

## REQUEST FOR APPLICATIONS (RFA)

# Technology Validation Program

### Purpose:

The Technology Validation Program (the “Program”) was created to support the transfer of technology from Maryland’s academic research institutions and federal labs into start-up companies located within the State of Maryland. The intent of the program is to validate both the business opportunity associated with a technology (a “Market Assessment”) and the viability of the technology for that opportunity (a “Technical Assessment”). Ideally, technologies supported by the Program will help companies attract follow-on funding, hire staff, and develop new and useful products.

### Eligibility:

All universities in Maryland, except those participating in the Maryland Innovation Initiative (MII) program (including the Johns Hopkins University [JHU], the University of Maryland College Park [UMCP], the University of Maryland Baltimore [UMB], the University of Maryland Baltimore County [UMBC], and Morgan State University [MSU]), and other non-profit research institutions in Maryland are eligible (an “Eligible Institution”) can apply for funding under the Program.

Companies interested in licensing a technology (but have not yet optioned or licensed the technology) from an Eligible Institution or a federal laboratory are also eligible to apply for funding under the Program.

In all cases, an applicant must also meet the following requirements to be eligible:

- (i) The technology, which is the subject of a proposal (a “Subject Technology”), must be disclosed to the technology transfer office, the office of sponsored research, or administrative equivalent of the Eligible Institution or federal laboratory; and
- (ii) The Eligible Institution or federal laboratory must have secured appropriate intellectual property protection (a patent, patent application, copyright, trademark, or other form of intellectual property) for the Subject Technology.

In the event that an applicant is a company, the applicant must agree to locate any resulting start-up company in Maryland to be eligible. The entrepreneur must also have a letter from the technology transfer office, office of sponsored research, or administrative equivalent confirming that the company is in negotiations to license a Subject Technology from the Eligible Institution.

**Funding Amount:**

TEDCO will make awards up to \$10,000 for Market Assessment projects and up to \$40,000 for Technical Assessment projects.

**Funding Mechanism:**

All Program awards will be made in the form of a grant.

**Program Overview:**

The Technology Validation Program includes two distinct components – a Market Assessment component and a Technical Assessment component. The Market Assessment component supports a market analysis and the development of a Commercialization Plan (defined below) for a technology. Market Assessment awards are made for projects that can be completed in 2 - 3 months.

The Technical Assessment component supports a proof-of-principle study that validates a technology's use for a specific commercial application and advances it to a point where it will be more attractive to a prospective licensee.

**The Market Assessment must be completed before the Technical Assessment.**

**Applying for the Technology Validation Program:**

Applications may be submitted to TEDCO at any time. University applicants must route applications through their grants management office as required by their University's policies and procedures. Completed applications received by the first of each month will be reviewed that same month. The full review process takes approximately 30 days.

All applicants must register and submit proposals using TEDCO's on-line submission system, which can be accessed at <http://tedco.md/program/technology-validation-program/>.

### Application Components:

There are three major components to the Technology Validation Application: (i) a form with the General Application Information, (ii) the Full Proposal, and (iii) a Letter from the Technology Transfer Office confirming that the applicant meets the eligibility criteria for the Program.

The **General Application Information** should be entered directly into the on-line application form and includes:

- A project title (15 words max),
- Project duration (months),
- An abstract of the proposed project (300 words max),
- Project budget (amount requested)
- Indication of 'New' or 'Revised'/(resubmitted) application,
- Type of project (Technology Assessment or Market Assessment), and
- A confirmation that a letter from the technology transfer office, the office of sponsored research, or administrative equivalent is included in the Full Proposal (check box).

A **Full Proposal** must be submitted as a single document in PDF format and it must adhere to the guidelines described below. When creating a budget as part of the Full Proposal, please classify each budget item into one of the following categories: Personnel, Fringe Benefits, Materials & Supplies, Other Direct Costs, and Indirect Costs.

The Letter from the technology transfer office, office of sponsored research, or administrative equivalent confirming that the company is in negotiations to license a Subject Technology from the Eligible Institution should be included as an appendix to the Full Proposal and included in the same PDF file with the Full Proposal so they can be uploaded to the on-line submission system as a single file.

### Full Proposal Guidelines:

Full Proposals must follow the guidelines stated below. Any proposal that does not follow these guidelines will be returned without review.

The Full Proposal may not be more than **5 pages in length for the Market Assessment** or **10 pages in length for the Technical Assessment**. The proposals should be (one-sided) excluding References and Support Letters with at least **one inch margins** and a **12 point font**, and **each page must be numbered**. Each page of the Full Application should have a header including the Applicant's name and the **name of his/her institution**. Applications not meeting these requirements will be rejected and returned after an initial Compliance Review, described below.

*In drafting the Full Proposal, applicants should understand that Technology Validation Program reviewers have technical backgrounds but might not be well-versed in the investigator's scientific discipline; therefore, sufficient background information should be included so that the reviewers can understand the relevance of the Subject Technology within its specific scientific discipline.*

**The Full Proposal should contain the following in the order given below:**

Header Information:

The first page of the Full Proposal must include the **project title**, the **name of the applicant**, and the name of the **applicant's institution** (as applicable) or the **name of the institution owning the Subject Technology** at the top of the page. This information should match the information included in the General Application Information.

Abstract:

An abstract of the Full Proposal should be included. The abstract should be **non-proprietary** in nature. This section may be the same as the abstract required for the General Application Information.

Description of the Technology:

This section should start with a **general description** of the technology with an emphasis on its importance, its degree of novelty, and its potential commercial applications. With respect to its commercial applications, applicants should describe the problem that the technology addresses, the importance of the problem, and why the technology is a better alternative to competing approaches that address the same problem. Next, the applicant should provide a **detailed description** of the technology including a brief survey of competing approaches in the scientific literature and the advantages of the technology in view of the competing approaches. The detailed description should include preliminary data or other convincing evidence that the technology will work as anticipated.

Intellectual Property:

A description of all intellectual property associated with the technology must be included with relevant patent or patent application serial numbers and filing dates listed. The description should also include a strategy for strengthening the intellectual property associated with the **invention**. A summary of the results of a patent search should also be included.

*For patentable technologies, at a minimum, a provisional patent application must be pending during the course of the Technology Validation Program project. In the event that a*

*university abandons all patent rights associated with a technology, TEDCO may terminate the award. Technology that can be protected by copyrights (e.g., software) does not require the filing of a patent application. In addition, **intellectual property associated with a technology cannot be the subject of a license or option agreement at the time a Technology Validation Program application is submitted.***

Project Plan and Milestones:

A clear description of the proposed project must be included. The description should include a number of specific aims and a detailed description of the work to be performed. Project descriptions for a Market Assessment project should include the development of a **Commercialization Plan** (see below) as a final deliverable. Project descriptions for Technology Assessment projects should include a final project milestone associated with demonstrating the technology for a specific market application.

Project Team:

A list of project personnel should be provided for the proposed study with a brief statement of their background and their proposed contribution to the proposed project. The reviewers will want to ensure that the project team is qualified to carry out the proposed work for the project.

Budget & Budget Justification:

A detailed budget must also be included in the Full Proposal. This budget should match the general format described above in the Application Components - Budget section. A justification for each line item in the budget (including any indirect costs) should be included in a narrative form.

*The Technology Validation Program does not have any cost sharing or matching requirements. Indirect charges are limited to 10% of total project costs and patent expenses are limited to 10% of total project costs. Justification should include total hours committed to the proposed project, the cost/hour for each individual included in the budget, and the associated fringe benefits. Travel costs may not be included unless justified as critical to completion of the proposed project.*

References & Support Letters:

The applicant should include any relevant references and letters of support in an appendix.

*This section will not count toward the page limit for the Full Proposal*

## Resubmissions

In the event that a Technology Validation Program application is rejected, the applicant may resubmit a new application with a revised Full Proposal. In such cases, the applicant must include an additional section, the Resubmission Summary, as part of the new application. The Resubmission Summary section must describe an overview of the reviewers' concerns, and it must include a description of how those concerns were addressed in the revised Full Proposal.

*The Resubmission Summary, which is **limited to 2 pages in length**, is to be included as part of the Full Proposal, but it does not count toward the page limit of the Full Proposal.*

## **Commercialization Plan Guidelines:**

To assist applicants with understanding the nature of a Commercialization Plan, as the specified deliverable for a Market Assessment project, the following guidelines are included. The Commercialization Plan should generally include the following sections and address the questions listed for each question. Applicants may choose to focus the efforts of their proposed project on one section of the guidelines, but TEDCO requests that a full Commercialization Plan be developed as part of a funded market Assessment project.

### Business Opportunity:

This section should describe the business opportunity that the applicant is addressing.

- What is the problem in the market?
- What is currently in the marketplace or being developed for the marketplace to address this problem?
- How does your technology offer a better solution?
- Who would the customers be for this product?

### Product or Service Description:

This section should describe the products or services that will be derived from the technology.

- Describe the underlying technology on which the product or service will be based. The technology description should be clear to a lay audience but contain sufficient detail so that it can be assessed by someone 'skilled in the art' of the technology.
- The stage of development of the technology should be described.

- Any preliminary data or other findings demonstrating a proof of principle for the technology should be included.
- Applicants are encouraged to include diagrams, illustrations, photos, or other means to support written descriptions of the technology or the products being developed.

#### Intellectual Property/Regulatory Strategy

The applicant should describe the strategy for expanding intellectual property protection and a strategy for obtaining any required regulatory approvals (if applicable).

#### Market Analysis & Marketing:

The applicant should demonstrate that they have a clear understanding of the market for their products or services. This should include:

- Market size and general market trends
- A market segmentation analysis with initial and secondary markets identified
- The size of the markets and a justification for pursuing these markets
- Target customers and suggesting why these customers will buy the company's product or service
- A complete description of products and services that will directly and indirectly compete with the company's products and services and how the company's products and services compare (Applicants are encouraged to use tables.)
- Barriers to entry for new products to enter the market after the company products and services are available
- Compelling revenue model that will lead to profitability
- How the products and services will be marketed (how the product will be promoted to customers through distribution channels and partnerships)

#### Pro Forma Revenue Projection

The commercialization plan should include a prospective model for revenues that might be achieved based on general assumptions.

#### References & Support Letters:

The applicant should include any relevant references or letters of support in an appendix. The complete proposal must be submitted as a single PDF file (including the required letter from the technology transfer office, sponsored programs office, or administrative equivalent) on the application submission site.



### Review Process:

Once a Technology Validation Program application has been submitted, TEDCO will begin its review process, which consists of a number of specific steps:

#### Compliance Review:

The program manager for the Technology Validation Program will initially review all applications to ensure that they meet the basic requirements indicated by this RFA. Those not meeting the specified requirements will be rejected without further review and the applicant will be so notified.

#### Independent Technical Review:

TEDCO may obtain an independent technical review of the Full Proposal from a technical expert as part of its review. The technical review is conducted under terms of confidentiality. The reviewer assesses the proposal for translational potential, appropriateness of design, methods, analysis, innovation, and the potential of the applicant to carry out the proposed project.

#### Prefunding Review Meeting:

A TEDCO staff member will meet with the applicant to discuss the project and provide an opportunity for TEDCO to obtain clarification on any aspects of the Technology Validation Program application. The meeting also provides an opportunity for the TEDCO staffer to answer any questions that the applicant or technology transfer officer might have about the Technology Validation application process.

#### Review Committee:

A Review Committee, which might be composed of TEDCO staff and members of the outside business community, meets each month to review and discuss the Technology Validation Program applications. After reviewing the application and taking into consideration comments from the Technical Reviewer (as applicable), the Review Committee will discuss the proposal and make a decision whether or not to recommend the application for funding. For those applications that are not recommended for funding, the Review Committee will list their concerns with the application so they can be provided to the applicant. The final decision for awards is made by TEDCO's president.

Notification of Award:

In the event of an award, an award letter will be sent to the applicant with a copy of the TEDCO Technology Validation Program funding agreement. TEDCO will also send a copy of the award letter and the funding agreement to the applicant's grants and contracts office and technology transfer office, as applicable. In the event that an application is rejected, TEDCO will so notify the applicant. Such notification will include the Review Committee's comments and concerns and a copy of any independent technical review, if available.

**Review Criteria:**

The Review Committee will base its recommendation for funding using the following criteria:

Adherence to the Purpose:

The extent to which the proposed project will advance the technology along the commercialization pathway and/or create an opportunity for a start-up company will be considered.

Adherence to the Full Proposal Guidelines:

Applicants that included all of the requested information in the Full Proposal Guidelines and presented that information in an organized, convincing way will be considered more favorably.

Commercialization Potential:

The Review Committee will assess the commercial potential of the Subject Invention. This will take into consideration the ability to license the invention, the ability to develop a product based on the invention, the size of the market for such a product, and the product's competitive advantage.

Intellectual Property Position:

The strength of the intellectual property is evaluated since it is often the only competitive advantage for a technology at an early stage.

Strength of the Proposed Project:

The strength of the proposed project and the likelihood of its success will be considered. The appropriateness of the budget and the rationale used for its justification will also be evaluated.

### **Award Process:**

Once a proposal is recommended for funding, a funding agreement will be sent to the applicant for processing and an authorized signature. The applicant will have 90 days to sign the agreement and to return a copy to TEDCO. If the agreement is not signed and returned within 90 days, proposal becomes inactive and the applicant must reapply to receive an award.

### **Reports and Project Funding:**

Once the funding agreement has been fully executed, the applicant can invoice TEDCO as follows for each of the programs:

For a Market Assessment Project, the applicant can invoice TEDCO for the initial payment of 50% of the total Phase award upon execution of the grant agreement. The applicant may invoice TEDCO for the remaining 50% of the total Phase award upon submission to TEDCO and TEDCO's acceptance of a Commercialization Plan, as described above.

For a Technical Assessment Project, the applicant can invoice TEDCO for the initial payment of 25% of the total Phase award upon execution of the grant agreement. The applicant may invoice TEDCO for 50% of the total Phase award upon submission to TEDCO and TEDCO's acceptance of a mid-project report and milestones achieved. Finally, the applicant may invoice TEDCO for the remaining 25% of the total award upon submission to TEDCO and TEDCO's acceptance of a final report.

In all cases, any unspent money should be returned to TEDCO.

### **Yearly Technology Transfer Reports:**

As a condition of the Technology Validation Program award, the applicant must submit an annual report on their funded Technology Validation projects to identify those projects which have been licensed or optioned and their economic impact. These reports are due for a period of 5 years following completion of a funded project.

### **Program Manager Information:**

Inquiries regarding the Technology Validation Program should be directed to:

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