



**Study on Competitive Award of the
Biotechnology Investor Incentive and Innovation
Investor Incentive Tax Credit Programs**

In accordance with

CHs 112 and 113, Acts of 2021

Submitted by
Maryland Department of Commerce

December 1, 2021

Introduction

Senate Bills 19 and 160, passed by the General Assembly during the 2021 Legislative Session, required the Department of Commerce (“Commerce”) to study the methods and criteria by which the Department might award tax credits under both the Biotechnology Investment Incentive Tax Credit Program (“BIITC”) and the Innovation Investment Incentive Tax Credit Program (“IITC,” an expanded program based on former Cybersecurity Innovation Investment Tax Credit, or “CIITC”) on a competitive basis; and report to the General Assembly on the findings and recommendations. Senate Bill 19 also required Commerce to develop strategies to increase BIITC awards under the Program to early-stage biotechnology companies.

Background

BIITC provides income tax credits for investors that invest in Qualified Maryland Biotechnology Companies (“QMBCs”). This tax credit program incentivizes private investment in early-stage biotechnology companies. This has been a very successful program, attracting more than \$280 million in private investment to 125 Maryland companies since fiscal year 2007. The program’s appropriation has increased to match the demand raised: \$6 million in fiscal years 2007-2010, \$8 million in fiscal years 2011-2013, \$10 million in fiscal year 2014, and \$12 million in fiscal years 2015-2022. Effective July 1, 2021, several changes were made to the program to improve access to the program for early-stage biotechnology technology companies. These changes include instituting a cap of \$7 million in total credits received over the life of a company and limiting the age of the company to 12 years of active business.

CIITC was originally established during the 2013 Legislative Session to offer incentives for investment in early stage privately held cybersecurity companies. The original program provided the tax credit to the company, not the investor. The program was amended in 2016 to provide an enhanced credit to qualified companies located in Allegany, Dorchester, Garrett and Somerset counties. The program was amended again in 2018 to provide the tax credit to the investor, following the BIITC model. The program has been funded at \$3 million in fiscal year 2014, \$4 million in fiscal year 2015, \$1.5 million in fiscal year 2016 and \$2 million in fiscal years 2017 through 2022. The program has assisted 13 cybersecurity companies raise over \$17 million in private investments since fiscal year 2014. The General Assembly approved legislation in 2021 to transform this program into what is now IITC, expanding the eligibility of the industry sectors beyond cybersecurity to support a more inclusive portfolio of innovative Maryland companies.

Part 1: Evaluation of Methods to Allocate Investor Tax Credits

Stakeholder Outreach

To evaluate the methods and criteria by which these tax credits could be awarded, Commerce sought stakeholder input through several methods. The study was discussed during the September 2021 Life Science Advisory Board (LSAB) meeting, and members were encouraged to provide input to the Commerce Office of Life Sciences. Meetings were held with stakeholders from Johns Hopkins University, the University System of Maryland, and the Maryland Technology Development Corporation (TEDCO). An online survey was distributed through e-newsletters, partners such as the Maryland Tech Council, as well as direct email to past company

and investor applicants of the tax credit programs. A summary of survey results can be found in Appendix I.

Evaluation of Award Methods

Commerce evaluated several options of the method in which the BIITC and IITC could be awarded. Below is an explanation of each method, the pros and cons, and a fiscal note of resources needed to implement each method.

1. ***First Come, First Served.*** This is the current process by which tax credits are awarded under both programs. Each fiscal year, companies and investors apply separately to be qualified. Commerce may certify the company as a QMBC before or after the investor applies for the credit. Investors apply in a two-step process which includes an application to determine eligibility for the tax credit followed by an online queue registration to determine the first-come, first-served priority of allocating tax credits. Commerce staff qualifies each investor based on the statutory requirements of the program and begins the due diligence process to award the tax credits based on the investor's position in the online queue registration until the funding is fully allocated.

- Pros:
 - In-line with current statutory requirements: this process is set by statute and does not require any current legislative changes to the program.
 - Changes enacted in 2021 may be enough to meet the goals of spreading the benefits of this program to more companies at early- and mid-stages.
 - Existing Commerce staff can administer: no additional financial or staff requirements are required.
 - Market-driven approach to company evaluations: the investment community drives the evaluation of the company business model, technology viability and market access through investment decisions.
- Cons:
 - Frustration by some in the community: perception that a lower position in the queue means the investor will not be eligible for the tax credit when the program is oversubscribed.
 - Perceived unfairness by some in the community: perception that queue order may be achieved by manipulation (e.g., an organization employing others to apply at the same time from different IP addresses). When the program is oversubscribed, this may result in skewing tax credit allocations to investors/companies with more significant resources and experience with the application process.

Fiscal Impact: none

2. ***Lottery.*** This would be a new method for awarding the tax credits. It would still require companies and investors to separately apply for the program. However, rather than investors being assigned a number in the queue based on the order in which the applications are received, there would be a defined application period during which all investor applications must be submitted. Once the application window closes, the

investor applications would be randomized similar to a lottery and the tax credits would be awarded in this randomized order until all funds are spent.

- Pros:
 - Existing Commerce staff can administer: no additional staff requirements are required.
 - Market-driven approach to company evaluations: the investment community drives the evaluation of the company business model, technology viability and market access through investment decisions.
- Cons:
 - Will require additional resources for randomization: while no additional staff resources would be needed, investment in a technology platform to enable randomization would be required.
 - May not alleviate the perceived unfairness of random allocation by some in the community.
 - Will require legislative change to the current statute to permit a lottery process.

Fiscal Impact: unknown technology cost for randomization software

Technology Platform - unknown - a technology platform to administer the competitive process has not been identified. This represents an unknown cost related to implementation of a competitive review process.

3. **Competitive Review.** This would be a new method of awarding the tax credits. Companies would submit an application and a review committee will evaluate, score and rank companies based on predetermined criteria. Investors in top-ranked companies would then be invited to apply for the tax credit through a defined application period during which all investor applications must be submitted. Commerce staff would qualify the investors based on the statutory requirements of the program, and all investors in the top-ranked companies would receive their credit up to the limits per company established in the program. This process would continue through each ranked company until all funds are allocated. The review process would include interviews with companies if additional information is required beyond the application.

There are two ways by which a competitive evaluation process could be implemented through a review based on established criteria: 1) internal review by Commerce staff that reviews and scores all applications; and 2) external review by voluntary uncompensated external advisory board that will include a mix of technical experts and business leaders from academia, industry, government, financial and other sectors.

- Pros:
 - Tax credits are not awarded first come, first served or on a lottery basis; could be perceived more fair by some in the community.

- Reviewers will be Commerce employees and therefore should have no potential conflict of interests (internal review)
- Review will be done by an independent external committee of experts (external review)
- Commerce staff will establish criteria for scoring applications similar to a grant process.
- Cons:
 - This process may reduce the total number of companies that benefit from the program each year, the opposite of the intended goal. For example, the statute limits the total amount of credits that can be allocated to a single company (but multiple investors) at 10% of total program funding. At \$12 million in funding, if the top ranked companies each had several investors totaling \$1.2 million in investment, only the top 10 companies would be eligible to benefit from the program that year.
 - Removes market-driven approach to company evaluations by shifting the responsibility to Commerce staff to determine the priority of companies to receive the tax credit benefit.
 - Commerce staff may not possess the necessary technical expertise to review applications. This may be especially difficult for the Innovation Investment Tax Credit due to the broad set of industry sectors that are eligible for the program (internal review).
 - Difficulty in finding reviewers that possess the necessary technical and business expertise to review applications on a voluntary basis. This may be especially difficult for the Innovation Investment Tax Credit as reviewers could not be selected until applications were submitted and the technology areas are identified for which expertise is needed (external review).
 - May create greater uncertainty for investors, as they will not know how the company will score in the evaluation process in advance. Currently, the company may qualify before the investor submits its application, resulting in greater certainty that the investor will receive the tax credit if sufficient funding is available.
 - Will require three new staff with diverse and business expertise to administer, reconcile and monitor the program.
 - Will require legislative change to the current statute to permit a competitive review process.
 - Will require a specialized software solution to administer the review process, scoring, and tax allocations.

Possible Evaluation Criteria:

Possible evaluation criteria for the competitive review process are listed below in no particular order. Commerce staff will have to develop a scoring system based on some or all of these criteria with additional stakeholder input.

- Stage of development: (e.g., pre-commercialization, pre-revenue, pre-commercial, past proof of concept, pre-clinical, clinical development)
- Projected market/impact for the technology
- Experience of management team
- IP protection (e.g., provisional, non-provisional, PCT)
- Established Advisory/Governance Board
- Ownership (e.g., minority, woman, veteran, disadvantaged)
- Previous funding (federal, private, other)
- Participation in company mentoring programs, incubators, accelerators
- Strategic partners (academic, industry, investors)
- Current and projected number of Maryland employees

Fiscal Impact:

Total year one cost: \$292,540 plus unknown technology platform cost

Total cost over four years: \$1,180,692 plus unknown technology platform cost

- Staff: FY23 - \$275,305; FY24 - \$283,815; FY25 - \$293,988; FY26 - \$304,454
 - One position at Grade 18
 - Two positions at Grade 16
- Supporting Operational Budget: FY23 - \$17,235; FY24 - \$1,965; FY25 - \$1,965; FY26 - \$1,965
 - Staff technology needs, program administration costs
- Technology Platform - unknown - a technology platform to administer the competitive process has not been identified. This represents an unknown cost related to implementation of a competitive review process.

Recommendation

After careful consideration and review of stakeholder input, Commerce recommends continuation of the current first-come first-served allocation for both the BIITC and IITC programs.

Changes made to both programs during the 2021 legislative session were intended to address many of the concerns associated with these programs. For the BIITC program, the amount of the tax credit awarded to an investor was reduced from 50% to 33% of the investment amount, and the amount of tax credit benefit which may be received by a company was reduced from 15% to 10% of the fiscal year appropriation. Companies are also limited to a \$7 million lifetime benefits cap, and program participation was capped to 12 years of active business. These changes were intended to enable more companies and investors to receive a share of the funding.

In addition, Commerce enhanced online information and access to the programs. The websites were improved to provide detailed information about the application process and qualification criteria. Finally, prior to the start of the fiscal year 2021 program, Commerce developed an online application system and associated workflow to provide greater accessibility and

communicability with companies and investors.

Commerce believes that these improvements will continue to address most of the concerns. In fact, preliminary feedback suggests that the changes are having a desired effect. Additional time is necessary for the community to adjust to these changes and for staff to evaluate the results.

Moreover, investors expressed significant concern with the competitive review process. Some felt that it would introduce additional uncertainty, making it more difficult to make informed investment decisions and estimating the value of that investment based upon the availability of the tax credit. Others worried that the resources required to implement a competitive review would be diverted from the applicants. Additionally, investors thoroughly review both the technical and business plan viability of a company prior to making investment decisions. This market-driven approach to investment decisions should be preserved, removing government from the determination of which companies are most deserving of the program benefits.

Part 2: Recommendations to increase BIITC awards to early-stage companies.

As mentioned above, changes made to BIITC during the 2021 legislative session were intended to increase accessibility and availability of funding to more biotechnology companies. The lifetime cap of \$7 million per company, specifically, aims to make funding more available to early-stage companies. In two of the last three years (FY19 and FY21), companies five years old or less accounted for 25% and 28% of awarded tax credits, respectively.

In addition, Commerce staff can take further steps for increasing the number of early-stage companies that apply for the credit:

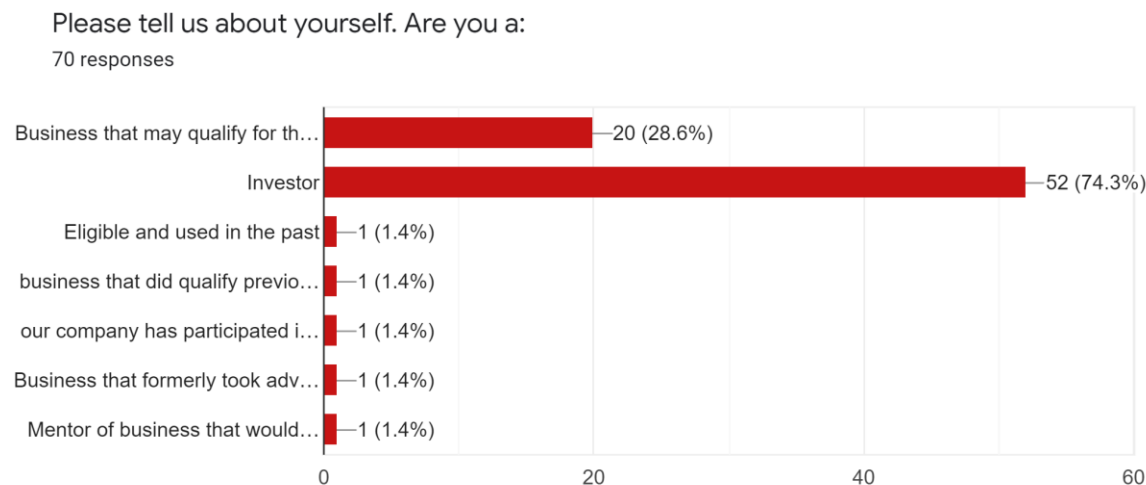
- Commerce will work closely with local accelerators and incubators to market the programs, clarify eligibility requirements, and assist with the application process to encourage new companies to apply.
- Target marketing of the program to investors in early-stage companies, such as seed funds and angel investor networks.
- Commerce will continue educating local and out of state investors about this program to encourage increased investments into innovative Maryland companies.

These efforts will be amplified by increased engagement with existing ecosystem partners as well as ongoing business attraction and retention activities (conferences, trade shows, partnering events, etc.). Commerce expects that the changes made to the program in 2021 will encourage more companies and investors to apply for the programs, benefitting more businesses across the state.

Appendix I: Summary of Stakeholder Survey Results

An online survey was distributed through e-newsletters, partners such as the Maryland Tech Council as well as direct email blasts to past company and investor applicants of the tax credit programs. The survey remained open for 18 calendar days and collected 70 responses.

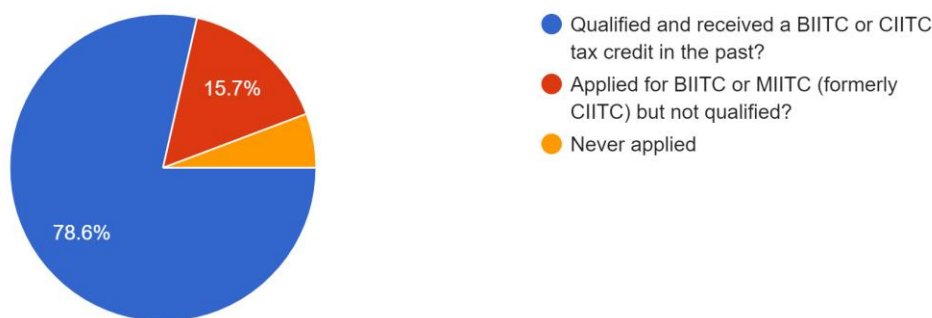
The majority of responses from investors (74.3%), followed by businesses that would or have qualified for the program in the past (28.6%):



The majority (78.6%) of the respondents qualified and received a tax credit in the past:

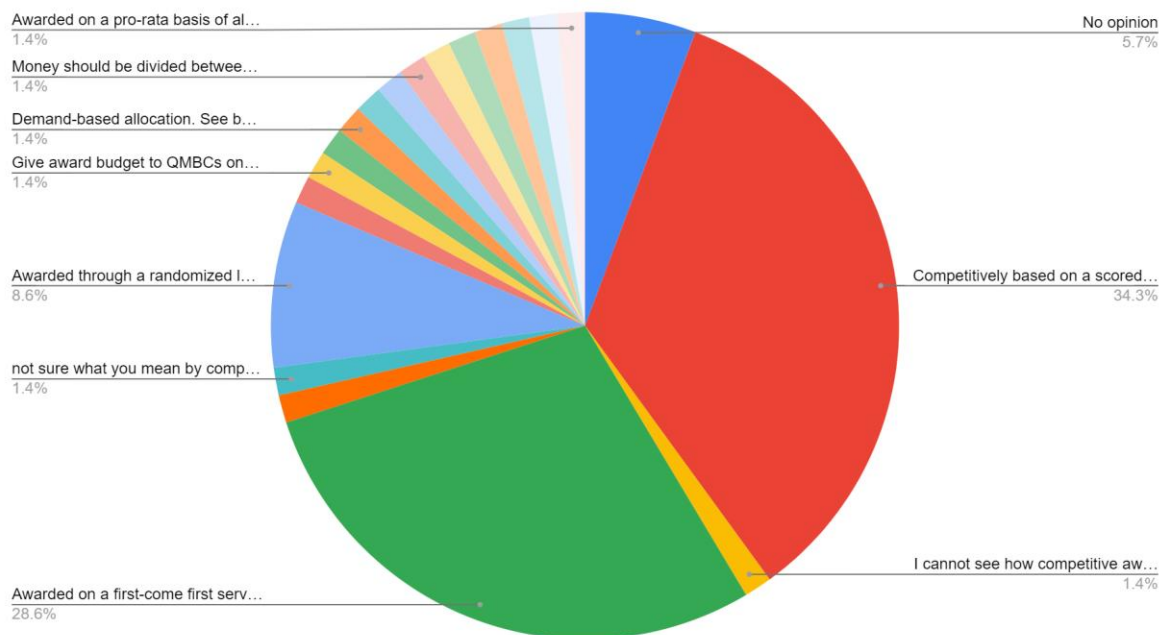
If you are a business or investor, have you:

70 responses



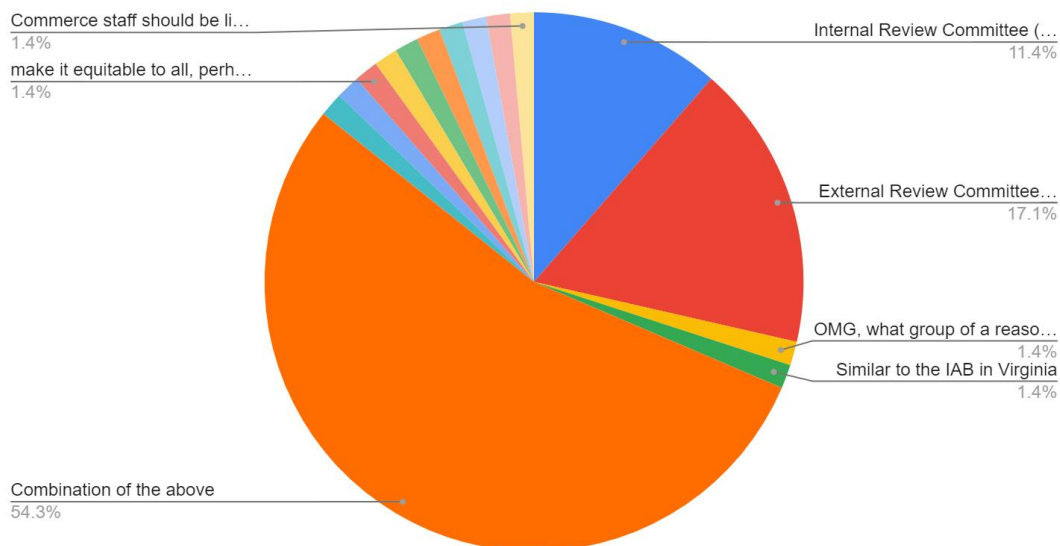
When asked about administration of the programs, the majority of respondents (37.2%) favored an option that does not include competitive review (34.3%). Specifically, 28.6% chose first-come, first-served method, 8.6% chose the lottery method, 5.7% had no opinion and the rest (28.5%) were a combination of responses that skewed heavily towards a first-come, first-served or lottery allocation:

In your opinion, should these tax credits be:



Respondents provided feedback on possible evaluation criteria for a competitive review that were included in this study. The majority (54.3%) favored a combination of internal and external review, each of which received 11.4% and 17.1%, respectively:

If the tax credits were awarded on a competitive basis, who should be evaluating the applications?



Additional comments recommended several existing grant review models and expressed support for continuation of these programs to incentivize investment in Maryland companies. Full survey results are available upon request.