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## TWELFTH ANNUAL REPORT TO THE MAINE LEGISLATURE

**FY11: July 2010-June 2011** 

Prepared for:
The Labor, Commerce, Research and Economic Development Committee

The Maine Technology Institute "shall encourage, promote, stimulate and support research and development activity leading to the commercialization of new products and services in the State's technology-intensive industrial sectors to enhance the competitive position of those sectors and increase the likelihood that one or more of the sectors will support clusters of industrial activity and to create jobs for Maine people."

1999, 5MRSA c407 § 15302



## TWELFTH ANNUAL REPORT TO THE MAINE LEGISLATURE

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#### Dear Friend of MTI:

We are pleased to present the Twelfth Annual Report of the Maine Technology Institute (MTI) for the period July 1, 2010 - June 30, 2011.

MTI strengthens Maine's innovation economy as the State's only source of research and development financing for businesses and the cultivation of our technology industries. Highlights of the year included:

MTI approved awards totaling 127 new technology development projects to innovative companies and organizations across the state, totaling nearly \$14.1 million. This funding leveraged an additional \$33.7 million in matching investment and resources by the companies and other award recipients.

Of that, MTI approved awards to 10 Maine companies, nonprofit research organizations and universities totaling approximately \$7.25 million for Maine Technology Asset Fund (MTAF) technology development projects, financed by State bonds. These diverse and exciting projects, chosen through a rigorous and highly competitive process, are leveraging close to \$20 million in matching funds and sustaining and creating good jobs across the state. MTI and Maine were also recognized nationally with an award for the design and early impact of the MTAF program by the Ohio-based State Science and Technology Institute.

MTI received over \$1.4 million in repayments of Development Awards from companies that had succeeded in bringing new technologies to market. This was an all-time high in repayments, indicating that innovative Maine companies are succeeding at commercializing new technologies despite the still anemic national economic conditions. MTI turns around these repayments and uses them to fund awards and related support for other entrepreneurial Maine companies.

MTI was again ranked highest among 13 other Maine and out-of-state business resources by 325 companies that completed confidential surveys as part of the State's independent evaluation of its innovation-based economic development investments. Historically, this evaluation has noted that every \$1 awarded by MTI leveraged more than \$10-\$14 in public and private financing for Maine's innovation economy — a robust return on investment for Maine taxpayers.

Thanks to the sustained support of our partners, policy makers, and the hard work of the approximately than 100 members of our volunteer boards and the MTI staff team, it has been another very successful year. Looking forward, MTI pledges to continue to invest in promising technologies that boost the competitiveness of Maine companies and sustain and grow quality jobs for people across the State. Thank you for your support.

Jim Detert, Site Director Molnlycke Health Care MTI Board Chair Betsy Biemann, President Maine Technology Institute

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## **Executive Summary**

The Maine Technology Institute (MTI) supports technology development by Maine businesses and entrepreneurs in the state's seven targeted sectors, helping them bring to market cutting edge products, processes and services. With MTI's support, companies become more competitive, provide higher-paying jobs for people across the state and purchase goods and services from other Maine companies, thus stimulating Maine's economy.

Early-stage technology development is the most challenging step for a Maine company to finance on the way to profitability and growth. As the state's only financial support for private sector research and development (R&D), MTI funding provides the crucial link that helps drive ideas from the laboratory to the marketplace. MTI also supports the development of Maine's technology clusters, providing funds and incentives for collaborative ventures that strengthen innovation, networks and collective marketing in industries poised to benefit Maine's economy.

MTI accomplishes its purpose by cost-sharing R&D and industry cluster-building projects with Maine businesses and organizations through competitive award programs and by helping Maine companies secure Federal funds for research and development projects. Per its legislative mandate (5MRSA §15302), MTI's funding programs the following seven technology sectors:

- Advanced technologies for forestry and agriculture
- Aquaculture and marine technology
- Biotechnology
- Advanced technologies for forestry and Composite materials technology
  - Environmental technology
  - Information technology
  - Precision manufacturing technology

MTI also administers the Maine Technology Asset Fund, financed by state bonds, which aims to strengthen Maine's economy by moving technologies to the commercial market and helping Maine institutions compete for Federal research funds through funding equipment and facilities expansion for R&D. Previous bond-funded programs close to completion have helped build the research and development capacity of Maine's nonprofit research laboratories and strengthen the state's biomedical and marine industries, while expanding the state's technology employment base.

The Institute is a publicly-funded, private nonprofit corporation, governed by an industry-led Board of Directors (Appendix A). The president of the Institute is a director at the Department of Economic and Community Development and reports to both the Commissioner and the MTI Board.

MTI's success is due in large part to the dedication of approximately 100 Maine business leaders and technology experts who serve as volunteers on MTI's Board of Directors and seven technology boards (Appendix B). Each year these volunteers together contribute over 5,000 hours to proposal evaluation, funding recommendations and guidance on

matters of policy and direction, based on their in-depth knowledge of their industries' technologies and Maine's assets.

Although MTI has a statewide reach and an ambitious mission, it is a lean, cost-effective operation with a team of seven full-time and one half-time employees. Together with the MTI president, this team implements the policies and programs of the MTI Board (Appendix C).



MTI's FY11 employees: Front row: Shane Beckim, Jessica Gogan, Linda Adams, Andrea Philips and Patti Sutter. Back row: Betsy Biemann, Roger Brooks, Joe Migliaccio and Jim Fecteau.

This report summarizes the activity of the Maine Technology Institute for the period July 1, 2010 to June 30, 2011.

## The Maine Technology Institute During Fiscal Year '11

The Institute fulfills its mission by co-funding high-potential technology development projects with Maine entrepreneurs and organizations that bring new products, systems and services to the market, invigorate Maine's industry clusters and create and sustain good jobs across the State.

#### MTI's programs include:

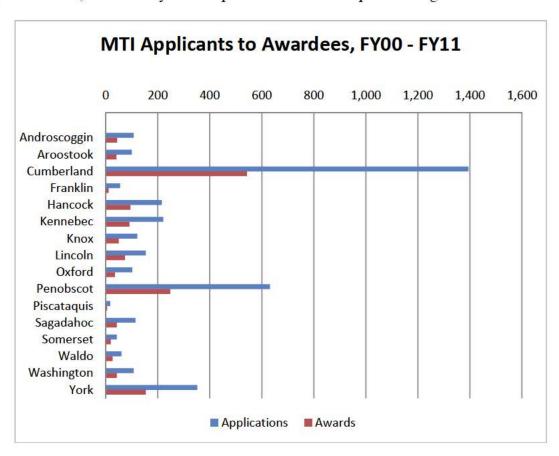
- Business Innovation Programs
  - Seed Grants
  - Development Awards
  - o Accelerated Commercialization Fund
  - o SBIR/STTR Awards and Federal Funding Assistance
- Cluster Initiative Program
- State bond-funded Programs
  - o Maine Technology Asset Fund
  - o Maine Biomedical Research Fund
  - o Maine Marine Research Fund

## MTI Funds Innovative Maine Companies and Organizations

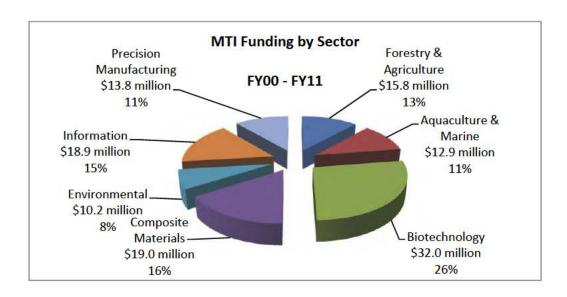
During FY11, MTI approved awards to 127 new technology development projects, totaling nearly \$14.1 million. This funding leveraged an additional \$33.7 million in matching investment by the companies and other award recipients.

Since its inception in 1999, MTI has funded 1,552 technology development projects throughout the state of Maine, a financial commitment of nearly \$126 million that has leveraged an additional \$216 million for a total \$342 million. These resources have enabled Maine companies to secure their intellectual property, launch more competitive products and services, grow faster than average companies across the state, generate jobs and purchase goods and services from other Maine companies.

These early stage R&D efforts are helping to drive new products and services to the market, creating jobs in the technology-intensive sectors. Independent researchers from the University of Southern Maine have noted that "MTI programs have been very successful in a short time supporting substantial innovative activity, particularly in the private sector, that is likely to have positive economic impacts throughout Maine."



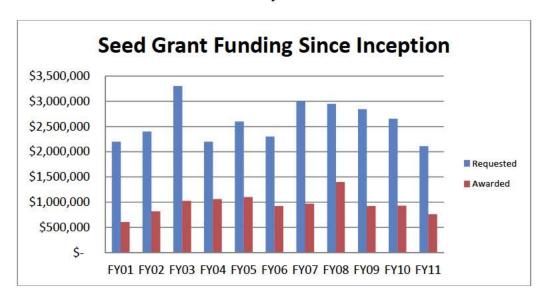
MTI funding reaches all 16 counties in Maine and across the State's targeted technology sectors, as shown in these tables.



## **Business Innovation Programs**

#### **Seed Grants**

Seed Grants of up to \$12,500 each are offered six times a year to support early-stage R&D activities, such as market research, patent filings, feasibility studies and early prototype development. A company may win multiple Seed Grants, but may not exceed \$25,000 for any one technology. In FY11, 66 Seed Grants totaling over \$761,000 were awarded in six rounds that averaged 31 applications per round. The matching funds leveraged by these awards totaled over \$1.4 million (Appendix D). Since 2001, MTI has approved 1,098 Seed Grants for over \$10.6 million and matched by over \$17.2 million.



## Seed Grant Profile: Sea & Reef Aquaculture

Founded in 2003 by Soren Hansen while he was a doctoral student at the University of Maine in Orono, Sea & Reef Aquaculture, LLC, specializes in culturing high-value marine ornamental fish for the marine aquarium hobby. Sea & Reef grew out of doctoral work by Hansen and Chad Callan at UMO's School of Marine Sciences. Hansen, a native of Denmark, and Callan were both interested in tropical fish and wanted to find an environmentally safe way to raise them. Ninety-five percent of the 1,500 saltwater tropical fish species sold for use in home aquariums are collected in the wild from coral reefs in the Pacific Ocean, and harvested by divers who use methods that kill fragile coral and other non-target organisms. Hansen and Callan wanted to help save the coral reefs by supplying high quality captive marine ornamental fish. Sea & Reef fish have numerous advantages compared to wild collected fish; they are disease and parasite free and already acclimated to tank conditions, so they have longer life spans.

Sea & Reef recently moved from Orono to the Center for Cooperative Research (CCAR) in Franklin to expand its production capability to raise 20 different species and color morphs of marine ornamental fish. The company has three full time staff including Hanson. In 2009, Hanson hired Brandon Weik, a graduate of the University of New England with a bachelor's degree in Aquaculture and Aquarium Sciences. Sea and Reef hired Jonathan Labrecque in May 2010 right after he graduated from UMaine's School of Marine Sciences, where he previously worked at Sea and Reef as a work-study student.

Sea and Reef's most recent success is the development of 2 unique color morphs – the Maine Blizzard Clownfish<sup>TM</sup> and the Maine Mocha Clownfish <sup>TM</sup>. The fish are sold to pet stores across the United States and to overseas markets via air transportation. This Maine business continues to grow its production and capture an increasingly larger share of the \$200 million/year US market for marine ornamental fish by developing and marketing environmentally-friendly products.

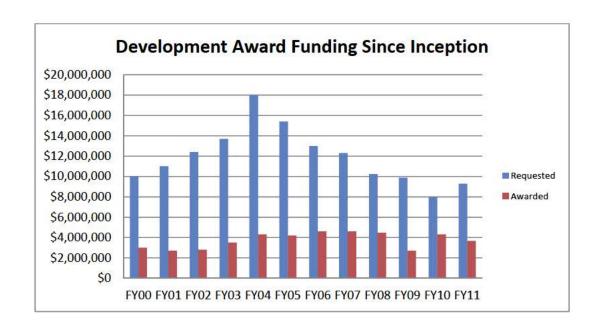
Sea & Reef's story demonstrates how MTI support, via two Seed Grants, can help catalyze a new company's launch and development in a rural community, enable Maine's students to become entrepreneurs, and build on Maine's infrastructure and natural resources to create high value-added products for sales into growing national and international markets.

## **Development Awards**

Development Awards are conditional loans of up to \$500,000 offered on a competitive basis three times a year to fund later stage R&D activities leading to commercialization of new products such as prototype development, testing and manufacturing pilot projects. Loan repayment is triggered by commercialization of the technology.

During the fiscal year, MTI Technology Boards reviewed 29 Development Award applications from Maine businesses. Twelve applications were funded for a total of \$3.6 million and matched by over \$4.9 million (Appendix E). Companies that had received earlier Development Awards made payments back to MTI totaling \$1,434,614 this year, the highest repayment amount to date and an indication of commercialization success.

These repayments are recycled into new awards for Maine companies in support of technology development across the state.



## Development Award Profile: CashStar

Founded in 2008 by Maine entrepreneur, David Stone, CashStar has developed technology that allows online retailers to provide digital gift cards to customers in lieu of plastic cards. Today, CashStar has grown to a staff of over 50 who work with national retail clients. CashStar expects to continue to grow and provide quality jobs in Maine as it expands its 200-strong network of retail customers, which include firms such as Mandarin Oriental Hotel Group, Home Depot, Williams-Sonoma/Pottery Barn, Best Buy, Starbucks, CVS, the Gap, Regal Entertainment Group, Papa John's, and others. Its powerful platform delivers retailers high-margin sales, promotes online as well as in-store traffic and encourages customer loyalty by providing consumers with personal and convenient gifting experiences.

CashStar operates in a market where electronic gift card sales are roughly \$1 billion to \$1.5 billion annually, a fraction of the \$91 billion gift card industry, which is still dominated by plastic cards. Industry-wide electronic gift card sales are increasing 300 to 400 percent yearly, cutting into sales of plastic cards. MTI funding has supported CashStar's development with three Development Awards in 2009, 2010 and 2011 totaling \$806K which CashStar has matched dollar for dollar.

This year, CashStar was named one of the 40 best companies to work for in Maine by the Maine State Council of the Society for Human Resources Management, and recognized as the Gazelle Company of the Year in 2010 by TechMaine and several other national entities (Best Gift Card Program, Fortune and MASS High Tech).

#### **Accelerated Commercialization Fund**

The Accelerated Commercialization Fund (ACF) provides follow-on funding to help successful MTI-funded companies bring their new products or services to market. The funding is available for companies that have successfully completed an MTI Development Award-funded project and are seeking next stage investment from outside angel investor(s) or venture capital funds. The ACF fills a gap for companies seeking to raise equity capital needed to bring their new products and services to market. In FY11, MTI's Board approved two Accelerated Commercialization Fund investments totaling \$134,231 to companies that had previously completed Development Award-funded projects (Appendix E).

## ACF Profile: Ocean Renewable Power Company (ORPC)

In 2008, Ocean Renewable Power Company (ORPC) became the first company to generate electricity from Bay of Fundy tidal currents near Eastport and Lubec without the use of dams or impoundments. In 2010, ORPC successfully designed, manufactured and operated the largest ocean energy device ever deployed in U.S. waters. Today, ORPC is considered an international leader in the emerging tidal energy industry. In 2012, the company will install and operate its first grid-connected TidGen<sup>TM</sup> Power System in Cobscook Bay, delivering clean, renewable electricity to the Maine grid.

Over the last four years, ORPC has spent well over \$8 million in Maine, helped create or retain more than 100 jobs and extended its supply chain reach to 13 of Maine's 16 counties. The company directly employs 23 people at its Portland and Eastport offices. In Washington County alone, ORPC has spent \$3.4 million on payroll, materials, supplies, and other goods and services. More than 40 local contractors support its operations center and on-water projects there.

ORPC has worked closely with the communities of Eastport and Lubec, including town officials, business people, environmentalists, fishermen, other mariners and residents to advance its projects. ORPC also initiated the tidal energy research program at the University of Maine, which has since blossomed into a partnership between the University and Maine Maritime Academy.

Beginning in 2007, ORPC won a \$300,000 Development Award from MTI, and in 2008, a \$150,000 Accelerated Commercialization Fund investment to advance its OCGen™ Tidal Turbine prototype. Since then, ORPC has gone on to secure more than \$20 million in private investment and competitively awarded U.S. Department of Energy grants. "We would not have reached our level of success if not for the Legislature's support of the Maine Technology Institute and recognition of the value of research and development investment in the state's economy," said Christopher R. Sauer, ORPC's President & CEO. "This public sector leadership has helped bring millions of private sector dollars into the Maine economy, directed federal money to our state and enhanced our company's ability to commercialize our power systems."

## SBIR/STTR Awards and Federal Funding Assistance

The Federal Small Business Innovation Research and Small Business Technology Transfer Research (SBIR/STTR) program awards more than \$2.3 billion annually to small business across the nation for innovative research and development projects in areas of interest to eleven Federal agencies. MTI helps Maine companies learn about these programs, prepare competitive applications to secure this funding, and then build successful enterprises based on the new technologies developed with the funding. MTI does this through the following award and technical assistance components:

## **Helping Maine Companies Secure Federal grants**

MTI's Phase 0 Program provides financial assistance to Maine companies that are applying to the Federal SBIR/STTR program. Maine companies can request up to \$5,000 from MTI to help them prepare competitive proposals for these Federal grants. Applications to MTI for Phase 0 support are accepted on a rolling basis to better coincide with SBIR award schedules and allow maximum time for preparation of the most competitive proposals. In FY11, 18 Phase 0 awards were approved, totaling \$85,783, matched by company contributions of over \$125,000 (Appendix F). Since MTI's Phase 0 program's inception in early 2005, more than \$544,000 in Phase 0 awards have been approved and matched by over \$771,000. Through calendar year 2010, Maine company applications for this Federal funding assisted by MTI Phase 0 awards brought more than \$9 million in SBIR/STTR grants from Federal agencies to Maine.

# Helping Companies Translate Technology Development into Business Success

Pre-Phase II SBIR/STTR matching grants are for Maine small businesses that have received a Federal SBIR/STTR Phase I award for research and development. MTI's Pre-Phase II grants provide an additional \$10,000 that is used for commercialization and business development activities not covered by the Federal funds that help companies to secure Phase II funding and to bring their new technology to the market successfully. In FY11, seven Pre-Phase II awards were approved for \$69,914 and matched by SBIR Phase I awards totaling \$735,037 (Appendix F).

### **Technical Assistance Securing Federal SBIR/STTR Funding**

MTI also helps Maine companies learn about and navigate the complex Federal SBIR/STTR program through no-cost technical assistance. During the last several years, MTI's efforts have helped increase the amount of Federal funding received by Maine companies for research and development under this program, which has contributed to the competitiveness and growth of these companies. Since MTI's inception in 1999 through Federal FY10, Maine small businesses have won 262 awards totaling over \$63.5 million.

MTI's outreach, awards and SBIR/STTR no-cost consulting support continue to help Maine companies learn about these important Federal programs, identify opportunities that fit their technology areas, and prepare competitive applications for SBIR/STTR funding. During this fiscal year, Maine small businesses received six SBIR/STTR awards totaling \$1.66 million.

## SBIR Profile: Ocean Farm Technologies

Founded by former fisherman and Maine entrepreneur Steve Page, Ocean Farm Technologies Inc., (OFT) located in Searsmont, develops and markets innovative technology for aquaculture in exposed open ocean conditions. Companies using OFT's net pens represent a new and growing number of firms globally pursuing sustainable open ocean aquaculture. OFT's patented Aquapod™ is a unique containment system suited for rough open ocean conditions and a diversity of species. Aquapod net pen systems, which have grown in size from 10' diameter to 80', are now being exported to eight countries including South Korea and Mexico for offshore cod and shrimp aquaculture. OFT's employee base has grown from five to 13 and is expected to grow to 16 by the end of 2012.

OFT has raised \$3.9 million of private capital and over \$800,000 in SBIR funding. In 2011, OFT was one of 44 small businesses nationally that were honored by the U.S. Small Business Administration for their research and development success driving innovation and creating new jobs.

## Awards to Strengthen Maine's Technology Clusters

Recognizing that dynamic technology clusters require more than a group of individually successful companies, MTI offers awards for collaborative, industry-driven activities aiming to boost activity within and among the seven targeted industry sectors. These awards support the connection among and joint action by similar companies, growing out of the common knowledge, skills, obstacles and innovation shared by these companies and technology partners. These joint efforts in turn stimulate entrepreneurship and lead to new products and services in Maine's technology-intensive clusters.

MTI's Cluster Initiative Program provides planning and feasibility projects (applications accepted on a rolling basis) of up to \$50,000 and competitive multi-year implementation awards totaling up to \$500,000 (with applications accepted twice a year). The program also allows applications that aim to strengthen multiple clusters simultaneously by addressing a common challenge (such as entrepreneurial development).

In FY11, MTI approved funding for eight awards aiming to strengthen Maine's high-potential technology clusters, totaling nearly \$1,860,000 and matched by over \$2,720,000 (Appendix G). All together MTI has provided over \$10 million in cluster awards, matched by more than \$20.5 million for 72 projects that support Maine's technology-driven businesses by improving the infrastructure, resources, connections and linkages necessary for the innovation economy to thrive. Awards made in FY11 included

collaborative projects supporting Maine composite, medical device, renewable energy and biotech clusters.

## Cluster Initiative Profile: The Maine Aerospace Alliance

In 2009, MTI awarded a Cluster Enhancement Award of \$499,604, matched by outside funding of \$590,415 to the Manufacturers Association of Maine (MAMe) to create the Maine Aerospace Alliance (MEAA). With the funding, MAMe created an alliance of existing manufacturers that are engaged or had interest in entering the aerospace market. The project focused on reducing industry "barriers to entry into the market", creation of aeronautical engineering courses at UM, industry certifications and training through the Business Growth Services (BGS) division at MAMe. In 2010, according to a report prepared for MTI, the cluster included about 74 companies and 8,350 Maine jobs.

To date, MEAA has provided 44 companies with certifications, training and business services during this project. Silvex, a coating company located in Portland, used MEAA services to increase market share. As a result, Silvex has added two and retained six jobs. Specialty Product Company (SPC), located in Whitefield, has 20 employees. SPC received ISO certification required for contract work and added 5,000 sq. ft. of building space to accommodate their increased contract work. SPC has added three and retained seventeen jobs as a result of services provided through MEAA.

## Bond Programs: Building the Research-to-Market Pipeline in Maine

MTI administers three bond-funded programs: the Maine Technology Asset Fund aimed at bringing innovative Maine technologies to the market by supporting equipment and lab facilities, and the Maine Biomedical Research Fund and the Maine Marine Research Funds to expand Maine's research capacity in biomedical and marine research.

## Maine Technology Asset Fund

In November 2007, the Maine State Legislature authorized and Maine voters approved \$50 million in bond funds for research, development and commercialization projects that boost economic development and create and sustain good jobs across the State. The Legislature directed MTI to develop and administer this venture, based on its track record of managing high-impact innovation funding programs in the for-profit, nonprofit and university sectors. In June 2010, Maine voters approved an additional \$3 million to the Maine Technology Asset Fund.

MTI requires MTAF applicants to outline how they will use the requested equipment or facilities to develop products, processes and other innovations that can be brought to the marketplace, grow job opportunities and businesses in Maine, and/or attract Federal and other funding that expands the State's research infrastructure in ways that boost the Maine economy.

Maine companies, higher-education institutions and non-profit organizations that work in the State's targeted technology sectors are eligible to compete for MTAF awards. Award recipients are required to match the MTAF funds with at least one dollar for every dollar awarded. The recipient's co-investment in the project helps to insure the organization is equally invested in the new technology and has adequate resources to advance the project; it also expands considerably the overall economic benefit for Maine.

Awards approved in Round One (August 2008), Round Two (June 2009), and Round Three (October 2010, Appendix H) were reviewed via an independent and competitive process managed by MTI together with the American Association for the Advancement of Science (AAAS), a respected scientific organization that has worked with over 30 states to implement research and technology commercialization programs. In these three competitive rounds, MTI received 134 applications for over \$234 million, and executed awards totaling \$52.8 million to 35 companies and organizations across Maine. Awards were based on five criteria, listed in order of priority:

- Economic Growth and Impact
- Scientific or Engineering Merit and Feasibility
- Team and Institutional Merit and Commitment
- Relevance to Maine's Innovation Economy Needs
- Collaboration

Once MTAF contracts are executed for these projects, which can last for up to five years, award recipients are reimbursed for facilities construction and renovation expenses as well as equipment purchases as per their approved project and timeline. As of June 30, 2011, MTI had reimbursed \$26,272,902 of such expenses. Preliminary economic impact reported by that date included:

- New jobs created: 447 (jobs in Maine's technology sectors historically pay 37% higher than the average Maine wage)
- Existing jobs preserved: 405
- New products: 10
- New patents or other intellectual property protection: 49
- New grants or contracts: \$99,326,826
- New debt or equity investment: \$23,750,000

This data will be further detailed in the State's comprehensive R&D evaluation report, which will be completed in January 2012.

## MTAF Profile: Bigelow Laboratory for Ocean Sciences

Bigelow Laboratory for Ocean Sciences is an internationally recognized leader in global ocean research. The Laboratory is primarily funded by competitive federal research grants, attracting over \$100 million to Maine during its 37-year history. Through an MTAF award of \$4.45M, the Laboratory is developing the Bigelow Center for Blue Biotechnology (BCBB) on its new Ocean Science and Education Campus at East Boothbay. The MTAF award provided (cont'd)

## MTAF Profile: Bigelow Laboratory for Ocean Sciences (Cont'd)

the leverage for two major federal grants totaling \$14.12 million, and in September 2010, the Laboratory began building the new \$33 million campus on the 64-acre shorefront property it purchased in East Boothbay seven years ago. The remainder of the cost of campus construction is being covered by the Lab's fundraising campaign and mortgage. The BCBB is the first of three science wings on the campus and opened in November 2011.

Over the next five years, the Laboratory's goal is to increase annual revenues from \$7.6 million to \$20 million. Once construction of the campus is completed, (its science facilities will grow by more than 40,000 square feet to about 62,000 square feet) the Laboratory expects to double its employment to over 120. The expansion enables Bigelow to partner with Maine businesses to transfer technologies to commercial applications. In September 2011, two Technology License Agreements were announced that will facilitate access to and collaboration with Bigelow scientists. One agreement is with Kennebec River Biosciences, Inc. (KRB) of Richmond, Maine and another is with Fluid Imaging Technologies, Inc. (FIT) in Yarmouth, Maine. KRB is a source of aquatic animal health products and services, and performs diagnostic and certification testing on aquatic species from cultured and wild sources. FIT produces industry-leading particle analysis instrumentation based upon digital imaging, with markets that include the pharmaceutical, food and beverage, chemical, abrasives, and plastics industries, among many others. Both of these Maine businesses have been growing independently due to their own innovation and will now leverage that growth through their partnership with Bigelow.

#### Maine Biomedical Research Fund

MTI administers the Maine Biomedical Research Fund, which supports biomedical research in Maine and was financed by State bonds (as well as General Funds in its early years) and is governed by the Maine Biomedical Research Board. Between 2001 and 2005, the State approved \$42.5 million for the Fund and these funds have been awarded by the Maine Biomedical Research Board for biomedical research projects that extend for up to five years.

During the fiscal year, no new funds were appropriated by the State for this program and no new awards were made by the program. MTI made final payments and monitored previous awards to three organizations in Scarborough and Bar Harbor that carry out biomedical research. These organizations are the Foundation for Blood Research, the Jackson Laboratory and the Maine Medical Center Research Institute.

During FY11, MTI disbursed \$890,107 to this Fund's awardees for projects that had been approved in previous fiscal years. These funds concluded projects, such as the development of the Maine Center for Clinical Epidemiology at the Foundation for Blood Research. As of June 30, 2011, all outstanding Maine Biomedical Research Fund projects had been completed.

#### Maine Marine Research Fund

The Maine Marine Research Fund was created to support marine research and boost employment in Maine through investment in eligible Maine non-profit institutions, state government and quasi-governmental agencies and academic institutions. The Fund is

governed and administered by the MTI Board of Directors. Similar to the Maine Biomedical Research Fund, there were no new funds appropriated by the State for this program in the fiscal year and no new awards were made by the program. In FY11, MTI disbursed \$141,294 to this Fund's award recipients as they carried out project milestones. These payments funded activities such as equipping the Maine Aquatic Animal Health Laboratory at the University of Maine for use by researchers and industrial partners, and the enhancement of the Gulf of Maine Research Institute Ocean Observing System in the Gulf of Maine to stimulate research and inform industry. As of June 30, 2011, activity on all projects had been completed, except for the University of Maine at Machias and the Gulf of Maine Research Institute, which received extensions for several months into the subsequent fiscal year.

## Sector-Specific Assistance: Renewable Energy Technology

From time to time, MTI has the opportunity or mandate to focus additional support on a particular sector. In 2008, the Maine Legislature authorized the annual distribution of 35% of the Renewable Resources Fund at the Public Utilities Commission (later transferred to the Efficiency Maine Trust) to MTI to support the development and commercialization of renewable energy technologies. In FY11 MTI was allocated \$152,471, and distributed funds to Maine companies via one Development Award, six Seed Grants, and two Pre Phase II awards to advance the commercialization of tidal, wind, solar and biofuel technologies.

## **Effective Partnerships**

## **University of Maine System**

Active collaboration between the University of Maine System and MTI continued in FY11. MTI's Board approved five Seed Grants, two Cluster Initiative Awards and two Technology Transfer Development Awards to University of Maine Orono and University of Southern Maine projects during the fiscal year. In addition, MTI's team made multiple presentations at University System campuses and worked collaboratively with the Knowledge Transfer Alliance at the University of Maine Business School, the Target Technology Center, the Forest Bioproducts Research Institute, the Advanced Structure and Composites Center, and the University of Maine Innovation Engineering Program.

University involvement with MTI included University Centers and personnel being an award recipient, a subcontractor to Maine companies funded by MTI, providing incubator support to MTI-funded companies, commercialization support of UM technology, technology licensing, and business development support to MTI applicants and award recipients. In addition, Jake Ward, the University of Maine's Assistant Vice President for Research, Economic Development and Governmental Relations served on the MTI Board (as the University System Chancellor's designate) and as MTI's Board Secretary.

## **Maine's Technology Development Centers**

MTI funding is critical to the start-up technology companies that receive assistance through Maine's incubators, called Technology Centers. Most of the companies that are located at the Centers as tenants or avail themselves of support and counseling from the Centers are very early stage companies that are still in the research and development phase as they move towards commercialization. MTI funding is critical to their survival as they are still too early for angel or venture capital investment and far from being "bankable".

In FY11, MTI continued its highly engaged relationships with these Centers. Two out of three of the Center directors served on MTI technology boards and thereby participated in MTI award review processes. In addition, the Centers provided facilities for MTI's workshops and seminars and promoted MTI programs to their clients. One of the Centers, the Maine Center for Entrepreneurial Development in Portland, conducted its second class of its entrepreneurship development program, called "Top Gun". This competitive program included several MTI-funded companies and connected them with approximately two dozen volunteer industry mentors. MTI management staff served as advisors to the program's development as well as mentors of Top Gun entrepreneurs.

In the case of the Target Technology Center in Orono, MTI funding has been critical to moving affiliated companies and technologies forward either to the point of successful commercialization or to the point that their companies become attractive to other, later stage investors. During FY11, Target Technology Center staff assisted multiple companies to prepare successful proposals for MTI funding.

Finally, during FY11 the Maine Aquaculture Innovation Center (MAIC) provided support to a number of MTI funded aquaculture companies, including Sea & Reef Aquaculture and Mook Sea Farm.

#### **Maine International Trade Center**

Export markets are an increasingly important source of customers for Maine technology companies. MTI and the Maine International Trade Center (MITC) continued their partnership offering MTI Development Award companies one year of free membership to the Trade Center so that they can access the Center's export assistance services and be more likely to position their technologies for export. As part of our collaboration, MTI staff annually make at least one presentation to MITC members, to make sure that they are familiar with MTI programs, and MTI and MITC staff meet periodically to explore new avenues for joint work.

## **Maine Manufacturing Extension Partnership**

Maine MEP engages with MTI-funded companies for follow-on technical assistance projects. Maine MEP projects with MTI recipients concentrated on quality management systems audits, lean manufacturing training and implementations, facility layouts,

innovation engineering, supply chain connections and workforce development, accounting for hundreds of hours of focused training and consulting services.

According to Maine MEP records, Maine MEP also contributed over 100 staff hours during this period to promote MTI programs to Maine manufacturers and to introduce MEP services to MTI awardees. Significant support has been to the Maine Food Producers Alliance representing over 70 food manufacturers as well as the food industry cluster support assets and suppliers. Additional support has been extended to the University of Southern Maine in innovation engineering and medical device cluster initiatives and numerous manufacturing-associated MTI program applications. Fifty-nine companies reported impacts with MEP and subsequent follow on referrals to MTI within FY11.

Finally, as part of their ongoing partnership agreement, MTI's awards of over \$2.4 million to manufacturing companies, in combination with other funds secured by MEP, allowed MEP to draw down its full allocation of Federal matching funds, which were used to provide additional services and programs.

## **Small Business Development Center**

MTI and the Small Business Development Center have worked together in multiple ways since MTI's founding. Currently, MTI's President and the SBDC Director participate in the regular DECD meeting of economic development agency directors to discuss current activities and areas for future collaboration and periodically bring their staff teams together to update each organization on its programs and capacities so each can make accurate referrals for Maine businesses. Furthermore MTI staff and its website refer interested company applicants and award recipients to seek out business planning and execution assistance from the regional SBDC business counselors.

#### **Small Enterprise Growth Fund**

MTI continued a close and mutually supportive relationship with the State-sponsored venture capital fund, the Small Enterprise Growth Fund (SEGF). MTI and SEGF also worked collaboratively to educate Maine entrepreneurs about sources of capital in Maine, including meeting with companies together and making joint presentations in a variety of events. The two organizations also collaborated closely on the development and implementation of the aforementioned MCED Top Gun program. Finally, eight out of 17 SEGF portfolio companies have secured financing and other assistance from MTI. This confirms that MTI is helping to build a pipeline of companies ready for equity financing here in Maine.

#### **Maine Patent Program**

In FY11, MTI continued to fund intellectual property-related activities as part of its awards to Maine companies. This work is only funded after companies have received advice from the Maine Patent Program or intellectual property lawyers that the proposed activity is merited. According to data collected by the firm Camoin Associates for the

State's Comprehensive R&D Evaluation, the Maine Patent Program has counseled 507 companies during the past five years and 48 of these have received MTI support. Furthermore, MPP staff and MTI staff meet periodically to provide each other with program updates and to discuss opportunities for further collaboration.

## **Private Capital Sources**

To help boost access of MTI-funded companies to follow-on funding from private venture capital sources as well, MTI maintained close relationships with many of the venture capital funds and investors in the state and region. The MTI president serves as a member of the Maine Investment Exchange (MIX) Advisory Committee, and in that role helps introduce Maine's technology-intensive companies to early stage equity investors. MTI partners with the Maine Angel Network, the Maine Center for Entrepreneurial Development and others to introduce MTI-funded companies to investors. In addition, in June 2011 MTI co-sponsored a workshop with the E2Tech Council and the New England Clean Energy Foundation that introduced Maine clean technology companies to Boston area venture capital fund managers. Finally, two of MTI's Board of Directors represent the finance sector and include a venture capitalist and a banker. They advise MTI on how the organization can best help Maine companies secure private capital to fund the commercialization of new technologies.

The MTI president and staff network informally on a regular basis with organizations and groups that are potential capital sources, such as the Small Enterprise Growth Fund, the Finance Authority of Maine, Coastal Enterprises, Inc., other early-stage venture funds in the State, as well as the Maine Angel Network and individual investors.

#### Outreach

It is important that all MTI programs be available and accessible to all eligible entrepreneurs and businesses throughout the State of Maine. In the past year, MTI promoted its programs in a variety of ways, including:

- MTI prepared statewide press releases and worked closely with media outlets
  in an effort to promote its programs, program milestones, and to highlight
  companies who received MTI funding. MTI sent statewide press releases after
  each round of awards and to announce new programs.
- MTI sent its monthly e-NEWS to more than 2,100 individuals, companies and
  organizations with award deadlines, workshops and seminars, announcements of
  relevance to the targeted industry sectors and notices of MTI award recipients in
  the news. This includes a blog that has replaced MTI's former paper newsletter.
- MTI conducts workshops about how to apply for its programs and makes presentations about the importance of innovation to the Maine economy. Publicized in the press and through the economic development community, these educate the public and help entrepreneurs develop competitive applications and

- proposals for MTI funding. In FY11, MTI launched a series of webinars that expands access to MTI application workshops for entrepreneurs across the state.
- MTI's website, www.mainetechnology.org, is updated frequently with all of the
  information and documents necessary to apply for funding, the latest MTI news
  and deadlines, MTI innovators in the news, a calendar of events, impact
  information and success stories.
- MTI attendance, sponsorship or presentations across the state continued to increase. In the past year MTI participated in events of, or provided support to organizations including the following:
  - Association for Consulting Expertise
  - o Bioscience Association of Maine
  - o Blackstone Charitable Foundation
  - Center for Law and Innovation
  - o Coastal Enterprises, Inc.
  - o Economic Development Council of Maine
  - o Environmental and Energy Technology Council
  - o Federal Economic Development Administration
  - o Federal Small Business Innovation Research Program
  - o Federal Start-up America Initiative
  - o Finance Authority of Maine
  - o Forest Bioproducts Research Institute
  - o Gardiner Board of Trade
  - o Gulf of Maine Research Institute
  - o Maine Angel Network
  - o Maine Aquaculture Association
  - Maine Biomedical Research Board
  - o Maine Center for Entrepreneurial Development
  - o Maine Community Foundation
  - o Maine Development Foundation
  - Maine Entrepreneurs Network
  - o Maine Fisherman's Forum
  - Maine Food Producers' Alliance
  - o Maine Innovation Economic Advisory Board
  - o Maine International Trade Center
  - Maine Investment Exchange
  - o Maine Manufacturing Extension Partnership
  - o Maine Philanthropy Center
  - o Maine Procurement Technical Assistance Center
  - o Maine Public Utilities Commission
  - o Maine Small Business Development Center
  - o Maine Small Enterprise Growth Fund
  - o Manufacturers Association of Maine
  - o Massachusetts Institute of Technology
  - MidCoast Magnet
  - o National Collegiate Inventors and Innovators Alliance

- o New England Clean Energy Council
- o Policy One Research
- o Science, Technology, Engineering and Mathematics Summit and Dialogue and Careers Roundtable
- Service Core Of Retired Executives (SCORE)
- o Small Business Association of New England
- o State Science and Technology Institute
- o Target Technology Center
- o Tech Maine
- o UMaine Advanced Structures and Composites Center
- o UMaine Business School and Knowledge Transfer Alliance
- o UMaine Innovation Engineering Program
- o University of Southern Maine School of Applied Science and Technology
- o Youth and Technology for the Immigrant Population

## **Impact and Accountability**

Since its inception in 1999, MTI has funded through its core programs 1,552 technology development projects throughout the state of Maine, a financial commitment of nearly \$126 million that has leveraged an additional \$216 million for a total \$342 million. These resources have enabled Maine companies to secure their intellectual property, launch more competitive products and services, grow faster than average companies across the state, generate jobs and purchase goods and services from other Maine companies.

All MTI-funded award recipients are required to submit information annually to the state's independent evaluation firm for its Comprehensive Research and Development Evaluation for five years following a project's completion. The compiled data are evaluated by this third-party firm to determine the impact of MTI programs as well as other publicly funded innovation programs on Maine's economy. This firm is Camoin Associates, based in upstate New York and Scarborough, Maine, which specializes in economic development planning and impact analysis.

The most recent Comprehensive State Research and Development evaluation report was completed by Camoin in February 2011. The data in this report noted that MTI was ranked highest by the 325 companies that ranked the value and assistance from they received from 14 Maine and out-of-state resources. The 52% of respondents to this third-party, confidential survey that had received MTI-support noted that MTI's support was "critically important" to their success. The Camoin evaluation showed the following for company respondents, the majority of which received MTI support:

## **R&D** Performed

• In 2010 the companies received a total of \$2,608,725 in state funding for R&D related activities.

- In 2010 the companies expended a total of \$27,017,248 on R&D from all sources of revenues.
- Therefore in 2010 every dollar the state contributed in R&D to these companies leveraged 10 dollars in total R&D.

## **Employment**

- In 2010 these companies directly employed 3,545 persons
- This generated an estimated additional 5,898 indirect jobs
- This resulted in an estimated total job impact of 9,443 jobs

### Revenues

- In 2010 these companies generated a total of \$913,359,702 in revenues from all sources
- This generated an estimated additional \$665,569,167 in indirect revenues
- This resulted in an estimated total revenue impact of \$1,578,928,869 or \$605 in revenues for every \$1 spent in R&D support in 2010 (\$350 direct revenues plus \$255 indirect).

This report can be found at <a href="http://maine.gov/decd/decd\_information/reports.shtml">http://maine.gov/decd/decd\_information/reports.shtml</a>. A new report by Camoin Associates, covering data collected up to June 30, 2011, will be submitted to the State and available to the public in January 2012.

From time to time, MTI commissions a more in-depth review of the data collected by State's evaluation team, analyzing the data collected from MTI-funded companies only. The most recent such analysis was drawn from awards ending between July 1, 2006 and June 30, 2008 and analyzed by the Center for Business and Economic Research at the University of Southern Maine. These results were presented to the Legislature's Joint Standing Committee on Business, Research and Economic Development by Dr. Charles Colgan, the Center's Associate Director and former State Economist, in January of 2009.

## Highlights of that report included the following:

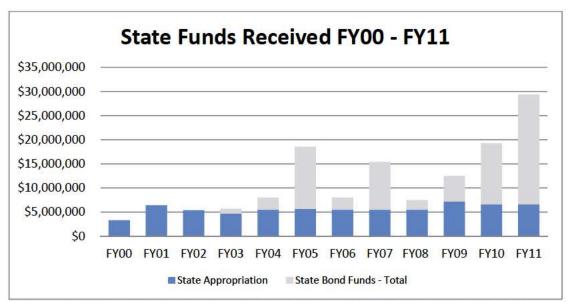
- "MTI projects closing in 2007 and 2008 yielded \$14.27 for every \$1.00 of MTI funds, up from \$12.00 in 2002-2006."
- "Research is an inherently risky activity, but MTI-funded companies have had a high rate of success."
- "The number of new products resulting from MTI research that are on sale at the time of survey has been at a consistently high level over the last three years."
- "MTI research projects continue to generate a high level of successful efforts to secure intellectual property protection in the form of patents, trademarks, and registered trade secrets.

- "Almost all [four out of five] MTI companies reported stable or growing employment from year to year."
- "MTI is ...the organization whose assistance is most frequently cited as "critically important" by those who use it."

MTI plans to commission an in-depth analysis of the data collected from MTI-funded companies only in the first half of 2012.

## Finances

MTI is funded through an appropriation to the Department of Economic and Community Development (DECD), and is limited by statute to using no more than 7% of the general funds (ie. non-bond) appropriated for its operations.



\*Bond funds are not transferred by the State to MTI immediately following voter approval. Funds are drawn down to make reimbursement payments as award recipients achieve project milestons.

Financial highlights of FY11 include the following:

- MTI received \$6,580,814 from a State appropriation through the Department of Economic and Community Development ("DECD") for general programs and \$22 million of the \$53 million of State bond funds for research, development and commercialization via the Maine Technology Asset Fund (MTAF).
- MTI approved for funding 113 projects totaling just over \$6.5 million, an increase of approximately \$300,000 in core program awards over the previous year. Ten awards representing \$7.2 million were approved this year under the MTAF Program.
- MTI disbursed \$20.3 million according to agreed-upon project award milestones,
   \$2.4 million more than in the previous fiscal year; the majority of the increase was due to MTAF disbursements.

- MTI's outstanding commitments for its core awards comprise \$6.8 million, including approximately \$2.5 million in approved awards with unexecuted contracts as of June 30, 2011. MTAF outstanding commitments total \$26.4 million, including \$2.2 million in approved awards with not-yet-executed contracts.
- MTI received \$1,434,614 in Development Award repayments, nearly \$1.2 million more than in fiscal year 2010.
- \$247,173 was realized from interest, a decrease of approximately \$54,000 compared to the previous year, due to a reduction in MTI's interest yield rate.
- The bonds that funded the Maine Technology Asset Fund were approved by Maine voters in November 2007 and June 2010. In the prior fiscal years, MTI received General Funds to cover ongoing monitoring and administration costs of this fund. Of the \$223,207 carried forward at the end of FY10, \$176,754 was expended during FY11. MTI's monitoring obligation will extend for four years after June 2011.
- FY11 administrative and operating costs were approximately \$1.1 million, an increase of \$125,000 (11%) over the previous year. MTAF operating costs, particularly one-time application review fees and expenses associated with conducting the third funding competition, rose by \$72,000. Expenses for all other programs and activities were \$53,000, or 6% higher than the previous year. All operating expenses other than the costs to monitor and administer the Maine Technology Asset Fund are paid by interest earnings plus 7% of the State appropriation and of development award repayments.
- In the fall of FY11, MTI's State appropriation was curtailed by \$115,857.
- During Fiscal 2011, the Board of Directors voted to renew recognition of the 7% of the State appropriation that MTI is allowed in order to fund its operating expenses. As a result, FY11's usage of net assets decreased to nearly \$19,000, compared to \$433,000 for the previous fiscal year.

For detailed audited financial information for FY11, see Appendix I.

## **Looking Ahead**

MTI's ultimate goal is to help Maine companies to use technology to grow and remain vibrant and competitive, therefore creating good jobs, greater wealth, and a vibrant economy in Maine. The organization does this by providing seed capital and targeted business assistance to Maine companies for technology development and commercialization and making grants to strengthen Maine's high-potential technology clusters. MTI has operated since 2000 and has developed into a mature organization with an independently evaluated track record that demonstrates a historical return on investment of between \$10-\$14 for every \$1 awarded by MTI.

In the fiscal year covered by this report, MTI stewarded its core Business Innovation Programs, the expanded Cluster Initiative Program and the \$53 million Maine Technology Asset Fund, with minimally increased operating costs. Going forward, MTI

is managing this comprehensive menu of programs in an environment of fiscal austerity, with a continued commitment to excellence in its operations and a high return on investment for taxpayers in terms of growing technology companies, strengthened technology clusters, and good jobs for people across Maine. The related fiscal picture included a reduction in MTI's general appropriation in FY2010 and FY2011 of approximately 10% and a curtailment of just under \$116,000 in the fall of FY2011.

During the upcoming fiscal year, MTI expects to see continued repayment of development awards by MTI-funded companies as products developed with support of early awards enter the market and gain market share; however, these repayments are by nature dependent on company success and broader economic conditions. The fact that the FY11 development award repayments were the highest in MTI history this year shows that investments in innovation do pay off for Maine companies despite the challenging investment and business climate. Over time, such repayments will continue to provide a limited and erratic source of revenues for MTI. This is because MTI awards are made at a very early stage of technology development when technology and business risks are extremely high. In addition, development awards are the only MTI awards that have a payback requirement, which is conditioned only when commercialization is successful. (No interest is charged during the first three years after commercialization, unless the company moves out of state, when special and immediate repayment is required.) Thus, award repayments will never grow sufficiently to replace the funding received through State appropriation and outside grants.

To ensure that MTI continues to achieve its high standards, the organization's Board and staff undertook a strategic planning process that was completed and approved by the Board in the spring of 2010. This three-year plan called for MTI to modify its core business innovation program to provide funding and business development support to accelerate the time to market for new technologies while boosting business access to capital and ultimately profitability and job growth. It also directed MTI to expand its outreach across Maine, both in-person and online, to increase the pipeline of high quality proposals to its programs. Finally, it called for MTI to seek out partnerships within Maine and regionally that will help MTI to advance its mission of stimulating Maine companies to develop new, globally competitive technologies for the market, contributing to their growth and to the growth of vibrant industry clusters across Maine.

Planning and activity began in these areas starting in FY11 and gained momentum in the subsequent months early in FY12. For example, in FY11 MTI evaluated ways to expand access, reduce costs of operations and expand its impact, as well as initiated new partnerships. As a result, early in FY12, MTI launched its updated Business Innovation Program, moved its office to Brunswick Landing and initiated monthly MTI Office Days at the Target Technology Center in Orono. In addition, working with several partners, MTI helped to attract over \$3 million in grants from Federal and philanthropic sources to support innovation and entrepreneurship in Maine. These updated programs, expanded outreach and better-resourced partnerships will ensure that MTI's investments in innovation continue to grow and sustain good jobs across the state and contribute to a prosperous Maine.

# **Appendices**

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# The Maine Technology Institute Board of Directors FY2011

Member	Term Ends*	Affiliation	Sector or Organization
James Detert Chair	2012	Molnlycke Health Care	Precision Manufacturing
Paul Turina Vice Chair	2013	Safe Handling, Inc.	Environmental Technology
David Daigler (S) Treasurer	N/A	Maine Community College System	Maine Community College System
Jake Ward (S) Secretary	N/A	University of Maine	University of Maine System
Scott Bourget	2013	Maine Machine Products Co	At-Large Industry
Christopher Davis	2013	Maine Aquaculture Innovation Center	Aquaculture and Marine Science
Linda Diou	2012	Meridian Life Science, Inc	Biotechnology
David Erb	2011	Textech Industries, Inc.	Composites Technology
Steven Hand	2013	Know Technology	Information Technology
Joel Johnson (S) (Non-Voting)	N/A	State Planning Office	State Planning Office
Tim Nightingale	2011	Camden National Bank	Financial
George Gervais (S)	N/A	Commissioner	Department of Economic and Community Development
Stephen Smith	2012	Masthead Venture Partners, LLC	Financial
vacant			Advanced Technologies for Forestry and Agriculture
Betsy Biemann (Non-Voting)	Ex Officio	Maine Technology Institute	Maine Technology Institute

S = Serves as the designee of their organization NV = Nonvoting

<sup>\*</sup>MTI Board members serve three year terms and can serve for up to two consecutive terms. Terms typically end in September of the year noted.

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## Maine Technology Institute

# Technology Boards FY11

Member	Affiliation	
Aquaculture & Marine		
Dr. John Annala	Gulf of Maine Research Institute	
Nick Brown	Center for Cooperative Aquaculture Research	
Hugh S. Cowperthwaite	Coastal Enterprises, Inc.	
Michael Devin	Devin Consulting	
Paul Dobbins	Ocean Approved	
Scott Feindel	Mook Sea Farm, Inc.	
Steve Jury	University of New England	
Bill Mook	Mook Sea Farm, Inc.	
Dana Morse	Maine Sea Grant Program, UMaine Cooperative Extension	
Carter Newell	Pemaquid Mussel Farms and Great Eastern Mussel Farms, Inc.	
Pat Pinto	Saltwater Marketing	
Louis Sage	Consultant	
Jere Shaw, Chair	Evergreen Credit Union	
Biotechnology		
Brian Connelly	Faber Daeurfer & Rosenberg PC	
Clyde Dyar	Teague Biotech Center of Maine	
Joan Gordon	Maine Molecular Quality Controls, Inc.	
Pam Gustin	Toxicon	
Karen Houseknecht	University of New England	
Wayne Keown	Furman Gregory Deptula	
Douglas McAllister	ViroStat	
Ed Mamenta	Seroclinix	
Dr. Ah-Kau Ng	University of Southern Maine	
Gabriele Proetzel	The Jackson Laboratory	
John Roche	Roche Biomedical Consulting Group	
Christopher Speh	TwoLights Insights Co.	
Calvin Vary, Chair	Maine Medical Center Research Institute	
Janet Yancey-Wrona	Aiko Biotechnology	
	Composite Materials	
Robert Carr	Applied Thermal Sciences, Inc.	
Andre Cocquyt	ACSM, Inc.	
Stan Farrell	Tex-Tech Industries	
Erik Grimnes	Harbor Technologies. Inc.	

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Martin Grimnes	Harbor Technologies, Inc.			
Steve Hassett	Custom Composite Technologies			
Steve Levesque	Midcoast Regional Redevelopment Authority			
Robert Lindyberg	UMaine Advanced Engineered Wood Composites Center			
Debra Mattson	Maine Advanced Technology Center			
Dale Peabody	Maine Department of Transportation			
Ken Priest	Kenway Corporation			
Steve VonVogt, Acting				
Chair	Maine Marine Composites			
Environmental Technology				
John Adelman	CPRC Group			
Jim Atwell, Acting Chair	Sevee & Maher Engineers, Inc.			
Andre Casavant	HDR/DTA			
Amos Eno	Resources First			
John Ferland	ORPC Maine, Inc.			
John Logan	Water Energy Distributors, Inc.			
Jesse Moriarity	University of Maine, Foster Student Innovation Center			
Kwabena Osei	Hydro International			
Patrick Scanlon	Preti Flaherty Beliveau and Pachios			
	Forestry & Agriculture			
Bill Blaiklock	Woodcock Farm			
Jay Brown	Bath Technical Services			
Richard Dorey	Consultant			
Martin Grohman	GAF			
Eric Kingsley	Innovative Natural Resource Solutions, LLC			
Bob MacGregor	Maine Wood Products Association			
John Manoush, Chair	Manoush Associates			
Richard Pfeffer	Gritty McDuff's and Aroostook Starch Company			
Robert Phillips	Consultant			
Jeffrey Spaulding	Eaton Peabody, P.A.			
	Information Technology			
John Brown	AeroHydro, Inc.			
Mark Donahue	IDEXX			
Charlene Hamiwka	Consultant			
Kirk Hill	IDEXX			
Stephen Howard	Howard Associates			
Dana Hutchins	Image Works/Xhibit Net			
Robert Kelley	LiquidHub, Inc.			
Scott Knoll	Wright Express Corporation			
Tom Lovering	Portland Webworks, Inc.			
Peter Murray	Quantrix			
David Rubenstein	Maine Aerospace Consulting			
Michael Shattow	Consultant			
Scott Stefanski	Bazaar Strategies			
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Robert Waeldner, Chair	Waeldner Law Offices	
Precision Manufacturing Technology		
Bruce Drouin	Katahdin Trust Co.	
John Grondin	Prescott Metal	
Daniel Huber	Consultant	
Adam Jones	Shively Labs	
Lisa G. Martin, Chair	Manufacturers Association of Maine	
Norman MacIntyre	MacIntyre Consulting	
James Olson	Citi Smith Barney	
Chip Roche	Newfab, Inc.	
Bruce Segee	UMaine Department of Electrical and Computer Engineering	

# MTI Staff Biographies FY2011

## Betsy Biemann, President

In 2005, Betsy Biemann was appointed by former Governor John Baldacci to serve as president of the Maine Technology Institute (MTI), after a national search and the recommendation by the MTI Board. MTI's purpose is to support entrepreneurs in Maine's seven targeted technology sectors to bring innovations to market and create good jobs for people across Maine. It does this by making grants and loans to Maine companies to jointly fund technology development projects as well as by funding collaborative activities aiming to strengthen Maine's high-potential technology clusters. These clusters span the state's mature industries, such as forestry and agriculture, and emerging industries, such as environmental and energy technology and biotechnology. MTI also administers the Maine Technology Asset Fund, the State's \$53 million bond program boosting research and economic development across Maine.

Betsy serves as a member of the Maine Innovation Economy Advisory Board, the CEI Community Ventures Board and the Maine Philanthropy Center Board. She joined MTI after serving as an associate director at The Rockefeller Foundation in New York City, where she managed a national grant and investment program aiming to increase employment in low-income communities. She also oversaw Rockefeller's equity investments in community development venture capital funds and below-market loans to social enterprises. Betsy joined Rockefeller's staff in 1996, after working in the field of international development for 10 years, principally in Africa and Latin America. In 2010, MaineBiz named Betsy to its NEXT List of ten individuals the newspaper believes will influence the future of Maine's economy.

Betsy earned her bachelor's degree in biology and the history of science at Harvard University and a master's degree in public policy from Princeton University. She has attended executive programs at MIT's Sloan School of Management, Stanford University's Graduate School of Business, and the National Venture Capital Association's Venture Capital Institute. She lives in Brunswick with her husband, Sean Callahan, and two children.

#### Linda Adams, Program Assistant

Linda joined MTI as Program Assistant in June 2006. Prior to joining MTI, Linda accumulated over 20 years of combined experience as an executive/administrative/legal assistant in New Hampshire and Maine. She provides administrative and facilitative support during the application and review processes for the TechStart Grant, Seed Grant, Development Loan, Business Accelerator Grant and Equity Capital components of the Business Innovation Program.

Linda graduated from Plymouth State College in 1972 with a bachelor of science degree in music education and has completed additional coursework in human resource management, micro economics and financial accounting at the University of New Hampshire.

### Shane Beckim, Seed Grant Specialist

Shane joined MTI in March of 2004 and is primarily responsible for managing the TechStart Grant, Seed Grant, and SBIR/STTR funding components of the Business Innovation Program. He also manages MTI's IT needs and database platform.

Shane has over 10 years of experience with accounting management and program assistance. He is also a dedicated board member and coach for various youth sports program in the Augusta area, where he lives with his wife and children.

## Roger Brooks, Manager, Commercialization Support

Roger joined MTI in February 2008 and is responsible for Cluster Enhancement Awards and activities to advance commercialization success among MTI awardees. Prior to joining MTI, Roger spent more than 25 years with a variety of technology companies, including serving as CEO of Intelligent Controls, Saco, Maine, and President of Dynisco, Inc., Sharon, Mass. He serves on several small business boards and as lead director of Moldflow Corporation (MFLO), a provider of CAE software to the plastic injection molding industry. His experience also includes private equity. He is a member of the Maine Angels network.

Roger holds an undergraduate degree in economics and government from the University of Connecticut and a master's degree in business administration from the New York University Stern School of Business. He lives in Cumberland with his wife, Elizabeth, and an assortment of farm animals and house pets. They have four grown children and five grandchildren.

## James Fecteau, Finance and Administration Manager

Jim joined MTI in April 2010 and is responsible for managing financial and accounting functions, HR functions and benefit plans, and general administration functions. Jim comes to MTI having served in the roles of Controller through Chief Financial Officer for companies in the biotechnology, real estate development, high-tech manufacturing and distribution industries. He is formerly a CPA as well.

Jim holds a bachelor's degree from Bowdoin College and a master's degree for Northeastern University. He actively supports civic and educational organizations. He was brought up in Augusta and resides in Portland with his wife and family.

#### Jessica Gogan, Development Loan Specialist

Jessica joined MTI in 2008 and is responsible for sourcing investment opportunities, administering the evaluation process, and advising and monitoring portfolio companies. She has been involved in MTI investments in technology companies such as CashStar Inc., Harbor Technologies LLC, AIKO Biotechnology Inc., Global Protein Products, Advance Electronic Concepts and with the University of Maine at Orono. Jessica provides up to one hour of assistance to applicants throughout the writing process and shares insights and tips on how to assemble a competitive Development Loan application that is clear, focused, complete and compelling.

Jessica came to MTI with public health sector experience in project management, grant administration, and expertise in policy and workforce development. She was drawn to MTI because of her interest in fostering entrepreneurship, facilitating access to capital, and working with Maine businesses to generate positive economic impact. She holds a Bachelor's Degree of Business Management from the University of Maine at Augusta.

### Joseph Migliaccio, Manager, Business Innovation Program

Joe joined MTI in 2000 and manages MTI's Business Innovation Program, which includes the Seed Grant, Development Loan, Equity Capital investments and the Small Business Innovation Research (SBIR/STTR) support program. His primary responsibilities include leading the Business Innovation Program team to undertake outreach and initial due diligence, manage the application review process, and provide ongoing oversight of grants and investments to Maine companies to ensure technical and business development goals are met.

He has been involved with small business throughout his life, including ownership in specialty foods and retail service. He has formal and practical training in immunology, bioassays, product development and business leadership. During 10 years at IDEXX Laboratories in Westbrook, Maine, he worked as an assay development project leader in R&D, a supervisor of global technical support and managed a multi-million dollar line of tests and equipment. He has had primary responsibility for product-line strategy, product launch, customer satisfaction and achievement of revenue goals.

Joe initially studied engineering at the University of Maine and graduated with an undergraduate degree in Biology from the University of Southern Maine. He holds an MBA from Southern New Hampshire University in Manchester, NH and serves on various business boards and committees.

## Andrea Phillips, Office Manager

Andrea joined MTI in March 2004 as a temp, was hired full time in August 2004 and was promoted to office manager in October 2005. Her responsibilities include administrative support to the president and staff, coordinating meetings, supporting the bookkeeper, and assisting the staff with the proposal review process.

Andrea has attended classes at the University of New Hampshire in Durham and Rivier College in Nashua. She has an extensive background in office administration with 24 years at Lockheed Martin, Alpha One, Center for Independent Living, and Goodwill Industries of Northern New England. She grew up in Salem, New Hampshire, and lived and worked in the area for over 14 years before moving to her current residence in Windsor with her husband, Lambros, and daughter, Amy.

### Patti Sutter, Program Assistant

Patti joined MTI as the administration assistant for the Maine Technology Asset Fund and other bond funds in February 2008. She had worked in similar capacities for the Maine Nutrition Network, Muskie School of Public Service (USM) and the University of Maine at Augusta.

Patti earned an associate of arts degree in liberal studies from the University of Maine at Augusta and is currently enrolled in its baccalaureate program for liberal studies. She resides in West Gardiner

# Maine Technology Institute Seed Grant Awards FY11

Organization Name	Award Title	Primary Sector	City	County	Award	Match
The Montalvo Corporation	Universal Tension Controller	Precision Manufacturing Technology	Gorham	Cumberland	\$12,500.00	\$39,537.00
Callinectes Boatworks LLC	Multi-Configuration Runabout Deck Mold	Composite Materials Technology	Kennebunkport	York	\$8,800.00	\$9,118.00
University Of Maine	Develop a Mobile Biomechanical Analysis System	Biotechnology	Orono	Penobscot	\$12,500.00	\$58,000.00
Falcon Performance Footwear	Development of Composite Safety Toe Cap Production	Composite Materials Technology	Lewiston	Androscoggin	\$10,010.00	\$11,028.00
Swans Way Corporation	Market Expansion for Dolcelinos Product Line	Precision Manufacturing Technology	Camden	Knox	\$7,875.00	\$10,306.00
Grow-Tech LLC	Vacuum Dryer Unit	Advanced Technologies for Forestry & Agriculture	Lisbon Falls	Androscoggin	\$12,500.00	\$22,500.00
Organic Alchemy Composting	Organic Alchemy Composting Process Development	Environmental Technology	Portland	Cumberland	\$12,500.00	\$30,480.00
Mitokine Bioscience LLC	Pilot Studies of Novel Chronic Disease Therapies	Biotechnology	Hancock	Hancock	\$12,414.00	\$21,465.00
Chimani LLC	High-quality Maps for the Chimani Mobile App	Information Technology	Yarmouth	Cumberland	\$12,500.00	\$14,738.00
The Baker Company Inc	Product Line Expansion (Laboratory Product)	Biotechnology	Sanford	York	\$12,500.00	\$42,412.00
O'Brien Medical LLC	Vibratory Sensation Assessment Device .	Precision Manufacturing Technology	Orono	Penobscot	\$9,375.00	\$9,375.00
Oceanwind Technology LLC	Submerged Web Foundation: Hydrodynamic Simulation	Environmental Technology	N. Waterford	Oxford	\$12,500.00	\$14,299.00
Zeomatrix LLC	Market Research- Mold Resistant Technology	Environmental Technology	Orono	Penobscot	\$6,000.00	\$6,276.00
Rohrer Technologies Inc	Advanced Ocean Wave Energy Converter	Environmental Technology	York	York	\$12,500.00	\$27,368.00
Sensory Cyber Systems LLC	Laser LED Controllers for Education & Biomedicine	Biotechnology	Orono	Penobscot	\$12,500.00	\$36,305.00
Blue Marble Group Inc	GeoCalc Java II	Information Technology	Gardiner	Kennebec	\$12,500.00	\$19,631.00
Flagsuit LLC	Hyperbaric Suit for Medical Therapy	Precision Manufacturing Technology	SW Harbor	Hancock	\$8,250.00	\$20,423.00
SoyPrint Inc	Develop Bio-based Markers	Environmental Technology	Yarmouth	Cumberland	\$12,500.00	\$19,600.00
Pika Energy	Smart Microgrid Prototype Development	Environmental Technology	Gorham	Cumberland	\$12,500.00	\$48,000.00
Grow-Tech LLC		Precision Manufacturing Technology	Lisbon Falls	Androscoggin	\$12,500.00	\$29,848.00
Pantheon Guitars	Semi-Automated Packaging Station	Precision Manufacturing Technology  Precision Manufacturing Technology	Lewiston		\$12,500.00	\$15,688.00
	High efficiency pilot tooling for guitar bodies		Portland	Androscoggin	\$12,000.00	\$15,575.00
Advance Electronic Concepts	Refrigeration Alarm Panel	Precision Manufacturing Technology		Cumberland		
ParadigmRadio.com Inc.	Legal Work for New Mobile Music Service	Information Technology	Newport	Penobscot	\$12,500.00	\$12,500.00
VetEnvoy Inc	Animal Identification Registration Automation	Information Technology	Portland	Cumberland	\$12,281.00	\$39,321.00
Green Comfort Safe Inc	GCS IP Application	Advanced Technologies for Forestry & Agriculture	S. Bristol	Lincoln	\$10,600.00	\$19,225.00
Rainstorm Inc	CourseStorm market research and prototype design	Information Technology	Orono	Penobscot	\$12,500.00	\$13,422.00
Neu Naturals LLC	Zum Process Improvement Project	Precision Manufacturing Technology	Yarmouth	Cumberland	\$12,300.00	\$36,304.00
Jotul North America	Dev't of New Jotul Steel Front Load Woodstove	Precision Manufacturing Technology	Gorham	Cumberland	\$12,500.00	\$13,180.00
ParadigmRadio.com Inc.	Strategic Planning for New Mobile Music Service	Information Technology	Newport	Penobscot	\$11,250.00	\$13,000.00
Wassail, LLC	CFP Technology Development	Biotechnology	Portland	Cumberland	\$12,200.00	\$20,190.00
Howell MSI Inc	Howell Multi Spectral Imaging	Information Technology	Westbrook	Cumberland	\$12,500.00	\$35,277.00
Meetimpact Inc	Event Recommendation Engine	Information Technology	York	York	\$12,500.00	\$24,625.00
Peter Bragdon Sole Proprietor	Hay Fuel Log	Advanced Technologies for Forestry & Agriculture	Vassalboro	Kennebec	\$12,500.00	\$42,202.00
Spelt Right Inc	Spelt Right former/divider redesign	Precision Manufacturing Technology	Yarmouth	Cumberland	\$12,500.00	\$13,113.00
NuPulse Media Inc	Location-based Smartphone App and Social Network	Information Technology	Portland	Cumberland	\$12,500.00	\$79,389.00
Genplex Inc	Advanced Plastics Composite Extrusion Technology	Composite Materials Technology	Skowhegan	Somerset	\$12,500.00	\$15,750.00
Mark Bushey Sole Proprietor	IVPT-IV Pole Transport Device	Composite Materials Technology	Windham	Cumberland	\$8,820.00	\$17,100.00
The Jackson Laboratory	Development of A New Lymphoma Drug Discovery Tool	Biotechnology	Bar Harbor	Hancock	\$12,500.00	\$12,994.00
Bruces Tractor Sales LLC	Snow Blower Prototype Completion and Testing	Precision Manufacturing Technology	Old Town	Penobscot	\$7,180.00	\$8,173.00
York Manufacturing Inc	York Flash-Vent Technologies	Composite Materials Technology	Sanford	York	\$12,500.00	\$31,260.00
Wireless Sensors LLC	Third Generation Wireless Sensor Network Design	Precision Manufacturing Technology	Falmouth	Cumberland	\$12,500.00	\$12,500.00
Time Temperature Integration LLC	Beta Testing for TT-Eye Model 40H	Aquaculture & Marine Technology	Kennebunkport	York	\$5,000.00	\$5,020.00
Technological Innovations LLC	New Generation Nano-Carbon Capacitor	Precision Manufacturing Technology	Sanford	York	\$12,500.00	\$15,120.00
Pondera Nutraceuticals Inc	Pondera Endorphinate Commercialization Plan	Biotechnology	Pownal	Cumberland	\$12,500.00	\$23,310.00
RoyallWear LLC	Redesign & Testing of Hospital Johnny Alternative	Environmental Technology	Richmond	Sagadahoc	\$12,310.00	\$13,290.00
Surgical Sponge Manufacturing Inc	Surgical Sponge Manufacturing	Biotechnology	Sanford	York	\$12,500.00	\$15,143.00
Maine Marine Trades Association	Offshore Wind Facility Support and Service Vessel	Composite Materials Technology	Portland	Cumberland	\$12,500.00	\$13,050.00
Introspective Systems LLC	Market Research for SIM based Design Product	Information Technology	Brunswick	Cumberland	\$12,030.00	\$12,385.00
North East Wipers	North East Wipers Product and Business Development	Precision Manufacturing Technology	Hartland	Somerset	\$12,500.00	\$18,685.00
EcoSeaTile LLC	Shell-based switch and outlet covers	Composite Materials Technology	Mount Desert	Hancock	\$12,500.00	\$19,820.00
i-helpuexhibit LLC	Phase 1 Tradeshow application	Information Technology	Naples	Cumberland	\$12,500.00	\$0.00
The Jackson Laboratory	Rapid System to Make Genetically Engineered Mice	Biotechnology	Bar Harbor	Hancock	\$12,500.00	\$13,385.00
Campbell Compost	Lobster Waste Management for Campbell Compost	Environmental Technology	Litchfield	Kennebec	\$12,500.00	\$16,462.00
Nyle Systems LLC	Commercial Heat Pump Water Heater Development	Environmental Technology	Brewer	Penobscot	\$12,500.00	\$49,740.00
Baseline US LLC	Commercial Facility Energy Performance Monitoring	Environmental Technology	Waterville	Kennebec	\$12,500.00	\$19,580.00
	An Augmented Reality For Our National Parks	Information Technology	Yarmouth	Cumberland	\$5,000.00	\$16,459.00
Chimani LLC					33.00.00.00.0	

#### Maine Technology Institute Seed Grant Awards FY11

Organization Name	Award Title	Primary Sector	City	County	Award	Match
SeaChange Group LLC	Market Research for Green Marine Fuels	Environmental Technology	Brunswick	Cumberland	\$7,510.00	\$7,900.00
Maine Maritime Academy	Marine Engine Testing and Evaluation Laboratory	Environmental Technology	Castine	Hancock	\$12,500.00	\$14,748.00
Woodfords Family Services	"Lights, Camera, Success!"	Information Technology	Westbrook	Cumberland	\$12,500.00	\$13,000.00
Micro Technologies Inc	Plasmid DNA Application in Filter Technology	Biotechnology	Richmond	Sagadahoc	\$12,500.00	\$12,710.00
William Garner Sole Proprietor	Encore Wind Turbine	Precision Manufacturing Technology	Eastport	Washington	\$12,500.00	\$52,500.00
Optomistic Products Inc	Universal LightProbe Business Plan	Precision Manufacturing Technology	S. Freeport	Cumberland	\$7,500.00	\$9,375.00
The Montalvo Corporation	Market Research for Tension Control System	Precision Manufacturing Technology	Gorham	Cumberland	\$12,500.00	\$12,646.00
Pondera Pharmaceuticals, Inc.	Pondera Endorphinate Clinical Trial	Biotechnology	Pownal	Cumberland	\$12,500.00	\$72,343.00
AboGen Inc	Sample Proccesing Service for Epigenetics Studies	Biotechnology	Portland	Cumberland	\$12,500.00	\$12,106.00

## Maine Technology Institute Development Awards FY11

Organization Name	Award Title	Primary Sector	City	County	Award	Match
Twin Rivers Paper Company LLC	Twin Rivers Barrier Packaging Papers	Advanced Technologies for Forestry & Agriculture	Madawaska	Aroostook	\$500,000.00	\$798,122.00
Local 207 inc	Hall Internet Marketing Tools	Information Technology	Scarborough	Cumberland	\$484,016.00	\$165,379.00
VFG Energy Systems	Development of the VFG Small Wind Machine	Environmental Technology	Kittery	York	\$61,300.00	\$66,525.00
Biovation LLC	Infection Control Bioabsorbable Gentle Release Pad	Precision Manufacturing Technology	Boothbay	Lincoln	\$474,000.00	\$663,416.00
Mega Industries LLC	High Power Waveguide Circulator	Precision Manufacturing Technology	Gorham	Cumberland	\$206,745.00	\$206,744.00
Energy Circle LLC	Energy Circle PRO	Information Technology	Yarmouth	Cumberland	\$274,758.00	\$296,190.52
WindFloat Maine LLC	Intermediate Scale Wind Turbine Platform	Composite Materials Technology	Camden	Knox	\$500,000.00	\$1,194,021.00
Abierto Networks LLC	Abierto Networks Digital Marketing Platform	Information Technology	Eliot	York	\$396,826.00	\$651,264.00
Wizbe Innovations, LLC	Parachute Fabric with Variable Air Permeability	Precision Manufacturing Technology	Manchester	Kennebec	\$64,000.00	\$74,000.00
Pika Energy	Low Cost Wind Turbine System: Product Development	Environmental Technology	Gorham	Cumberland	\$274,291.00	\$343,457.00
Cerealus Holdings, LLC	Commercialization of New Filler Technology	Advanced Technologies for Forestry & Agriculture	Waterville	Kennebec	\$261,849.00	\$311,850.00
Rainstorm Inc	CourseStorm Registration Software	Information Technology	Orono	Penobscot	\$161,208.00	\$161,208.00

## Maine Technology Institute Accelerated Commercialization Fund Awards FY11

Organization Name	Award Title	Primary Sector	City	County	Award	Match
Emergent Discovery, LLC	ACF009	Information Technology	Portland	Cumberland	\$64,231.00	\$1,370,742.00
Bar Harbor Biotechnology Inc	ACF010	Biotechnology	Trenton	Hancock	\$70,000.00	\$1,200,000.00

# Maine Technology Institute SBIR Assistance Program Awards FY11

#### Pre-Phase II

Organization Name	Award Title	Primary Sector	City	County	Award	Match
Ocean Approved, LLC	Development Activities for Commercial Expansion	Aquaculture & Marine Technology	Portland	Cumberland	\$9,974.00	\$95,000.00
Activas Diagnostics	Early Detecton of Brain Injury	Biotechnology	Bangor	Penobscot	\$10,000.00	\$99,999.00
Sergei Breus Sole Proprietor	Construction and Testing of Field Scale Model	Environmental Technology	Blue Hill	Hancock	\$9,940.00	\$94,992.00
Maine Manufacturing LLC	Maine Manufacturing Website Upgrade	Aquaculture & Marine Technology	Sanford	York	\$10,000.00	\$149,499.00
Tethys Research LLC	Partnership Development for Enzymatic Pulping	Advanced Technologies for Forestry & Agriculture	Bangor	Penobscot	\$10,000.00	\$75,599.00
SeaChange Group LLC	Development of Bio Product Blended Marine Fuels	Environmental Technology	Brunswick	Cumberland	\$10,000.00	\$149,952.00
Wizbe Innovations, LLC	Fabric with Variable Air Permeability	Precision Manufacturing Technology	Manchester	Kennebec	\$10,000.00	\$69,996.00

#### Phase 0

Phase U						
Organization Name	Award Title	Primary Sector	City	County	Award	Match
Melissa Cott Sole Proprietor	Medical Database Design	Information Technology	Falmouth	Cumberland	\$3,500.00	\$8,220.00
Global Protein Products	Creating a Superior Antimicrobial Food Coating	Advanced Technologies for Forestry & Agriculture	Fairfield	Somerset	\$4,998.00	\$11,627.00
Whitten Enterprises Inc	Initiation of a Domestic Grass-Based Manufactured Fuel Product Program	Environmental Technology	Portland	Cumberland	\$4,820.00	\$6,700.00
Anne Kennedy Sole Proprietor	Seacolors: Taking Concept to Experience	Advanced Technologies for Forestry & Agriculture	Washington	Knox	\$5,000.00	\$6,905.00
ITI Holdings Inc	Electronic Learning	Information Technology	Topsham	Sagadahoc	\$5,000.00	\$6,475.00
Environetix Technologies Corporation	Passive, Wireless Sensors for Turbine Engine Airfoils	Precision Manufacturing Technology	Orono	Penobscot	\$5,000.00	\$5,200.00
Educational Games LLC	Educational Games with an Intelligent Tutor	Information Technology	Falmouth	Cumberland	\$4,855.00	\$5,868.00
Pika Energy	Development of Smart Microgrid System	Environmental Technology	Gorham	Cumberland	\$4,875.00	\$6,648.00
Theralast LLC	Orthopedic Suspension Device	Biotechnology	Manchester	Kennebec	\$5,000.00	\$5,474.00
VFG Energy Systems	Variable Force Generator Development	Environmental Technology	Kittery	York	\$5,000.00	\$5,050.00
Oceanwind Technology LLC	Submerged Web Foundation	Environmental Technology	North Waterford	Oxford	\$5,000.00	\$5,733.00
Mainely Sensors LLC	Project II Proposal for an LFT Saxitoxin Sensor	Aquaculture & Marine Technology	Orono	Penobscot	\$5,000.00	\$5,450.00
Sergei Breus Sole Proprietor	Breus Hydrokinetic Turbine: Pre-Commercial Prototype Development	Environmental Technology	Blue Hill	Hancock	\$4,550.00	\$5,629.00
Mitokine Bioscience LLC	Pre-clinical Diabetes Study	Biotechnology	Hancock	Hancock	\$5,000.00	\$10,600.00
AboGen Inc	Sample Collection Technologies for Epigenetics	Biotechnology	Portland	Cumberland	\$3,200.00	\$7,269.00
Tethys Research LLC	SBIR Phase II NSF Proposal	Advanced Technologies for Forestry & Agriculture	Bangor	Penobscot	\$5,000.00	\$9,615.00
SeaChange Group LLC	PII NSF Proposal	Environmental Technology	Brunswick	Cumberland	\$4,985.00	\$7,655.00
Green Comfort Safe Inc	SBIR Phase I NSF Proposal	Environmental Technology	South Bristol	Lincoln	\$5,000.00	\$5,000.00

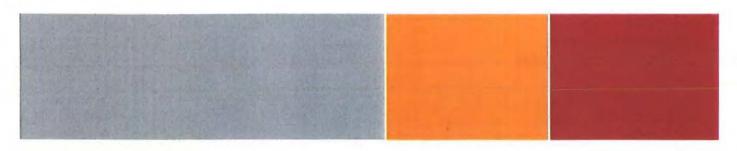
# Maine Technology Institute Cluster Initiative Program Awards FY11

Organization Name	Award Title	Primary Sector	City	County	Award	Match
Environment & Energy Technology Council of Maine	Maine Wind and Ocean Energy Cluster and Supply Chain Development	Environmental Technology	South Portland	Cumberland	\$50,000.00	\$64,000.00
University Of New England	Infrastructure to Build a Portland Biotech Cluster	Biotechnology	Portland	Cumberland	\$480,000.00	\$949,160.00
Maine Composites Alliance	Maine Wind and Ocean Energy Industry Initiative	Environmental Technology	Portland	Cumberland	\$489,468.00	\$756,343.00
University Of Southern Maine	Cluster Development Through Building	Precision Manufacturing Technology	Portland	Cumberland	\$493,577.00	\$567,256.00
Maine Center For Enterprise Development	Top Gun Statewide Planning and Development	Precision Manufacturing Technology	Portland	Cumberland	\$46,894.00	\$59,089.25
Manufacturers Association Of Maine	Medical Device Manufacturing Cluster	Precision Manufacturing Technology	Westbrook	Cumberland	\$50,000.00	\$57,500.00
Eastern Maine Development Corporation	Bioscience Cluster in Eastern Maine	Biotechnology	Bangor	Penobscot	\$49,200.00	\$53,407.00
Maine International Trade Center	Invest in Maine	Environmental Technology	Portland	Cumberland	\$200,000.00	\$214,016.00

# Maine Technology Institute Maine Technology Asset Fund Program

Organization Name	Award Title	Primary Sector	City	County	Award	Match
University Of Maine	Advanced Biomechanics Laboratory For Injury Reduction and Rehabilitation	Biotechnology	Orono	Penobscot	\$533,300.00	\$ 570,392.00
Gulf Of Maine Research Institute	Community-Based Research to Support the Maine Lobster Industry	Aquaculture & Marine Technology	Portland	Cumberland	\$532,550.00	\$ 748,641.00
Biovation LLC	Laboratory facilities for Wound Care Products	Precision Manufacturing Technology	Boothbay	Lincoln	\$125,000.00	\$ 257,995.00
University Of Maine	FISHLab: Fisheries Innovation, Sustainability & Health Lab	Aquaculture & Marine Technology	Orono	Penobscot	\$600,000.00	\$ 1,135,271.00
University Of Maine	Commercialization of New Technologies for Animal Disease Surveillance	Advanced Technologies for Forestry & Agriculture	Orono	Penobscot	\$497,392.00	\$ 497,394.00
University Of Maine	Biomass Engineered Fuel	Advanced Technologies for Forestry & Agriculture	Orono	Penobscot	\$1,659,655.00	\$ 7,710,430.00
University Of Maine	CIDER: Cyberinfrastructure Investment for Development, Economic Growth, and Research Proposal	Information Technology	Orono	Penobscot	\$250,000.00	\$ 254,000.00
Ocean Renewable Power Company	TidGen Power System Commercialization Project	Environmental Technology	Portland	Cumberland	\$1,200,000.00	\$ 4,573,064.00
E-Pack LLC	E-Pack	Composite Materials Technology	Auburn	Androscoggin	\$950,000.00	\$ 4,304,682.00
The Jackson Laboratory	Complex Workflow Management: An Engineered Solution	Biotechnology	Bar Harbor	Hancock	\$900,000.00	\$ 1,100,000.00







**FINANCIAL STATEMENTS** 

and

SUPPLEMENTARY INFORMATION

JUNE 30, 2011 AND 2010

WITH INDEPENDENT AUDITORS' REPORT



#### INDEPENDENT AUDITORS' REPORT

Board of Directors Maine Technology Institute

We have audited the accompanying balance sheets of Maine Technology Institute (a component unit of the State of Maine) as of June 30, 2011 and 2010, and the related statements of revenues, expenses and changes in net assets and cash flows for the years then ended. These financial statements are the responsibility of Maine Technology Institute's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Maine Technology Institute as of June 30, 2011 and 2010, and the changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Management's discussion and analysis on Pages 2 through 7 is not a required part of the basic financial statements, but is supplementary information required by U.S. generally accepted accounting principles. We have applied certain limited procedures to the required supplementary information in accordance with U.S. generally accepted auditing standards, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information in Schedules 1 through 3 is presented for purposes of additional analysis and is not a required part of the basic financial statements. This information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves and other additional procedures, in accordance with U.S. generally accepted auditing standards. In our opinion, this supplementary information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Bung Dum McWil & Parker, LL Bangor, Maine

September 28, 2011

#### MANAGEMENT DISCUSSION AND ANALYSIS

June 30, 2011

As management of the Maine Technology Institute (the "Institute" or "MTI"), we offer readers of these financial statements this narrative, overview and analysis of the financial activities of the Institute for the fiscal year ended June 30, 2011 (FY2011 or Fiscal 2011). We encourage readers to consider the information presented here together with the basic financial statements as a whole.

#### Financial Highlights

- MTI received \$6,580,814 from a State appropriation through the Department of Economic and Community Development ("DECD") for general programs and \$22 million of the \$53 million of State bond funds for research, development and commercialization via the Maine Technology Asset Fund (MTAF).
- MTI approved for funding 113 projects totaling just under \$6.4 million, an increase of approximately \$300,000 in core program awards over the previous year. Ten awards representing \$7.2 million were approved this year under the MTAF Program.
- MTI disbursed \$20.3 million according to agreed-upon project award milestones, \$2.4 million more than in the previous fiscal year; the majority of the increase was due to MTAF disbursements.
- MTI's outstanding commitments for its core awards comprise \$6.8 million, including approximately \$2.5 million in approved awards with unexecuted contracts as of June 30, 2011. MTAF outstanding commitments total \$26.4 million, including \$2.2 million in approved awards with unexecuted contracts.
- MTI received \$1,434,614 in Development Award repayments, nearly \$1.2 million more than in fiscal year 2010.
- \$247,173 was realized from interest, a decrease of approximately \$54,000 compared to the previous year, due to a reduction in MTI's interest yield rate.
- The bonds that funded the Maine Technology Asset Fund were approved by Maine voters in November 2007 and June 2010. In prior fiscal years, MTI received General Funds to cover ongoing monitoring and administration costs of this fund. Of the \$223,207 carried forward at the end of Fiscal 2010, \$176,754 was expended during Fiscal 2011. MTI's monitoring obligation will extend for four years after June 2011.
- FY2011 administrative and operating costs were approximately \$1.1 million, an increase of \$125,000 (11%) over the previous year. MTAF operating costs, particularly application review fees and expenses associated with conducting the third funding competition, rose by \$72,000. Expenses for all other programs and activities increased by \$53,000, or 6%. All operating expenses other than the costs to monitor and administer the Maine Technology Asset Fund are paid by interest earnings plus 7% of the State appropriation and development award repayments.
- In the fall of FY2011, MTI's State appropriation was curtailed by \$115,857.
- During Fiscal 2011, MTI's Board of Directors voted to renew recognition of the 7% of the State appropriation that MTI is allowed in order to fund its operating expenses. As a result, Fiscal 2011's usage of net assets for its operations decreased to \$19,000, compared to \$433,000 for the previous fiscal year.

#### MANAGEMENT DISCUSSION AND ANALYSIS

June 30, 2011

#### Overview of the Institute

MTI was created by the Maine legislature in 1999 to "encourage, promote, stimulate and support research and development activity leading to the commercialization of new products and services in the State's technology-intensive industrial sectors..." (5MRSA ch. 407). MTI is funded primarily by the State from a direct appropriation that is granted to MTI from the Department of Economic and Community Development. To maximize the benefits of a public-private partnership, MTI is a private, nonprofit 501(c)3 organization governed by a Governor-appointed, private-sector led, Board of Directors. The Director of the Institute is appointed by the Governor and an employee of the Department of Economic and Community Development; she is President of the Institute as elected by the Board of Directors.

The Institute has functioned with a lean staff of eight employees who report to the Director, a decrease of two full-time employees since its high in February 2009. MTI is limited by statute to using only up to 7% of its State appropriation for administration, with the exception of the funds that MTI receives to administer the Maine Technology Asset Fund. There are no statutory restrictions on the use of other income the Institute may receive.

#### **Overview of the Financial Statements**

This discussion is intended to serve as an introduction to the Institute's financial statements, which are comprised of the basic financial statements and the notes to the financial statements.

#### **Basic Financial Statements**

The basic financial statements are designed to provide readers with a broad overview of the Institute finances, in a manner similar to a private-sector business.

The balance sheets present information on the Institute's assets and liabilities, with the difference between the two reported as net assets. Over time, increases or decreases in net assets may serve as an indicator of whether the financial position of the Institute is improving or deteriorating. Net assets increase when revenues exceed expenses. Increases to assets without a corresponding increase to liabilities result in increased net assets, which may indicate an improved financial position.

The statements of revenues, expenses, and changes in net assets present information showing how the Institute's net assets changed during the fiscal year. Changes in net assets are reported as soon as the underlying event occurs, regardless of timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future periods. The utilization of capital assets is reflected in the financial statements as depreciation, which allocates the cost of an asset over its expected useful life.

The statements of cash flows present information related to cash inflows and outflows summarized by operating and capital financing activities, and help measure the ability to meet financial obligations as they mature.

#### MANAGEMENT DISCUSSION AND ANALYSIS

June 30, 2011

#### **Notes to the Financial Statements**

The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

#### Financial Analysis: 2011 Compared to 2010

Net assets may serve, over time, as a useful indicator of the Institute's financial position. In the case of the Institute, its assets exceed liabilities by \$1,210,665 on June 30, 2011, compared with \$1,229,367 in 2010.

The Institute's financial position and operations as of and for fiscal years 2011 and 2010 are summarized below based on information included in the financial statements.

	<u>2011</u>	<u>2010</u>
Cash and cash equivalents Cash held as fiscal agent for Maine Biomedical Research Board Loans receivable and investments (net of allowances) Capital assets, net of depreciation Other assets	\$ 27,588,193 4,962 1,053,562 68,680 376,450	\$ 17,326,932 284,336 1,147,778 90,770 1,391,421
Total assets	29,091,847	20,241,237
Deferred revenue Amounts held as fiscal agent for Maine Biomedical Research Board Other liabilities	24,203,926 4,962 <u>3,672,294</u>	15,346,224 284,336 3,381,310
Total liabilities	27,881,182	19,011,870
Net assets, all unrestricted	\$ <u>1,210,665</u>	\$ <u>1,229,367</u>

Cash and equivalents comprise the vast majority of MTI's assets. The amount of funding received from the State as well as any funding carried over from previous years is included in this line. Some loans held by MTI were transferred from the Maine Science and Technology Foundation (no longer in existence), and terms have been renegotiated as the payments have come due. In FY2011, MTI made two Accelerated Commercialization Fund (ACF) investments to companies that had previously completed Development Award-funded projects; none were made in FY2010. Increasingly, MTI's loan and investment portfolio reflects commercial notes negotiated as commercialized development awards mature and trigger repayment.

Deferred revenue indicates all funding on hand for use in MTI programs. Funding is disbursed according to achievement of milestones by the recipients and \$6.8 million was committed for MTI's core awards at the close of June 2011, but not yet disbursed. MTAF outstanding commitments total just over \$26.4 million, including \$2.2 million in approved awards with unexecuted contracts.

#### MANAGEMENT DISCUSSION AND ANALYSIS

#### June 30, 2011

Operating revenues:	<u> 2011</u>	<u>2010</u>
Operating revenues: State of Maine funding	\$ 20,558,221	\$ 16,641,079
Grant income – other Other operating revenues	113,735	521,817 28,132
Total operating revenues	20,671,956	17,191,028
Operating expenses: Program grants Special grants Salaries and wages Other operating expenses	19,715,008 115,457 448,241 657,083	16,345,238 599,326 424,323 555,641
Total operating expenses  Net operating loss	<u>20,935,789</u> (263,833)	<u>17,924,528</u> (733,500)
·		, , ,
Nonoperating revenues, net	<u>245,131</u>	300,529
Decrease in net assets	\$ <u>(18,702</u> )	\$ <u>(432,971</u> )

Operating revenues – State of Maine funding reflect MTI's State appropriations and grants made. The increase during this fiscal year stems primarily from award payments under the MTAF program.

The following table shows the relationship between the appropriation and revenues recognized:

	<u>2011</u>	<u>2010</u>
State appropriation received Marine Research Fund Maine Technology Asset Fund Accrual basis accounting effect	\$ 6,580,814 250,000 22,015,600 (8,288,193)	\$ 6,969,813 100,000 11,000,000 (1,428,734)
Revenues recognized	\$ <u>20,558,221</u>	\$ <u>16,641,079</u>

The "accrual basis accounting effect" reflects appropriations received that are being deferred as revenues until future periods when corresponding award payments are made, and reflects payments to the State for appropriation curtailments.

MTI's operating expenses (which include award disbursements and accruals) were approximately 17% higher in 2011. Program grants were 21% higher due to MTAF award payments. Special grants declined as the North Star Alliance Matching Fund program ended in FY2010. The line item for salaries and wages was 6% higher due to the full-year effect of a staff replacement and to market-driven salary adjustments. Other operating expenses increased 18%, primarily due to MTAF round three award review costs and an increase in the allowance for losses in MTI's notes and investment portfolio.

#### MANAGEMENT DISCUSSION AND ANALYSIS

June 30, 2011

#### **Looking Ahead**

MTI's ultimate goal is to help Maine companies to use technology to grow and remain vibrant and competitive, therefore creating good jobs, greater wealth, and a vibrant economy in Maine. The organization does this by providing seed capital and targeted business assistance to Maine companies for technology development and commercialization and making grants to strengthen Maine's high-potential technology clusters. MTI has operated since 2000 and has developed into a mature organization with an independently evaluated track record that demonstrates a historical return on investment of between \$10- \$14 for every \$1 awarded by MTI. (See the independent 2009 evaluation of MTI's performance (<a href="https://www.mainetechnology.org">www.mainetechnology.org</a>) and the annual Comprehensive State R&D Evaluation report (<a href="https://www.mainetechnology.org">https://www.mainetechnology.org</a>) and the annual Comprehensive State R&D Evaluation report (<a href="https://www.mainetechnology.org">https://www.mainetechnology.org</a>) and publications/index.shtml.)

In the fiscal year covered by this report, MTI stewarded its core Business Innovation Programs, the expanded Cluster Initiative Program and the \$53 million Maine Technology Asset Fund, with minimally increased operating costs. Going forward, MTI is managing this comprehensive menu of programs in an environment of fiscal austerity, with a continued commitment to excellence in its operations and a high return on investment for taxpayers in terms of growing technology companies, strengthened technology clusters, and good jobs for people across Maine. The related fiscal picture included a reduction in MTI's general appropriation in FY2010 and FY2011 of approximately 10% and a curtailment of just under \$116,000 in the fall of FY2011.

During the upcoming fiscal year, MTI expects to see continued repayment of development awards by MTI-funded companies as products developed with support of early awards enter the market and gain market share; however, these repayments are by nature dependent on company success and broader economic conditions. The fact that the FY11 development award repayments were the highest in MTI history this year shows that investments in innovation do pay off for Maine companies despite the challenging investment and business climate. Over time, such repayments will continue to provide a limited and erratic source of revenues for MTI. This is because MTI awards are made at a very early stage of technology development when technology and business risks are extremely high. In addition, development awards are the only MTI awards that have a payback requirement, which is conditioned only when commercialization is successful. (No interest is charged during the first three years after commercialization, unless the company moves out of state, when special and immediate repayment is required.) Thus, award repayments will never grow sufficiently to replace the funding received through State appropriation and outside grants.

To ensure that MTI continues to achieve its high standards, the organization's Board and staff undertook a strategic planning process that was completed and approved by the Board in the spring of 2010. This three-year plan calls for MTI to modify its core business innovation program to provide funding and business development support to accelerate the time to market for new technologies while boosting business access to capital and ultimately profitability and job growth. It also directs MTI to expand its outreach across Maine, both in-person and online, to increase the pipeline of high quality proposals to its programs. Finally, it calls for MTI to seek out partnerships within Maine and regionally that will help MTI to advance its mission of stimulating Maine companies to develop new, globally competitive technologies for the market, contributing to their growth and to the growth of vibrant industry clusters across Maine. These updated programs, expanded outreach and partnerships will guarantee that MTI's investments in innovation continue to grow and sustain good jobs across the state and contribute to prosperous Maine.

## MANAGEMENT DISCUSSION AND ANALYSIS

June 30, 2011

## **Request for Information**

This financial report is designed to provide a general overview of the Institute's financial statements for all those with an interest in its finances. Questions concerning any of the information provided in this report or request for additional information should be addressed to MTI's President, Betsy Biemann.

## **Balance Sheets**

## June 30, 2011 and 2010

## **ASSETS**

	<u>2011</u>	<u>2010</u>
Current assets Cash and cash equivalents (Note 2) Grant income receivable Other receivables, net of allowance for doubtful accounts	\$ 27,588,193 152,471	\$ 17,326,932 1,349,100
of \$3,290 in 2011 and 2010 Prepaid expenses Loans receivable - current (Note 3) Cash held as fiscal agent for the Maine Biomedical	207,758 16,221 307,000	28,282 14,039 290,200
Research Board (Notes 2 and 7)	4,962	284,336
Total current assets	28,276,605	19,292,889
Property and equipment, at cost Leasehold improvements Equipment Computer software	5,500 107,632 102,746	5,500 103,692 <u>95,716</u>
Less accumulated depreciation	215,878 (147,198)	204,908 <u>(114,138</u> )
Net property and equipment	68,680	90,770
Loans receivable and investments, excluding current portion, net of allowance for losses of \$481,941 in 2011 and \$268,494 in 2010 (Note 3)	746,562	<u>857,578</u>
	\$ <u>29,091,847</u>	\$ <u>20,241,237</u>
LIABILITIES AND NET ASSETS		
Current liabilities Accounts and awards payable and accrued expenses (Note 8) Current portion of obligations under capital lease (Note 6) Deferred revenue Amounts held as fiscal agent for the Maine Biomedical Research Board (Note 7)	\$ 3,652,929 4,284 24,203,926 4,962	\$ 3,358,046 3,898 15,346,224 
Total current liabilities	27,866,101	18,992,504
Obligations under capital lease, net of current portion (Note 6)	15,081	<u>19,366</u>
Total liabilities	27,881,182	19,011,870
Commitments (Notes 6, 7 and 8)		
Unrestricted net assets Undesignated Board-designated (Note 4)	310,665 900,000	329,367 900,000
Total unrestricted net assets	<u>1,210,665</u>	1,229,367
	\$ <u>29,091,847</u>	\$ <u>20,241,237</u>

The accompanying notes are an integral part of these financial statements.

## Statements of Revenues, Expenses and Changes in Net Assets

## Years Ended June 30, 2011 and 2010

		<u>2011</u>	<u>2010</u>
Operating revenues State of Maine funding			
Program grants (Note 9)	\$	19,681,896	\$ 16,348,597
Administrative grants	Ψ	753,091	207,855
Matching grants		123,234	84,627
matering grante	-		<u></u>
Total State of Maine funding		20,558,221	16,641,079
Grant income - other		•	521,817
Royalties		100,423	16,293
Other income	-	<u> 13,312</u>	<u>11,839</u>
Total operating revenues		20,671,956	17,191,028
Operating expenses (Note 5)			
Program grants (Notes 8 and 9)		19,715,008	16,345,238
Special grants		115,457	599,326
Salaries and wages		448,241	424,323
Benefits and payroll taxes		148,781	424,323 129,372
Travel		•	
		12,412	9,392
Depreciation		33,060	42,595
Other (Notes 5 and 6)	-	462,830	<u>374,282</u>
Total operating expenses		20,935,789	17,924,528
Net operating loss	•	(263,833)	(733,500)
Nonoperating revenues (expenses)			
Investment income (Note 3)		247 472	201 264
· · · · · · · · · · · · · · · · · · ·		247,173	301,364
Interest expense	-	(2,042)	<u>(835</u> )
Nonoperating revenues (expenses), net	_	245,131	300,529
Decrease in net assets		(18,702)	(432,971)
Net assets at beginning of year	-	1,229,367	1,662,338
Net assets at end of year	\$_	1,210,665	\$ <u>1,229,367</u>

## **Statements of Cash Flows**

## Years Ended June 30, 2011 and 2010

		<u>2011</u>		<u>2010</u>
Cash flows from operating activities State of Maine funding Award repayments Royalties received Other receipts Grants paid Paid to employees, including benefits Paid to vendors Loans/investments funded	\$	28,925,336 1,422,621 100,423 13,312 (19,335,420) (506,259) (477,934) (134,231)	\$	17,886,105 449,553 16,293 11,839 (15,382,387) (448,529) (429,364) (34,615)
Net cash provided by operating activities	_	10,007,848	_	2,068,895
Cash flows from investing activities  Net investment income received	_	270,323	_	279,264
Cash flows from capital and related financing activities Purchase of equipment Lease obligation payments made Interest payments made	_	(10,970) (3,898) (2,042)	_	(7,940) (3,785) (835)
Net cash used by capital and related financing activities	_	(16,910)	_	(12,560)
Net increase in cash and cash equivalents		10,261,261		2,335,599
Cash and cash equivalents, beginning of year	_	17,326,932	_	14.991,333
Cash and cash equivalents, end of year	\$_	27,588,193	\$_	17,326,932
Reconciliation of net operating loss to net cash provided by operating activities  Net operating loss  Adjustment to reconcile net operating loss to net cash provided  by operating activities	\$	(263,833)	\$	(733,500)
Depreciation Gain on disposal of assets		33,060 -		42,595 (3,814)
Changes in operating assets and liabilities Grant income receivable and other receivables Prepaid expenses Loans receivable Accounts payable and other accrued expenses Deferred revenue	-	994,004 (2,182) 94,216 294,881 8,857,702	_	(255,824) 1,488 (14,933) 1,463,694 1,569,189
Net cash provided by operating activities	\$_	10,007,848	\$_	2,068,895
Noncash activities Decrease in cash held as fiscal agent for the Maine Biomedical Research Board Equipment acquired through capital lease	\$	(279,374)	\$	(513,962) 23,572

#### **Notes to Financial Statements**

#### June 30, 2011 and 2010

#### **Nature of Organization**

Maine Technology Institute (the Institute), a nonprofit corporation which commenced operations in November 1999, was established to encourage, promote, stimulate and support research and development activity leading to commercialization of new products and services in the State's technology intensive sectors. Businesses, non-profit organizations, academic institutions, and entrepreneurs are eligible for funding under the Institute's programs.

The programs the Institute operates are as follows:

- Seed Grant Program grants ranging from \$1,000 to \$12,500 to fund small, early-stage R&D projects and activities leading to commercialization.
- Development Award Program grants ranging from \$30,000 to \$500,000 for comprehensive, later-stage research and development activities leading to commercialization. If a product is successfully commercialized, the award becomes repayable.
- Accelerated Commercialization Fund awards that are considered to be either "equity" or loan investments in companies to be used alongside other investors' capital.
- SBIR Awards grants up to \$10,000 to help support Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) proposal submissions and technology commercialization.
- Cluster Initiative Awards made for collaborative industry-led projects that will support the formation and growth of high-potential technology clusters.
- Maine Technology Asset Fund (MTAF) Funded by a \$53,000,000 bond approved by State of Maine voters, this program helps fund capital expenditures supporting research, development, and commercialization.

The Institute awards funds to applicants in the State of Maine who submit proposals, which are reviewed and approved by the Institute. Grants are distributed in stages upon the successful completion of certain milestones. The Institute is governed by a voluntary statewide Board of Directors appointed by the Governor of the State of Maine.

The financial statements of the Institute include the activities of the Maine Marine Research Fund. The Institute is a component unit of the State of Maine for financial reporting purposes.

The Institute is also the fiscal agent for the Maine Biomedical Research Board (MBRB). Accordingly, the Institute's financial statements reflect the cash held for MBRB and an offsetting liability owed MBRB. See Note 7 for more information.

The Institute is considered a business-type activity because of royalty payments and interest charged to award recipients.

## **Notes to Financial Statements**

June 30, 2011 and 2010

#### 1. Summary of Significant Accounting Policies

#### **Basis of Presentation**

The accounts of the Institute are maintained in accordance with the principles of fund accounting with the economic resources measurement focus and the accrual basis of accounting in accordance with U.S. generally accepted accounting principles, as prescribed by the Governmental Auditing Standards Board (GASB). Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

## **Reporting Entity**

The financial reporting entity consists of the primary government (the Institute), as well as its component unit, Maine Technology Holdings (MTH).

MTH is a legally separate component unit of the Institute that was formed in 2011. MTH holds an investment in a privately held company that was granted an award from the Institute and reached successful commercialization. Because the Institute is the sole shareholder of MTH and the intent of owning MTH is to directly enhance its ability to fulfill its mission, MTH is considered a component unit of the Institute.

MTH's balance sheet includes an investment of \$155,639 and net assets of \$155,639 at June 30, 2011.

#### **Accounting Standards**

Pursuant to GASB Statement No. 20, Accounting and Financial Reporting for Proprietary Funds and GASB Statement No. 29, Other Governmental Entities That Use Proprietary Fund Accounting, the Institute has elected not to comply with the relevant pronouncements of the Financial Accounting Standards Board issued after November 30, 1989.

#### **Use of Estimates**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### **Notes to Financial Statements**

June 30, 2011 and 2010

#### Cash and Cash Equivalents

All highly liquid savings deposits and investments with maturities of three months or less when purchased are considered to be cash equivalents, except those held as fiscal agent for other entities.

#### Loans Receivable and Investments

Loans receivable are reported at their outstanding unpaid principal balances adjusted for chargeoffs, net of the allowance for losses. Investments are stated at their cost, net of the allowance for losses. These loans and investments are with closely-held small companies and there is no readily available market or fair value.

Interest and dividend income on loans and investments is recognized when received due to the uncertainty of collection.

#### Allowance for Loan and Investment Losses

An allowance for losses is established when it is probable that loans receivable and investments will be uncollectible. Loans and investments are charged against the allowance when management believes the uncollectibility of a loan balance is confirmed. Subsequent recoveries, if any, are credited to the allowance.

The allowance for losses is evaluated on a regular basis by management and is based upon management's periodic review of the collectibility of the loans and investments in light of the companies' current financial position situations. This evaluation is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available.

#### **Credit Risk**

Financial instruments which subject the Institute to credit risk consist of cash equivalents and loans receivable and investments. The risk with respect to cash equivalents is mitigated by the Institute's policy of investing in financial instruments with short-term maturities issued by highly rated financial institutions. The risk with respect to loans and investments is reduced by establishing limits on the amounts loaned to, or invested in, any one company.

#### **Property and Equipment**

Property and equipment is stated at cost. The provision for depreciation is determined by straight-line and accelerated methods to amortize the cost of assets over their estimated useful lives. Expenditures for repairs and maintenance which do not extend the useful lives of the assets are charged to operations.

#### **Notes to Financial Statements**

June 30, 2011 and 2010

#### Revenues

The Institute's programs are primarily funded by the State of Maine. This funding is to support operations and programs; 93% is required by legislation to support programs and 7% can be used for administration. The program support amounts received are classified as deferred revenue until the related qualifying grants are made or expenses have been incurred to match other grants; the amounts used for administration of core programs are recognized as revenue upon receipt. The amounts used for administration of the MTAF are held as deferred revenue until expended, as the money is required to be expended for MTAF administration only.

Certain grants awarded by the Institute have provisions requiring the recipient to make repayments to the Institute if certain conditions are met. Because of the requirement that 93% of state funding be used for program support, the Institute has treated repayment of awards in the same manner and classified 93% of those repayments as deferred revenue upon receipt; the remaining 7% is recognized as royalties revenue. When awards enter repayment status and notes receivable are signed or investments are made, the entire carrying balance of the note or investment is offset by deferred revenue; when payments are received, 7% of the payments are recognized as royalties revenue.

The Institute has recognized \$103,567 and \$103,285 in 2011 and 2010, respectively, of revenue and expense for salary and benefits paid by the State of Maine Department of Economic and Community Development.

The Institute considers State of Maine funding, grant income and royalties to be operating revenues.

#### **Retirement Benefits**

The Institute sponsors an Internal Revenue Code (Code) Section 403(b) defined contribution plan which provides retirement benefits to substantially all employees who meet certain age and service requirements. Employee contributions are limited to the maximum yearly limit as determined by the Code or 100% of the employee's compensation. The Institute contributes 5% of gross salary. Employer contributions vest 100% to the employees immediately. Retirement expense was \$17,941 and \$16,615 for the years ended June 30, 2011 and 2010, respectively.

#### Risk Management

The Institute is exposed to various risks of loss from torts; theft of, damage to, and destruction of assets; business interruption; errors and omissions; employee injuries and illnesses; natural disasters; and employee health, dental, and accident benefits. Commercial insurance coverage is purchased for claims arising from such matters. Settled claims have not exceeded this commercial coverage in any of the three preceding years.

#### **Notes to Financial Statements**

#### June 30, 2011 and 2010

#### **Income Taxes**

The Institute is exempt from taxation under Code Section 501(c)(3). Only unrelated business income, defined by Section 512(a)(1) of the Code, is subject to federal income tax.

#### **Subsequent Events**

For purposes of the preparation of these financial statements in conformity with U.S. generally accepted accounting principles, the Institute has considered transactions or events occurring through September 28, 2011, which was the date that the financial statements were available to be issued.

#### 2. Cash and Cash Equivalents

The Institute's cash and cash equivalents are invested in repurchase agreements, collateralized by securities held by the financial institution in its name and assigned to the Institute. The accounts had bank balances of \$28,162,684 and \$17,389,564 at June 30, 2011 and 2010, respectively.

The cash held as fiscal agent for MBRB is invested in repurchase agreements, collateralized by securities held by the financial institution in its name and assigned to the Institute. The account had bank balances of \$4,992 and \$289,311 at June 30, 2011 and 2010, respectively.

The Institute maintains its cash in bank deposit accounts which, at times, may exceed federally insured limits. It has not experienced any losses in such accounts. Management believes it is not exposed to any significant risk on cash and cash equivalents. The Institute considers liquidity and safety in its investing decisions, and manages custodial credit risk by investing in repurchase agreements. There are no legal restrictions on the investments of the Institute.

#### 3. Loans Receivable and Investments

The Institute's loans receivable and investments consist of the following at June 30, 2011 and 2010:

	<u> 2011</u>	<u>2010</u>
Loans receivable Investments in privately held companies	\$ 1,309,864 <u>225,639</u>	\$ 1,260,633 155,639
Allowance for losses	1,535,503 <u>(481,941</u> )	1,416,272 (268,494)
Less current portion	1,053,562 (307,000)	1,147,778 (290,200)
	\$ <u>746,562</u>	\$ <u>857,578</u>

#### **Notes to Financial Statements**

#### June 30, 2011 and 2010

Loans receivable have a variety of terms and due dates based on the structure of the agreement and are generally collateralized by the general business assets of the borrower. Interest rates on loans receivable range from 5-14%. The loans and investments are held by the Institute; thus, there is no custodial credit risk.

The allowance for losses was increased \$213,447 in 2011 and decreased \$293,331 in 2010; the offsetting credit or charge was to notes receivable or deferred revenue, respectively.

#### 4. Board-Designated Net Assets

The Institute's Board of Directors has designated \$900,000 of the unrestricted net assets for the following three purposes:

- 1. One-time program investments, such as special studies and reports.
- 2. High-quality program award projects that would not otherwise be funded due to lack of funds (e.g., at the end of a fiscal year).
- 3. One time infrastructure or capacity investments, such as data management systems.

#### 5. Expenses

The Institute's other expenses include the following for the years ended June 30, 2011 and 2010:

		<u> 2011</u>		<u>2010</u>
Program award review process Other operating	\$ 	8,574 454,256	\$	7,449 366,833
	\$	462,830	\$	374,282
Expenses are comprised of the following:				
		2011		<u>2010</u>
Direct program services	\$	19,830,465	\$ 1	6,944,564
General and administrative, including nonoperating expense		1,107,366		980,799
	\$_	<u> 20,937,831</u>	\$ <u>    1</u>	<u>7,925,363</u>

#### **Notes to Financial Statements**

#### June 30, 2011 and 2010

#### 6. Leases

#### Operating Lease

The Institute leases office space under an operating lease that expired in 2011 and has been renewed on a month-to-month basis. Rent expense under the lease was \$39,766 for 2011 and 2010.

In September 2011, the Institute signed an operating lease to lease operating space. The lease has a five-year term and an option to renew for an additional five-year period. Rent expense for the first year will be \$27,318, excluding certain occupancy charges and minimum rent expense will increase 2% each succeeding year. The initial lease term expires September 30, 2016.

#### Capital Leases

The Institute is leasing assets with an amortized cost of \$18,858 and \$23,572 at June 30, 2011 and 2010, respectively, under a capital lease with an interest rate of 9.50%. The leased assets are included on the balance sheet in equipment and amortization of the leased assets is included in depreciation expense. Total annual payments, including interest, are \$5,940.

Future minimum lease payments due in the years subsequent to June 30, 2011 are as follows:

2012 2013 2014 2015	\$	5,940 5,940 5,940 <u>5,445</u>	
Less: amount representing interest	Resilient.	23,265 (3,900)	
Obligation under capital lease Less: current portion		19,365 <u>(4,284</u> )	
Obligation under capital lease, net of current portion	\$	15,081	

## 7. Maine Biomedical Research Board

During 2002, MBRB was created by the State of Maine Legislature and the Institute was designated as its fiscal agent. The fiscal agent contract between MBRB and the Institute provides for MBRB to pay an annual amount up to \$20,000 in 2011 and 2010 for the direct labor expense of a grant administrator and related direct and indirect costs required to carry out the activities of the Maine Biomedical Research Program. The contract expires on December 30, 2011. For the years ended June 30, 2011 and 2010, such direct expenses and overhead totaled \$13,223 and \$13,085, respectively.

#### **Notes to Financial Statements**

#### June 30, 2011 and 2010

#### 8. Grant Commitments'

The Institute recognizes a liability and corresponding expense for awards in the amount expected to be paid when awards are approved by the Board of Directors and awardees submit required documentation and incur costs under the awards. Awards payable were \$3,608,805 and \$3,300,610 at June 30, 2011 and 2010, respectively. Conditional awards approved by the Board of Directors are recorded when the recipient organizations meet the conditions of the awards.

The Institute had commitments to fund awards, if recipients meet certain milestones, as follows:

		<u>2011</u>		<u>2010</u>
Marine Research awards Phase Zero awards Pre-Phase II awards Seed grants Development awards Cluster awards Accelerated Commercialization Fund awards Maine Technology Asset Fund awards	\$	273,000 16,000 4,000 185,000 2,876,000 1,262,000 - 24,202,000	\$	418,000 9,000 6,000 215,000 2,710,000 1,306,000 39,000 31,717,000
	\$_	<u> 28,818,000</u>	\$_	36,420,000

The Institute had approved awards to recipients pending executed award contracts as follows:

	<u>2011</u>			<u>2010</u>
Seed grants Pre-Phase II awards	\$	13,000	\$	48,000 5,000
Development awards Cluster awards		1,761,000 700,000		2,658,000 550,000
Maine Technology Asset Fund awards	_	2,192,000	_	-
	\$_	4,666,000	\$_	3,261,000

#### 9. Maine Technology Asset Fund

In November 2007, State of Maine voters approved a \$50 million bond issue for research, development, and commercialization of projects in certain technology sectors. These funds are administered and awarded by the Institute under a program called the MTAF. In June 2010, voters approved an additional \$3 million under the program. The Institute drew \$22,015,600 and \$11,000,000 of funds for program expenses in 2011 and 2010, respectively and had \$12,400,000 and \$34,415,600 remaining to be drawn from the fund for program expenses as of June 30, 2011 and 2010, respectively. Funds under the \$50 million bond issue must be drawn by June 30, 2012, and funds under the \$3 million bond issue must be drawn by June 2015.

#### **Notes to Financial Statements**

June 30, 2011 and 2010

#### 10. Maine Marine Research and Maine Biomedical Research Funds

In 2011, the Institute was notified that interest earned on amounts drawn on the Maine Marine Research and Maine Research funds is due to the State of Maine. Included in deferred revenue at June 30, 2011 are approximately \$180,000 of amounts due for interest income earned on Marine funds. Because the Institute serves as the fiscal intermediary for MBRB, there is no liability for amounts due for interest income earned on Biomed funds of \$540,000 included on the balance sheet. MBRB expects to receive certain funds from the State of Maine in 2012 which will be used to repay amounts due for interest income earned.

## SUPPLEMENTARY INFORMATION

#### Schedule 1

## MAINE TECHNOLOGY INSTITUTE

## Cash Basis - Assets and Equity - Maine Biomedical Research Board

## Years Ended June 30, 2011 and 2010

#### **ASSETS**

	<u>2011</u>	<u>2010</u>
Cash held by Maine Technology Institute	\$4,962	\$ <u>284,336</u>
EQUITY		
Cumulative excess of receipts over disbursements*	\$ 4.962	\$ 284,336

<sup>\*</sup> Included in cumulative excess of receipts over disbursements is \$120,000 due to Maine Technology Institute for funds advanced to Maine Biomedical Research Board in June 2011.

## **Schedule of Receipts and Disbursements**

## Maine Biomedical Research Board

## **Years Ended June 30, 2011 and 2010**

•		<u>2011</u>		<u>2010</u>
Receipts State of Maine Advance from Maine Technology Institute Interest	\$	500,000 120,000 <u>4,656</u>	\$	750,000 - <u>9,407</u>
Total receipts		624,656		759,407
Disbursements Grants Administration fee	_	890,107 13,923	_	1,260,559 12,810
Total disbursements	_	904,030		1,273,369
Excess of disbursements over receipts		(279,374)		(513,962)
Cumulative excess of receipts over disbursements at beginning of year	-	284,336	_	798,298
Cumulative excess of receipts over disbursements at end of year	\$_	4,962	\$_	284,336

## Schedule 3

## MAINE TECHNOLOGY INSTITUTE

## **Statement of Activities**

## Year Ended June 30, 2011

		Progran		
	<u>Expenses</u>	Charges For <u>Services</u>	Operating Grants and Contributions	Net Expense and Changes in Net Assets
Business-type activities	\$ <u>20,937,831</u>	\$ <u>100,423</u>	\$ <u>20,558,221</u>	\$ <u>(279,187</u> )
Total	\$ <u>20,937,831</u>	\$ <u>100,423</u>	\$ <u>20,558,221</u>	(279,187)
General revenues Unrestricted into Miscellaneous i		tment earning	gs	247,173 13,312
Total gen	eral revenues			260,485
Change in	n net assets			(18,702)
Net assets, beginnir	ng of year	,		1,229,367
Net assets, end of y	ear			\$ <u>1,210,665</u>