

Maine Technology Asset Fund

REQUEST FOR APPLICATIONS NOVEMBER 2014

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General Information

Overview

In 2007, the State Legislature authorized and the voters of the State of Maine approved \$50 million in bond funds for research, development and commercialization projects that boost economic development and create good jobs across the State.

The Legislature directed the Maine Technology Institute (MTI) to administer this venture based on its track record of administering high-impact innovation funding programs in the for-profit, non-profit and university sectors. The Maine Technology Institute established the Maine Technology Asset Fund in response to this call.

The MTI Board of Directors established the following goals for the program:

- generate measurable economic benefits for the State of Maine through financing high-impact innovation projects, with an emphasis on growing good quality technology jobs;
- encourage stronger linkages among Maine's research, development and commercialization organizations that will yield sustained gains in the future;
- increase the level of economic activity in the State, through nurturing technology development entities here in Maine as well as attracting new activity from outside Maine.

In 2009, the State Legislature authorized an additional \$3 million in bond funds for research, development and commercialization projects that boost economic development and create good jobs across the State. In June 2010, the voters of the State of Maine approved this bond funding.

The Maine Technology Asset Fund is a competitive award program. In Round Four, MTI's Board of Directors will have approximately \$3.3 million available from these two bond authorizations to award (\$.3 million remaining from the 2007 bond and the full \$3 million from the 2010 bond).

MTAF awards must be used to fund capital and related expenditures supporting research, development and commercialization¹ projects that will lead to significant economic benefits in Maine. These expenses can include facilities construction and renovation, machinery and equipment (including computers, software and licenses required for their use as well as related technician training for operation of equipment or machinery purchased) and land purchases. This can also include one-time expenses directly associated with the acquisition and installation of such assets. The awards cannot be used to fund ordinary annual operating expenses, including personnel or indirect/overhead costs.

MTAF RFA Round 4—11/17/14

¹ Commercialization can include generation of revenues by nonprofit organizations through the sale of products and services.

All projects must fall within one or more of the MTI's seven technology sectors:

- Biotechnology
- Aquaculture and Marine Technology
- Composite Materials Technology
- Environmental Technology
- Advanced Technologies for Forestry and Agriculture
- Information Technology
- Precision Manufacturing Technology

Organizations eligible to apply for these awards include Maine institutions of higher education, Maine non-profit institutions and for-profit businesses operating in the State of Maine. Awards to universities, colleges or non-profit organizations will generally be made in the form of grants. Awards to for-profit businesses will generally require repayment if a new technology is successfully brought to market as a result of the project, consistent with the requirements of MTI's Development Loan program. Requests from organizations leading collaborative initiatives that include both for-profit and non-profit organizations may require repayment of some or all of the award as per the information below. Please see Appendix B for details and sample payback scenarios.

Awards must only be used to finance capital expenditures and related costs for projects that will foster growth in Maine's technology-based economy by moving discoveries along the research, development and commercialization continuum. Projects that span two or more of these stages will be more competitive than those that involve one stage alone, but all projects must be able to demonstrate a path to commercialization as defined below. These projects must provide a critical boost to help Maine translate its research capacity into economic growth.

Applications will be evaluated through an independent and competitive review process for scientific merit, economic impact and related criteria (see "Evaluation Criteria"). The review process will be managed by MTI in collaboration with the American Association for the Advancement of Science (AAAS), a respected scientific organization that has assisted over 30 states to implement research and technology commercialization programs. MTI will approve awards that demonstrate the greatest potential to generate positive economic benefit for the State's economy. The Maine Technology Asset Fund is not intended to supplant existing funding sources; demonstration of why a request is appropriate for this fund and not other funding sources will be critical to the success of any application.

This program is a complex initiative involving a multi-million dollar investment, seven technology sectors, a competitive review process with multiple steps, and an ambitious expectation by all taxpayers in Maine for a high return on investment in terms of good jobs, economic growth and a more vibrant innovation economy. MTI wishes to support projects most likely to provide the highest return for taxpayers' dollars and the greatest economic benefit for people across the State. The Board of Directors reserves the right to make modifications to the program. For example, if an unusually large number of applications are received, MTI may extend the review period to ensure that quality

assessments are made or may adjust the timing of interviews. MTI also reserves the right to fund any application in full or in part, to request additional information from applicants, to approve or reject any or all applications responding to this Request for Applications, and to re-issue the Request for Applications if it determines that it is in the best interests of the State of Maine. MTI also reserves the right to decline to an award to a named recipient if further due diligence indicates that the facts or circumstances as represented in its application are not applicable or have changed.

Research, Development and Commercialization Continuum

Over the last 50 years, models for innovation and commercialization have evolved, becoming more distributed and more global. Large companies like Xerox and Pfizer no longer rely solely on their own research and development arms to fill their product pipeline but look to license technology from universities and other companies, invest in companies that are developing complementary technologies, and acquire small companies completely. In short, the commercial innovation model has evolved from a marathon to a relay race requiring multiple relationships and divisions of labor, maximizing core competencies and capital at each stage along the continuum. Further adding to the picture, in the non-profit sector, research institutions have developed revenue-generating product lines consistent with their missions and their non-profit tax status. In some cases, these institutions are licensing technologies to companies as well as spinning out new ventures to push technologies to commercial markets as a means of furthering their charitable mission.

The Maine Technology Asset Fund will support research, development and commercialization efforts in the seven above-mentioned technology sectors through funding for capital expenses such as equipment, facilities and land purchases related to these projects. As noted above, the projects must aim to move discoveries along the continuum from research to development to commercialization, with the greatest emphasis on those projects that span more than one of these stages. Within this continuum are three basic areas eligible for funding support:

- **Research**: Original investigation for the advancement of scientific or technological knowledge that will enhance the research capacity of the State in a way that develops businesses, jobs, researchers, or students in Maine and/or attracts them to the State with measurable benefits to Maine's innovation economy;
- **Development**: Translational research conducted with the objective of attaining a specific benefit or solving a practical problem or other research activity that seeks to use, synthesize, or apply existing knowledge, information or resources for the resolution of a specified problem *for commercial application*;
- Commercialization and Revenue Generation: Transition from research to market entry and market competitiveness of new technology processes, products and services. Technology infrastructure that enables new products and services to go to market within one or more of Maine's seven technology sectors.

For any application, regardless of which of the above listed areas it falls into, the challenge for the applicant will be to tell a story of why these new capital resources will allow them to:

- carry out a strong science or engineering project with viable market potential or impact,
- attract/leverage additional funding (federal or philanthropic grants, revenues and/or private investment),
- increase their capacity to collaborate to bring about technology transfer,
- create a culture for new disclosures, inventions, patents or other intellectual property,
- proactively push/pull technology transfer,
- respond to important national, state, and industry needs, and
- bring sustainable economic benefits to the State of Maine.

In conclusion, this is not a traditional research funding program but rather aims to drive economic development and grow Maine's innovation economy through investments in critical capital projects. Projects that move technologies the furthest along the innovation continuum towards commercialization and revenue generation, therefore maximizing economic benefit in Maine, will be the most competitive for this program. All applications will be first evaluated for scientific merit, with the understanding that success in the market can only be achieved if a project is based on good science or engineering. Subsequently, those applications that show strong scientific merit, no matter where they fall on the research, development and commercialization continuum, will also be evaluated for market potential and related economic impact for Maine.

Funding Opportunities and Payback Requirements:

Although there is no maximum request amount, awards of over \$1 million will be reserved for applications of the very highest caliber. Likewise, the larger the award request, the larger the expected economic impact. All requests require a 1-to-1 match. The MTI Board aims to approve approximately \$3.3 million in awards during this fourth round, depending on funds available.

Repayments of awards will be required under specific circumstances. Repayment requirements will be related to whether a project will generate profits and whether the assets funded by the award will be shared. Awards to an individual non-profit organization (including a public or private college or university) that allows access to multiple users will generally not require a repayment. Awards to an individual for-profit business where one business receives the exclusive benefit of the award will require payback of the award amount to MTI on terms similar to MTI's Development Loan program. Like the Development Loans, these awards will have a payback requirement that is triggered upon commercialization of the new technology or technologies enabled by the project. When this provision is triggered, the business will be required to repay the award within 7 (seven) years of commercialization. Businesses that have not repaid the award amount during the first 3 (three) years from commercialization will owe the unpaid balance, which will increase by 30% and subsequently by 10% annually. Projects that do

not result in commercialization will not require repayment. See Appendix B (page 32) for details.

Awards to organizations leading collaborative initiatives will not require payback if the capital assets will be shared broadly by project partners and if the initiative has as a primary purpose a broad and significant economic benefit to that technology cluster or industry in Maine. Projects where assets are shared between and among partners, and no exclusive benefit exists, will not require payback. These provisions apply to collaborations between and among for-profit and non-profit entities. If an asset, such as a piece of equipment, is funded by an award to a collaborative initiative and is subsequently in the sole control of and benefits only one business, then there may be a repayment of that portion of the award required upon commercialization of the technology developed with award funds. Please refer to sample scenarios in Appendix B.

All applications must provide detail regarding the ownership, location and accessibility of the project assets during the five-year project period, as well as the disposition/ownership of those assets once the project has been completed. Applicants should include costs associated with any disposition of the assets at project's end in the project budget.

Any award recipient that misuses award funds or breaches specified contract provisions will be required to repay, with interest, the award in full. Any award recipient that either moves out of the State of Maine or moves funded assets out of the State of Maine will be required to repay MTI two times the related award amount. All funds received as repayment will be returned to the State of Maine General Fund.

Eligibility

Eligible Costs

Maine Technology Asset Fund awards may be used to fund the following capital expenditures and related costs:

- Land purchase and facility construction, improvements and renovations that directly support research, development, and commercialization activities that will yield economic benefits in Maine. Funds can be used for all stages of capital improvement, including architectural and engineering studies and related one-time expenses.
- Equipment, machinery and associated instrumentation. Included in equipment costs are one-time costs such as shipping, set up, insurance, warranties, and initial training on equipment, but not for ongoing operating expenses associated with equipment.
- Initial costs of shared investment (e.g. telecommunications, library search capability)
 that benefits multiple organizations and improves efficiencies and capacity within or
 across sectors.

This investment must be associated with a technology project or projects that can be evaluated for science and engineering merit and feasibility as per the project review criteria. MTI may require mortgages and/or security agreements to ensure compliance with contract terms and repayment of any of these capital expenditures. For proposed

leasehold improvements, the facility must be subject to a lease which matches or exceeds the term of the award period.

Costs Not Allowed

MTAF monies may NOT be used for any of the following costs, due to restrictions on the use of these state bond funds:

- Personnel costs and fringe benefits
- Consultants not directly associated with the capital project
- Other direct costs, including supplies, travel, postage, etc.
- Cost of obtaining a grant
- Indirect costs such as overhead or general and administrative costs
- Raw materials or components of commercialized products

Eligible Applicants

The following Maine-based entities are eligible to apply for awards from the Maine Technology Asset Fund: Maine institutions of higher education (public and private), Maine non-profit institutions, and for-profit businesses operating in Maine.

To be considered a Maine-based business, the business must have a significant place of business in the State of Maine, be registered with the State to do business in Maine, and maintain physical operations in Maine managed by a full-time senior representative of the organization or business. All applicants must demonstrate a long-term commitment to the State of Maine.

Out-of-state businesses that can demonstrate a relocation or establishment of a primary place of business in Maine at the time of award decisions are eligible to apply for funding. Out-of-state businesses must have a significant operational presence in Maine at the time of signing an award contract agreement (which must be signed within 6 (six) months of award decision by the MTI Board).

To be considered a Maine-based non-profit institution, the institution must have a physical location in the State, be registered with the State, maintain physical operations in Maine managed by a full-time senior representative of the institution, and have evidence of non-profit status from the Internal Revenue Service.

State agencies that carry out research or other related activities can be a collaborating partner on a project, but cannot apply for nor receive award funds.

Program Description

Matching Fund Requirements

As required by the legislation establishing this fund, applicants must provide at least one dollar of matching funds for every one Maine Technology Asset Fund dollar. Other MTI or Maine state government funds, except for state funds appropriated to higher education

institutions' operating funds, are not eligible as matching funds for the Maine Technology Asset Fund awards. Examples of matching funds include, but are not limited to, federal grants, grants from foundations, equity investment, bank loans, and internally-generated funds.

Expenses directly attributable to the proposed project may be counted as matching funds. Matching funds may be used to fund project activities as well as a portion of the capital expenditures enabled by the award (i.e. the matching funds do not have to be for capital expenditures, but can be for other expenses related to the project). Matching funds must be cash. The time of employees of award recipients and collaborative partners is considered cash (since when employees are paid, money changes hands), but the proposed cash match must be consistent with the underlying salary and obligations. In collaborative applications the amount and quality of matching funds contributed by project partners will be seen as one indication of support for the collaboration.

Matching funds do not have to be in hand at the time of application, but likely sources must be identified in the application. Likewise, funds in hand, but unspent at the time of application submission, may be used as matching funds if subsequently used for a project-related purpose as per the approved project budget. Award recipients will have six months from time of award approval to secure and document all sources of matching funds. Please see Appendix C on page 33 for matching requirement guidelines.

Quality of Matching Funds

The applicant must demonstrate through a matching commitment how requested funds will build on the current resources/funding to advance project development in ways not possible with current funding or how they will be used as a base for attracting additional or future funding.

Quality of match will be evaluated as part of two of the criteria, Team and Institutional Commitment and Merit, and Collaboration. Applications having a higher percentage of cash match relative to the total budget will be given greater consideration in the evaluation of the budget plan. Reviewers will consider elements such as whether match is new or re-directed existing funding. Finally, matching funds contributed by collaborating partners will score higher, as the cash match typically indicates a stronger collaboration.

Submission of Multiple Applications

Organizations may submit more than one application. Those organizations applying for multiple awards must include a supporting letter from the institution addressing how the project fits with the overall institution's strategic research, development and commercialization or revenue-generation plan. In addition, the organization must confirm that it can sustain all submitted projects at one time.

An individual can be a project leader and/or collaborator for more than one project as long as it is clear he or she can effectively manage all submitted projects at one time.

Applications From Previous Rounds

Current award recipients may apply in this round for different projects. Current recipients may apply for additional funding for substantially similar projects as those funded in the first two rounds where they can demonstrate a strong need and significant economic impact. Applications relating to the same project where the total of MTAF awards exceeds \$5 million will be held to the highest standard, must have clear justification for additional funding and demonstrate significant economic impact.

Since reapplications may have one or more reviewers who reviewed that application in previous rounds, we strongly recommend that applications address previous round reviewer concerns and questions.

Application, Review, Award Process and Timeline

The application and review process consists of the steps listed below:

2015	Activity
Award Cycle	
November 17, 2014	Public release of RFA.
November/December	RFA workshops/information on website.
2014	
November 17-	Q&A period; Q&A posted on MTI website on rolling basis.
December 31, 2014	
December 19, 2014 by	Notice of Intent due by 12:00 noon filed electronically on MTI form.
12:00 noon	Late submissions will not be accepted.
December 29, 2014	All Notices of Intent posted on MTI Website
December 31, 2014	All questions submitted to MTI.
January 8, 2015	All Q&A posted on MTI website.
January 26, 2015	Applications (paper copy received) <u>due</u> at MTI by 5:00 PM. Late
5:00 PM	submissions will not be accepted.
Week of March 16,	Written reviews shared with applicants, notification of those
2015	going/not going forward in process based on results of written review
	phase.
Week of April 6, 2015	Interview Panels. Applicants should reserve this week on their
	calendars for potential interview invitation. MTI cannot
	accommodate scheduling conflicts of applicants.
Week of April 13, 2015	MTI Board of Directors makes final award decisions. Applicants
	notified of results.

Applicant Workshops and Information Sharing

MTI will hold workshops and/or conference calls to present the program and application process to potential applicants and answer questions. Information on these topics will also be available on MTI's website.

Ouestion and Answer Period

Questions regarding this RFA must be submitted in writing via e-mail at TechFund@mainetechnology.org. Substantive questions and answers will be posted in a Frequently Asked Questions (FAQs) section on the MTI website on a rolling basis (www.mainetechnology.org). All questions must be submitted by December 31, 2014. All FAQs and responses will be posted no later than three weeks before the application deadline. MTI reserves the right to edit questions to provide brevity, clarity, and to cover the same general question from several potential applicants.

Notice of Intent to Apply

Prospective applicants must submit a Notice of Intent to apply electronically following the format provided on the MTI website. The Notice of Intent submittal form will be available beginning Monday, November 21, 2014. Submitting a notice does not bind a

prospective applicant to submitting an application. However, an application will neither be accepted nor reviewed unless a notice has been filed by the Notice of Intent deadline. The notice must be filed electronically by noon on December 19, 2014. Late submissions will not be accepted. Applicants will receive an acknowledgement of receipt via email within two business days.

The Notice of Intent is not used for evaluation purposes, but will be used to help MTI and AAAS secure application reviewers as well as to help MTI plan for the administration of the remainder of the review process. Notices of Intent are considered non-confidential and will be posted on the MTI website to facilitate collaboration between and among potential applicants.

Applications

Final applications must comply with all the requirements of this RFA. Applications must be received at MTI no later than 5:00 PM on January 26, 2014. Late or incomplete applications will not be accepted. All applications will be subjected to an administrative review where applications will be reviewed for compliance with RFA requirements and guidelines. Applications found incomplete or not in compliance with requirements will not be reviewed, and applicants will be notified of non-advancement in the funding round. Complete and compliant applications will be reviewed as detailed on the next page, and applicants will receive acknowledgement of receipt of their application via email.

All final applications must comply with MTI provisions on confidentiality in order to qualify for protection from disclosure of information to the public. The confidential information must be marked "confidential" on each page, and must fall into the categories set out in 5 MRSA Section 15302-A (http://janus.state.me.us/legis/statutes/5/title5sec15302-A.html). Further information on how to designate confidential information is detailed in the application guidelines section.

Written Review

All applications will undergo an independent review by AAAS in a standard written format. Applications will be scored and ranked according to three of the criteria described in Evaluation Criteria: Economic Growth and Impact (5 points), Scientific or Engineering Merit and Feasibility (5 points), and Team and Institutional Merit and Commitment (4 points). Expert reviewers will be recruited from outside of Maine by AAAS. The standard review form will be available on the MTI website; however, completed review forms from AAAS will be confidential information and may be disclosed only to the applicant. All applicants will receive their written review scores and comments by mail.

The Written Review phase will conclude with a presentation by AAAS to the MTI Board of its grouping of applications as Highly Recommended, Worthy of Consideration, and Not Recommended, based on the consensus review of each application. Because any

competitive application must have solid technical and scientific merit, strong institutional commitment and clear economic benefit to Maine, only the highest ranked applications will be recommended to move forward to the next stage of consideration. The MTI Board will discuss and vote on the AAAS recommendations.

Appeals Process

MTI's standard appeals policy will govern the program. As per this policy (which is posted on MTI's website), appeals may be submitted in writing to the MTI President, or any member of the MTI Board and will be considered by the MTI Executive Committee. Information not included in the original application will not be considered as part of the appeals process. Appeals will only be accepted for decisions made during the Written Review phase.

Appeals must be filed within 5 (five) business days from the date of the Written Review decision notification letter. The MTI Board of Directors has adopted the following standard of review for appeals:

- Was there a deviation from the published application and review process that, if corrected, would change the outcome of the review?
- Is there a significant flaw in the review that, if corrected, would change the outcome of the review decision?
- If so, should the MTI Board's decision be reconsidered?

Interview Panel

Applicants moved forward will be invited to participate in an interview. In advance of the interview, applicants will be asked to submit the names of the individuals who will represent their project(s) at the interview. MTI reserves the right to request that additional individuals listed on the application be present in-person or by telephone for the interview.

In the interview phase, applications will be scored and ranked on the following evaluation criteria: Economic Growth and Impact (5 points), Scientific or Engineering Merit and Feasibility (5 points), Team and Institutional Merit and Commitment (4 points), Relevance to Maine's Innovation Economy Needs (3 points) and Collaboration (3 points) as defined in the Evaluation Criteria. Those who are interviewed will have the opportunity to address issues raised in the written review phase and to field questions from the Interview Panel. Applicants invited to interview will be asked to submit in writing a response (maximum of two pages) to questions raised during the written review and brief summary of any changes to the project since application submission in advance of the interview. The Interview Panel will include MTI Board members, technical experts, and other experts with knowledge of Maine's innovation economy and research needs. The names and affiliations of the review panel will be available to applicants the day of the interview. Applicants may not contact reviewers independently of the panel interview.

Interviews will be up to 45 minutes in length. Applicants have the opportunity to provide a short, 15-minute presentation. It is strongly encouraged that presentations include updates to the application since submission, as well as responses to comments and questions from the written review round. Following the initial presentation, the remaining 30 minutes will be spent addressing questions from the review panel.

Subsequent to the interviews, the interview panel will create a rank ordered list of applications, based on the reviewers' scores, and generate a written review for each application considered. This phase of review will conclude with a recommendation by the review panel to the MTI Board of a group of the highest ranked applications that best meet the stated goals and criteria of the program. Applications from companies will have credit histories checked by MTI prior to the Board's decision.

The MTI Board reserves the right to modify the review process of this RFA once the Notices of Intent have been received and the size and breadth of the applicant pool is known. For example, depending on the number of applicants and the breadth of the requests, there may be multiple interview panels whose results will be integrated into one set of recommendations.

Recommendations and Award Decisions

Following the interview panel, the MTI Board of Directors will consider and vote on the review panel's recommendations. The MTI Board may require that certain applicants, for example those requesting the largest awards, make an in-person presentation to the MTI Board.

All applicants will be notified in writing of the outcome of their application. All applicants will also be provided the results of the written review and comments of the interview panel on their application. As is typical MTI practice, MTI staff will be available for conversations by phone or in person to discuss the outcome of the competition with individual applicants.

Award decisions following the interview process are final, as this round of awards will exhaust the MTAF funds available. Therefore, the MTI Board will be unable to entertain appeals of the final award decisions.

Reviewer Conflict of Interest

All application reviewers at every stage of the process will be required to sign a confidentiality and conflict of interest agreement, as is MTI's standard procedure. Examples of these agreements will be posted on MTI's website. Similarly, MTI's Board of Director participation in the review and approval process will be guided by the MTI conflict of interest policy, with only those Board members with no financial interest or close association with any applicant or collaborating partner in the round participating in policy and award decisions.

Award Contract Execution

Following award notification, MTI staff will prepare the final terms of the award contract for each project. The contract may include changes to the application and/or budget due to evaluation findings or funding availability. Award recipients are expected to complete the project as described in the application as funded and as amended, and the contract will bind award recipient to a scope of work. Maine Technology Asset Fund award contracts will be for projects of five years or less in length. Award contracts must be signed within 6 (six) months of award decision by the MTI Board.

All award contracts will require:

- Reporting requirements. Reporting requirements will be finalized in the award contract, but will include at a minimum:
 - Quarterly Reports including progress and economic impact measures, and milestones met
 - Matching fund reports to accompany invoices
 - Quarterly financial forecasts
 - o Annual Reports, including financial and economic impact information and participation in an on-line survey of economic impact
 - o Proprietary Information: If a report contains proprietary information, the information must be identified by asterisks and bold brackets on the page on which it appears.
- Intellectual Property information. All technology developed prior to the MTI award will continue to be owned by the party that developed the technology. Improvements or new inventions developed during the course of the award will continue to be owned by the discoverer/developer of the technology. In situations where another party owns the technology, the participating company may enter into a licensing agreement to use the technology. In some cases, a pre-existing ownership agreement may be in place between the parties. The existence of such an agreement must be stated in the applicant's application. In a collaboration of researchers or institutions, where intellectual property might be an issue, parties are encouraged to enter into an intellectual property agreement and indicate this in the application.
 - o Intellectual Property Plan: Where applicable, awardees are required to submit an intellectual property plan as part of the award contract process.

In addition, contracts will require, where appropriate, provisions such as mortgages, security agreements, language governing human subjects and animal use, required disclosures, and changes in project personnel, team, scope, and budget. A copy of the MTAF award contract template is available on the MTI website. Potential applicants unable to comply with contract requirements are urged to think carefully before applying.

Award Payment

Payments will be made on a reimbursement basis upon receipt of quarterly and milestone reports and back up financial information demonstrating the use of funds as detailed in the approved application and budget. Payment will be made within 30 (thirty) days of

receipt of quarterly narrative and financial reports that meet MTI's approval. In some cases, payments for large equipment purchases will be made as a two-party check to the award recipient and vendor, and not on a reimbursement basis.

Qualifying expenses relating to the proposed project may be incurred anytime after the application submission, with the exception of equipment purchases. Equipment purchases with MTAF funding must take place after the award contract has been signed. Pre-award expenditures are made at the applicant's risk. It is possible that portions or the entire project may not be funded.

Evaluation Criteria

Applications will be evaluated based on the following criteria:

- 1. Economic Growth and Impact (5 points):
 - a. Economic impact potential of the project, as measured by the following:
 - i. New jobs in Maine;
 - ii. Preservation of existing jobs in Maine;
 - iii. New businesses started in Maine, especially those based on the innovations from the R&D;
 - iv. Maine businesses succeeding or expanding as a result of new products and/or services;
 - v. New products and/or services introduced;
 - vi. New invention disclosures, intellectual property protection (patents, copyrights, trademarks, plant rights, etc.), licenses;
 - vii. New dollars coming into the Maine economy including:
 - Sales or licensing revenue,
 - Grants and contracts from federal sources or other non-state government sources (such as sponsored research, grants from foundations, etc.),
 - License fees,
 - Debt or equity investments from private capital sources,
 - Joint ventures with businesses from outside Maine,
 - Businesses moving to Maine,
 - Workforce training and development, especially in fields where skills are needed to support the targeted clusters.
 - b. Research, development and commercialization impact, including one or more of the following:
 - i. Expands research and development and/or commercialization activity;
 - ii. Creates, attracts or retains additional workforce to further research, development or commercialization goals of the project;
 - iii. Creates or enhances linkages with research/commercialization partners and/or leads to commercialization of the research outcomes.
 - c. Financial feasibility of the project to meet its economic goals.
- 2. Scientific or Engineering Merit and Feasibility (5 points):
 - a. Whether the science or engineering project:

- i. Represents excellence to the degree of being nationally competitive and will advance scientific or engineering knowledge;
- ii. Will continue to attract outside (non-state) R&D funding;
- iii. Will lead to other R&D important to Maine;
- iv. Has the potential to lead to new services or commercialization within 5 (five) years and addresses an identified market need.
- b. The feasibility of the strategies and approaches to meet project goals;
- c. The impact of requested assets and their use in the project to stimulate scientific/technical innovation and quality, thereby creating economic opportunity in Maine.

3. <u>Team and Institutional Merit and Commitment</u> (4 points—a-d: worth 2 points; e-h: worth 2 points):

- a. Qualifications of project leaders (e.g., principal investigator, project director, co-investigators), administration and staff to deliver and manage high quality projects and, based on the qualifications of the team and institution/entity(s), the likelihood that the project will meet its objectives;
- b. Capabilities of the project leader(s) and team in the fiscal administration of the proposed land, facility, or equipment acquisition and improvements;
- c. Quality of the applicant organization's innovation program and record and potential of productivity, including the degree to which the project is aligned with the applicant's organizational strategic plan;
- d. Scientific and technical potential of the applicant organization's planned research, development and commercialization initiatives;
- e. Level and feasibility of the applicant organization's planning and commitment to use the capital improvement(s) or major equipment;
- f. Adequacy of existing equipment and facilities to support the project, and financial capacity to support the project for a period of 5 (five) years;
- g. Whether the amount of funds requested is commensurate with the proposed capital improvements or assets;
- h. Quality of matching funds as evidence of the applicant organization's commitment.

4. Relevance to Maine's Innovation Economy Needs (3 points):

- a. Degree to which the proposed project identifies and serves research, development and commercialization needs and opportunities identified as a priority for the State of Maine;
- b. Degree to which the project aligns with State science and technology plans;
- c. Degree to which the project is a benefit to traditional industries and/or emerging technologies or applications of particular importance to Maine;
- d. Degree to which the project has a positive impact on the growth, protection or sustainability of existing or emerging high-potential clusters or industries;
- e. Degree to which the project builds on or complements previous investments in research, development, and/or commercial activity;
- f. Potential impact of the proposed capital improvement or asset to increase Maine's research and development and commercialization capacity;

- g. Whether the requested asset is already available within the State of Maine or the Northeast Region, and if so, why the asset is justified to build research, development and commercialization capacity;
- h. Degree to which the project capitalizes on national research priorities.

5. <u>Collaboration</u> (3 points):

- a. Whether the request will enhance collaboration among research institutions and commercial entities appropriate for the project proposed and promotes linkages between research, development and commercialization;
- b. Potential that new capital improvement or asset will increase the use of resources available at the entity by individuals from other institutions or commercial entities;
- c. Potential for the project to serve as a shared facility and magnet for enhancing collaborative projects among research organizations and the private sector, especially meeting identified cluster needs;
- d. Degree to which the project builds on or complements already-existing collaborative initiatives;
- e. Provision of matching funds as evidence of collaborating institutions' commitment to the project.

Application Submission Guidelines

Notice of Intent Format:

The notice of intent must be filed electronically using the form on the MTI website, www.mainetechnology.org. The electronic form will be available beginning Friday, November 21, 2014. The notice of intent must be filed by **12:00 noon on December 19**, **2014**. Late submissions will not be accepted.

Notices of intent are considered non-confidential and will be posted on the MTI website. MTI will notify each applicant of receipt of a notice of intent and will assign each notice an MTAF registration number.

Full Application Format and Content:

The full application must be prepared according to the format below using standard-size paper (8 1/2" x 11"), single-sided and submitted in black and white or grayscale to maintain clarity after copying, type size no smaller than 12 point font, 1-inch margins, within prescribed page limits. In the upper right hand corner of each page, include a header with the MTAF registration number. One complete signed original copy of an application must be received by MTI no later than 5:00 PM on January 26, 2015. Late submissions will not be accepted. All pages of the original must be paper clipped together.

The sections of the application are:

- I. Cover Sheet − 1 page
- II. Executive Summary 2 pages
- III. Scope of Work/Project Description up to 20 pages, plus up to 5 pages of technical references and/or citations
- IV. Budget and Justification up to 3 pages (project budget plus justification narrative)
- V. Attachments
 - A. Two page curriculum vita of Project Director/Principal Investigator
 - B. Two page curriculum vitae summaries of other key collaborators
 - C. Matching Fund Commitment Letters
 - D. Letters of Matching Intent or Potential Investment
 - E. Letter of Operational Commitment (for applicants with multiple submissions)
 - F. Letters of Collaboration
 - G. Additional Information
 - H. Letter of Capacity

Please note: Sections I and II (Cover Sheet and Executive Summary) are considered non-confidential and may be shared publicly. Applicants are encouraged to mark all other pages "Confidential".

I. Instructions for Cover Sheet

A one-page cover sheet is considered non-confidential and must include the following information, in order:

- Project Title
- Lead Institution—Include the mailing address, federal ID number, technology sector, phone, and e-mail address. List the county, state Legislative and Senatorial districts for the project location.
- **Project Director**—List the name, title, e-mail address and institutional affiliation of the person submitting the application, i.e. the scientific lead and/or project administrator. Identify the appropriate salutation and/or degree.
- **Institutional Representative**—List name, title, and email address of institutional representative.
- Collaborators—Identify the name, title, e-mail address, affiliation, mailing address, and telephone number of any collaborators in this application who are substantially involved in carrying out the scope of work. A collaborator is an individual, organization, institution, company, or other entity that is outside and independent of the Applicant, has clearly defined, integral role in Work Plan execution; or is contributing matching funds or a sub-award.
- **Proposed Recipient(s) and Amount of Funds Requested**—Identify the proposed institutional recipient(s) and show the total amount of funds being requested. If funds will be split between collaborating organizations, indicate the amount requested for each entity.
- Names of Individuals (i.e. potential reviewers) from Whom to Withhold Application Information
- If this is a reapplication or connected to an MTAF award from previous rounds, please list associated MTAF application(s) by application number and title.
- Project Director's Signature and Date
- Signature of Appropriate Institutional Representative

II. Instructions for Executive Summary

The **Executive Summary** is a 2-page summary of the application and should be placed after the cover sheet. Each application will be reviewed in depth by the Written Reviewers and Interview Panelists, who will read the entire application. The Executive Summary should contain enough appropriate detail to communicate the broad outline of the application as a whole.

Note: Information in the **Executive Summary** may be distributed publicly and proprietary information should not be included.

The **Executive Summary** should include concise, self-sufficient descriptions for each of the following topics:

- A. Description of Application Summary of Scope of Work, including capital request and the research, development and commercialization enabled by this investment, as well as project milestones
- B. Summary of the contribution of the requested capital assets
- C. Application Team, Institution(s) and Operations
- D. Proposed Outcomes and Measures
- E. Projected economic benefit (short and/or long term) to Maine, such as job creation, company expansion, job training, increases in external research and development funding, a spin-off company or technology, commercialization, and/or benefit to Maine industries or strategic direction.

III. Instructions for Scope of Work

The **Scope of Work** is a complete and detailed explanation of the initiative. Sections A-F should not exceed 20 pages, with up to an additional 5 pages of technical references allowed. Sections G and H are not included in the 20 page limit. If this is a resubmission of a previously unsuccessful application, it is strongly encouraged that reviewer concerns are addressed clearly in the appropriate section. The Scope of Work must include the following sections in the order below:

- A. Background: Scientific and Technical Basis of Application
- B. Project Description
- C. Team and Institutional Merit and Commitment
- D. Nature of Collaboration
- E. Relevance to Maine's Innovation Economy Needs
- F. Economic Impact and Measurable Outcomes
- G. Economic Impact Table
- H. Project Milestone Schedule

Instructions for completing each of these sections follow.

A. Background: Scientific and Technical Basis of Application

Please provide scientific background of the research or effort leading up to this application. Applicants should seek to provide evidence of scientific/technical innovation and quality, as well as a credible plan to achieve high probability of commercialization success. Applicants should discuss research, development and commercialization concepts, structure and scale, as well as the overall importance of the scientific discipline. Section A should provide reviewers with a clear understanding of the technology being pursued with the application and where the project fits into the research, development and commercialization continuum.

In section A, reviewers should learn whether the project: represents scientific excellence to the degree of being nationally competitive and advancing scientific or engineering knowledge; will continue to attract non-State funding; will lead to other efforts important to Maine; and/or will lead to new services or commercialization within 5 (five) years.

B. Project Description

This is the section for applicants to describe the use of requested funds. Describe proposed capital improvement or asset and its impact of the project and institution or collaborating entities. Include in this section the management plan for the proposed project, including administrative and financial arrangements. Provide information on how improvements impact operational plans and budgets of participating institutions. If project proposed is a Center of Excellence, describe the business model for sustainability, filling the pipeline and/or tech transfer for the most economic impact for the State of Maine.

If request includes instrumentation or equipment, provide details of impact of equipment on research, development and/or commercialization efforts. Describe why equipment is crucial to effort. Describe research activities that will be enabled by acquisition of the instrument. In the description of the research, indicate how the instrument is essential (as opposed to useful) to successful completion of projects. Provide information on protocols associated with multiple users of the instrument. Include a brief description of how users from outside the institution will gain access to the instrument and on what terms, and how conflicts for access among users will be resolved. If the same or similar instrument is available in Maine or Northern New England explain why the additional instrument is necessary. Include details on how the equipment will be marketed to users outside the institution.

If request includes new construction and/or facility renovation, describe the proposed facility. Include pertinent elements such as building construction elements, how the building design will facilitate research activities, lab space as part of planning the facility, unique features central to the overall design and

safety and biohazard considerations. Describe the appropriateness of the location, suitability, and need of proposed facility or land for the research, development or commercialization effort. Indicate how the capital project is essential to the research, development or commercialization effort.

Describe the impact of the proposed project on the research, development or commercialization activities. Describe the specific deficiencies and limitations remedied by the proposed facility or land.

In section B, reviewers should be able to judge the feasibility of the project to meet project goals, and the impact of the requested assets and their use in the project, and the longer term sustainability of the effort to meet economic impact goals.

If the applicant institution or department is a previous MTAF award recipient, please describe how this project builds on or is different from the previously awarded project.

C. Team and Institutional Merit and Commitment

This section allows reviewers to rate the proposed personnel on their experience, skills, and capability to carry out the project, including its scientific, technical, and administrative activities. The competency of the initiative's key personnel plays a crucial role in the criteria for selecting applications to fund. Please summarize the composition, characteristics and capabilities of the application partners. Please also comment on the team members' commitment to remaining in the State of Maine. Use the questions and topics below as guides for your summary:

- Define the project team. State the names, qualifications and responsibilities.
- List the names, titles and percentages of work time for all personnel who are critical to the award.
- What organizations or individuals are participating with you?
- What skills, areas of expertise or resources will these participants bring to the award activities?
- If the applicant institution or department or collaborating institutions have received MTI funding or MTI-administered bond funding in the past, please summarize scientific and economic results of the project.

Section C also rates the quality of the participating institutions' innovation program and record and potential of productivity, including the organizational strategic and business plans. Please discuss organizational and/or business plans, including planned research, development and commercialization initiatives, planning and commitment to use the capital improvement, and adequacy of existing equipment and facilities to support the proposed project. Please also discuss the institutional commitment to the project of applicant organization

and/or collaborating institutions. Provide any necessary detail on matching commitment as evidence of commitment to the project.

D. Nature of Collaboration

Discuss the collaborative nature of the proposed project. Include a discussion of linkages between research, development and commercialization, and potential for shared facilities and meeting identified cluster needs. Explain how the project builds on or complements already-existing collaborative initiatives.

Section D should allow reviewers to judge whether the request will enhance collaboration among research institutions and commercial entities, and promote linkages between research, development and commercialization, or increase the use of resources available by individuals from other institutions or commercial entities.

E. Relevance to Maine's Innovation Economy Needs

Discuss the project's relevance to research, development or commercialization needs and opportunities identified as priorities for the State of Maine. This discussion could include any or all of the following areas of relevance:

- alignment with State science and technology plans;
- benefits to traditional industries and/or emerging technologies or applications of particular importance to Maine;
- growth, protection or sustainability of existing or emerging high-impact clusters or industries;
- Degree to which the project builds on or complements previous investments in research, development, and/or commercial activity
- positive impact on Maine's research, development and commercialization capacity;
- capitalizing on national research priorities.

Discuss why funds from the Maine Technology Asset Fund are needed and appropriate for this project.

F. Economic Impact and Measurable Outcomes

Describe the potential positive economic impact of the proposed project. This scoring area accounts for up to 25% of the total score. Applicants are encouraged to include adequate data to support economic impact assertions. Please be specific as to how the proposed project leads to positive economic impact for the State, using measures such as:

- new jobs in Maine, including at the R&D institutions;
- preservation of existing jobs in Maine;
- new businesses started in Maine, especially those based on the innovations from the R&D;
- Maine businesses succeeding or expanding as a result of new products and/or services:
- new products and/or services introduced;

- new invention disclosures, intellectual property protection (patents, copyrights, trademarks, plant rights, etc.), licenses;
- new dollars coming into the Maine economy including sales revenue, grants and contracts from federal sources, grants and contracts from other external sources (e.g. sponsored research), debt or equity investments from capital sources outside Maine, joint ventures with companies from outside Maine, or companies moving to Maine;
- workforce training, development and retention, especially in fields where skills are needed to support the targeted clusters.

Reviewers will also judge research, development and commercialization impact demonstrated by expanding research, development and/or commercialization activity; creating or attracting additional workforce to further research, development or commercialization goals of the project; or creating or enhancing linkages with research/commercialization partners and/or commercialization of the research outcomes. Describe the methodology used to determine your economic projections, so reviewers can judge the financial feasibility of the project to meet its economic goals. Also include a brief description of the outcomes in measurable terms that indicate how the award will be judged successful in terms of near-term accomplishments and future directions, capacity building, and economic benefit to Maine.

G. Economic Impact Table

The economic impact table is included to help quantify economic impacts resulting from the proposed project. Please complete the applicable areas within the table. (See Appendix D, page 35) This table is also available on the MTI website.

H. Project Milestone Schedule

Milestones serve as clear indicators of progress that measure concrete, discrete outcomes such as a deliverable. There needs to be a sufficient number of milestones but not so many that they become trivial or burdensome to manage. Milestones are reported on quarterly in award progress reports submitted by the Project Director. Milestones do not have to be completed for payment to be made, but progress towards milestone completion must be clear and definite. Complete the Project Milestone Schedule (following the format schedule in Appendix E, page 36) to provide a timetable for project activities and milestones, including both infrastructure acquisition activities and resulting research, development and/or commercialization activities. Milestone competition dates should not overlap. In other words, work on Milestone 2 should not begin until work on Milestone 1 has been completed. (Form available on MTI website).

IV. Instructions for Budget and Budget Format

Please see pages 7, 8 and 9, and Appendices A and C for allowable costs and matching requirements.

Complete the Budget Form for the project.

Be sure to identify each institutional source of matching funds. For example, if you are working with a University that has agreed to provide matching funds in the form of researcher's time, the fund source is the University. Applicants may attach a supporting budget narrative with justification of no more than two pages.

Funds counted as matching funds should relate directly to the proposed project. Applicants should not use grants for other non-related projects as matching funds. Matching funds do not have to be spent concurrently with awarded funds, but must be verified as spent by the end of the agreed upon award period.

The Budget Form is provided as an Excel worksheet on the MTI website. Please feel free to add columns for additional collaborating institutions, and sub line-item rows as necessary. Unallowable line items have been "grayed out" of the MTAF column, so applicants cannot assign an unallowable line item to MTAF funding.

Instructions Specific to the Budget Form

<u>Proposal Title and MTAF Application Number</u> - Enter the proposal title and the MTAF Application Number assigned by MTI.

Start and End Dates - Enter from your milestone schedule.

The total budget must be broken out into the following categories: Land, Facilities, Equipment, Shared Infrastructure, Personnel, Consultants (asset-related and non-asset-related), Other Direct Costs, and Overhead. The Budget Worksheet provides a line item for each category. Applicants should add sub-line item rows to provide appropriate detail as needed.

COLUMNS: Columns reflect income sources, including MTAF, for the project.

<u>MTAF Column</u> - Only Land, Facilities, Equipment, Shared Infrastructure or Consultants (if directly associated with capital project) categories should be used within the MTAF column. Personnel, Other Direct Costs and Overhead should not be included within the MTAF column, but can be counted as match.

<u>Fund Source Columns</u>— Each Fund Source Column should provide information about the matching contribution of that organization or institution.

LINE ITEMS (Rows): Rows reflect projected expenditures. Please do not list an income/revenue source as a line item.

<u>Personnel Costs</u> - Record the name and titles of individuals involved. Distribute the cost of their time to the appropriate Fund Source. The team personnel section of the application should indicate the role each individual will play in the project.

Record the cost of "Benefits" as an aggregate total for all personnel for each column.

Land - Enter the total cost of land.

<u>Facilities</u>, or <u>Facility Improvement</u> – Enter the total cost of capital facilities or facilities improvement. All costs associated with the facility or improvement should be incorporated into this line item.

<u>Equipment Costs</u> - Enter the total cost of equipment, including associated set-up costs, including delivery, insurance, warranties, etc.

<u>Shared Infrastructure</u> – Enter the total cost of shared infrastructure. Shared Infrastructure is defined as infrastructure that may be shared among collaborating institutions, such as fiber optics, shared space, etc.

<u>Consultant Costs</u> - Enter the total cost of consultants. Please break out consultant costs by Asset-related (allowable MTAF expense) and non-Asset-related (allowable matching expense, but unallowable MTAF expense).

<u>Other Direct Costs</u> - Enter the total of other costs directly related to the proposed project. This includes supplies and raw materials.

Overhead - Enter the total overhead allocated to the project. Make sure that costs detailed elsewhere, such as supplies and other direct costs, are not also counted in the overhead rate. Allowable overhead is limited to **no more than 20% of total project cost** and may be counted as matching funds only. **MTAF funds cannot be used for overhead expenses.**

MTAF Budget Worksheet (available on MTI website)

Application	n Title:						
MTAF App	lication Nu	mber:					
Start Date	:	End Date:					
			TOTAL				
			TOTAL - All	MTAF	Applicant	Fund	Fund
			Sources	Funds	Funds	Source 2	Source 3
Personnel							
Salaries (r	name and ti	tle)					
Benefits:							
Land:							
Facilities of	or Improvem	ents					
Equipmen	t						
Shared Inf	rastructure						
Conquitor	to (Apport O	nolu()					
Consultan	ts (Asset O	'i iiy <i>)</i>					
Consultan	ts (Non-Ass	set)					
Conoditari	10 (110117100						
Other Dire	ct Costs						
Overhead							
	TOTALS						

V. Instructions for Application Attachments

Please clearly label each attachment by specified letter.

A. <u>Curriculum Vitae – Principal Investigator or Project Director</u>

A two page curriculum vita for the principal investigator or project manager is to be included as Attachment A.

B. Curriculum Vitae - Others

Curriculum vitae summaries, not to exceed 2 (two) pages each, are to be included for all other key researchers and collaborators as Attachment B.

C. Matching Funds and Commitment Letters

Each source of matching fund support must document its commitment to providing resources with a letter attached as Attachment C. Matching fund resources cannot be counted unless a Commitment Letter is provided in the proper form.

<u>Letters from sources providing matching funds *must* be on organizational letterhead, *must* be signed by an authorized representative of the organization, and *must* include the following information:</u>

- Application title and MTAF application number;
- Acknowledgment of the participant's commitment to contribute a **specified amount** of resources during the term of the award;
- Statement of commitment to abide by award contract;
- Time period for which funds will be provided (not to exceed five years);
- Name of primary contact.

Notices of Award for federal contracts can be accepted instead of a Commitment Letter. Please submit the federal award letter and the page that includes the Project Director's name, title, dates, and amount of award.

D. Letters of Matching Intent or Letters of Potential Investment

The MTAF guidelines allow an applicant to have identified potential funding partners, such as banks or investors, at the time of application, with a 6 (six) month window from the time of an award decision to secure the additional matching funds. Letters of matching intent or potential investment from funders must be on organizational letterhead and signed by an authorized representative of the organization, and must outline the intended amount and the conditions of the potential investment or contribution of matching funds. Please include these letters as Attachment D.

E. Letters of Operational Commitment

For multiple applications from the same institution, a commitment letter from the institution addressing how the project fits within the overall institution's strategic research and development plan must accompany each application. Please include this as Attachment E.

F. Letters of Collaboration

If a collaborating partner is not providing matching funds, and is therefore not providing a matching funds commitment letter, then the partner should provide a letter to certify its collaboration in the project. Letters must be on collaborating partner's organization letterhead, and should outline the level of involvement with the project. Please include this as Attachment F.

G. Additional Information

The application may contain up to 8 additional pages with information relevant to the application, including letters of support. Please include this as Attachment G.

H. Letter of Capacity

For applications associated with a previous MTAF award, include a letter from the project director or principal investigator outlining their involvement with each project. Please include this as Attachment H.

Appendices

APPENDIX A – DEFINITIONS

<u>Associated Instrumentation</u> – instrumentation directly connected with the workings of capital equipment.

<u>Capital Equipment</u> – equipment that has a useful life of at least one year. Equipment with a useful life of less than one year is considered supplies and not an allowable use of award funds.

<u>Cluster</u> – A concentration of companies supported by common organizations with relationship and sharing of knowledge and skills to result in a collective competitive advantage.

<u>Collaborator</u> – An individual, organization, institution, company, or other entity that is outside and independent of the Applicant, has a clearly defined, integral role in Work Plan execution, or is contributing matching funds or a sub-award.

<u>Award Period</u> – Time frame within which the technical effort must be completed and the period during which quarterly and annual reports are required and follow-ups are conducted on the project's performance.

<u>Lead Applicant</u> – The legal name of the entity that is submitting the application and will be legally and financially responsible for the administration of the award.

<u>Matching Funds</u> – Monetary expenses for allowable costs on the Project that are documented within the financial books of the Lead Applicant (see Appendix C – Matching Funds Requirements Guidelines, page 33).

<u>Principal Place of Business</u> – a facility located in the State of Maine where the Award Recipient, who is registered with the Secretary of State to do business in Maine, maintains physical operations managed by a senior representative of the Award recipient who is authorized to make decisions and to obligate the Award recipient and its resources. This facility must be owned by the Award recipient or be subject to a lease which matches or exceeds the term of the award period. The facility must be a recipient or beneficiary of a significant amount of the funds awarded to the Award recipient.

APPENDIX B—REPAYMENT GUIDELINES

Please consult the following chart to determine which scenario applies to your organization and/or project. Repayment provisions will be incorporated in the award contract.

Applicant	Repayment Required?	Repayment Trigger	Terms of Repayment
Individual non-profit organization/institution	No	n/a	n/a
Individual commercial business	Yes	Commercialization of a new technology enabled by the project assets; commercialization generally defined by revenue generation	Repayment of award, without interest, within 3 (three) years of commercialization of the new technology*
Non-profit organization as lead institution in a collaborative project between or among non- profit institutions	No	n/a	n/a
Commercial business as lead institution in a collaborative project between or among commercial businesses	Yes, in some circumstances	Commercialization of a new technology enabled by the project assets, with funded assets in the sole control of one commercial participant^	Repayment of the portion of the award expended by the commercializing business, without interest, within 3 (three) years of commercialization of the new technology*
Non-profit organization as lead institution in a collaborative project between or among both non-profit and for-profit entities	Yes, in some circumstances	Commercialization of a new technology enabled by the project assets, with funded assets in the sole control of one commercial participant^	Repayment of the portion of the award expended by the commercializing business, without interest, within 3 (three) years of commercialization of the new technology*

Any award recipient who breaches specified contract provisions or removes the capital assets from the State of Maine will be required to repay, with interest, the award in full.

^{*}Businesses will have 7 (seven) years from commercialization to repay the award. When this provision is triggered, the business will be required to repay the award within 7 (seven) years of commercialization. Businesses that have not repaid the award amount during the first 3 (three) years from commercialization will owe the unpaid balance, which will increase by 30% and subsequently by 10% annually.

^{^ &}quot;In the sole control of one commercial participant" by definition indicates that there has been no mechanism established in award contract to allow ongoing public access to the funded assets.

APPENDIX C—MATCHING FUND REQUIREMENT GUIDELINES

Applicants should use the following matching funds requirements to govern the identification and use for Project expenditures.

- 1. The requirement of matching funds may be satisfied by the following:
 - A. Matching Funds are defined as monetary expenses for allowable costs; (1) incurred by the award recipient as an integral part the activities described in the application, as amended, during the term of this Project; (2) charged to accounts of the award recipient other than accounts funded from the MTAF award, and (3) documented within the financial books of the Award recipient. This includes monetary resources contributed directly to the Award recipient or to a parent organization by a third party for support of the Award recipient and used in furtherance of the Project.

2. General Conditions and Restrictions:

- A. Commitments of financial support included as part of the Project's Matching Funds must occur after the date of application submission.
- B. Qualifying expenses relating to the proposed project may be incurred anytime after the application submission. Pre-award expenditures are made at the applicant's risk. It is possible that portions or the entire project may not be funded.
- C. Other forms of Matching Funds support not described within this exhibit may qualify as Matching Funds. All financial support not described within this exhibit must have prior MTI approval. The Award recipient must submit a request for approval of other forms of Matching Funds and receive written approval from MTI prior to reporting the contribution into the Project as Matching Funds. Acceptance of such Matching Funds not described within this exhibit is at the discretion of MTI and will be determined on a case-by-case basis. MTI reserves the right to alter these guidelines at any time. Changes to the Matching Fund Guidelines will be effective upon notice to the Award recipient.
- D. Matching Funds may not count towards satisfying a Matching Funds requirement of an award if the Matching Funds have been, or will be, counted towards satisfying a Matching Funds requirement of another award of state funds.
- E. Standards for third party Matching Fund contributions:
 - 1.) Third party Matching Fund contributions count towards satisfying a Matching Fund Requirement only when the party providing the contribution has paid for the contribution and when such payment is an Allowable Cost.

- 2.) Valuation of third party matching fund contributions:
 - a.) Donated supplies or materials are supplies or materials donated to the Project by a third party. The contribution will be valued at the market value of the supplies or materials at the time of donation.
 - b.) Donated use of equipment or space occurs when a third party donates the use of equipment or space in furtherance of the Project. The contribution will be valued at the fair rental rate of the equipment or space.
 - c.) Donated equipment, buildings, and/or land are real and personal property donated by a third party in furtherance of the Project, where title passes to the Award recipient. The contribution will be valued using the fair market value of the property at the time of donation.
- F. Documentation of Matching Funds must include the company or institution name, address, the value of the Matching Funds, and the method of valuation. The Award recipient is to retain a letter of commitment or agreement signed by an authorized official of the contributing member and by the Award recipient.
- G. The Award recipient must maintain documentation sufficient to verify all reported Matching Funds. This documentation must show how the value of costs and contributions were calculated.
 - 1.) Fair market rentals for use of equipment or space or fair market values of donated equipment, space, or land will be supported by price quotations from one or more vendors or by appraisals performed by an independent appraiser.

H. Certification of Matching Funds:

- 1.) The method and frequency of reporting Cash Matching Funds will be specified in the Award Agreement.
- 2.) An itemized listing of eligible Matching Funds attributed to the Project during the Award Period is to be included in the Matching Funds reporting, as specified in the Award Agreement.

APPENDIX D—ECONOMIC IMPACT TABLE FORM (available on MTI website)

Instructions: Please quantify projected economic impacts by completing the Economic Impact Table. In columns 1 and 2, provide specific numbers, figures or brief explanatory phrases to indicate which of the identified economic impact measures are applicable to your project, including anticipated timeframe for achieving projections. In column 3, provide in brief explanatory phrases the methodology used to arrive at figures in columns 1 and 2. Applicants are not expected to have a figure for each measure, but competitive applications will be able to assess more than one or two measures.

	Column 1	Column 2	Column 3
	Within project team or institution	Within larger cluster, sector or industry	Methodology or citation for economic projections
Projected number of new			
jobs created and wage			
range			
Projected number of			
existing jobs preserved			
and wage range			
Anticipated new products			
and/or services (number			
and/or one sentence			
description)			
Anticipated number of			
invention disclosures,			
licenses, and/or			
intellectual property			
protections			
Projected amount in sales			
or licensing revenue			
Projected dollar amount			
in new grants and/or			
contracts from non-state			
government sources			
Projected dollar amount			
in debt or equity			
investments from private			
capital sources			
Other (joint ventures with			
businesses outside Maine,			
businesses moving to			
Maine, workforce			
training & development)			

APPENDIX E—PROJECT MILESTONE SCHEDULE FORM (available on MTI website)

Attachment B - Project Milestone Schedu MTAF Award Application

Project ID#:				
Project:				
Milestone Decoription and Reference appropriate page in proposal.	Milectone Period	_		-
Milestone 1:	Start Date:	Milecton	e Expenses	Ш
	16 10 11		- Copanisor	1
	End Date:	MTAF Funds	Match	ш
		Funde	1 2 3 1 2 2 3	Ш
	TOTAL MILESTONE 1 COSTS			T
		-		+
Milectone Decoription and Reference appropriate page in proposal.	Milestone Period	П		Т
Milestone 2:	Start Date:	Milectone Expenses		
	End Dafe:	MTAF		Ш
	End base.	Funds	Match	Ш
		_		+
	TOTAL MILESTONE 2 COSTS			\perp
Milectone Decoription and Reference appropriate page in proposal.	Milestone Period			Т
Milestone 3:	Start Date:	Milestone	e Expenses	Ш
	End Date:	MTAF	10000000000	Ш
	End base.	Funds	Match	П
				1
	TOTAL MILESTONE 3 COSTS			
				_
Milestone Description and Reference appropriate page in proposal. Milestone 4:	Milectone Period			1
milestorie 4.	Start Date:	Milestone	e Expenses	ΗШ
	End Date:	MTAF	Match	Ш
		Funds	1000000	Ш
	TOTAL MILESTONE 4 COSTS			T
70	TOTAL MILLSTONE 4 COSTS			
Milestone Decoription and Reference appropriate page in proposal.	Milectone Period			П
Milestone 5:	Start Date:		e Expenses	41
	End Date:	MTAF Funds	Match	Ш
	TOTAL MILESTONE 5 COSTS			T
	TOTAL MILESTONE SCOSIS	Н		+
Milestone Description and Reference appropriate page in proposal.	Milestone Period			Т
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Milestone 7:	Start Date:	Mileston	e Expenses	
				1
	End Date:	MTAF Funds	Match	
	TOTAL MILESTONE 7 COSTS			
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APPENDIX F—RELENVANT SOURCES AND LINKS FOR STATE OF MAINE ECONOMIC DEVELOMENT PRIORITIES

- http://www.maine.gov/decd/reports-pubs/ see Links
- <u>Re-Examining Maine's Economic Position, Innovation Ecosystem and Prospects</u>
 for Growth in Its Technology-Intensive Industry Clusters (2014 full report by
 Battelle Technology Partnership Practice)
 http://www.mainetechnology.org/docs/Full_Report-Maine-Innovation-Ecosystem_final5.pdf
- Maine's Technology Sectors and Clusters: Status and Strategy (2008 full report by Maine Center for Business & Economic Research, University of Southern Maine)
 www.mainetechnology.org/docs/colgan_cluster_report_2008_full_report_final_0 40908.pdf
- Cluster & Cluster Development Information from Harvard Business School
 http://www.isc.hbs.edu/competitiveness-economic-development/frameworks-andkey-concepts/Pages/clusters.aspx
 http://clustermapping.us/content/clusters-101
- <u>Cluster & Cluster Development Information from Brookings Institution</u> <u>http://www.brookings.edu/papers/2011/0119 clusters muro.aspx</u> <u>http://www.brookings.edu/reports/2008/04_competitiveness_mills.aspx</u>