



**Maryland Technology Development Corporation
FY 2025 Operating Budget
Response to Department of Legislative Services Analysis**

House Appropriations Committee
Subcommittee on Education & Economic Development
Delegate Stephanie Smith, Chair
February 8, 2024

Senate Budget & Taxation Committee
Subcommittee on Education, Business & Administration
Senator Nancy King, Chair
February 12, 2024

TESTIMONY OF TROY A. LEMAILE-STOVALL
Chief Executive Officer, Maryland Technology Development Corporation

TEDCO Response to DLS Analysis: Concur

TEDCO appreciates the thorough work and analysis done by DLS analyst Elizabeth Waibel and acknowledge and concur with her recommendations.

Introduction

Chairs King and Smith, members of the Committees, thank you for the opportunity to appear before you to discuss TEDCO's fiscal 2025 budget allowance. I would also like to thank DLS analyst Elizabeth Waibel, for her thorough analysis.

While many of you are familiar with TEDCO, for the benefit of those who are not, TEDCO, Maryland's **economic empowerment organization**, was created in 1998 to grow the State's technology-based economy through the creation of jobs, new products and services, and other economic opportunities. TEDCO primarily acts through advancing technology, entrepreneurial support, and investment programs.

As Maryland looks at our competitive standing and how to better build an inclusive, equitable economy, innovation will be the thing that drives us forward; innovation is, due to Maryland's strategic investment, something we have leadership on and can do. The status quo is not a viable growth strategy for Maryland. As we look to the rapidly evolving future, new entrepreneurial opportunities will help keep us safe, improve quality of life, allow more efficient and effective global teams, and deliver even more value from e-commerce.

TEDCO appreciates the funding provided by the Moore Administration to TEDCO's funding and programmatic efforts in the State's FY 2025 Budget and TEDCO stands ready to continue to serve the State.

In 2023, TEDCO celebrated our 25th anniversary. With the support provided by the State of Maryland, TEDCO's six core programs generated **a total of \$2.7 billion in Maryland economic activity as of 2023, supporting a total of 12,000 jobs and generating estimated annual state and local government revenues of \$140 million.**

This impact affects every part of Maryland's ecosystem. For example:

- TEDCO supports medical researchers through the Maryland Stem Cell Research Fund as we seek innovations in and cures for addressing diseases like cancer, diabetes, and sickle cell anemia.
- TEDCO collaborates with Maryland's five world class research institutions through the Maryland Innovation Initiative, a program that seeks to move research to the marketplace and builds innovation and entrepreneurial touch points at our comprehensive institutions.
- TEDCO impacts Maryland's first-in-nation number of federal facilities via our federal efforts to bring those innovations to Maryland-based entrepreneurs.
- TEDCO touches every county – urban and rural – via our Rural Business Innovation Initiative and our Urban Business Innovation Initiative efforts that seek to stitch all the necessary elements to ensure early-stage success.
- TEDCO positively impacts communities that have long been underinvested by increasing

our Marketing and Investment efforts, leading to more than half of our investments over the last three years going to Maryland-based enterprises started by a person of color and/or a woman.

- Further, TEDCO, as an organization, impacts our TEDCO team as we make investments in our talent and our infrastructure to better serve each other and the Maryland ecosystem.

FY25 New Programs Contingent on Budget and/or Legislation

SBIR/STTR: We appreciate the budget allowances provided in the Moore administration’s FY 2025 budget to support the Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) program. The SBIR/STTR programs, coined “America’s Seed Fund,” bring federal dollars into the State of Maryland to support early-stage, technology-based companies and better prepare them for capital investment from TEDCO and other investors, which is needed to scale the businesses and to create jobs. Increasing the number of entrepreneurs pursuing this funding through incentives and increasing the award rate by improving proposals through technical assistance presents a significant economic benefit to the State.

According to the SBA, companies that come from states with matching grant programs are more attractive to SBIR / STTR agencies and are more likely to get federal funding. The Maryland Matching Program and Technical Assistance program, established as a result of legislation passed in 2020 (Chapter 25 of 2021) are designed to work together to provide matching funds as well as technical assistance to companies pursuing SBIR/STTR awards - increasing federal funding flowing to the State of Maryland through the federal (SBIR) and (STTR) programs. While the legislation passed in 2020, the program was not previously funded. Currently, TEDCO has a 40% federal SBIR/STTR award rate for companies in TEDCO’s program – significantly exceeding the 15% national award rate. Budget allowances provided in the FY25 budget for the program will expand TEDCO’s capacity, more than doubling the number of Maryland companies TEDCO can assist in obtaining federal SBIR/STTR Phase I awards.

Programs Supporting the Federal Baltimore MSA Tech Hub Initiative: Last fall, we were pleased to learn that the US Economic Development Administration awarded a Tech Hub Designation to the Baltimore-Columbia-Towson Metropolitan Statistical Area (Baltimore-Columbia-Towson MSA), which includes Baltimore City, Anne Arundel, Baltimore, Carroll, Cecil, Harford, Howard, and Queen Anne’s Counties. The Greater Baltimore Committee is leading this effort. The Tech Hub designation qualifies Maryland for Phase 2 of the federal application process and to compete with 30 other states for about \$70 million in federal funding. Part of the qualifying federal criteria includes a minimum 10 percent match from the applying Tech Hubs. The TEDCO programs supporting the Tech Hub serve as part of the match.

TEDCO is an active member in the Baltimore-Columbia-Towson MSA Tech Hub Consortium and is committed to working with our consortium partners to strengthen Maryland’s competitiveness as a global economic leader in artificial intelligence and biotechnology, while promoting an equitable innovation economy. To that regard, we are grateful for the faith the

Moore administration has put in TEDCO as stewards of public funds through funding allowances to support the addition of new initiatives related to the Tech Hub initiative. A brief description of these initiatives is provided below:

- **Baltimore Innovation Initiative (BII) Pilot Program:** The Baltimore Innovation Initiative, housed within the Maryland Innovation Initiative (MII), would support technology commercialization for Colleges and Universities in the Baltimore- Columbia-Towson MSA- prioritizing products or services aimed at integrating artificial intelligence or machine learning in health care and biotechnology sectors. We have learned from the successful MII University Partnership Pilot Program in 2023 that expanded eligibility of MII to Bowie State and Frostburg State Universities, and TEDCO is appropriately equipped to launch this next evolution of the MII.
- **Pava LaPere Innovation Acceleration Grant Program:** TEDCO was deeply saddened to learn of the tragic passing of Pava LaPere late last year. Pava was a great friend of TEDCO, and we had the great opportunity to work with Pava in her capacity as CEO of EcoMap Technologies. Given Pava's tireless advocacy and championship of supporting entrepreneurship we can think of no better way to preserve her legacy than through the Pava LaPere Innovation Acceleration Grant Program, and we are honored to support this program within TEDCO. Through this program we hope to encourage founders with Pava's entrepreneurial spirit and enthusiasm by providing financial support to make their ideas into reality.
- **Baltimore Tech Hub:** As noted in the DLS budget overview, the Baltimore Tech Hub Consortium is participating in a federal program to invest in regions with the potential for rapid growth in key technology sectors. This funding will support the federal application for Phase 2 of the U.S. EDA's Tech Hub Program that would bring additional federal investment to the region (potentially \$70 million and more).
- **UpSurge-UpRise:** This is a proposed program at UpSurge Baltimore, an organization that provides grants, investments, and other support to local startup companies. The funds in TEDCO's budget will support the Upsurge-UpRise program is intended to connect founders with investors, experienced entrepreneurs, and service providers to accelerate growth. This funding also supports the federal Tech Hub application.

While we are thrilled with the news of the Baltimore-Columbia-Towson Metropolitan Statistical Area Tech Hub designation, we know innovation in Maryland is not limited strictly to those regions. TEDCO remains committed to continuing to improve, grow, and evolve our programs to provide best in class support to the ecosystem across the state. TEDCO's unique programs and initiatives provide an avenue to both assist in the development of the Tech Hub within the Baltimore MSA and facilitate a statewide pipeline to support growth in every stage of development of the Tech Hub. We are committed to working with the consortium and our partners to utilize the Tech Hub initiative as a catalyst for new partnerships to promote economic growth in the Baltimore MSA and across the state.

However, we cannot stop there. TEDCO remains focused on scaling and stitching our investments and programs to have a greater impact on Maryland's entrepreneurs, innovation economy, and serving underserved communities and entrepreneurs. TEDCO also recognizes that we need to enhance our ability to do a better job with data collection and analysis to support our

entrepreneurs and provide more meaningful data to our stakeholders. TEDCO will also continue to work to improve our reach to underserved communities and individuals. With the right strategies, Maryland has the potential to cultivate an innovation ecosystem with global recognition for social innovation and impact.

With this as context, the following highlights a few of the many accomplishments that TEDCO realized over the past year as we continue to be responsive to Maryland’s evolving needs.

- **Maryland Stem Cell Research Fund (MSCRF)**: The past few years have underscored the importance of funding research and innovation on medical research to deliver cures. What commenced with three MSCRF grant programs in 2007, has burgeoned into seven grant programs in 2023, with the newest being the manufacturing assistance program. These seven grant programs cover various facets of stem cell research and its development and commercialization. Since its inception, MSCRF has allocated over \$200 million, supporting 600 projects centered around stem cell research.

2023 marked a transformative year for the MSCRF, with the MSCRF welcoming Ruchika Nijhara, Ph.D., MBA as Executive Director of the MSCRF last April, succeeding Dr. Amritha Jaishankar, who served the organization admirably for five years. Last year also marked a notable increase in both the number and amount of grant awards, along with significant achievements made by our awardees, propelling their research and commercialization efforts to unprecedented levels. With a new strategic emphasis on fostering biomanufacturing in Maryland, MSCRF deployed nearly \$3M in funding to support local companies in establishing cutting-edge manufacturing facilities and optimizing manufacturing processes under the new Manufacturing Assistance Grant Program. The initiative, which is designed to mitigate risks in the development and approval of regenerative medicine while fostering the expansion of Maryland's manufacturing workforce, has been an important tool in our efforts to fortify biomanufacturing in Maryland.

- **Maryland Innovation Initiative (MII)**: For over 10 years, MII has served a vital role in seeding, supporting, and scaling innovation coming out of its collaborative universities, which include five world class research and two top notch comprehensive institutions. Since its inception MII has helped create 176 start-up companies that have gone on to receive over \$737 million in follow-on investment - this has contributed to Maryland’s rise in ranking in technology and commercialization indexes from 38th, prior to the launch of MII, to 8th out of 50 states as of 2020.

To date, MII has reviewed 717 grants and 158 investment applications and has an award funding rate of 46% and 58% of applicants, respectively. In FY23 alone, MII reviewed 38 grants and 9 investment applications and awarded funding to 60% and 78% of applicants, respectively. While the demand for MII funding remains consistently high, the success rate for funding is also a reflection of the maturation of the ecosystem as the program’s applicants become increasingly savvy in technology commercialization.

As a testament to the program’s success and demand, TEDCO’s MII was given a pilot program, established by legislation in 2021, to expand its model to entrepreneurial activities at two of the State’s four-year public comprehensive universities, Bowie State University and Frostburg State University. The MII is pursuing the vision of promoting entrepreneurship and technology commercialization at two pilot universities. The Program is designed to poise these universities as formidable anchor institutions for their respective regions and communities and expose these comprehensive universities to the knowledge and resources available at the major research institution partners in the main MII program, thus knitting the university entrepreneurship ecosystem together. In FY23, TEDCO funded three (3) pilot programs through this expansion – the Entrepreneurship XTreme Pilot (Bowie State University), the Bobcat Innovation Launch Pad (Frostburg State University), and the Regional Cyber Operations Center Feasibility Study (Frostburg State University).

- During FY23, TEDCO launched two women-focused pilot programs, leveraging the unique expertise of Maryland’s four Historically Black Colleges and Universities – Bowie State University, Coppin State University, Morgan State University, and the University of Maryland, Eastern Shore – and other colleges, universities, economic development centers, and counties to build an alliance of diverse founders and CEOs to enable promising women business leaders to focus on unique challenges for female entrepreneurs and as they navigate Maryland’s entrepreneurial innovation ecosystem and raise the economic standards for all. In FY24, these programs converged into the Institute for Women Entrepreneur Excellence, Inc. In collaboration with Maryland’s four Historically Black Colleges and Universities, Wells Fargo, T.Rowe Price and Howard and Montgomery Counties, The Institute for Women Entrepreneur Excellence, Inc. will launch several cohorts throughout the State. As we work together with our collaborators, we are creating a business multiplier for all women entrepreneurs to create sustainable and repeatable growth for Maryland.
- Maryland has been recognized as a leader in the deployment of the U.S. Department of Treasury’s State Small Business Credit Initiative (SSBCI) funding, ranking 5th in the nation. TEDCO deploys its portion of the state’s SSBCI funding through four programs—the Venture Equity Fund, Venture Capital Limited Partnership Equity program, Seed Funds Equity program, and the Social Impact Funds. Last December, we were pleased to see the success of a recipient of our Seed Funds Equity program, JuneBrain, featured in the SSBCI’s quarterly report.
- In FY23, TEDCO began collecting demographic data for all Investment Applications during the fiscal year. Data collected over the year showed:
 - 41 of 59 investments (69%) were directed towards companies founded or led by a female or an individual from an underrepresented demographic population;
 - Maryland Venture Fund Companies founded or led by a female received, on average, \$875,000 – the average investment size for a Maryland Venture fund company was \$697,000; and

- 9 of 22 (41%) Seed Funds were invested in companies founded or led by Socially and Economically Disadvantaged Individuals.

It is important to note – demographic data is self-reported, and applicants are provided an option to not disclose their demographic information. More significantly, demographic data is not used in investment determinations, rather is utilized to develop, plan, prioritize, and improve TEDCO programs to ensure all entrepreneurs, including entrepreneurs from traditionally underserved populations, are aware of and provided the resources, education, and tools they need to take their innovations to market.

The remainder of this written testimony covers each of TEDCO’s programs and specific achievements made in the last fiscal year.

TEDCO Program Overview

Mission

Enhance economic empowerment by fostering an inclusive entrepreneurial and innovation ecosystem. Identify, invest in, and help grow technology companies in Maryland.

Vision

TEDCO will be the recognized national leader for supporting translational research, and technology-based, economic, and entrepreneurial development while being the hub of Maryland’s innovation ecosystem.

Core Values

TEDCO’s core values unite us, guiding our efforts and interactions with people inside and outside of TEDCO. They are critical in TEDCO’s commitment to excellence in carrying out its mission and serving its stakeholders:

- ***Accountability*** – We take responsibility for our actions and for adherence to our mission; we ensure that this responsibility is ingrained throughout the organization. We measure our activities and report our outcomes to our stakeholders. We do the right thing.
- ***Collaboration*** – We focus on building trust and credibility across the organization and with our customers. We are transparent in the exchange of ideas and our encouragement of one another. We value teamwork in our pursuit of supporting innovation and entrepreneurial excellence.
- ***Integrity*** – We provide the best quality service to our customers and strive to exceed expectations. We pursue innovation and entrepreneurial success with the highest regard

for moral and ethical standards. We stand by what we say and what we do, and we always act in an honest and open way.

- **Respect** – We uphold a culture of respect at work, within our communities and nationally. We embrace diversity and value our employees for their individuality and the unique perspectives that they bring to the organization.
- **Stewardship** – We take seriously our responsibility to manage scarce resources and to serve as stewards of State, Federal, and private funds. We value our ability to carry out our mission and to serve our customers in an efficient and fiscally responsible manner. We encourage and empower TEDCO’s staff to act in accordance with our culture.

Technology Transfer and Commercialization

Maryland Stem Cell Research Fund

Funding for the Maryland Stem Cell Research Fund (MSCRF) is \$20.5 million in the Governor’s FY25 Allowance, reflecting the same funding as FY24. TEDCO and MSCRF greatly appreciate this support.

MSCRF was established by the Governor and the Maryland General Assembly under the Maryland Stem Cell Research Act of 2006. The purpose of the fund is to promote state-funded human stem cell research and medical treatments through grants to public and private entities in the state. MSCRF’s seven programs are designed to catalyze innovation and sequentially transition the most promising discoveries from the labs where the invention occurred to the clinic where they will be offered to patients. Research we identify and support here in Maryland will have local, national, and global impacts, helping patients worldwide. During FY23, MSCRF received 91 grant applications and deployed \$18.3 million to fund 51 projects.

MSCRF is focused on identifying and fostering cutting-edge research and innovation in the field of regenerative medicine in Maryland. The Accelerating Cures initiative comprises programs that help transition human stem cell-based technologies from the bench to the bedside as well as mechanisms to build and grow stem cell companies in Maryland. MSCRF has supported over 600 projects to accelerate stem cell-based research, commercialization, and cures, in addition to building a collaborative stem cell community in our region.

In FY23, the MSCRF introduced the Maryland Stem Cell Research Fund Manufacturing Assistance Program, which provides grant funding for Maryland-based stem cell companies to build or acquire modular manufacturing facilities, prefabricated clean rooms, closed systems, or similar manufacturing platforms to enable GMP production of cell therapy products in Maryland. In its inaugural year, 3 awards totaling \$3 million were made from the program.

Maryland Innovation Initiative

The FY25 Allowance funds MII at \$5.3 million. The FY25 allowance also includes \$1.5 million to support the Baltimore Innovation Initiative.

Chapter 450 of 2012 created the MII program, 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 partner 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.

MII supports a diverse portfolio of awardees from various technical domains that include but are not limited to life sciences, engineering, and information technology. The diversity of Awards by Tech Class ultimately reflects MII's partner universities and that of the world-class research conducted by scientists across the State.

Since its launch, MII has seen not only a steady increase in demand for the grants, but also an improvement in the quality of the companies spun-out of partner institutions. Many of MII's partner institutions have launched several pre-MII funds and programs to enhance their competitiveness for the MII funds: an indication toward true ecosystem maturation.

To date, MII has reviewed 717 grants and 158 investment applications and has an award funding rate of 46% and 58% of applicants, respectively. In FY23 alone, MII reviewed 38 grants and 9 investment applications and awarded funding to 60% and 78% of applicants, respectively. While the demand for MII funding remains consistently high, the success rate for funding is also a reflection of the maturation of the ecosystem as the program's applicants become increasingly savvy in technology commercialization.

FY2023 MII Statistics

- # of proposals - 47
- # of awards/investments – 30 (23 awards / 7 MII investments)
- # of start-up companies formed - 32
- # of start-up companies funded – 7
- Total amount granted and invested - \$4,791,173

MII Pilot Program

TEDCO's MII was given a pilot program, established by legislation in 2021 (Chapter 697), to expand its model to entrepreneurial activities at two of the State's four-year public comprehensive universities, Bowie State University and Frostburg State University. The MII is pursuing the vision of promoting entrepreneurship and technology commercialization at these pilot universities. The pilot program is designed to poise these universities as formidable anchor institutions for their respective regions and communities and expose these institution partners in

the main MII program, thus knitting the university entrepreneurship ecosystem together.

In Fiscal Year 2023, TEDCO funded three (3) pilot programs through this pilot program. Information on these programs are provided below:

- **Entrepreneurship XTreme Pilot (Bowie State University)**

FY 2023 Funding: \$77,540

The BSU Entrepreneurship XTreme Pilot will provide students with an immersive experiential learning opportunity and offer a variety of technical support services to startup founders and existing businesses interested in tech-based ventures. Under this pilot program, a team of eight BSU students will be matched with interested founders and business owners for 2-to-3-month projects, which may entail website development, software development, software testing, and other tech-based support services. With the MII's investment, the program aims to jumpstart 2-3 companies and use the lessons learned to build out the program for scale.

- **Bobcat Innovation Launch Pad (Frostburg State University)**

FY 2023 Funding: \$100,000

The Bobcat Innovation Launch Pad, managed by FSU in partnership with Deloitte, will encourage 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 3-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.

- **Regional Cyber Operations Center Feasibility Study (Frostburg State University)**

FY 2023 Funding: \$150,000

A Regional Cyber Security Operations Center (RSOC) is an entity that provides continuous operational IT security by monitoring, assessing, preventing, and responding to threats to protected IT systems. FSU, in partnership with Deloitte, seeks to study the feasibility of establishing a RSOC for Western Maryland, which will serve to protect the region's businesses, non-profit organizations, and local government entities from the threat of cyber breaches. The study will explore the resources needed for the launch and the potential educational workforce and economic impact of an RSOC which will strengthen the role of FSU as an anchor institution for the region. Results will be used to further develop a pilot program for Western Maryland that could be replicated in other parts of the State.

Builder Fund

As the analysis reflects, the Pre-seed Builder Fund (or Builder Fund) increases to a total of \$7.5 million in the FY25 allowance. TEDCO thanks the Maryland General Assembly and Governor for the support for this program. This funding supports our pre-seed funds and TEDCO's efforts

to reach an even greater population (at an even earlier stage) that lacks access to friends and family and/or personal wealth.

The Pre-seed Builder Fund (or Builder Fund) was created to financially and operationally support the development of startup companies run by entrepreneurs who demonstrate a socially or economically disadvantaged background that hinders access to traditional forms of capital and executive networks at the pre-seed stage. Companies selected for Builder Fund support receive direct investment and agree to receive executive management assistance to accomplish specified milestones that better position the company for follow-on, professional investment. The Builder Fund differentiates itself by identifying exceptional investment opportunities statewide operated and majority owned by anyone who can exert proof of their economic disadvantaged status (as informed by 13 CFR 124) by collaboratively advancing the development of those opportunities in ways that can lead to the next stage of investment. This program supports TEDCO's overall mission of discovering, investing in, and helping to build great, Maryland-based companies that grow and last. In FY23, the program provided funding to 28 companies.

To provide additional support, TEDCO advises companies of other State programs for minority and women-owned businesses. Specifically, all companies are informed of the services and investment programs under the Maryland Small Business Development Financing Authority (MSBDFA). TEDCO will systematically make referrals to MSBDFA for all companies that express an interest in other resources.

FY2023 Builder Statistics

- # of investments – 20 companies
- # of jobs in funded companies - 16
- \$ awarded - \$4,000,000

Seed Funds – TCF, CIF, LSIF & Gap

Maryland Technology Commercialization Fund

TEDCO's legacy initiative in technology transfer and commercialization is the Maryland Technology Commercialization Fund (TCF). TCF supports technology and product development by start-up companies often deemed too early in their development to gain the interest of traditional venture capital investments. TCF's investments are intended to defray the cost of the additional research and development activities that would move a specific technology or technology package to the threshold of commercialization.

FY2023 TCF Statistics

- # of investments - 3
- # of jobs in funded companies – 6
- Total \$ invested - \$870,000

Cybersecurity Investment Fund

Chapter 535 of 2014 created the Cybersecurity Investment Fund (CIF). The CIF is targeted to six cyber security technologies and builds on TEDCO's Technology Commercialization Fund.

FY2023 CIF Statistics

- # of proposals received - 14
- # of investments - 6
- # of jobs in funded companies - 12
- Total \$ invested - \$2,150,000
- Annual amount of follow-on funding for active CIF portfolio - \$16,008,714

Life Science Investment Fund

The Life Science Investment Fund (LSIF) provides funding to companies developing products for human health that require FDA approval. This fund was transferred to TEDCO from the Department of Commerce's BioMaryland program. This program previously provided awards under the names Biotechnology Development Awards and the Translational Research Awards. TEDCO modified the funding program to better meet the demand of those life science companies with the most challenging commercialization pathways.

FY2023 LSIF Statistics

- # of investments - 7
- # of jobs in funded companies - 14
- Total \$ invested - \$1,849,973

Gap Investment Fund

The Gap Investment Fund seeks to make disbursements to start-up technology-based companies that need capital to grow their businesses in Maryland. The disbursements are matched by investments the company has received from other sources. The purpose of this Fund is to help bridge the gap to traditional institutional venture capital and retain companies in Maryland who might be vulnerable to leave the state for other funding opportunities at this stage of investment. Companies must use Gap Investment Funds to employ new staff to grow and become more firmly established in Maryland.

FY2023 Gap Investment Fund Statistics

- # of investments – 2
- # of jobs in funded companies - 14
- \$ awarded - \$1,000,000

Maryland Venture Fund

The Maryland Venture Fund is managed by an experienced team with significant venture investing experience whose focus is on making the entrepreneurs successful and dedicated to funding and growing the next generation of outstanding businesses in Maryland. The Fund was established in 1994 as the Enterprise Fund and was transferred from the Department of Business and Economic Development to TEDCO in 2015.

State Small Business Credit Initiative (SSBCI)

In FY22, it was announced that TEDCO would receive additional funding through the U.S. Treasury Department's State Small Business Credit Initiative (SSBCI). TEDCO developed plans to allocate the funds into four existing programs targeting technology-based Maryland businesses and entrepreneurs through SSBCI.

Three programs—the Venture Equity Fund, Venture Capital Limited Partnership Equity program, and Seed Funds Equity program—are primarily focused on venture capital and startup funding. The fourth, the Social Impact Funds, provides investment and support to entrepreneurs who demonstrate economic or social disadvantage. Through these four programs, TEDCO continues to leverage its relationships with top-tier technology companies, entrepreneurs, and investors in the state while collaborating with universities, regional business accelerators and incubators, and other organizations.

In FY23, TEDCO allocated the following amounts:

Social Impact Fund: \$1,650,000

Seed Funds Equity Program: \$4,841,022

Venture Equity Fund: \$4,358,075

The Venture Capital Limited Partnership Equity Program is planned for launch in FY24.

Technology Incubator Programs

Business Assistance Fund

To support the incubator network in Maryland, TEDCO provides the Maryland Business Innovation Association (MBIA) with project funding grants to assist start-ups located within individual incubators. The individual grant amounts are determined through a competitive application process which is managed by MBIA.

The funding is used to both attract start-ups to incubators and help start-ups pay for assistance that is not provided by their incubators. This includes but is not limited to the following types of business assistance:

- Prototype development
- Market studies
- Lab equipment purchases
- Competitive analysis

Entrepreneur and Ecosystem Empowerment (E3)

TEDCO's Entrepreneur and Ecosystem Empowerment's (E3) number of programs has expanded, but the programs' goals remain focused on assisting start-up companies with key milestones that are designed to accelerate growth. Our E3 programs and services take several different forms, depending on the stage of the company and an assessment of its likely path

forward. The TEDCO E3 Team collaborates with the start-up company and its other advisors to create an advisory solution that complements and augments the other assistance being received by the entrepreneur. The types of services provided are described below.

Rural Business Innovation Initiative

Studies conducted by the United States Small Business Administration (SBA) have shown that high-tech companies based in rural areas are often impeded by the absence of infrastructure necessary to support technical commercial enterprises and the inability to recruit critical masses of people with the appropriate education and skill sets to fully staff such enterprises. However, the same studies show that when rural policy initiatives are enacted to provide small business assistance through non-profits and rural development centers, economic development in those areas is enhanced.

The Rural Business Innovation Initiative (RBII) was created to address the needs of small businesses in the rural areas of Maryland (Western Maryland, Southern Maryland, Northeastern Maryland, Upper Eastern Shore and Lower Eastern Shore) through the Rural Business Innovation Initiative (RBII). Since its inception in 2009, the program has been supported by state, federal, and TEDCO funds. To implement the program, TEDCO brought on Business Mentors from the local areas to enhance technology commercialization activities by providing technical and business assistance to incubator-stage companies and incubators in the targeted counties. The program currently provides project grants and pre-seed investments.

The RBII program has been well-received by rural businesses and elected officials and has been successful in providing technical assistance to the entrepreneurs in the rural areas. The hands-on involvement of the Business Mentors and the technical assistance of third-party consultants have been key factors in furthering the growth of these start-up companies.

In FY23, Business Mentors mentored 41 new companies, resulting in 1,451 hours of mentoring. Three companies received pre-seed investments and five companies received project grant funding.

Examples of business assistance included:

- Market studies
- Competitive analysis
- Funding for infrastructure development
- Funding for technical assistance
- Funding for product development

In addition, the RBII program organized regional meetings with TEDCO's CEO and continued to support the virtual I-Corps course in conjunction with UMD. To increase participation and access for underrepresented entrepreneurs, while maintaining focus on rural companies, access to this course was also extended to companies from other TEDCO programs.

Rural Pre-Seed Fund

In FY18, the RBII program launched a Rural Pre-Seed Investment Fund which invests \$25,000 in rural companies in the RBII program. As of FY23, a total of 16 investments have been made totaling \$400,000. This diverse group of founders and companies has gone on to raise over \$60 million in follow-on investment.

Urban Business Innovation Initiative

In FY21, the E3 team expanded the RBII concept to assist underserved entrepreneurs in two urban areas, Prince George's County and Baltimore City. This program is referred to as the Urban Business Innovation Initiative (UBII).

In FY23, UBII representatives mentored 53 new companies with a total of 819 mentoring hours and 1,693 hours of outreach. In addition, the program approved four project grants to start-ups. Like RBII, the mentor reps in these regions also work with other ecosystem organizations, accelerators, and incubators to ensure entrepreneurs are connected to the right resources at the right time in their growth. The UBII program has formalized these relationships and meets quarterly as a group.

Maryland Makerspace Initiative Program

In FY23, TEDCO launched the Maryland Makerspace Initiative Program. Created through legislation passed by the Maryland General Assembly, the Makerspace Program provides grants up to \$100,000 and technical assistance (provided by Open Works) for qualified entities looking to establish a new Makerspace, expand an existing Makerspace, or develop Makerspace programming. The mission of this initiative is to grow a state-wide community of Makerspaces that provides entrepreneurs with access to tools, technologies, and knowledge to support their growth and development as well as expand workforce training. In the first year of this program, TEDCO received 32 applications and awarded funding to 20 makerspace projects spanning 11 counties and Baltimore City.

Network Advisors

Growing great companies takes more than money and Maryland's entrepreneurs repeatedly express the need for assistance in certain very specific areas. To help meet that need, TEDCO has curated a highly diverse network of advisors who have current, relevant experience in one or more of these specific areas. This group, the Network Advisors, brings its broad and diversified depth of experience to bear on the unique needs of Maryland's start-up companies – the entire effort is dedicated to helping the State's technology-based entrepreneurs reach their full potential. Network Advisors typically provide 2 – 3 hours of pro bono advising to individual companies multiple times a year. In FY23, this program grew to 105 Network Advisors and requests for Network Advisors grew by over 90%.

Loaned Executives

In certain cases, companies that have already received, or are likely to receive, an investment from TEDCO, can engage one of the Network Advisors on a contractual basis to provide paid advisory services to a company to help that company achieve a specific milestone and make them competitive for the next round of funding and growth. In FY23, TEDCO funded 11 loaned executive projects. Projects have demographically and geographically spanned the state and range from designing medical device prototypes to filing non-provisional patents to developing customer acquisition and sales strategies. All projects went to underserved entrepreneurs.

Prelude Pitch

Each month, TEDCO invites start-up companies to practice their pitch in front of TEDCO team members and experienced mentors (Network Advisors) to receive valuable feedback and an introduction to TEDCO. In FY23, TEDCO held multiple virtual Prelude Pitch events which provided 46 companies an opportunity to pitch their ideas. This was a 35.29% growth over the prior year and requests to participate in the Prelude Pitch increased by 85% creating a multi-month-long waiting list.

On-line Educational Resources

While several educational materials on entrepreneurship can be found on-line, the current thinking around best practices in entrepreneurship revolves around the lean start-up approach. TEDCO believes strongly that entrepreneurs in most technology sectors should follow these practices when working to establish a company. The TEDCO website links entrepreneurs to a variety of available and accessible on-line educational resources including several focused on the lean start-up approach.

To add to these educational resources, in FY23, TEDCO held Investor Readiness Workshops, an Accounting 201 Workshop, a FDA Pathway Seminar, and a Cross-Cultural Entrepreneurship: Empower your Voice Workshop.

Maryland Entrepreneur Hub

In FY21, TEDCO partnered with Commerce and USM to build and develop a state-wide AI enabled platform designed to connect all parts of the entrepreneurial community. The Maryland Entrepreneur Hub now enables innovators, startup founders, and small business owners to find and connect with the right resources for their business, including investors, universities, mentoring programs, networking groups, training programs, and more. Resources can also be viewed on a map by region or by type of resource, industry sector, stage of growth, type of business, and/or by founder focus (e.g., Female led, Black led, Latino led, BIPOC led, Veteran-led, and underserved founders). In FY23, this platform was upgraded to include a Workforce Hub, additional resources, and a new user interface design.

Market Search Databases

Many start-up companies fail due to a lack of understanding of their market. While there is no substitute for talking to potential customers, entrepreneurs first need to assess their potential

market at a general level. An understanding of competitors, industry trends, and market segments through secondary research is an important part of developing a plan to launch a business. Moreover, entrepreneurs that do not have a solid understanding of their market will find it difficult to raise funding from TEDCO and other investors.

Market Search Services provided by TEDCO continue to be available to entrepreneurs via remote access. The services are a resource to help entrepreneurs address the challenges of conducting market assessments. The goal is to improve the market assessment and opportunity analysis associated with the development of business plans and applications for TEDCO's funding programs.

In addition to research, entrepreneurs often need assistance in understanding their intellectual property (IP) and the patent process. With this in mind, TEDCO collaborated with a Builder Fund portfolio company called IPGen, which was founded by a patent attorney. IPGen uses AI, NLP, machine learning, and NLG, to streamline and simplify various stages of the patent process. The platform is free for entrepreneurs to use for one year as they navigate the complexities around securing their IP.

Federal Laboratory Technology Initiatives

NIST-Science and Technology Entrepreneurship Program

The overall objective of N-STEP (NIST – Science and Technology Entrepreneurship Program) is to provide opportunities for motivated researchers to build upon the experience gained while working at the National Institute of Standards and Technology (NIST) as they explore entrepreneurial careers. The Program is focused on the commercialization of research performed at NIST by employees nearing the end of their term of employment (including graduating post-docs) who are interested in forming companies to independently pursue further translational research and development of technologies specifically related to NIST's mission so that the technologies can be commercialized as products or services to benefit the public. 14 awards have been made, three applications are under review, and two companies have submitted inquiries. If all five applicants are funded in FY24, the remaining funding will support three additional companies. TEDCO granted one new N-STEP award in FY23.

FAST Grant – SBIR/STTR Proposal Lab

The Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Proposal Lab is a series of workshops funded, in part, by the Small Business Administration with a TEDCO match of cash and in-kind effort. TEDCO collaborated with the GovCon Incubator and the Small Business Development Center (SBDC) on a Small Business Administration FAST grant. The grant was extended by the SBA for one additional year (FY24). The output of the program has been an increase in the win rate for first-time SBIR/STTR proposals from Women-Owned, Small Disadvantaged, and Rural Maryland businesses. The original program's goal was to double the national win rate of 16% to 32% for Proposal Lab participants. The program has an overall award rate of 40%. Not only does the SBIR/STTR Proposal Lab help with the

SBIR/STTR win rate, but also provides business skills that improve the entrepreneur's overall business acumen. For FY23, TEDCO received 46 applicants and accepted 22 companies into the program.

Marketing

Expanded awareness for TEDCO and its portfolio companies is seen through targeting more national publications for press releases, articles, and interviews. TEDCO is continuously reaching more diverse markets each year through its Development & Marketing funds, which in FY23 had placed 72% of its funds in DEI-focused events and outreach initiatives.

Portfolio Company Exposure

Through TEDCO's marketing support, its portfolio companies have continuously received exposure through targeted regional and national publications. With opportunities like these, our Maryland companies can grow into new markets. In FY23, 17 portfolio companies were featured in interviews on regional news stations, as well as 15 companies being recognized through multiple regional award opportunities.

Cultivating an Inclusive and Equitable Entrepreneurial Ecosystem

The first of a series, TEDCO hosted its first Black Female Founders Venture Capital Forum, welcoming over 150 guests to the Coppin State University campus. The event was designed to provide a space for discussion, inclusion, and information, helping to connect entrepreneurs with experts and resources, thereby improving their chances for successful business ventures.

The event featured two panels: the first – the Founders Panel – gave founders the space to share their entrepreneurial journeys and the obstacles they overcame; the second panel – Venture Capital Panel - featured venture capital professionals who provided insights on their processes, how to navigate those processes, as well as different resources available to entrepreneurs. TEDCO anticipates continuing to host similar events in FY24 and beyond.

Management and Administration

Effective management and administration are fundamental to TEDCO's success in providing programs and services that meet Maryland's entrepreneurial needs. One indicator of effective administration is a clean audit, and I am pleased to report that for the 23rd consecutive year, TEDCO received an unqualified (clean) audited financial statement. TEDCO is required by statute to seek an independent audit of its annual financial statements and we take this requirement very seriously, as we do TEDCO's additional reporting requirements.

Transparency and accountability are fundamental to our leadership approach and have been front and center. With that context, after about a year and a half into my tenure as TEDCO's CEO, our management and administration focus has included:

- Bringing more rigor to TEDCO's business processes

- Building investments in our data systems to provide a higher level of intelligence on what we do, how we serve and when we should intervene
- Being intentional on diversity, equity, and inclusion in TEDCO’s talent management, vendor selection, investment thesis and entrepreneurial support
- Ensuring the TEDCO team is supported and coached in order to achieve their highest potential
- Through marketing and communication efforts, implementing aggressive outreach to communities that have not been traditionally reached by TEDCO and tech-based innovation opportunities
- Ensuring TEDCO’s information technology infrastructure is secure and accessible
- And, most importantly, doing all that we do through and by our five core values:
 - Accountability
 - Collaboration
 - Integrity
 - Respect
 - Stewardship.

By focusing on these values and management practices, we are really telling our story of how we build and sustain Maryland’s innovation ecosystem and attract talented and a diverse group of people to work at TEDCO. We are moving towards a sense of belonging for those that have historically been excluded in our industry and Maryland’s economic development.

It is worth noting that, in general, TEDCO’s funding is considered a general fund grant of the State and is not subject to annual adjustments for inflation, COLA’s, or other annual increases like other State agencies. This has been especially impactful on TEDCO’s administration and operating budget. The expenses are driven, not just by normal inflationary pressures, but also by increases in operational and programming responsibilities.