



The Board of Regents Committee on Economic Development and Technology Commercialization

Minutes of the Public Session

September 10, 2020

The Committee on Economic Development and Technology Commercialization of the University System of Maryland (USM) Board of Regents met in public session at 12:30 pm on Thursday, September 10 2020 via audio and videoconference. Regent Leggett called the meeting to order at 12:37 pm.

Regents present were Regent Schulz, Regent Sansom, Regent Leggett, Regent Malhotra, Regent Fish, Regent Gooden, Regent Attman, Regent Mears, Regent Rauch, and Regent Gossett.

USM personnel included J. Boughman, T. Sadowski, L. Ryan, D. Wilkerson, J. Perman, E. Herbst, and T. McDonough, K. Bainbridge.

**Featured Innovator Panel: Three USM COVID App Challenge Winners and IBM Industry Partner & Judge (Information Item)**

The panelists, three of the six winning teams of the USM COVID App Challenge, spoke about the app they developed for the challenge and their next steps.

Andrew Karam, from An-Tech and an undergraduate at UMCP, explained that before the USM COVID App Challenge, he had worked on a project to use thermal detection to help identify concealed weapons. He leveraged that to develop the COVID app, which identifies elevated temperatures. He used the funding from the USM COVID App Challenge to further develop for the IBM Call for Code competition a technology that could monitor public areas for the presence of people with elevated temperatures. Several Regents asked about privacy concerns and data protection. Mr. Karam explained that monitoring in public spaces is allowed, and places like college campuses would have to work through that. He then explained that no identifying information for individuals would be gathered or stored. He also explained that thermal imaging technology exists, but part of the innovation in his tool is the ability to open access to that information to others. He used IBM's Watson as a tool in developing it.

Gregory Okhuereigbe, from COREY: COVID Buddy and an undergraduate at TU, said he also used IBM's Watson to further develop his app and submit to the call for code. His app allows people to obtain important COVID-related information, undergo screening, and more. He also commented that to continue pursuing the development of the app, he's seeking a new fall internship that would not have intellectual property concerns. In January, he will begin a graduate program.

Kirubel Tolosa, from Team Follow Up and a graduate student at UMBC, described his app, which allows COVID patients to submit data that can be accessed by their medical providers can be leveraged by researchers. Recently, he was approached by a researcher to see about using it to help with COVID diagnosis. Apart from that, Mr. Kirubel said that he is looking for other opportunities and partners to take the application into production.

John Joaquin, from IBM, who helped to sponsor the challenge and participated as a judge, congratulated the winning teams and said it is always great to see talented people at the start of their careers and he hopes to have some of the panelists as employees in the future. He explained that IBM has had a commitment to the State of Maryland since 1915, when they started an office in Baltimore. They have always promoted education as one of the most important things that can be done in changing trajectories, and they have shown this through such collaborations with USM as the P-Tech initiative in Baltimore. In addition, there will be more collaboration in quantum computing. For IBM, participation in the USM COVID App Challenge was a way for them to put their brand out there in front of students, as a historic company. He commented they are always looking for talent and would be in touch with Mr. Okhuereigbe about opportunities.

Vice Chancellor Sadowski thanked the students, who were impressive, and thanked IBM for collaboration throughout the entire System. He commented that the Committee often hears about companies that USM is investing in, but there are also valuable, transformative ideas that exist further down the chain, and USM students and faculty are behind them.

Chancellor Perman also thanked the panelists and thanked John on behalf of IBM for their collaboration on the P-Tech program as well, saying that it is clear that IBM cares about bringing up USM students.

Regent Sansom commented that it is inspiring that all three students submitted applications and continued to work on them after winning and that it speaks to the success of the competition and each of the innovators.

#### **Approval of Committee Charter (Information Item)**

Vice Chancellor Sadowski explained that the committee charter had been slightly revised. Regent Gooden made a motion to accept, seconded by Regent Fish. All Regents approved.

#### **USM Office of Economic Development Update – Tom Sadowski, Vice Chancellor for Economic Development (Information Item)**

Vice Chancellor Sadowski reviewed the guiding principles behind the efforts of the Economic Development Office. Vice Chancellor Sadowski also noted that partnerships driving enhancement of the USM's innovation infrastructure often begin with conversations focused on talent and workforce development. Under the umbrella of the USM COVID Research & innovation Task Force, a formal tech acceleration program will likely be in the spring, but a bootcamp-type effort to help mentor entrepreneurs with COVID specific ideas is still on deck for this Fall. Vice Chancellor Sadowski discussed the establishment of a comprehensive pandemic research effort via a new Maryland Pandemic Research Institute, which would include partnerships across the USM as well as with industry and the federal government. Chancellor Perman stated that there is strength around the System not just with regards to biomedical research, but experts in logistics and more. USM is also in the right location in the country due to physical proximity to federal agencies. It needs to be funded, which is being thought through. Just yesterday at the Life Sciences Advisory Board meeting, discussions took place with people who have similar ideas in the Greater Washington area, so there is an opportunity to collaborate with other regional players in this effort. Ms. Locascio will present to the full board at the September 18 meeting on the Task Force, its activities to date and future initiatives. Vice Chancellor Sadowski said it is yet another opportunity to foster collaborations that will develop Maryland's innovation infrastructure.

Vice Chancellor Sadowski reviewed information regarding the USM Maryland Momentum Fund, including recent investments and the significant co-investment attracted to date. He thanked Managing Director, Claire Broido Johnson for her contributions. He noted that there is approximately \$3.5M left for new investments, in addition to the \$2M held in reserve for follow-on investments in existing portfolio companies. Regent Leggett commended the Economic Development team and Momentum Fund program for the additional revenue generated and the number of new jobs created to date. Vice Chancellor Sadowski commented that an under-emphasized but very valuable benefit to the Fund is how it has helped to enhance the development of the startup ecosystem, providing the means and opportunity for mentors and investors to engage with our innovators and entrepreneurs, far beyond those companies receiving Momentum Fund investment. In fact, the Momentum Fund process has helped to uncover a collection of pre-Momentum Fund earlier-stage ventures, some of which may not be a fit for venture investment but present other market relevant, commercialization opportunities. Vice Chancellor Sadowski reviewed the potential benefits of providing support to this earlier-stage cohort. He stated that it is a tough time to have this type of conversation, with resources being limited, but as was heard from IBM, there is great interest in the innovations and ideas being developed at this early stage. The USM therefore needs to consider being more active at this stage. Regent Leggett asked how the 40 companies were identified that were too early for the Momentum Fund. Ms. Ryan explained that this was based on feedback from the Momentum Fund Managing Director, so it is a conservative number, but they are already-formed companies that have approached the fund or been recommended to the Fund for review, some of which overlap with the 100 or more each year the USM supports. Regent Leggett also stated that USM needs to make sure it has done as much as possible to make sure that people are aware of the opportunities as broadly as possible, including geographic and demography, to which Vice Chancellor Sadowski responded that it has very much been taken to heart.

Ms. Ryan presented the Venture Development Report. She noted that despite the changes due to the pandemic, entrepreneurial programs serving faculty, students, and community members, is still thriving so far in a virtual environment. Regent Malhotra asked if the materials science startup out of UMCP could be connected with the new degree program at Coppin State University. Ms. Ryan replied that connections like that are one of the goals of the Venture Development Report, and two vehicles that could allow of collaboration would be the Maryland Industrial Partnership Program and the Maryland Technical Internship Program. Chancellor Perman agreed and said that more of that is needed. He also said that we hear the need for high-quality, diverse talent pools, and need to continue to improve connections to industry in workforce development. Ms. Ryan noted that assistance provided by SBDCs will continue to be included as a reminder of the great work that is happening there, including excellent assistance to small businesses during this pandemic with regards to PPP loans and relief, recovery, and resiliency.

Vice Chancellor Sadowski presented information regarding the strategic plan. He explained that it is still under development, but USM has had robust conversations and solicited feedback from partners. Education goals will also be developed in partnership with MJ Bishop at the Kirwan Center. With regards to the research goals, a great discussion was held with R1 and comprehensives. Vice Chancellor Sadowski commented that they did ask for information on industry partnerships and will report that next meeting, as the information was still coming in from the economic development partners.

Regent Leggett asked about enhancement of technology commercialization, for which Ms. Ryan clarified that the technology licenses are the primary metric addressing that. Chancellor Perman suggested that

incentives to faculty be understood across the System and updated, if needed. Vice Chancellor Boughman commented that those policies are up for review, and this will be taken into account. It was acknowledged that culture change is not easy and that these efforts should in no way hamper basic research efforts and dissemination of knowledge. Ms. Ryan explained that the 100 licenses would be appropriate for benchmarking where they should be, but more like 60 or 70 would be realistic unless other resources are applied. Although incentivizing more faculty to be innovative is encouraged, resource constraints prevent existing demand from being fully realized in some cases. Ms. Ryan continued that all of the goals work together. For example, partnering as a System on research leverages the diversity and expertise on many levels to be able to go after very large opportunities that wouldn't be available otherwise, some of those funded by industry or by the federal government and requiring industry partners. In turn, industry partnerships require technology transfer processes be in place to avoid snags in collaboration. Regent Gooden noted that some institutions are better at conducting this type of work than others and that the USM needs to help foster partnership within the system.

Ms. Ryan described the venture support goals and mentioned that anything regarding purchasing would be discussed with finance, but that models like the buy local initiatives at UMB are a great example. Chancellor Perman said that more of that needs to be done, including identifying and providing assistance to community entrepreneurs.

Ms. Ryan concluded by stating that resources are required to achieve these goals, though System-level goals in this regard have not been articulated previously, and funding sources for this type of work is not widespread.

Chancellor Perman commented that when UM Ventures was established, one goal was to help more than just UMCP and UMB, but he was not sure how much was being done in that regard. Vice Chancellor Sadowski said that it is time for a reminder that UM Ventures exists to provide this type support system wide, especially considering the tremendous work ongoing at the other institutions of interest to current and prospective partners (federal and industry). Chancellor Perman mentioned the Maryland Innovation Initiative, which has Site Miners interact directly with faculty. He then commented on the connection between things like growing graduate programs and connecting them to these initiatives. He mentioned that most of the top universities at spinning out technology have stated that graduate students are actually huge drivers of that innovation and activity and can inspire faculty and help them move innovations into the market. Ms. Ryan agreed and added that in her previous work at the National Science Foundation's SBIR programs, this was acknowledged to be true across the country.

Regent Gooden asked about impediments to progress. Vice Chancellor Sadowski commented that culture shift can be difficult, but it is important, and we need to find ways to incentivize commercialization-driven behavior. Ideally, there would be System-wide mechanism or Fund to help facilitate this work. He referenced previous state legislation that was well received but did not pass due to COVID that would have provided matching funds as incentive to inspire development of new centers of excellence and innovation – driven by strategic industry, government and higher education collaborations. Regent Gooden agreed and asked that care be taken to further document this need so that post-COVID, resources can be identified and allocated.

The meeting ended at 2:02 pm.

Respectfully submitted,

Isiah Leggett, Chair  
Committee on Economic Development  
and Technology Commercialization