



ANNUAL REPORT **2020**





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A Message from MTI's President



It is my pleasure to provide the Maine Technology Institute's fiscal year 2020 (FY20) annual report. MTI's fiscal year began in July of 2019 and concluded on June 30, 2020. It was a year that started with great

promise and fervor as we planned to celebrate Maine's bicentennial and our own 20th anniversary and ended with our organization surmounting challenges associated with a global pandemic to bolster and support Maine's entrepreneurs and technology-based businesses.

As will be revealed on the following pages, MTI experienced another strong year of investing in Maine businesses and entrepreneurs. In FY20, MTI deployed \$9.6 million across 140 distinct projects throughout Maine. That's up from \$9.3 million in FY19. And, perhaps more importantly, MTI's funding leveraged more than \$58 million in private sector matching investment (6:1 private/public funding ratio).

Nearly half of the money we deployed in FY20 went out when Maine businesses needed it most, from March to the end of June, during the early days of the coronavirus pandemic. During that period, MTI awarded \$4.67 million to support innovative Maine companies—including those that pivoted to offer COVID-19-mitigation solutions—and that funding was matched by almost \$22 million in private sector matching funds.

Created by the Legislature and Governor in 1999, MTI has now disbursed \$280 million in nearly 2,950 distinct projects across the State of Maine, and that funding has leveraged well

over \$1 billion in matching investment. The economic impacts generated as a result of those investments over the past 20 years were worth celebrating. That's why we spent an evening in early October to reflect on MTI's past accomplishments while looking to its future opportunities. Our 20th anniversary celebration was a wonderful trip down memory lane.

The fiscal year ended on a more uncertain and challenging note for Mainers (You can read how MTI responded to the COVID pandemic on Page 4). Despite the challenges resulting from the pandemic, Maine's entrepreneurial, technology-based companies demonstrated they are well positioned to lead Maine's economic recovery post-COVID-19. These technology-based companies make up approximately \$65 billion of Maine's gross regional product, which accounts for a full 20% of our gross regional product. With the support of MTI, the State of Maine, the angel investing community, and institutional lenders and investors, these tech-based ventures will inevitably help Maine regain its economic footing.

Thank you again for all your support. Please enjoy this year's annual report from the Maine Technology Institute.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brian Whitney'. The signature is stylized and fluid, with a large loop at the beginning.

Brian Whitney
President



MTI's Global Coronavirus Pandemic Response

In recognition of the global COVID-19 pandemic, on March 12th, MTI issued a memo to its staff, contractors and Board outlining protocols for coronavirus precaution & prevention. Those basic measures were instituted to maintain the safety and well-being of the team, board, technology boards and clients. It included information and guidance provided by the Maine Center for Disease Control & Prevention (CDC), including best practices for health and hygiene, and a request that MTI staff refrain from participating in networking and outreach events for the foreseeable future. It also suggested that phone conferences, Zoom, and other voice or video conferencing tools be utilized to conduct client engagement meetings. Finally, after assessing operational needs with the management team and determining that most of the organization's essential functions could be handled remotely, MTI moved to remote working arrangements for the entire organization including virtual meetings of the Board of Directors.

On March 27, the Board met in a special Zoom meeting to take a proactive approach to helping to mitigate the challenges facing MTI's portfolio companies, entrepreneurs and businesses during the crisis. MTI actively implemented measures to ensure that Maine's

innovators and startup businesses would get the support and assistance they needed to get through the challenging time. The organization altered its funding process to allow it to be more responsive and helpful to bolster innovative Maine companies.

MTI liberally offered loan deferments and restructures to existing clients and infused new funding and investments into Maine entities. It also expedited decisioning related to COVID-19 mitigation solutions so that those innovations could get to market rapidly. Many MTI companies made amazing operational pivots in response to the pandemic, shifting production to make personal protective gear, hand and surface sanitizer, face masks, and even toilet tissue.

To demonstrate the impacts of those measures, MTI experienced another strong year of investing in Maine businesses and entrepreneurs. Nearly half of the money it deployed in FY20 went out when Maine businesses needed it most, from March to the end of June. During that period, MTI awarded \$4.67 million to support innovative Maine companies—including those that pivoted to offer COVID-19-mitigation solutions—and that funding was matched by almost \$22 million in private sector matching funds.



SUCCESS STORY

STARC Systems

PROVIDING ISOLATION ROOMS
FOR HEALTHCARE SITES

Multiple Awards | \$631K+

#24 fastest growing
manufacturer
in the U.S.

STARC Systems' temporary modular walls are popular among major hospitals for their ability to eliminate the spread of dust and debris during renovation projects. Once the pandemic hit, hospitals found they were also useful for eliminating the spread of COVID-19.

The ability of STARC's walls to be quickly set up and create negative air pressure environments made them ideal for constructing rooms to isolate infected patients and areas such as anterooms for caregivers to put on PPE. As cases increased, hospitals were able to use STARC walls to subdivide rooms and repurpose existing spaces to increase their capacity.

In response to the high demand for their critically needed walls and panels, STARC shifted production to providing isolation rooms. They expanded their shifts and tech support, worked with vendors to expedite raw material deliveries and even encourage existing customers to loan unused wall panels to local healthcare facilities.

Their rapid response, paired with their innovative product, helped dozens of healthcare providers handle surges and prepare for future ones.

Key Events & Happenings

In addition to investing \$9.6 million+ across 140 distinct projects, and despite the challenges posed by the COVID pandemic, MTI was actively involved in Maine's talented, thriving and resilient community of thinkers, doers, and creators. Here are some of the major experiences MTI was proud to be part of this past year.

Maine Bicentennial

To celebrate Maine's 200th year of statehood, MTI produced and released a short documentary on innovation & entrepreneurship in Maine.

"What Greatness Looks Like" highlights some of the state's most notable innovators and features



exclusive interviews with entrepreneurs in Maine who are continuing their legacy, including Beth Shissler of SeaBags, Ben Polito of Pika and David Shaw of Idexx and Covetrus.

*Many of Maine's Bicentennial events were postponed to 2021. See "Looking Ahead" on Page 23 to discover how MTI is supporting the celebration.



20th Anniversary

On October 7, 2019, MTI hosted a sold-out celebration to commemorate its 20th anniversary of supporting innovation, entrepreneurship and economic diversification in Maine. To mark the occasion, MTI brought together those who contributed to our success over the past two decades—including U.S. Senator Angus King, who was Governor of Maine in 1999 when MTI was created.

Governor Mills Unveils 10-Year State Economic Plan

In December of 2019, MTI President Brian Whitney joined Governor Janet Mills and Maine



Department of Economic Community Development Commissioner Heather Johnson for the announcement of the State Strategic Economic Development Plan. MTI will play a pivotal role in this initiative, especially as the plan aims to spur economic growth through talent and innovation and calls for increased investments in research and development.

Maine Accelerates Growth (MxG) Selects Project Manager



MxG is a MTI-supported network for nurturing local and regional entrepreneurial ecosystems in Maine. This year, the hiring committee selected Liz Trice to serve as its Project

Coordinator for the next three years. As a consultant, natural network builder and project manager, Liz is adept at managing complex, multi-stakeholder projects. Her expertise will help MxG promote innovation, build and manage co-working spaces and foster the development of entrepreneurial ecosystems.

Top Gun

MTI once again partnered with the Maine Center for Entrepreneurs to sponsor their impactful and intensive business accelerator. The program selects the state's most promising businesses and provides them with mentorships, workshops, pitch development classes, an



MTI client LiteracyTech, Inc. won Top Gun for their ed-tech software ReMo.

opportunity to showcase their idea to top investors and a chance of winning \$25,000 to grow their innovative business.

Greenlight Maine

MTI was also pleased to continue its partnership and sponsorship of Greenlight Maine—a televised pitch competition featuring startups in Maine, as well as its collegiate version that highlights young entrepreneurs attending Maine colleges. This program not only showcases and supports innovators in Maine, it helps inspire the next generation of Maine-based entrepreneurs.



Crunch Time Documentary Released

Maine Startups Insider, in collaboration with MTI and Startup Maine, released a mini-



documentary chronicling the experience of eight Maine startups—including several MTI portfolio

companies—that participated in TechCrunch Disrupt in San Francisco in October 2019.

Following a screening of the short film in Portland, there was a panel discussion with the startups who attended Disrupt to discuss their experiences, lessons learned and takeaways, and what else can be done to promote these types of opportunities for Maine entrepreneurs and businesses.

UMaine Set Guinness World Records



The University of Maine Advanced Structures & Composites Center unveiled the world's largest 3D printer, which it then used to create the world's largest 3D printed boat. The printer, which uses wood-filled plastics, is part of a

project that hopes to benefit both Maine's shipping industry and find new applications for the state's forest products.

Read more about UMaine's record setting story on Page 17.

Maine Community Foundation Summit

MTI's President moderated a panel at the Maine Community Foundation's Invest in Maine Summit in Bangor, titled "Maine Grown:

Building a Future on Big Ideas." The conference was attended by over 300 people and featured the release



of a 5-minute video, "Maine Grown". Produced by the Community Foundation and the Maine Technology Institute, this new video highlights the range and commitment of Maine entrepreneurs—from coffee makers to rocket designers—along with the people who help support startups.

N The Roux Institute at Northeastern University

Roux Institute Launches

Northeastern University, in collaboration with Maine-native and tech entrepreneur David Roux, created a graduate education and research campus in Portland. The new institute will focus on educating and growing talent in the digital and life

sciences sectors. Several MTI clients are founding



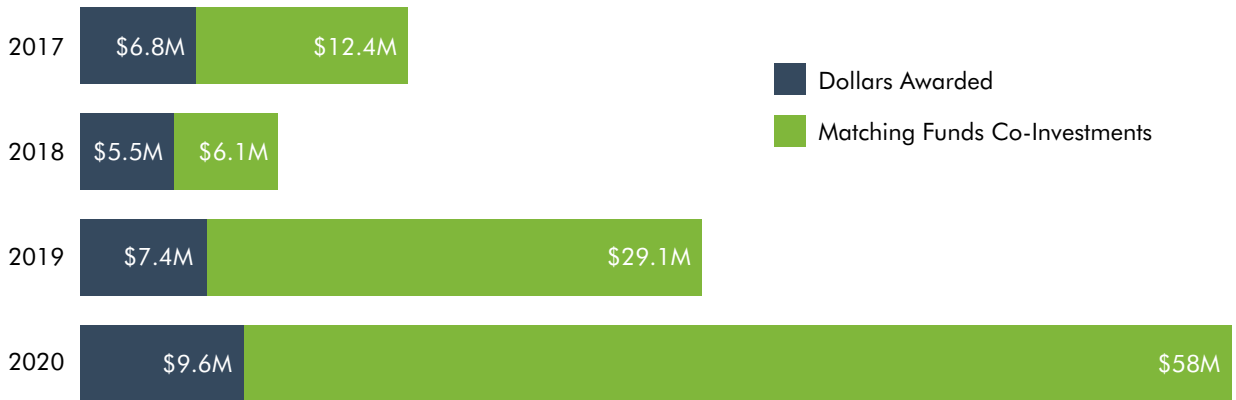
partners, and MTI is working closely with The Roux Institute on ways they work together in Maine's innovation ecosystem and increase their respective impact in the state.

MTI FY20 Funding Report

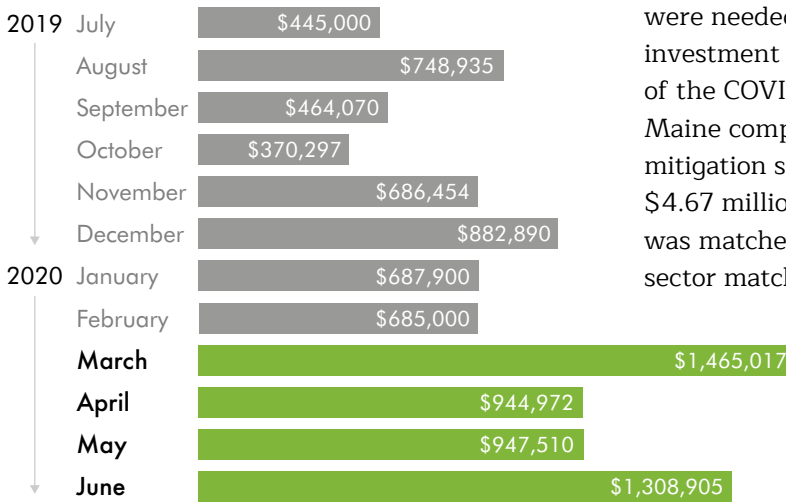
Despite the challenges of the COVID pandemic, it was a successful year for MTI, **as investment and private sector match increased from FY19.** Following our strategic process, we were able to invest funds where and when they would have the most impact, helping diversify our state's economy and drive job growth and retention.



Total Dollars Awarded/Matches by Year



Awards by Month

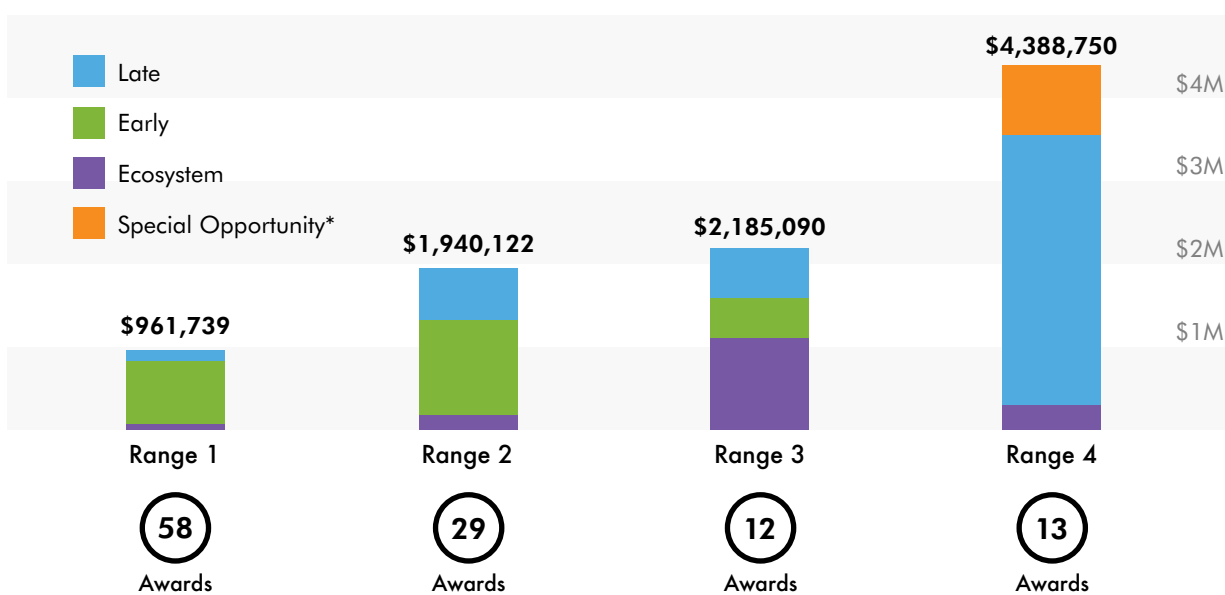
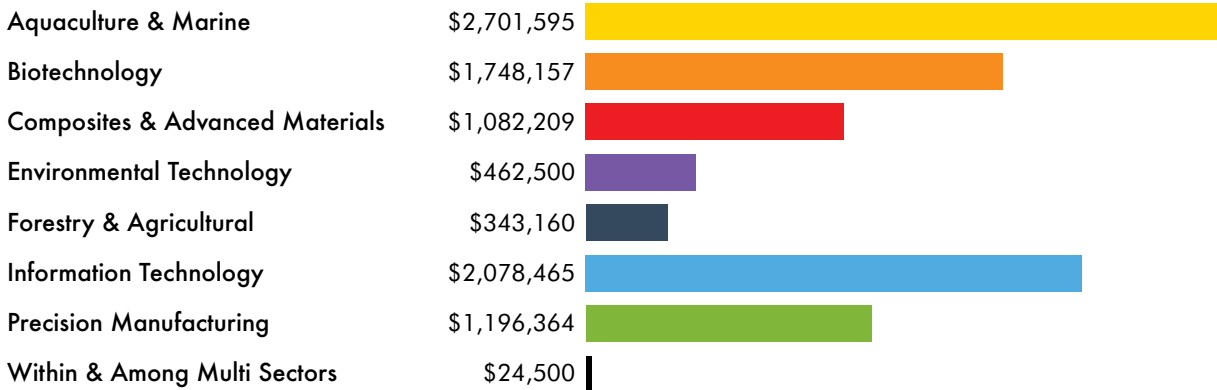


MTI was able to deploy resources when they were needed most, with nearly half our yearly investment occurring during the early months of the COVID pandemic. During this time, many Maine companies pivoted to provide COVID-19 mitigation solutions, and MTI was able to award \$4.67 million to aid in their efforts, which was matched by nearly \$22 million in private sector matching funding.

Awards by Technology Sector

The State of Maine has targeted seven technology sectors best suited for investment and other forms of support. These include both mature industries (like forestry and agriculture)

as well as emerging ones (such as composite materials and biotechnology). In FY20, MTI invested in business within all seven of these targeted sectors, helping to create a more vibrant and diversified economy.



Awards by Range

Because MTI invests in businesses of varying maturity, and because we individualize our approach and investment to the clients needs, we distribute our levels of funding across four ranges. Generally, we fund a greater number of projects at a lower level, then dedicate larger levels of investment to a smaller number of projects that will have a greater impact.

*Special Opportunity: Our Katahdin | Millinocket

MTI awarded \$837K as a loan to Our Katahdin, which serves as a match for a \$5.34MM award from the federal Economic Development Administration. Our Katahdin is transforming the site of the former mill into a community-owned industrial park that is powered by renewable energy. By focusing on the future of bio-based and digital economies, they're attracting businesses in multiple sectors, including composite materials, aquaculture, environmental technology, forestry and information technology.

Other Bond Funded Program Activities

On occasion, the Maine Legislature passes research and development bond initiatives that are presented to Maine voters. Once approved by voters, MTI typically administers the funds on behalf of the State. The following bond initiatives are currently under active management by MTI.

Maine Technology Asset Fund 2.0 (MTAF 2.0)

In June 2017, voters approved the second Maine Technology Asset Fund 2.0 (MTAF 2.0) program. The initiative specified that “forty-five million dollars (\$45,000,000) would be distributed by the Maine Technology Institute



in the form of grants to support infrastructure, equipment and technology upgrades in the following targeted technology sectors: biotechnology, aquaculture and marine technology, composite

materials technology, environmental technology, advanced technology for forestry and agriculture, information technology, and precision manufacturing technology. Funds were awarded to public and private entities in Maine through a competitive process, and recipients were required to match these State dollars with an equivalent amount of federal or private funds.”

MTI solicited proposals in the fall of 2017 and received 183 applications seeking, in aggregate, nearly \$400 million. These proposals flowed in from all 16 Maine counties and represented businesses of all levels of maturity from startups to publicly traded companies. MTI conducted extensive due diligence and ultimately made 18 funding awards in early 2019. MTI augmented the \$45 million in bond funds with an additional \$1,063,836 to further maximize the impact of the awards. In total, MTI awarded \$46,063,836 (matched by \$192,536,123). According to an

independent economic impact analysis, the awards will directly result in 5,350 jobs and \$1.4 billion in economic impact over the next 3 years.

Marine Jobs Fund

In 2014, the Legislature authorized, and the voters of the State of Maine approved, (Public Law 2014, Chapter 592) a \$7,000,000 bond issue to facilitate the growth of marine businesses and commercial enterprises that create jobs and improve the sustainability of the State’s marine economy and related industries through capital investments. In May 2016, the newly formed Alliance for Maine’s Marine Economy, a consortium of Maine-based marine businesses, research institutions and educational organizations, was selected by the State of Maine as the recipient of the \$7 million in funding and pledged to provide \$9.3 million in matching funds. The Alliance’s plan, spearheaded by the University of Maine, called for immediate infrastructure investments in public and private institutions throughout Maine. The \$7 million award also included \$1.92 million to fund a competitive Marine Jobs Fund Small Capital



Grants Program. MTI was asked to administer this competitive process and issued a request for proposals in July 2017. MTI received 39 letters of intent. The Alliance for Maine’s Marine Economy conducted the review and evaluations of the proposals and made recommendations to the MTI Board of Directors. Ultimately, in FY20, the MTI Board

SUCCESS STORY

Flowfold

USING INNOVATION & INGENUITY TO
HELP DURING THE COVID-19 PANDEMIC

Grant | \$95K

Gorham-based Flowfold is well known in Maine and beyond. Their rugged wallets, bags and totes—all made from repurposed sailcloth—were gaining a loyal following. Then, last year, they collaborated with L.L. Bean to produce a special edition of their world-famous Bean Boot.

While having their name on Maine's most iconic footwear was an amazing achievement, helping out Maine's most heroic workers has been their latest honor. During the height of the COVID-19 outbreak, Flowfold quickly shifted their manufacturing operations to make PPE (personal protective equipment) for frontline medical workers helping combat the pandemic.

It's an effort that Flowfold CEO & Co-founder Devin McNeill said was possible, in part, thanks to MTI. "MTI's investment in Flowfold supported the purchase of a CNC cutting machine which allowed us to quickly retool our manufacturing facility to make personal protective equipment for first responders at our local hospitals," said McNeil. "We wouldn't have been able to do this without their support!"

8

days to switch their
manufacturing process

3K+

face shields produced
for hospitals



”

**MTI pushed us
to become
a better company,
better leaders,
and better community
members.”**

James Morin
Co-owner & COO

SUCCESS STORY

Friday

RESPONDING TO THE RISE
IN REMOTE WORK

Multiple Awards | \$65K+

42%

of the labor force
currently works
from home

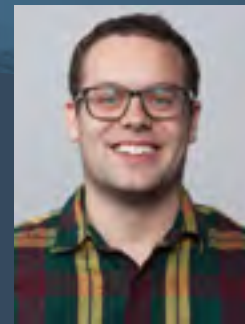
20%

of working days will be
spent at home, even
beyond the pandemic

Even before the COVID pandemic, remote work was gaining in popularity, especially among workers at technology-focused companies. Luke Thomas was among this growing group. In 2015, he moved back to Maine and continued to work remotely for his Boston-based employer. Soon after, he began a side project building tools that he wished he had as a remote worker—such as ways to have regular check-ins with managers.

MTI was an early investor in Thomas' software, which is now called Friday, and worked with the company to grow the platform into a comprehensive communication and work management tool for distributed teams.

Friday's ability to develop communication habits and automate routines for remote workers has proven vital. As the COVID pandemic forced many businesses to work remotely to prevent the spread of the virus and keep the economy moving, companies such as Twitter, LinkedIn and Red Hat have all used Friday to keep their employees in sync. Now, with a recent \$2.1 million investment from Bessemer Venture Partners, Friday is poised to be a major part of the future of remote work.



There's a lot of talented people here [in Maine]. I hope the community continues to grow and that Maine becomes a thriving hub of entrepreneurs building great, scalable companies."

Luke Thomas
Founder & CEO

of Directors made 10 awards from the Marine Jobs Fund Small Capital Grants program totaling \$1,924,303 (matched by \$6,507,200).

Maine Cancer and Aging Resource Bond

In 2014, the Legislature authorized (Public Law 2014, Chapter 574), and the voters of the State of Maine approved, \$10 million in bond funds to build a research center, to discover genetic solutions for cancer and the diseases of aging, and to promote job growth and private sector investment in Maine. The funds were awarded through a competitive state process to expand the state's research capabilities in the areas of mammalian genetics and murine biometric analytics, make the state a global resource for precision medicine, improve the state's capacity to attract

and retain young professionals, and bring additional grant funding, private sector investment, job growth, and economic activity to the state. In July of 2015 (FY16), the Jackson Laboratory in Bar Harbor was announced as the highest scoring bidder and matched its \$10 million award with more than \$11 million in matching funds. The project remains under active management by MTI.



Maine Biomedical Research Bond

Also in 2014, the Legislature authorized (Public Law 2014, Chapter 568), and the voters of the State of Maine approved, a \$3,000,000 bond issue to modernize and expand infrastructure in a biological laboratory specializing in tissue repair and regeneration located in the state. The funds were awarded through a competitive process to modernize and expand infrastructure in a biological laboratory specializing in tissue repair and regeneration located in the state, in order to increase biotechnology workforce training, retain and recruit to the state multiple biomedical research and development groups

and create a drug discovery and development facility that will improve human health and stimulate biotechnology job growth and economic activity. In July of 2015 (FY16), the Mount Desert Island Biological Laboratory was announced as the highest scoring bidder and matched its \$3 million award with more than \$5.7 million in matching funds. The project remains under active management by MTI.



Maine Technology Asset Fund (MTAF)

MTI also administers the Maine Technology Asset Fund (MTAF), a competitive bond-funded program providing investments for facilities construction, renovation, and equipment, which advance emerging technologies on the research, development and commercialization path to help Maine companies, university centers and non-profit research institutions secure further

investment. MTAF was first approved by the Maine Legislature and the state's voters in 2007 and capitalized with \$50 million in bond funding focused on increasing research and development (R&D) facilities and resources in our state's seven targeted technology sectors.

These monies were mostly disbursed in funding rounds in 2008, 2009 and 2010. The Legislature and voters approved an additional MTAF funding bill in the amount of \$3 million in 2009. MTI received the \$3M in MTAF funds in FY15.

Those funds, including approximately \$900,000 not awarded from earlier rounds and augmented by another \$921,871 in MTI funding, were used to issue 8 new MTAF awards totaling approximately \$4.9 million and matched by \$12 million. While the funding awards were made in FY15, the projects are still under active MTI management.



Maine Technology Asset Fund 2.5 (MTAF2.5)

On February 18, MTI issued a solicitation seeking proposals for its \$2 million Maine Technology Asset Fund 2.5 (MTAF2.5) program. The MTAF2.5 program provides funding to Maine organizations looking to make investments in R&D equipment, infrastructure and technology upgrades to drive innovation and generate economic impact in Maine. MTI capped individual funding requests at \$500,000 or less.

The funding for the MTAF2.5 program came from a research and development bond passed by the Legislature in 2016 and approved by voters in 2017. That \$45 million bond was fully awarded by MTI in 2018 but \$2 million was then made available for redeployment due to project forfeitures. MTI sought proposals that would provide extraordinary economic benefits to Maine and its citizens. MTI accepted electronic funding requests until April 24, 2020.



Ultimately, MTI received 84 MTAF2.5 proposals seeking \$25 million. Applications flowed in from 15 of Maine's 16 counties (no proposals were received from Kennebec County), and six proposals came from out-of-state entities seeking to establish operations in Maine. The requests ranged from \$1,750 – \$500,000 (25 applicants were seeking the maximum amount). MTI received proposals from companies of all maturity levels—from startups to mature enterprises—and from all seven of the state's targeted technology sectors.

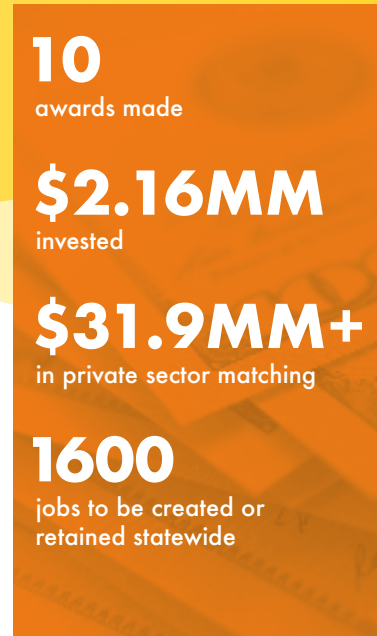
In September, MTI announced awards of \$2.16 Million to support ten innovative projects. Given the extraordinary challenges facing Maine businesses and organizations during the pandemic, MTI was very excited and encouraged to announce these noteworthy awards. The projects aligned well with the state's newly adopted 10-year strategic economic development plan (see page 6 for more information) and will have meaningful economic impacts, especially in rural Maine.

Projects spanned new innovations in Maine's traditional industries, from agriculture, forest products, and boatbuilding, to innovations in aquaculture and precision manufacturing. The \$2,160,099 in funded projects will create and retain over 1,600 jobs across the State of Maine, from the north (Limestone and Madawaska), south (Springvale), and east (Eastport), as well as points in between (Brewer, Brunswick, Lisbon, Thomaston, Waldoboro and Westbrook).

The ten awards will be matched by \$31,985,196 in private sector matching funds (14:1 matching ratio).

Approved projects went through extensive due diligence, with primary focus on the stated desired economic outputs of growth or retention of market share, increased revenues, expanded employment and retained jobs and the feasibility of the proposed projects to achieve their projected outputs. Requests were ranked against standard criteria and then against each other in terms of meeting the guiding principles established for the program.

MTAF2.5 by the Numbers



Summary of MTAf2.5 Awards



Eastport Port Authority

Eastport, Washington County

Award Amount: \$307,500

Total Project Cost: \$938,516

The project will allow final full phase testing of a first of its kind patented shipboard heat-treating system developed in conjunction with, and licensed exclusively to, the Eastport Port Authority. This is the final phase of over 10 million dollars of investment made over the past decade to expand Maine forest products exports. Upon final trials, the Port of Eastport and its partners will open and facilitate trading access for the Maine forest products industry to export

underutilized Maine fiber to the European Union for renewable energy/combined heat and power projects.



STARC Systems

Brunswick, Cumberland County

Award Amount: \$307,500

Total Project Cost: \$4,572,625

STARC Systems has found a major market opportunity for Infection Isolation solutions to help stop the spread of COVID-19 within hospitals. Sales of panels for Isolation drove March and April, up over 200% to last year. With this new demand on top of its existing Renovation business (up 87% in 2019), they need to invest in automated equipment to reduce

machining bottlenecks, manage a larger, more complex product assortment and increase the availability of equipment and labor for R&D on isolation-specific solutions.



Nyle Systems

Brewer, Penobscot County

Award Amount: \$142,981

Total Project Cost: \$677,950

Nyle is investing to double its production space to meet demand, increase efficiencies and enhance its new product development capabilities. They will build a test chamber for new product development, create a food drying testing laboratory, build a larger paint room, install electrical & gas

lines, buy and install an air ventilation system for expanded welding department, remodel office to accommodate growing headcount, etc. Nyle will also obtain production equipment to increase capacity and build efficiencies/reduce unit costs. For example: More advanced finished product test set-up; copper pipe bender; pipe reducing machine; press break; shear; overhead crane; automated refrigeration charging station; etc.



North Spore

Westbrook, Cumberland County

Award Amount: \$164,418

Total Project Cost: \$438,670

North Spore is seeking equipment and infrastructure improvements to its laboratory to expand production capacity. North Spore utilizes forestry and agricultural byproducts to produce value added mushroom growing supplies bringing in out-of-state revenue. MTAF 2.5 funding will assist in further commercialization supporting Maine suppliers and bring revenue and high-paying jobs into the state.

Acadian Composite Materials

Limestone, Aroostook County

Award Amount: \$280,000

Total Project Cost: \$912,000

Acadian Composite Materials disrupts the construction industry by creating a long-lasting and high performance structural insulated panel (“SIP”) from recycled single-use beverage bottles. EcoSIP

fabricates SIPs through its proprietary composite technology process. EcoSIP is a cost-effective alternative to typical “stick frame” building shells, with a lower cost of materials and construction time. EcoSIP also provides superior performance in terms of insulation value and ultimately energy savings. Furthermore, EcoSIP is completely made in Aroostook County, expanding the product line of an existing business. EcoSIP will help make Maine a leader in green building technology.



Twin Rivers Paper Company

Madawaska, Aroostook County

Award Amount: \$300,000

Total Project Cost: \$19,200,000

Twin Rivers installed a pilot unit in 2017 to prove the feasibility of its state-of-the-art technology to focus on growth-oriented market segments to preserve jobs in the State of Maine. The success of the pilot justified Twin Rivers’ plans to invest approximately \$20MM in paper machine 8 (PM8) to dramatically enhance the machine’s capabilities and broaden the markets served by the largest asset in the Twin Rivers paper mill system. The rebuild will establish PM8 as one of the largest producers of lightweight technical packaging and label specialties in North America, ideally positioned to support strategic growth initiatives while strengthening the Company’s industry-leading lineup of hybrid and freesheet lightweight publishing grades.



Springworks Farm Maine

Lisbon, Androscoggin County

Award Amount: \$300,000

Total Project Cost: \$4,059,375

Springworks was founded in 2013 to improve the way our food is produced, distributed, and enjoyed. Its unique aquaponic system grows organically certified lettuce, fish, and fertilizer cost-effectively, while producing twenty times more greens per acre and using less than a tenth of the water compared to conventional agriculture. Springworks is fortunate to work with excellent partners in retail (Hannaford, Whole Foods) and foodservice (Performance Food Group, Sysco, etc.). With the help of MTI, they plan to expand their facilities again to serve their customer’s demand and create jobs in Lisbon.



American Unagi

Waldoboro, Lincoln County

Award Amount: \$175,000

Total Project Cost: \$500,000

American Unagi’s MTAF2.5 request is to increase value-added capabilities by expanding current processing equipment and adding new processing equipment to increase product options/output, expand market reach, and add more employment opportunities.

Farming Fungi

Springvale, York County

Award Amount: \$42,700

Total Project Cost: \$279,000

Farming Fungi will develop an Internet of Things (IOT)-based indoor agriculture control system. This low cost, high quality, grow control system IOT-based software will run on commercial, off-the-shelf hardware. It will feature configurable in-room sensing, display devices and the ability to monitor and control conventional non-communicating HVAC and facility equipment for all forms of controlled indoor agriculture—produce, fruit, horticulture, mushrooms & aquaculture. Algorithms sense and manage CO2, light, temperature, humidity, air exchange, nutrient dosing, water chemistry, etc. It eliminates expensive hard wiring of controls, signals and actuators. It also supports lot traceability and continuous process improvement. All while costing 50–75% less per installation than traditional, hardwired agricultural control systems.



Lyman Morse

Thomaston, Knox County

Award Amount: \$140,000

Total Project Cost: \$407,060

Lyman-Morse Fabrication plans to reconfigure and modernize its workshop to increase efficiency and capacity, attract new business, and add to its workforce. By adding a clean, dedicated location for aluminum fabrication work, converting existing office space to a

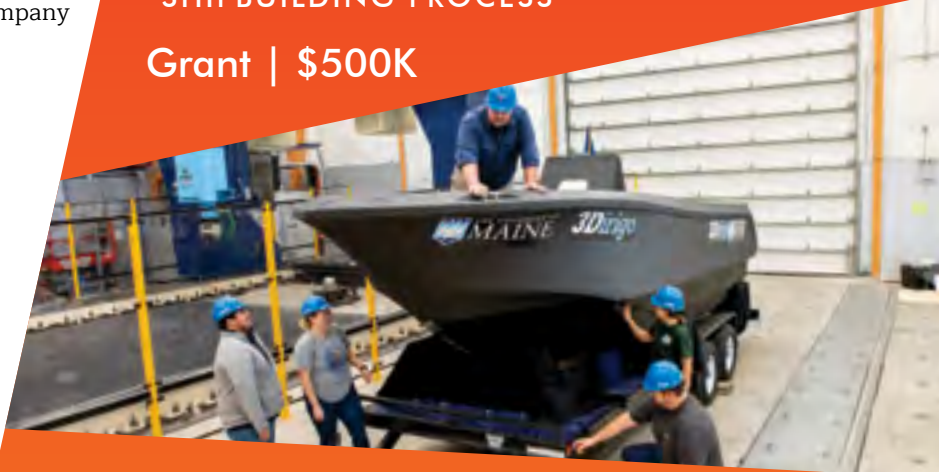
workshop area, and establishing a new area for business and management operations, this division of Lyman Morse Boatbuilding, Inc., will accelerate the growth trajectory Lyman-Morse Fabrication has been on since it was established in 2005 and allow it to attract follow-on funding through new customers and additional company investment.

SUCCESS STORY

Advanced Structures and Composites Center

SETTING WORLD RECORDS WHILE INNOVATING THE SHIPBUILDING PROCESS

Grant | \$500K



For centuries, ships have been made in Maine and built with wood from its forests. At the University of Maine's Advanced Structures and Composites Center, they're carrying on that tradition with an innovative twist.

Instead of using traditional planks and boards, they're using thermoplastics infused with up to 50% wood fiber products, and they aren't exactly building boats in the traditional sense, they're printing them with the world's largest 3D printer. To demonstrate their technology, which was funded with help from a grant from MTI, researchers and shipbuilders 3D printed a 25-foot boat that weighed in at over 5,000 pounds—a world record.

While the feat was no doubt impressive, what is even more exciting is the promise it holds for Maine's economy. This technology can help find new uses for our state's forest products and increase the global competitiveness of our shipbuilding industry, all while using a bio-based material that can help reduce our carbon footprint.

25 foot long 3D-printed boat

3 Guinness World Records set



Organization

MTI leads the development of a strong culture of innovation in the State of Maine and is well-positioned for continued growth and effectiveness. It is organized as a nonprofit corporation, consistent with the provisions of the Federal Internal Revenue Code. By-laws were drafted and corporation documents filed in September of 1999. A Board of Directors consisting of thirteen voting members and two non-voting members governs MTI. The Governor appoints ten directors, eight representing the targeted technologies and two of whom have demonstrated finance, lending or venture capital experience. The Commissioner of the Maine Department of Economic and Community Development, the Chancellor of the University of Maine System, the President of the Maine Community College System and the Director of the Office of Policy and Management, or their

designees, are ex-officio members. The MTI President is a non-voting director. Seven subsidiary boards, each representing a targeted technology sector, were formed to support the MTI Board. Approximately 120 subject matter experts comprise the membership of these Tech Boards.

MTI operates from its office in Brunswick. The staff is composed of a director of investment operations, a director of innovation infrastructure, a director of business development, a director of finance and administration, three investment officers, two lending and grant associates, and a web communications manager. The MTI President is employed by the Maine Department of Economic and Community Development.

Active MTI Collaborations, Affiliations and Partnerships



Partnerships To Promote Maine's Innovation Economy

In addition to direct support of innovators, MTI also supports programs and infrastructure that encourage innovation. Under its governing statute, MTI is instructed to cooperate with the Maine Department of Economic & Community Development (DECD), Manufacturing Extension Partnership (MEP), University of Maine (UMaine), and others to ensure a complementary system of support services is available to companies and research laboratories.

To foster this complementary system of support services, MTI works collaboratively with organizations across Maine to support programs and initiatives designed to assist entrepreneurs and small businesses and to promote and celebrate Maine's culture of ingenuity and its vibrant startup community.

Here are just some of the programs, events and organizations that have received MTI support:

- University of Maine
- UpStart Maine
- Maine Community Foundation
- Maine Development Foundation
- Maine Discovery Museum
- Manufacturers Association Of Maine
- Maine International Trade Center
- Northeast Clean Energy Council Institute
- Bioscience Association of Maine
- Mount Desert Island Biological Laboratory

Awarded

21

sponsorships
worth

\$161K+

Other Programs

44

organizations supported by TAP Team in FY20

\$2.45M+

in federal awards made to companies receiving TAP assistance

E-Resident Program

MTI employs an E-Resident program to provide portfolio firms with direct access to experienced entrepreneurs who have taken big risks, founded companies, raised capital, and created jobs. One of the most powerful tools one can provide to start-ups or less experienced teams is access to network contacts and mentors to offer advice and support from experienced entrepreneurs. MTI’s E-Resident program is intended, like other MTI programs, to improve the competitive position of Maine’s technology-intensive sectors and ultimately lead to business growth and jobs for Maine people.

SBIR/STTR Technical Assistance Program

The federal Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) program provides over \$3.7 billion in annual funding for small businesses to conduct research and development of innovative technology leading to the commercialization of new products, processes and services. In accordance with MTI’s statutory mandate, the Technical Assistance Program (TAP) helps Maine small businesses develop competitive SBIR/STTR proposals. The TAP Team offers guidance and strategies for writing proposals, and critical technical editing services, government accounting assistance as well as access to an experienced commercialization expert, market researchers and a biotech consultant.

Summary of awards to Maine companies receiving TAP assistance

Company	Agency/Phase	Amount
Rockstep Solutions	NIH SBIR Admin Sup	\$99,999
Introspective Systems	DOE SBIR Phase I	\$149,935
Maine Shellfish Developers	USDA SBIR Ph I	\$100,000
Blushiff Aerospace	NASA SBIR Ph I + I-Corp	\$135,000
Activas Diagnostics	NIH SBIR Supplement	\$68,979
Paramount Planet Product (P3)	NSF STTR Ph I	\$225,000
Neuright	NSF STTR Ph I	\$225,000
UNAR	NSF Ph II	\$1,000,000
Atlantic Corporation	USDA SBIR Ph I	\$106,000
Shellfish Solutions	NOAA SBIR Ph I	\$150,000
Montalvo Corp	NSF SBIR Ph IIB	\$250,000
Granite Mountain Industries (RATools)	DoD/AF SBIR Ph II	\$750,000
UNAR Labs, LLC	NIH SBIR Ph I	\$300,000
Maine Shellfish Developers	USDA SBIR Ph II	\$649,690
American Unagi	USDA VAPG	\$250,000

SUCCESS STORY

RockStep Solutions

USING THE SBIR PROGRAM
TO HELP PHARMACEUTICAL DRUGS
GET TO MARKET FASTER

SBIR Grants | \$54K+

Other Awards | \$450K+

10 days saved from the
drug discovery process

\$5M in operational
savings

In vivo research is a critical step in the pharmaceutical drug discovery process. It is highly technical and produces a massive amount of data. All this data poses a problem for researchers, as it's estimated they spend up to 80% of their time just trying to manage it. That's valuable time that could be better spent doing actual science that helps cure diseases.

RockStep Solutions has created a solution for this data issue. Their innovative digital platform called Climb aggregates, harmonizes and delivers all this critical data, across all teams and throughout every step of the *in vivo* research process—cutting days off the process and saving organizations millions of dollars in operational costs. As researchers have rushed to develop COVID-19 vaccines and treatments to halt the global pandemic, this ability to reduce time to market has become more critical than ever before.

RockStep was co-founded by Chuck Donnelly, a former researcher at Jackson Labs. MTI helped him and his partners apply to SBIR federal funding through the National Institute of Health. MTI then matched their SBIR grants and helped grow their business. Climb is now being used to help develop cures and lower the cost of drugs at over 30 pharmaceutical companies and research institutions. In February 2020, MTI was proud to nominate them for the coveted Tibbetts Award—granted to the company that best exemplifies the goals of the SBIR program.

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This innovation can literally save lives. Some people can't wait an extra year or two for a treatment to be approved. They can't afford to be on a clinical trial that fails. That's what motivates us—and we wouldn't be able to do any of it without the SBIR program and MTI.”

Chuck Donnelly
Co-Founder & CEO

SUCCESS STORY

MedRhythms

HARNESSING THE HEALING POWER OF MUSIC

Multiple Awards | \$425K+

20K treatment hours provided

2 patents



Each year, over 2.5 million people in the United States suffer a stroke or traumatic brain injury, leaving many of them with persistent mobility, speech and cognitive issues. With no standard of care for a significant number of these cases, MedRhythms is pioneering the use of Neurologic Music Therapy and wearable sensors to improve patients' quality of life.

Launched in 2015 at the renowned Spaulding Rehabilitation Hospital in Boston, MedRhythms relocated to Maine to tap into its talent and supportive innovative community. Since then, their digital therapeutic platform has secured multiple patents, been fast-tracked for FDA approval, started testing in top hospitals and attracted millions of dollars in outside investment—including the recent backing of Bose, who was drawn to MedRhythms' cutting edge use of audio in health related applications.

Even the onset of the COVID-19 pandemic didn't slow the company down. In fact, it pushed them to further innovate their offerings. With in-person therapy sessions all but eliminated, they shifted their focus towards telemedicine and remote sensors, allowing care providers to continue using the power of music to help rehabilitate their patients.



MTI has been instrumental to our growth and development as a company across every stage. It is an important reason for why we moved MedRhythms HQ from Boston to Maine."

Owen McCarthy
President

Looking Ahead

In addition to continuing our support, leadership and investment in innovation and research and development throughout Maine, MTI is excited to be part of several initiatives in Fiscal Year 2021 and beyond.

Bicentennial Innovation Expo

Many of this past year's Bicentennial events have been moved to 2021, including the Maine



Innovation Expo at Thompson's Point in Portland. Presented by MTI and Central Maine Power, the Innovation Expo will celebrate the future of Maine, allowing visitors to experience and view demonstrations of new technologies from sectors such as biotechnology, agriculture, education, forestry and more.

EDA Marine Grant

In April of this year, Maine's Congressional Delegation and the federal Economic Development Administration (EDA) announced a \$2 million Economic Adjustment Assistance (EAA) award to help fund Maine's Marine Living Resource Economy initiative. Over the next three years, MTI and FocusMaine will oversee this project to help develop market opportunities for Maine's marine-related products and seek ways to maximize efficiencies and returns across the seafood value-chain. This project will also address current and future workforce challenges in Maine's marine resource economy, including expansion of apprenticeships and work-and-learn training models, as well as collaborating with workforce development organizations like community and technical colleges.



Governor's Economic Recovery Committee

The Economic Recovery Committee was created by Governor Mills in May of 2020 to develop a plan to help Maine's economy recover from the pandemic. In November, the 37-member panel released its final recommendations. Many of the recommendations in their report will involve MTI-supported efforts, including investing in innovation, promoting entrepreneurship, developing talent in high-demand fields, attracting talent to the state and ensuring high-speed internet access.



Addressing Clean Energy Opportunities

In November, the Governor's Energy Office and the Office of Innovation Policy & the Future issued a report on Strengthening Maine's Clean Energy Economy. This report highlighted the momentum within Maine's clean energy economy, and how the sector is emerging as a source of economic growth and workforce opportunities. MTI is in discussions with the Governor's Energy Office team about ongoing and future collaboration.

On a related note, the Maine Climate Council recently concluded work on its climate action plan. Several of its recommendations align with MTI-led initiatives, including supporting the development of innovative construction materials and agricultural systems that rely on Maine timber and farms to build and feed the state into the future.



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MTI is committed to serving the wide-ranging innovation needs of Maine businesses and entrepreneurs. MTI plans to continue as a leading-edge organization known throughout Maine as the driving force behind our state's thriving private-sector innovation economy. MTI is pleased to play a pivotal role in helping to bolster and support Maine's innovation economy and looks forward to building on past commitments and launching new initiatives to help build a more robust economic climate across the State of Maine.