



In 2023, the Maine Innovation Economy Advisory Board (MIEAB) released a five-year action plan for building a stronger, more resilient state economy that supports opportunity for all Maine people and sustains our quality of life and natural resources. First among its five goals was for Maine to “transformationally increase” its research and development (R&D) spending to 3% of the state’s gross domestic product (GDP).

MIEAB’s recommendation that Maine triple its overall R&D investment echoes those from the Maine State Chamber of Commerce and also the Maine Economic Growth Council, which noted in its 2023 Measures of Growth report that the state spends just 1.1% of GDP on R&D compared to the 3.3% national average and 5.4% in New England.

These consistent calls to increase investment are in recognition of the uniquely important role R&D plays in driving economic growth and competitiveness. Data show investments in innovation increase income, productivity, and the value of goods and services — all essential to Maine’s 10-year economic strategy.

The state’s R&D ecosystem is more vibrant than ever, with private, nonprofit and public (including higher education) entities contributing, collaborating and commercializing in exciting new ways that are good for Maine and its place in the global economy.

Still, no institution has greater reach, resources and relationships — and thus impact — across all sectors than the University of Maine System.

Led by the University of Maine, which recently achieved R1 Carnegie Classification for “very high” research activity, UMS leverages public investment in its statewide R&D through the Maine Economic Improvement Fund (MEIF) for a 6:1 rate of return for Maine.

Consistent with our System’s new strategic plan — the first in nearly two decades — MEIF enables our public universities to prepare the state’s knowledge and technical workforce through meaningful, paid hands-on undergraduate and graduate student research learning experiences. And thanks to human and physical infrastructure undergirded by MEIF, our System helps spur and strengthen hundreds of small businesses each year, including through the development of new products and processes.

We are pleased to spotlight some of these innovative Maine startups and university spinoffs in this report, including Marin Skincare and TimberHP. Both companies are solving serious supplier and consumer problems by repurposing waste from our state’s heritage industries into a sustainable, value-added Maine-made product for which there is strong demand. Their success stories, and the high-paying Maine jobs they are supporting as they scale-up, would not have been possible without UMaine R&D enabled by MEIF.

When Maine’s economy grows and grows more quickly because of innovation, we all benefit. And public university R&D made possible by public investment also has a positive impact directly on Mainers’ daily lives too. From the composite arch bridge you drove over on the way to work today to the hearty Caribou Russet potato on your dinner plate to the lobster glycoprotein-derived lotion you use on your hands to ward off a Maine winter’s dryness, UMS innovation is improving your life, and our state’s economic future.

Thank you for your support,

Dannel P. Malloy
Chancellor, University of Maine System

Joan Ferrini-Mundy
Vice Chancellor for Research & Innovation, University of Maine System
President, University of Maine and University of Maine at Machias

Our goals:

Generate co-investment

For every \$1 in MEIF funding, the University of Maine System leverages \$6.3 in co-investment for projects in the seven sectors.

Establish and grow partnerships

University of Maine System R&D initiatives partner with Maine companies and communities to support the economy statewide.

Focus on workforce development

MEIF project funds support undergraduate and graduate students in hands-on, real-world problem-solving in career pathways.

For more information, contact Samantha Warren (samantha.warren@maine.edu) or visit umaine.edu/meif



Maine’s investment in the University of Maine System’s research and development (R&D) directly supports Maine’s most innovative companies and institutions. R&D is an essential driver of growth in every prosperous economy. In Maine, the critical need for R&D investment is highlighted in Maine’s 10-Year Economic Development Plan, by the Maine Economic Growth Council’s Measures of Growth Report and by the Making Maine Work Report. This demonstrates the value of UMS R&D and workforce activity, fundamental to achieving Maine’s economic goals.

LuAnn Ballesteros

Chair, the Maine State Chamber of Commerce Board; Member, Maine Economic Growth Council

R1 — UMaine is in the top 146 of research universities nationwide	Maine spends 1.1% of GDP on R&D, compared to 3.3% nationwide and 5.4% in New England	“State government can double its investment in R&D annually without running out of viable projects.” Making Maine Work (2022)
Maine ranks 44th of the 50 states for R&D spending as percent of GDP	MDF Measures of Growth has set a goal of Maine tripling its R&D spending by 2030	



Maine Economic Improvement Fund Report 2023



We're humbled by what we've been able to build and the amount of impact we've had in just three short years with the support of UMaine, Mainers and beyond. Growing our business here, helping others, creating new jobs, and adding value in parallel industries has been such a rewarding experience."

Amber Boutiette
Marin co-founder

In 2023, Marin, the Portland-based skincare startup, launched a new lip treatment made with Marine Glycoproteins, an upcycled byproduct of lobster processing. Amber Boutiette and Patrick Breeding founded and incubated Marin at UMaine's Foster Center for Innovation, with mentorship from Foster Center and Maine Business School staff as they completed pitch competitions and accelerator programs affiliated with UMaine. Now the company is quickly outgrowing their 3,000 sq ft office and warehouse space. They have added three new team members in the last six months, bringing their total employee count to six, and recent retail partnerships with L.L.Bean and Sea Bags have significantly expanded their distribution network.

Portland

MARIN



I have valued the UMaine resources and support over the last eight years on this journey to be North America's first wood-fiber insulation manufacturer. Access to the university's talent and state-of-the-art wood composites lab gives a competitive advantage. As part of our collaboration, TimberHP has donated a wood-fiber pilot manufacturing line to UMaine's Advanced Structures and Composites Center so that we can continue to innovate in the renewable composites space."

Joshua Henry
Co-Founder/President

TIMBER HP

Madison

The University of Maine Advanced Structures and Composites Center has worked with TimberHP on a number of R&D projects in support of building the first insulating wood fiber composites manufacturing plant in North America at the site of the former Madison Paper Mill with a capital investment of over \$150M, the TimberHP Madison will produce 20 metric tons of insulation an hour at full capacity and employ 150 people in Madison, Maine – a rural community of less than 5,000 people. UMaine will continue to collaborate on new innovations leading the nation in development of green wood-fiber solutions.

OMNIC.AI

Brunswick



In computer science it's always a struggle to 'break into tech.' The Innovate for Maine Program paired me with a company that aligned with my interests and matched me up with Omnic.AI. There I met my manager who I still reach out to for career and other advice."

Jason Kulinski
Computer Science, University of Maine, Class of 2024

The eSports (electronic sports) industry is on track to hit a \$4 billion market valuation by year-end. Brunswick-based Omnic.AI is a global leader in player performance data and analytics. Similar to traditional sports stats, esports relies on metrics for player comparisons. Omnic.AI employs artificial intelligence (AI) and machine learning to analyze player performances. Gamers can easily create an account, upload gameplay videos, and receive personalized coaching. Jason Kulinski, a University of Maine computer science student, was matched with Omnic.AI through the Innovate for Maine Fellows Program and spent the summer of 2023 gaining real-world experience as a software development intern for the company.

COMPOTECH

Brewer

In 2023, UMaine spinoff Compotech was named to Inc. Magazine's 5000 list of the fastest-growing companies in the United States. Compotech designs, develops, and manufactures blast and ballistic-resistant structures and materials. Based in Brewer, Maine, the company is growing rapidly with plans to double its revenue and add 20 high-quality jobs in fields like software engineering, robot operation, and composites technicians in 2023, bringing their total employment to more than 45. In 2023, Compotech took advantage of the Solutions for Maine Innovation Hub, including working with Innovate for Maine Fellow Will Carrolton, a UMaine student who hails from Bath, Maine. The company brought Will on as an employee upon completion of his internship.



Innovate for Maine presents great opportunities for its members; the program led to my first job as a business developer with Compotech. I plan on commissioning as a military officer after I graduate, and working with Compotech gave me valuable insights into the defense industry that will help me throughout my career."

William Carrolton
B.S. Economics University of Maine, Class of 2024



MEIF Small Campus Initiative

The Small Campus Initiative (SCI) is an MEIF competitive grant program that helps to build capacity for research and development in the state at the Universities of Maine at Augusta, Farmington, Fort Kent, Machias and Presque Isle, and Maine Maritime Academy.

Projects initiated in 2023:

- Improving access to 3D printing equipment for faculty, teachers, students, and businesses in western Maine (UMF)
- Capacity building for research and workforce development in unmanned aircraft systems (UMA)
- R&D supporting Maine's wild and cultured shellfish industry (UMaine Machias)

In addition to advancing research capacity and activity, each project has engagement with local community interests and is supporting students as they develop workforce skills relevant to Maine's targeted technology sectors.