

DEPARTMENT OF COMMERCE—MTAC RFI

National Institute of Standards and Technology

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Request for Information on Pilots to Inform the Creation of Potential New Manufacturing Technology Acceleration Centers (M-TACs)

- 1. What are the specific types of technology transition and commercialization tools and services that should be provided by M-TACs?
Emphasis is on the alignment of these tools and services with the most pressing needs of small and mid-sized U.S. manufacturers.**

M-TACs should be focused primarily on services that strive to accelerate the rate of technology transition and commercialization to and by SMEs.

Since there is no body of proven practice in this regard M-TACs should recognize that from the outset their work itself is a form of development and commercialization. That is, development of successful services that meet the above objective and that are commercialized more broadly through the national MEP community and each region's base of MEP partners. M-TACs should also recognize that the work focused on the transition and commercialization of technology to SMEs brings with it challenges that are different than the challenges associated with many existing MEP impact objectives.

Most fundamentally, M-TACs need to understand if and how many SMEs go about evaluating these types of investments. This includes both those that say yes to such an investment and those that say no. One of the things not well known is how and when technology is perceived by SMEs to align with company needs. The assumption of technology creators and purveyors is always that it does align and that companies just don't get it.

Assuming an M-TAC is clear that the technology is aligned with pressing SME needs, we must then move on to better understanding and articulating the steps of the sales process that leads to SME engagement. Here, an M-TAC must recognize that its main competition in the SME world is the culture of non-consumption, which means the sales process will likely be longer than expected and require more M-TAC resources than anticipated. A staged approach to this would most likely consist of something like the following: education/awareness sessions followed by physical demonstrations using real company stuff; with demonstrations followed by the targeted sale of consultative services to make it happen. These services, to be efficient and effective, must deal with making a process that is perceived as complicated (because of the multiple players, inside and outside of the company, usually involved) much more manageable and predictable (i.e., less risky). SME non-consumption frequently is less about the cost of the effort than it is about the recognition of the limited capabilities and time availability within the company to take on something new. This is something we've learned after 25 years of developing and presenting solutions to companies that require an investment.

How would M-TAC services complement the services currently offered by MEP Centers?

M-TAC services would be complementary in that they are focused on technology transition and commercialization. In general, MEPs currently don't offer services with this focus and they would value having the ability to do so, either themselves or with assistance from the M-TAC.

2. What role should future M-TACs play with respect to supply chain needs? How should OEMs participate?

Not sure. A useful response to this question will depend on the characteristics of multiple variables: culture of the supply chain for a given industry or OEM; an OEM's appetite or ability to engage an intermediary to help support their own technology transition and commercialization interests; a regional MEP/MTAC's ability to organize the appropriate assets to solve specific objectives or challenges.

How can industry associations, professional societies, and other appropriate national organizations participate?

Not quite sure yet. They could serve as convening partners in a given region or for a given effort to bring together SME scientists and engineers to focus on, help articulate, or solve a particular technology issue that might be hindering or decelerating a particular transition or commercialization effort.

3. Is there a particular long-term scalable and financially sustainable business model that should be implemented by future M-TACs that will enable small and mid-sized U.S. manufacturers to effectively access and benefit from the technology transition and commercialization assistance and other resources they need?

If you define "long-term scalable and financially sustainable business model" as one that will eventually give the public investor(s) steadily increasing outcomes for the same public investment, the answer is yes. If you define "long.....model" as continuation of activity absent any public investment, the answer is no.

a. Because of the programmatic connection to the NIST MEP Program, M-TACs may require cost share. Are there cost share models for future M-TACs that promote scale up to reach nationally dispersed clusters of small and mid-sized manufacturers?

Cost share requirements for M-TACs from the outset, if any, should be minimal and based on client company time, fees and investment tied to the work of the M-TAC. The approach to cost-share should be "Let's see how much you get" rather than an arbitrary % requirement. In other words, cost share should be viewed as an indication of positive performance rather than a requirement that encourages the marginally productive activity of capturing and recording it.

b. If so, what are those models, and why might they be successful?

See above.

c. The generation of intellectual property is possible, and even likely as a result of M-TAC operations. What types of intellectual property arrangements and management constructs would promote active engagement of industry in these pilots, especially among small and mid-sized U.S. manufacturers that would be supportive of the business model? As appropriate, please include a set of potential options, and please explain your responses.

M-TACs need to identify non-MEP partners that have the experience needed in this area. Related policies/approaches should be created collaboratively with industry.

4. How should an M-TAC's performance and impact be evaluated?

As a first step, M-TAC performance and impact should be measured using the MEP survey process.

What are appropriate measures of success for future M-TACs?

The business outcome measurements are most likely no different than existing MEP survey process outcome measurements. If it is determined that the existing MEP survey process is missing something, it should be added to the survey process.

Please explain your response including the value of the performance measure to business growth.

Sorry, don't understand the question.

5. Are there any other critical issues that NIST MEP should consider in its strategic planning for future M-TAC investments that are not covered by the first four questions? If so, please address those issues here and explain your response.

No obvious ones come to mind.

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