# **REQUEST FOR APPLICATIONS (RFA)**

# **Baltimore Innovation Initiative (BII)**

# Technology Advancement Grant Application Guidelines

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# Summary

## Purpose

The Baltimore Innovation Initiative ("BII") Program was created to support an equitable innovation and entrepreneurship ecosystem in institutions of higher education throughout the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA). As a component of the State of Maryland's matching contribution toward the <u>Baltimore Tech Hub</u>, the Program seeks to advance technology toward commercialization of a product or service and bolster support systems for entrepreneurs developing technology-based ventures.

The Program will award two grant types: (1) the **Technology Advancement Grant** and (2) the **Entrepreneurship and Commercialization Programming and Infrastructure Grant**. This document will outline the details of the **Technology Advancement Grant**.

## Eligibility

Eligible recipients of the Technology Advancement Grant include startups for which a Qualifying Individual holds a senior leadership position (e.g., Founder, Partner, C-Suite) **and** has an equity stake. Qualifying Individuals include full-time faculty members, students, or student principal investigators at an Eligible Institution. Eligible Institutions are those named in BII enabling legislation [CH0710/CH0711] who have opted in to the BII program. As of March 1, 2025, these institutions include the following:

- Anne Arundel Community College
- Baltimore City Community College
- Carroll Community College
- Community College of Baltimore County
- Johns Hopkins University\*
- Harford Community College
- Howard Community College
- Loyola University
- Maryland Institute College of Art
- Towson University
- University of Baltimore
- University of Maryland, Baltimore Campus\*
- University of Maryland Baltimore County\*

Applications must be submitted by the Qualifying Individual on behalf of the startup. Applications must additionally have the approval of the Eligible Institution's On-Site Project Lead for the BII program (further detail in the **Application Instructions** section).

Startups eligible for funding via MII (i.e., those led by a full-time faculty member at an MII-participating institution) are encouraged to engage faculty at non-MII-participating BII Eligible Institutions; or students, or staff at any BII Eligible Institution to make a key technical contribution to their technologies.

\*Eligible applicants for the MII program (i.e., full-time faculty at participating MII institutions) may not serve as the Qualifying Individual for a BII Technology Advancement Grant and are encouraged to submit applications via the Maryland Innovation Initiative program.

# **Funding Amount**

Subject to meeting the Program requirements, a grant award of up to \$50,000 may be made for a project originating from a single Qualifying University (a "Sole Application"). A joint grant award totaling up to \$75,000, as described below, may be made to two or more Qualifying Universities submitting a joint proposal directed toward:

- The joint commercialization of Technologies existing at more than one of the applicants Qualifying Universities (i.e., complementary Technologies that can be licensed together); or
- Commercialization activities that would be executed by more than one Qualifying Individual from separate Eligible Institutions, in which case each Qualifying Individual must be budgeted to receive a minimum of 25% of any Program award in labor and/or material costs (a "Joint Application").

# **Application Instructions**

# How to Apply

Applications will follow a two-step process:

- First, applicants will submit an *Indication of Interest* ("IOI") via the form at this address: Submit IOI form.
  - Following submission of the IOI, BII staff will review the information provided to ensure eligibility and invite a full invitation.
  - o Please allow up to **two weeks** for BII staff to invite a full application.
- After acceptance of the IOI, applicants will submit a full application as described below.
  - o A link to the full application portal will be provided upon acceptance of the IOI.

**Applications must be submitted to BII by Thursday, May 8<sup>th</sup>, 2025, at 11:59pm ET.** In order to allow two weeks for review and at least one week to assemble a full application, applicants should expect to submit an IOI before **Thursday, April 17<sup>th</sup>, 2025.** Eligible applications will be evaluated by the Board of the Maryland Innovation Initiative for funding in **July 2025**.

#### Additional application requirements:

- Applicants must engage the On-Site Project Lead at their respective institution for approval prior to submission of an IOI. Further, the full application will require a letter of support from the On-Site Project Lead. Applicants who are unsure of their On-Site Project Lead may email <u>ilewis@tedcomd.com</u> for further information.
- Applicants are expected to engage their respective grants management office as required by their institutions' policies and procedures.
- Prior to submission, applicants will require a TEDCO DEI ID number assigned which may be obtained by visiting <u>TEDCO MII PI REGISTRATION</u>

The **General Application Information** will be requested via the application portal and should include:

- TEDCO ID Number
- A Project Title
- The Principal Investigator's name and contact information
- The principal investigator's Eligible University (if it is a Joint Application, provide the collaborating university and collaborating investigator information)
- Key words describing the Subject Technology

Then, a **Full Proposal**, which contains the Budget (described below), must be submitted as a single document in PDF format via the application submission portal and must adhere to the guidelines described below.

Finally, the **Budget** is included as part of the Full Proposal. When creating a budget, please classify each budget item into one of the following categories in tabular format:

- Personnel, Fringe Benefits
- Materials & Supplies and
- Other Direct Costs (must be itemized)

BII funds may not be used for Indirect Costs.

# 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** is intended to provide enough information such that a group of reviewers can sufficiently evaluate the commercial value of a Technology. This document must:

- Be uploaded to the online application submission portal as a single Adobe PDF file.
- Be formatted as single-sided document, with one-inch margins, and a font size of at least 12 points.
- Except for figures, figure legend and tables where a font of at least 10 points is acceptable.
- Not exceed 10 pages total (<u>Submissions exceeding 10 pages will be rejected without consideration</u>).

The Full Proposal should contain the following components in the order given below.

#### Cover Page (maximum 1 page)

- The title of the project (15 words max)
- The name of the principal investigator (PI) who will be responsible for the project and additional team members, if applicable.
- Program duration (up to 9 months)
- The total amount of funding requested.

#### Section A. Technology Assessment (suggested 2 pages)

- Problem Statement
  - Describe the problem with the status quo or currently accepted best practice.
    - Who has this problem? How big is the problem?
- Solution Statement
  - Explain the overall significance of solving the specific problem that a solution will bring to customers – cost savings, time savings, convenience, improved outcomes, etc.
    - Focus on customer benefits over features (the solution may not always be "better, faster, cheaper...")

- Technology Description and Status
  - Explain what the Technology is and what it does.
  - Discuss the developmental status of Technology.
    - Express through studies completed, conclusions derived, technology readiness level (TRL), etc.
  - Provide strong data/evidence to indicate the Technology is likely to work as predicted.
    - Figures and tables are encouraged.
  - Describe how the Technology is unique/novel in its approach to creating a product or service that solves the problem relative to existing approaches among other commercial products.
    - Define any specific indications, use-cases, and environments that are being addressed.
  - o If possible, discuss additional, potential commercial products or services that could be created through the development of the Technology.

#### Section B. Market Analysis and Competition (suggested 2 pages)

#### Target Market

- Describe the value proposition of the Technology as a product or service to a targeted market segment(s).
  - Vertical Market Segmentation
    - What is the primary, secondary, target market segment?
  - Market Size in \$ (approximate)
    - What is the total addressable market (TAM)?
    - What is the serviceable available market (SAM)?
    - What is the serviceable obtainable market (SOM) (target market)?
    - Market size may also be represented using a "bottom-up" model based on specific customer segments and comparable product prices and sales.
  - Target Market Trends
    - What is assumed or forecasted in the target market that supports a commercial opportunity for the Technology as a product or service?
- Describe how the Technology as a product or service will be used in the target market
- Discuss why customers in the target market will value the solution proposed by the Technology (e.g. "product-market fit")

#### Competition

 Identify and describe alternatives and competitors to the Technology in the target market and clearly outline a general description of the applicant's competitive advantages over competing products and services.

- A competitive analysis matrix could be helpful to demonstrate and quantify advantages, features, capabilities, etc...
- What are the relative strengths, weaknesses, opportunities, and threats (SWOT analysis) of the Technology among competitors or competitive practices?

#### Section C. Commercialization Pathway and Risk Assessment (suggested 1 page)

- Commercialization Pathways
  - Will the commercial development of the Technology continue through a licensing opportunity to industry or be led by a Start-up?
  - Describe a notional business model that will support the Technology product or service.
    - What specific value propositions can this deliver to the target market?
      - Refrain from generalities and holistic economic benefits and discuss what functions the Technology as a solution provides to whom at an operational level.
  - Provide an overview of key technical benchmarks and developmental milestones that must be achieved to prepare the Technology to be commercialized.
    - What performance standards, product technical or economic validation, scaling or integration requirements, head-to-head comparisons, clinical trials, documentation, etc. represent significant value in the target market?
    - If relevant, describe any possible regulatory approvals needed to bring the product to market.
    - If relevant, a notion of future funding amounts required to achieve each developmental milestone may be helpful to demonstrate commercial feasibility.
  - Include a list of specific funding sources or programs that the applicant has leveraged as prospective means of supporting product development – grants, venture capital, pitch competitions, accelerators, contracts, etc.
  - Provide a list of the team members that will be leading the Technology Advancement award and briefly describe why their involvement is relevant to developing the technology for commercial purposes.
    - Embedded links to LinkedIn profiles are encouraged.
- Risk Assessment
  - o Provide a discussion of significant technical risks that could impede development of the Technology along the commercial pathway and strategies to address them.

## Section D. Project Milestones, and Detailed Budget/Justification (suggested 2-3 pages)

- Project Milestones
  - Include a summary of the proposed 9-month BII Technology Advancement project and the anticipated technical milestones with a clear timeline and cost structure.
     Indicate which milestones will be completed by the applicant's mid-term

presentation (4.5 months into the project) while describing how the completion of each milestone brings the product closer to the commercial market.

- The scope of work proposed in each milestone should support the pursuit of commercial value.
  - What key proof of concept data will be collected to strengthen the value proposition for the Technology as a commercial opportunity?
  - Upon what evidence are benchmarks established?
  - What is the commercial significance of achieving each milestone?
- Milestones must be quantifiable and measurable so it will be obvious when they have been successfully, or unsuccessfully, met.
- An accompanying <u>GANTT Chart</u> could be helpful to illustrate the timeline for expected deliverables.
- Detailed Budget and Justification
  - A detailed budget of the costs required to conduct the project must be provided separately in the online application portal following the format and guidance provided in Appendix A.
  - A written justification for project costs should be provided. Any changes to the approved budgets (greater than +\- 10%) must be submitted through the online award management portal in writing to the Program Manager for approval prior to the completion date.

#### Section E. Commercialization Plan (suggested 1 page)

In the Full Proposal, the purpose of the Commercialization Plan is to outline a scope of work intended to validate a commercial hypothesis and should address how the applicant will build on the initial Market Analysis, Competition, Commercialization Pathway, and Risk Assessment to form a complete Commercialization Plan as a project deliverable. This section must include a notional list of activities to be taken during the 9-month Technology Advancement project timeline and within the allocated budget to validate assumptions, test hypothesis, and confirm the existence of a commercial opportunity to a target market so that a viable commercial pathway and go-to-market strategy is ready once an award is completed.

The Commercialization Plan must be included as a separate, one-page portion of the Full Proposal.

Common proposed activities for this section may include:

- Examining basic steps required to create a viable business model.
- Conducting a market assessment exercise that will inform and validate a Go-to Market Strategy.
- Undergoing Customer discovery, for example through participation in a university run or national I-Corps Program
- Exploring potential viable revenue models
- Identifying possible funding, financing, and regulatory strategies
- Company formation related activities

A comprehensive Commercialization Plan is a key deliverable of the Technology Advancement project. Typical spending might include costs for reimbursing a market analyst to conduct market research, contracting with industry experts (does not include an agency to find the talent, or advertising to attract the talent), developing a regulatory strategy, developing a reimbursement strategy, or covering costs associated with gathering and assembling the information required for the development of a Commercialization Plan.

With the understanding the Commercialization Plan will develop over the duration of the award, applicants will have an opportunity to refine their project at the Mid-term Presentation, as described in the "Reporting Requirements" section of this RFA.

#### References & Support Letters:

The applicant should include any relevant references and letters of support as appended documents to the full submission package.

This section does not count toward the 10-page limit for the Full Proposal

# **Review Process**

#### Criteria

Applicants will be evaluated based on their ability to address *each criterion listed in sections A through D of the Technology Assessment proposal in their Full Application*. Scoring consideration will be contingent on how completely the applicant has provided information requested for each section and how convincingly the applicant has made a case for the commercial opportunity based on the subject Technology.

Other criteria that will be considered by the reviewers may include: the novelty of the Technology's approach to solving the problem, the strength of the Technology's competitive advantages, the likelihood that a start-up or licensing opportunity will be created based on the Technology, and the team's ability to carry out the project.

# Scoring

Reviewers will use the following system for scoring applications.

1 – Poor	2 – Fair	3 – Good	4 – Excellent
The application does	The application	The application meets	The application
not meet expectations.	partially meets	expectations. Clear and	exceeds expectations.
Lacks clarity, detail, or	expectations. Some	detailed with most	Very clear,
relevance. Significant	clarity and detail are	components covered.	comprehensive, and
improvements are	present but lacks key	Minor improvements	well-organized. All
needed.	components. Several	are recommended.	components are
	areas require		thoroughly addressed
	improvement.		with strong evidence.

# **Closing and Award Payments**

Once a project has been approved, an agreement will be executed with the Principal Investigator. The agreement will detail the award conditions and include an agreed upon number of mid-term and final milestones for each project and the dates that Mid-term and final project reports (as described below) are due.

All PIs are expected to present at TEDCO offices or virtually for scheduled reviews. Details will be sent about one month before the project's mid-term, based on the date of the executed agreement. The PI must know the start date (the signed agreement date) and the end date of their Technology Advancement grant.

Any changes to the original, approved budget must be submitted to the online award management system and approved by the Program Manager and Executive Director, *in advance*. The final expenditure report must match, including subcategories, the approved budget, within plus/minus 10% to be approved.

Payment structures will be further outlined in funding agreements, but will generally adhere to the following format:

- 50% on signature of agreement
- 25% on completion of mid-term meeting
- 25% on completion of final deliverable

# **Project Period**

The project period will be as proposed in the full application, with a maximum of 9 months from finalization of the award agreement. In addition to execution of the program as outlined in the application, awardees will further be required to meet with BII staff for a Midterm Report approximately halfway through the project period and to complete a Final Deliverable within 30 days from the end of the project period. Both are outlined below.

Technology Advancement awardees must submit the following reports to BII including:

#### Mid-term Reports

PowerPoint presentation at TEDCO offices or virtually at BII's option. Must include a description of project activities and results to date, the progress toward meeting mid-term milestones, an accounting of expenditures charged to the award, and details on the proposed Sustainability Plan progress and budget – BII will expect copies of the slides (no more than 10) one week in advance of the Mid-term presentation.

## Final Report

- An overview of all activities undertaken during the funded project.
- A description of the results of the project and the success in achieving the milestones listed in Exhibit A (the application).
- The impact of the technical milestone results on commercialization.
- A report of all project expenditures incurred from the accounting office to be sent directly to BII.
- Limited to 5 single-sided pages

#### Commercialization Plan

- A complete Commercialization Plan deliverable is a document which may be submitted
  to BII in the form of a text document or slide deck that must report efforts proposed in
  the Full Application to validate the commercial hypothesis and inform the basis for
  commercialization efforts beyond the scope of BII Technology Advancement.
- Ultimately, the document should provide clear and detailed guidance that a start-up team
  or licensing partner may reference in pursuit of immediate next steps to advance the
  commercial development of the Technology as a product or service and should
  completely answer the following questions:
  - O What is the product or service?
  - O Who is the target customer?

- Who are the critical stakeholders that will purchase the product or service?
- What is the size of the market opportunity that these customers represent?
- What unit of economic value do these customers prioritize in existing acquisition processes and purchase decisions?
- Why will they be interested in the solution proposed by the Technology as a product or service?
- o What is the business model?
  - What specific value propositions are being delivered to the target customer?
- What are the key demonstrations, validations, and proofs that must be performed and captured to prove the ability to deliver the value propositions to customers and validate adoption?
  - Upon what performance standards, product technical or economic validation, scaling or integration requirements, head-to-head comparisons, clinical trials, documentation, etc. are claims based?
- o Are there regulatory approvals needed to bring the product to market?
  - If so, what is the pathway?
  - What progress has been made toward seeking approvals?
    - Are there hurdles?
    - What additional data is required?
- O What is the "Go-to-Market" strategy?
  - What must be done to execute the business model and capture a target market opportunity?
  - What must be done to raise awareness of and ultimately deliver the product or service to the target customer?
    - What type of marketing strategy will primarily drive transactions?
       (e.g. B2C, B2B, B2G, etc.)
- What are the future fundraising plans and fiscal needs required to execute the plan?
  - What other follow-on funding has been or will be pursued?
    - Grants (ex: SBIR/STTR)
    - Investment (ex: angel, VC, other early-stage dilutive capital)
- A complete Commercialization Plan may include the following components:
  - Executive Summary
  - Business Plan
  - Pitch Deck (if applicable)
  - A sample, detailed outline for each component can be found in Appendix B

#### No Page limit, submitted separately from Final Report

# **Program Information**

Inquiries regarding the Technology Advancement Award should be directed to:

Jalaycia Lewis
Program Manager
Baltimore Innovation Initiative
<u>jlewis@tedcomd.com</u>

# Appendix A: Budget

The Technology Advancement budget (maximum \$50,000, if sole; or \$75,000, if joint) must be entered separately into a spread sheet in tabular form as indicated in the example below, and each line item should be classified into one of the following categories and clearly indicated in the budget.

- a. Personnel Salaries,
- b. Personnel Fringe Benefits,
- c. Equipment,
- d. Materials & Supplies,
- e. Other Direct Costs, and
- f. Commercialization Plan Development

Example of a budget with category headings and sample line items:

EXAMPLE BUDGET ITEMS	AMOUNT
Personnel - Salaries	
Founder	-
Developer/Intern	-
Personnel – Fringe Benefits	
Founder	-
Developer/Intern	-
Health Insurance (if applicable)	-
Equipment	
Hardware/Prototyping Materials	
Computer/Software	-
Materials and Supplies	
Cell Lines	-
Lab Supplies	-
Other Direct Costs	
Machining Costs	-
Travel (ex. pitch events)	-
Subtotal	X
COMMERCIALIZATION PLAN DEVELOPMENT	
Legal/Intellectual Property Filing	-
Business Consultant	-
Company Formation	
TOTAL	Х

# Appendix B: Commercialization Plan

### Executive Summary (1-2 pages)

• An up to two (2) page Executive Summary of the Start-up company or licensing opportunity. The summary should provide a clear, concise, but complete overview of the start-up or licensing opportunity with the intent of grabbing a reader's attention and piquing their interest to learn more about it. Realize that this document may be the initial body of information that conveys the value of the company or licensing opportunity to a potential stakeholder who may have limited bandwidth. In essence, an Executive Summary is a resume that will be used to communicate with and attract additional resources. As such, the two-page Executive Summary must include the following elements:

#### Header

- Company name, logo, address, website (if applicable)
- o CEO/PI name, phone, email
- Relevant industry category, # of employees

#### Problem

What is the problem? What is our solution? Who cares? Why should they care?
 What opportunity is there to be had by solving this problem?

#### Market

O What is the market size, opportunity, growth rate, other notable trends? How is it segmented? What is the target market? Who is the target customer (may not be the same as the end-user)? Of what alternatives/competitors in the market should an interested potential stakeholder be aware?

#### • Value Proposition

- A brief history/background of the company or team. Why is this the company or team that can solve the problem and capture the market opportunity?
- What unique qualities poise this company or team to establish a strong and maintain a defensible market position (IP, domain expertise, etc.) against alternatives and competitors?
- What evidence can you provide to a potential stakeholder that suggests customers will purchase your product or service based on your relative value?
- o Through first-hand market data (customer interviews, I-Corps, etc.), what product/service features do/can you provide that your customers find valuable?
- O How do these features give the company or team a competitive advantage?

#### • Business Model

- Product development How will you build and manufacture your product to meet the needs of the target customer? How much will/does it cost? At what price will you sell it?
  - Go-to-Market strategy How will you convince the target customer to purchase your product/service and through what means? How many do you need to sell and how much will it cost to make a sale?

#### Team

- Provide a brief description of the team (executives, advisors, key personnel), their names, titles, biographic information, which will be leading the opportunity and guiding the commercial pathway of the product/service.
- O Why is their involvement essential to success? What valuable experience do they offer to this end? How will their involvement poise the company or team to receive follow-on funding and generate revenue?
  - If a company is being formed and building a team this may include a plan to build and attract talent to fill needed roles.

## Funding and Financial Projections

- Funds attracted to date may include investment and grant awards that specify from whom the funding was received, the amount, and a brief description of how the funding is being leveraged.
- A financial projection table that conveys the funding needed over time for the opportunity to breakeven. Should have a dollar amount over a definite timeline that specifies for what follow-on funding will be used. This may change depending on evolving circumstances.
- There is no stylistic preference for how you choose to express the information above. For example, you may choose to use graphics and figures to illustrate certain elements. Regardless, the information provided in the Executive Summary should clearly, concisely, and completely provide an overview of the Start-up or licensing opportunity.