Ohio | Department of Development

Ted Strickland, Governor
Lee Fisher, Lt. Governor

Lisa Patt-McDaniel, Interim Director

Ohio Third Frontier Advanced Materials Program

Fiscal Year 2010
Request for Proposals (RFP)

- RFP Released – October 7, 2009
- Bidder's Conference – 3:00 PM, October 22, 2009
  TechColumbus, 1275 Kinnear Rd., Columbus, OH
- Letters of Intent due by 2:00 PM – November 4, 2009
- Written Questions – through December 1, 2009
- Proposals due by 2:00 PM – December 7, 2009
- Review and Award approximately – March 2010

Ohio
The State of Perfect Balance

RFP Administered by:
The Ohio Department of Development
Technology and Innovation Division
77 South High Street, 25th Floor
Columbus, OH 43215

77 South High Street
P.O. Box 1001
Columbus, Ohio 43216-1001 U.S.A.

614 | 466 2480
800 | 848 1300
www.development.ohio.gov

The State of Ohio is an Equal Opportunity Employer and Provider of ADA Services

TABLE OF CONTENTS

1 OHIO THIRD FRONTIER STATEMENT OF SOLICITATION 3
1.1 Background 3
1.2 Request for Proposals Issuance 4
1.3 The RFP Process 4
1.3.1 Release of RFP 5
1.3.2 Bidder's Conference (Optional) 5
1.3.3 Letter of Intent 5
1.3.4 Questions and Answers 5
1.3.5 Submittal of Proposal 6
2 PROGRAM DESCRIPTION 6
2.1 Purpose 6
2.2 Goal and Objectives 7
2.3 Eligibility 8
2.3.1 Technology Subject Matter 8
2.3.2 Lead Applicant 8
2.3.3 Collaborators and Committed End-Users 9
2.4 Funding 10
2.5 Term of Project 11
3 GENERAL PROPOSAL REQUIREMENTS 11
3.1 General Instructions 11
3.2 Trade Secret Information 12
3.3 Order and Content of Proposal Sections 13
3.3.1 Application Information Page 13
3.3.2 Trade Secret Information 13
3.3.3 Lead Applicant and Collaborator Information 13
3.3.4 Abstract 13
3.3.5 Table of Contents 13
3.3.6 Technical Plan 14
3.3.7 Commercialization Strategy 15
3.3.8 Performance Goals 18
3.3.9 Performance on Prior OTF Awards 18
3.3.10 Experience and Qualifications 18
3.3.11 Budget 20
3.3.12 Collaborator Information/Letters of Commitment 23
3.4 Page Limitations 24
4 AWARD PROCESS 24
4.1 Proposal Review and Evaluation Procedures 24
4.2 Evaluation Criteria 26
4.3 Award Decision 26
4.4 Award and Grant Agreement Preparation and Execution 27
4.5 Mandatory Compliance 28
4.5.1 Human and Animal Research 28
4.5.2 Obligations to the State; Compliance with Laws 28
4.5.3 Other Compliance 28
5 APPENDICES 29

Ohio Third Frontier Advanced Materials Program

Fiscal Year 2010
Request for Proposals (RFP)

1 Ohio Third Frontier Statement of Solicitation

1.1 Background

The Ohio Third Frontier (OTF) represents an unprecedented and bipartisan commitment to expand Ohio's technological strengths and promote commercialization that leads to economic prosperity throughout Ohio. Designed to build world-class research programs, nurture early-stage companies, and foster technology development that makes existing industries more productive, OTF creates opportunity through innovation. In targeted areas of technology, the ten-year, $1.6 billion State of Ohio initiative is catalyzing the growth of existing and emerging industry clusters by:

- Increasing the quantity of high-quality research that has commercial relevance to Ohio companies;
- Expanding access and availability of investment capital to create, grow, and attract technology-based enterprises;
- Growing and nurturing an increasingly experienced pool of entrepreneurial management talent;
- Addressing the technical needs of existing companies pursuing new products and production processes; and,
- Contributing to the expansion of a technologically proficient workforce.

Consistent with the strategic goals, OTF investments represent a balanced portfolio of programming that proactively identifies opportunities throughout the Technology Commercialization Framework. As a result, all OTF Programs share a common goal — to promote technology-based economic development within Ohio by funding activities that move technology from idea to market. This goal requires the State to design programs, evaluate proposals and projects, leverage resources, and provide management oversight within the context of the Technology Commercialization Framework.

Adopted early in the life of OTF, the Technology Commercialization Framework (Framework) is a commonly accepted model and language for representing how a technology moves from the laboratory through various stages of commercialization and into the marketplace. The Framework facilitates strategic and programmatic planning, communication of expectations to program applicants and award recipients, and the development of meaningful metrics.

The ultimate utility of the Framework is that it aids understanding of the real world market gaps that hinder the commercialization process for companies and industries in Ohio. Historically, new technologies and companies are most at risk in the incubating and demonstrating phases of the Framework, commonly called the

"Valley of Death." Therefore, a significant portion of Ohio Third Frontier resources has gone to programs that directly address those stages.

It is expected that every proposal seeking OTF funding will clearly demonstrate its understanding of the Technology Commercialization Framework, and will be able to articulate its scope of work within the Framework's model. To learn more about the guiding principles contained within the Technology Commercialization Framework, please see Appendix A.

The nine member Ohio Third Frontier Commission (OTFC) has overall responsibility for OTF. In addition, a 16-member Ohio Third Frontier Advisory Board (OTFAB) of leaders from industry, academia, and government was created to provide advice and counsel to OTFC.

1.2 Request for Proposals Issuance

This Request for Proposals (RFP) is being issued for grants to be awarded under OTF. OTFC reserves the right to fund any Proposal in full or in part, to request additional information to assist in the review process, to reject any or all proposals responding to this RFP, and to re-issue the RFP and accept new proposals if OTFC determines that doing so is in the best interests of the State of Ohio. Issuing this RFP does not bind the State to make an award of Grant Funds. Any award of Grant Funds in respect to this RFP will be subject to availability of funds as provided in Ohio Revised Code Section 126.07.

All capitalized words and phrases not otherwise defined in this RFP have the meanings given them in Appendix B – Definitions.

All costs incurred in preparation of a Proposal shall be borne by the Lead Applicant and its team. Proposal preparation costs are not recoverable from Grant Funds. The State shall not otherwise contribute to or be liable for the costs of Proposal preparation.

If requested, Lead Applicants must attend the OTFC meeting at which proposals will be considered for funding. The funding decisions of OTFC are final. All Lead Applicants will be notified of the outcome of their applications after OTFC makes its funding decisions. Award of Grant Funds is subject to approval of the State's Controlling Board. If requested, Lead Applicants selected by OTFC for funding must attend the Controlling Board meeting at which their applications for funding are to be considered.

The Ohio Department of Development (Development) administers this RFP. Development reserves the right to adjust the dates for this RFP for whatever reason it deems appropriate. Development's Technology and Innovation Division will administer all Grants made under this RFP.

1.3 The RFP Process

The RFP process will consist of the following steps:

- Release of RFP
- Bidder's Conference (Optional)

- Letter of Intent
- Questions & Answers (Q&A)
- Submittal of Proposals

Each of these steps is discussed below.

1.3.1 Release of RFP

This RFP will be released by publication on the OTF website: www.thirdfrontier.com

1.3.2 Bidder's Conference (Optional)

A Bidder's Conference will be held regarding this RFP. Attendance is encouraged, but is not mandatory. The conference will include a presentation by Development covering the intent and purpose of this RFP, the requirements of this RFP, and the evaluation process that will be used to determine awardees. Prospective Lead Applicants may submit written questions regarding this RFP to Development staff at the Bidder's Conference. Answers to such questions will be provided at the Bidder's Conference and posted on the OTF website.

1.3.3 Letter of Intent

A prospective Lead Applicant must submit a Letter of Intent (LOI) as a condition to submitting a Proposal. The LOI must include the following information: the prospective Lead Applicant's name, address, phone number, contact person, including email address for the contact, proposed Project title, estimated Grant Funds to be requested, known Collaborators, and a one page summary of the proposed Project. Submitting an LOI does not obligate the prospective Lead Applicant to submit a Proposal. A Proposal will not be reviewed unless an LOI for such Proposal has been submitted by the LOI deadline.

Development will issue to each prospective Lead Applicant that submits an LOI an identification number for the anticipated Proposal. The identification number must appear on the Application Information Page of the Proposal. See Appendix C – Forms.

The LOI must be submitted by e-mail and received before the LOI deadline. The e-mail should be addressed to OTFAMP2010@development.ohio.gov with "2010 OTFAMP LOI" appearing in the subject line. Development is not responsible for any technological errors that result in a late submission, and any late LOI submissions will not be considered.

1.3.4 Questions and Answers

All questions regarding this RFP must be submitted in writing via email. Substantive questions and answers will be posted in a Frequently Asked Questions section on the OTF website. Questions should be sent to OTFAMP2010@development.ohio.gov with a subject line "OTFAMP Q&A." Development reserves the right to edit questions for brevity and clarity and to

consolidate the same general question if received from more than one individual.

1.3.5 Submittal of Proposal

It is the responsibility of each Lead Applicant to ensure that Development's Technology and Innovation Division receives Proposals at the prescribed place and by the submission deadline. Late Proposals will not be reviewed.

A Lead Applicant must ensure that a Proposal submitted in response to this RFP complies with all the requirements set forth in this RFP. All Lead Applicants are advised to read this RFP carefully to ensure a complete understanding of the Proposal requirements. In particular, the form, format, and content of all Proposals must follow the directions provided in Sections 2, 3 and 4 and use the forms presented in Appendix C.

The Lead Applicant is solely responsible to ensure its Proposal is complete, accurate, responsive to the requirements of this RFP, and received by Development's Technology and Innovation Division on time. Upon timely receipt of the Proposal, Development staff will conduct an administrative review using an established written protocol to screen proposals for compliance with the objective content requirements defined in this RFP. Examples of proposal elements checked in the screening process include missing or incorrect budget forms, insufficient documentation of cost share, and failure to include letters of commitment from collaborators. Proposals complying with the RFP requirements are forwarded to an external evaluator for technical review. Proposals found to not comply with this RFP's requirements may be eliminated from the competition and not reviewed further.

2 Program Description

2.1 Purpose

The Ohio Third Frontier has invested more than $180 million into the advanced materials cluster in Ohio. Through investments in the Center for Multifunctional Polymer Nanomaterials and Devices (CMPND), the Ohio BioProducts Innovation Center (OBIC), the Liquid Crystal Institute, and the National Composite Center, as well as in other organizations and through direct grants to small companies, the Ohio Third Frontier has stimulated the growth of an industrial cluster that symbolizes how historic Ohio strengths can be converted into new, innovative, and successful opportunities for economic growth. As a result of the investments and their successes, a vibrant and significant cluster of advanced materials activity has formed throughout Ohio. The advanced materials industry and all of its associated supply chain partners offer major growth potential and impact on Ohio's future economy.

2.2 Goal and Objectives

The goal of the Ohio Third Frontier Advanced Materials Program (OTFAMP) is to accelerate the development and growth of the advanced materials industry and its supply chain in Ohio by direct financial support to organizations seeking to: commercialize new products, commercialize manufacturing processes or technologies, adapt or modify existing materials or components in order to address one or more issues, including the cost, size, weight, strength, resistance to the environment, and durability of advanced materials; address technical and commercialization barriers; or demonstrate market readiness..

Specific objectives supporting this goal are as follows:

- To help Ohio companies achieve cost and performance standards that ultimate end-users of advanced materials technologies define as necessary for successful commercial applications;
- To support development of advanced materials technologies that will result in the opportunity for significant employment in Ohio within 3 to 5 years of completing the project;
- To help Ohio companies secure additional financial resources needed to commercialize their advanced materials related products, processes, and components; and
- To move advanced materials related products, manufacturing processes, and components to a point in the commercialization process where the applicant is ready to demonstrate a commercial prototype or actually enter the market with a product.

OTFAMP is designed to help companies in Ohio continue to make technical progress toward being able to commercialize advanced materials related products for future applications. Applicants that have technologies that have already achieved technical proof of concept and for which the applicant has evidence of interest by a potential end-user are preferred. Proposals to support technologies and products that are already in the market will not be successful, nor will basic research projects.

Development will consider projects successful (level A Metric) if, at the proposed project's completion, the applicant has been able to raise capital to finance the next stage of commercialization, whether that capital comes from a source internal to the collaboration or external through additional grants, contracts, or debt or equity financing. Acquiring externally-validated technical evidence and creating a compelling business case necessary to secure additional financing is a significant accomplishment indicating that the applicant is on the path toward commercialization (level B Metric). Successful accomplishment of development tasks is deemed to indicate that the applicant is performing the proper activities to eventually achieve commercial progress (level C Metric).

2.3 Eligibility

2.3.1 Technology Subject Matter

OTFC has chosen to give preference in selecting proposals for funding that are in the technology subject areas of polymer and carbon nano-materials, liquid crystals, and bio-based materials. Other advanced materials technologies are eligible to bid but must show that their potential impact on Ohio's economy is at least as high as the preferred technologies. Furthermore, OTFC has decided that preference will be given to projects that apply advanced materials technologies within one or more of Ohio's key industries. Ohio's key industries have been identified as: Advanced Energy and Environmental Technologies; Aerospace and Aviation; Agriculture and Food Processing; Biomedical; Instruments, Controls, and Electronics; Motor Vehicle and Parts Manufacturing; and Distribution and Logistics. Any additional preference manifests itself through the need for the proposed advanced material to meet or exceed technical and cost standards emanating from end users, any federal research, development, and policy work, or other recognized national and international associations dedicated to the advanced materials industry. OTFAMP will fund grant applications that focus on the following types of projects:

- Developing and commercializing new advanced materials or manufacturing processes that can address one or more issues, including the cost, size, weight, strength, resistance to the environment, or durability of advanced materials or address technical commercialization barriers.
- Adapting or modifying an existing product that is produced in Ohio by utilizing an advanced material that can address one or more issues, including the cost, size, weight, strength, resistance to the environment, or durability of the product or address technical commercialization barriers.
- Commercially oriented demonstration projects in Ohio of advanced materials that maximize incorporation of Ohio components and are operating under final use conditions. Please note that proof of principle and bench scale demonstrations are not considered to be commercial demonstrations.

Proposals that have been submitted in response to other FY10 Ohio Third Frontier Request for Proposals are not eligible to compete in this RFP. Development reserves the right to redirect proposals between any of the OTF Programs based upon the LOI or the Proposal itself.

2.3.2 Lead Applicant

An eligible Lead Applicant for this program must be an organization (for-profit, not-for-profit, government research institute, public body, or educational institution) based in Ohio or with a Principal Place of Business in Ohio, or an out-of-state for-profit company that pledges to locate a Principal Place of Business within Ohio as a pre-condition to award. An Ohio-based for-profit

firm must already be licensed to do business in Ohio. The Lead Applicant must have a federal tax identification number.

Out-of-state Lead Applicants are eligible to receive awards. However, no funds will be distributed to an out-of-state Lead Applicant selected for award until the Lead Applicant has a Principal Place of Business in Ohio. This obligation must be fulfilled within 6 months of award notification.

In all cases, the Lead Applicant must acknowledge that a substantial portion of the project activity and the benefits from the project will occur in and for Ohio.

Each Proposal must designate one Lead Applicant, which will be responsible for the administration of the Proposal should it be awarded. The Lead Applicant must also serve as both administrative and technical director of the Project.

Proposals must demonstrate both the ability and experience of the Lead Applicant and Collaborators in commercializing products and the scientific and engineering ability and experience of the Lead Applicant and Collaborators in performing the work needed to produce evidence necessary to satisfy investors, regulators, and the market.

Lead Applicants that become Grantees must maintain eligibility while the grant is open. A Grantee that loses eligibility forfeits its award and must repay the State of Ohio the full amount of the monies it has received, plus interest.

There is no limit to the number of proposals that an eligible organization may submit.

2.3.3 Collaborators and Committed End-Users

Proposals must be a collaborative effort comprised of, in any mix, two or more independent firms, higher education institutions, or eligible not-for-profit or government research institutions. At least one for-profit company must be the Lead Applicant or a Collaborator. All Collaborators must be represented by a lead individual and have an itemized budget on Budget Form 3 (see Appendix C – Forms). A Collaborator must be designated on Budget Form 3 to receive OTFAMP funds by way of a Subcontract/Sub-grant and/or to contribute Cost Share to provide itemized budget components.

Since the goal of OTFAMP is to position Ohio as a leader in advanced materials technology commercialization, the partnership of the Lead Applicant and all Collaborators must have the capability to contribute to the commercialization of any resulting technology. Collaborators should be committed to the long-term commercialization of the technology and play a role in accomplishing that goal. A contribution of Cost Share resources by Collaborators is evidence of that commitment. Teams with strong commercialization structures are preferred over teams without access to the commercial market. Any commercialization that results must benefit Ohio through investment, sales, job creation, and/or business capitalization.

All Collaborators must submit a Letter of Commitment, as described in section 3.3.12 of this RFP, signed by a representative authorized to commit the Collaborator to the proposed Project.

In addition, proposals may also include one or more committed end-users. A committed end-user is a business or governmental entity that has a commercial interest in, and can anticipate commercial benefit from, the results of the proposed Project. A committed end-user may submit a letter consistent with the directions of Section 3.3.12. Committed end-users do not require designation on Budget Form 3.

2.4 Funding

Development anticipates awarding up to $10 million in grants through the FY10 OTFAMP. Of the $10 million, OTFC has established as a target awarding $8 million from the Third Frontier Research and Development Fund and $2 million from the Wright Capital Fund (WCF). Each grant will be up to $1 million in Third Frontier Research and Development funding. A Lead Applicant may also request Wright Capital Funds, not to exceed the total Wright Capital Funds available. Please note, the monetary value of the Cost Share commitment must be at least one dollar for every dollar of State Grant Funds requested (i.e., a ratio of 1:1).

There are no special restrictions on the use of the $8 million from the Third Frontier Research and Development Fund or on the eligibility of organizations to receive these funds.

WCF dollars awarded as a result of this RFP must be used solely to acquire, renovate, or construct facilities and purchase equipment that is part of property or facilities owned by an Ohio state-supported or state-assisted institution of higher education, or by a non-profit corporation or a public body that provides access and use of the facilities or equipment to a collaborating Ohio state-supported or state-assisted institution of higher education. If the facilities or equipment will be owned, or will be part of facilities owned, by a nonprofit corporation or a public body, the corporation must enter into a Joint Use Agreement (JUA) with a collaborating Ohio state-supported or state-assisted institution of higher education. Applicants must provide evidence that they have had meaningful discussions with an Ohio state-supported or state-assisted institution of higher education about the JUA at the time of the proposal submission. The JUA must be completed prior to finalization of a Grant Agreement and contain the elements set forth in Ohio Administrative Code Section 3333-1-03. Information regarding the JUA is in Appendix E of this RFP. In no case may capital assets acquired with funds awarded through this RFP be owned by a for-profit entity.

A single proposal may contain activities funded from both Third Frontier Research and Development Fund and the Wright Capital Fund. At the grant stage, Development will structure two separate grants if necessary to the eligible organizations.

There may be cases where the Lead Applicant believes that they have an exceptional opportunity, fitting the intent of OTFAMP, but requiring significantly higher funding than the RFP allows. **In addition to preparing a complete proposal for funding within the maximum funding range allowed that can compete on its**

own, the Lead Applicant may also submit a white paper describing the additional dimensions of the project, the uses for the larger amount of funding requested, and a clear justification for why the expanded scope represents an exceptional economic development opportunity for Ohio. The white paper should consist of a narrative not to exceed five (5) pages, supplemental budget forms and a schedule of activities. The white paper must include the title of the core proposal and the proposal number assigned by Development. **The supplemental award request must be for no less than $1 million in additional support**. The request for additional funds is also subject to the 1:1 cost share requirement. If the Lead Applicant's core project is ranked high enough by the external evaluators to be recommended for funding, the white paper will be evaluated and presented to OTFC. At its discretion, OTFC may request additional due diligence be undertaken that will include submitting a more complete proposal for the additional funding. Final decisions on supplemental awards will occur at the end of the FY 2010 program year.

2.5 Term of Project

The term of OTFAMP Grant Agreements will be five (5) years. The first two to three (2-3) years will be the Project Period during which the active work funded by the grant will take place. It is preferred that the Project Period be up to two years and in no case may the Project Period be more than three years. During the remaining two to three (2-3) years, reports detailing the overall status of research and commercialization activities and the economic impacts of the Project will be required.

3 General Proposal Requirements

3.1 General Instructions

- Submit Letter of Intent and receive a Letter of Intent ID Number from Development.
- Submit separate Proposals for each proposed Project.
- Proposals must be submitted in the following manner:
    - One original paper copy marked as "Original", three additional paper copies marked "Copy" and two CDs each containing a complete single, unlocked PDF file of the Proposal.
- Proposals must be received at the location specified below before the RFP closes. Proposals may not be submitted by fax or email.

  Ohio Department of Development
  Technology and Innovation Division, Attention: OTFAMP
  77 South High Street, 25th Floor
  Columbus, OH 43215

- Proposals are to be submitted on 8.5 x 11-inch paper.
- Margins must not be less than ¾ of an inch on all sides, with the exception of forms found in Appendix C of this RFP.

- Font must be 11 point or larger with no more than 6 lines per inch.
- All pages must be numbered consecutively using the format "Page [#] of [total number of pages]" (*e.g.,* Page 2 of 25).
- The Proposal title, Lead Applicant name, and Letter of Intent number must appear at the bottom of each page.
- Proposals should not include color figures that cannot be understood when photocopied in black and white.
- The first page of the Proposal must be the Application Information Page.
- Do not include a cover or cover letter other than the Application Information Page.
- Proposals must be stapled once in the upper left hand corner and must not be bound.

3.2 Trade Secret Information

All Lead Applicants are strongly discouraged from including in a Proposal any information that the Lead Applicant considers to be a "trade secret," as that term is defined in Section 1333.61(D) of the Ohio Revised Code. All information submitted in response to this RFP is public information unless a statutory exception exists that exempts it from public release. If any information in the Proposal is to be treated as a trade secret, the Proposal must:

- Identify each and every occurrence of the information within the Proposal with an asterisk before and after each line containing trade secret information and underline the trade secret information itself.
- Check the "This Application Does include information considered a 'trade secret'" box on the Applicant Information Page.
- Include a page immediately after the Application Information Page that lists each page in the Proposal that includes trade secret information and the number of occurrences of trade secret information on that page.

To determine what qualifies as trade secret information, refer to the definition of "trade secret" in the Ohio Revised Code, which is reproduced below for reference:

> (D) "Trade Secret" means information, including the whole or any portion or phase of any scientific or technical information, design, process, procedure, formula, pattern, compilation, program, device, method, technique, or improvement, or any business information or plans, financial information, or listing of names, addresses, or telephone numbers, that satisfies both of the following:
>
> (1) It derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can

	obtain economic value from its disclosure or use.
(2)	It is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Development requires non-disclosure agreements from all non-Development persons who may have access to Proposals containing trade secret information, including evaluators.

3.3 Order and Content of Proposal Sections

3.3.1 Application Information Page

The first page of the Proposal must be the completed Applicant Information Page found in Appendix C to this RFP.

3.3.2 Trade Secret Information

This section of the Proposal must disclose any trade secret information included in the Proposal. This page is only required and must be included if there is any information to be treated as a trade secret in the Proposal. Follow the instructions in Section 3.2 of this RFP.

3.3.3 Lead Applicant and Collaborator Information

Complete and include the Lead Applicant Contact Information Page. One individual may serve in more than one capacity.

Complete and include the Collaborator Information Form for each Collaborator. Include the lead individual for each Collaborator on this form. Additionally, for each Collaborator organization, a Letter of Commitment must appear in an Appendix to the Proposal and Budget Form 3 must be included.

3.3.4 Abstract

Prepare an Abstract that summarizes the proposed Project and its expected commercial and technical outcomes. This section should minimize use of jargon and technical language and be written so that a non-technical person can understand it. This section will be used in public documents, including press releases, and must be understandable by the general public. The Abstract may not contain any trade secret information.

3.3.5 Table of Contents

Prepare a Table of Contents with detail for three levels of headings in the Proposal. All Lead Applicants must use the requirements in this section of this RFP for the level 1 and 2 headings. This section should also include a list of Charts, Figures, and Tables that appear in the Proposal with a page number for each.

3.3.6 Technical Plan

This section of the Proposal's narrative must contain information that addresses the subject matter delineated below. The way in which the information is provided and the order of the content is at the discretion of the Proposal author. The narrative should be written to best present the information to the evaluation team.

• **Problem Statement.** Describe the technical and commercial challenges to be addressed in the proposed Project and why solutions to these challenges will increase the likelihood of successfully achieving commercialization and other program objectives and goals. Evidence that the Lead Applicant understands the eventual customer needs and performance requirements is required.

• **Project Goals and Objectives.** Clearly state the goals and objectives of the proposed Project and each of its related sub-elements. The goals should cover the near-term commercialization purposes of the proposed Project. The objectives should be related to the research, development, and demonstration activities that will be performed and how they are expected to provide the evidence and proof needed to carry the technology forward into phases of the Technology Commercialization Framework. The objectives should be expressed as Level A, Level B, and Level C Metrics as discussed in Appendix A and on the OTF website posting of the Technology Commercialization Framework at:
http://development.ohio.gov/ohiothirdfrontier/Documents/RecentPublications/TechCommFramework-Complete.pdf.

• **Technical Approach and Work Plan.** Discuss the overall activities that are proposed to meet the Project's goals and objectives. Important research and development techniques, methods, facilities, and equipment to be used in the proposed Project should be discussed and compared to alternative approaches. Key factors that will affect the success of the proposed Project should be identified as well as significant risk factors. The Lead Applicant may elect to organize the technical approach according to different areas of investigation. Also, identify all the tasks and activities that will be performed for each area of investigation. The tasks should be described in terms of their specific objectives, approaches, resources and outcomes. The description should be detailed enough to provide a clear indication of how progress will be made and measured.

Furthermore, address significant scientific/technical objectives of the proposed Project which are original and innovative, as well as employ novel concepts, approaches or methods. These objectives must be important to the relevant discipline while having an impact on other disciplines. Accordingly, describe how the Project:

- Demonstrates the potential advancements beyond previous studies, projects, and commercial effort that can be expected with respect to accuracy, validity, sensitivity, comprehensiveness, and range.
- Is scientifically and technologically feasible as supported by research results and findings to date and the conceptual framework, design,

methods, and analyses that are adequately developed, well integrated, and appropriate to the objectives of the proposed Project.

- Generates the proof necessary to attract additional financial resources required to advance the technology toward successful commercialization.
- Involves the base of statewide research capacity that will support the future technological innovations required to fully realize the commercial potential and how those research capacities will be integrated into the research plan.

• **Deliverables.** Identify the deliverables from the proposed Project. Deliverables will include tangible evidence of commercialization and technical progress and other deliverables that the Lead Applicant deems significant for measuring progress.

• **Schedule.** Provide a schedule that graphically displays the duration of tasks, interactions between the tasks, and the timing of deliverables and other key milestones. The schedule should be based on weeks or months from authorization to proceed, rather than on any firm, fixed calendar dates.

3.3.7 Commercialization Strategy

This section of the Proposal's narrative must contain information that addresses the subject matter delineated below. The way in which the information is provided and the order of the content is at the discretion of the Proposal author. The narrative should be written to best present the information to the evaluation team.

• **Value Proposition**. Address what the specific value proposition is of the Lead Applicant's proposed approach and what are the differentiating benefits associated with the proposed technology as well as showing evidence to support the contention that the market values these benefits. If your proposed technology is not identified as an area of preference in Section 2.3.1 of this RFP, explain the specific value proposition to Ohio and how it compares to the identified technological areas of preference.

• **Management of IP.** Control and management of Intellectual Property (IP) are key success factors. The Proposal should clearly define the IP directly related to the technology proposed for commercialization, identify its status (e.g., trade secret, disclosure, patent application filed, patent awarded), identify who controls the IP, and explain how the IP differentiates the technology from its competition. The Proposal should demonstrate that the commercializing entity has the freedom to operate and has the ability to sustain a competitive advantage. The Proposal should also clearly define how the IP will be protected from the competition and how the Lead Applicant intends to manage new IP, how it will work with technology transfer offices (if applicable) and Collaborators to establish ownership rights, and how it will work with Ohio-based companies and/or investors to realize positive economic impacts from the business opportunities being realized and brought to fruition in Ohio from the IP. Applicants are reminded that neither Development nor

Ohio Third Frontier will take any ownership rights to intellectual property developed through the execution of the work being proposed.

• **Potential for Products.** Identify focused commercialization opportunity areas that will have significant industry (i.e., market size and growth) and economic impacts that will have near-term (within 3 years of the start of the Project Period) benefit in Ohio in areas such as production, licensing and spin-off technology opportunities. The proposed Project must have already achieved at least Proof of Principle. Describe how the Project's potential technologies or products have a competitive advantage over existing and alternative technologies that can meet market needs and can lead to additional enabling technologies and further discoveries.

• **Size of Opportunity.** Demonstrate that the market is of sufficient size and has growth potential to positively impact the State. Provide an assessment of the market and realistic assumptions about the market share that potentially could be captured; potential customers; and competitors and competing products.

• **Degree of Customer Readiness.** Define the functionality and market need(s) that the proposed technology will address as evidenced by potential customer input, especially Collaborators who are committed end-users or may be eventual customers for the product or service.

• **Investment and Time to Market.** Describe the general magnitude of the investment needed to bring the product to market, and address how long the commercialization process will take.

• **Receptive Capital Markets.** Describe the potential for long-term financing to support the growth of a commercial enterprise. Evidence of interest in this technology by various sources of capital should be provided.

• **Potential for Leverage.** Define how the proposed Project is expected to leverage OTF funds with other sources of non-State funding, such as federal agencies, industry organizations, and private investors, to continue the research and commercialization activities during and beyond specific OTF funding. Goals and plans for leveraging OTF Grant Funds must be specifically defined.

• **Ability to Compete Globally.** Demonstrate an understanding of the global marketplace(s) and trends, competitor analysis and access and benefits to marketplace(s). Particular attention should be given to situations where initial markets and major competitors are global, where others have committed major resources to this technology, and where barriers to market entry favor international firms. Proposals will be evaluated on the basis of how well the Lead Applicant understands and can compete for international business opportunities.

• **Degree of Sustainable Competitive Advantage.** Demonstrate that the proposed Project fits within, or can create, an environment which enables Ohio to maintain a leading, competitive advantage. The advantage may be realized through the State's supply chain, labor base, research and other assets. Similarly, the advantage may be created from the IP and knowledge

of the Lead Applicant and its Collaborators which provide assurance that commercialization will benefit Ohio.

• **Ability to Leverage Ohio's Supply Chain.** Proposed Projects should discuss whether Ohio's relevant supply chain resources are, or could be, a positive factor in achieving success. Proposals will be evaluated on the basis of how closely matched the existing or emerging supply chain's capabilities are with the proposed Project, and the proposed Project's ability to leverage Ohio's existing or emerging supply chain.

• **Existence of Supporting Workforce.** Proposed Projects should discuss the needs for workforce and whether Ohio's workforce resources are, or could be, a positive factor in achieving success. Proposals will be evaluated on the basis of how closely matched the labor needs of the Project and Ohio's workforce are to one another.

• **Roles and Responsibilities.** Describe what the roles and responsibilities are of the Lead Applicant and Collaborators in the commercialization process.

In preparing this section of the Proposal, the Lead Applicant must relate its commercialization plans and strategy to the Technology Commercialization Framework described in Appendix A. In addition to the topics listed above, the Lead Applicant should specifically address the following questions about each product development opportunity that will be funded by the requested Grant Funds:

- What is the position of the proposed Project within the Commercialization Framework, as described in Appendix A? Demonstrate an understanding of the commercialization process, resource requirements for commercialization, the type of knowledge that must be produced at the identified positioning stage, and who will likely be the funding providers for the subsequent stage.
- What technical proof is required to convince additional investors to finance the next stage of work?
- How much will it cost to complete the technical proof and will the State's funding be adequate? If not, where will additional investment come from and does the Lead Applicant have a firm commitment of these resources?
- How much will it cost to perform the next phase of the commercialization process and what organizations provide the types of resources the Lead Applicant will need to conduct the next stage of the commercialization process?
- Does the Lead Applicant have any commitments from potential resource providers about their willingness to fund additional commercialization phases?

These points will be used to establish the Level A and B metrics for the proposed Project. "Success" is achieved if the Lead Applicant and Collaborators acquire the resources needed to conduct the next phase of commercialization.

3.3.8 Performance Goals

This section of the Proposal's narrative must address the projected performance measures that are anticipated to be achieved by the proposed Project. In preparing the performance goals, the Lead Applicant must relate its performance measures to the A, B, and C Metrics referenced in the Technology Commercialization Framework described in Appendix A.

The Lead Applicant should demonstrate that the Project will have an impact on Ohio in one or more of the following areas: job creation (for-profit, not-for-profit, retained); personal wealth (average salary of jobs created); new sales of products; companies created or attracted to Ohio; follow-on investments (all stages of venture capital) and the receipt of new public or private funding (federal, industry, other) for sponsored research and technical services that fit within the expressed mission of the proposed Project; talent recruitment; and enhanced Ohio, national and/or international recognition, which leads to further interest and potential sources of funding and collaboration.

The Proposal must contain a realistic forecast of the direct employment, personal income, product revenue and other leverage that will have been achieved by the completion of the active work on the Proposal. The Lead Applicant should document how the projections were developed and key assumptions used in the analysis. For example, if the projections are based on capturing a particular share of the market, the Proposal should indicate the magnitude of the market and the basis for the estimated market share. The Lead Applicant should identify the impacts for each distinct product or product platform that will come from the State investment. The Lead Applicant should report only direct impacts, not secondary or tertiary impacts derived from economic models.

3.3.9 Performance on Prior OTF Awards

This section is required only when the Lead Applicant is submitting a Proposal that is an extension of, or related to, the subject matter of a prior OTF Grant(s) to the Lead Applicant or one of its Collaborators. Development will provide to the external reviewers past performance information (e.g., metrics reports and quarterly progress reports) for every related prior OTF Grant(s). The Lead Applicant should address any relevant information related to the past performance of the prior Grant(s). The discussion should be adequate to enable an external reviewer who is not familiar with the prior Grant(s) to assess any pertinent issues or impediments and independently evaluate the impacts on the performance results.

3.3.10 Experience and Qualifications

This section of the Proposal's narrative must contain information that addresses the subject matter delineated below. The way in which the information is provided and the order of the content is at the discretion of the Proposal author. The narrative should be written to best present the information to the evaluation team.

• **Organizational Capabilities.** Provide a description of relevant organizational experience, capabilities, facilities and equipment, and general

financial state of the Lead Applicant and Collaborators. Provide detail sufficient to evaluate whether the Lead Applicant and Collaborators have the direct experience needed to perform both the technical and commercial work being proposed. References to past projects should be limited to activities that have occurred within the past five (5) years.

• **Demonstrated Leadership Assets.** Demonstrate commercialization, scientific, collaborative, regulatory and programmatic leadership experience and assets. Leadership should be evident at the individual, key personnel, corporate and Collaborator levels in all critical phases of the proposed Project to include research, IP protection, regulatory compliance, product development, leveraging of additional funding or investment capital, and commercialization. Also, demonstrate that the Project has the highest level of support from both within the Lead Applicant's institution and from a proposed Project's Collaborators, by commitments of Cost Share and/or in-kind support, and other evidence of committed support.

Identify the Program Manager and/or Project Manager and other Key Personnel who will be assigned to the proposed Project, their roles and responsibilities, and the rationale for their selection for key positions. One of the Key Personnel from the Lead Applicant must be designated as the technical director while another or the same member of Key Personnel must have the required skills and experience to serve as commercialization director. Address how the Key Personnel will monitor and maintain progress, control quality, resolve problems, and obtain advice on key decisions about the technical and commercial dimensions of the proposed Project. Also provide information about the management reporting structure among Key Personnel and the Lead Applicant.

• **Management Plan.** Discuss plans for internal means of communication, coordination of data and information management, evaluation and assessment of progress, allocation of funds and personnel, and other specific issues relevant to the proposed activities. Proposals with sub awards must provide a description of the Lead Applicant's oversight plan for those sub awards, including:

- Ensuring financial accountability, including the monitoring of expenditures and reporting on outcomes, for all sub awardees; and,
- Ensuring adherence to the project's scope of work.

• **Biographical Sketches.** Biographical information is limited to no more than five (5) individuals whom the Lead Applicant considers key to the success of the Project. These five (5) individuals should represent the proposed Project's leadership from the technical, commercial, and managerial perspectives and ideally should be drawn from personnel of the Lead Applicant as well as Collaborators. Biographical sketches shall be no more than one (1) page each and one sketch must be included for each Key Personnel up to the total of five (5) individuals. The biographical information should present the relevant work history, technical experience, commercialization experience, project management experience, educational attainment, honors and recognitions, and selected recent publications that relate directly to the subject matter of the proposed Project. If a key position is to be filled upon award of a

Grant, please provide either a job description for that position or a description of a candidate to whom the Lead Applicant has made a contingent offer.

3.3.11 Budget

The Lead Applicant must retain a significant percentage of the requested budget to be spent in-house for the efforts of the Lead Applicant. The budget must clearly describe all sources and uses of funds for the proposed Project Period, which can not exceed three (3) years.

Capital Funds versus Operating Funds: The Wright Capital Funds must be used solely to acquire, renovate, or construct facilities and purchase equipment that is part of property or facilities owned by on Ohio college or university or by a non-profit public or private research organization or public body in Ohio that provides access and use of the facilities or equipment to a collaborating Ohio college or university. If the facilities or equipment will be owned, or will be part of facilities owned, by a non-profit public or private research organization or public body in Ohio, the corporation must enter into a Joint Use Agreement (JUA) with a collaborating Ohio state-supported or state-assisted institution of higher education. In no case may capital assets acquired with funds awarded through this RFP be owned by a for-profit entity.

In accordance with Ohio Revised Code Chapter 4115, Projects involving State funds may require the recipient to pay prevailing wage rates for workers involved in any construction activity. The Ohio Department of Commerce's Division of Labor and Worker Safety, Wage and Hour Bureau, will make all determinations on the requirements of paying prevailing wage. If the Wage and Hour Bureau determines that prevailing wage rates are to be paid, then pursuant to Ohio Revised Code Section 4115.032, the Grantee shall designate a Prevailing Wage Coordinator who shall be vested with all the powers, duties, and responsibilities required by law of a Wage Coordinator. The parties agree that it is the responsibility and duty of the Grantee to comply with all prevailing wage requirements as set forth in the Ohio Revised Code Chapter 4115.

Capital funds awarded through this RFP may not be used for operating expenses of the Project.

Indirect Costs: No more than 20 percent of the total direct State Grant Funds requested may be budgeted for Indirect Costs.

A rate of 20 percent of total direct costs may be used for facilities and administrative (F&A) Indirect Costs, but only on the operational portion of the budget.

Cost Share Requirements – Magnitude: The monetary value of the Cost Share commitment must be at least one dollar for every dollar of State Grant Funds requested (i.e., a ratio of 1:1). All Cost Share must be identified in the Proposal by amount, proposed use, source, and method of valuing any in-kind Cost Share to be used. If the Cost Share ratio reflected in a Proposal exceeds 1:1, the higher Cost Share ratio will be used as a requirement for a grant awarded to that Proposal.

Cost Share must be documented on the budget forms and in a commitment letter from each organization contributing Cost Share signed by a representative authorized to commit the organization to the proposed Project and the Cost Share described. Cost Share cannot merely reiterate currently provided organizational resources, such as currently used space or equipment. The Cost Share must represent a specific new commitment, including the dollar amount or value, to the Project described in the Proposal.

In the evaluation of the Proposals, the nature and amounts of resources available for Cost Share will be considered, and the State considers favorably Proposals with Cost Shares that have flexibility with respect to its use (cash being the most flexible Cost Share commitment). Preference will be given to Proposals that pledge discretionary, unrestricted, and unallocated cash. Such cash must be available for any purpose deemed appropriate by the Lead Applicant and must appear on the financial records of the Lead Applicant.

Cost Share Requirements – Sources and Uses: Cost Share must be for allowable costs that are verifiable and auditable and consistent with Appendix D – Cost Share Guidelines. Cost Share must be used directly in support of the Project rather than for coincidental or related/similar allocations. Cost Share must be necessary and reasonable to support the Project objectives.

If an organization has a published Indirect Cost rate, un-recovered Indirect Costs (the difference between 20 percent and the published rate) may be used as Cost Share. Only Indirect Costs not fully recovered from the requested State Grant Funds are eligible to be used as Cost Share. Please note, a published Indirect Cost rate must be published as part of the general policies of the organization and applied uniformly to all grants or contracts. A federally negotiated and approved Indirect Cost rate is one form of a published Indirect Cost rate.

In those cases where the Lead Applicant does not have a published Indirect Cost rate agreement, the Lead Applicant is limited to using 20 percent of its Cost Shared direct costs as Cost Shared Indirect Costs and no other un-recovered Indirect Costs from the operating budget may be claimed.

The expense of the Cost Share must take place during the Project Period. Cash Cost Share must be charged to resources of the Lead Applicant or Collaborator and documented within the financial books of the Lead Applicant or Collaborator, as the context requires. In addition to the requirements set forth in Appendix D, contributed equipment or space committed as in-kind Cost Share must have as its fair rental value a documented forgone charge or fee that otherwise would have accrued to the contributor for its use. This charge or fee must have otherwise been assessed and paid in the normal course of business on any other transaction.

Prior OTF funding may not be used as Cost Share for this Proposal, and funds awarded under this RFP may not be used as Cost Share against other OTF Projects. Other State sources of Cost Share are allowed, as are in-kind contributions. However, Proposals having a higher percentage of cash and

non-State sources of Cost Share of any kind relative to the total proposed Project budget will be considered more favorably in the evaluation.

Cost Share Requirements – Constraints: Resources, whether cash or in-kind, that have already been designated as Cost Share for some other award cannot be used as Cost Share for an OTFAMP award. The Cost Share must be applied to the Project during the Project Period. Expenses incurred outside of the Grant Period do not count toward the Cost Share requirement. The basis for valuing in-kind Cost Share must be described and must be realistic and verifiable.

The Lead Applicant is solely responsible to have adequate funds to cover all expenses of the Project not covered by the Grant Funds awarded.

Grantees will be held accountable for the Cost Share ratio committed in the Proposal (Cost Share pledged divided by State Grant Funds requested) regardless of the actual amount of Grant Funds awarded. If a Lead Applicant proposes a higher Cost Share ratio than required, the Lead Applicant and its Collaborators may not, at any time later, lower the Cost Share ratio.

Budget Forms and Narrative: A Lead Applicant must use the Budget Forms contained in Appendix C of this RFP. The following Budget Forms are contained in Appendix C.

Budget Form 1 (Appendix C) is to be used to present the total three-year budget plan for the funds requested and all Cost Share by the specific use categories listed on the form. The Cost Share presented on the form must be at least equal to the ratio of funds required by Development for this RFP.

Please note that the Lead Applicant must identify its requirements for high performance computing facilities and services, including hardware, software, and infrastructure services in its Proposal. If a Lead Applicant's computing requirements exceed approximately $100,000 for a proposed Project, the Lead Applicant will notify Development, and the Ohio Supercomputer Center may convene a panel of experts. The panel will review the Proposal to determine whether the Proposal's requirements can be met through Ohio Supercomputer Center facilities or through other means and report such information to OTFC. All Lead Applicants are encouraged to consult with the Ohio Supercomputer Center in advance of submitting a Proposal with $100,000 or more in high performance computing facilities, equipment, or infrastructure services.

Budget Form 2 (Appendix C) is to be used by the Lead Applicant. The total Grant Funds requested in the Proposal must be represented on this form as the Grant amounts that will be used by the Lead Applicant and Collaborators. The Subcontract/Sub-Grant line on this form refers to the funds provided to Collaborators by the Lead Applicant or Cost Share provided by Collaborators.

Budget Form 3 (Appendix C) is to be completed for each Collaborator. A Collaborator is any entity that is receiving a Subcontract/Sub-Grant from the Lead Applicant or is committing Cost Share to the proposed Project.

The total of the requested funds and Cost Share funds among the Collaborators' budget forms must equal the total corresponding amounts of the Subcontract/Sub-Grant line reported in Budget Form 2.

Budget Form 4 Table of Cost Share (Appendix C) form requires the Lead Applicant to report the sources of Cost Share by entity and the kind of Cost Share from itself and all Collaborators. A Letter of Commitment on the Cost Share sources letterhead, signed by an authorized representative, must support each Cost Share amount claimed.

A detailed Budget Narrative must also be included covering an explanation of the costs for both the State Grant Funds requested and Cost Share committed.

3.3.12 Collaborator Information/Letters of Commitment

A Commitment Letter must be provided for each Cost Share provider and Collaborator identified in Budget Forms 3 and 4. Commitment letters may not be more than two (2) pages and may not include appendices or attachments. The letters must:

- Be submitted on the letterhead of the Collaborator;
- Include the name of the Lead Applicant, the title of the Proposal, and the LOI number assigned by Development;
- Briefly state the nature of the collaboration;
- State the duration of the collaboration;
- State the resources, other than Cost Share, the Collaborator is committing to the proposed Project;
- State how the proposed Project will contribute to the strategy of the Collaborator;
- State the specific amount of the commitment that matches the Cost Share amount on the corresponding Budget Form 3;
- State the source of the commitment;
- State when the committed resources will be available to the Lead Applicant;
- Be dated and signed by a representative of the Collaborator with the authority to make the Cost Share commitment.

Other letters are allowed but only if they come from a committed end-user who has a commercial interest in, and can anticipate commercial benefit from, the results of the proposed Project. These other letters must describe the anticipated benefit and what advice and support the committed end-user will be providing in the way of market opportunities, knowledge of competing technologies, technological and/or commercial hurdles for the proposed Project, and parallel and supportive research efforts. Letters from committed

end-users may not be more than two (2) pages and may not include appendices or attachments.

General support letters are not allowed. Any such letters submitted will be removed from the Proposal and not transmitted to the external evaluation team.

3.4 Page Limitations

Any pages beyond the page limits listed below will be eliminated from the Proposal before it is sent for technical review and evaluation. Except as otherwise noted, appendices or other methods to augment the information presented in the Proposal are not allowed. Reference to web-based information to supplement the Proposal is not permitted, and such references will not be considered in the evaluation.

- Abstract – 1 page
- Technical Plan – 12 pages (plus a maximum of 3 pages of "Footnotes" at the end of the Technical Plan)
- Commercialization Strategy – 12 pages
- Performance Goals – 2 pages
- Past Performance on Previous OTF Awards – 1 page per grant, if applicable
- Experience and Qualifications – 4 pages total including the Lead Applicant and all Collaborators
- Biographical Sketches – 5 pages (A maximum of five (5) biographical sketches of Key Personnel with each bio limited to one (1) page)
- Budget – use specified forms
- Budget Narrative – Minimum of 2 and maximum of 4 pages total
- Collaborator Information/Letters of Commitment (A maximum of 2 pages per letter and letters may only be submitted from Collaborators or committed end-users as defined in section 2.3.3 of this RFP. Letters may not have attachments or appended materials of any kind.)

4 Award Process

4.1 Proposal Review and Evaluation Procedures

OTF uses a competitive, objective, and transparent process to make awards to projects based on proposals that reflect meritorious scientific and technical content, sound business and commercialization plans, and potential for positive impacts on the economic conditions in Ohio.

An annual strategic plan, recommended by OTFAB and approved by OTFC in open, public meetings, drives program framework and budget allocations. Following the OTFC established program framework, this RFP establishes specific award criteria and describes in detail the competitive peer review process. This RFP process complies with ORC Section 184.02 (B) which states:

> *In addition to the powers and duties under sections 184.10 to 184.20 of the Revised Code, the Commission shall do all of the following: (1) Establish a competitive process for the award of grants and loans that is designed to fund the most meritorious proposals and, when appropriate, provide for peer review of proposals.*

Upon receipt of proposals, Development staff will conduct an administrative review using an established written protocol to screen proposals for compliance with the objective content requirements defined in the RFP. Examples of proposal elements checked in the screening process include missing or incorrect budget forms, insufficient documentation of Cost Share, and failure to include letters of commitment from Collaborators. Proposals complying with the RFP requirements are forwarded to an external evaluator for technical review. Proposals found to not comply with this RFP's requirements may be eliminated from the competition and not reviewed further.

The external evaluator has been selected for their expertise relevant to the scientific and commercial content of the OTF program. The external evaluator will conduct a first-stage review using its proprietary methodology applied in a manner that takes account of evaluation criteria from this RFP. A set of proposals determined by the external evaluator to meet the charge of this RFP (i.e., "fundable") will be moved to the second stage of review in which applicants will address questions in face-to-face meetings with representatives of the external evaluator.

Taking into consideration the information contained in written proposals and answers to questions and information gathered during the face-to-face meetings, the external evaluator will analyze their findings for all proposals included in the second stage review, and will prepare a rank ordering of the proposals that is based on the their relative merits.

The external evaluator will then prepare a written report, which will be delivered to Development staff. Development staff will provide OTFC members with the external evaluator report, including the rank ordering of second-stage proposals, together with information about the amount of funding available for program awards and additional information relevant to funding decisions as described below. These written materials will be distributed to OTFC members prior to the scheduled public meeting date at which award decisions will be made.

In considering proposals, OTFC has routinely solicited information from Development staff that OTFC members believe is relevant to their funding decisions. To ensure that consistent information is provided for all proposals being considered for funding, OTFC has directed Development staff to provide the following information regarding proposals presented for potential funding:

1. Past performance of the Lead Applicant for each Proposal and its team (to the extent a Lead Applicant has prior experience with an OTF program), which includes information related to prior grants with respect to:
    a. Leverage ratio achieved;
    b. Number of jobs created;

c. Cost per job created;
d. Average salary of job created; and,
e. History of grant amendments related to original scope of work.

2. The proposed Project's strategic fit with prior Third Frontier investments, Development's Strategic Plan, the Ohio Board of Regent's Strategic Plan, and other State investments; and
3. Factual business intelligence relevant to describing the Ohio economic development opportunity.

The Development staff report of this information will be completed prior to the external evaluator delivering its findings and rank ordering to Development, and the staff report will be included in written materials delivered to OTFC prior to the scheduled public meeting date at which funding decisions are to be made. At no time prior to the scheduled public meeting date will Development staff make funding recommendations, written or otherwise, to OTFC.

4.2 Evaluation Criteria

Only the most meritorious proposals are sought for funding. Proposals passing the administrative review will be evaluated based on responsiveness to all the requirements of this RFP and on the Lead Applicant's response to any additional information that may be requested by the external reviewers. Implicit in those requirements and evaluation criteria is the quality of the work plan and budget. Equally important is the ability of the Lead Applicant to leverage the State's resources, and raise the required Cost Share. The ability of the Lead Applicant to raise additional Cost Share can improve the final evaluation score. Applicants will be held to the Cost Share bid in the proposal submitted and the original bid ratio will apply regardless of the award level actually granted. The following criteria, however, have been designated with the highest relevance to and weighting for OTFAMP:

- Alignment of the Proposal with OTFAMP purpose, goals, objectives, eligibility, funding, and Cost Share requirements as described in Section 2 of this RFP;
- Quality of the responses to the requirements of this RFP as outlined in Sections 3.3.6, 3.3.7, 3.3.8, 3.3.9, 3.3.10, 3.3.11, and 3.3.12; and,
- Compliance with this RFP's administrative requirements.

The evaluation criteria are designed to support the mission and goals of OTF and its various programs.

4.3 Award Decision

At a public meeting, the external evaluator will lead the presentation of proposals, and Development staff will provide necessary programmatic details including information about funds available and program goals and criteria. If requested, Lead Applicants must attend the OTFC meeting at which proposals are considered for funding. Both the external evaluator and Development staff will be available to respond to questions from OTFC members. During the public meeting, and only at

the specific request of an OTFC member, Development staff will provide a funding recommendation.

OTFC members will deliberate and exercise their independent judgment regarding award decisions based on all the information exchanged. OTFC may approve awards subject to conditions identified during its deliberation. OTFC acts by the affirmative vote of a majority of its members. The funding decisions of OTFC are final. All Lead Applicants will be notified of the outcome of their Proposals after OTFC makes its funding decisions.

All decisions taken by OTFC, including votes and a summary of any award conditions, will be recorded in minutes of the OTFC meeting. If and to the extent OTFC deviates from a recommendation of an external evaluator, those deviations will be reflected in meeting minutes.

4.4 Award and Grant Agreement Preparation and Execution

Awards of Grant Funds will be made based on Proposals as submitted (including such modifications as may be agreed by the Lead Applicant), the Project budget, and any conditions set forth by OTFC. The grant will remain open for the duration of the Project, plus a three-year reporting period during which annual reports are required to be submitted to Development.

Following selection by OTFC, an award of Grant Funds must be approved by the State's Controlling Board, a legislative body that reviews appropriation of State funds. Development will request Controlling Board review as soon as possible after the OTFC funding decision. The Controlling Board process normally takes a minimum of forty-five to sixty (45-60) days to complete.

Development will prepare a Grant Agreement. The Grant Agreement will incorporate the Proposal and Project budget, as either may have been modified by evaluation findings, funding decisions, or other terms or conditions consistent with the approval by OTFC. Development may require the Lead Applicant to provide cash flow projections on a quarterly basis.

Grant Agreements are sent to Lead Applicants for review and signature. Development executes Grant Agreements on behalf of OTFC after the Grant Agreement is accepted by the Lead Applicant. After Development executes the Grant Agreement, the Grant is entered on the State's accounting system and invoices may be submitted. Once the Grant Agreement is fully-executed, the Lead Applicant will be considered and referred to as a "Grantee."

A Grantee is required to complete the Project as described in the Grantee's Proposal as submitted and with only those modifications as agreed by the Grantee and Development in finalizing the Grant Agreement. Development will assign a Program Administrator who will work with the Grantee throughout the Project Period. Development staff and the Grantee will develop a series of performance metrics that will be used to measure progress on the Grant Agreement.

All Grantees will be required to submit to Development quarterly progress and metrics reports, as well as invoices and expenditures reports, to document achievement of Project milestones, to report Project-related success stories, and to submit post-Project completion annual reports for a period of three (3) years. All

reports and invoices will be submitted in the form and format required by Development which may change from time to time.

From time to time during the Term of the Agreement, Grantee may organize conferences or other events open to industry representatives or the general public related to the Project, the subject matter of the Project or associated work of Grantee or its Collaborators. In consideration of the Grant, up to two (2) representatives of Grantor may attend such conferences and events for the purposes of sharing information between Grantee, its Collaborators and other constituents, and Grantor. Grantee shall provide Grantor reasonable advance notice of any such conferences and events. Grantor will not be charged registration fees to attend such events.

4.5 Mandatory Compliance

The following restrictions apply to all OTF Projects:

4.5.1 Human and Animal Research

For any Proposal that includes use of human subjects, the Lead Applicant's and each Collaborator's human subject policies and procedures must comply with the Code of Federal Regulations, Title 45, Part 46. For any Proposal that includes use of animal subjects, the Lead Applicant's and each Collaborator's animal subject policies and procedures must comply with US Code, Title 7, Sections 2131-2156.

4.5.2 Obligations to the State; Compliance with Laws

Grantees will be required to certify in the Grant Agreement that they do not owe: (1) any delinquent taxes to the State or a political subdivision of the State; (2) any moneys to the State or a state agency for the administration or enforcement of any environmental laws of the State; and (3) any other moneys to the State, a state agency or a political subdivision of the State that are past due, whether the amounts owed are being contested in a court of law or not.

Grant Agreements will require Grantees to comply with all applicable federal, state, and local laws in the performance of the Project. Grantees must accept full responsibility for payments of all unemployment compensation, insurance premiums, workers' compensation premiums, all income tax deductions, social security deductions, and any and all other taxes or payroll deductions required for all employees engaged by Grantees on the performance of the work authorized by the Grant Agreements.

4.5.3 Other Compliance

Grant Funds may not be used for research involving tissue obtained from aborted fetuses. (See Ohio Revised Code Section 2919.14)

5 APPENDICES

A. Technology Commercialization Framework
B. Definitions
C. Forms
D. Cost Share Guidelines
E. Information Related to Joint Use Agreements

Appendix A

Third Frontier Grant Programs

Technology Commercialization Framework

Technology Commercialization Framework

All OTF Programs share a common goal – to promote technology-based economic development within Ohio by funding activities that move technology from ideas to market. This goal requires the State to design programs, evaluate Proposals and Projects, leverage resources, and provide management oversight within the context of a commercialization framework. Development has adopted the Technology Commercialization Framework based on an extensive literature review on the subject.[1]

The Commercialization Framework consists of three major components:

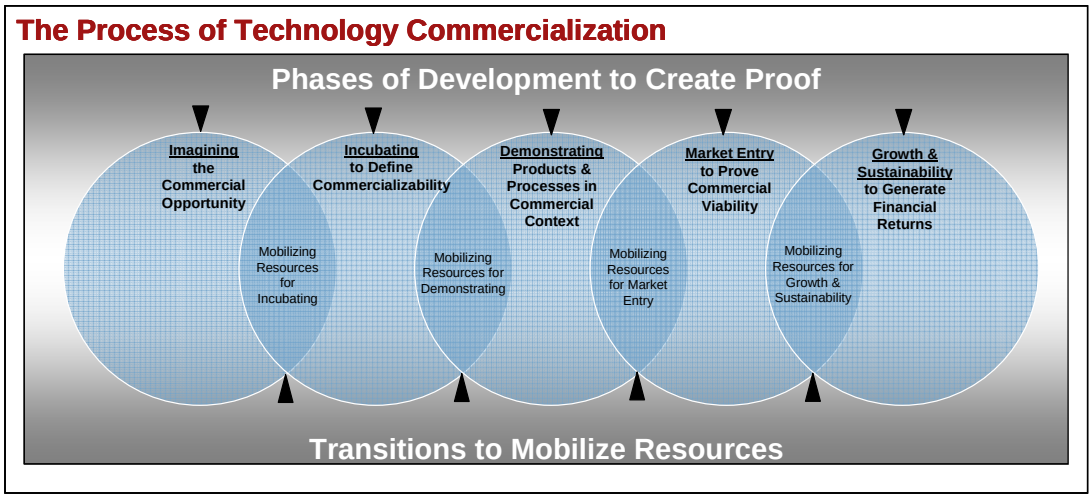
- A description of the five phases of commercialization, including an overview of two categories of activities and required proof within each phase – (i) the development of the technology, and (ii) the development of the commercial concept;
- A system of metrics (the ABC metrics) designed to provide objective interim measures of commercial progress well before the project can achieve traditional metrics (e.g. customers, revenues, profits, etc.); and
- A series of steps (the Analytical Framework) to help improve the probability of success or reduce the unproductive use of scarce resources.

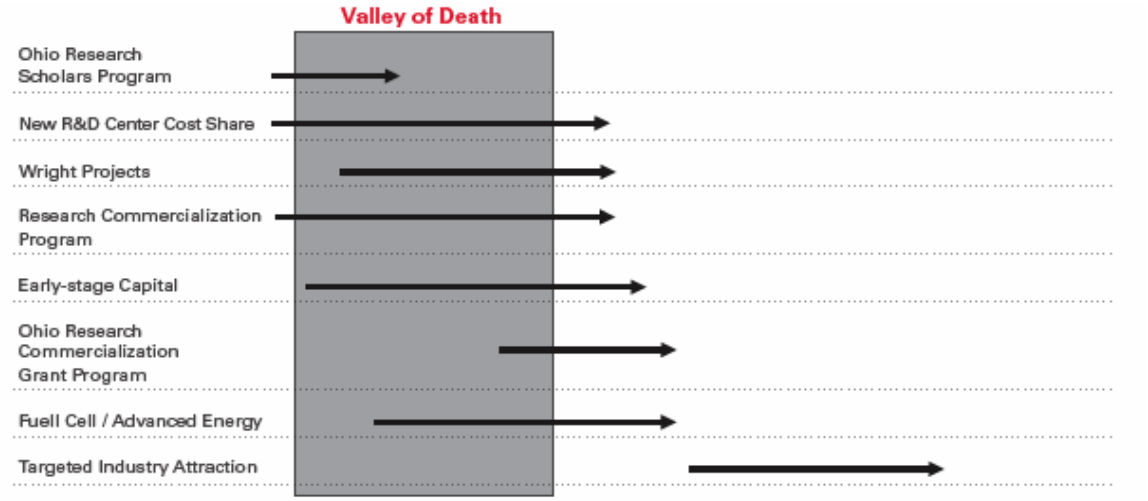
The Phases of Commercialization

Figure 1 illustrates the five phases of commercialization: (1) Imagining, (2) Incubating, (3) Demonstrating, (4) Market Entry, and (5) Growth and Sustainability. In each phase, the primary goal is to generate the proof needed to attract resources required to move to and engage in the proof generating activities generally associated with the next phase of commercialization. The process is inherently iterative, with numerous starts, restarts, successes, and failures – sometimes within a particular phase and sometimes between phases. In Figure 1, each phase overlaps with the next to illustrate transitions, the process of interaction among investors, partners, customers, and the project team that results in the project's acquisition of the resources necessary to enter the next phase of the commercialization. Although the project's ability to attract resources, primarily in the form of funding, is fundamental to the measurement of commercial progress, resource acquisitions alone do not evidence commercialization. Only resource acquisitions that fund a transition demonstrate the project's movement toward market.

Figure 1. Technology Commercialization Framework

[1] BizLogx LLC, "The Technology Commercialization Framework", September 30, 2004.





The FY 2010 OTF RFP's have been placed in the stages of commercialization as shown in Figure 1.

To help determine the phase of commercialization, identify those activities most likely to lead to required resources, and measure progress, the Framework looks at two classes of activities: (i) the development of the technology, and (ii) the development of the commercial concept. The following chart (Figure 2) summarizes the activities, objectives, and desired proof within each class:

Figure 2. Summary of Commercialization Phases

Phase	Technology	Commercial Concept

Phase	Technology	Commercial Concept
IMAGINING	The *Imagining Phase* begins with the techno-market insight - the linking, if only in concept, of a technology and a market opportunity. Activities focus on the generation of a "proof of principle", generally defined as the demonstration in a laboratory setting of critical components of the technology.	During the *Imagining Phase*, the commercial concept is highly speculative. Often, the concept is only supported by conjecture regarding technical viability and the market opportunity.
INCUBATING	The *Incubating Phase* focuses on the performance of the technology in context of product performance specifications. Activities revolve around defining required performance specifications and then determining whether the technology can meet those specifications. For the most part, the activities prove the technical capabilities in a laboratory rather than a commercial setting.	During *the Incubating Phase*, the participants define the commercial concept (business model and market opportunity). The commercial concept depends primarily on secondary rather than market research or proof. The commercial concept lacks market confirmation and is still highly speculative since the proof is primarily in the form of research and planning.
DEMONSTRATING	The *Demonstrating Phase* focuses on the performance of the technology in a commercial context – generally, in the hands of a current or prospective customer. In the *Demonstrating Phase*, the source of proof begins to switch from internal to external – from the lab to the market. Resource providers generally require the following types of proof: (i) the incorporation of the technology into a market-ready product with the performance characteristics required by prospective customers; (ii) evidence that the product meets the required performance specifications in the hands of customers; and (iii) evidence of manufacturing capabilities that meet performance, quality, and cost requirements (those assumed in the Commercial Concept or Business Plan).	During *the Demonstrating Phase*, participants create and refine a business plan based on direct evidence of the demand for the product. Proof generally takes the form of a limited number of sales to customers at or near the price projected in the business plan. Proof helps address through direct evidence that customers are willing to pay for and use the product, and that they are generating the expected value or benefits.
MARKET ENTRY	In the *Market Entry Phase*, the activities are those typically	In the *Market Entry Phase*, the activities are those that any business would

Phase	Technology	Commercial Concept
	associated with the introduction of a new product to market by an existing business - production, quality, service, product performance. The company has embedded the technology in a product or service and is aggressively marketing the product or service to prospective customers. The product or service is used by an increasing number of existing customers. The opportunity has attracted the resources necessary to expand marketing, sales, and support.	engage in when attempting to determine the commercial value or viability of a new product or service. Types of proof include, but are not limited to meeting sales forecasts, maintaining projected pricing and margins, achieving manufacturing efficiencies, and meeting production projections. The proof frequently focuses on direct feedback from the market, measured in terms of sales, revenue, margins and growth.
GROWTH & SUSTAINABILITY	The *Growth & Sustainability Phase* involves the execution of a comprehensive product development plan to increase market share and/or extend the existing or new technologies into new products, services, and markets.	In the *Growth & Sustainability Phase,* the objective is to achieve the ongoing growth of revenue, margins, and profits in ways typically associated with a viable and profitable business.

The ABC Metrics

Given the multiple phases and non-linear nature of commercialization, the years or sometimes decades between idea and market, and the lack of traditional measures (e.g. customers, revenues, and profits), all interested parties (e.g. the project team or company, the investors, and the State) found it difficult to answer the following question using objective evidence - "Is commercial progress being made?" To answer this question, the State developed and implemented a measurement framework that includes three categories of metrics, referred to as A Metrics, B Metrics, and C Metrics.

A Metrics are synonymous with attracting the resources required to engage in the next phase of commercialization (a Transition) and are the best evidence that a project is successfully progressing towards commercialization. A Metrics also include the acquisition of resources required to continue the generation of proof within the current phase, although repeated resource acquisitions without the occurrence of a Transition will, in most cases, lead to the conclusion that the project is not progressing towards commercialization. Almost always, A Metrics take the form of cash rather than in-kind or other similar contributions or investments.

B Metrics are tangible evidence that a project is on the path to achieving A Metrics. The relevant "tangible evidence" of a B Metric is the commitment of resources by the resource provider to evaluate the project for funding.

As an example, an A Metric for a project in the Demonstrating Phase would be an investment by a venture capital fund to provide the resources necessary to engage in Market Entry Phase activities. A B Metric for this project might include a substantial Due Diligence effort by the investor and the subsequent receipt by the Lead Applicant of a term sheet detailing a potential investment.

C Metrics measure activities and are the equivalent of "project milestones." These activities (e.g. hiring qualified personnel, preparing patent applications, preparing a business plan, achieving certain technical milestones, etc.) are often critically important, but do not represent evidence of progress toward the goal of Transition or commercial success. Rather, they indicate that the participants are executing their plan.

The primary distinction between the A and B Metrics and the C Metrics is that the A and B Metrics measure the commitment of resources by a current or potential resource provider, while the C Metrics measure activities and resource commitments by the project participants or by others who are not current or potential resource providers.

Post-award and within thirty (30) days of execution of the Grant Agreement, the Grantee will submit for Development's approval a forecast of A Metrics that the Grantee anticipates generating as a result of the project. The forecast of A Metrics must include a description of the anticipated sources and amount of A Metrics. In describing the sources, the Grantee should be as specific as possible. The Grantee will also submit a project plan that includes the primary C Metrics (e.g. hiring a fund or project manager, anticipated deal flow [including sources], anticipated timing and amounts of investments, etc.) and related dates. Development, through the Grant Agreement and the activities of program administrators, will manage grants and investments in accordance with the agreed set of A and C metrics. Development will not require the Grantee to project B Metrics, but may require the Grantee to report on B Metrics when the A and C Metrics are insufficient to provide Development with a clear picture of progress or to explain unusual circumstances.

The Analytical Framework

Successful commercialization is about successful Transitions, and the Analytical Framework focuses on the mechanism of successful Transitions. The steps of the Analytical Framework are listed below.

1. Identify the appropriate phase of commercialization;
2. Determine the amount of resources required to complete the current and next phase of commercialization;
3. Identify resource providers who can fund the next phase of commercialization activities;
4. Determine the proof required by the targeted resource providers;
5. Identify the contextual factors that are likely to have a material impact on the chances of resource acquisition;
6. Determine the appropriate measures of success; and

7. Develop a plan to produce the proof the resource providers desire and a plan to pursue the Transition.

A more extensive discussion of the Commercialization Framework is found on the OTF web site at: http://www.ohiochannel.org/your_state/third_frontier_project/featured_publications.cfm

1.1 Commercialization Questions

Many of the Third Frontier programs are focused on the Imagining, Incubating, and Demonstrating phases of the Commercialization Framework. The following guide may prove useful in identifying the phase of an opportunity and the type of work normally associated with that phase.

Imagining Phase

The following items are representative of the proof and related activities in the Imagining Phase:

- Develop the business case (e.g. market, potential customers, value proposition, and competitive alternatives);
- Develop a firm understanding of how the technology might be developed into a commercial application;
- Develop a proof of principle – demonstrate in a laboratory setting the critical components of the technology that enable the core functionality of the commercial application;
- Assess the work needed to achieve reduction to practice;
- Investigate the freedom to operate within the target markets and the constraints imposed by existing patents or other forms of IP; and
- Develop an intellectual property strategy for the application of this technology.

Incubating Phase

The following items are representative of the proof and related activities in the Incubating Phase:

- Develop a comprehensive business plan and financial projections;
- Perform the work necessary to understand how to adapt the technology to a commercial application that addresses the market needs;
- Confirm the “freedom to operate” for the IP in context of the commercial application and then acquire adequate IP protection for the technology and related applications to allow for market introduction;
- Complete the reduction to practice and produce a working model based on well-defined and fixed commercial specifications; and
- Produce product designs and production processes that support the manufacture of a reliable product at a cost reasonably consistent with the constraints of the particular market applications.

Demonstrating Phase

The following items are representative of the proof and related activities in the Demonstrating Phase:

- Finalize the technical and commercial specifications for the market ready version of the product;
- Produce prototypes in the approximate form and with the functionality required for general market release;
- Finalize a business plan including detailed plans for sales, marketing, pricing, financing, etc;
- Develop credible plans for manufacturing at or near the costs required by the business plan;
- Sell the product or service at or near the price contemplated by the business plan;
- Secure several customers who use the product in a commercial environment;
- Establish the reliability of the technology as embedded in a commercial product;
- Incorporate feedback from lead users into the design based on alpha and beta versions of the technology;
- Produce pilot runs that demonstrate functionality consistent with the product concept; and
- Secure facilities adequate for near-term production.

Market Entry Phase

In this Phase, the company attempts to prove the viability of the business opportunity. The proof and related activities in the Market Entry Phase are those generally associated with an ongoing business. Representative examples of proof and related activities are:

- Achieving quarterly and annual sales projections;
- Meeting production targets, including cost and quality requirements;
- Achieving financial performance measures, including, but not limited to price per unit, gross margins, operating margins, etc.; and
- Meeting product performance requirements in “real world” situations.

Growth and Sustainability Phase

In this Phase, the company attempts to establish the long-term viability of the business. As in the Market Entry Phase, the proof and related activities in the Growth and Sustainability Phase are also those generally associated with an ongoing business. Representative examples of proof and related activities are:

- Achieving quarterly and annual sales projections;
- Introducing new and improved products;
- Increasing revenues and profitability;
- Increasing market share; and
- Expanding into new markets.

The previous lists of activities are not meant to be exclusive. Rather, the purpose is to help Applicants and Grantees accurately identify the phase and scope of expected activities and required proof.

Applicants should consider and address how the ABC Metrics and Commercialization Framework relate to their investment strategies, and how progress by portfolio companies will be measured consistent with the Commercialization Framework.

Development will consider projects successful (A Metrics) if, at the proposed Project's completion, the Lead Applicant has invested in and/or provided services to opportunities or companies that have attracted follow-on funding to finance the next phase of commercialization.

Appendix B

Third Frontier Grant Programs

Definitions

Appendix B

Definitions

Collaborator – An individual not employed by or related to the Lead Applicant or an organization, institution, company or other legal entity that is not an affiliate of the Lead Applicant which is anticipated to receive State Grant Funds and/or is contributing to Cost Share. All Collaborators must be represented by a Co-Investigator.

Co-Investigator – See Principal Investigator.

Cost Share – See Appendix D.

Effective Date – The date upon which a Grant Agreement between a Lead Applicant and the State of Ohio is effective.

Equipment – Any item of equipment which both costs $5,000 or more and has a useful life of more than one year.

Grant Accounts – Accounts established and maintained by a Grantee to record separately in its books and records receipt and use of Grant Funds and Cost Share.

Grant Agreement – A legal agreement setting forth the terms and conditions upon which Grant Funds are awarded and the respective rights and obligations of the Lead Applicant and the State of Ohio with respect to Grant Funds and the Project for which they are to be used.

Grant Funds - Financial assistance in the form of money awarded by a government agency to an eligible applicant in order to accomplish a public purpose of support or stimulation of development authorized by statute.

Indirect Cost – A cost that is incurred for common or joint objectives and therefore cannot be identified readily and specifically with a particular sponsored project but nevertheless is necessary to the operation of the organization. Also known as "Facilities & Administrative (F&A) cost."

Key Personnel - Individuals from the Lead Applicant and/or Collaborators who represent a Project's leadership from the technical, commercial, and managerial perspectives.

Lead Applicant – The entity that submits a Proposal and will be legally and financially responsible for the administration of any resulting award of Grant Funds.

OTF Website – www.thirdfrontier.com

Principal Investigator– The individual responsible and accountable for designing, conducting, and monitoring the Project. "Co-Investigators" are two or more investigators who share the responsibilities of a Principal Investigator.

Principal Place of Business - A facility located in the State of Ohio where the Lead Applicant, who is registered with the Secretary of State to conduct business in Ohio, maintains physical

operations managed by a senior representative of the Lead Applicant who is authorized to make decisions and to obligate the Lead Applicant and its resources. This facility must be owned by the Lead Applicant or be subject to a lease, the balance of which matches or exceeds the term of the Grant Period. The facility must be a recipient or beneficiary of a significant amount of the funds awarded to the Grantee.

Program Administrator – Personnel of the Ohio Department of Development assigned to monitor the progress of a Project awarded Grant Funds.

Project – The plan of activity or activities that make up the total scope of work for which an award of Grant Funds is requested and for which a Proposal is approved.

Project Completion Date – The date by which the Grantee shall complete the Project and incur all eligible expenses.

Project Period – The period of time from the Effective Date until the Project Completion Date.

Proof of Principal – A research effort to prove that the core ideas of a concept or theory are workable and feasible.

Proposal – A proposal as submitted by a Lead Applicant seeking an award of Grant Funds in response to a Request for Proposals issued for a particular Third Frontier Program.

Subcontract/Subgrant – A subcontract/subgrant is a legal agreement between a Grantee and an individual or entity that has expertise in a particular area or access to specialized resources or materials that the Grantee lacks. A subcontract/subgrant is identified in the Proposal for performance of a specific function.

Supplies – Materials, including equipment, which both costs less than $5,000 and has a useful life of less than one year.

Transition – The acquisition of the resources required to engage in the next phase of technology commercialization.

Appendix C

Ohio Third Frontier Grant Programs

Part 1 - Application Forms ***(found in Word document below)***
Part 2 - Budget Forms ***(found under separate Excel spreadsheet)***

Ohio Third Frontier Advanced Materials Program

2010 Request for Proposals

Application Information Page

Letter of Intent (LOI) Notification Number (Issued by ODOD)	**LOI #: OTFAMP 10-_____**

This Application:	☐ Does ☐ Does Not	include information considered a "trade secret" under Ohio Revised Code Section 1333.61 (D)

Lead Applicant Name		
Lead Applicant Address		
	City:	**Ohio County:**
	State:	**Zip Code:**

Project Title:			
State Funds:	OTFRDF (operating) funds requested: $	**Cost Share:**	$
	WCF (capital) funds requested: $		
	Total State funds requested: $		
Project Focus:	☐ Advanced Materials ☐ Instruments, Controls, & Electronics ☐ Biomedical ☐ Advanced Propulsion ☐ Advanced/Alternative Energy		

Is the Lead Applicant the lead in any other proposal submitted under this RFP?	☐ Yes ☐ No
If yes, provide the Other Project(s) Title/LOI #:	

Typed Name of Authorizing Agent | Title of Authorizing Agent

Signature | Date

For ODOD Use Only

Date Received	Proposal ID #

Ohio Third Frontier Advanced Materials Program

Lead Applicant Contact Information

Authorizing Agent	Name	
	Title	
	Organization	
	Address	
	City, State, Zip	
	Telephone	Fax
	E-Mail	
Project Director	Name	
	Title	
	Organization	
	Address	
	City, State, Zip	
	Telephone	Fax
	E-Mail	
Fiscal Agent	Name	
	Title	
	Organization	
	Address	
	City, State, Zip	
	Telephone	Fax
	E-Mail	
Grant Administrator	Name	
	Title	
	Organization	
	Address	
	City, State, Zip	
	Telephone	Fax
	E-Mail	

Authorizing Agent – the individual authorized by the Lead Applicant to accept the terms and conditions of an award of Grant Funds.
Project Director – the individual authorized by the Lead Applicant to direct the Project for which the Grant Funds have been awarded.
Fiscal Agent – the individual authorized by the Lead Applicant to sign Grant-related financial documents, *e.g.,* Requests for Payment, Grant financial reports, *etc.*
Grant Administrator – the individual authorized by the Lead Applicant to oversee the day-to-day administration of the Grant Funds, including preparing progress reports, monitoring project progress, *etc.*
Note: The same individual may hold more than one of these positions.

Ohio Third Frontier Advanced Materials Program
Collaborator Information

List each Collaborator identified in the Proposal, including a contact name and contact information for each. Attach additional forms as needed.

Name
Title
Organization
Address

City, State, Zip
Telephone Fax
E-Mail

Name
Title
Organization
Address

City, State, Zip
Telephone Fax
E-Mail

Name
Title
Organization
Address

City, State, Zip
Telephone Fax
E-Mail

Name
Title
Organization
Address

City, State, Zip
Telephone Fax
E-Mail

Appendix D

Third Frontier Grant Programs

Cost Share Guidelines

Appendix D

Cost Share Guidelines

Grantee will adhere to the Cost Share requirements set forth in this Appendix governing the identification and use of resources other than Grant Funds for eligible expenses of the Project.

The Cost Share Amount may be provided in cash or in-kind as designated in sections 2.4 and 3.3.11 of the RFP. Cash and in-kind contributions to the Cost Share Amount may be as follows:

A. Cash contributions counted against the Cost Share Amount includes eligible expenses of the Project (1) incurred to perform activities in direct support of the Project during the Project Period; (2) charged to resources of Grantee or of a subgrantee or subcontractor engaged by Grantee on the Project, and (3) documented in Grant Accounts or in the Grant-related financial books and records of the subgrantee or subcontractor, as the context requires. Cash contributions to the Cost Share Amount include resources other than Grant Funds provided by a third party to Grantee, a subgrantee or subcontractor, or to a parent organization specifically for the use or support of Grantee, a subgrantee or a subcontractor, which are actually used to perform Project activities.

B. In-kind contributions to the Cost Share Amount include the value of goods and/or services which are an eligible expense of the Project (1) supplied by Grantee, a subgrantee, subcontractor or other third party during the Project Period, (2) received by Grantee, a subgrantee or subcontractor during the specific period to which the cost sharing or matching requirement applies and used by Grantee, a subgrantee or subcontractor to perform activities in direct support of the Project, but (3) which are not separately accounted for by Grantee in the Grant Accounts or by a subgrantee or subcontractor in its respective Grant-related financial books and records.

General Conditions and Restrictions:

A. Contributions to the Cost Share Amount must be for eligible expenses consistent with the then-current version of Federal Office of Management and Budget Circular A-21 and must be accessible to verification and audit.

B. Contributions to the Cost Share Amount must provide direct support for the Project. Expenditures that provide coincidental benefits to or support for the Project may not be counted against the Cost Share Amount. All resources counted against the Cost Share Amount must be necessary and reasonable considering the Project objectives and the activities to be performed as part of the Project.

C. Contributions, whether cash or in-kind, may not be counted against the Cost Share Amount if the same resources are used to satisfy the cost share requirement of any other funding program.

D. Contributions of financial support, both cash and in-kind, included as part of the Project's Cost Share Amount must be made between the Effective Date of the Grant Agreement and the Project Completion Date.

E. Grantee may request Grantor approval of financial support for the Project that does not meet the cost share requirements set forth above. Any such request shall be made by Grantee in writing, and such financial support may be counted against the Cost Share Amount only if and to the extent approved by Grantor in writing prior to the contribution of such financial support. Grantor may give or withhold approval within its discretion.

F. Value of Contributed Goods and Services.

1.) Services are contributed to a Project (*i.e.*, donated services) when an individual employed by the contributor of the donated services works to perform Project activities without charge to Grantee, a subgrantee or subcontractor. The value of donated services will be an amount equal to the individual's regular rate of pay from the contributor of the individual's services, including fringe benefits up to 30% of base pay, for the period of time during which the individual performs Project activities *provided that* the individual whose services are contributed performs functions for Grantee, a subgrantee or subcontractor equivalent to the services for which the individual is compensated by the contributor.

2.) The value of supplies and materials contributed to the Project will be an amount equal to the fair market value of such supplies and materials at the time they are contributed to Grantee, a subgrantee or subcontractor. Grantee shall provide documentation supporting its determination of the fair market value of such supplies and materials.

3.) In-kind contributions may include use of equipment and/or space (facilities) which are necessary and reasonable for the Project. The value of the use of equipment and/or space (facilities) will be an amount equal to their fair rental value of the equipment and/or space at the time it is contributed to Grantee, a subgrantee or subcontractor. Grantee shall provide documentation supporting its determination of the fair rental value of such equipment and/or space (facilities).

4.) In-kind contributions may include transfer of ownership to equipment, buildings, and/or land which are necessary and reasonable for the Project. The value of any such equipment, buildings, and/or land will be an amount equal to its respective fair market value at the time the equipment, buildings, and/or land is contributed to Grantee, a subgrantee or subcontractor. Grantee shall provide documentation supporting its determination of the fair market value of such equipment, buildings and/or land.

G. Documentation of all contributions to the Cost Share Amount must identify the source of the contribution and its address, state the value of the contribution (whether made in cash or in-kind), and provide as to any in-kind contribution a reasonably detailed description of the method of valuation of such contribution.

H. Grantee shall maintain in its records related to the Project documentation sufficient to verify all Project costs and contributions claimed as part of the Cost Share Amount, including the supporting documentation for valuation of in-kind contributions. Cost share documentation will be subject to inspection and audit as provided in the Grant Agreement.

I. Certification of Cost Share:

1.) The method and frequency of reporting contributions to the Cost Share Amount, whether made in cash or in-kind is the same as financial reporting for the Grant Funds.

2.) Grantee must identify cash and in-kind contributions to the Cost Share Amount in separate columns in its financial reports to Grantor.

3.) Grantee shall maintain during the Project Period an itemized list of in-kind contributions to the Cost Share Amount. Grantee shall make such list available to Grantor for review upon request.

J. Modification of Cost Share Guidelines: Grantor may revise the Cost Share Guidelines from time to time. Any changes to the Cost Share Guidelines shall be effective upon delivery of written notice to Grantee and shall apply prospectively.

Appendix E

Third Frontier Grant Programs

Information Related to Joint Use Agreements (JUA)

FY 2009 – FY 2010 Capital Bill (Am. Sub. H.B. 562)
Extract regarding Joint Use Agreements

"**SECTION 233.60.50.** (A) No capital improvement appropriations made in sections of this act prefixed with the section number "233" shall be released for planning or for improvement, renovation, construction, or acquisition of capital facilities if the institution of higher education or the state does not own the real property on which the capital facilities are or will be located. This restriction does not apply in any of the following circumstances:

(1) The institution has a long-term (at least fifteen years) lease of, or other interest (such as an easement) in, the real property.

(2) The Board of Regents certifies to the Controlling Board that undue delay will occur if planning does not proceed while the property or property interest acquisition process continues. In this case, funds may be released upon approval of the Controlling Board to pay for planning through the development of schematic drawings only.

(3) In the case of an appropriation for capital facilities that, because of their unique nature or location, will be owned or will be part of facilities owned by a separate nonprofit organization or public body and will be made available to the institution of higher education for its use, the nonprofit organization or public body either owns or has a long-term (at least fifteen years) lease of the real property or other capital facility to be improved, renovated, constructed, or acquired and has entered into a joint or cooperative use agreement with the institution of higher education that meets the requirements of division (C) of this section.

(B) Any foregoing appropriations that require cooperation between a technical college and a branch campus of a university may be released by the Controlling Board upon recommendation by the Board of Regents that the facilities proposed by the institutions are:

(1) The result of a joint planning effort by the university and the technical college, satisfactory to the Board of Regents;

(2) Facilities that will meet the needs of the region in terms of technical and general education, taking into consideration the totality of facilities that will be available after the completion of the projects;

(3) Planned to permit maximum joint use by the university and technical college of the totality of facilities that will be available upon their completion; and

(4) To be located on or adjacent to the branch campus of the university.

(C) The Board of Regents shall adopt rules regarding the release of moneys from all the foregoing appropriations for capital facilities for all state-supported or state-assisted institutions of higher education. In the case of capital facilities referred to in division (A)(3) of this section, the joint or cooperative use agreements shall include, as a minimum, provisions that:

(1) Specify the extent and nature of that joint or cooperative use, extending for not fewer than fifteen years, with the value of such use or right to use to be, as is determined by the parties and approved by the Board of Regents, reasonably related to the amount of the appropriations;

(2) Provide for pro rata reimbursement to the state should the arrangement for joint or cooperative use be terminated;

(3) Provide that procedures to be followed during the capital improvement process will comply with appropriate applicable state statutes and rules, including the provisions of this act; and

(4) Provide for payment or reimbursement to the institution of its administrative costs incurred as a result of the facilities project, not to exceed 1.5 per cent of the appropriated amount.

(D) Upon the recommendation of the Board of Regents, the Controlling Board may approve the transfer of appropriations for projects requiring cooperation between institutions from one institution to another institution with the approval of both institutions.

(E) Notwithstanding section 127.14 of the Revised Code, the Controlling Board, upon the recommendation of the Board of Regents, may transfer amounts appropriated to the Board of Regents to accounts of state-supported or state-assisted institutions created for that same purpose.”

JOINT USE AGREEMENT ANALYSIS

Institutions Involved _____

Project Title _____

Capital Bill _____ Item _____

_____ 1. Is the amount of the grant specified?

_____ 2. Is the facility to be built/improved identified specifically by address or location?

_____ 3. Does the non-profit organization now own the property/equipment or have a long term lease? If not, who does and when will the non-profit control the property/equipment?

_____ 4. Does the agreement provide for use of the facility/equipment by the institution of higher education for at least 15 years from the time that it is ready for occupancy and what is the nature of that use?

_____ 5. If the agreement is terminated, is there a pro rata reimbursement clause? Is the reimbursement formula correct?

_____ 6. Will funds be used only for capital improvements and not operating costs?

_____ 7. Will the non-profit hold the institution harmless for all operation/maintenance costs?

_____ 8. Will the non-profit comply with federal, state and local laws and rules?

_____ 9. Is the non-profit required to competitively bid as outlined generally in ORC Chapter 153 (published ads, sealed bids, public opening, award to lowest responsive and responsible bidder, etc.) and is Chapter 153 referenced by name?

_____ 10. Does the contract provide for a 1.5% administrative fee for the institution?

_____ 11. Does the agreement require that amendments be approved by the Board of Regents?

_____ 12. Is a drawdown schedule or payment procedure included?

_____ 13. Are the extent and nature of spaces/equipment and uses adequately described?

_____ 14. Are the terms and conditions of use of the facility/equipment described?

_____ 15. Has the institution demonstrated that the value of the use of the facility/equipment is reasonably related to the amount of the appropriation? (See attached worksheet.)

_____ 16. Is the facility/equipment insured?

Joint Use Agreement Worksheet

The Ohio Board of Regents

April 2005

Direction: The purpose of this worksheet is to enable a campus to demonstrate how the value of the uses that will be derived from a Joint Use Agreement is reasonably related to the value of the state capital appropriation made to the partner entity. Section I is to be filled out by the staff of the Board of Regents. Sections II and III are to be filled out by the partner campus.

Example: A campus wishes to enter into a Joint Use Agreement with a 501(C)(3) entity for a state appropriation of $5,000,000. The annual debt service paid by the state on this appropriation is about $390,000 per year, for 20 years. To demonstrate that the value of the uses of the facility is reasonably related to the state appropriation, the sum of the campus' educational uses of the facility should roughly equal $390,000 per year for 20 years.

Section I: State appropriation information.

1. Amount of state appropriation provided: $_____
2. Estimated annual debt service on the appropriation: $_____
3. Term of the state bond, in years: _____

Section II: Estimated value of use of the facility.

Use(s) of the facility*	Annual value of use	# of years
a._____	$_____	_____
b._____	$_____	_____
c._____	$_____	_____
d._____	$_____	_____
e._____	$_____	_____
f._____	$_____	_____

(* List additional uses on separate page as needed.)

Section III. On a separate page, explain how each use listed in Section II was valued for this analysis.

GUIDELINES FOR DETERMINING PRIVATE BUSINESS USE
and
INSTRUCTIONS FOR COMPLETING THE PRIVATE BUSINESS USE REPORT

Guidelines for Determining "Private Business Use"

Private business use can involve the use of space or facilities or a program by:

- A private for-profit business
- A natural person
- A private nonprofit organization (501(c)(3) or otherwise)
- An agency or instrumentality of the federal government

For this purpose, the above users are referred to as "private users". Private users do *not* include state or local governmental units, or any private person acting solely and directly as an officer or employee of or on behalf of the academic institution or another governmental unit.

Private business use exists when there is direct or indirect use by one or more private users in a manner or on a basis different than normal use of that space or facility or program by the general public (general public includes students, faculty and staff).

In the case of renovations, expansions or improvements of existing space, the use of the facility or space as renovated, expanded or improved is the issue. In the case of site improvements and equipment, the use of the space or facility(ies) to be served by those improvements or equipment, as well as the use of the financed improvements themselves, are to be considered. In reviewing for possible private business use, all uses (except general public use) of a financed project and any portions of the project are to be considered.

Private business use exists if there is, or the Institution expects or intends that there will be, an oral or written understanding, arrangement, agreement or contract under which any of the following apply:

- The private user will be a lessee, tenant or user of space or facilities (other than as a member of the general public).
- The private user will manage the space or facility, or use or operations of the space or facility. (There are detailed IRS "management contract" regulations that apply.)
- The private user is entitled to a portion of the output or services of operations of the space or facility, and the general public is not entitled to a portion of the output or services on the same basis.
- The facility is so situated that it is useful only or predominantly to one or a few private users or to their customers, clients or business visitors.

AND

The private user pays, directly or indirectly, for use of the space or facility. Direct or indirect payments to or on behalf of an Institution that meet this "payment test" includes *any* of the following:

- Rent
- A share of receipts from the use
- Donations of money or other items or services in exchange for the use
- Other tangible benefits to or on behalf of the Institution

Instructions for Completing the Private Business Use Report

Before State bond proceeds may be released for a capital project, the attached Private Business Use Report must be completed and filed. A separate Private Business Use Report must be completed for each appropriation line item created in each capital act (or created via a transfer of appropriation authority). Just one copy need be submitted. Regents and OBM will not approve a Controlling Board request unless a Private Business Use Report has been submitted for the particular appropriation line item/capital act.

The report should be completed in the context of the financed project only. A project may involve one or more of the following:

- Building or adding new space
- Renovating or reconfiguring existing space
- General improvements (interior or exterior) that do not alter existing space but which benefit or serve that space (such as a new roof, HVAC system, utility line serving the facility, communications/computer wiring)
- Site improvements (such as land clearance, landscaping, sidewalks, parking)
- Equipment.

<u>Please follow these steps to complete each Private Business Use Report:</u>

1/ Enter name of institution, project title, appropriation act and line item numbers, appropriation amount and the total project amount.

2/ <u>Briefly</u> describe the financed project/facility. Generally, the same phrasing of project scope in a program plan or budget request can be used.

3/ Determine if there will be or will not be “private business use” in or of the financed project/facility, and check the appropriate line. If you check WILL BE, the reverse side of the report must be completed.

4/ Review the certification for accuracy and institutional understanding, and sign and date it.

Reverse Side of Private Business Use Report

The reverse side of the Report seeks information as to how the facility or improvement being financed will be used when the project is completed.

Column

(1) Lists a number of potential private business uses. Write in other uses on additional lines provided.

(2) Check each of the reasonably anticipated "private business uses". It is understood that uses may change in the future; this Report is designed to measure your honest, reasonable expectations as to the intended use of the financed facilities or space served.

(3) Provide an estimate of the portion of the cost of the financed project/facility that is allocable to the particular private business use.

(4) State the approximate net assignable square feet set aside for or assignable to the private business use. Measuring space should follow procedures similar to those used for the Board of Regents Uniform Information System reporting. Specific space may be allocable to more than one use during particular time periods (day, week or month, or summer months only). In such cases, the prorating of use between private and public uses can be estimated as in other space reporting procedures. One manner of calculating the amount of space to enter in column 4 in the case of multi-use space is to divide the total time used for private purposes by the total time used for all purposes.

(5) Indicate the nature of the private business use arrangement and identify any direct or indirect payment made or to be made by the private user. Elaborate on an attachment if necessary.

(6) State the total of the estimated costs allocable to private business use.

(7) State the total of the square feet in private business use.

(8) State the total square feet in the entire financed area or facility.

REPORT OF ANY PRIVATE BUSINESS USE OF CAPITAL FACILITIES FINANCED WITH STATE HIGHER EDUCATION BOND PROCEEDS

This report must be submitted to the Board of Regents concurrently with the first Controlling board release request for each appropriation line item enacted in each capital act (or created via a transfer of appropriation authority).

1/

INSTITUTION:
PROJECT TITLE:
APPROPRIATION ACT: **APPROPRIATION LINE ITEM:**
APPROPRIATION AMOUNT: **TOTAL PROJECT AMOUNT:**

2/

Briefly describe the financed project/facility:

3/

Based upon review of the guidelines for determining private business use of facilities financed with State higher education bond funds, there

_____ WILL BE _____ WILL NOT BE

private business use in or of the project.

NOTE: If there **WILL BE** any private business use in or of the project, complete the reverse side of this form. If there **WILL NOT BE** any private business use, disregard the reverse side.

4/

Complete this report by signing off on the following certifications:

The institution does not intend to sell or otherwise dispose of the financed project or facility, or any part thereof.

None of the State appropriations for the project will be used to make principal or interest payments on, or refund, renew, roll over, retire or replace, any other obligations previously issued by the Institution.

Any expenditures by the Institution that are to be reimbursed from State capital appropriations were made in anticipation of the reimbursement from those appropriations.

To the best of my knowledge, information and belief, all statements and representations in this report (including its reverse side, if applicable) are facts or the expectations of this Institution. Those expectations are reasonable, and there are currently no other facts or circumstances that would or could materially change those statements and representations. The Institution recognizes that those statements and representations will be relied upon by the State for the purposes of its certifications relating to tax exemption of its Bonds as described in certain Treasury Regulations. ***The Institution acknowledges that any change in those facts or expectations may result in different requirements, and that the Board of Regents and OBM should be promptly advised if such changes occur or are anticipated to occur.***

Confirmed By: _____
(Appropriate Institution VP)

_____
Title

Date of Signing: _____

PRIVATE BUSINESS USE REPORT

(Complete Only If Private Business Uses Are Involved)

Indicate below the use of space in the financed facility (in whole or in part) from State bond proceeds. Include space that benefits from or is served by financed improvements to the facility such as utilities, parking or equipment.

POTENTIAL PRIVATE BUSINESS USES (1)	CHECK PRIVATE USES THAT ARE PLANNED (2)	COST OF PROJECT ALLOCATED TO PRIVATE USES (3)	SQUARE FEET IN PRIVATE USE AREA (4)	NATURE OF USE ARRANGEMENT, INCLUDING PAYMENTS, IF ANY (Use separate page if necessary – be sure to describe lease or other payments) (5)
Ad Display Area				
Airport				
Banking/ATM				
Bookstore				
Classrooms				
Concession/News Stand				
Copying/Printing				
Delivery/Shipping				
Dining Room				
Dormitory				
Exercise/Recreation				
Food Court/Cafeteria				
Game Room				
Gymnasium				
Health/Exercise Club				
Hospital				
Hotel/Residences				
Job Training				
Laboratory				
Laundry/Dry-Cleaning				
Library				
Mass Transportation				
Medical Clinic or Office				
Museum				
Office Space				
Post Office				
Publications				
Retail Stores/Shops				
Storage				
Telecommunications				
Theater				
Travel Agency				
Vending				
Other (List)				

(6) TOTAL PRIVATE USE COSTS: _____

(7) TOTAL SQUARE FEET IN PRIVATE USE: _____

(8) TOTAL SQUARE FEET IN IMPROVED AREA OR FACILITY: _____