Maritime and Port Facility Assistance Programs

Foundational investments to unlock Michigan's maritime potential

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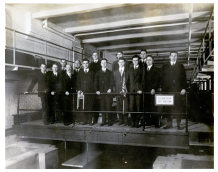
145 years of leadership in education and research

The last remaining R1 undergraduate through graduate, stand-alone NA&ME department in the U.S.

1881 — Naval Architecture and Marine Engineering Department at the University of Michigan is established



1904 — West Engineering Building & Marine Hydrodynamics Lab completed

1957 — Tow Tank opens to public for commercial testing

1960's — To improve the scope and capabilities of the model basin resulted in significant investments in a new carriage and more sophisticated instrumentation—and a new name

1977 — Department moves to North Campus

1978 — NAME Building East Wing Addition

2018 — Friedman-Kohler alumni donation leads to major renovations of MHL front entrance and offices

2023 — New Towing Tank Carriage Controller

2026 — New Wave Generators Installed in the Hydrodynamics Laboratory

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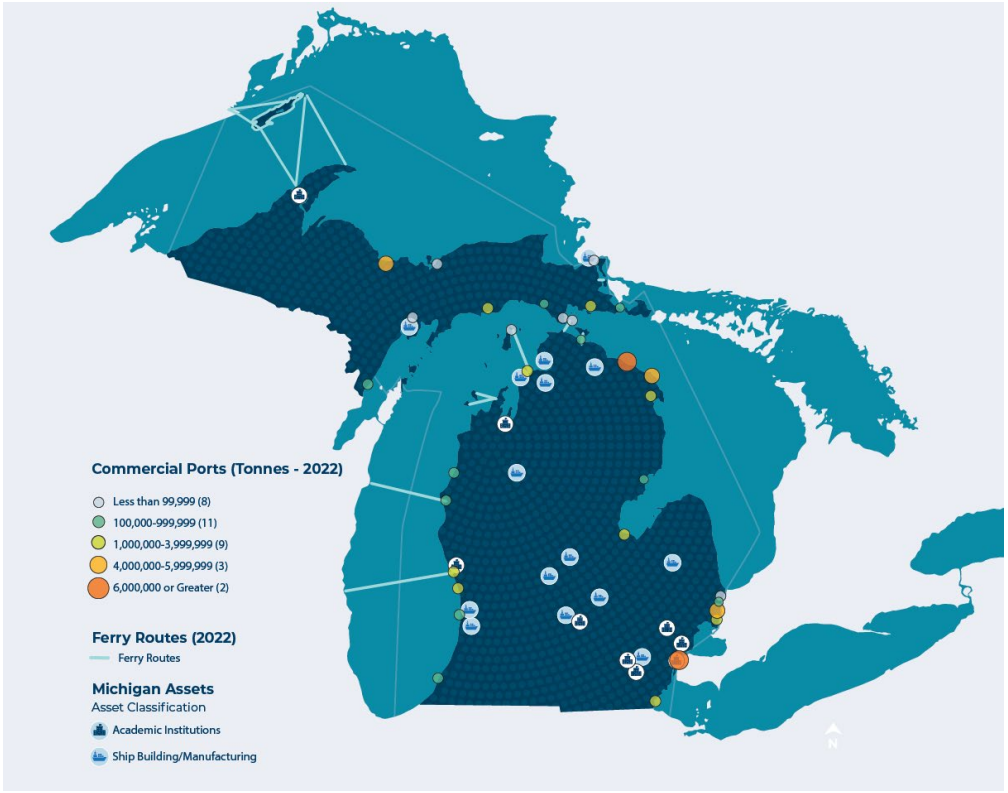
There is ***bipartisan*** support to address shipping and shipbuilding shortcomings with three major current actions

Unfair trade practice allegation/ response – Section 301 action – Biden/Trump

Trump Maritime Dominance Executive Order 14269 / April 9th

Bipartisan Ships For America Act – 118th/119th Congress

Michigan Maritime Strategy



Strategic goals

1. **Modernize ports and invest in intermodal infrastructure:** Invest in port upgrades to handle bulk and containerized goods efficiently; improve first- and last-mile truck and rail connections; implement data sharing for logistics optimization; and secure ongoing funding through state and federal programs.

2. **Grow Michigan's maritime manufacturing economy:** Establish Michigan as a national leader in marine component production, shipbuilding, and ship repair by expanding supply chains, supporting naval ship repair opportunities, and creating a state Office of Shipbuilding.

3. **Accelerate adoption of advanced vessel technologies and fuels:** Develop biofuel supply chains, invest in alternative fuels (e.g., ammonia, methanol, green hydrogen), support electric and hybrid powertrain technologies for recreational boats and ferries, and invest in necessary infrastructure such as shore power and fueling facilities.

4. **Lead the nation in recruitment, training, and retention of the maritime workforce:** Launch a holistic maritime education and workforce initiative; align maritime curricula across colleges and universities; expand trade and skilled labor programs; and promote maritime careers through campaigns such as the "Blue Life" initiative integrated into K-12 education.

5. **Cultivate a thriving maritime innovation ecosystem:** Expand maritime technology test and demonstration zones in collaboration with research institutions and industry; support research and development on cutting-edge maritime technologies; and cultivate regional innovation hubs to support startups and commercialization efforts.

6. **Increase sustainability, resilience, and revitalization of recreation harbors and marinas:** Support modernizing recreational harbors and marinas through sustainable planning and funding models and promote best practices to protect aquatic environments; increase education on invasive species management

There is a significant opportunity to harness Michigan's maritime assets for regional and national prosperity

Strategic deepwater access and underutilized waterfront property

A world-class manufacturing and engineering workforce

A vibrant maritime innovation ecosystem

An extensive and adaptable supply chain network

Centrally located with substantial multimodal connections

SE Michigan Maritime Prosperity Zone Coalition

New Southeast Michigan coalition supports federal efforts to revitalize US shipbuilding

University of Michigan, Macomb Community College partner with major ports, innovation leaders in regional effort to obtain Maritime Prosperity Zone designation

December 18, 2025

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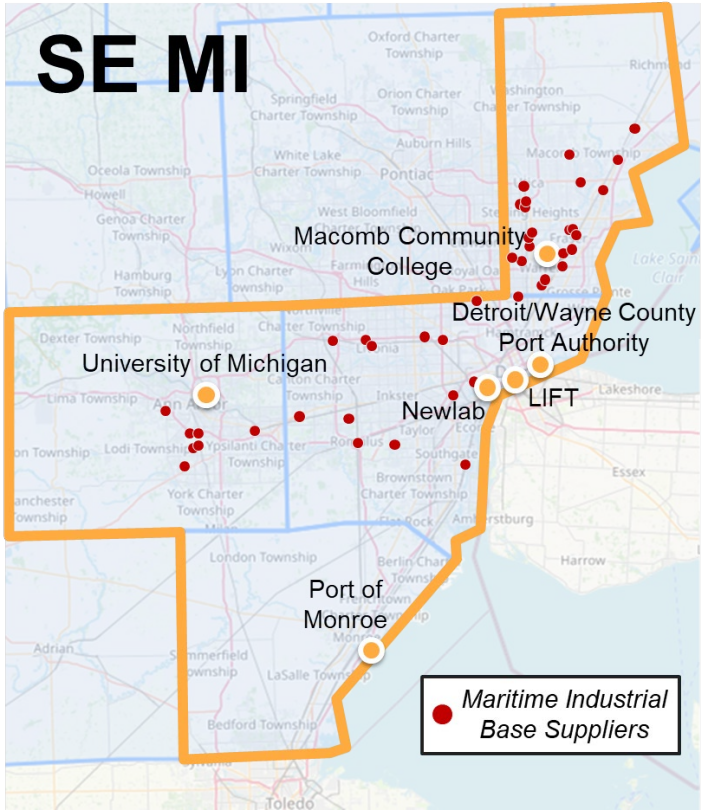
Two passenger ships docked on the Detroit River, outside the city of Detroit. The city's location on the Detroit River provides it access to the upper Great Lakes and the St. Lawrence Seaway. Image credit: Marcin Szczepanski, Michigan Engineering

Southeast Michigan is one of the nation's most promising regions for catalyzing growth in the United States' maritime sector, according to a new coalition that aims to help federal efforts to reinvigorate the nation's shipbuilding industry with support from over 30 organizations across four counties.

The coalition includes the University of Michigan, the Detroit/Wayne County Port Authority, Newlab, LIFT and Macomb Community College. It brings together leaders in the maritime industry, manufacturing, welding, workforce training and local governments to harness and expand the region's expertise and infrastructure to advance America's commercial and military shipbuilding industry.



U-M Maritime Commercialization Lab @ Detroit-Wayne Mobility Innovation Terminal concept under development

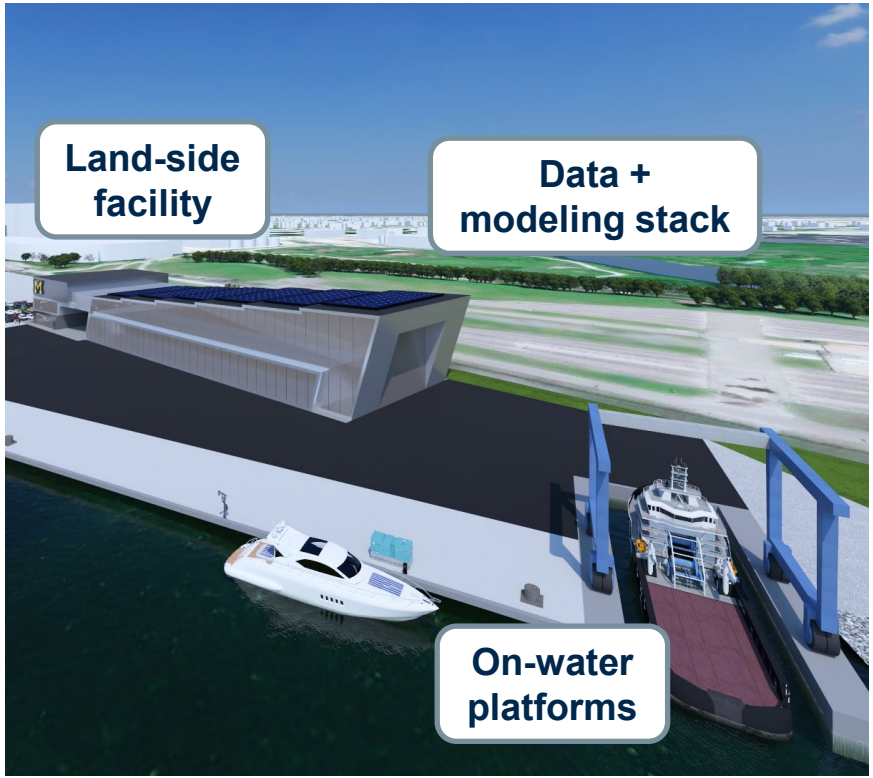
A port-integrated commercialization platform designed to move promising maritime technologies from research and prototype stages into full-scale demonstration, validation, and fleet deployment.

Port-integrated testbed

Shared infrastructure

Trusted validation

Commercial + defense use



U-M Maritime Commercialization Lab – Core pillars and integrated facility capabilities

- A consortium-based use facility with a blended funding model from federal, state, industry, and philanthropy.
- Feasibility and economic development study ongoing.
- Currently seeking industry partners to support Phase 1 development.

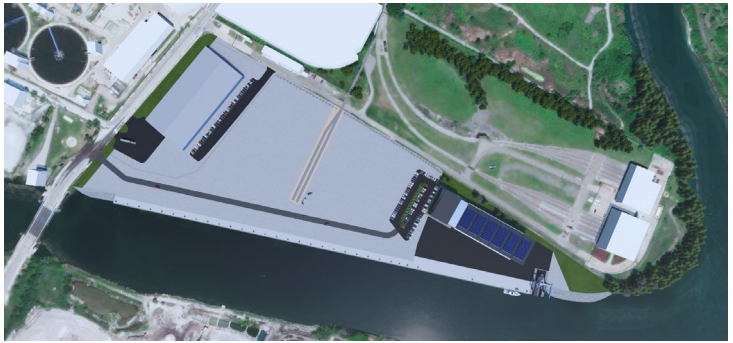
Rapid technology integration & demonstration

Advanced fuels and energy systems

Autonomy, digital twins & AI

Advanced manufacturing & shipbuilding

Supply chain, workforce & community



The Shipyard of the Future demonstrating advanced manufacturing, automation, robotics, and AI

A new Detroit River shipyard would demonstrate advanced shipbuilding methods on a brownfield site, producing high-tech vessel sections and ships while supporting broader U.S. shipbuilding innovation.

Investment Opportunity: Michigan has identified three potential sites ready for investors to build a new shipyard. Korean investment is warmly welcomed.

SITE #1
U.S. Steel (Nippon Steel) Gravel Yard

SITE #2
U.S. Steel (Nippon Steel)
River Rouge Vacant Parcel

SITE #3
Nicholson Terminal

Top recommendations from the Maritime Strategy

Secure sustained commitment and support

- Establish legislative requirements for a Maritime Advisory Council and a dedicated monitoring and execution team
- Secure sustained funding for the Michigan Maritime and Port Facility Assistance Office and port-infrastructure grants

Activate Michigan’s assets to capitalize on emerging opportunities

- Introduce layered state incentives that complement federal Maritime Prosperity Zones to create, expand, and market Michigan maritime innovation and test zones tied to ports, R&D hubs, and manufacturing clusters, attracting private capital and startups
- Launch a coordinated statewide maritime education and workforce initiative across academies, universities, community colleges, and trades

Thank you!

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