

Response to the NIST RFI for M-TAC PROGRAM

University of Michigan

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 provide:

- **Assessment of the individual SME's current situation**
- **Experienced professional staff should be utilized to conduct searches for technologies and/or expertise to augment the SME's current situation**
- **Access to university IP, expertise and equipment/labs, as well as from Federal sources**
- **Financial assistance towards translational research**
- **Assistance in aligning with OEMs needs and goals**

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

MEP currently offers many services that strengthen core competencies of the SMEs with strong core competencies have a higher potential for technology commercialization success

MEP has in-depth knowledge of countless SMEs, facilitating prescreening and selection of firms best suited for technology commercialization assistance. Working with SMEs for technology commercialization assistance often uncovers the need for additional core strengthening services offered by the MEP

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

The model should be demand driven.

M-TACs would work with OEMs to identify supply chain needs and the identification of particularly significant suppliers who would benefit from M-TAC services and shore up the OEM supply chain strengths. OEM part supplier organizations, industry policy organizations and manufacturing organizations can all play a role in helping link M-TACs with OEM suppliers and to work with OEMs to develop the necessary collaboration to provide the critical supply chain links with M-TAC services.

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

Industry associations, professional societies, and other, appropriate national organizations should participate on councils and or advisor boards, recommend OEMs and supplier, and review metrics, performance to metrics, and adjustments

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?

A long-term scalable and financially sustainable business model implemented by future M-TACs should be achieved by shifting from a NIST funded SME matched demonstration model to a proven value proposition funded by OEMs and their SME supply chain match. Additional funding could also be provided by local or state economic development organizations.

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

Current IRLEE business assistance models like GLTAAC, TCA and FCP require match from the client/SME and have been very successful. The same matching-model should be used with the SMEs with the base funds provided by the stakeholders such as NIST, OEMs, and States. The scale-up could be achieved as stated above, a successful demonstration model will provide enough of a value proposition for OEMs and State Economic Development organizations to fund future efforts.

b. 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.

University IP is governed by law and individual university technologies. The various models, structure of licensing deals etc. should be monitored and best practices identified as economic impacts are measured.

SME IP should be protected for themselves and services should be provided to assist them with how to do that. SME technology developed further by

university technology assistance paid for by the SME and M-TAC should belong to the SME, otherwise SMEs with IP they cannot move forward on their own without the M-TAC financial assistance, may not do so for fear of losing a competitive advantage, and positive economic impact will go untapped.

4. How should an M-TAC's performance and impact be evaluated? What are appropriate measures of success for future M-TACs? Please explain your response including the value of the performance measure to business growth.

**Jobs created & retained
Sales improvement
New investment
Improvement in z-score & survivability
of university-industry engagements
satisfaction surveys**

Technology transferred Intellectual property/technology commercialized

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.

Specifying how M-TACs might interact with the network of National Manufacturing Innovation Institutes. In our area it would hopefully be the Lightweight Materials & Structures technology arena focusing on advanced materials.

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