



The Board of Regents Committee on Economic Development and Technology Commercialization

Minutes of the Public Session

March 25, 2021

The Committee on Economic Development and Technology Commercialization of the University System of Maryland (USM) Board of Regents met in public session on 12:30 pm on March 25, 2021 virtually. Regent Leggett called the meeting to order at 12:30 pm.

Regents present were I. Leggett (chair), N. Sansom, E. Fish, K. Schulz, B. Gossett, L. Gooden. USM personnel present were J. Perman, T. Sadowski, L. Ryan, E. Herbst, T. McDonough, D. Wilkerson, and E. Langrill. Others present were P. Ferrari, A. McCoy, M. Morris, H. Chopra, and P. Kulczakowicz. Presenters were J. Cable, J. Lenzer, and M. Bishop.

Featured Startup: InventWood (Information Item)

Vice Chancellor Sadowski introduced colleague Julie Lenzer, Chief Innovation Officer at the University of Maryland, College Park, who then introduced InventWood CEO Josh Cable. He explained that the company channels the power of wood to create materials that are, for example, strong as steel or as clear as glass. He reviewed environmental challenges that could be addressed by their technology, which uses natural wood while addressing its shortcomings. He reviewed MettleWood, which is 80% lighter and 50% cheaper than steel and has zero emissions. Numerous applications are available in different industries, and they have several partnerships and paid validation projects underway. He described how the intellectual property is owned by UMD and the faculty founder, Dr. Hu, is a prolific inventor.

Regent Leggett asked about other approaches and competitors to the same technology and outcomes. Mr. Cable responded that they have relatively few direct competitors, with incumbent materials representing the biggest competition. There are other related green materials companies, many of which they are friendly with. It is an emerging industry. He explained that a lot of publicity in the media is through UMD for materials that have been licensed by Dr. Hu. Regent Leggett asked about challenges to commercialization. Mr. Cable explained that some applications are commercial-ready, but there are scale-up manufacturing challenges. They want to work with contract partners in terms of manufacturing, instead of bringing it in-house for now. They are also focusing on applications that are not commoditized in the short term. Chancellor Perman asked how students can learn from this example. Mr. Cable responded that he has presented to the business school a few times for a case study on InventWood. They would love to bring in students more for internships, presentations, more in-class visits, etc. Regent Schulz suggested that the Maryland Manufacturing Advisory Board at the Department of Commerce could be helpful. Mr. Cable said they have connected with a few folks from their team and would love to continue that discussion. They are also in touch with the Maryland Manufacturing Extension Partnership. Mr. Sadowski mentioned the Maryland Technology Internship Program as well. Regent Gooden said it's a great time for this type of a product because ESG is such a big priority for

manufacturers. Mr. Cable said when he started in this role, he said InventWood wouldn't go to market just based on sustainability. He has been pleasantly surprised how many household name companies have reached out with sustainability as a main driver.

Activating Fearless Ideas for Transformational Impact Supporting Companies Like Inventwood (Information Item)

Vice Chancellor Sadowski re-introduced Julie Lenzer, Chief Innovation Officer at the University of Maryland, College Park. Ms. Lenzer reviewed the UMD innovation ecosystem, which includes over 60 programs across the campus. She explained that since the pandemic, they have gone virtual with workshops and opened those up across the USM. She explained that for intellectual property-based startups, it is a marathon, not a sprint. They work with startups to help finance the intellectual property costs as opposed to agreements with larger companies, for which the companies are able to finance costs. They share in the risk with the startup and spend many people-hours on the intellectual property and the affiliated companies as well. She reviewed the timeline for IonQ, which has had a similar timeline and will be going public soon. They had investment very early on and so took on more intellectual property financing. Ion Storage Systems had a similar timeline. She explained that UMD was there to help InventWood's faculty founder and help find business-minded teammates so that he can stay at the university inventing. She explained that MII and the Momentum Fund have been great resources, but more and earlier capital is needed.

Regent Leggett asked how involved UMD is with other partners in the System. Ms. Lenzer said they process intellectual property from UMES and Salisbury, which are not big enough for their own tech transfer offices. They have been helping Bowie State University as they set up some of their own tech transfer capacity. However, resources can be limiting sometimes. Chancellor Perman explained that the Center for Maryland Advanced Ventures funding encourages UMCP and UMB to provide assistance to others in the System. Chancellor Perman asked about the evaluative process, since the process is very resource-intensive. Ms. Lenzer said of 200 disclosures each year, they only file full applications for about 30, especially due to budget constraints that they're working through. They evaluate with in-house talent and external advice. In some areas such as quantum, they work with partners like NIST and can turn intellectual property over to them so that it can be patented. Regent Fish asked about the SBDCs. Ms. Lenzer said the SBDCs are very active in helping all types of startups and small business and assisted 256 startups last. Mr. Sansom asked how the sharing structure was navigated. Ms. Lenzer explained that by default, the university owns the patent. The license agreement is where they negotiate terms with the startup. As revenue is received, money comes back to the university and is distributed according to the IP policy. Chancellor Perman would love to see Ms. Lenzer come back with her colleagues and speak about TechPort.

Corporate Training and Development (Information Item)

Vice Chancellor Sadowski introduced Dr. Bishop, Associate Vice Chancellor and Director, William E. Kirwan Center for Academic Innovation at the University System of Maryland. Regent Gooden asked which institutions are using badges. Ms. Bishop said 7 institutions are involved in Badging Essential Skills for Transitions. Ms. Gooden asked if the problem of getting the information on the transcript has been solved, and Ms. Bishop said the comprehensive learner record project is addressing that. Ms. Fish asked if they should more than strongly recommend this to all institutions, and the Chancellor and Dr. Bishop agreed yes. Dr. Bishop then reviewed the USM's partnership with the Greater Washington Partnership

and USMx. Both have provided USM opportunity to develop and deploy market desired credentials regionally and nationally. To date, USMx has supported the development of 95 courses with cumulative 1 million enrollments. She explained the UMGC and UMBC Training Centers also work with corporate and federal partners.

Regent Leggett asked about connecting with the state, and Dr. Bishop said they do some of this. Regent Gooden said that one challenge has been working at the speed of industry and asked how that was going. Dr. Bishop said they are beginning to help them see it's not as easy as offering a badge. Specifically, with the specialist credentials, the KSAs for cyber basically equate to a whole cyber degree, but they aren't having trouble with cyber graduates obtaining jobs. They're working to divide those up into smaller pieces so they can be more responsive and attract more students into these fields. Ms. Gooden said UMGC has an advantage in this area and asked if they work with them. Dr. Bishop said they are. Regent Gossett commented that UMGC is interested in moving quickly, and we don't want to hold them back.

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

Vice Chancellor Sadowski reviewed the recent COVID Research & Innovation Task Force efforts, including collaborative initiatives underway, the Public Health Communication Challenge and industry partnerships. He reviewed the relevant legislative bills, including those that have crossed over into the opposite chamber. He also reviewed the Momentum Fund investment in Dynamhex, which is the first University of Baltimore-affiliated company to received investment. He emphasized that the MMF portfolio has almost doubled in the last year.

Regent Leggett asked how much Momentum Fund funding remained. Vice Chancellor Sadowski said there is some dry powder, and there are strategic conversations about follow-on funding. Regent Leggett asked about companies that aren't ready yet. Vice Chancellor Sadowski said USM has been speaking with institutional partners and TEDCO. Chancellor Perman said they always marvel at what emanates from research faculty in these meetings, but more focus is needed on them. Regent Leggett said rewarding and retaining faculty with this type of activity is important. Vice Chancellor Sadowski said superstar faculty are looking for this type of work and places where it can be prioritized.

The meeting ended at 1:59 pm.

Respectfully submitted,

Isiah Leggett, Chair
Committee on Economic Development
and Technology Commercialization