MINUTES

TWO HUNDRED AND FORTY SEVENTH MEETING

of the

EXECUTIVE COMMITTEE

of the

MASSACHUSETTS TECHNOLOGY PARK CORPORATION

February 28, 2017 Boston, Massachusetts

The Two Hundred and Forty Seventh Meeting of the Executive Committee of the Board of Directors of the Massachusetts Technology Park Corporation ("Mass Tech Collaborative") was held on February 28, 2017, at the Massachusetts Technology Collaborative, Two Center Plaza, Suite 200, Boston, Massachusetts, pursuant to notice duly given to the Directors and publicly posted on the Mass Tech Collaborative website with corresponding notice provided to the Office of the Secretary of State.

The following members of the Massachusetts Technology Collaborative ("Mass Tech Collaborative") Executive Committee attended the meeting: Secretary of Housing and Economic Development Jay Ash (represented by Katie Stebbins of the Executive Office of Housing and Economic Development), Robert Johnson and Mitch Tyson. There were two vacancies on the Executive Committee at the time of this meeting.

The following Directors attended the meeting: Albion Calaj, Leland Cheung (arrived at 12:58 p.m.) and Alexandra Drane.

The following Mass Tech Collaborative staff was present: Chris Andrews, Michael Baldino, Tim Connelly, Phil Holahan, Pat Larkin, Ira Moskowitz and Laurance Stuntz.

The following individuals attended the meeting: Charles Ahern, NECTA.

Ms. Stebbins observed the presence of a quorum and called the meeting to order at 12:34 p.m. She welcomed new Board member, Albion Calaj, a Managing Partner at Perpetual Solutions. Mr. Calaj discussed his background in finance and technology startups.

Agenda Item I Approval of Minutes

Following a period of brief discussion, and upon a motion duly made and seconded, it was unanimously and without abstention VOTED:

The Executive Committee of the Board of Directors of the Massachusetts Technology Park Corporation, acting on behalf of the full Board pursuant to section three of Chapter Forty J of the General Laws of the Commonwealth, hereby adopts the Draft Minutes of the open session portion of the Two Hundred Forty Sixth Meeting of the Executive Committee, held on January 19, 2017 in Boston, Massachusetts, as the formal Minutes thereof.

Agenda Item II Report of the Chairperson

Ms. Stebbins delivered the report of the Chairperson. She discussed progress being made by the Digital Health Council and the Advanced Manufacturing Council toward developing strategies in their respective areas that will help inform and guide the Baker-Polito Administration's efforts. Ms. Stebbins mentioned that Massachusetts has been rated the number one state to live in by USA Today. It was noted that the educated population and healthcare were important factors in the ranking for Massachusetts. Ms. Stebbins reminded the Executive Committee that Massachusetts ranked first two years in a row in the Bloomberg Index of the most innovative states. She observed that "we have an opportunity to think big and bold".

Agenda Item III Report of the Executive Director

Mr. Connelly delivered the report of the Executive Director. He mentioned that there are two spotlight sections of the agenda that help to address the talent pipeline and are intended to stimulate discussion with the Executive Committee. Mr. Connelly also discussed potential new appointments to the Board of Directors and the recent hire that will manage the Digital Health Marketplace Program.

Mr. Connelly asked Mr. Tyson to discuss his initial thoughts on long range planning. Mr. Tyson mentioned that the role of the long range planning committee is to think ambitiously without being constrained by budgetary considerations. He indicated that the long range planning committee will look at where we want Massachusetts to be in five and ten years in order to maintain the status of Massachusetts as a global innovation hub. Mr. Tyson identified some of the issues that he expects the long range planning committee to discuss. Mr. Connelly thanked Mr. Tyson for his leadership and his willingness to chair the long range planning committee. Mr. Connelly noted that the Innovation Institute Governing Board will provide a forum for long range planning.

[Leland Cheung arrived at 12:58 p.m.]

Agenda Item IV Discussion and Action Items

Mr. Connelly provided an update on the Massachusetts Broadband Institute's ("MBI") Last Mile programs and activities. He provided an overview of the current Last Mile mission and strategy, which he noted was well received at the MBI Board of Directors meeting that was held the prior day. Mr. Connelly stated that the

mission of MBI is to provide and support credible broadband options for town approval. He went on to state that MBI seeks to do this in a way that ultimately brings broadband services to as many unserved towns as possible and as soon as possible. Mr. Connelly observed that MBI's goal is to support multiple plans and options at one time that are designed to satisfy town objectives and thereby significantly reduce the number of unserved towns each year until all towns have service.

Mr. Connelly clarified a number of key points including: (1) towns are making the final decisions on which broadband option to select; (2) MBI is not favoring one technology option over another; and (3) there are four courses of action available to towns that would like support from MBI. He went on to discuss each of the options.

Mr. Connelly mentioned that there are essentially two categories of private providers. One type of private provider offers cost certainty, a strong balance sheet, triple play service primarily through coaxial cable and speed of implementation. The other type of private provider is typically a smaller firm with smaller balance sheets that does not typically offer cable television services and requires more work and due diligence from MBI to mitigate risk factors. Mr. Connelly also discussed the two options that are available to towns that wish to pursue a municipally owned broadband network. He indicated that a town can participate in a MBI assisted-build or a town can "go it alone" and oversee the design and construction of their network. He noted that most of the "go it alone" towns are pursuing a fiber-to-the-home network. Mr. Connelly indicated that each town will decide which path to choose and how much risk to assume.

Mr. Connelly noted that MBI is rolling out solutions as soon as they are available. Mr. Connelly noted that Charter and Comcast had been qualified to receive grants under the Private Sector Provider RFP. He mentioned that MBI will continue to evaluate the other providers that responded to the RFP and identify risk mitigation options. He also discussed opportunities for providers to modify or augment their proposals. Mr. Connelly announced that each of the towns selected by Charter have the opportunity to receive access to broadband service at no cost to the town if the town elects to accept the Charter proposal.

Mr. Connelly announced that MBI is prepared to offer towns that "go it alone" access to the construction allocation and professional services allocation that have been reserved by MBI. He noted that MBI will "get out of the way" but wants to ensure that state funds are expended properly. Mr. Connelly noted that the process for applying for these funds will be developed by the state and will be based on successful grant programs administered by the state.

The following key points were raised during the ensuing discussion: (1) Mr. Connelly, when asked "what keeps him up at night", expressed concerns about having 41 separate decision makers and the lack of information about how many of the towns are viewing the options available to them; (2) Mr. Connelly indicated that the impacts of MBI's revised strategic direction on the Mass Tech Collaborative are unclear and depend on the options ultimately chosen by the unserved towns. He noted that MBI's level of

effort will be lower if only a few towns elect to participate in the MBI Assisted-Build Program; (3) Ms. Stebbins pointed out that a Last Mile Grant Program administered by the state would further reduce MBI's role and noted that the Mass Tech Collaborative may need to think about other business models to fill the revenue gap; (4) It was clarified that the revised MBI strategic direction will not have a financial impact for Fiscal Year 2017 but the implications will need to be addressed during the Fiscal Year 2018 budget process; (5) Ms. Drane expressed concerns about towns "getting in over their heads"; and (6) Mr. Cheung inquired as to whether there could be a role for MBI to upgrade internet access in other parts of the state.

Mr. Stuntz provided an update on the Digital Health Marketplace Program. He discussed the challenges and opportunities that the program seeks to address, such as the difficulty of acquiring customers in the digital health space. Mr. Stuntz noted that the vision of the program is to position Massachusetts as having the most transparent, accessible and organized digital health marketplace, which will drive local firms to grow to scale and help local digital health customers gain better access to digital health innovations. He identified specific programmatic strategies and discussed program outputs, including development of a directory of digital health marketplace participants and support for Pulse@MassChallenge. There was an extensive discussion of the caregiver crisis in the Commonwealth and opportunities for technology to offer solutions.

Members of the Executive Committee provided suggestions to support and bolster the work of the Digital Health Marketplace Program, including: (1) The program should focus on connecting digital health companies to early adopters; (2) Workshops should be sponsored to teach companies how to be early adopters: (3) Massachusetts should be known as a state that provides an environment that supports alternative funding mechanisms, such as bootstrapping; (4) Communities need to be prepared to receive and support scaling companies; (5) Metrics should attempt to measure the impact on people's lives and how digital health improves people's lives; (6) MeHI should track meeting requests from start-ups to help ascertain why certain requests are accepted while others are rejected or ignored; and (7) There is a need to improve the system for sourcing challenges in the ecosystem and determining whether digital health companies offer solutions.

Mr. Moskowitz presented an update on the Massachusetts Manufacturing Innovation Initiative ("M2I2"). He discussed the Commonwealth's commitment and investment in state matching funds that has exceeded \$90 million for four centers: AFFOA, AIM Photonics, NextFlex and the Advanced Robotics Manufacturing Institute. Mr. Moskowitz explained the strategic approach that builds upon the state's existing assets, deepens and connects these assets and emphasizes collaboration. He noted that the state's assets include national leadership in R&D, the depth of the innovation ecosystem, a long history of manufacturing strength and synergies within the tech sector, defense and consumer products sectors. Mr. Moskowitz indicated that a structured vetting process with a standardized set of criteria and evaluation and award process would be put in place to review projects in the M2I2 pipeline. He wrapped up by identifying a set of next steps that he plans to pursue, including developing a

comprehensive marketing strategy, efforts to decoupling state fiscal years from award cycles, building partnerships and improving alignment of candidate projects with the state's strengths and interests.

There being no other business to discuss and upon a motion duly made and seconded, it was unanimously and without abstention voted to adjourn the meeting at 2:20 p.m.

A TRUE COPY

ATTEST: (Secretary)

DATE:

Materials and Exhibits Used at this Meeting:

- 1. Draft Minutes Open Session of the January 19, 2017 meeting of the Mass Tech Collaborative Executive Committee
- 2. Handout Massachusetts Broadband Institute Mission and Town Options
- 3. Presentation The Mass Digital Health Marketplace Program
- 4. Presentation Advanced Manufacturing Update