



# The Global Startup Ecosystem Report Climatetech Edition

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## Mississippi Leads Gulf of Mexico Blue Economy Innovation

The Organization for Economic Cooperation and Development projects that by 2030 the global Blue Economy will generate \$3 trillion in revenue, and Mississippi is poised to lead growth for the Gulf of Mexico region. With the third highest concentration of Blue Economy jobs in the nation, 74,400 workers and access to a highly technical workforce, and 4,200 Blue Economy companies, Mississippi holds the history, geography, and maritime resources needed to lead the Gulf Coast's development of Blue Economy innovation.

At the center of that innovation is the Mississippi Development Authority (MDA), an economic and community development agency that helps small-and medium-sized enterprises become competitive in national and global economies through international trade and investment programs, business development assistance, and access to talent.

Mississippi's Blue Economy Cluster spans 120 miles along the Gulf Coast and offers connections to technical talent, academia, private partnerships, government agencies, and a booming Blue Economy community. The Blue Economy Innovation District provides unique access to collaboration, mentoring, testing, R&D, program management, light manufacturing, and physical infrastructure.

#### USM Programs Driving Blue Economy Development

The University of Southern Mississippi (USM) is a leading partner in the Mississippi Blue Economy, offering innovators the opportunity to work with research scientists, local partners, and federal agencies. Its Gulf Blue Initiative focuses on new discoveries and practices to position the Gulf Coast as a global leader in oceanand maritime-related technologies, and the USM Thad Cochran Marine Aquaculture Research Center provides access to critical infrastructure and experts to promote sustainable marine aquaculture.

Additional USM Blue Economy programs include the **Gulf Blue Navigator**, the Marine Research Center, the

Roger F. Wicker Center for Ocean Enterprise, and the Gilbert R. Mason Vessel.

"The Roger F. Wicker Center for Ocean Enterprise is a classic example of a public-private partnership in which the building is designed and implemented around fostering innovation," says Brian Cuevas, Director of the Office of Innovation Management at USM. "It's a triple helix where academia, industry, and government are all working within the same building."

The center is a global hub for advancing uncrewed maritime systems, ocean data science, maritime cyber research, and Blue Economy workforce training.

The Gilbert R. Mason Vessel, capable of taking a crew of 13 and up to 16 scientists to sea for three weeks and traveling up to 5,400 nautical miles, will carry onboard laboratories and sensors for mapping the seafloor. The vessel is named in honor of activist Gilbert R. Mason Sr., a lifelong champion of the ocean, advocate for equal access to beaches in coastal Mississippi, and pioneer of nonviolent civil disobedience in the Deep South.

The ship is one of only three dedicated ocean research vessels in the U.S. to be named after people of color and carries the motto "aequa mari," Latin for "equal access to the sea."

"The arrival of the Gilbert R. Mason, Regional Class Research Vessel will provide the most state-of-the-art platform for ocean research in the nation," says Leila J. Hamdan, Associate Vice President of Research, Coastal Operations and Acting Director and Professor, School of Ocean Science and Engineering at USM. "This is an incredible opportunity and asset for Mississippi's efforts to build a sustainable and equitable Blue Economy."

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### Gulf Blue Navigator Accelerator Program Builds Startup Success

The Gulf Blue Navigator aims to be globally recognized as a transformational driver of economic growth through innovation in the Gulf of Mexico region's Blue Economy.

Launched in late 2022, the accelerator program is an open innovation ecosystem that brings together entrepreneurs, investors, industry leaders, and stakeholders to support startups in the Blue Economy. It aims to explore new markets and industries within the Gulf of Mexico while providing startups with expertise, resources, industry connections, mentorship, access to infrastructure, and introductions to regional corporations and U.S. federal government agencies.

From a pool of 48 companies applying from 12 countries around the world, Gulf Blue Navigator selected six startups targeting improving ocean health for its pilot program.

Blue Ocean Gear develops intelligent tracking buoys for commercial fishing fleets, aquaculture farms, and ocean observers; Marauder Robotics is a remote work platform that collects critical ecosystem data in near real-time and automates underwater tasks done by divers to restore biodiversity; SeaTrac Systems develops multi-purpose solar-powered uncrewed surface vehicles to perform real-time data collection and communications for research, commercial, and defense applications; BeeX develops advanced underwater vehicles to help reduce the costs and risks of underwater work; Safety Net Technologies

develops solutions that enable sustainable practices in the fishing industry; and **SEATREC** develops energy harvesting systems that generate electricity from naturally occurring temperature differences in ocean waters to power deep water oceanographic research equipment.

The six startups are expected to generate more than \$17 million in investment and 350 jobs over the next three to five years while collaborating to advance innovations in ocean-related and sustainable technologies. "We have already seen important connections develop between our selected startups and local organizations and government," says Natalie Guess, Innovation and Entrepreneurship Program Manager at USM. "One of our biggest assets is relationship building, and because of the culture of Mississippi and the South, we're always looking to help each other out by putting people together to do bigger, better things."

The Gulf Blue Navigator plans to expand this focus as it moves into its 2024 cohort. "We are going to continue building relationships between startups and industry in Mississippi to help them do more with their technology and innovations using the assets we have here on the Mississippi Gulf Coast," Guess says.

#### Bringing International Attention to Mississippi's Blue Economy Ecosystem

Mississippi Power's Blue Economy Fam Tour program offers industry leaders, startups, and other visitors the

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opportunity to visit the state and build relationships in the Blue Economy.

Melissa Morel, Economic Development Representative at Mississippi Power Company, says, "Our economic development staff works with local economic developers, universities, and key industry partners to showcase what Mississippi has to offer businesses in terms of partnerships, low cost of doing business, incentives, and quality of life."

Its OCEANS Conference invited startups, nonprofits, universities, community colleges, and trade schools to exhibit their marine-related capabilities. Guess says, "With an attendance of 2,000 and exhibits from more than 100 marine-related companies, plus state and

federal entities, OCEANS provided unique opportunities for organizations to showcase their research and educational programs in skilled and professional trades, coastal engineering, marine sciences, ocean observing, and marine technologies."

Following the conference, a group of 10 female students from Nova Scotia, Canada joined Blue Economy startups and Canadian business leaders at the Gulf and Ship Island Building, a collaborative workspace for Blue Economy innovation, to highlight the Gulf Blue Initiative and its efforts to create a sustainable lifecycle of innovation in the sub-sector.

"Canada saw a large percentage of their Blue Economy workforce retire during COVID-19 and is making a

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Natalie Guess, Innovation and Entrepreneurship Program Manager, University Southern Mississippi

huge effort to encourage young folks — especially women — to join the Blue Economy," Guess says. "We were able to connect these students with experts to discuss many different facets, including uncrewed systems, data, and aquaculture, to get them interested in ocean sciences."

USM and Gulf Blue also hosted a group of 26 fellows from The Mandela Washington Fellowship for Young African Leaders, the flagship program of the U.S. Government's Young African Leaders Initiative that brings representatives from every country in sub-Saharan Africa to the U.S. for academic and leadership training each year.

Delegates from around the world have visited the

Mississippi Gulf Coast to learn more about innovative technologies being used, opportunities for collaboration, and investment. Guess says, "We had a wonderful visit with the Consulate General of Israel discussing how the USM School of Coastal Resilience and USM's Office of Innovation Management and Gulf Blue can partner with Israel. The Japanese delegation was very interested in ocean-friendly plastics and toured the Marine Research Center and the Gulf and Ship Island Building to discuss our assets and capabilities with the goal of startups pitching to the delegation for investment."

"We also brought industry experts and stakeholders together at the Transatlantic Conference to discuss current trends and opportunities in the rapidly growing shipbuilding industry, with keynote presentations from both German and American speakers highlighting the characteristics of the maritime industry as well as the potential for collaboration."

With these initiatives and a dedication to growing the Blue Economy, the Mississippi Gulf Coast positions itself as a leader in innovation and development. "We're excited about the incredible initiatives here," Guess says. "Come see what Mississippi has to offer."



