



**Maryland Technology Development Corporation  
FY 2023 Operating Budget  
Response to Department of Legislative Services Analysis**

Senate Budget & Taxation Committee  
Subcommittee on Education, Business & Administration  
Senator Nancy King, Chair  
March 4, 2022

House Appropriations Committee  
Subcommittee on Education & Economic Development  
Delegate Ben Barnes, Chair  
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TESTIMONY OF TROY A. LeMAILE-STOVALL  
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**Introduction**

Chairs King and Barnes, members of the Committee, thank you for the opportunity to appear before you to discuss TEDCO's fiscal 2023 budget allowance. I would also like to thank DLS analyst Emily Haskel, for her thorough analysis.

We appreciate the funding provided by the Governor to invest in TEDCO's funding and programmatic efforts, but as we will discuss shortly, scale is critical and given the competitive nature of the space we operate in, the sooner we can reach the scale needed the faster we can accelerate our Maryland investments and programs.

Today, I am joined by two of our portfolio companies and one medical patient who will share their stories on how we are creating an inclusive and growing innovation and entrepreneurial culture in Maryland and impacting health and human lives in the State.

While many of you are very familiar with TEDCO, for the benefit of others not so familiar, 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.

For the past 23 years TEDCO has led innovation to market in the state of Maryland. In November 2021, an independent study prepared by the University of Baltimore, Jacob France Institute found that TEDCO has generated significant economic and fiscal returns to the state.

**“...the companies created or supported by the six core TEDCO programs generated a total of \$2.3 billion in Maryland economic activity as of 2021, supporting a total of 10,433 jobs earning \$884.7 million in labor income and generating estimated state and local government revenues of \$100.1 million.”**

As Maryland emerges from the COVID pandemic, innovation will be the thing that drives us forward. And innovation is, due to Maryland’s strategic investment, something we have leadership on and can do. The question is, how do we scale this investment?

The status quo is not a viable growth strategy for Maryland. Just as we emerged from the 9/11 tragedy with innovations in facility and travel security, we will also emerge from COVID-19 with new entrepreneurial opportunities that help keep us safe, allow more efficient and effective global teams, and deliver even more value from e-commerce.

For Maryland, innovation will continue to be in historic areas like cybersecurity, robotics, and life sciences, but also in areas such as clean/blue technology, agriculture/aquatech, unmanned aerial vehicles/systems (UAV/UAS), and quantum technology.

With the right growth strategies, Maryland has the potential to cultivate an innovation ecosystem that will be recognized globally for social innovation and impact. By layering support in key areas and providing TEDCO support, a stronger Maryland will be achieved. At TEDCO we have three targeted strategies to establish the preeminence of our state’s innovators: SCALING, STITCHING, and STORYTELLING.

### **Scaling**

To accelerate the future economy, will require a constant investment in talent and training at a fundamentally different level of funding than has been seen in the past. Historically, the state’s proximity to Washington, DC, the center of the federal government, has been a strategic and economic asset, but in the post-COVID-19 world, location will no longer have the same value. What will it take to prevent companies and talent from leaving Maryland? While Maryland consistently ranks favorably on most innovation indexes, what actions can we take to surpass other states that consistently outrank us and stay ahead of those areas that are accelerating their scale in place-based, sector-center and/or stage-specific investments?

### **Stitching**

By integrating and leveraging Maryland’s core strengths more effectively, we can build momentum, respond to changing market conditions, and position Maryland as a global leader in technological-driven social innovation. States that rank higher for innovation are integrating various platforms and support tools designed to attract and retain both the talent and the firms that they believe will create a competitive future.

### **Storytelling**

TEDCO will use data-informed storytelling to strategically tell a cohesive narrative about Maryland's innovation ecosystem, while celebrating success stories of entrepreneurs in the region. TEDCO's value proposition will be widely understood and backed up by impact stories that convey how TEDCO leads innovation to market. Storytelling is only as effective as the data that informs it. Data will inform our stories and every decision we make.

These three strategies will propel TEDCO to build upon past successes and move forward by leveraging our past while recognizing future needs. Specifically, we must scale with velocity (speed with direction) to ensure our diverse talent pool, offerings, and resources over the next ten years (FY23-FY33) are aligned to make Maryland competitive. We will achieve this not only with market-based fiscal returns but also by curating, investing, and growing to scale enterprises that drive societal change for our citizens, communities, and the world.

With this as context, the following highlights of the many accomplishments that TEDCO has realized over the past year.

The pandemic has underscored the importance of funding research and innovation on medical research to deliver cures. During calendar year 2021, the Maryland Stem Cell Research Fund had six active programs and funded 25 new awards with \$7.3 Million. MSCRF supported projects addressing a wide range of medical conditions including Parkinson's disease, heart diseases, stroke, autism spectrum disorders, diabetic retinopathy, bone defects, bone marrow failures, sepsis complicated by acute kidney injury and ARDS amongst others.

The Maryland Innovation Initiative or MII, which seeks to commercialize the great lab work done by Maryland's 5 research institutions, saw record number of new technologies explored and de-risked through MII grants and a strong push towards both digital health and cybersecurity technologies applied across various industry sectors. The Fund's health and life sciences portfolio, however, remained strong, with emphasis on respiratory disease management as well as diagnostics, including for viral infections such as COVID-19. Further, as a testament to the program's success and demand, MII will be developing two pilot programs for, Bowie State University and Frostburg University. We hope to take the lessons learned from the main MII Fund to develop a robust entrepreneurial culture at both these community anchor institutions.

As in the previous years, demand in TEDCO's investments remains very high. For example, just in the past year (FY21), TEDCO could fund 17% of applicants overall. Specifically, 12% of the Pre-Seed Builder fund, 17% of the Seed Funds, and 20% of the Venture Fund applications. This due to increased recognition and demand for the programs. Further TEDCO has provided almost 1,200 hours of mentoring under our Rural Business Innovation Initiative and over 1,000 hours of mentor hours under the Builder Fund, and yet this is still not meeting the demand.

We support the innovation economy across the State including the rural parts of Maryland through our Rural Business Innovation Initiative (RBII) program. We continued to support technology transfer through our MII program and NIST – Science and Technology Entrepreneurship Program (N-STEP) program. We supported the development and economic impact of new cures through our Maryland Stem Cell Research Fund grants. We have continued

to serve Maryland's entrepreneurs through our various Entrepreneur and Ecosystem Empowerment Programs.

The remainder of this written testimony covers each of TEDCO's programs and specific achievements made in the last fiscal year followed by our response to the DLS analysis.

## **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 and guide 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, and 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**

As noted in the analysis, funding for the Maryland Stem Cell Research Fund (MSCRF) increases by \$1.8 million in the Governor’s FY23 Allowance. TEDCO and MSCRF 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 offers six programs (Launch, Discovery, Validation, Commercialization, Clinical and Post-doctoral Fellowships) to accelerate research and commercialization of human stem cell-based technologies.

The pandemic has underscored the importance of funding research and innovation on medical research to deliver cures. MSCRF supports research to address a diverse range of diseases and conditions including the top 10 leading causes of death in Maryland such as diabetes, cancer, and respiratory diseases. Investing in basic and translational biomedical research is important to reduce the burden of diseases for individuals, their families and society and this will pay future health dividends for the State of Maryland.

Despite its continued success, funding for MSCRF has decreased by more than 65% since inception. While we appreciate the State's critical support and the FY23 increase, the reality is with decreased annual funding, MSCRF funds fewer projects, provides less funding per awards, and cannot expand vital programs to address critical needs.

Beyond an economic impact, MSCRF’s mission has a human and societal impact - innovative treatments and cures for diseases, and improvements in quality of life and life expectancy that are created with MSCRF’s support will improve the health of many Marylanders and reduce health care costs for the state. Investing in basic and translational biomedical research is important to reduce the burden of diseases for individuals, their families and society and this will pay future health dividends for the State of Maryland.

### **Maryland Innovation Initiative**

Chapter 450 of 2012 created the Maryland Innovation Initiative (MII). MII diverse public-private partnership was created to accelerate and support the transition of technologies with promising commercial value from Maryland's partnering universities into products and services that address relevant market needs. The partnering research institutions are: Johns Hopkins, Morgan State,

University of Maryland-College Park Campus, University of Maryland-Baltimore Campus, and University of Maryland-Baltimore County. The program achieves this goal through de-risking technologies through grant awards, startup creation, and investments. The MII program is governed by statute and the MII independent Board of Directors.

This unique program model drives venture and job creation and attracts follow-on investments. MII funding is a key element in moving innovations from the laboratory to the market, through the commercialization pipeline and new venture creation. At the inception of MII, Maryland ranked 5th in the nation in research expenditures at its universities, but only 38th in the rate of commercialization of that research through start-up companies.

Today, due, in part, to the efforts of the MII partnership with Maryland's research institutions, Maryland now ranks 6th in the nation for research expenditures and 8th in the rate of commercialization. MII has created 105 companies, attracted over \$585 million in investment dollars to the state and created & retained high tech jobs with average salaries of \$100,000.

To date, MII has reviewed 609 grant and 142 investment applications and has an award funding rate of 45% and 58% of applicants, respectively. In FY21 alone, MII reviewed 44 grant and 11 investment applications and awarded funding to 55% and 82% of applicants. 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 about technology commercialization.

Without the type of support MII provides, there is zero obligation for these pioneering innovations to stay in Maryland.

The Fiscal Year 2003 Allowance funds MII at \$5.3 million, consistent with FY2022 funding. The funding level was increased in FY22 due to the very high demand for this program. Demand remains very high and TEDCO appreciates the FY23 Allowance. In addition, the FY23 Allowance provides \$500,000 to support an MII pilot program with Bowie State University and Frostburg University, as required by legislation passed during the 2022 Session. As noted in the analysis, TEDCO is working closely with BSU and FSU to develop the pilots.

### **FY2021 MII Statistics**

- # of proposals-55
- # of awards/investments - 33
- # of start-up companies formed - 17
- # of start-up companies funded – 9
- Total amount granted and invested - \$4,303,589

## **Builder Fund**

As the analysis reflects, the Pre-seed Builder Fund (or Builder Fund) increases by \$4 million to a total of \$5 million in FY23, a result of legislation passed in 2022 and support from the Governor's budget. TEDCO thanks the Maryland General Assembly and Governor for the support for this program. While TEDCO have shown success with our pre-seed funds and appreciate the increased funding, there exists the need to reach an even greater population (at an even earlier stage) that lacks access to friends & family and/or personal wealth.

Builder 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. Of the four awards TEDCO made in FY2021, 100% were minority and/or female owned businesses (2 minority, 1 minority/female, and 1 female).

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 (MSBDF). TEDCO will systematically make referrals to MSBDF for all companies that express an interest in other resources.

### **FY2021 Builder Statistics**

- # of awards - 4
- Total amount invested - \$450,000
- # of mentor hours – 2,117

### ***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.

### **FY2021 TCF Statistics**

- # of investments - 4
- # of jobs in funded companies - 11
- Total \$ invested-\$800,000

### **Cybersecurity Investment Fund**

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

### **FY2021 CIF Statistics**

- # of investments - 4
- # of jobs in funded companies - 17
- Total \$ invested-\$800,000

### **Life Science Investment Fund**

The Life Science Investment Fund 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.

### **FY2021 LSIF Statistics**

- # of investments - 3
- # of jobs in funded companies - 12
- Total \$ invested- \$600,000

### **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.

### **FY2021 Gap Investment Fund Statistics**

- # of investments - 1



- # of jobs in funded companies - 33
- \$ awarded - \$200,000

### **Maryland Venture Fund**

The Maryland Venture Fund is The 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.

## **Technology Incubator Programs**

### **Business Assistance Fund**

To support the incubator network in Maryland, TEDCO provides the Maryland Business Innovation Association (MBIA) with business assistance funding to assist individual incubators in providing innovative programming to their tenant and affiliate companies. The individual incubator grant amounts are determined through a competitive application process.

The funding is used for a variety of business assistance services that these incubators would not have been able to provide in-house. This includes but is not limited to the following types of assistance:

- negotiating strategic investments or partnerships
- raising venture funding
- recruiting top management
- reviewing business plans
- analyzing cash flow projections
- developing marketing strategies
- reviewing budget assumptions, cost structure and financial statements
- discussing potential public relations opportunities and researching media coverage
- identifying business opportunities with the federal government

In addition to this fund, TEDCO also helped develop, co-sponsor, and participate in the Maryland Business Innovation Association's (MBIA) Challenge. This Challenge was designed as a reverse-pitch and enabled start-ups an opportunity to connect and partner with large corporations (e.g., IBM) to help them secure their first client/customer.

### **Entrepreneur and Ecosystem Empowerment (E3)**

TEDCO's Gateway Services group was renamed Entrepreneur and Ecosystem Empowerment (E3) in FY2020. While the number of programs has expanded, the programs' goals remain focused on assisting start-up companies with key milestones that are designed to accelerate growth. TEDCO's 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 MD, Southern MD, Northeastern MD, 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 FY 2018, the RBII program launched a Rural Pre-Seed Investment Fund which invests \$25,000 in each of Maryland's eleven rural companies for a total of \$250,000. At present, ten of those companies are still in business and combined they have raised well over \$20 million in follow-on funding. In fiscal 2021, due to Covid, Business Mentors shifted from in-person mentoring to primarily mentoring via Zoom and other communication platforms. Despite this change, they actively supported 106 companies resulting in 1,196 hours of mentoring. Two companies received pre-seed investments and five companies received project grant funding:

Counter-Intuitive Cooking, Carroll Co., Central Region  
Launchpad Music (Mu School), Harford Co., Central Region  
LAINA Pro, Carroll Co., Central Region  
Cyan Sage, Charles Co., Southern Region  
MadTech, Calvert Co., Southern Region

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 operate its annual virtual I-Corp course in conjunction with UMD. To increase participation, while primarily focused on rural companies, this course was also opened to include companies from other TEDCO programs.

Plans and partnerships were also developed in 2021 to expand 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).

### **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 network of almost 100 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 1 – 2 hours of pro bono advising to individual companies. TEDCO hosted 2 Network Advisory Meetings with approximately 40 attendees at each one. Since March of 2021, TEDCO has organized 28 Network Advisory-to-entrepreneur meetings for a total of about 70 hours of collaboration in the format of targeted actions (specific issues rather than general discussions).

### **Loaned Executives**

In certain cases, companies that have already received, or are likely to receive, an investment from TEDCO, 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 FY2021, TEDCO funded 7 loaned executives and 8 companies. The companies were introduced via TEDCO programs including: RBII, Builder fund, and Federal Programs. Two more Loaned Executive projects are nearing completion.

### **Prelude Pitch**

Each month, TEDCO invites start-up companies to give their pitch in front of our team members and experienced mentors to receive valuable feedback and an introduction to TEDCO. In fiscal 2021, TEDCO held multiple virtual Prelude Pitch events which provided 43 companies an opportunity to pitch their ideas. During this time, over 30 Network Advisors volunteered their time for these events and one event was held in conjunction with a local accelerator. TEDCO has a waiting list now of over 12 companies that will take us out another three months. On average two to three Network Advisors participate in the Prelude Pitch each month. Network Advisors

mirror the makeup of Maryland’s diverse population, about 40% African American, white: 50% and other ethnicities.

**Roundtables**

The CEO Roundtable groups 10 to 12 non-competitive portfolio entrepreneurs around a common theme – industry vertical, demographic, or stage of development. It is expected that each roundtable will continue to operate if it remains relevant. Participants are asked to make a soft commitment of one year to the roundtable, but turnover is anticipated and once established, the facilitator and roundtable group will approve new members. In FY 2021, there were five Roundtables, held virtually, due to COVID-19, including the CEO Sales Roundtable, Women's Roundtable, AI Roundtable, SaaS Roundtable, and HealthIT Roundtable. The attendance for the Roundtables follows:

- Women’s Roundtable: 21
- AI Roundtable: 23
- SaaS Roundtable: 15
- Health IT Roundtable: 14
- CEO Sales Roundtable: 5 attendees

*Note:* This roundtable evolved into more applicable one-on-one mentoring based on the companies needs which were each very unique and, thus, more time consuming.

**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. Top performing resources on the TEDCO’s Resources page – FY22

<b>Resource Link</b>	<b># of Clicks</b>
Maryland Entrepreneur Hub	102
Maryland Business Express	53
Maryland Business Innovation Association (MBIA)	31
Pitch Creator	28
Maryland Department of Commerce	23
I-Corps Program	15
Maryland Technology Internship Program	15

*All others were less than 15 clicks*

**Total clicks from page: 426**

## **Maryland Entrepreneur Hub**

In FY2021, TEDCO partnered with Commerce and USM to build and develop a state-wide AI enabled one-stop shop 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).

The Maryland Entrepreneur Hub is a free resource provided for current and potential business owners in the state. It contains detailed information on over 2,500 resources for business ventures and over 800 organizations that can support new and growing enterprises. When exploring resources, the user can use filters to narrow your search to find exactly what they need.

## **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.

Due to Covid, the Market Search Services provided by TEDCO were made 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. Over a one-year period, TEDCO recorded 139 users accessing 3,495 reports which are valued at over \$3.7 million.

## **Rural and Urban Business Recovery from Impact of COVID-19 (RUBRIC)**

In response to the impact of the COVID-19 pandemic on Maryland's small businesses – especially those in underserved and rural communities, Governor Hogan provided TEDCO with \$5 million from the State's rainy-day fund to develop a program to assist companies with challenges associated with the COVID-19 pandemic and associated economic downturn. Using these funds, TEDCO launched the RUBRIC Program targeting rural and underserved companies. TEDCO received a total of 72 applications and issued 45 awards of \$100,000. Of the awards, 16 were from rural regions and 36 were to underserved entrepreneurs across 16 of Maryland's counties. Some funds were used for the administration of the program, marketing, and for continued support of the awarded companies.

## **Agricultural and Rural Rebuild Challenge (ARR)**

TEDCO's Agriculture and Rural Rebuild (ARR) Challenge was created with support from the Maryland General Assembly and the Governor through the Recovery for the Economy, Livelihoods, Industries, Entrepreneurs, and Families (RELIEF) Act of 2021. The purpose of the program is to assist Maryland's rural and agricultural businesses that have been detrimentally impacted by the COVID-19 pandemic and associated economic downturn. The ARR challenge specifically funded technology-empowered initiatives in the development of an innovative product or a novel application of an existing technology to help a business pivot or recover from the current COVID crisis. TEDCO made 7 ARR Challenge awards in the form of grants up to \$200,000 per project for a period of one year.

## **Federal Laboratory Technology Initiatives**

### **NIST-Science and Technology Entrepreneurship Program**

The overall objective of the National Institute of Standards and Technology (NIST) Science and Technology Entrepreneurship Program (N-STEP) is to further develop technologies created to support NIST's mission into products or services that benefit the public through the creation of viable entrepreneurial businesses. N-STEP provides an opportunity for enterprising NIST researchers to build upon experience gained while working at NIST as they explore entrepreneurial opportunities. NIST employees nearing the end of their term of employment (including graduating post docs) who are interested in forming companies may apply to independently pursue further translational research and development. Thirteen awards have been made with funding available for further collaboration between TEDCO and NIST.

### **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 teamed with the GovCon Incubator and the Small Business Development Center (SBDC) on a Small Business Administration FAST grant. The current grant can be renewed for one additional year (FY23). 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 SBA's goal is to double the national win rate for first time proposals from 16% to 32%. To date, the program has an overall award rate of 39%. For women-owned companies, the award rate is 60%.

Not only does the SBIR/STTR Proposal Lab help with the SBIR/STTR win rate, but it also provides business skills that improve the entrepreneur's overall business acumen. For FY 2021, TEDCO recruited 27 companies for the program; two companies left the program resulting in 25 the cohort. Additional funding would allow TEDCO to work with and prepare more companies to meet initial proposal lab qualifying criteria.

A key tool used by over 20 other states but not Maryland is to leverage non-dilutive funding is to match Phase I & I SBIR/STTR grants. In 2022, the Maryland General Assembly passed legislation establishing a Maryland SBIR/STTR Incentive Matching Fund is established as a special, nonlapsing fund, administered by TEDCO. The fund may be used only to provide awards or investments to eligible small businesses and to pay the costs necessary to administer the program, including marketing, outreach, and technical assistance. However, the program is unfunded in FY2023.

Maryland's innovation culture is linked to the extensive federal facilities and Maryland's lack of the match done by 20 other states puts us at a significant disadvantage. The Technical Assistance effort would assist TEDCO's SBIR Labs, that has led to an award rate for women and people of color led entities that graduated from the Lab that is double the national average.

## **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 22<sup>nd</sup> 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
- 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.

As reflected in the analysis, the FY23 Allowance provides a \$300,000 increase for foundational support. TEDCO appreciates this support. As 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. Accordingly, the purchasing power of TEDCO's budget has diminished over time. This has been especially impactful on TEDCO's administration and operating budget. Since 2011, the budget that the State provides to cover TEDCO's general and operations budget has remained flat. However, expenses over that time have increased by 19 percent.

The expenses are driven, not just by normal inflationary pressures, but also by increases in operational responsibilities. As TEDCO's programming improves and expands, so do its administrative needs. Additionally, there is currently very limited budget allocated for the Marketing & Communications efforts within the organization, posing challenges for making the funds known to the broader community.

As TEDCO expands our programs and services into underserved Maryland markets, we will need to scale our marketing and communications support to do so effectively. This is especially important with the expansion of TEDCO's social impact programs.

## **Responses to DLS Analysis**

### **DLS Recommendation – Concur with the Governor's Allocation for TEDCO**

As was stated earlier, TEDCO appreciates the thorough work and analysis done by DLS analyst Emily Haskel and acknowledge and accept her recommendations.