

Maine Innovation Economy Action Plan

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

2023-2027



VISION:

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

- The 2023 Maine Innovation Economy Action Plan 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 between Maine researchers and innovators.
- Realizing this vision will require the commitment and coordination of researchers, educators, policymakers, and business leaders.
- 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



Goal 2:
Strengthen pathways to successful commercialization



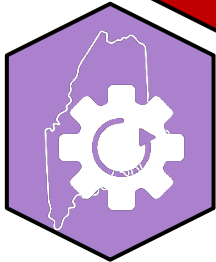
Goal 3:
Prepare an innovation workforce



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



Goal 5:
Strengthen Maine's R&D ecosystem



5 Goals

Goal 1:



Increase
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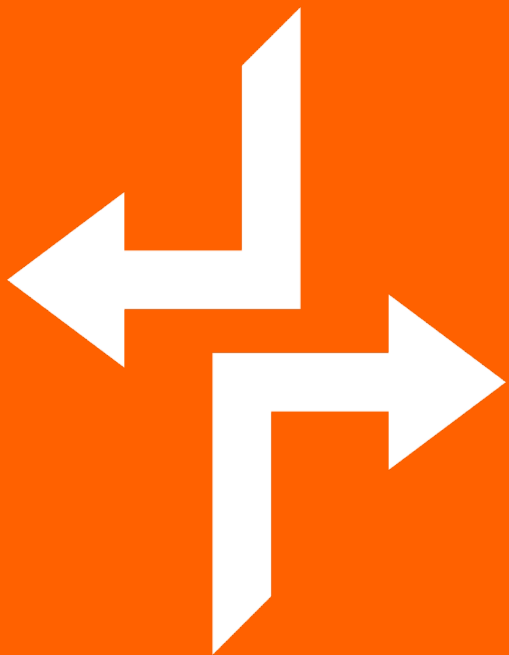


- Build on **existing strengths and assets** to help Maine develop the critical mass of talent and commerce needed for transformational growth.
- Expand the **R&D and commercialization capacity** of Maine's public, private, and non-profit research institutions.
- Increase funding for the **Maine Economic Improvement Fund**, while documenting return-on-investment.
- Review, improve, reinstate, and expand state R&D **tax credits**.
- Create a dependable source of **public funding** for R&D investments and expand the **Maine Technology Institute**.
- Increase funding and assistance for companies and institutions applying for **federal R&D grants and contracts**.
- Strengthen partnerships between Maine research institutions and **national research institutions**.



Goal 2:

Strengthen pathways to successful commercialization



- Expand Maine's successful **business incubators** and better support innovative new companies.
- Strengthen **R&D and commercialization support** for existing companies that are ready to grow.
- Increase incentives and supports for the **commercialization of licensed intellectual property**.
- Foster the **next generation of entrepreneurs** through programming in Maine's schools, Career Technical Education Centers, and institutions of higher education.
- Facilitate research on issues that can affect the **timely commercialization** of R&D-driven discoveries.



Goal 3:

Prepare an innovation workforce



- Expand opportunities for **student research**.
- Expand **STEM career explorations and internships** to introduce young people to opportunities within Maine.
- Help students navigate **efficient career paths** through coursework and credentials.
- Encourage the contributions of all Maine people by removing barriers to education and employment for **traditionally underrepresented groups**, including those facing generational poverty and new Mainers.
- Create **online and flexible STEM programs** for those already in the workforce.
- Expand **Industry 4.0 training programs** that teach interested workers and employers how to use emerging technologies and real-time data.
- Support the role of **extracurricular experiences** in sparking interest in science and technology.



Goal 4:

Help businesses and communities thrive in the face of climate change



- Expand Maine's **clean energy** portfolio.
- Increase consumption of **local food** and **promote climate-smart agricultural practices**.
- Help Maine's **fishing industry** anticipate and adapt to the interactive effects of ocean warming and sea-level rise.
- Utilize Maine's forests and oceans to maximize **carbon sequestration** through strategic management and product development.
- Use **Artificial Intelligence** to help advance climate-smart practices in industry and reduce AI's carbon footprint.



Goal 5:

Strengthen Maine's R&D ecosystem



- Increase **funding predictability** by developing a schedule for bonding and state appropriations.
- Map Maine's **innovation support ecosystem** to identify strengths, gaps, and opportunities to build a more nationally competitive environment.
- Develop, resource, and market a **central repository of information about Maine's R&D assets**.
- Increase **public understanding** of R&D's role in economic development.

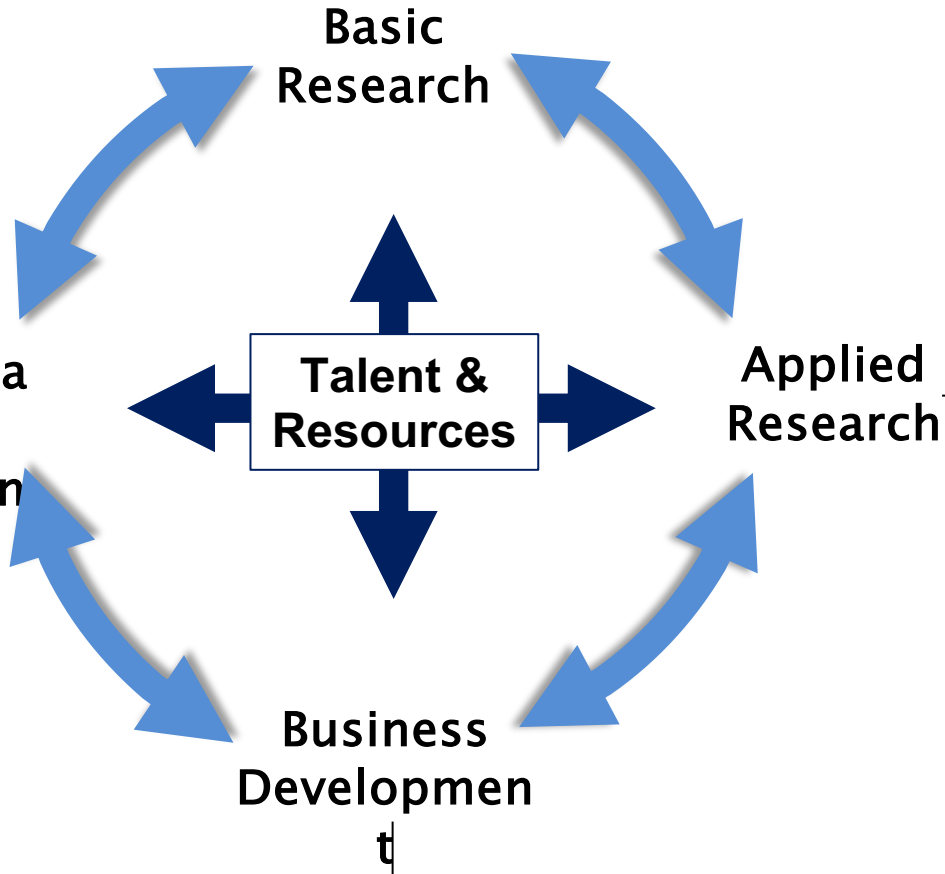


The R&D Business Development System

Helps scientists understand the underlying causes of observed phenomena.

Turns that work into new products or processes (or improves existing ones).

Experimental
Development



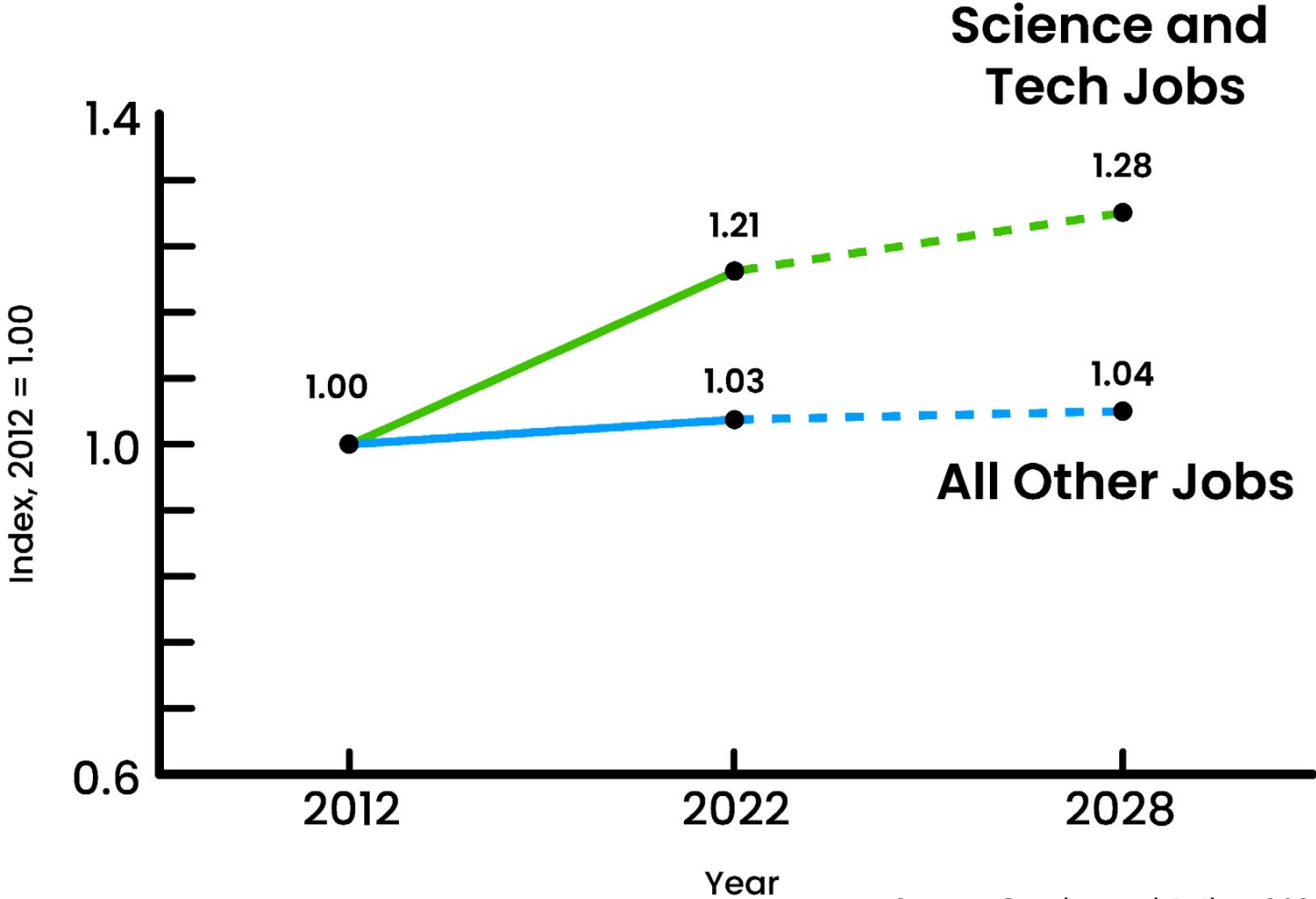
Leverages that knowledge to achieve a specific, practical purpose.

Turns these ideas into tangible economic opportunities, ultimately generating wealth and resources to reinvest in the system.



Economic Impact

Science and Technology sector jobs are expected to grow faster than jobs in other sectors.



Source: Crawley and Bailey, 2022



Advancing Targeted Technology Sectors

This plan supports and advances the targeted technology sectors that have guided Maine's R&D investments since 1999.

Heritage Industries

correspond directly to individual target sectors.

Agriculture
Aquaculture & Marine Sciences
Forestry & Forest Products

High-Growth Target Sectors

combine elements of multiple sectors in new and creative ways, generating new opportunities across multiple industries.

Aerospace
Artificial Intelligence
Bio-Based Alternatives
Human Health
Renewable Energy



Read More

To access the executive summary or full plan visit:
MIEAPlan.net
or scan the QR code below.



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.

The 2023 plan is the culmination of 18 months of input from representatives of government, nonprofit, and private sector organizations. The board used stakeholder recommendations to craft this plan and incorporated stakeholder feedback on multiple drafts prior to adopting the final document.



Special Thanks

Written input by individuals from the following institutions:

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Maine Discovery Museum
Maine Forest Service
Maine Governor's Energy Office
Maine Grains
Maine Marine Composites
Maine Space Grant Consortium
Maine Technology Institute
Maine Venture Fund

MaineHealth
MDI Biological Laboratory
Mook Sea Farms
National Renewable Energy Laboratory
Nord University, Norway
Ocean Renewable Power Company
Pavan Enterprises, LLC
Roux Institute at Northeastern University
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