations and labor unions in the area with even more opportunity to expand as more groups are identified during Phase 1. Examples of current labor union partnerships include the International Longshoremen's Association – Local Union 1303 and the International Brotherhood of Electrical Workers – Local Union 903 (see attached letters of support). Both unions are tightly connected to the Blue Economy and are excited to see the potential opportunities the partnership with GBI might hold. Organized labor in the South has struggled for membership and failure to organize, but recent organization efforts in the South show a potential to increase the number of unions and membership in current unions by appealing to younger workers. Common ground among all groups begins with the desire to collectively lift the Gulf Blue Initiative region through increased jobs, higher wages, and work-life quality.

Community-based organizations are participating in stakeholder engagement, including shaping programs, educational programming, workforce recruitment, training, and development. Examples include Goodwill Industries' commitment to invest in the sustainability of the blue economy through strategic and innovative training programs. Early stakeholder discussions indicate this large area of rural and underserved communities, feels disconnected on how they are connected to the blue economy. All the components have created ways to bring a blue economy to these communities. Examples include virtual reality immersion experiences in port operation, traveling marine aquaculture, water robotics, vessel trips, internships, and much more. The hardships members of these communities face have created a pool of talent with the entrepreneurial spirit that is poised to become the innovators of this knowledge-based economy.

Phase 1 is expanding engagement with and inclusion of community-based organizations and unions. Organizations and labor unions have been identified to visit during Phase 1. As the GBI stakeholder



roundtable is expanded, more organizations will emerge and become actively engaged GBI members and collectively help row the community.

## F – Detailed Plan on Engaging Equitably

The GBI region reaches an EDA Equity Investment priority. The ten-county GBI region qualifies in aggregate as an Economically Distressed Region as their latest 24-month average unemployment rate is 1.37 percent above the U.S. national average. The non-white minority population of the ten-county GBI region is 31.7 percent, which qualifies the project as an EDA Equity Investment Priority assisting Underserved Populations. Three of the counties in the region – Forrest, Jefferson Davis, and Marion – are recognized as Persistent Poverty Counties and four of the counties – Jefferson Davis, Marion, Pearl River, and Stone – qualify as Rural Counties. The GBI will enhance engagement with underserved populations to better distribute the benefits from economic growth through innovation. Its plan is focused on expanding existing programs of coalition members and creating new pathways for inclusion. This plan is anticipated to create a diverse pool of skilled workers that will reduce multi-generational cycles of poverty through high-paying jobs and entrepreneurial pursuits related to the blue economy. The plan includes the following activities:

- Under Component Project 1, USM's ocean science and engineering research, innovation, and its commercialization will be enhanced through partnerships with Tuskegee University (HBCU) in an Ocean Exploration Internship Program that trains STEM students from underrepresented communities in unmanned technologies for ocean exploration. USM will further enhance and extend this program and related opportunities to Jackson State University (JSU; coalition member and HBCU). Through JSU's I-Corps site training program, entrepreneurial training and development opportunities for faculty and student teams working on blue-tech research and innovation will be offered to prepare them for participation in the NSF I-Corps or for further commercialization via the Gulf Blue Innovation Program and other programs to include the Mississippi SBDC initiative, the *Inclusivity*.
- Through Component Project 2.1 and 2.3, academic and business partners are interconnected to provide occupational pathways that span the continuum from K-12 to advanced career levels throughout the coastal corridor, including rural counties. Community colleges (MGCCC and PRCC, both coalition members) recognized as serving underserved populations, minorities, and rural communities, along with Goodwill Industries, Job Corp and WIN Job centers will provide training and programming to develop the skilled labor force for innovation jobs. USM will create advanced workforce training that bridges the gap between entry- and mid-level positions to those requiring advanced decision-making and leadership skills.
- USM, through its proposed Executive Education and Technology Building (EETB), will provide
  professional development of school teachers working in STEM fields, in public schools which are
  already dedicated to the inclusion of all students. Blue economy talent pipelines will be enhanced with
  micro-credentialing, recognized by industry leaders, through advanced workforce training of career
  professionals across the region. Content will be created and delivered via instructional technology and
  design, and the content will be offered in formats that span the region, in-person, and virtual channels.
- Component Project 3, through partnerships with the South Mississippi Planning and Development
  District (an EDA EDD) and USM, will engage with coalition members and other stakeholders in the GBI
  region to ensure their blue-economy-related strategies and economic development plans are in
  alignment with CEDS' equity-related action plans. The Gulf Coast Community Foundation (GCCF) will



partner to promote access and inclusion of local community foundations and organizations that support historically disadvantaged communities to obtain access to the workforce and business development resources needed to achieve success. This includes business startups and technical-skill training providing the opportunity to participate in a micro-grant program designed to create a small startup business while overcoming socio-economic barriers.

# **G – Detailed Overview on Expected Outcomes**

Over the next five years, the Gulf Blue region will:

- Support adding an estimated 5,000 direct technically skilled, 2,000 indirect jobs, and 500+ professional (NAICS 54) jobs (see letters of support from, but not limited to, Ingalls Shipbuilding, Geo Jobe, and Hy Stor)
- Grow fifty (50) new blue technology startups.
- Increase private sector investment by over \$500 million.
- Serve 200 participants in academic enrollment related to the Blue Economy with targeted 160 or more successful training completions with degrees and/or micro-credentials.
- Establish six Career Coaching Centers, three in PRCC and three in MGCCC service areas
- 100% awareness of the innovation sector of the blue economy among community leaders in the tencounty region; 10-14 counties/municipalities engaged in completing strategy plans by the end of Year 1. In Year 2, implementation grants may be awarded to innovation-ready communities up to a maximum of \$100,000 (80% EDA with 20% match) focused on increasing their competitiveness. Innovation-focused communities will measure distinctive services and expertise according to seven foundational attributes in terms of: 1) physical infrastructure investments; 2) access to funding (equity/grants); 3) access to potential customers and corporate partners; 4) availability of advanced skilled workers; 5) development of co-working spaces, 6) actively engaging academic institutions, and 7) professional mentoring.
- Mentoring/assistance will be provided to 500 per year under-represented teens and adults; 4 cohorts
  (20 or more each) of under-represented teens and adults will complete a pilot workforce program with
  training, mentoring, and wrap-around support services to overcome barriers to employment. Not
  including the previous 50 blue tech startups, 80 individuals will engage in the pre-startup business
  planning process; small business startups will number up to 40.
- Complete construction of a new Step-Up Facility with three individual 5,000 square feet leasable manufacturing spaces providing post-revenue companies a pathway for larger-scale operations and continued revenue growth.
- Complete construction of a new Executive Education and Technology Building of 25,000 square feet to
  offer 1-advanced professional credentialing; content development for new, high-demand courses; 2STEM-related K-12 teacher professional development; and 3-early-stage ideation of new technologies
  being conceptualized.





#### H - Overview of Work conducted in Phase 1

During the three and one-half months between Phase 1 notification of award and the submittal of Phase 2 application (from December 2021 to March 15, 2022), the coalition has undertaken several of the Phase 1 activities while developing the Phase 2 application. Phase 1 implementation will be ongoing for several more months; however, initial activities have resulted in a unified cluster-building effort with the coalition and partners members toward the common vision noted in Phase 1. Team development and planning have been strengthened through an early gap analysis process to identify education/training needs. An on-going asset discovery initiative has allowed the SMPDD, USM, MGCCC, PRCC, and partners to analyze strategies for advancing entrepreneurship opportunities and delivering in-person and remote services throughout the ten-county region. Plans for taking the K-12 STEM program from the developmental stage to the next level for institutionalizing the program have been partially accomplished. Specific strategies to ensure diversity and equity have been incorporated across all component projects providing a consistent and effective means to engage underserved populations through in-person and remote access. Economic resilience to disasters, such as the COVID-19 pandemic and hurricanes, has been further examined as component projects were being developed. SMPDD began the initial stages for developing a process for including communities in new strategies for economic development planning.

The working relationship of GBI coalition members and partners was strengthened by helping host the Gulf Coast regional marine technology event, Oceans in Action 2022, showcasing the latest emerging blue technologies. Oceans in Action 2022 featured a Port Security Summit highlighting emerging technologies within the maritime and port security industry. A Demo Day and Advanced Naval Technology Exercise (ANTX) at USM's Marine Research Center was hosted in partnership with NAVSEA, NOAA, industry partners, and USM, around the theme of "Smart Ocean" and provided opportunities to meet with blue tech innovators and learn about their emerging technology.

To further reach underserved populations and incorporate meaningful blue economy student experiences, USM and Jackson State University (JSU, coalition member) partnered to inspire the oceanographers of the future by hosting JSU first-year graduate students aboard USM's R/V Point Sur for a 10-day mission to deploy sensors to study the Gulf of Mexico. The trip provided a valuable educational experience in ocean research, uncrewed systems, and aquaculture. These experiences will be expanded during Phase 2. USM is currently coordinating The Ocean Exploration Club at Tuskegee University, with TU students ready to explore and experience ocean science careers in action. The students, from environmental, engineering, and other programs, will likely intern in Phase 2. USM and JSU identified a digital innovation portal to



facilitate access for entrepreneurial programs across the ten-county region. They completed the planning phase of the Launch Program, which identified the curriculum, governance structure, application selection criteria, and formally announced the program to drive interest from applicants and private investors. To support the creation of innovation nodes and better market and customize offerings to blue economy partners, USM staff visited four nationally recognized fabrication shops. USM's Marine Research Center has readied a new 3,600-square-foot Prototype Fabrication Lab with state-of-the-art equipment.



The University of Southern Mississippi Research Foundation (USMRF) completed renovations to the Gulf and Ship Island co-working space for start-up businesses, secured private industry and academia memberships, and hosted networking events with high school counselors, federal and state officials, and private industry to promote the blue economy. USMRF has approved its first three lease agreements with private-sector companies needing space in the facility.

Phase 1 implementation will continue and adjustments will be made to component projects, as needed, to reflect new research to commercialization efforts, asset discovery in the ten-county region, gap analysis for workforce development and planning for innovation/blue economy economic development strategies.

Changes to Vision or Proposal since Phase 1 Concept Proposal: The vision of the Gulf Blue Initiative: Driving Resilience through a Culture of Innovation has not changed. The vision is to be a globally recognized transformational driver of economic growth through innovation and the knowledge-based blue economy in the Gulf of Mexico region. The GBI is focused on an industry-driven problem statement for growing the region's innovation sector of the blue economy and its needed workforce to create high-wage professional, scientific, technology, engineering, mathematics, management, and light manufacturing jobs. The overarching goals have not changed and remain consistent with Phase 2: 1) Create a culture of innovation and knowledge economy, 2) Establish a foundation for workforce development and sustainable job growth promoting higher-wage jobs and inclusion of underserved populations, and 3) Build broader capacity for economic development to support a more resilient regional economy.

While the vision and goals have not changed, an additional Sub-Component Project – 3.2, under "Community" was identified as a need and therefore added. This construction project is for the evolution of USM's technology-focused business park by constructing an additional phase of manufacturing "at scale" space, while providing the GBI with strong technical support for the northern Gulf Blue region. The timing of this construction project aligns with a recent announcement of state funding awarded by the Mississippi Development Authority for \$3.4 million for site infrastructure development in the Innovation and Commercialization Park in Hattiesburg. Associated with Component Project – 1.0, this facility will be a testing and training certification platform for sustainable materials. The Sustainable Polymers Certification will have an emphasis on ocean-friendly plastics, including personnel training certification and in-house lab assessments for accredited commercial testing.

As has been noted elsewhere, The University of Southern Mississippi Research Foundation (USMRF) has received since Phase 1, an \$825,000 grant from the Builders Initiative (a family foundation in Benton, AR) supporting the USMRF's Gulf Blue Navigator Program (GBNP) included in Component Project – 1.0. Part of these funds is being provided as a match. USMRF has also been awarded a \$10,000 grant from Coast Electric Power Association for a web portal tool supporting the GBNP. This also is being provided as a match for Component Project – 1.0.

The biggest change since the beginning of Phase 1 is that the GBI has doubled the number of its industry partners (up from 10 to now over 20) and obtained significant industry commitments as documented in their letters of support. With this has also been the increased commitment to diversity, equity, and inclusion. The Gulf Blue Initiative: *Driving Resilience through a Culture of Innovation* is poised to bring transformational change to the Mississippi Gulf Coast and the northern Gulf of Mexico region.