The Third Frontier
Fiscal Year 2006
WRIGHT PROJECTS

Request for Proposals (RFP)

- RFP Released – 9/30/05
- Proposal Conference – 10/21/05, 10:00 AM, at BTC, 1275
- Letters of Intent Due – on or before 5:00 PM on 11/15/05
- Proposals Due – on or before 2:00 PM on 12/15/05 at ODOD Technology Division, 77 South High Street, Columbus, OH 43215
- Review and Award Decision – approximately 2/1/06

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

This Request for Proposal (RFP) is being issued for grants to be awarded under the Third Frontier Wright Projects. The Third Frontier Commission reserves the right to fund any proposal in full or in part, to request additional information to assist in the review process, to require new proposals from interested parties, to reject any or all proposals responding to this RFP, or to re-issue the RFP if it determines that it is in the best interests of the State of Ohio. Issuing this RFP does not bind the State to making an award. The Ohio Department of Development (ODOD) administers the RFP. ODOD reserves the right to adjust the dates for this RFP for whatever reason it deems appropriate.

All costs incurred in preparation of a proposal shall be borne by the applicant. Proposal preparation costs are not recoverable under an award. The State shall not contribute in any way to recovering the costs of proposal preparation.

The funding decisions of the Third Frontier Commission are final. All applicants will be notified in writing of the outcome of their application after the Third Frontier Commission makes its decisions.

If requested, applicants must attend the Third Frontier Commission meeting when proposals are considered for funding and must attend the Controlling Board meeting when their application for funding is heard.

All grant awards will be administered by the ODOD’s Technology Division.

1.1 The Third Frontier Project

The Third Frontier Project (TFP) representing the State’s largest-ever commitment to expanding Ohio’s high-tech research capabilities, promoting technology commercialization, innovation and company formation to create high paying jobs for generations to come. The 10-year, $1.1 billion State of Ohio initiative is designed to:

- Build world-class research facilities;
- Support early stage capital formation and the development of new products;
- Finance advanced manufacturing technologies to help existing industries become more productive.

The Third Frontier Commission administers the TFP and consists of the Director of the ODOD, the Chancellor of the Ohio Board of Regents, and the Science & Technology Advisor to the Governor. In addition, a 16-member Third Frontier Advisory Board of leaders from industry, academia, and government was created to provide guidance to the Third Frontier Commission.
The Third Frontier Commission and Advisory Board developed strategic operating guidelines that provide the framework for awarding grants:

- Support the best the State has to offer, not just regions of the State;
- Anticipate and act on market opportunities;
- Demand strong industry involvement;
- Invest at the intersections of core competency areas;
- Recruit world-class talent and high growth companies;
- Engage regional partners;
- Emphasize accountability and metrics.

These strategic operating principles should be consulted and applied in the formulation of all proposals submitted for TFP awards.

The Commission also made the decision to focus Third Frontier projects in the following priority areas: 1) building world-class applied research capacity; 2) entrepreneurial assistance to accelerate formation and attraction of technology-based businesses; 3) product innovation; and 4) marketing of Ohio’s competitiveness. Further, the Commission decided that Third Frontier Projects should be focused in the Information Technology, Instruments-Controls-Electronics, Biosciences, Advanced Materials, and Power and Propulsion technology areas.

For Fiscal Year 2006, appropriated funds are divided among the following six programs:

1. Biomedical Research and Commercialization Program;
2. Wright Centers of Innovation in Biosciences;
3. Wright Projects;
4. Third Frontier Fuel Cell Program;
5. Pre-Seed Fund Initiative;
6. Ohio Research Commercialization Grant Program.

Information and RFP materials for each program can be obtained at the Third Frontier website: http://www.thirdfrontier.com.

Science and technology activities within the ODOD, the Ohio Board of Regents, and the Ohio Air Quality Development Authority represent a substantial annual investment of State funds for science and technology in addition to TFP funding. Applicants for TFP funding are encouraged to be aware of the resources represented by these programs and to incorporate them into their proposals where appropriate.

Other Ohio programs considered to be complimentary to the Third Frontier activities include: the Thomas Edison Program, Ohio Coal Development Office, Research Incentives, Action Fund, Hayes Investment Fund, Eminent Scholars, Computer Science and Graduate Education, Ohio Aerospace Institute, the Ohio Agricultural Research and Development Center, Ohio Supercomputer Center, Third Frontier Network, OhioLink, and the Third Frontier Industrial Intern program. Applicants are encouraged to use these resources, as appropriate, in their proposals.
1.2 Commercialization Framework

All Third Frontier 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. The ODOD has adopted a technology commercialization framework based on an extensive review of the leading literature on the subject.¹ The framework is depicted in Figure 1.

Figure 1. Technology Commercialization Framework

Key characteristics of the framework include five major phases of commercialization and the transitions that must occur as a technology moves from phase to phase. Within each phase, work must be accomplished to produce the technical and commercial proof or evidence required by the resource providers who may fund the next phase. A description of these phases is presented in figure 2.

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### Figure 2. Summary of Commercialization Phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Technology-Related Activities</th>
<th>Status of Commercial Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IMAGINING</strong></td>
<td>The <em>Imagining Phase</em> begins with the technomarket 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.</td>
<td>During the <em>Imagining Phase</em>, the commercial concept is highly speculative. Often, the concept is only supported by conjecture regarding the potential of the technology and the market opportunity.</td>
</tr>
<tr>
<td><strong>INCUBATING</strong></td>
<td>The <em>Incubating Phase</em> activities focus on defining product performance specifications, and then validating technical capabilities in the context of proposed performance specifications.</td>
<td>During the <em>Incubating Phase</em>, the participants begin to validate the commercial concept primarily through secondary research. Because the commercial concept lacks market confirmation and is still highly speculative, written descriptions of the business are often titled “Commercial Concepts” rather than “Business Plans”.</td>
</tr>
<tr>
<td><strong>DEMONSTRATING</strong></td>
<td>During the <em>Demonstrating Phase</em>, project teams attempt to generate technical proof within a more defined commercial context. Activities focus on product development and market acceptance. Working prototypes, performance to commercial specifications, and manufacturability within defined cost and quality standards characterize the goals on the technical side. On the market side, <em>Demonstrating Phase</em> activities focus on generating evidence that customers will buy the product.</td>
<td>During the <em>Demonstrating Phase</em>, participants focus on generating data regarding market acceptance – that customers will buy the product at or near the price required by the business plan. Participants then use the characteristics of the product / prototype and the market-generated data to create a business plan that defines the commercial opportunity.</td>
</tr>
<tr>
<td><strong>MARKET ENTRY</strong></td>
<td>In the <em>Market Entry Phase</em>, participants enter the market to validate the commercial opportunity. Activities are those typically associated with an ongoing business – production, service, distribution, sales and marketing. The technology is embedded in a product or service and the opportunity has attracted the resources necessary to expand marketing, sales, and service.</td>
<td>In the <em>Market Entry Phase</em>, the opportunity is generating direct feedback from the market, measured in terms of sales, revenue, margins and growth.</td>
</tr>
<tr>
<td><strong>GROWTH &amp; SUSTAINABILITY</strong></td>
<td>The <em>Growth &amp; Sustainability Phase</em> involves the execution of a comprehensive business plan to increase market share and/or total revenue and profit in context of a self-sustaining business.</td>
<td>In the <em>Growth &amp; Sustainability Phase</em>, the goals, value creation mechanisms and resource providers are those generally associated with a thriving business seeking to identify opportunities for growth and profitability.</td>
</tr>
</tbody>
</table>

Given the multiple phases and non-linear nature of commercialization process, a challenge is to answer the question – “Is progress being made?” To address this critical issue, a measurement system is required. The measurement framework includes three categories of metrics – *Level A Metrics, Level B Metrics, and Level C Metrics*. *Level A Metrics* are synonymous with a Transition. The occurrence of a
Transition (attracting the resources required to engage in the next Phase of commercialization) is the best evidence that a project is successfully progressing towards commercialization.

*Level B Metrics* are tangible evidence that a project is on the path to achieving *Level A Metrics*. As an example, a *Level 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 *Level B Metric* for this project might include the receipt by the project of a term sheet detailing a potential investment, or even a commitment by the venture capital firm to engage in a defined set of diligence-related tasks within a relatively short time period.

*Level 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.

In evaluating proposals, the ODOD will assess the applicant’s integration of the Level A, B, and C Metrics concept into day-to-day project management and into the performance evaluation sections of the proposal. The Commercialization Framework will be discussed at the Bidder’s Conference prior to proposal submission. Post-award, the ODOD will conduct a series of meetings to help applicants integrate the metrics framework into their actual project execution. The ODOD, through the grant agreement and the activities of our program administrators, will manage grants and investments in accordance with an agreed set of A, B, and C metrics.

A more extensive discussion of the Commercialization Framework is found on the Third Frontier web site at www.thirdfrontier.com.

# Specific Wright Project Proposal Information

## Wright Project Purposes and Background

A major goal of Ohio’s Third Frontier Project is to build strong research capabilities within the State’s colleges and universities that support the needs of Ohio industry. The Wright Projects (WP) initiative supports this goal by offering grants to provide capital equipment that will benefit an entrepreneurial and commercial purpose in the short-term and, in the longer-term, will help build research and educational capabilities that contribute to the State’s colleges and universities and other non-profit research institutions being positioned to support industrial research and development needs. The WP is intended to support commercialization collaborations involving Ohio universities and colleges, other non-profit research institutions, and Ohio companies. Collaborations are to be formed to further the near-term commercialization of specific or platform technology or capability with significant, defined market opportunities in the areas of:

- Information Technology;
• Power and Propulsion;
• Advanced Materials;
• Instruments, Controls, and Electronics.

The 2006 Wright Project cycle marks the fourth year for the program. To date, 15 project awards have been made totaling more than $25 million. Projects have been awarded to a broad cross-section of organizations and all technology areas. Projects have ranged from establishing a Prototyping Center for Fuel Cell Development at Stark State to a project on Long Fiber Thermoplastics with the National Composite Center. WP funding has also been used to enhance the Third Frontier Network through expansion of the Platform Lab headquartered at the Business Technology Center, an Edison Incubator. All the projects merge near-term commercialization activities with for-profit Ohio companies with long-term capacity building at colleges, universities, and other non-profit research institutions.

This 2006 Request for Proposal differs from the 2005 in the following ways.

• There is no longer a category of projects being specifically reserved to expand the Third Frontier Network. Projects of this nature are eligible but will be evaluated against all other proposals received.

• If a Joint Use Agreements between the applicant and an Ohio university or college is required, the document must be ready for signature and included in the applicant’s proposal.

• ODOD and its evaluators may conduct site visits prior to final selection recommendations are made. Such site visits would likely focus on the commercialization activities and be held at the commercial partner’s physical location.

• Prior WP awards are not eligible to apply for $100,000 in operating funds, as was the case in the 2005 competition.

• An Intellectual Property Disposition Plan is not required for the proposal, although the proposal should indicate that the applicant and collaborators are aware of the need to manage intellectual property that may result from this award.

• WP programs are expected to result in commercial market entry within three years of project award.

2.2 Wright Project Objectives

The goals of the Wright Projects are:

• To make Ohio the national and international leader in how colleges and universities support the commercialization needs of companies in the State.

• To make Ohio a model that others follow with respect to providing capital to its colleges and universities for use in commercial, research, and educational areas.

The specific objectives of the Wright Projects are as follows:
• To support major capital acquisitions and improvements at an Ohio college or university or not-for-profit research organization to support specifically defined near-term commercialization objectives of one or more Ohio for-profit companies;

• To support programs that will achieve commercial market entry within three years of the project award;

• To support projects that will create wealth and employment opportunities within Ohio;

• To support long-term use of the capital to enhance other applied research, development, and demonstration (RD&D) programs, or education and training programs for technical workers in the targeted technology areas.

In addition, it is desirable for projects to support further deployment and investment of Ohio’s unique IT infrastructure including OhioLINK, the Third Frontier Network, and the Ohio Supercomputer Center.

The commercialization projects included in the proposals should be mature enough to expect demonstrations of commercial market products or processes within a three-year time period. Hence, the commercialization projects should already have well-established proof of principle, prototypes, and business cases at the time of proposal submittal.

ODOD will consider a project successful if the for-profit commercialization collaborator is able to demonstrate a market ready product or process at the end of the project and has been able to secure the commitment for the resources needed to conduct the market entry stage of the commercialization process. Another dimension of success is whether the project team has a plan for sustainable programs that will use the capital equipment for building additional research and education capacity at an Ohio college or university without further investment from ODOD or other Third Frontier aligned organizations.

2.3 Qualifying Subject Matter for Proposal

Proposals are solicited for any technology related to advanced materials, information technology, instruments-controls-electronics, and power and propulsion. Proposals focused on technologies at the intersection of the four main areas are desired. Biomedical technologies are not eligible for the WP. There are other Third Frontier program areas for which biomedical is the focal point.

The long-term use of the capital equipment by the state supported college and university or not-for-profit organization can be for education and training purposes, for furthering college or university research capacity building that is designed to support defined industry needs, or to serve other for-profit companies with their research, product development, and commercialization needs.

2.4 Organizational Eligibility and Collaborations

Application for funding under this RFP must be made by a single eligible organization designated as the Lead Organization. The Lead Organization must be an
Ohio state-supported or state-assisted institution of higher education, or a nonprofit Ohio corporation or a public body that has a valid federal tax identification number and is located in Ohio or has a principal place of business in Ohio. (See Appendix B-Definitions) The Lead Organization will be legally and financially responsible for the conduct of activities supported by the award. In signing-off on the proposal, the Lead Organization is certifying that the required cost share will be provided and that the Lead Organization will be accountable both for the appropriate use of any funds awarded and for the performance of the award-supported project activities. The Lead Organization may be liable for the reimbursement of funds associated with non-performance and any inappropriate or fraudulent conduct associated with award-supported activities. The Lead Organization may not participate as the Lead Organization for more than 2 proposals. There is no limit to the number of proposals that a Lead Organization may participate in as a collaborator.

An eligible applicant must have established high-quality research and commercialization programs and expertise related to one of the four technology areas. The quality of the program(s) must be evidenced by funding awarded through peer-reviewed competition such as those held by nationally competitive federal funding agencies, non-federal funding sources including industry, through publications in refereed journals, patents and intellectual property or other evidence of research/commercialization excellence.

The project must involve at least one Ohio state-supported or state-assisted institution of higher education as the applicant or as a collaborator and at least one private company having a principal place of business in Ohio as a collaborator. All collaborators must submit a letter indicating their agreement to participate and the terms of their participation as well as sign a collaborator form. A Collaborating Organization is an entity that is receiving a sub-award from the Lead Organization, providing cost share to the project, or both.

An out-of-state firm may be the private company but it must pledge, at the time of proposal submittal, to establish a principal place of business in Ohio within six months of project award notification and before any costs are incurred or invoiced.

The Lead Organization must maintain its eligibility throughout the grant period or forfeit the remaining grant funds and repay the grant, plus interest.

### 2.5 Funding and Cost Share

Up to $10.7 million ($10 million in capital funding and $700,000 in operating funds) is available for award through this RFP. It is expected that projects will receive capital funding at a level of $1,000,000 to $2,000,000 for support of programs spanning up to three years. Additionally, a maximum of $100,000 will be awarded in operating funds per project. The capital 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 nonprofit 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 with a collaborating
Ohio state-supported or state-assisted institution of higher education. The Joint Use Agreement must be completed at the time of the proposal submittal and contain the elements set forth in ORC Section 3333-1-03, contained in this RFP as Appendix C to the RFP package posted on the Third Frontier website.

In no case can capital assets acquired with funds awarded through this RFP be owned by a for-profit entity.

The applicant must have obtained cost share with a monetary value of at least one dollar for every one dollar of state funds awarded. State sources of cost share are permitted, as are in-kind contributions. However, proposals having a higher proportion of cash and non-state sources of cost share of any kind are preferred. The required cost share must be committed by the Lead Organization and Collaborator Organizations at the time the proposal is submitted. Letters of commitment submitted with the proposal must evidence cost share committed by collaborator organizations. In the evaluation of proposals, the amount of committed resources will be taken into account. No credit will be given in the evaluation process for commitments of cost share having no associated letter of commitment or missing any of the required information.

Proposals submitting cost share above the one-to-one ratio will be required to deliver that cost share ratio regardless of the final amount of the Grant. In no case will the proposed cost share ratio be reduced.

### 2.6 Term of the Agreement

The WP awards will be established with a period of performance of up to three years with a three-year reporting period starting after completion of the period of performance.

### 2.7 Minimum Reporting Requirements

The successful applicants will be expected to adhere to certain mandatory reporting requirements. The WP require quarterly progress reports that accompany invoices, annual reports, annual site visits, final report, and annual reports of progress for a period of three years after completion of the grant activities. Additionally, the grantees will be expected to utilize the ODOD Subgrant Performance Evaluation System (SPES) to submit timely information on the status of their metrics and to advise ODOD of success stories and other accomplishments of the project. Training on the use of this web based reporting system will be provided to the award winners.

### 2.8 Other Wright Project Requirements

The applicant is required to complete and submit with their proposal a Joint Use Agreement for capital that complies with the requirements of ORC Sections 3333-1-03.

Should any proposal involve human embryos they will be considered for funding only if the research adheres to the criteria announced by President Bush on August 9, 2001. State funds may be used for research on existing human embryonic stem cell
lines as long as prior to the President’s announcement the derivation process had already been initiated and the embryo from which the stem cell line was derived no longer had the possibility of development as a human being. To facilitate this type of research and ensure compliance, the National Institute of Health has created a Human Embryonic Stem Cell Registry that lists the human embryonic stem cells that meet the eligibility criteria. Requests for funding involving human embryo research must cite a human embryonic stem cell line that is listed on the NIH Registry.

In accordance with ORC 2919.14, funds cannot be used for research involving tissue obtained from aborted fetuses. Additionally, following the intent of a March 4, 1997 Presidential Memorandum, State funds will not be used for cloning of human beings.

Grantees selected for award will be asked to sign a grant agreement in which the Grantee must affirmatively covenant that it does not owe: (1) any delinquent taxes to the State of Ohio (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.

The grant agreement will further require the Grantee to comply with all applicable federal, state, and local laws in the performance of the Project. Grantee 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 Grantee on the performance of the work authorized by this Agreement.

3 General Proposal Requirements

3.1 The RFP Process

The RFP process will consist of the following steps:

- Release of RFP
- Bidder’s Conference (optional attendance)
- Submittal of Letter of Intent
- Written Q&A
- Submittal of proposals
- Review and evaluation of proposals
- Recommendation of award winners
- Grant preparation
- Grant award

Each of these steps will be discussed below.
3.1.1 Release of RFP

All RFP’s covering Third Frontier Programs will be published on the Third Frontier web site (www.thirdfrontier.com). Applicants must comply with all requirements stated in the RFP. Applicants are advised that there will be no opportunity to correct mistakes or deficiencies in their proposal after the proposal submission deadline. It is solely the responsibility of the applicant to ensure its proposal is complete, accurate, responsive to the requirements, and received on time. Proposals not complying with the requirements of the RFP may not be reviewed.

3.1.2 Proposal Conference (Optional)

A Proposal Conference will be held regarding this RFP. Attendance is encouraged but is not mandatory. The Conference will include a presentation by ODOD covering the intent and purpose of the RFP, the requirements of the RFP, and the evaluation process that will be used to determine awardees. Potential applicants will be given the opportunity to submit written questions to ODOD staff who will provide answers the day of the Conference. All substantive questions and answers at the conference will be posted on the Third Frontier web site under the Frequently Asked Questions section.

3.1.3 Letter of Intent

Prospective applicants must submit a letter stating their intent to submit a full proposal. The Letter of Intent (LOI) must include the following information: the prospective applicant’s name, legal structure of the applicant organization, address, phone number, contact person, e-mail address for the contact, proposed project title, expected collaborators, and a brief description (250 word maximum) of the proposed project. Submitting an LOI does not bind the prospective applicant to submitting a proposal. However, no proposal will be reviewed unless an LOI has been submitted by the deadline for LOIs. Applicants may not materially change the subject matter of their proposal but they may change collaborators and the description of the actual project proposed may show some variations from that included in the LOI.

Prospective applicants submitting LOIs will be issued an identification number for the proposed project named in the RFP. The identification number must appear on the application Information Page of the proposal.

The LOI must be submitted by e-mail and received before the deadline. The e-mail should be addressed to 2006_WrightProject_RFP@odod.state.oh.us and use “2006 Wright Project RFP LOI” in the subject line.

3.1.4 Questions and Answers

All questions regarding interpretations of this RFP must be submitted in writing via e-mail. Substantive questions and answers will be posted in a Frequently Asked Questions section at the Third Frontier web site (www.thirdfrontier.com). Questions should be sent to 2006_WrightProject_RFP@odod.state.oh.us. Use “Wright Project RFP Q&A” as the subject line. ODOD reserves the right to edit questions to provide brevity, clarity, and to cover the same general question from several potential
applicants. ODOD will not answer individual questions or discuss the RFP with individual potential applicants once the RFP is released.

### 3.1.5 Proposal

It is the responsibility of applicants to ensure that their proposals are received at the specified location by the submission date and time. Late proposals will not be reviewed. Further, applicants must ensure that proposals submitted in response to this RFP comply with all the requirements set forth in the RFP. Proposers 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 and 3 and use the forms presented in the Appendix A to this RFP. Proposals that do not include the required components may be returned to the applicant without review. No supplementary or revised materials will be accepted after the scheduled date for submission unless specifically requested by the ODOD. Decisions may be made solely on the basis of content of the proposals.

### 3.1.6 Evaluation

All proposals will be subjected to an Administrative Review where the proposals will be reviewed with respect to compliance with RFP requirements. Proposals found not to comply with the RFP requirements may not be reviewed. ODOD will use external reviewers to read, evaluate, and score the proposals. The external reviewers will score the proposals based on the evaluation criteria discussed in Section 4.0. External reviewers may recommend a competitive range be established and a second level of review be performed in which the risks and benefits are more thoroughly assessed. The second level review may involve submitting questions to the applicants that must be answered and may involve site visits to verify certain information and obtain a deeper understanding of the applicant’s proposal.

External reviewers will implement a process to identify potential conflicts of interest on the part of both individual reviewers and the organization and to implement ways to avoid and mitigate such conflicts. External reviewers will also be required to sign a non-disclosure agreement with ODOD covering all information received by them during the course of the proposal evaluation process.

External reviewers will create a rank ordered list of proposals based on how well they score, prepare a written set of comments about each proposal, and brief the ODOD staff about the risks and benefits of each proposal.

### 3.1.7 Recommendations, Decision, and Approvals

Based on the evaluation, a rank ordered list of the proposals will be prepared and forwarded to the Third Frontier Commission. A proposal must be included on the list to be considered for funding. The Third Frontier Commission shall take into account the evaluations made during the review process, the staff recommendations, and shall exercise its independent judgment in making its selection. The funding decisions of the Commission are final. If requested, applicants must attend the Third Frontier Commission meeting when proposals are considered for funding.
All applicants will be notified in writing of the outcome of their application after the Third Frontier Commission makes its decisions.

### 3.1.8 Finalize Grant Agreement

Following selection by the Commission and approval by Controlling Board, ODOD and the applicant will finalize the final terms of the grant award. The process may require changes to the proposal and budget due to evaluation findings, funding changes, or other reasons.

### 3.1.9 Award

A Grant Award will be issued following execution of the Grant Agreement that will include the agreed upon statement of work, budget, and any conditions set forth by the Third Frontier Commission. The Grant will remain open for the duration of the project plus a three-year reporting period when annual reports are required.

Grantees are expected to complete the project as described in the statement of work or as amended. ODOD will assign a Project Administrator who will work with the Grantee throughout the duration of the project. Together with ODOD management, the Project Administrator and Grantees will develop a series of performance metrics that will be used to measure progress on the grant. Grantees may be required to utilize the ODOD Subgrantee Performance Evaluation System (SPES) to submit required status and progress reports, invoices, document achievement of milestones, report success stories, and relay other matters of interest to the ODOD.

### 3.2 Proposal Process Schedule

The following dates and times constitute the schedule for the WP proposal process:

- **Release of RFP**—September 30, 2005
- **Optional Bidder’s Conference**—October 21, 2005 at 10:00 a.m. at the Business Technology Center, 1275 Kinnear Rd, Columbus, OH
- **Submittals of Letters of Intent**—November 15, 2005
- **Written Q&A**—September 30, 2005 through December 8, 2005
- **Submittals of proposals**—December 15, 2005 at 2:00 P.M.
- **Review and evaluation of proposals**—December 15, 2005 through February 28, 2006
- **Recommendation of award winners**—approximately March 1, 2006
- **Grant award**—approximately April 30, 2006
3.3 Proposal Format Content

3.3.1 General Instructions

The following general instructions must be followed.

- Submit Letter of Intent and receive a Letter of Intent Number from ODOD
- Submit separate proposals for each proposed project
- Proposals must be submitted in the following manner:
  - One original paper copy marked as “Original” and four additional paper copies marked “Copy” and two CDs each containing a PDF and a WORD compatible file of the proposal
- Proposals must be mailed or delivered to the following address to be received not later than the Proposal Due Date and Time

Ohio Department of Development
Technology Division
77 South High Street
25th Floor
Columbus, OH 43215
Attention: Wright Projects

- 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
- Font must be 10 point or larger with no more than 12 characters per inch or 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, applicant name, and Letter of Intent number must appear at the bottom of each page, acronyms may be used
- 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 other than the Application Information Page
- Proposals must be stapled once in the upper left hand corner and must not be bound.
3.3.2 Order of Proposal Sections, Content, and Page Limitations

3.3.2.1 Applicant Information Page

The first page of the proposal must be the completed Applicant Information Form.

3.3.2.2 Trade Secret Information

This section of the proposal must disclose any Trade Secret Information included in
the proposal. Follow the instructions in Section 3.4 of the RFP.

3.3.2.3 Applicant and Collaborator Information Forms

Complete and include the Applicant Contact Information form. Refer to the
definitions for an explanation of each position for which information is requested.
One individual may serve in more than one capacity.

Complete and include the Collaborator Information Form for each Collaborator.
Letters of Collaboration should appear in an Appendix to your proposal. The
collaborator commitment letter must:

- Be submitted on the letterhead of the collaborator organization;
- Include the name of the Lead Organization and the name of the project;
- 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 project;
- Be dated and signed by someone with the authority to commit to the
  collaboration;
- Collaborators who are also committing cost share must include the following
  additional information;
  - State the amount of the commitment
  - State the source of the commitment
  - State when the committed resources will be available to the project
  - Be dated and signed by someone with the authority to make the cost
    share commitment.

3.3.2.4 Abstract

Prepare an abstract of not more than 500 words that summarizes the proposed project
and its expected commercial and technical outcomes. The Abstract should minimize
use of jargon and technical language and be written so that a non-technical person
can understand it. The Abstract may be used, in whole or part, in public documents
including press releases. The Abstract may not contain any Trade Secret information.
3.3.2.5 Table of Contents

Prepare a Table of Contents with detail for three levels of headings in your proposal. The Table of Content should also include a listing and page number for Charts, Figures, and Tables.

3.3.2.6 Proposal Narrative

This section of the proposal is limited to 20 pages. Any narrative beyond the page limit 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 Narrative will count toward the total page limit. Referral to web-based information to augment the Narrative is not permitted and such references will not be used in the evaluation.

The Narrative Section should address all the following items in the order presented.

- Understanding the Program Intent. This section should demonstrate that the applicant understands the purposes of the Third Frontier Program, the specific role fulfilled by the Wright Projects, and how the proposed project is consistent with these purposes. The applicant should address the relationship between short-term product and process commercialization and the longer-term use of capital assets being proposed. The applicant should ensure that the proposal is responsive to the long-term purposes of the Third Frontier and its programs.

- Problem Statement. This section should 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 the program intent. Evidence that the applicant understands the eventual customer needs and performance requirements is desired.

- Project Goals and Objectives. This section should clearly state the goals and objectives of the proposed project. The goals should relate to the commercialization and economic purposes of the project and to other long-term goals beneficial to Ohio. The objectives should be related to the activities that will be performed and how they provide the evidence and proof needed to carry the technology forward into the next phases of commercialization. The objectives should be consistent with the Level A, Level B, and Level C metrics discussed in Section 1.2 and at the Third Frontier web site (www.thirdfrontier.com).

- Technical Approach. This section of the proposal should discuss the overall rationale, framework and flow of activities that are proposed to address the challenges and meet the project’s goals and objectives. Important techniques, 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 project should be identified as well as significant risk factors.

- Work Plan. This section of the proposal should identify all the tasks and activities, including operational activities and capital acquisition, which will be performed. The tasks should be described in terms of their specific
objectives, approach, resources and outcomes. The Work Plan should be
detailed enough to provide a clear indication of how progress will be made.
The tasks within the Work Plan should also appear on the Schedule and in
the Budget.

- Project Capital Equipment and Construction. This section of the proposal
should describe any facilities that will be built and equipment that will be
acquired through the proposed WP. The description should include an
identification of specific equipment and facilities, how they will be used, and
an assessment of their availability elsewhere within an Ohio state-supported
or state-assisted institution of higher education.

- Deliverables. This section should identify the deliverables from the proposed
project. Deliverables will include mandatory reporting required by ODOD as
well as other deliverables that the applicant deems significant for measuring
progress.

- Schedule. The proposal should contain a schedule that graphically displays
the duration of tasks, interactions between the tasks, and the timing of
deliverables. The schedule should be based on weeks or months from
authorization to proceed, rather than any firm, fixed starting date. Capital
equipment and construction schedules should be included in this schedule.

- Management Plan. The Management Plan must identify the Project Manager
and other key individuals who will be assigned to this project and their roles
and responsibilities. A short, one paragraph description summarizing the
technical and commercialization capabilities of the Project Manager and
other key staff should be included. The Plan should address how the team
will monitor and maintain progress, control quality, resolve problems, and
obtain advice on key decisions about the technical and commercial
dimensions of the project.

3.3.2.7 Commercialization Strategy

This section of the proposal is limited to 5 pages. Any Commercialization Strategy
beyond the page limit 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 Commercialization Strategy
will count toward the total page limit. Referral to web-based information to augment
the Commercialization Strategy is not permitted and will not be used in the
evaluation.

The proposal must contain a section addressing the approach for commercializing the
technology-based product(s) proposed as the near-term commercialization focus of
the Wright Project proposed. The commercialization plan must be related to the
ODOD Commercialization Framework. Applicants must identify the position of the
technology(ies) relative to the five phases of the commercialization strategy. It must
identify the magnitude of resources required to complete the current phase and what
resource providers typically provide financial resources for this stage of
commercialization. It must identify the steps required to generate the technical and
commercial proof needed to acquire resources to transition to the next phase of
commercialization. The applicant must estimate the resources required for the next
stage and who are the likely resource providers. ODOD will use the information
about resources required for transitions through the commercialization framework to validate the Level A metrics that will be used to evaluate the success of the project. That is, a primary measure of project success will be whether the applicant is able to secure adequate additional resources to move the technology through the commercialization framework.

This Commercialization Strategy section of the proposal should address the business model that the applicant and/or commercial collaborator intend to implement to bring the technology or technologies to the market. The role of the applicant and collaborators with respect to implementing the mature business model must be described. The proposal should assess the applicants and team’s current strengths and weaknesses relative to commercializing the technology and indicate how the weaknesses will be overcome.

The Commercialization Plan should also include information about intellectual property management and how the applicant and collaborators intend to establish IP ownership, protection, and maintenance. A full Intellectual Property Disposition Plan is not required but applicants must demonstrate an understanding of the key issues and how they plan to deal with them.

The proposal should also include an assessment of the market, specific applications and potential customers, competition, competing products, and a realistic assumption about the market share that the applicant could potentially capture.

### 3.3.2.8 Projected Economic Impacts

This Project Economic Impacts section of the proposal is limited to no more than 5 pages.

The applicant should estimate the employment, personal income, and product revenues from the commercialization success of the technologies. The proposal should contain a realistic forecast of the direct employment, personal income, and product revenue for two time points—the first being at the completion of the active work on the grant and the second being five years after project initiation, or 2011. The 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 applicant should identify the impacts for each distinct product or product platform that will come from the State investment. The applicant should report only direct impacts—not secondary or tertiary impacts derived from economic models.

The applicant may describe a longer term forecast, in addition to the two points required, if the applicant believes there will be substantial differences in the employment, income, and revenue levels at later periods of time. Again, all methods and assumptions should be disclosed.

### 3.3.2.9 Budget

There is no page limit to the Budget Section of the proposal.
The budget must clearly describe all sources and uses of funds for the proposed project period, which should not exceed three years.

The WP funded portion of the budget 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 nonprofit 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 with the collaborating state-supported or state-assisted institution of higher education. In no case can capital assets acquired with funds awarded through this RFP be owned by a for-profit entity.

In accordance with O.R.C. Chapter 4115, projects involving state funds may require the recipient to pay prevailing wage rates for workers involved in any construction activity. It shall be the responsibility of the recipient of the funds to comply with all prevailing wage requirements. The Ohio Department of Commerce, Division of Labor & Worker Safety, Wage & Hour Bureau will make all determinations on the requirements of paying prevailing wages. If it is determined that prevailing wage rates are to be paid, then pursuant to O.R.C. Section 4115.032, ODOD shall designate a Prevailing Wage Coordinator who shall be vested with all the powers, duties, and responsibilities required by law of Wage Coordinators.

Capital funds awarded through this RFP may not be used for operating expenses of the project. Operating funds are limited to $100,000 per award.

Applicants must use the Budget Forms contained in Appendix A of this RFP and may attach additional explanatory sheets as deemed necessary. The Budget Summary Form is an overall summary of expenses for the entire project, including cost share information. Budget Form A—Distribution of Project Funds to Organizations requires the applicant to present a total budget for all project money allocated among expense items and across performing organizations. Each collaborator, subcontractor, subgrantee, consultant, and other partners receiving more than $10,000 should be represented as a column of Form A.

Budget Form B—Distribution of Project Funds to Tasks requires the applicant to present the budget for each major activity or task of the proposed grant allocated across major expense items and performing organizations. Again, all subcontractors, subgrantees, and consultants receiving more than $10,000 should be show as columns of Form B.

Budget Form C—Personnel Detail for Project Funds, by Task requires the applicant to describe in detail the personnel and fringe expense items shown in Form B for task. Personnel costs should be reported for individuals or for classes of workers. Estimated hours to be spent on the task and the hourly rates should be presented for each individual or class of workers.

Budget Form D—Equipment, Supplies, Travel and Other Detail for Project Funds, by Task should be described.

Budget Form E—Cost Share Funds is a cost share form that requires the applicant to report the sources and kind of cost share by each contributing organization. A Letter
of Commitment on the contributing organizations letterhead and signed by an authorized agent must support each cost share claimed in Form E.

Budget Form F is a schedule of expected cash flow by quarter. State funds and cost share should be estimated for each quarter of the project.

Please note that applicants for TFP funding must identify their requirements for high-performance computing facilities and services, including both hardware and software in their proposals. If an applicant’s requirements exceed approximately $100,000 for a proposed project, the Ohio Supercomputer Center shall convene a panel of experts. The panel shall 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 the Third Frontier Commission. 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 services.

3.3.2.10 Experience and Qualifications

The Experience and Qualifications section for all team members in the proposal is limited to 5 pages of organizational qualifications and biographical information is limited to no more than 10 individuals, including all key personnel.

The proposal must contain a description of relevant organizational experience, capabilities, and facilities and equipment of the applicant and key collaborators. Provide detail sufficient to evaluate whether the applicant and collaborators have the direct experience needed to perform both the technical and commercial work being proposed. The applicant should limit past project experience to activities that have occurred within the past 5 years.

Biographic information of no more than 2 pages must be included for all key personnel up to a total of 10 individuals. Key personnel include individuals at subcontractors and subawardees. The biographical information should present the relevant work history, technical experience, commercialization experience, project management experience, educational attainment, honors and recognitions, and selected publications within the past 5 years that relate directly to the subject matter of the proposed project. If a key position is to be filled upon grant award, please provide either a job description for that position or a description of a candidate to whom the Applicant has made a contingent offer.

3.4 Trade Secrets

Applicants are strongly discouraged from including any information that is considered to be a Trade Secret in your proposal.

All information submitted in response to this RFP is public information unless a statutory exception exists which would thereby determine that the information cannot be released to the public. If you include Trade Secret Information in your proposal you 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 “Trade Secret Information Included” 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 may qualify as Trade Secret Information, please refer to the definition in the Ohio Revised Code Section 1333.61(D):

(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.

Non-disclosure agreements are required of all persons who may have access to proposals containing Trade Secret Information.

4 Evaluation Criteria

Only the most meritorious proposals are sought for funding. Proposals passing the administrative review will be evaluated based on the responsiveness to all the requirements of this RFP and to the evaluation criteria described in the following sections. External reviewers qualified to assess both the technical and commercialization aspects of proposals will evaluate proposals. Evaluation criteria are presented in the order of their relative importance.

4.1 Economic Benefits and Value to the State of Ohio

• What is the potential economic impact of the technology based product and commercializing business to be created by the Wright Project?

• What is the long term potential for the technology being commercialized?

• What are the revenue and employment impacts of the technology based product(s) three years from project initiation?

• What are the revenue and employment impacts of the technology based product(s) five years after finishing the proposed activities?
4.2 Characteristics of Commercialization Project(s)

- What is the adequacy of the business model including estimated capitalization, marketing and sales plans, manufacturing-distribution-customer support plans?

- Has the applicant thoroughly characterized the commercialization project in terms of its phase of commercial development, resources required to commercialize, and an understanding of resource providers and their information needs?

- Does the applicant provide a strong characterization and comparison of the intended technology, application area, and market compared to competing technologies?

- Does the applicant effectively identify key technical and commercial barriers and success factors?

- Does the applicant effectively describe the basis for their sustainable competitive advantage?

- Is the technical work plan adequate for achieving the intended goals and objectives—particularly commercial market entry within three years?

- Does the applicant propose milestones and a schedule that will be effective in determining progress?

4.3 Team Qualifications and Experience

- Does the proposal demonstrate technology know-how, expertise and experience?

- Does the proposal demonstrate that the project team has skills and experience within the team for conducted the needed research and development?

- Does the proposal demonstrate that the project team has commercialization experience and skills relevant to commercializing the proposed technology?

- Are the qualifications of the proposed project manager and other key staff appropriate for the project?

4.4 Long-Term use of Capital Equipment and Facilities

- Does the proposal present a clear and compelling case for the need for the capital equipment beyond the immediate commercialization project?

- What are the long-term benefits of the capital equipment and facilities to the State of Ohio?

- Does the applicant present an adequate long-term management plan for the capital equipment and facilities?
4.5 Match of Proposal to Intent of Wright Projects

- Does the applicant recognize the importance of commercialization goals and objectives as well as the long-term goals of capacity building?
- Is the technological focus of the commercialization project(s) and long-term use of the capital consistent with industrial and technological targets of Ohio?
- Does the proposal integrate technical activities with other Ohio supported science and technology programs and facilities?
- Does the applicant adequately explain why the Wright Project funding is needed and is essential for both the commercial project(s) and long-term use of the capital?

4.6 Budget

- Is the budget and allocation of cost share to operating needs of the project realistic?
- Is the match adequate and is the method of valuing the match appropriate?
- Does the applicant thoroughly explain the need for capital and operating cost items included in the budget?
- Are the letters of commitment, cost share, and budget consistent?

4.7 Qualifications for Long-Term use of Capital

- Does the proposal include a well-designed plan to utilize the capital beyond the immediate commercialization project(s)?
- Does the proposal include a plan for how the applicant will maintain the capital after the Wright Project is completed and State funds are no longer available?
- Does the applicant demonstrate that team members have experience with managing similar capital equipment and facilities?