APPROVED MINUTES

ONE HUNDRED TWENTY FOURTH MEETING

of the

BOARD of DIRECTORS

of the

MASSACHUSETTS TECHNOLOGY PARK CORPORATION

October 20, 2021 Zoom Videoconference

The One Hundred Twenty Fourth Meeting of the Board of Directors of the Massachusetts Technology Park Corporation ("MassTech") was held on October 20, 2021, via Zoom video conference, pursuant to notice duly given to the Directors of the Board and publicly posted on the MassTech website with corresponding notice provided to the Office of the Secretary of State and the Executive Office for Administration and Finance.

The following MassTech Directors were present and participated: Secretary of Housing and Economic Development Mike Kennealy (represented by Mark Fuller of the Executive Office of Housing and Economic Development), Alexandra Drane, Julie Chen, Pam Reeve, Alok Tayi, Bogdan Vernescu, Joe Dorant, Michael Greeley, Paige Fetzer, Richard Lester, Nate Walton, Secretary of Administration and Finance Michael Heffernan (represented by Patrick Lynch of the Executive Office for Administration and Finance), and Carlos E. Santiago (represented by Tye Brady of Amazon Robotics).

The following Mass Tech Collaborative staff was present: Carolyn Kirk, Brianna Wehrs, Lisa Erlandson, Michael Baldino, Brian Noyes, Holly Lucas Murphy, Jennifer Saubermann, Kelly Kleanthous, Stephanie Helm, Pat Larkin, Katie Stoico, Christine Nolan, Megan Marzsalek, James Byrnes, Joseph Downing, Cynthia Gaines, Will Fuqua, James Alimi, Jason Hoch, Cornell Robinson, Ben Linville-Engler, and Laurance Stuntz.

The following members of the public were present: Damon Cox from the Executive Office of Housing and Economic Development, Francesco Vischi, and Christopher Koh.

Mr. Fuller called the meeting of the MassTech Board of Directors to order at 2:08 p.m. He indicated the presence of members of the public, and read the Open Meeting Law Procedures and Public Participation Rules. Mr. Fuller then conducted attendance by roll call and observed the presence of a quorum.

Agenda Item I Approval of MassTech Meeting Minutes

Mr. Fuller took a roll call vote of the MassTech Board of Directors.

Following a period of brief discussion, and upon motions duly made and seconded, it was VOTED unanimously by a roll call vote:

The Board of Directors of the Massachusetts Technology Park Corporation hereby adopts the Draft Minutes of the One Hundred Twenty Third Meeting of the Board of Directors of the Massachusetts Technology Park Corporation held on July 21, 2021 by Zoom video conference as the formal Minutes thereof.

Agenda Item II Report of the Mass Tech Collaborative Board Chair

Mr. Fuller began by introducing himself as the new Board Chair, replacing Mr. Cox. He stated he wanted to use the balance of his time to thank Mr. Cox for chairing the last three years of incredibly effective Mass Tech Board Meetings, and that Mr. Cox's contributions were a driving force in how we currently think about economic development across the Commonwealth. Mr. Fuller stated that Mr. Cox was the architect of the vertical study, a great deal of which is still being implemented today across so many fields. Mr. Fuller went on to say that Secretary Kennealy was also very thankful for Mr. Cox's leadership with the FinTech Working Group, and that last month's virtual FinTech Week was a huge success.

Ms. Kirk welcomed Mr. Fuller, stating that Mass Tech is looking forward to his leadership, but also looking back at the previous accomplishments as well. She went on to say that she was very grateful for the work Mass Tech has been able to do with Mr. Cox over the last three years. Other Board members praised Mr. Cox, saying he was grounded but forward thinking.

Mr. Cox thanked everyone, stating he was impressed with the work Mass Tech had done, and looked forward to its continuation.

Mr. Walton joined the meeting.

Agenda Item III Report of the Mass Tech Collaborative Executive Director

Ms. Kirk gave a brief report. First she welcomed Mr. Linville-Engler to the Mass Tech team as Chief Investment Strategist and Program Executive. Ms. Kirk stated that Mass Tech has so many investment vehicles that have opened up, but they are in siloes, and what is needed is an upfront analysis against growth strategies- this activity will be spearheaded by Mr. Linville-Engler, and that she is excited for him to join the staff in this capacity. Ms. Kirk then went on to state that Kopin has renewed its lease for the integrated circuit fabrication facility in Westborough, and Kopin has also leased additional office space in the Weiss Building.

After some brief discussion, Ms. Kirk turned the floor over to Mr. Larkin, Director of the Innovation Institute.

Agenda Item IV Collaborative Research and Development Matching Grants – UMass Boston, Collaborative Network for Quantum Hardware Development & Commercialization (motion item)

Mr. Larkin began by explaining that following a \$50M reauthorization of the Collaborative Research Match Grant Program (the "R&D Fund") in the Governor's "Partnerships for Recovery" economic recovery plan ("2021 Economic Development Bill"), the Innovation Institute repositioned the Collaborative Research Matching Grant Program ("Matching Grant Program") to stimulate economic recovery through collaborative projects with industry leading to increased business revenues, hiring and upskilling in the near term. Mr. Larkin stated that now the funding profiles being looked at are shorter term investments (within a two or three year timeframe) with higher profiles, and greater importance is being placed on engagement with industry, diversity, equity and inclusion. Beginning with outreach and workshops in the spring, Mr. Larkin went on to state that there were 144 participants, from 31 different organizations, culminating in 26 participating eligible organizations, 20 of which have never received R&D Fund awards. With over 13 proposals so far, and three investments already approved by the Executive Committee, Mr. Larkin explained this was now the fourth proposal from the repositioned Matching Grant Program coming to the full Board. With close to \$5M to expend in FY22, Mr. Larkin stated that should this award be approved Mass Tech will have allocated over \$3M, and is on pace to allocate all funds this fiscal year. He then turned the floor over to Mr. Byrnes to discuss the project.

Mr. Byrnes next provided background on the project, explaining that the University of Massachusetts Boston is seeking \$999,000 to develop both ultra-low temperature and low-temperature facilities for the testing, validation, and commercialization of quantum hardware in Massachusetts. Partnering with Boston University and Western New England University and three private companies (Millimeter Wave Systems, Quantum Microwave, and JanisULT), funds will establish an ultra-low temperature testing facility located at UMass Boston and a low-temperature testing facility at Western New England University. Mr. Byrnes then played a three minute video submitted with UMass Boston's application, detailing specifics of the project. In explaining the reasons MassTech chose this project, Mr. Byrnes detailed the following: the project will create immediate market for the testing and validation equipment in the project focus, quantum computing has been described as a priority cluster in the Commonwealth, and the proposed facilities will be installed and validated within 1.5 years. In addition, the project improves the competitiveness of Massachusetts quantum supply chain companies, approximately 30-40 new jobs projected to be created, and partners will offer workforce training for students and training programs for network members in skills needed by the industry.

Following a period of brief discussion, and upon motions duly made and seconded, it was VOTED unanimously by a roll call vote:

The Board of Directors of the Massachusetts Technology Park Corporation ("Mass Tech Collaborative"), acting pursuant to the authority delegated under Chapter 40J of the General Laws of the Commonwealth, does hereby authorize the following grant award under the Collaborative Research Matching Grant Program (RFP No. 2020-JAII-04) to be funded through the Scientific and Technology Research and Development Matching Grant Fund (M.G.L. Chpt. 40J, Sec. 4G):

• To the University of Massachusetts Boston in an amount not to exceed \$999,000 to support the Collaborative Network for Quantum Hardware Development and Commercialization, as presented.

The grant award is subject to the execution of a grant agreement in a form and with terms approved by MassTech Collaborative's Executive Director.

Agenda Item V Center for Advanced Manufacturing – Massachusetts Manufacturing Accelerate Program (MMAP) Grants (motion item)

Ms. Nolan began by sharing recent work done by the Center for Advanced Manufacturing ("CAM"). The first ever "Manufacturing Mash-Up" was held on September 28, 2021, with over 600 attendees, 70 manufacturers, 300 companies, and \$25,000 in awards presented- a great day for manufacturing in the Commonwealth. Ms. Nolan then provided an overview of the Massachusetts Manufacturing Accelerator Program ("MMAP"), a \$10M capital authorization in the 2021 Economic Development bill to assist small to medium sized manufacturers in the purchase of cutting-edge capital equipment. MMAP provides \$50K-250K capital grants with a minimum of 1:1 cost share that allows manufacturers to scale operations, add capabilities, and align with Industry 4.0 requirements. Ms. Nolan explained that key industry alignments are the defense, battery, additive, and semiconductor industries, and that applicants are required to partner with non-profit organizations, higher education, or quasi-public agencies to help scale and effectively utilize funds. She then said that Mass Tech received 51 applications totaling \$10M of requests, and that Mass Tech was recommending awards to 13 companies totaling \$2.1M, with a possible 75-105 new jobs created. Grants would be awarded to the nonprofit partner, who will coordinate with the manufacturer receiving the equipment. Ms. Nolan then provide an example of an MMAP grantee, Marzilli Machine partnering with MassMEP for a \$250K grant that would potentially result in 8-10 new jobs. If approved MassMEP would be partnering on a total of 8 projects, for a total value of \$1,164,078.

Following a period of brief discussion, and upon motions duly made and seconded, it was VOTED unanimously by a roll call vote:

The Board of Directors of the Massachusetts Technology Park Corporation ("Mass Tech Collaborative"), acting pursuant to the authority delegated under Chapter 40J of the General Laws of the Commonwealth, does hereby:

- (1) amend the Mass Tech Collaborative Fiscal Year 2022 budget by increasing the Fiscal Year 2022 state bond fund revenue by \$2,157,841 and the financial assistance awards and expense for the Center for Advanced Manufacturing by the same amount; and
- (2) authorize a grant award under the Massachusetts Manufacturing Accelerate Program ("MMAP"), to be funded from item 7002-8003 of Chapter 358 of the Acts of 2020, to the Massachusetts Manufacturing Extension Partnership ("MassMEP") in an amount not to exceed \$1,164,078, as presented.

The grant award to MassMEP is subject to the execution of a grant agreement in a form and with terms approved by MassTech Collaborative's Executive Director.

Agenda Item VI Center for Advanced Manufacturing – Advanced Manufacturing Training Grants (motion item)

This item was tabled for a future meeting.

Agenda Item VII Massachusetts Broadband Institute – Statewide Broadband Data Mapping (motion item)

Ms. Wehrs discussed the Massachusetts Broadband Institute ("MBI") and the current broadband data mapping initiative. In looking at digital divide, Ms. Wehrs explained there are three areas of consideration Mass Tech sees as critical to address: gaps in physical infrastructure, deficiencies in reliability and quality of service, and barriers to broadband adoption and use. She stated that Mass Tech is working closely with the Baker-Polito Administration to prepare for the investment of unprecedented federal funding for broadband through the American Rescue Plan Act ("ARPA"). Because existing federal coverage data and maps have significant shortcomings, and service providers are not required to reveal their unserved areas, and state broadband grant programs have not required 100% coverage, in order to target investments, more accurate statewide maps must be created to identify areas not served by broadband infrastructure. MBI will lead an effort to collect and map data to identify communities that have: (1) gaps in physical infrastructure, and/or (2) deficiencies in reliability and quality of service. Mr. Baldino then explained MBI needs provider cooperation to gather coverage data, because more granular data is needed to do build outs targeted with the federal funds. Unfortunately, there is no one solution that would solve all these mapping issues. Ms. Wehrs stated that Mass Tech was recommending a dual track mapping approach to address coverage and quality. Specifically, to determine quality of service, Mass Tech would purchase a proprietary data set from Ookla, then supplement the data with online surveys, crowdsourcing, etc. Mass Tech would also engage with providers to voluntarily share coverage and speed data in an effort to develop a statewide data set of serviceable locations. The results of this dual track would be maps of addresses without access to broadband service, as well as maps of areas with quality of service issues that need further analysis. Ms. Wehrs then provided a brief budget breakdown.

Following a period of brief discussion, and upon motions duly made and seconded, it was VOTED unanimously by a roll call vote:

The Board of Directors of the Massachusetts Technology Park Corporation ("MassTech Collaborative"), acting pursuant to the authority delegated under Chapter 40J of the General Laws of the Commonwealth, does hereby delegate authority to the MassTech Collaborative Executive Director to expend an amount not to exceed \$1,500,000 to one or more vendors to collect, analyze and/or map data to identify communities in the Commonwealth that have (1) gaps in physical broadband infrastructure; and/or (2) deficiencies in reliability and quality of service, as presented.

This authority is subject to receipt of sufficient funding from the Commonwealth and execution of agreements with vendor(s) in a form and with terms approved by MassTech Collaborative's Executive Director.

After a brief discussion, there being no other business to discuss Mr. Fuller adjourned the meeting at 3:29 p.m.

A TRUE COPY ATTEST:

(Secretary)

DATE:

Materials and Exhibits Used at this Meeting:

- 1. Draft Minutes for the July 21, 2021, MassTech Board of Directors Meeting
- 2. Presentation- Collaborative Research and Development Matching Grants UMass Boston, Collaborative Network for Quantum Hardware Development & Commercialization (motion item)
- 3. Presentation- Center for Advanced Manufacturing Massachusetts Manufacturing Accelerate Program (MMAP) Grants (motion item)
- 4. Presentation- Mass Broadband Institute Statewide Broadband Data Mapping (motion item)