



The Board of Regents Committee on Economic Development and Technology Commercialization

Minutes of the Public Session

February 22, 2022

The Committee on Economic Development and Technology Commercialization of the University System of Maryland (USM) Board of Regents met in public session on 9:30 am on February 22, 2022, virtually. Regent Leggett called the meeting to order at 9:30 am.

Regents present were I. Leggett (chair), G. Attman, E. Fish, R. Hur, M. Gill, A. Beams, and L. Gooden.

USM personnel present were L. Ryan, E. Herbst, T. McDonough, and E. Langrill. Other attendees were. Guest presenters were S. Shahrestani and A. Delia.

Chair Leggett invited Regent Gooden to say a few words, and she said she was excited to see commercialization and entrepreneurship across USM. The Chancellor acknowledged Lindsay Ryan's support of the Committee as they move toward a more explicit linkage between research and economic development and actively recruit for a new Vice Chancellor. Chair Leggett commented that he appreciated the firm statement from the Chancellor regarding the recent bomb threats at historically Black institutions.

#### **Featured Startup: MinnowTech (Information Item)**

Ms. Ryan introduced Ms. Shahrestani, CEO of Minnowtech. Ms. Shahrestani shared the story of her entrepreneurial journey, which started as a graduate student at the University of Maryland Center for Environmental Science. Ms. Shahrestani is originally from New York and attending school in Maryland embedded in her an appreciation for and attachment to the Chesapeake that she now considers part of her identity. In her fourth year of graduate school, she attended the Ratcliffe Environmental Entrepreneur Fellow (REEF) Program. Through it, she learned entrepreneurial concepts, met helpful mentors, and learned how her academic training could translate to many career opportunities outside of academia after graduate school. She was excited about entrepreneurship because it could move as quickly as she wanted to. She started MinnowTech with co-founders from an organization called Early Charm Ventures, which she met when they were a mentor in the REEF program. She said they understood real-world aquaculture problems, and when they saw what she was doing with her research on counting jellyfish and other marine organisms, they knew it could be applied to help shrimp farmers more accurately monitor how many shrimp they have. This leads to savings on food and other benefits. The company has received federal grant funding from the National Science Foundation and investment from the Momentum Fund. They have participated in the Maryland Industrial Partnerships program as well. The first funding toward the venture came from the REEF program. Ms. Shahrestani said it has been difficult to transient from being a scientist to CEO, but it has been rewarding especially lately as they begin building out the team.

Regent Leggett asked how they know their technology is accurate, to which Ms. Shahrestani responded that they are validating through trials, which are showing great accuracy. Regent Hur asked how they know that their technology isn't harming the shrimp, to which Ms. Shahrestani responded that the sonar frequency they are using is often used and does not negatively impact shrimp. Regent Fish asked to hear more about managing the transition from scientist to CEO and leader. Ms. Shahrestani said that she leans a lot on mentorship from her co-founders. However, she is also listening to her intuition and leading in a way that she is keeping her team as passionate as she is. Regent Leggett asked if there are other applications for the technology, to which Ms. Shahrestani responded that they could also work on other species, and there are other lucrative markets they could go after. However, they are starting with shrimp because it is solving a particularly difficult problem in that space, after which they will expand. Regent Leggett asked about competition to which Ms. Shahrestani responded that other techniques exist, but they all have drawbacks. Part of the "secret sauce" that they have is in the work she did in graduate school, where she was one of the few researchers in the world doing that type of work.

Regent Gill joined at the end of this item.

#### **USM Momentum Fund: Additional Fund Balance Allocation (Action Item)**

Ms. Herbst shared that Minnowtech illustrates one of the things the Momentum Fund (MMF) looks at – team. Ms. Herbst review the goals of the fund and the processes put in place, especially since the arrival of the second and current Managing Director, Claire Broido Johnson. She shared that alongside investment, companies continue to receive support. She added that some companies go on to raise additional funding and do not need MMF to participate but offer the opportunity, which prompts debate about the sometimes conflicting goals of the Fund. Regent Fish asked if sometimes the signal that MMF still has faith in them is needed, even if the money itself isn't. Ms. Herbst answered that it varies, and yes, sometimes that is a good signal. Sometimes they may invest but invest less or hold some until milestones are met. At 10:17am Regent Gooden left the meeting and said she is fully supportive of this initiative. Ms. Herbst shared a summary of a benchmarking study. Ms. Herbst added that the sources of funding for conventional university funds that are similar in nature are endowments, returns, or a specific philanthropically raised fund. Ms. Herbst shared that the MMF is facing a funding gap, and the recommendation from the Chancellor is to dedicate up to an additional \$2 million per year for three years as bridge funding to hopefully bring the fund to a point where significant returns are supplying funding needed to invest in new startups. She stressed that growing the impact of the fund would require more than USM fund balance. Regent Leggett added that he thinks USM is punching below its weight in terms of investment and asked for a follow-up conversation about ways to increase the size of the fund from other sources. Regent Attman said he agreed and that he thinks the fund should be more like \$50M. Chancellor Perman added that regarding the bridge funding, from an institutional perspective, showing a sustained commitment to certain activities helps recruit faculty with an interest in those areas, which he saw when he was a President at UMB. Regent Attman made a motion to approve the action item, with Regent Fish seconding it. The remaining Regents Leggett, Fish, Hur, and Gill voted in favor, with no votes in opposition. Ms. Herbst thanked Ms. Broido Johnson for her excellent work, and Ms. Ryan thanks Ms. Herbst for her leadership and bringing her unique entrepreneurial background to this System effort.

#### **Frostburg State University Economic Development (Information Item)**

L. Ryan introduced A. Delia, Vice President for Regional Development and Engagement at Frostburg State University. Mr. Delia commented that although Frostburg State University (FSU) is not a major research institution, it is incorporating science, technology, and research to play a central role in the economic development and revitalization of the region. Importantly, the region extends outside of Maryland. Through the I-68 Alliance, which is led by FSU and recently formed, partners in the region are coming together like never before to advance the region. Specific projects include a research park, which already has resulted in high-quality biotechnology jobs in the region. They are also working in other industries, such as renewable energy, waste-to-value, and information technology, in some cases attracting businesses from outside the state. They are developing an Advanced Product Design and manufacturing center and a remote work facility, which will enable workers to try out technologies and optimize their remote work. Much of this does not revolve around FSU's research activities, but those activities are growing as well. They have provided more resources for faculty and other to pursue funding opportunities. And other extramural funding has come from economic development activities as well, such as their Appalachian Regional Commission funding. FSU has great town and gown relations. For example, the city recently partnered with FSU on a building in the downtown area to develop center that will allow residents, visitors, and businesses to participate in hands-on STEM activities.

Regent Leggett asked about the timeline of these activities. Mr. Delia said that much has happened in the last four years, with some far enough along to be seeing results and others still in development. For example, a microgrid project will come to fruition in the next 18 months or so. Chancellor Perman commented that he has walked those buildings with Mr. Delia and President Nowaczyk, in addition to the adjacent Appalachian Lab of UMCES, and the USM presence in the region is a crucible of STEM and economic development. The energy is palpable; you can really feel it when you are there.

#### **Early-Stage Support Feasibility Study Recommendations (Discussion Item)**

Regent Leggett suggested that in the interest of time that this topic be covered alongside the Momentum Fund Action Item at the full board meeting.

The meeting ended at 11:02 am.

Respectfully submitted,

Isiah Leggett, Chair

Committee on Economic Development  
and Technology Commercialization