



**Maryland Technology Development Corporation
(TEDCO)**

**Annual Report
and
Financial Report**

Fiscal Year 2016

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Introduction

Technology continues to be the driving force for the New Economy and it is critical to Maryland's future. Maryland is richly endowed with technology assets – the largest concentration of federal laboratories of any State in the nation, nationally recognized research universities, a federal contractor base with a specialty in science, security and communications, and an emergent biotechnology cluster.

The Maryland Technology Development Corporation (TEDCO) was created by the General Assembly to “assist in transferring to the private sector and commercializing the results and products of scientific research and development conducted by colleges and universities; assist in the commercialization of technology developed in the private sector; and foster the commercialization of research and development to create and sustain businesses throughout all regions of the State.” TEDCO administers the Maryland Technology Incubator Program, which promotes entrepreneurship and the creation of jobs in technology-related industry by establishing and operating effective incubators throughout the State that provide adequate programs and physical space designed and intended to increase or accelerate business success in the field of technology.

TEDCO, a “body politic and corporate and constituted as a public instrumentality of the State,” is governed by a 15-member Board of Directors, appointed by the Governor with the approval of the Senate and includes the Secretary of the Department of Business and Economic Development as an ex-officio member.

Mission

To facilitate the creation and foster the growth of businesses throughout all regions of the State through the commercialization of technology. To be Maryland's leading source of funding for technology transfer and development programs and entrepreneurial business assistance.

Vision

Maryland will become internationally recognized as one of the premier 21st century locations for technology and technology-based economic development.

Technology Transfer and Commercialization

Maryland Technology Commercialization Fund

TEDCO's primary 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 of up to \$100,000 per project 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.

FY2016 TCF Statistics

- # of proposals-146
- # of awards-19
- \$ awarded-\$1,900,000
- Total funding awarded since program inception-\$22M
- Total downstream funding since program inception-\$1.0B
- Leverage ratio-\$45.8:\$1

These numbers indicate that TEDCO continues to fill a need in the economic landscape of commercialization that has been traditionally overlooked.

TEDCO's primary metric of success has been the downstream funding that awardees have raised since the completion of their projects. TCF awardees have attracted external downstream funding at a rate of **\$45.8 for every dollar of their TCF award**. The external funding originates, for example, from a mixture of venture and angel investors, government Small Business Innovative Research grants (SBIR), private placements, and other investments. The capacity of TCF firms to attract such investment from external investors is demonstrative of the benefit of the networking facilitated by TEDCO.

Technology Validation Program (formerly University Technology Development Fund and TechStart)

With the advent of the Maryland Innovation Initiative (MII), the University Technology Development Fund and the TechStart program needed to be redesigned to serve non-MII universities. The Technology Validation Program (TVP) facilitates commercialization of non-MII university technologies by providing early-stage funding up to \$50,000 for the express purpose of helping university innovators increase the attractiveness of their research to outside companies that may be interested in licensing the technology at a later stage. The funds approved can be used by university researchers for activities such as additional experimentation, prototype development and limited patent related activities. This fund can also be used for proof of concept studies and to broaden patent claims.

FY2016 TVP Statistics

- # of proposals-11
- # of awards-6
- \$ awarded-\$70,000

Maryland Innovation Initiative

The General Assembly passed HB442 during its 2012 legislative session creating the Maryland Innovation Initiative (MII). This program is intended to increase the rate of commercializing technologies developed in Maryland's research universities (Johns Hopkins, Morgan State, University of Maryland-College Park, University of Maryland-Baltimore, and University of Maryland-Baltimore County).

FY2016 MII Statistics

- # of proposals-100
- # of grants awarded-46
- # of start-up companies funded-13

Cybersecurity Investment Fund

The General Assembly passed HB740/SB603 during its 2014 legislative session creating the Cybersecurity Investment Fund (CIF) is signed into law by Governor O'Malley. The CIF is targeted to cyber security technologies and builds on TEDCO's Technology Commercialization Fund.

FY2016 CIF Statistics

- # of proposals-20
- # of awards-8

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 (formerly DBED) 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.

FY2016 LSIF Statistics

- # of proposals-11
- # of awards-4

Coordinating Emerging Nanobiotechnology Research in Maryland Fund

The General Assembly passed HB1409/SB735 during its 2008 legislative session creating the Coordinating Emerging Nanobiotechnology Research in Maryland Fund. This program has never received an appropriation, and as such there is no program activity to report.

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 NIST as they explore entrepreneurial careers. The Program is focused on commercialization of research that has been done at NIST by graduating post docs that 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.

mdPACE

mdPACE is a new Program jointly funded by TEDCO and a Federal Department of Commerce EDA i6 Grant. The output of the program will be an increased flow of FDA cleared devices from the Central Maryland region. The desired outcome of this increased flow will be heightened visibility among financial and strategic investors, and manufacturers such that the increase is sustainable. A reliable critical mass of medical device clearances in the Central Maryland region will eventually lead to the businesses formed around those devices remaining in the region – once that happens, all the indirect and non-scientific job creation surrounding medical devices (QA/QC, supply chain support, manufacturing, etc.) will flow into the region with attendant economic development benefits.

Technology Incubator Program

Incubator Development Fund

On June 1, 2001, TEDCO’s enabling legislation was modified to create the Incubator Development Fund (IDF). To date, capital appropriations for the fund total \$8,267,500. No projects were funded in FY2014. The IDF summary is shown below:

Incubator	Funding Awarded
techcenter@UMBC	\$1,000,000
Silver Spring Innovation Center	\$1,000,000
ETC@Johns Hopkins Eastern	\$1,000,000
Frederick Innovative Technology Center@Hood	\$425,000
Prince George’s County Technology Assistance Center	\$230,000
Rockville Innovation Technology Center	\$1,000,000
Frederick Innovative Technology Center@Monocacy	\$562,500
Hagerstown Technical Innovation Center	\$450,000
University of Maryland-Baltimore	\$1,000,000
Germantown Innovation Center	\$600,000
Dorchester County	\$1,000,000
Subtotals	\$8,267,500

Incubator Feasibility Studies

In order to identify appropriate opportunities for the creation of new or expanded incubator facilities, TEDCO will partner to sponsor independent, professional studies of the feasibility of potential incubator projects. Each study is sponsored by a local government, college, university, or non-profit corporation, and provides at least a 1:1 cash match.

No feasibility studies were performed in FY2016.

Business Assistance Fund

To support the incubator network in Maryland, TEDCO provides business assistance funding 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

2016 Maryland Incubator Company of the Year

TEDCO continued the tradition of recognizing the achievements of incubator tenants and graduates by hosting the twelfth annual Maryland Incubator Company of the Year Awards with co-sponsors Saul Ewing LLC, RSM McGladrey and the Maryland Department of Business and Economic Development, with additional support from the Maryland Business Incubation Association.

The thirty-five member selection committee for the awards is comprised of both private venture capital and public investment managers. The review process has the unique aspect of granting newly-emerged technology startups the undivided attention of the investment community.

This year the awards were held on June 21, 2016 at the American Visionary Arts Museum in Baltimore in Baltimore. Over 120 guests were in attendance.

2016 Incubator Company of the Year Awards

- Best Life Sciences Company: Sonavex
- Best Technology Product Company: Airphoton
- Best Education Technology Company: eThink Education
- Best Consumer Products Company: Kitchology
- Best Big Data Company: Phoenix Operations Group
- Best Cyber Technology Company: Integrata Security
- Best Graduate Company: ZeroFox

Rural Business Initiative and Entrepreneurial Programs

Rural Business 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.

To this end, the Maryland Congressional delegation supported a federal SBA award to TEDCO 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 (RBI). This funding was augmented by TEDCO funds to ensure a complete reach of the rural parts of the State. 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 RBI program has been well-received by the 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 FY2016, Business Mentors have actively supported, with on-going mentoring, 101 companies resulting in 2083 hours of mentoring, and 17 companies have received third-party technical assistance awards.

Examples of business assistance included:

- Marketing strategy development
- Contract analysis
- Funding source identification assistance
- Funding for infrastructure development
- Funding for technical assistance
- Funding for product development

Maryland Stem Cell Research Fund

A more detailed report regarding the project summary and financial support will be provided in the 2016 Stem Cell Annual Report to the Governor as indicated in section § 5-2B-09 of the 2006 Stem Cell Research Act. This report is due on or before January 1.

Maryland Venture Fund

The Maryland Venture Fund was transferred from the Department of Business and Economic Development to TEDCO on October 1, 2015. A more detailed report regarding this program will be provided in the 2016 Maryland Venture Fund Annual Report to the Governor in accordance with § 2-1246 of the State Government Article, the Senate Budget and Taxation Committee and the House Ways and Means Committee. This report is due on or before January 1.