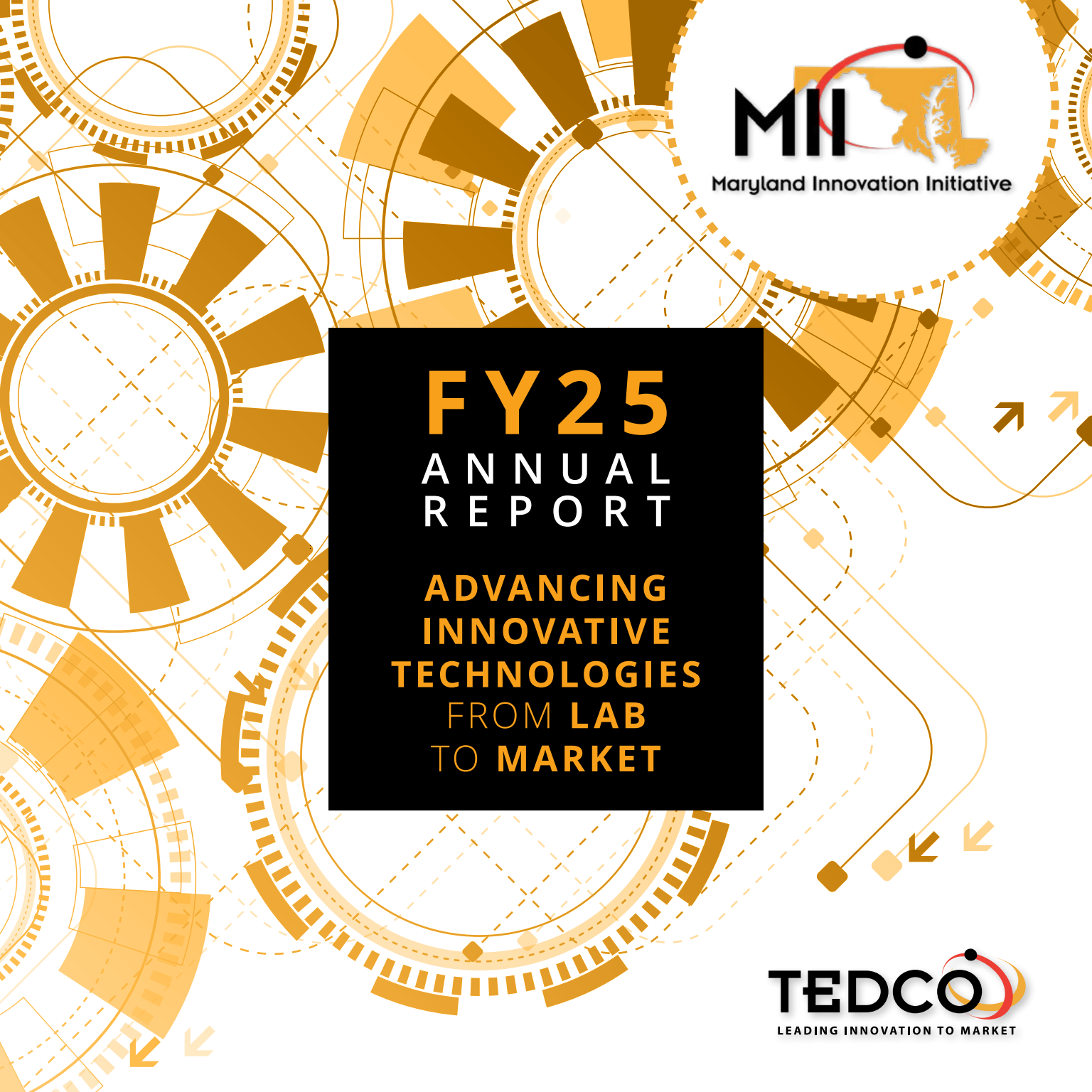

MII
Maryland Innovation Initiative
FY25
ANNUAL
REPORT
ADVANCING
INNOVATIVE
TECHNOLOGIES
FROM LAB
TO MARKET
TEDCO
LEADING INNOVATION TO MARKET

Maryland Innovation Initiative

ABOUT MII

The Maryland Innovation Initiative (MII) program is Maryland's premier early-stage technology transfer and commercialization program. Established in 2012, MII is a collaboration between the State of Maryland; Johns Hopkins University; Morgan State University; the University of Maryland, College Park; the University of Maryland, Baltimore; and the University of Maryland, Baltimore County. The program's mission is to accelerate promising technologies with significant commercial potential to market while leveraging each institution's strengths. As part of a "Bench-to-Market" approach, the program offers grants to assess commercial viability of technology and investments for companies that form to license the related intellectual property.



The significance MII has in shaping and supporting Maryland's entrepreneurial community is profound. Proof of this impact can be found in our first successful pilot program with Bowie State University and Frostburg State University and our second and current pilot program, a component of Baltimore Tech Hubs, with twenty universities, colleges and community colleges in the Baltimore-Columbia-Towson metro area. MII's impact is also found in our numbers showcased in this annual report. Numbers don't lie. MII has and continues to have a profound economic impact in our State. This would not happen without our dedicated team of Abi, Griffin, Jalaycia, Silvia and Valery, our volunteer board members, and the support of our university partners and TEDCO colleagues. Thank you all for another successful year."

– Renée Winsky, Board Chair, Bay One Group

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"MII is a key to success for UMD faculty/inventors and startup companies. MII funding and Site Miner guidance empower Maryland faculty to transform their discoveries into products, services, and startups that positively impact society, create jobs, attract investment, and benefit the economies of Maryland, the US, and the world."

– Kenneth Porter, University of Maryland, College Park



LETTER FROM EXECUTIVE DIRECTOR & CHAIR OF THE BOARD



Renée Winsky
Board Chair



Abi Kulshreshtha, PhD
Executive Director

Greetings,

The past year has been one of growth, momentum, and meaningful progress—and we're proud to share those achievements with you in this year's Annual Report.

This year, we launched exciting new initiatives that reflect our deepening commitment to equity, innovation, and economic development across the state. Most notably, we rolled out the Baltimore Innovation Initiative (BII) Program—an effort supported by the State of Maryland as part of its matching commitment to the Baltimore Tech Hub. The program was designed to foster inclusive innovation across higher education institutions within the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA), and we're proud to share that **14** groundbreaking projects were selected in its inaugural round of awards.

Beyond programmatic milestones, FY25 marked impressive metrics across the board. Since the program's inception, we've helped catalyze over **$804 million in follow-on funding**, supported the creation of **more than 450 Maryland-based jobs**, and are currently managing **nearly $12 million in active awards**. These numbers are more than data points—they represent real-world impact and the accelerating influence of innovation on our regional economy.

In the pages ahead, you'll find stories of promising technologies, visionary entrepreneurs, and collaborative teams transforming ideas from university labs into commercial ventures. These efforts speak directly to our mission: to bridge research and real-world application, advancing both science and the economic vitality of Maryland.

Now in our **13th year**, we remain inspired by what has been accomplished and energized for what lies ahead. MII's next year will see the organization expand its role as a catalyst for economic development through innovation across the State of Maryland. MII's awards will continue to advance university-born innovations that solve critical grand challenges posed by policymakers, industry, and Marylanders alike.

Thank you for your continued partnership and belief in what's possible. Together, we're not just imagining the future—we're building it.

"We view the MII program as an extension of the continuum of support that we provide to inventors at UMBC. It continues to be a vital part of our technology transfer process."

– Wendy Martin, University of Maryland, Baltimore County



PROGRAM OVERVIEW

The MII program was created to accelerate and support the transition of technologies with promising commercial value from our collaborative institutions into products and services that address relevant market needs. To accomplish this, the program is divided into two phases: a Technology Assessment grant for full-time university faculty and a Company Formation investment for Maryland-based start-up companies that license IP from our collaborative institutions.

Technology Assessment

Technology Assessment grant awards are available exclusively to qualifying institutions to evaluate technical validity, enable critical experiments, and develop a commercialization plan over 9 months. Awards are capped at $130,000 for a sole application and $180,000 for a joint application.

Company Formation

Company Formation investments encourage commercial product development in preparation for a product launch, or the advancement of a product to achieve a technical milestone that could significantly increase a start-up company's commercial value and better position them to attract follow-on funding (grants and investments). MII Company Formation investments are capped at $300,000.

"The MII program has served as a driving force behind Johns Hopkins University's innovation pipeline, expediting the commercialization of pioneering research. By providing essential non-dilutive funding and support to mitigate technological risks, it has empowered our faculty and entrepreneurs to convert high-potential technologies into tangible solutions, while cultivating a dynamic entrepreneurial ecosystem within Maryland's scientific community."

– Christina DeMur, Johns Hopkins University

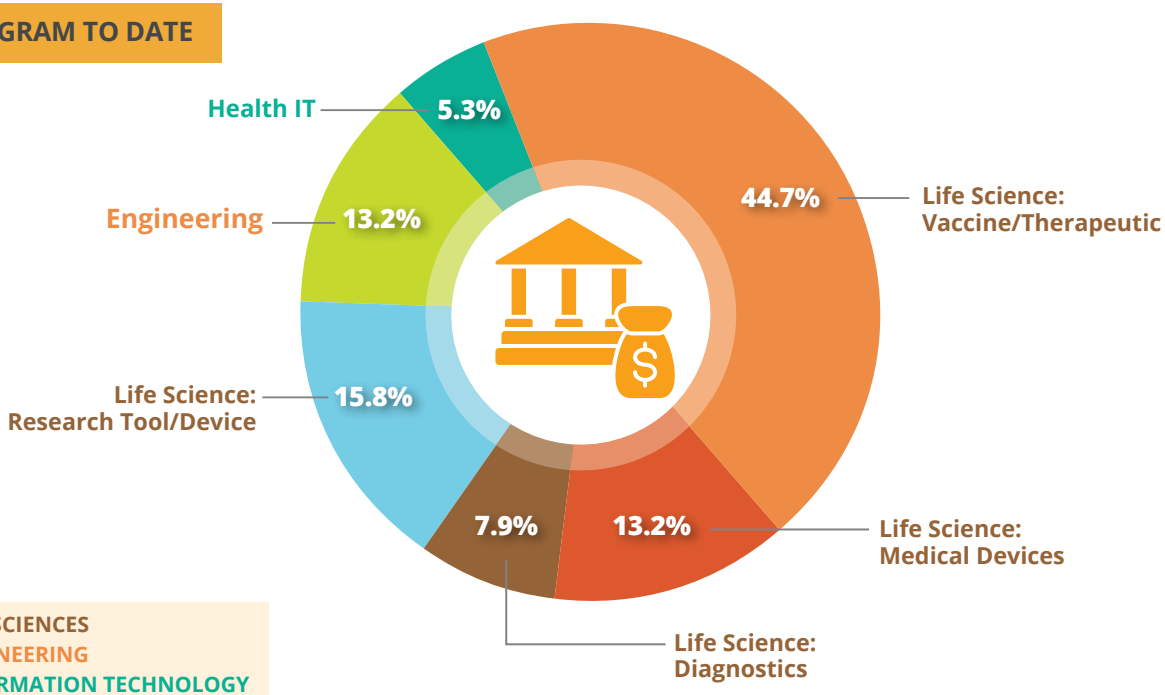


MII BY THE NUMBERS

Awards by Tech Class

MII supports a diverse portfolio of awardees from various technical domains including life sciences, engineering, and information technology. The diversity of awards by technology class ultimately reflects MII's university collaborators and that of the world-class research conducted by scientists across the State.

PROGRAM TO DATE



LIFE SCIENCES
ENGINEERING
INFORMATION TECHNOLOGY

MII has a proven track record of accelerating university based intellectual property to commercialization. The expansion of the program through BII and other pilot programing amplifies the economic impact of higher education in Maryland."

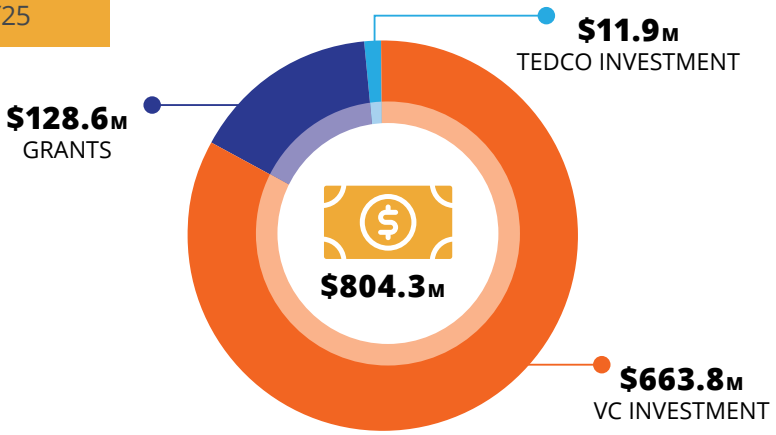
– Mary Morris, University of Maryland, Baltimore



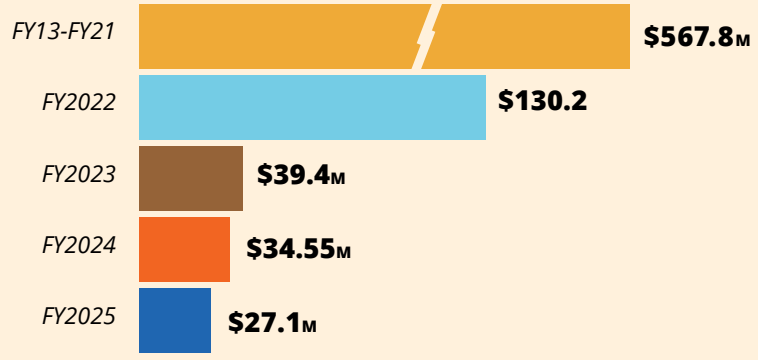
Follow-on Funding

MII supports the creation of successful, scalable start-up tech companies in Maryland, as demonstrated by their ability to attract follow-on funding. Over the years, MII companies have successfully commercialized early-stage technology and attracted nearly $804.3 million in follow-on funding. Furthermore, a significant portion of this funding comes from sophisticated technology investors such as angels and venture capitalists.

PROGRAM TO DATE FY13-FY25



FOLLOW-ON FUNDING THROUGH THE YEARS FY13 - FY25



MII BY THE NUMBERS *continued*

Portfolio Management

MII has funded/invested a total of $63.1 million over the past 13 years—a testament to the program model and the excellent work of the MII site miners and university tech transfer offices. While small, the MII team manages an increasing number of portfolio investments with the goal of accelerating commercialization. Indeed, MII companies often raise follow-on funds, either through grants or investments, within two years. While still early-stage, MII start-up companies have continued to contribute toward impactful economic development of their communities through revenue generation, jobs created, and high-tech workforce development.

PROGRAM TO DATE FY13-FY25

$63.1M
INVESTED

$11M
TOTAL ACTIVE MANAGED

$18.1M
PORTFOLIO $

34%
COMMERCIALIZATION

ECONOMIC IMPACT

PROGRAM TO DATE FY13-FY25

219
START-UP COMPANIES CREATED / SUPPORTED

453
JOBS CREATED

FISCAL YEAR 2025

$3.34M
REVENUE GENERATED

$106.5K
AVERAGE FTE SALARY

"The Maryland Innovation Initiative has been an instrumental partner in moving Morgan's early-stage university innovations along the commercialization pathway. MII's business-centric programs have made it possible to transition Morgan's innovations into new and existing companies – generating economic and social impact to Baltimore, the State, and its citizens."

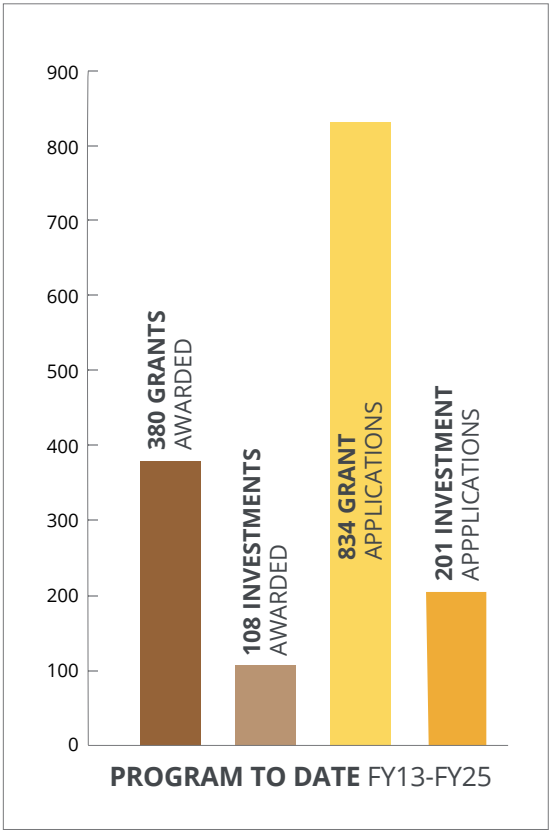
– Wayne Swann, Morgan State University

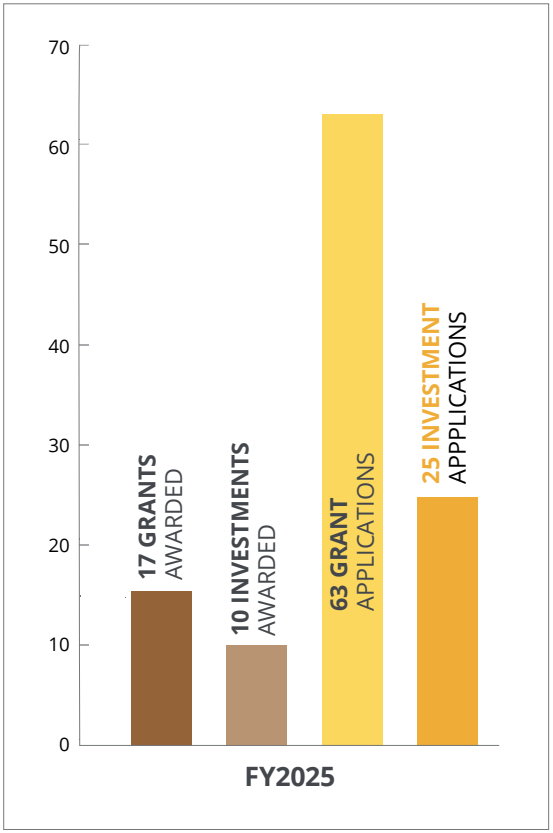


ECONOMIC IMPACT

Applications, Grants and Investments

To date, MII has reviewed 834 grants and 201 investment applications and has a reward funding rate of 45% and 61% respectively. In FY25 alone, MII reviewed 63 grants and 25 investment applications and awarded funding to 27% and 40% of applicants, respectively. While the demand for MII funding remains consistently high, the success rate for funding also reflects the ecosystem's maturation as the number and caliber of program applications increase.





COMMUNITY ENGAGEMENT

















I am inspired by MII's commitment to advancing innovation and driving economic growth that uplifts people and possibilities. Through strong partnerships among universities, entrepreneurs, and industry leaders, MII is strengthening Maryland's vibrant innovation ecosystem that transforms ideas into market-ready solutions and creates lasting value for our communities."

– Carol Washington, UTech Consulting, LLC





















Maryland's economic future depends on our ability to translate discovery into solutions, and MII is one of our most powerful tools to do exactly that. The program connects the strength of our world-class universities with the needs of industry, policymakers, and communities, accelerating technologies that address some of our most pressing challenges. I'm proud of how MII helps position Maryland as a national leader in innovation-driven economic growth."

– Francesca Ioffreda, State of Maryland, Office of Governor Moore



COMMUNITY ENGAGEMENT *continued*



















ENTREPRENEUR ECOSYSTEM IMPACT

Morgan State University

I-Works Initiative Programs

I-GAP • The Innovation Grant Assistance Program provides early-stage grants (e.g. pre-TEDCO MII) to MSU inventors to further develop MSU innovations.

I-Works ISO • Reaches out to both new and seasoned entrepreneurs, in-search-of innovations for new technology-based businesses. The program also works to connect and match Morgan students, graduating college seniors and advanced degree candidates with new and early-stage companies in search of interns and employees.

I-Works Community • Engages the Morgan Community Mile, the PEARL Aquaculture community and other regional business communities to promote and enhance innovation.

I-Start • Being developed for Pre-Incubator and Start-Up spaces for entrepreneurs and startup companies, as well as students and I-Start Centers.

University of Maryland, Baltimore County

Technology Catalyst Fund (TCF)

The TCF is a source designed to advance innovations originating from UMBC research to more commercially viable technologies. Additional proof-of-concept studies, extending data collection and prototype development are examples of the essential steps needed to demonstrate commercial potential.

Faculty Entrepreneurship AcceleraTor Fund (FEAT)

The FEAT program is designed to help broaden the technology pipeline, while also assisting with later stage technology commercialization. It is available to UMBC's entrepreneurial PIs to advance their idea or technology towards commercial success, and out to meet societal needs. FEAT is flexible to assist UMBC in broadening the technology pipeline, obtaining additional commercialization funding, and providing mentorship services. FEAT will support things like prototype builds, market surveys, business plans, CEO support, mentoring assistance, special facility or equipment access -whatever your specific needs are to obtain your next commercialization funding.

> MII is committed to supporting faculty and start ups to bring their innovations to market. Our goal is to ensure that our Principal Investigators are successful.
> ***– Silvia Goncalves, Assistant Manager, MII***



ENTREPRENEUR ECOSYSTEM IMPACT *continued*

Johns Hopkins University

Louis B. Thalheimer Fund for Translational Research • The Louis B. Thalheimer Fund for Translational Research provides seed funding for vital proof-of-concept and validation studies of valuable technologies at Johns Hopkins. Recipients are awarded $25,000 to $100,000 to conduct work over a period of up to nine months. Eligible awardees are Johns Hopkins faculty members with unlicensed technology. Applications are due annually in the spring.

Cohen Translational Engineering Fund • The Cohen Translational Engineering Fund provides Whiting School of Engineering faculty with the critical early funding needed to focus on the first steps of translation. Applications run on an annual cycle with a winter submission deadline.

University of Maryland UM Ventures

Maryland Momentum Fund • The University System of Maryland's (USM) $16 million investment fund invests in USM-affiliated startup companies to support entrepreneurism, catalyze outside investment in early-stage startups, and foster economic development and technology commercialization.

The Baltimore Fund • The Baltimore Fund stimulates economic advancement in Baltimore City. A mix of direct awards and subsidies encourage technology companies to locate in Baltimore City while investments in ecosystem entities supports the growth of Maryland's entrepreneurial ecosystem.

University of Maryland, Baltimore • The UM Ventures, Baltimore investment program invests in University of Maryland, Baltimore's (UMB) commercially promising technologies and startup companies. Returns from these investments support labs, business development services, and other innovation resources for UMB's entrepreneurs.

University of Maryland, College Park • The $1 million Discovery Fund was created to support innovative companies and startups based in College Park and Prince George's County. It also encourages companies to relocate to the Discovery District, specifically targeting quantum and nonquantum companies.

"The Maryland Innovation Initiative leads technology-based economic development efforts that unlock the potential of our universities, empower innovative teams, and build pathways that turn discovery into impact. By supporting innovation, we invest in the development of strong communities, resilient industries, and an equitable future for Marylanders."

– Griffin St Louis, Senior Program Manager, MII



PILOT PROGRAMS

MARYLAND INNOVATION INITIATIVE PARTNERSHIP EXTENSION PROGRAM

The Technology Validation Program is designed to run as part of the Pilot Program for Bowie State University and Frostburg State University with the purpose of expanding opportunities for technology validation, entrepreneurial development, and industry engagement at each university. The Technology Validation Program is a $50,000 grant available to full-time faculty that includes two distinct components which are to be completed within a 6-month project period: a Technology Development Report and a Market Assessment.

FROSTBURG STATE UNIVERSITY

Bobcat Innovation Launch Pad 2023

The Bobcat Innovation Launch Pad, managed by FSU in partnership with Deloitte, encourages student teams from multiple disciplines to develop commercially viable technology-based solutions to vexing societal challenges, with a focus on climate change and renewable energy. Structured as a three-day event that blends elements of a traditional hackathon with that of a business pitch competition, the program will attract approximately 50 students with a draw of a small cash prize to foster development of the winning ideas. MII's funding will help launch this innovation and entrepreneurship initiative.

Bobcat Innovation Launch Pad 2024

FSU will provide management, technical support, and host the 2nd Annual Bobcat Innovation Launch Pad that combines aspects of a traditional hackathon with those of a business pitch competition. The program will encourage multi-disciplinary student teams to develop commercially viable technology-based solutions to targeted societal challenges. On the final day of the Bobcat Innovation Launch Pad, each team will present the technical and business concepts developed to compete in a pitch competition for a chance to win cash awards to further explore or move their concept to the next level.

"We provide our university collaborators with resources and guidance to grow successful companies, foster meaningful connections, and become leaders in their industries. It's truly rewarding to see MII's impact on the entrepreneurial innovation ecosystem in Maryland."

– Valery Gutierrez, Administrative Coordinator, MII



BOWIE STATE UNIVERSITY

Bowie Signature Pitch Event

The Bulldog Pitch Competition, a flagship event organized by the Entrepreneurship Innovation Center (EIC), was open to all Bowie State University (BSU) students, regardless of their major. This event provided BSU students and aspiring entrepreneurs with exposure to innovative and entrepreneurial thinking, transforming great ideas into successful businesses. Forty students from all four colleges and the graduate school at Bowie State applied to participate. Participants competed in two distinct categories, Idea and Revenue Generating, for a chance to win up to $20,000 in cash prizes and awards. The top three innovative students presented their pitches in a shark tank-style event, culminating in the selection of the best idea and revenue-generating business.

Technology Transfer and Innovation Office

This initiative aims to bolster innovation-driven economic development in Maryland by supporting the creation of new ventures and fostering innovation within BSU's community. The funding will primarily be allocated to critical components such as setting up TTIO infrastructure including an invention disclosure dashboard, IP protection software, and database platforms. Additionally, it will support the hiring of a graduate intern to manage operational needs and oversee the BSU tech validation pilot program, crucial for advancing technology towards commercialization. The continuation of the Extreme Pilot Program, aimed at providing hands-on experience in tech and business development, is also integral to this initiative. Furthermore, the budget includes provisions for an Entrepreneurship Simulation Toolkit to enhance experiential learning as well as various seminars, workshops, and innovation talks to engage faculty and students, and marketing efforts to promote TTIO initiatives across multiple channels.

"The Maryland Innovation Initiative translates Maryland's leading R&D prowess to statewide economic impact. MII's ability to catalyze collaboration between universities, industry, and investors has created hundreds of jobs across Maryland's innovation economy."

– Abi Kulshreshtha, PhD, Executive Director, MII



BALTIMORE INNOVATION INITIATIVE

The Baltimore Innovation Initiative was launched in FY25 to support innovation across universities, colleges, and community colleges in the Baltimore-Columbia-Towson metropolitan statistical area. BII is a component of the Baltimore Tech Hubs, which seeks to grow Baltimore's economy through its nationally leading assets in AI, healthcare, and biotechnology. In its first semiannual cycle, BII received over $1,200,000 in application volume and granted over $600,000 to seven Baltimore-area institutions of higher education.



"The Maryland Innovation Initiative (MII) is accelerating the translation of university research into real-world impact. By expanding our reach to institutions across the state, we're unlocking new sources of innovation and ensuring Maryland remains at the forefront of commercialization and entrepreneurship."

– Jalaycia Lewis, Program Manager, Baltimore Innovation Initiative



FY25 PORTFOLIO COMPANIES

EMC2 βio

Located in Chevy Chase, is a Johns Hopkins University spinout developing a pancreatic beta cell-specific cargo delivery system for treatment of Type 1 Diabetes

Terebra Therapeutics

Located in White Marsh, is a Johns Hopkins University spinout developing an oncolytic peptide NF27 for the treatment of rectal cancer

ONCOSWITCH

Located in Woodstock, is a Johns Hopkins University spinout developing a nanoparticle gene delivery platform reprogramming cancer into antigen-presenting cells for treatment of solid tumors

1104 HEALTH

1104health

Located in Bethesda, is a Johns Hopkins University spinout accelerating access to oncology care options and improving health equity with the 1104Health Shared Care Platform

Ventoscity

Ventoscity

Located in Bethesda, is a University of Maryland, College Park spinout commercializing the Ventos: personalized fiber guidance for elevated gut health and well-being

ADAL THERAPEUTICS

ADAL Therapeutics

Located in Baltimore, is a University of Maryland, Baltimore spinout developing novel drugs for the treatment of Duchenne Muscular Dystrophy

DOME THERAPEUTICS

Dome Therapeutics

Located in Woodstock, is a Johns Hopkins University spinout developing nanoparticles that reprogram cancer stem cells to treat glioblastoma

Vascular Rescue
INNOVATION IN VASCULAR ACCESS

Innovative Vascular Access Solutions – Vascular Rescue Inc

Located in Baltimore, is a University of Maryland, Baltimore spinout advancing the development of automated vascular access

SHARP Diagnostics

SHARP Diagnostics – Next Generation Technology for Isothermal Molecular Amplification

Located in Baltimore, is a Johns Hopkins University spinout developing the next generation molecular diagnostics platform

Flow Therapeutics

Located in Baltimore, is a Johns Hopkins University spinout developing injectable, drug-eluting sulconazole nanocrystals to prevent strictures in Crohn's patients

RELAI

Located in Bethesda is a University of Maryland, College Park spinout that enhances the reliability of AI models.

WHO WE ARE

BOARD OF DIRECTORS



Renée Winsky
Board Chair,
Bay One Group, LLC



Kenneth Porter
University of Maryland,
College Park



Wendy Martin
University of Maryland,
Baltimore County



Christina DeMur
Johns Hopkins University



Mary Morris
University of Maryland,
Baltimore



Wayne Swann
Morgan State University



Carol Washington
UTech Consulting, LLC



Francesca Ioffreda
State of Maryland,
Office of Gov. Moore

The journey of the MII program over the past 13 years has shown that collaboration is the ingredient for successful innovation. By leveraging the strengths of each partner university, the reach of TEDCO, and the innovative entrepreneurs across the state, we continue to see an acceleration of cutting-edge research commercialization and an expansion of the state's ecosystem."

– Tammi Thomas, Chief Development & Marketing Officer, TEDCO



SITE MINERS

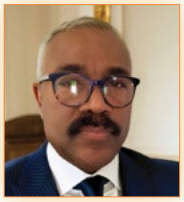
Site Miners are individuals selected by the MII program to assist start-ups and faculty in the process of submitting a strong business-oriented application, focused on commercialization. These individuals work as liaisons between the applicant and the MII program, providing valuable input and feedback prior to submission of an MII application.

The MII program requires each applicant to engage with a Site Miner a minimum of one month prior to application submission. Involving a Site Miner early in the application process increases an applicant's odds of success.

Site Miners are the 'champions' for each application during the review process and are expected to present each application at the review committee meeting.


Graham Allaway


Bill Berman


Ken Bethea


David Fink


Hillel Glazer


Richard Hughen


Fehmida Kapadia


Vin Kotraiah


Robb Lawrence


Alastair Mackay


Albine Martin


Annastasiah Mudiwa Mhaka


Daniel Nadash


Sandy Roskes


Robert (Bob) Storey


Jason Troutner


Robert van den Berg


Chris White


Bradford Young

REVIEWERS

MII reviewers are vetted, subject matter experts from within the Maryland technology commercialization ecosystem who serve the essential role of using their insight to qualify applications for program funding. Reviewers represent a diverse set of domain knowledge, business acumen, and life experience from which they are able to support the program.


Anthony Accorsi


Irfan Ali


Stephen Auvil


Rebecca Boohaker


Sachin Chandran


Kevin Chang


Ernesto Chanona


Greg Cooper


Benga Erinle


Gary Evans


Glenn Falcao


Steve Ferguson


Michael Haag


Caroline Hoedemaker


Dale Hu


Vivek Khera


Shree Koushik


Matt Lawler


Paul LaPorte


Gaurav Mehta


Michael Mendolia


Matthew Miessau


Cyrus Etemad-Moghadam


Wendy Perrow


Tayo Sanders II


Nilay Shah


Gus Simiao


Arti Patel Varanasi


Ken Walz


Guy Wassertzug


Owen Willis


Joshua Wolfe


Joseph Zack

WHO WE ARE

MII SUPPORT STAFF

Abishek (Abi) Kulshreshtha, *Executive Director*

Silvia Goncalves, *Assistant Manager*

Griffin St Louis, *Senior Program Manager*

Valery Gutierrez, *Administrative Coordinator*

Jalaycia Lewis, *Program Manager, Baltimore Innovation Initiative*

TEDCO SUPPORT STAFF

Troy LeMaile-Stovall, *CEO*

Ira Schwartz, *General Counsel, OAG*

Tammi Thomas, *Chief Development & Marketing Officer*

Cassy Haber, *Director, Development & Marketing*

Rachael Kalinyak, *Associate Director, Marketing & Communications*

DeJonna Farrar, *Assistant Director, Digital Marketing & Communications*

Brittney Jackson, *Marketing Communications Specialist*

Rajaniece Thompson, *Grant Writer & Development Specialist*

Mindy Lehman, *Chief Government Program Development, Affairs & Policy Officer*

Alex Choi, *Executive Director, Government Program Development, Affairs & Research*

Terry Rauh, *Chief Finance & Operations Officer*

Geyssel Gonzalez, *Deputy Chief Financial Officer*

Ann Pulley, *Assistant Controller*

Maryland's entrepreneurial strength is built on early support for innovation, and MII plays a critical role in that foundation. By helping entrepreneurs move ideas from concept to company, we are driving progress across diverse industries. This work not only supports job growth and future investments but also reinforces a statewide culture of collaboration. As these efforts continue, Maryland remains well-positioned as a leader in technology and entrepreneurship."

– Troy LeMaile-Stovall, CEO, TEDCO



ABOUT TEDCO

TEDCO (Maryland Technology Development Corporation) was established in 1998 to facilitate the creation of businesses and support business growth throughout the State. Currently, TEDCO is the leading source of funding for early-stage, technology and life science-based businesses in Maryland. In this position, TEDCO supports the continued growth and diversification of entrepreneurial innovation throughout the state while also fostering technology transfer and commercialization from the State's universities and Federal labs. It is through this mission that the Maryland Innovation Initiative (MII) was born. Through the "Bench to Market" approach, and collaborative efforts MII was founded on, TEDCO is supporting efforts to lead innovation from research labs in universities across Maryland to the commercial market and contributing to a robust, diverse innovation ecosystem.

We in the TEDCO unit of the MD Office of the Attorney General value the opportunity to advance causes benefitting all Marylanders, and helping the MII Program to commercialize technologies originating in Maryland's academic labs is a great way to do so. Advancing local economic development – while improving the lives and health of our fellow Marylanders – is genuinely rewarding."

– Ira Schwartz, Esq., General Counsel – TEDCO, Office of the Attorney General



MARYLAND INNOVATION INITIATIVE

OUR MISSION IS TO ACCELERATE PROMISING TECHNOLOGIES WITH SIGNIFICANT COMMERCIAL POTENTIAL TO MARKET.

Produced by TEDCO's Development & Marketing Department

Tammi Thomas, *Chief Development & Marketing Officer*

Cassy Haber, *Director, Development & Marketing*

Rachael Kalinyak, *Associate Director, Marketing & Communications*

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www.TEDCOMD.com/MII