



ANNUAL REPORT 2021



HighByte provides a single platform to help manufacturers manage their automation and industrial data. MTI invested in early R&D and development of HighByte's software, and continues to partner with the company, funding new innovations and working with their board of directors. Seen here: Torey Penrod-Cambra, Co-Founder and CMO.

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A Message from MTI's President



I am honored to present the Maine Technology Institute's fiscal year 2021 (FY21) annual report. MTI's fiscal year began on July 1, 2020, and concluded on June 30, 2021. It was another strong year of catalytic investments by MTI into Maine organizations and entrepreneurs.

As a result of loan repayments and sound investment returns, MTI was able to invest significantly more than its annual appropriation for the third straight year. In FY21, we deployed \$7.2 million in funding. Adding in the \$2.2 million we awarded as part of the Maine Technology Asset Fund 2.5 (MTAF2.5) program, we deployed over \$9.4 million in the aggregate in FY21. That is similar to the \$9.6 million that MTI invested in FY20 and the \$9.3 million invested in FY19.

For the third straight year, MTI increased the amount of private sector matching funds that were invested alongside our awards. In FY21, our investments attracted nearly \$8 in private investment for every \$1 in public funding spent.

FY21 was, of course, another year that MTI worked fervently to stabilize and grow Maine's high-growth, technology-based organizations in the face of the continuing global pandemic. Specifically, we assisted the state of Maine in administering the Maine Economic Recovery Grant Program to support Maine organizations that experienced business disruptions due to the pandemic. MTI's E-Resident team worked with the Maine Department of Economic & Community Development (DECD) to determine the eligibility of new and early-stage businesses

seeking relief funding. The evaluations included one-on-one interviews between MTI and the applicant to assess each company's situation and to address any data input issues and deficiencies. In total, MTI efficiently evaluated the eligibility of 217 new businesses and spent over 430 hours working on the program mostly in October and November, 2020. Overall, the accounts MTI approved received approximately \$7.4 million. And, based on the interviews, we know firsthand that the money was critical to the survival of many of the companies.

So, it was another busy year at MTI that builds upon a two-decade legacy of sound stewardship of the public funds entrusted to it. Created by the Legislature and Governor in 1999, MTI has now disbursed \$290 million into more than 3,000 distinct projects across the state of Maine, and that funding has leveraged well over \$1 billion in matching investments.

I want to commend MTI's talented and hard-working staff, knowledgeable contractors, experienced subject matter experts, valued partners, and its exceptional Board of Directors for demonstrating unwavering commitment to MTI and its mission over the past year.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Brian Whitney', set against a light green rectangular background.

Brian Whitney
President

Lyman-Morse Boatbuilding

INNOVATIVE BOATBUILDER PUSHES THE ENVELOPE

Multiple Awards | \$200K

5t

overhead crane
system

50%

ergonomic improvement
for workers



MTI's support of the innovation ecosystem has reinforced Maine's reputation as the home of bold thinking, dedicated craftsmen and craftswomen, and the finest quality products in the world."

Joshua Moore

Since 1978, Lyman-Morse has been designing, building and servicing the finest boats such as luxury power yachts, carbon-fiber ocean racers and cold-molded wooden sailing sloops. Drawing on Maine's long tradition of boat building, Lyman-Morse has relied on world-class craftsmen and craftswomen to design and build everything from complete boats, to a custom piece of steel hardware for an industrial client or an advanced composite architectural feature.

Supported by on-site fabrication, an advanced composites division and the latest technology, Lyman-Morse's innovation in boat building techniques has helped it stand out from other boatbuilders worldwide.

In recent years MTI's investments have helped Lyman-Morse to modernize its fabrication workshop and create more efficient work areas. With the installation of a 5-ton Somatex overhead crane system in one of the company's boatbuilding bays, Lyman-Morse is testing new techniques for the construction of wooden and wood-composite yachts. These techniques aim to improve ergonomics for workers by up to 50%, reduce waste, and increase the speed and efficiency of boatbuilding operations. MTI's support is also helping Lyman-Morse reconfigure and modernize its metal fabrication workshop, one of the company's fastest-growing business divisions.

This focus on innovation has led to additional marine projects as well as other projects that would not have been possible without the addition of this key piece of equipment.

Lyman-Morse fuses design, technology, and craftsmanship to pursue new marine and non-marine projects that push the envelope of what is possible. They share MTI's vision of innovation and the use of the latest technology and equipment to grow their business and exceed their clients' expectations.





Maine Clean Energy Innovation Challenge

In August 2021, two innovative Maine companies in Biddeford and Wiscasset were each awarded \$250,000 through the Maine Clean Energy Innovation Challenge, a joint initiative of the Maine Technology Institute (MTI) and the Governor's Energy Office.

Announced on Earth Day 2021 by Governor Janet Mills, the Maine Clean Energy Innovation Challenge was created to support companies with products or technologies that reduce carbon emissions, increase renewable energy, and grow Maine's clean energy economy.

The two companies receiving the awards are **Farmhand Automation of Biddeford**, which is developing technology to support carbon-free farming, and **Peregrine Turbine Technologies of Wiscasset**, which is advancing renewable power storage technology.

Farmhand Automation, located in Biddeford, is developing low-cost electric farming robots to help local farmers in Maine, and across the nation, transition to a carbon free future. Its electric technology has target applications in automated crop management for healthy soils and carbon negative farming, as well as increased soil biodiversity and production output. Their autonomous platform is also designed specifically to help rural local farms scale operations to address growing food security pressures posed by climate change.

Peregrine Turbine Technologies, located in Wiscasset, is developing breakthrough turbine engine technology to store renewable power from solar and wind and make it available as power sources at any time of night or day.

Paired with Thermal Energy Storage technology developed in Australia, these engines are a more efficient and environmentally friendly storage solution than lithium-ion batteries. The company announced in July that it plans a commercial pilot of its technology at a solar field in Pittsfield in 2022.

The Innovation Challenge was the second such industry effort recently initiated by MTI. In 2019, a successful pilot program focused on the forest products industry invested \$1.5 million to advance two natural resource-based technologies in Maine.

Applications for the Clean Energy Innovation Challenge were solicited by MTI from May 14, 2021 to June 18, 2021. Responders to the challenge were expected to submit information to describe their proposed project and how it meets the challenge guidelines, history and track record, market assessment and commercial viability, value proposition, project duration and timeline, and economic impact.

Responses were evaluated for those same criteria by MTI's subject matter experts on its Environmental Technology Board and, as a condition of the awards, both recipients must demonstrate a minimum of one-to-one matching funding to the challenge grant, consistent with all MTI awards.

bluShift Aerospace

MAKING MAINE A SPACE TRAVEL DESTINATION

Multiple Awards | \$193K

\$69B

Estimated market
for nanosatellite launches

2

Locations in the U.S.,
besides Maine, where polar
orbit can be reached



**I'm not aware of
other organizations in
other states that are
so open to innovation
as MTI."**

Sascha Deri,
CEO

Sascha Deri was trying to get his aerospace company off the ground—literally and figuratively—but was having issues. At the time, he was based in Massachusetts and was finding it next to impossible to secure state funding or approval to test and launch his biofuel powered rockets. An official even told him, point blank, that he should relocate to California, Texas or Florida. Before ending the conversation, the official offered one last suggestion on where he may find the support he needed: Maine and, specifically, MTI.

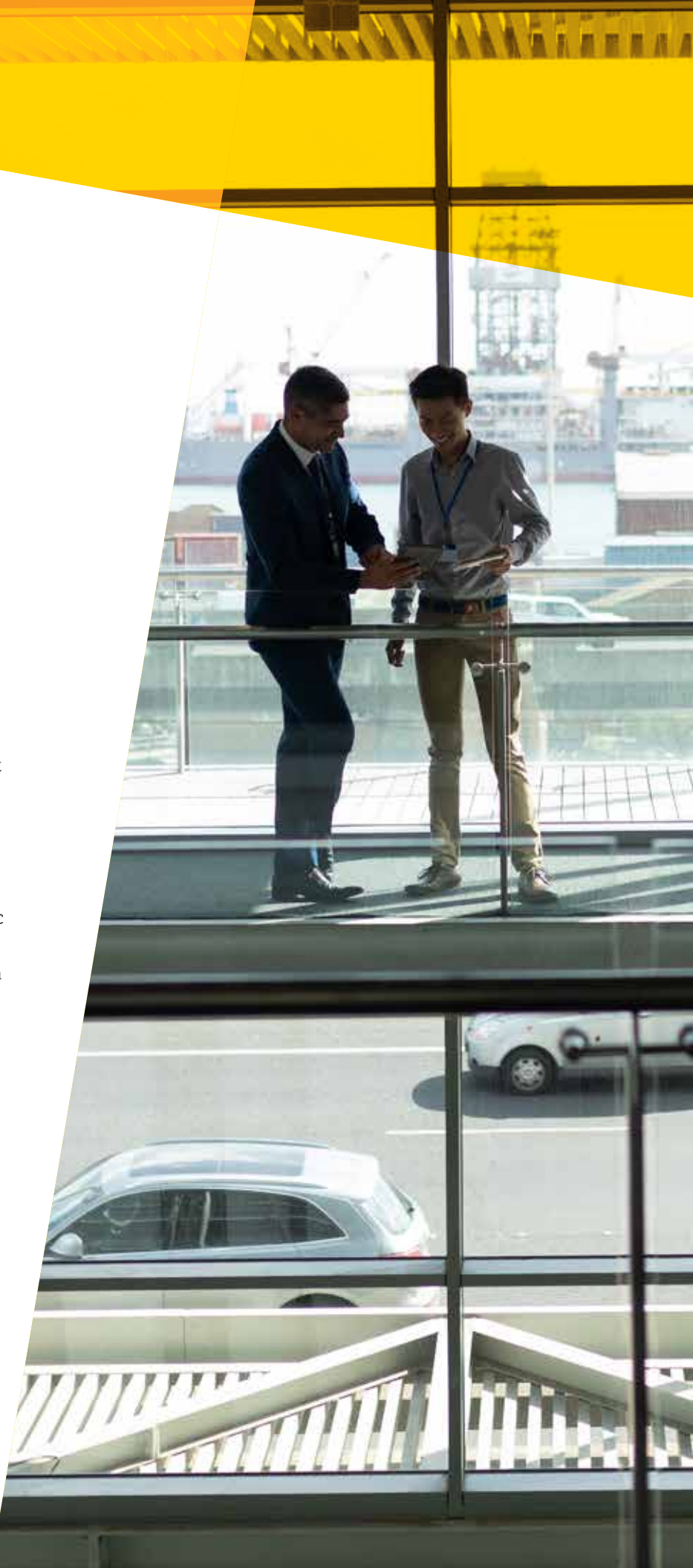
Growing up in Maine, Sascha was searching for a reason to return. MTI's support of his innovative, biofuel rockets provided the perfect opportunity. MTI helped finance bluShift's relocation to Brunswick, along with investments in its fuel and rocket technology and invaluable guidance in navigating the federal government's funding programs.

According to Sascha, bluShift wouldn't exist without MTI, nor could they have successfully launched the world's first commercial biofuel rocket. bluShift is looking beyond their own success, however. They hope to spearhead an aerospace boom in Maine, which is advantageously positioned for polar orbit launches. And they hope the Maine students and researchers whose payloads they carry will grow their own entrepreneurial aerospace business, while also attracting others to Maine—just as bluShift was a few years ago.

COVID-19 Update

The pandemic continues to impact the way business is conducted between MTI and its clients. While the entire MTI team continues to work remotely, the organization is experiencing little impact on its ability to manage its investment process. However, the Institute will continuously monitor and review this arrangement throughout the year to ensure that MTI's clients receive the utmost in customer service and responsiveness.

The State of Maine, with MTI's participation and input, developed a new ten-year strategic economic plan in December 2019. The pandemic interrupted the planned implementation of that strategy but, in 2020, the Governor appointed a statewide Economic Recovery Committee (ERC) to provide recommendations for stabilizing the economy during the pandemic and stimulating its eventual recovery. The ERC's recommendations, along with the strategies outlined in the ten-year plan, are now in the implementation phase and MTI is playing a leading role in shaping Maine's innovation efforts into the future.



Key Events & Happenings

Twelve Maine Companies Named to Inc. 5000 Fastest-Growing List

Half of Them Are MTI Portfolio Companies



Twelve Maine companies made Inc. magazine's 2021 annual list of the 5,000 fastest-growing private companies in the United States. To make the list, businesses must have had revenue of at least \$2 million in the most recent year, and be privately held, independent companies. Half of them—Origin in Farmington; SaviLinx and STARC Systems of Brunswick; and Tilson Technology, Sea Bags, and MunicIPAY of Portland—are MTI portfolio companies, meaning they have received funding or assistance from MTI.

Renewable Energy Partnership Boosts Millinocket Mill Site Redevelopment

Phase two of the infrastructure buildout at the former Great Northern Paper mill site in Millinocket is underway; including improvements to the on-site power grid, data transmission, sewer and water systems, roads and rail. The project was recently awarded \$1.34 million in financing—a \$500,000 grant from Maine Rural Development Authority and an \$837,000 loan from Maine Technology Institute.

Two Maine Startups Get Into National Cleantech Accelerator Program

Yarmouth-based BaselineES and Foothill Fuels

of Portland will join 45 regional peers in the Cleantech Open Northeast cohort of the annual Cleantech Open accelerator program.

The Maine Technology Institute will cover costs

for both Maine participants, while the Environmental & Energy Technology Council of Maine promoted and facilitated their applications.



New Pitch Competition Aims to Help Maine's Marine and Coastal Businesses



Funded in part by MTI, Maine Sea Grant launched Buoy Maine, a new virtual pitch competition to fund

innovative projects and ideas to help coastal businesses better address the challenges of operating during the pandemic. 10 Businesses and nonprofits were selected to win \$12–\$14,000 each.

Maine Gets \$2 Million to Help Advance Offshore Wind Power

The Governor's Energy Office is receiving more than \$2.1 million from the U.S.

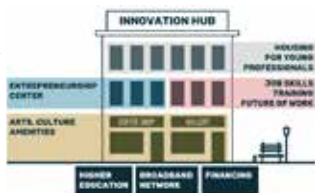
Department of Commerce's Economic Development Administration to advance an economic roadmap aimed at creating jobs and growing talent in Maine, with a focus on

floating technology. The grant will be matched with \$267,624 in state funds and \$112,457 in local funds, including funding from MTI and in-kind contributions from the University of Maine.



Two Maine Organizations Awarded Federal Innovation Accelerator Grants

Waterville's Central Maine Growth Council and Portland-based Maine Center for Entrepreneurs have been awarded grants that support creation of rural innovation hubs. The Waterville grant will be used to create a startup accelerator, Dirigo Labs. The award is in addition to local matching funds, including a \$300,000 cash grant from MTI.



Startup Maine Series to Spotlight Entrepreneurs, 'Ecosystem Builders'



Startup Maine, a Portland-based nonprofit organization launched a virtual speaker series featuring movers and

shakers in the state's startup community, with a heavy focus on tech entrepreneurs. Sponsored in part by MTI.

MTI Joins Welcoming America

To help nurture a more welcoming and inclusive innovation and entrepreneurial ecosystem in



the State of Maine, MTI and Maine Accelerates

Growth (MxG)—an MTI-sponsored program—joined the Welcoming America network. Welcoming America is a nonprofit, nonpartisan organization that will help MTI and MxG work to employ new policies and approaches to change systems and culture by creating inclusive, welcoming places.

\$1M Committed to Kickstart Bioscience Cluster Programs for Entrepreneurs

The Maine Center for Entrepreneurs (MCE) recently



launched a bioscience cluster initiative which includes business incubators, accelerators and

research partners dedicated to growing Maine's bioscience industry. MCE was awarded a \$300,000 grant from MTI.

The Cubby Takes Top Prize in Maine's Top Gun Awards

Founded and operated by Colby College students, The



Cubby won Maine Center for Entrepreneurs' Top Gun Final Showcase which includes a \$25,000 prize, courtesy of MTI. The Waterville-based startup is an online marketplace designed to help college students sell artwork.

Greenlight Maine Finale Televised on July 1—All Three Finalists Were MTI Portfolio Companies

On July 1st, three Maine companies—Bixby & Co, bluShift Aerospace, and STARC Systems—faced off to see who won \$25,000, \$10,000 or \$5,000 in prize money on Greenlight Maine.

This year's finalists, all MTI portfolio companies, emerged after competing against a total of 26 contestants. The businesses are all amazingly unique and innovative but, quite frankly, could not be more different from one another. While obviously making dissimilar products, they all share a common goal of scaling their products and businesses in



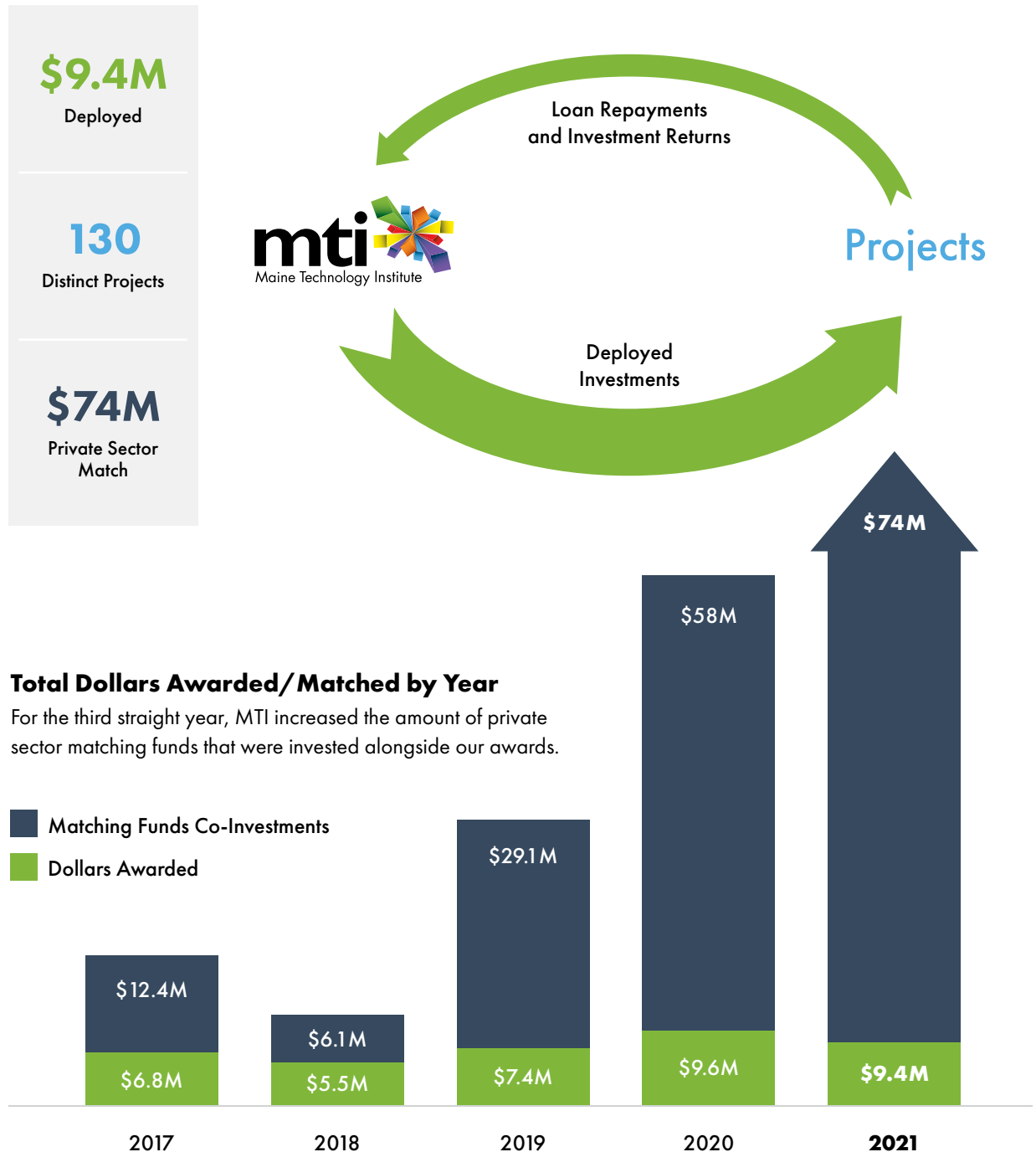
BIXBY CHOCOLATE

Maine. Bixby ended up winning the top prize, with STARC and bluShift finishing in second and third respectively.

MTI has been a proud sponsor and supporter of Greenlight Maine's startup business series, a college edition and a new edition celebrating minority-owned enterprises in our state.

MTI FY21 Funding Report

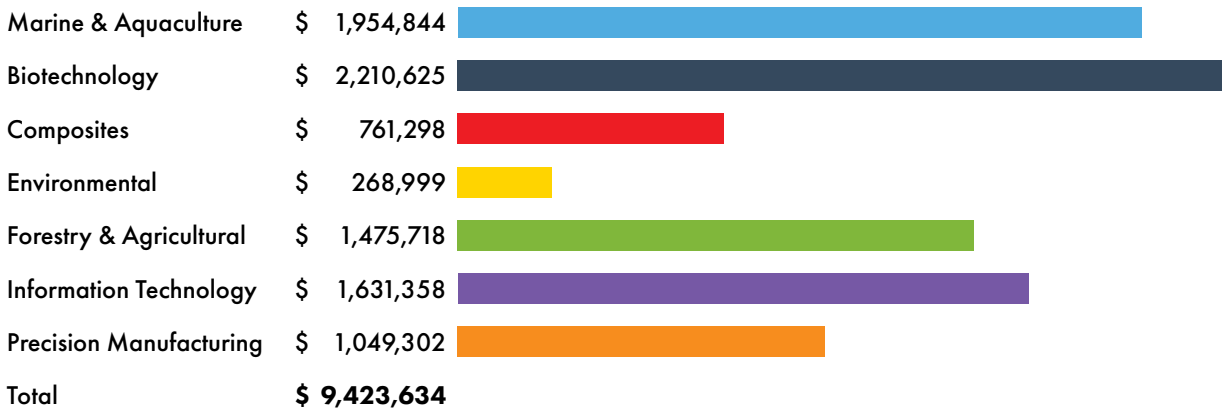
MTI receives an annual appropriation from the Maine Legislature. For the third consecutive year we were able to put additional money to work as a result of loan repayments and sound investment returns.



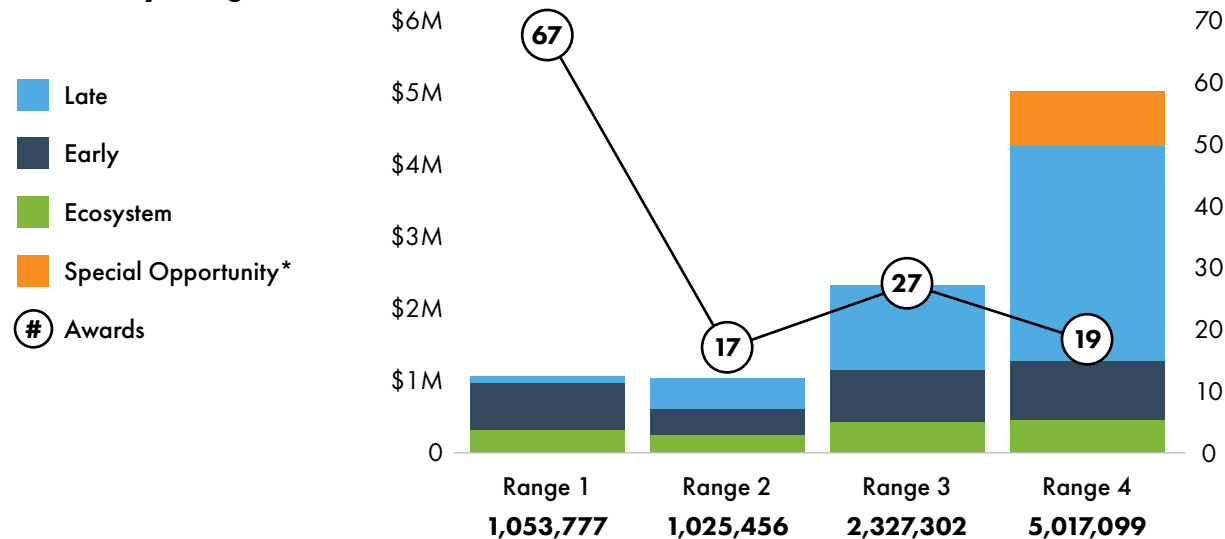
Awards by Technology Sector

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 FY21, 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:

MTI awarded \$750,000 in special opportunity funds. This award was for The Roux Institute Venture Creation & Acceleration Platform

Other Programs

43

organizations supported
by TAP Team in FY21

\$1.29M

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	YEAR
Jet-Set Offset	NSF SBIR Ph I	\$256,000*	2020
Shellfish Solutions	NOAA SBIR Ph II	\$500,000*	2020
Springtide Seaweed	USDA SBIR Ph II	\$600,000*	2020
Maine Shellfish Dev.	USDA SBIR Ph I	\$106,500	2021
Johnny's Selected Seed	USDA SBIR Ph I	\$106,000	2021
MicrowaveTechniques	DOE SBIR Ph I	\$200,000	2021
Tethys Research	NSF Ph I Resub	\$256,000	2021
Pepin Associates	NASA SBIR Ph II	\$617,000	2021

- MTI is actively working with five FY21 applicants to submit federal grant proposals with a potential award value of \$2.3M
- Five other FY21 companies have proposals under federal review —with a potential value of \$2.2M

* Another \$1.36M in funding was received in 2020 by Maine entities receiving TAP support. These awards were received after last year's annual report was released.

LiteracyTech

FROM TEACHERS TO TOP GUN WINNERS

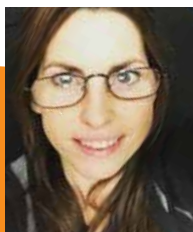
Grant | \$25K

70

Number of students a teacher might conference with each week

10hrs

Amount of time conferencing adds, on top of a typical school schedule



MTI was instrumental in helping us build a strong foundation for our startup. [They helped] guide us through the difficult decisions we had to make as a startup.”

Michelle DeBlois
Co-Founder & CEO

Michelle DeBlois and Kathryn Lariviere are educators, but oftentimes, they feel more like data managers. In addition to their teaching duties, their days are spent logging reading reports, organizing their classroom library and tracking students’ progress. Over time, the countless administrative tasks began to wear them out and distract them from their true passion: teaching.

In a world where there’s an app for nearly anything, they couldn’t find one to help solve their issue. So they did what any good entrepreneur does: they built one themselves. After teaming up with an old friend from high school who is an accomplished developer, they approached MTI for funding for their new company, Literacy Tech. With MTI’s support, they built and launched ReMo, an app that helps teachers manage the data associated with literacy education and inspires independent reading.

ReMo launched late this summer, just in time to help educators who were facing additional challenges created by teaching remotely during the COVID pandemic. In addition to winning fans in education circles, their innovation is grabbing the attention of Maine’s entrepreneurial community—as it won the \$25,000 prize at the Top Gun pitch event in September.

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

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.

Springtide Seaweed

RESEARCH AND TECHNOLOGY

DIVERSIFIES THIS SEAWEED BUSINESS

Multiple Awards | \$295,000

670%

sales increase from
2017 to 2020

35

total acres for cultivation,
the largest organic seed
nursery in the US.



MTI provides a unique range of funding opportunities that have enabled investments in essential infrastructure, research, development, new partnerships, and non-profit educational and training efforts to accelerate the development of seaweed aquaculture in Maine and beyond."

Andrea "Trey" Angera
General Counsel

The ocean off the coast of Maine could be described as the best place in the North Atlantic for a seaweed business. There's clean water that's rich in nutrients, close proximity to markets and a state that is very supportive of Aquaculture.

Springtide Seaweed has taken advantage of this location to build a multi-faceted seaweed business in Gouldsboro, on the Downeast coast. Their growth since starting in 2017 has led them from growing and selling seaweed to also introducing a nursery, milling, pelletizing, and processing of seaweed as well as creating the Maine Seaweed Exchange an educational and advocacy organization for the industry. Their focus on research and technology has expanded to include an online marketplace that helps seafood producers access markets, and smart gear and sensors that are used in the field.

Initial MTI investments focused on processing and farm equipment. Springtide Seaweed was also awarded an SBIR phase I grant to do cultivation of Nori and Dulse. They recently worked with MTI's TAP team to create a successful application for a Phase II grant.

MTI has helped them to diversify outside of being a commodity producer. Rather than harvesting seaweed directly for their own food products, Springtide Seaweed prefers to develop and sell ingredients for other companies to use. These may be snack chips now but they are just as likely to be beauty, nutraceutical and pharmaceutical products and the company continues to expand their product line.



Marin Skincare

TREATING SKIN CONDITIONS
WITH MAINE-CAUGHT LOBSTER

Multiple Awards | \$193K

125M

people with psoriasis
worldwide

35M

Americans suffer
from eczema



Amber Boutiette
Co-founder &
Chief Product Officer

Like millions of people across the country and around the world, Amber Boutiette battled with clinical skin issues for most of her life. While there are numerous treatments, there are few quality options—steroid creams can further damage the skin and over-the-counter medications are often ineffective.

Fortunately for Boutiette, she stumbled upon a solution during her graduate studies at the University of Maine. At UMaine, Boutiette and fellow student Patrick Breeding were researching lobster glycoproteins, which help fight disease and heal damaged tissue. Boutiette tried the glycoproteins on her eczema, and the results were astounding.

With funding from MTI, Boutiette and Breeding commercialized their discovery—launching Dermalus and releasing their first product, Marin Skincare. They now partner with Luke's Lobster to extract lobster glycoprotein ethically and sustainably, helping increase the utilization and value of Maine's \$500+ million lobster harvest.

As winners of the recent Buoy Maine pitch competition, Marin Skincare is gaining momentum and a loyal following of customers who are finding relief thanks to a uniquely-Maine innovation.



"I must emphasize that accessing MTI funds did not just result in additional jobs for GWI; it resulted in many jobs all over the state of Maine."

Kerem Durdag
President & COO of GWI

Support

"Grants and loans from MTI have played a key role in our ability to advance this business and create jobs in Maine."

Bob Watterson
Founder of
MyHealthMath, Inc.

"From its inception, Peregrine has benefited from the support and interest of Maine Technology Institute. It stands as the only true clearing-house in the state of Maine for early-stage funding and business support for technology start-ups like ours."

David Stapp
CEO/CTO of Peregrine
Turbine Technologies, LLC

"Over the years MTI's TAP team has helped Compotech win numerous multi-million-dollar government contracts. This support allowed Compotech to grow from a small company working out of shared incubator office space into one of the top 40 US Defense contractors in Maine."

Paul Melrose
CEO of Compotech, Inc.

Innovation



"The range of programs that they offer to encourage entrepreneurs to test an idea, build the initial team to

execute, and then scale up is very rare nationally. In our case, it allowed us to take a services business and convert it into a patented product."

Owen McCarthy
Co-Founder
of MedRhythms

"MTI is a driving force in providing CEOs the ability to attract and hire qualified, skilled workers right here in Maine, and pay them well, resulting in increased company revenue, as well as providing a sustainable boost to the Maine economy."

Amy Farrell
Account Executive at VETRO

"MTI...has funded numerous innovation related projects over the years including a pivotal Development Loan allowing us to establish our vaccine manufacturing facility."

William Keleher
CEO of Kennebec River
Biosciences

Encourage

Farmhand Automation

STATE-OF-THE-ART AUTOMATION
LENDs SMALL FARMS A HELPING HAND

Grants | \$50K

92%

of the U.S. population could
be fed by small farms

10%

of the U.S. food supply is
supplied by small farms



We knew we had to start this company in Maine because MTI shares our vision for supporting innovation in the local food economy. MTI's support allows us to stay close to our values and has helped us raise \$350K in equity funding."

Alexander Jones
Founder & CEO

It's becoming more and more difficult to survive and thrive as a small or mid-sized farmer. Costs are increasing, labor is becoming more scarce and climate change threatens fickle growing cycles. So while small farms have the capacity to supply 92% of our nation's food, they currently only provide 10% of what we eat. The supply chain is still dominated by industrial-scale farms.

Good news—and help—is on the way, however. The innovation in agricultural robotics and automation that made industrial farming possible is making its way to small-scale farms—thanks in part to Biddeford-based Farmhand Automation.

With funding from MTI, they've developed a prototype robotic platform that can automate tedious agricultural operations such as bed preparation, planting and weeding. By making this technology affordable and accessible, Farmhand Automation hopes to increase the amount of food we get from small farms, while helping small farmers increase their profitability, viability and quality of life.

Standard Biocarbon

BRINGING BIOCHAR—A CLEAN, SUSTAINABLE
INDUSTRY—TO MAINE

Grants | \$100K

18K

cubic yards of biochar
to be produced per year

500T

Amount of locally
sourced mill residuals to
be processed monthly



The support from MTI, together with investment and encouragement from the broader Maine community, has been instrumental in bringing this new business to Maine.”

Fred Horton,
President & CEO

What if you could pick up timber waste and turn it into something that can fertilize farms, remediate ‘forever chemicals’, and maybe even capture and remove atmospheric carbon? Standard Biocarbon is ready to use Maine’s enormous supply of woody biomass to turn it into biochar, a product that hopes to do all this and more.

Biochar is made by heating biomass in an oxygen limited chamber at precisely controlled high temperatures. Using funds from MTI as well as CEI and FAME, Standard Biocarbon will purchase equipment for producing high quality biochar at the former site of the Great Northern Paper mill in East Millinocket. Over thirty similar machines, made by Germany’s Pyreg GmbH, are already operating in Europe and Asia.

Standard Biocarbon has found itself at the right place and right time. Maine’s northern forest generates by-products from the commercial logging process and the vacant paper mill was well-suited to be converted to this new technology. “Maine has the right human capital, infrastructure, and natural resources to make this happen with a lot of room to grow,” says President and CEO, Fred Horton.

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

24

sponsorships
worth

\$262K+



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, as well as remotely. The staff is composed of a Director of Finance & Administration, four Senior Investment Officers, two Investment Officers, a Director of Business Development, one Lending & Grant Associate, and one Administrative Assistant. The MTI President is employed by the Maine Department of Economic & Community Development.

Looking Ahead to FY22

On July 19, 2021, the Maine Legislature enacted the **Maine Jobs & Recovery Plan**, the state's roadmap for allocating the more than \$1 billion in federal discretionary funding associated with the American Rescue Plan Act of 2021. The new law takes effect on October 18, 2021.

The package included meaningful allocations to support innovation, and makes investments that will help address revenue losses in Maine small businesses and high growth enterprises, and will position those entities to retain and create jobs, grow revenues, and gain market share.

Specifically, the Maine Jobs & Recovery Plan includes the following funding related to innovation and the Maine Technology Institute:

Funding for the Forest Products Industry

MTI will administer \$20 million (\$10M in each of the next two years) for "one-time grants funding for economic recovery and development opportunities in the forest products industry to address reduced demand from economic disruption of the COVID-19 pandemic and other industry effects." We will work collaboratively with the Maine Department of Agriculture, Conservation and Forestry to develop programming that will help achieve the objectives of the legislation.



We also plan to conduct a "Listening Tour" in the late summer of 2021 to ensure widespread input and buy-in from businesses and our ecosystem partners.

Grants for Seafood Infrastructure & Facilities

The Maine Department of Marine Resources (DMR) will administer \$10M for "competitive grants for seafood processors and dealers to upgrade or replace aging or failing infrastructure, or reengineer and retool facilities, in response to product changes or safety protocols necessary as a result of the COVID-19 pandemic."



Funding for Maine's Technology Sectors

MTI will administer \$39.6M (\$25M in year one, and \$14.6M in year two) for "one-time funding to support and leverage private investments in research, development, and innovation in the state's technology sectors. These funds, which must be



matched by the recipient, will be awarded to Maine organizations through a competitive process to help them increase revenue, create and preserve jobs, and grow market share." We are in the midst of program design work for this funding that will likely include multiple competitive funding rounds focused on specific sectors/business types and public/private partnerships supporting industries or regions of the state with the goal of mitigating the economic impact of the pandemic.

The Clean Energy Innovation Program

The Maine Jobs & Recovery Plan also provides \$2.5 million in "one-time funding to establish the clean energy innovation program of the clean energy partnership to fund programs that advance innovation in the clean energy sector, including but not limited to providing grants in coordination with the Maine Technology Institute."

The MTI team is looking forward to designing programs and deploying these funds to help mitigate some of the harmful economic impacts associated with the global pandemic and to sustain and grow innovative enterprises in the state of Maine.



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.



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