House Bill 514

Testimony to support Maryland SBIR/STTR Incentive Program

I am Mr. Evandro Valente, Founder and Chief Technology Officer of Airgility Inc, located at the Discovery District in College Park, MD. We develop autonomy and artificial intelligence algorithms responsible for decision-making onboard our patent pending unmanned aerial systems and supporting ground systems.

Late 2019, we were awarded $225K by the National Science Foundation. This Phase I SBIR award is entitled: “Intelligent cloud-based Advanced Manufacturing Services”.

This NSF SBIR project broadly impacts Advanced Manufacturing as it extends additive manufacturing beyond low-rate prototyping.

In essence, the proposed intelligent algorithm provides logistical decision-making as it guides fabrication personnel on tasks to perform while receiving and processing digital engineering changes occurring upstream from the point of fabrication. As a result, design-change friendly engineering is retained while mitigating time and material losses that typically occur in fabrication and assembly of the final product.

While SBIRs are an enormous boost and validation for any small business, the Federal level monetary incentive comes with certain inflexibilities, such as: milestone based fund dispersal (perform first then get paid), inability to use funds for materials/machines/IP protection, government shutdown and so on.

In all, having State of MD matching SBIR funds to bridge funding gaps is essential to keeping small innovative businesses thriving. More importantly, funding resiliency to SBIR awarded companies incentivizes them to remain in the State of Maryland and ward off the allure of accepting VC Funding prematurely. In addition to the goal of creating and retaining jobs in Maryland, innovation-based startup entrepreneurs retain ownership of their companies longer. This organic growth enables a larger valuation in exchange for less equity when VC Funding is needed. Therefore, it is more likely that majority ownership will remain with the Founders longer rather than transferred to the VC Funding Agent that (likely) has no interest in keeping the company in Maryland.

Lastly, this bill will further energize new entrepreneurs to enter and stay the Maryland ecosystem and grow the products/services that they are passionate about.

Thank you.

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House Bill 521

Testimony to support Maryland SBIR/STTR Technical Assistance Program

I am Mr. Evandro Valente, Founder and Chief Technology Officer of Airgility Inc, located at the Discovery District in College Park, MD. We develop autonomy and artificial intelligence algorithms responsible for decision-making onboard our patent pending unmanned aerial systems and supporting ground systems.

In the summer of 2019, we participated in the pilot program for the SBIR/STTR Proposal Writing Lab overseen by OST Global Solutions (Rockville) and the Maryland Technology Development Corporation (TEDCO) supported by the Maryland Small Business Development Center (SBDC) and the Small Business Administration (SBA) FAST Grant.

As a result of Airgility’s proposal lab participation, we were awarded $225K by the National Science Foundation for a Phase I SBIR entitled: “Intelligent cloud-based Advanced Manufacturing Services”.

This NSF SBIR project broadly impacts Advanced Manufacturing as the algorithm under development extends additive manufacturing beyond low-rate prototyping by orchestrating open-ended digital design engineering with open-ended manufacturing. As a result, design-change friendly engineering is retained while mitigating time/material losses that typically occur in fabrication/assembly of the final product.

Had Airgility not been awarded this NSF SBIR, our budget would have remained dedicated to sustaining the company founders and a minimal core team of two additional members. Instead, since the NSF award is funding the CTO along with two additional (new) hires, the budgetary relief has allowed us to hire other employees and interns from the University of Maryland’s Robotics Engineering Master’s Program offered by the Office of Advanced Engineering Education at the A. James Clark School of Engineering. Currently Airgility employs five full-time engineers and five part-time/interns. Airgility secured the $225K award in its first attempt ever at a SBIR proposal and would never have succeed otherwise (without the proposal lab instruction and proposal writing review processes).

This Technical Assistance Program (House Bill 521) along with the SBIR/STTR Incentive Program (House Bill 514) are highly complementary with each other in creating the successful landscape needed to field winning proposals, worthy of Nation-wide competition for Federal Agency and Department of Defense funding, while further sustaining innovation post SBIR/STTR award.

In addition, more action is possible to further stave off the competitive tide that is soon to come with Amazon’s looming presence nearby. These Bills (514 and 521) are solid steps in securing the neuron supply chain needed to sustain innovation startups/companies as personnel retention is paramount.

I am delighted to discuss with any Legislative Member further actions that would defend/sustain the State’s mission to foster job creation while aligned with the needs of the (entrepreneurial) job creators.

Thank you.

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