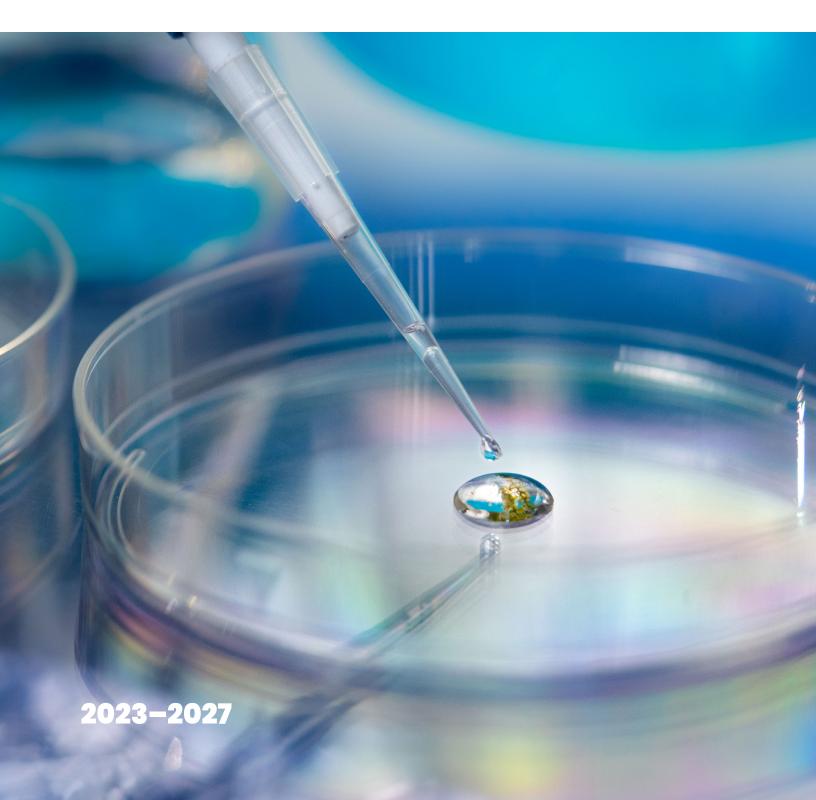
# Maine Innovation Economy Action Plan

How Science and Technology Can Drive Economic Growth and Benefit All Maine People



### How science and technology can drive economic growth and benefit all Maine people

Every day, thousands of Maine people go to work at businesses that compete in the global economy by leveraging innovations developed by Maine researchers. From farmers and food processors to lab technicians and those transforming Maine's forests into a nanocellulose powerhouse, businesses are turning the work of our public, private, and nonprofit research institutions into tangible economic opportunities. They employ the full spectrum of workers, from cleaners and delivery drivers, to salespeople, project managers, and executives, and their payrolls indirectly support even more businesses and workers. They are innovating, growing, and successfully competing in today's global economy.

As Maine seeks to build a resilient 21st-century economy, these businesses are pointing the way. And yet, the potential of research and

development (R&D) to build prosperity has not been fully realized. Historically, Maine's R&D investments have been low — just 1% of GDP compared to the national average of almost 3%. In 2021, Maine ranked 44<sup>th</sup> of the 50 states by this measure. Maine voters and businesses have continually supported meaningful contributions of both public and private dollars, but not enough to create transformative, statewide growth.

In this 2023–2027 plan, the Maine Innovation Economy Advisory Board (MIEAB) presents a vision for science and technology as drivers of economic opportunity across the state. It acknowledges the significant investments made to date and affirms the potential to realize even greater gains by replicating the proven success of partnerships among Maine researchers and innovators.

### Vision: A resilient, innovation-driven economy that creates opportunities for all Maine people

Realizing this vision will require the commitment and coordination of researchers, educators, policymakers, and business leaders; a rigorous focus on R&D that yields tangible opportunities for Maine businesses; attention to workforce development; and a transformative funding increase. This is possible through the pursuit of five complementary goals:

## Goal 1: Increase R&D to 3% of GDP while focusing on activities that directly support Maine industries

This long-term goal calls for a transformational increase in the amount of R&D occurring at Maine's public, private, and nonprofit institutions. Priority should be placed on work that yields direct economic opportunities for businesses and communities across Maine.

### Goal 2: Strengthen pathways to successful commercialization

Turning the research accomplishments of Goal 1 into commercial success requires cultivating entrepreneurship and innovation within enterprises.

#### **Goal 3: Prepare an innovation workforce**

Maine residents must have the skills to innovate across a broad range of industries, within companies large and small, and to access high-quality employment opportunities. And Maine businesses need talent to innovate and grow.

### Goal 4: Help businesses and communities thrive in the face of climate change

In the coming years, Maine industries and communities will face critical, even existential, challenges due to climate change. Maine's R&D community must be a ready source of knowledge and innovation to help them adapt and thrive.

#### Goal 5: Strengthen Maine's R&D ecosystem

Lastly, Maine must continue improving its framework for R&D investments and activities, ensuring coordination, collaboration, efficiency, and maximum benefits for all involved. It also must raise public awareness of R&D's role in economic development.

#### Advancing Maine's targeted technology sectors

This plan supports and advances the targeted technology sectors that have guided Maine's R&D investments since 1999. The "heritage industries" correspond directly to individual

target sectors. The "high-growth target sectors" combine elements of multiple sectors in new and creative ways, generating new opportunities across multiple industries.

#### **Heritage Industries**

**AGRICULTURE** 

AQUACULTURE & MARINE SCIENCES

FORESTRY & FOREST PRODUCTS

#### **High-Growth Target Sectors**

**AEROSPACE** 

ARTIFICIAL INTELLIGENCE

BIOBASED ALTERNATIVES
Advanced Building Products
Algae & Algal Products
Biochemicals
Biomanufacturing

HUMAN HEALTH Biomedicine & Engr. Advances Healthy Aging

> RENEWABLE ENERGY Offshore Wind Energy Tidal Energy

#### **About this plan**

State law directs the Maine Innovation Economy Advisory Board (MIEAB) to create a plan every five years to improve Maine's standing in the global economy. This 2023 plan is the culmination of almost 18 months of input from representatives of Maine's public, private, and nonprofit institutions and private businesses. The board used stakeholder recommendations to craft this plan and incorporated stakeholder feedback on multiple drafts prior to adopting the final document. The final plan was approved by MIEAB on March 22, 2023.

## Maine Innovation Economy Advisory Board

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