July 23, 2013

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY (FFO)
Manufacturing Technology Acceleration Center (M-TAC) Pilot Projects

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)

- **Funding Opportunity Title:** Manufacturing Technology Acceleration Center (M-TAC) Pilot Projects

- **Announcement Type:** Initial

- **Funding Opportunity Number:** 2013-NIST-MEP-MTAC-01

- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.611

- **Dates:** Electronic applications must be received no later than 11:59 p.m. Eastern Time, Monday, September 23, 2013. Paper applications must be received by NIST no later than 5:00 p.m. Eastern Time on Monday, September 23, 2013. Applications received after the respective deadline will not be reviewed or considered. The approximate start date for awards under this FFO is expected to be March 2014.

- **Application Submission Address: See Section IV in the Full Announcement Text of this FFO.**

- **Funding Opportunity Description:** NIST invites proposals from eligible applicants to conduct approximately two (2) pilot projects that will inform future NIST investment leading to the development of a network of Manufacturing Technology Acceleration Centers (M-TACs). The emphasis of these pilots will be to demonstrate the conduct of technology transition and commercialization activities with small and mid-sized U.S. manufacturers to foster their readiness to adopt and/or adapt advanced technologies into their manufacturing processes and products. The pilots will specifically focus on addressing the technical and business challenges encountered by small and mid-sized U.S. manufacturers as they attempt to integrate, adopt, transition, and commercialize both existing and emerging product and process technologies into their operations to help them grow and compete within manufacturing supply chains as innovative, value-adding components of our nation's economy.

  These pilots will be operated by existing Manufacturing Extension Partnership (MEP) Centers and are expected to work in collaboration with other existing resources, including research consortia and institutions such as those operating as part of or in conjunction with the National Network for Manufacturing Innovation (NNMI), state and local technology-based economic development intermediaries, industry associations, industry-university partnerships, and manufacturing organizations. The pilots will create and test business models for potential, future operationalized M-TACs that can scale up on a national level to serve the needs of significant numbers of small and mid-sized manufacturers – on the order of thousands on an annual basis. The pilots will also document successes and challenges.

- **Total Amount to be Awarded:** Approximately $1,000,000 for approximately two (2) pilot projects.

- **Anticipated Amounts:** NIST anticipates funding two (2) pilot project awards at a level of approximately $500,000 each. The pilot projects awarded under this FFO will have a budget and performance period of approximately one (1) year.

- **Funding Instrument:** Cooperative Agreement

- **Who Is Eligible:** Eligible applicants are existing MEP Centers. Applicants are strongly encouraged to form teaming arrangements involving multiple MEP Centers such that manufacturing supply chain needs can be addressed on a local or regional level, and also have a broad geographic reach to facilitate leveraging of resources and access to manufacturers on a national scale. Applicants are also strongly encouraged to adequately demonstrate the leveraging of resources and competencies tied to the industry sectors, supply chains, and technology areas that are relevant to the local regions where the applicant team resides. This may include organizations that are working with, or as part of, state or local technology-based economic development strategies such as innovation clusters. An eligible organization may work individually or include proposed subawardees and/or contractors or other collaborators in a project proposal, effectively forming a team or consortium.

- **Cost Sharing Requirements:** Cost Sharing is not required for awards under this program.

- **Webinar Information Session:** NIST MEP will hold an information session for organizations considering applying to this opportunity. An information session in the form of a webinar will be held approximately 14 business days after posting of this FFO on Grants.gov. The exact date and time of the webinar will be posted on the MEP website at www.nist.gov/mep. Organizations wishing to participate in the webinar must sign up by contacting Diane Henderson at diane.henderson@nist.gov. The webinar material will be posted on the MEP website after it is conducted for archival purposes.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

NIST invites eligible applicants to submit proposals for funding for approximately two (2) pilot projects that will inform future NIST investment leading to the development of a network of Manufacturing Technology Acceleration Centers (M-TACs). These pilot projects will provide a baseline from which potential future M-TACs may be established to provide technology transition and commercialization services to U.S. small and mid-sized manufacturers. Proposed pilot projects should consist of teams of experts in specific technology/supply chain areas, partnered together to offer services and deep expertise to support small and mid-sized manufacturer needs relating to technology transition and commercialization, as detailed further below. In addition to the pilot projects awarded through this FFO, NIST is also seeking information from the public regarding future NIST M-TACs through the publication of a Request for Information (RFI) in the *Federal Register*.

Small and mid-sized manufacturers have proven to be flexible and adaptable in their approach to profitable growth through new markets, customers, products, and processes. This has been assisted by the increased focus of the Hollings NIST MEP Program on the growth of small and mid-sized U.S. manufacturers through innovation. Yet, there remains a gap between the research being performed by universities, federal labs, consortia, and other entities, and the readiness of many small and mid-sized manufacturers to adopt both existing and emerging technologies into their products and processes. This is evidenced by technology adoption rates of smaller U.S. manufacturers lagging those of larger ones.

The lack of readiness of small and mid-sized manufacturers and the corresponding lagging technology adoption rates of smaller manufacturers will be primary focus areas of the pilots funded by this FFO, and of future M-TACs. Bridging the gap between available technologies and commercial adoption by manufacturers is essentially a two-part problem that first requires a critical step of translating available technologies into market opportunities. Second, bridging the gap also requires the address of a host of challenges that serve as barriers to small and mid-sized manufacturers incorporating technology solutions into their processes and product portfolios. These challenges include technology and knowledge transfer, technology transition, and technology diffusion steps, along with numerous commercialization interventions needed to bring a technology from lab to market.

The NIST M-TAC efforts aligns with the President's plan to launch a nationwide network of innovation institutes across the country that will develop world-leading manufacturing technologies and capabilities that U.S.-based manufacturers can apply in production to support U.S. manufacturing sector growth.[1] NIST envisions that future M-TACs will become the connective fabric for efficiently connecting academia, researchers, scientists, engineers and manufacturers with valuable supply chain and market demands, with a particular focus on the needs of small and mid-sized U.S. manufacturers. These M-TACs can serve as a coordination point within key supply chains. The anticipated approach should result in increased job creation and economic growth.

The goals of these pilots, as demonstration projects for the future M-TACs, include:

- Testing and demonstrating the operation of business models that will enable small and mid-sized U.S. manufacturers to effectively and efficiently access – on a continuing and financially sustainable basis – the assortment of technology transition and commercialization services they need to adopt and/or adapt technology into their products and processes;

- Establishing the appropriate partnerships and demonstrating the construct and network of interfaces necessary to enable small and mid-sized U.S. manufacturers to effectively access the diverse array of technology transition and commercialization services they need;

- Fostering connections between the existing MEP System and its network of Centers and initiatives tasked with linking technologically promising research discoveries and ideas for advanced, high-value-added products and processes with existing U.S. manufacturers and aspiring start-up firms; and

- Identifying where on the technology development and commercialization continuum small and mid-sized manufacturers tend to operate by identifying technology transition and commercialization areas in which small and mid-sized U.S. manufacturers most critically need assistance.

Awardees should expect to achieve these goals through:

- Interacting with small and mid-sized U.S. manufacturers directly and through the nationwide network of MEP Centers to operate a financially sustainable model that is focused on the provision of technology transition and commercialization services to manufacturers, doing so in a manner that is locally driven and nationally connected;

- Creating teams of experts in specific technology/supply chain areas that partner together to offer services and deep expertise to support small and mid-sized manufacturer needs relating to technology transition and commercialization;

- Assisting small and mid-sized manufacturers in functions that apply to the spectrum of technology transition and commercialization services that small and mid-sized manufacturers may need. This may include those services associated with technology and process integration, engineering, new product development, existing product and process innovation, manufacturing scale up, supply chain development, financing, legal (intellectual property and regulatory), marketing, market analysis and research, and workforce development.

- Collaborating with research consortia and institutions such as those operating as part of or in conjunction with the following:

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1. "Fact Sheet: The President's Plan to Make America a Magnet for Jobs by Investing in Manufacturing," The White House Office of the Press Secretary, February 13, 2013, http://www.whitehouse.gov/the-press-office/2013/02/13/fact-sheet-president-s-plan-make-america-magnet-jobs-investing-manufactu.

- National Network for Manufacturing Innovation (NNMI),
- state and local technology-based economic development intermediaries,
- industry associations,
- industry-university partnerships,
- manufacturing organizations, and
- other technology commercialization entities.

The pilot projects will be evaluated based on the extent to which the pilots augment and add to MEP Center service offerings relating to technology transition and commercialization. The pilot projects will add capabilities to the MEP program by offering expert assistance and consultation in specific need areas that will support the entire MEP system, not just the awardee. The technology/supply chain area experts will be able to respond to new or emerging manufacturing problems, will increase the viability of both manufacturing and manufacturing related sectors with swift expert assistance, and through the Centers will transfer technology expertise based on industry and supply chain needs. The pilot projects will demonstrate an ability to amplify the overall effectiveness of the MEP Program by adding to MEP Centers' service offerings to advise industry on scientific and technical problems.

The MEP Program places high importance on ensuring that projects are well aligned with, and amplify, the work of MEP Centers and partners in order to maximize the potential and impact of existing resources. Additional background information on MEP service providers is provided at www.nist.gov/mep.

It is not the intent of this program that awardees will perform research.

Further information regarding MEP Program is provided in the information packet that can be obtained at www.grants.gov with additional background information provided at http://www.nist.gov/mep.

The statutory authority for the M-TAC Pilot Projects is 15 U.S.C. 272(b)(1) and (b)(4).

II. Award Information

1. **Funding Instrument.** The funding instrument that will be used for these awards is a cooperative agreement. The nature of NIST's "substantial involvement" will generally be collaboration between NIST MEP and the recipient organizations. This includes NIST MEP collaboration with a recipient on its progress and approving changes in the statement of work. Additional forms of substantial involvement that may arise are described in the Department of Commerce (DoC) Grants and Cooperative Agreements Manual, which is available at http://www.osec.doc.gov/oam/grants_management/policy/documents/FINAL%20Master%20DOC%20Grants%20Manual%202013%20(03.01.13)_b.pdf

2. **Funding Availability.** NIST anticipates funding two (2) pilot project awards at a level of approximately $500,000 each. The pilot projects awarded under this FFO will have a budget and performance period of approximately one (1) year.

III. Eligibility Information

1. **Eligible Applicants.** Eligible applicants are existing MEP Centers. Applicants are strongly encouraged to form teaming arrangements involving multiple MEP Centers such that manufacturing supply chain needs can be addressed on a local or regional level, and also have a broad geographic reach to facilitate leveraging of resources and access to manufacturers on a national scale. Applicants are also strongly encouraged to adequately demonstrate the leveraging of resources and competencies tied to the industry sectors, supply chains, and technology areas that are relevant to the local regions where the applicant team resides. This may include organizations that are working with, or as part of, state or local technology-based economic development strategies such as innovation clusters. An eligible organization may work individually or include proposed subawardees

and/or contractors or other collaborators in a project proposal, effectively forming a team or consortium.

2. **Cost Sharing or Matching Requirement**. Cost Sharing is not required for awards under this program.

3. **Other**

Pre-Applications. NIST is not accepting pre-applications or white papers under this MEP funding opportunity.

IV. Application and Submission Information

1. **Address to Request Application Package.** The standard application package, consisting of the standard forms, i.e., SF-424, SF-424A, SF-424B, SF-LLL, and the CD-511, is available at www.grants.gov. For applicants without Internet access, the standard application package may be requested by contacting the NIST personnel listed below.

   Diane Henderson, National Institute of Standards and Technology, Manufacturing Extension Partnership, 100 Bureau Drive, Mail Stop 4800, Gaithersburg, MD 20899-4800 (Phone: 301-975-5105, email: diane.henderson@nist.gov).

2. **Content and Form of Application/Submission.** The requirements given in this section of this FFO will be used in lieu of those given in the regulations found at 15 C.F.R. part 292, specifically 15 C.F.R. § 292.1.

   Complete applications must, at a minimum, include the following forms and documents:

a. Required Forms and Documents

(1) SF-424, Application for Federal Assistance. The SF-424 must be signed by an authorized representative of the applicant organization. The FFO number 2013-NIST-MEP-MTAC-01 must be identified in item 12 of the SF-424. The list of certifications and assurances referenced in item 21 of the SF-424 is contained in the SF-424B.

(2) SF-424A, Budget Information - Non-Construction Programs (The budget should reflect anticipated expenses for up to one (1) year, considering all potential cost increases, including cost of living adjustments.)

(3) SF-424B, Assurances - Non-Construction Programs

(4) CD-511, Certification Regarding Lobbying

(5) SF-LLL, Disclosure of Lobbying Activities (if applicable)

(6) Technical Proposal. The Technical Proposal is a word-processed document not exceeding 20 pages that is responsive to the program description (*see* Section I of this FFO) and the evaluation criteria (*see* Section V.1 of this FFO). The following is a sample format that applicants may use for the technical proposal.

a) **Executive Summary.** Briefly describe the proposed project, consistent with the evaluation criteria (*see* Section V.1 of this FFO).

b) **Project Narrative.** A description of the proposed project, sufficient to permit evaluation of the application, in accordance with the evaluation criteria (*see*

Section V.1 of this FFO). The narrative should include a section addressing each of the following evaluation criteria:

- Identification and Delivery of Technology Transition and Commercialization Tools and Services. Describe both the applicant's market analysis and the geographic location proposed to be reached in sufficient detail to permit evaluation in accordance with this FFO's evaluation criteria.
- Amplification and Integration of MEP Technology Transition and Commercialization Services. Include plans for integration into the MEP national system and linkages to appropriate national resources. Specifically include a description of how the proposed effort will amplify the work of the MEP Center(s) participating in the project, as well as the broader MEP System, with a specific focus on technology acceleration, technology transition, and commercialization. Provide sufficient detail to permit evaluation in accordance with this FFO's evaluation criteria.
- Business Model. Articulate one or more business models that will be tested and deployed to ensure the long-term scalable service delivery to, and participation of small- and mid-sized manufacturers. Discuss potential future financial and partnership strategies that the applicant will use to promote scale up to reach nationally dispersed clusters of small- and mid-sized clusters of manufacturers in sufficient detail to permit evaluation in accordance with this FFO's evaluation criteria.

c) **Statement of Work.** Discuss the specific tasks to be carried out, including a schedule of measurable events and milestones.

d) **Partnerships and Qualifications.** A description of the approach to partnerships that will ensure project success, including roles of participating organizations and qualifications and proposed operational or management activities of key personnel who will be assigned to work on the proposed project. This should align with the details associated with the Resources section of the Evaluation Criteria found in Section V.1.c. This may include, for example, research laboratories, sources of capital, sources of shared physical infrastructure, and other commercialization-focused entities and resources. Explain how the understanding will inform resources and services to be offered to the targeted firms in the region.

e) **Management Plan:** Address details associated with organizational structure and pilot project management as identified in the Evaluation Criteria found in Section V.1.e.(1) and (2).

f) **Past Performance.** Provide specific information that addresses whether the applicant's and partners' past performance with the MEP program is indicative of expected performance under a possible new award and describing how and why performance is expected to be the same or different.

g) **Additional Information.** In addition, the Technical Proposal should contain the following information:

i. A plan for the allocation of intellectual property rights associated with any invention or copyright which may result from the involvement in the pilot project's technology transfer or research activities;

ii. A statement describing linkages to industry, government, and educational organizations within the project's defined service region.

iii. A statement defining the service region including a statement of the constituency to be served and the level of service to be provided.

iv. A statement agreeing to focus the mission of the project on technology transition activities.

(7) Budget Narrative. There is no set format for the Budget Narrative; however, it should provide a detailed breakdown of each of the object class categories as reflected on the SF-424A. It should include all expenses for up to one (1) year of operation and it should address the Evaluation Criteria found at Section V.1.e.(3).

(8) Indirect Cost Rate Agreement. If indirect costs are included in the proposed budget, provide a copy of the approved negotiated agreement if this rate was negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. The successful applicant will be required to obtain such a rate.

(9) Letters of Commitment or Interest. Letters are not included in the page count.

(a) **Letters of commitment to participate**, as applicable. If the applicant's proposal identifies third parties including contractors, subawardees, and/or other collaborators who will participate in the proposed project, effectively forming a team or consortium, then a letter from each, currently known participant, describing its participation is needed. Each letter should indicate the organization's willingness to participate and what they will be doing for the project. A letter is required whether or not the organization is receiving Federal funds.

(b) **Letters of Interest,** optional. Letters of interest may be provided from parties who might become customers for the solutions discussed in the proposed project.

If submitting the application electronically via Grants.gov, items IV.2.a. (1) through IV.2.a.(5) above are part of the standard application package in Grants.gov and can be completed through the download application process. Items IV.2.a.(6) through IV.2.a.(9) must be completed and attached by clicking on "Add Attachments" found in item 15 of the SF-424, Application for Federal Assistance. This will create a zip file that allows for transmittal of the documents electronically via Grants.gov. Applicants should carefully follow specific Grants.gov instructions at www.grants.gov to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating an application is received does not provide information about whether attachments have been received.

If submitting an application by paper, all of the required application documents should be submitted in the order listed above.

b. Application Format

(1) **Double-sided copy.** For paper submissions, print on both sides of the paper (front to back counts as two (2) pages).

(2) **E-mail submissions.** Will not be accepted.

(3) **Facsimile submissions (fax).** Will not be accepted.

(4) **Figures, graphs, images, and pictures.** Should be of a size that is easily readable or viewable and may be landscape orientation.

(5) **Font.** Easy to read font (11-point minimum). Smaller type may be used in figures and tables but must be clearly legible.

(6) **Line spacing.** Single.

(7) **Margins.** One (1) inch top, bottom, left, and right.

(8) **Number of paper copies.** For paper submissions, one (1) signed stapled original and two (2) stapled copies. If original application is in color, the two (2) copies must also be in color. If submitting electronically via Grants.gov, paper copies are not required.

(9) **Page layout.** Portrait orientation only (except figures, graphs, and pictures (*see* Section IV.2.b.(4)).

(10) **Page Limit.** Twenty (20) pages.

Page limit includes: Table of contents (if included), Technical Proposal with all required sections, resumes, figures, graphs, tables, images, and pictures.

Page limit excludes: SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs; SF-424B, Assurances – Non-Construction Programs; SF-LLL, Disclosure of Lobbying Activities; CD-511, Certification Regarding Lobbying; Budget Narrative; Indirect Cost Rate Agreement; and Letters of Commitment or Interest.

(11) **Page numbering.** Number pages sequentially.

(12) **Paper size.** 21.6 by 27.9 centimeters (8 ½ by 11 inches).

(13) **Application language.** English.

(14) **Staple paper submission.** For paper submissions, staple the original signed application and each of the two (2) copies securely with one (1) staple in the upper left-hand corner.

(15) **Typed document.** All applications, including forms, must be typed.

3. Submission Dates and Times. Electronic applications must be received no later than 11:59 p.m. Eastern Time, Monday, September 23, 2013. Paper applications must be received by NIST no later than 5:00 p.m. Eastern Time on Monday, September 23, 2013.

Applications not received by the specified due date and time will not be considered and will be returned without review. NIST determines whether applications submitted by paper have been timely received by the deadline by the date and time receipt they are physically received by NIST at its Gaithersburg, Maryland campus. For electronic submissions, NIST will consider the date and time stamped on the validation generated by www.grants.gov as the official submission time.

NIST strongly recommends that applicants do not wait until the last minute to submit an application. NIST will not make any allowances for late submissions, including but not limited to incomplete Grants.gov registration, delays in mail delivery caused by Federal Government security screening for U.S. Postal Service mail, or for delays by guaranteed express mailing and/or couriers. To avoid any potential processing backlogs due to last minute Grants.gov registrations, applicants are highly encouraged to start their Grants.gov registration process at least four (4) weeks prior to the application due date.

In the event of a natural disaster that interferes with timely application submissions, NIST may issue an amendment to this FFO to change the application submission due date.

4. Intergovernmental Review. Applications under this Program are not subject to Executive Order 12372.

5. Other Submission Requirements

a. Applications may be submitted by paper or electronically.

(1) Paper applications must be submitted in triplicate (an original and two copies) and sent to the NIST personnel listed below:

Diane Henderson, National Institute of Standards and Technology, Manufacturing Extension Partnership, 100 Bureau Drive, Mail Stop 4800, Gaithersburg, MD 20899-4800 (Phone: 301-975-5105).

(2) Electronic applications must be submitted via Grants.gov at www.grants.gov, under announcement 2013-NIST-MEP-MTAC-01.

a) Submitters of electronic applications should carefully follow specific Grants.gov instructions to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating an application is received does not provide information about whether attachments have been received. For further information or questions regarding applying electronically for the 2013-NIST-MEP-MTAC-01announcement, contact Christopher Hunton by phone at 301-975-5718 or by e-mail at christopher.hunton@nist.gov.

b) Applicants are strongly encouraged to start early and not wait until the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov. The Grants.gov registration process must be completed before a new registrant can apply electronically. If all goes well, the registration process takes three (3) to five (5) business days. If problems are encountered, the registration process can take up to two (2) weeks or more. Applicants must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number (*see* Section VI.2.b) and must maintain a current registration in the Federal government's primary registrant database, the System for Award Management (https://www.sam.gov/), as explained on the Grants.gov Web site. After registering, it may take several days or longer from the initial log-on before a new Grants.gov system user can submit an application. Only authorized individual(s) will be able to submit the application, and the system may need time to process a submitted application. Applicants should save and print the proof of submission they receive from Grants.gov. If problems occur while using Grants.gov, the applicant is advised to (a) print any error message received and (b) call Grants.gov directly for immediate assistance. If calling from within the United States or from a U. S. territory, please call 800-518-4726. If calling from a place other than the United States or a U. S. territory, please call 606-545-5035. Assistance from the Grants.gov Help Desk will be available around the clock every day, with the exception of Federal holidays. Help Desk service will resume at 7:00 a.m. Eastern Time the day after Federal holidays. For assistance using Grants.gov, you may also contact support@grants.gov.

c) Information essential to successful submission of applications on the Grants.gov system is detailed in the For Applicants section found in red on the left side of the www.grants.gov home page, and all potential applicants should pay close attention to the information contained therein. The All About Grants, Applicant FAQs, and Submit Application FAQs sections found under the Applicant Resources option are particularly important.

Important: *All applicants, both electronic and paper submitters, should be aware that adequate time must be factored into applicants' schedules for delivery of their application. Submitters of electronic applications are advised that volume on Grants.gov may be extremely heavy on the deadline date, and if Grants.gov is unable to accept applications electronically in a timely fashion, applicants are encouraged*

to exercise their option to submit applications in paper format. Submitters of paper applications should allow adequate time to ensure a paper application will be received on time, taking into account that Federal Government security screening for U.S. Postal Service mail may delay receipt of mail for up to two (2) weeks and that guaranteed express mailings and/or couriers are not always able to fulfill their guarantees.

Refer to important information in Section IV.3. Submission Dates and Times, to help ensure your application is received on time.

b. Amendments. Any amendments to this FFO will be announced through Grants.gov. Applicants may sign up on Grants.gov to receive amendments by email or may request copies from Diane Henderson by telephone at 301-975-5105 or by email to diane.henderson@nist.gov.

V. Application/Review Information

The evaluation criteria, selection factors, and review and selection process provided in this section will be used for this competition in lieu of that provided in the regulations found at 15 C.F.R. part 292, specifically 15 C.F.R. §§ 292.3.

1. Evaluation Criteria. The applications will be evaluated based on the evaluation criteria described below, which are set in the context of the applicant's ability to align the application for accomplishing the objectives outlined by this FFO: Provide technology transition services to U.S. small manufacturers through a project that fosters small manufacturers' readiness to adopt and/or adapt advanced technologies into their manufacturing processes and products.

The criteria that will be used in evaluating applications are as follows:

a. Identification and Delivery of Technology Transition and Commercialization Tools and Services. *The extent to which specific tools, services, and delivery approaches are proposed to be offered to the targeted manufacturers will be evaluated. The appropriateness of these tools and services will be assessed within the context of how well they align with the needs of the target manufacturers. The extent to which the application clearly and sharply defines an effective methodology for delivering advanced manufacturing technology to small- and medium-sized manufacturers and mechanism(s) for accelerating the adoption of technologies for both process improvement and product adoption will be evaluated. The proposed services will be assessed within the context of existing or emerging supply chain needs within the region. The extensiveness of the proposed approach to improve the competitiveness of the industries and supply chains targeted for participation will be evaluated.*

(1) Market Analysis. *The applicant's knowledge of the service region's manufacturing base as described in the proposal will be evaluated taking into consideration the region's business sizes, industry types, existing and emerging supply chains, product mix, and technology requirements. The degree to which the applicant identifies tools and services appropriate for the target small- and medium-sized manufacturers will be evaluated within the context of the targeted manufacturer needs within the region and the supply chain demographics within the region.*

(2) Geographical Location. *The extent to which a target service region is clearly defined will be evaluated. The breadth and comprehensiveness to which manufacturing across the region is proposed to be reached will be evaluated. The extent to which the project proposes to reach manufacturing beyond the region, as warranted by supply chain needs, will be evaluated. The extent to which the proposed project draws upon the MEP network to achieve national coverage will be evaluated.*

b. Amplification and Integration of MEP Technology Transition and Commercialization Services. *The extent to which proposed delivery mechanisms for technology transition and*

commercialization services could amplify the existing, ongoing efforts of MEP Centers – to include Centers directly participating in the proposal, as well as other MEP Centers around the country will be evaluated. Specific plans for how these efforts will be integrated into the work of the MEP System will be assessed. The extent to which the proposed approach amplifies the impact created by MEP services for the targeted manufacturers will be assessed in the context of job creation; worker training; technology transfer and commercialization of environmentally focused materials, products, and processes; and increased energy efficiency.

c. Resources. *The strength in technical personnel and programmatic resources, staff, facilities, equipment, and linkages to external sources of technology will be assessed in the context of technology transition and commercialization services needed by the manufacturers targeted for service. The Proposed contractual relationships and monitoring plans for relevant partnerships will be evaluated in terms of linkages as described below:*

Linkages. *The applicant's description of the plan to develop effective partnerships or linkages to third parties such as industry, universities, nonprofit economic organizations, and state governments will be assessed by evaluating the likelihood that the proposed project to amplify technology delivery to reach a large number of manufacturers – both within the targeted region, as well as potentially on a broader geographic basis. The appropriateness of these linkages will be assessed with respect to the region's needs, its existing industry capabilities and efforts, and the potential for substantive impacts beyond the region. The relevance of these linkages to supply chains within the region, as demonstrated by partnerships, will be assessed. The alignment of tools and services to be offered with the region's supply chain needs, as described in the proposal, will be evaluated.*

d. Business Model(s). *The quality of one or more business models, described in the proposal, to achieve long-term scalable service delivery to, and participation of, small- and mid-sized manufacturers will be evaluated. The appropriateness and viability of the identified business models will be assessed in the context of the proposed project's plan to address potential future partnership strategies that promote scale up to reach nationally dispersed clusters of small- and mid-sized clusters of manufacturers as described in the proposal.*

e. Management and Financial Plan. *The quality of the management structure described in the proposal will be evaluated. The degree to which the proposed project assures management personnel can carry out development and operation of an effective pilot project will be evaluated. The appropriateness of the identified management structure and personnel, in relation to the proposed project, will be evaluated. In addition, the proposal will be assessed in the following three areas:*

(1) Organizational Structure. *The completeness and appropriateness of the organizational structure across all applicant participants will be assessed. The extent to which the organizational structure focuses on and promotes the execution of the mission of the proposed pilot project will be evaluated.*

(2) Pilot Project Management. *The effectiveness of the planned methodology of proposed pilot project management will be evaluated, taking into consideration the quality and appropriateness of the identification of committed local partners and demonstrated experience of the leadership team in manufacturing, outreach and partnership development. The appropriateness of the plan to ensure both the successful conduct of the pilot project's technology transition project activities, as well as documentation of project learning for use as a baseline for potential future NIST investment in M-TACs, will be evaluated.*

(3) Budget. *The suitability and focus of the applicant's detailed one (1) year budget will be evaluated.*

Each of these criteria (a. through e.) will be given equal weight in the evaluation process.

2. Selection Factors. The Selecting Official shall select applications for award based upon the rank order of the applications. The Selecting Official may select an application out of rank based on one or more of the following additional selection factors:

a. The availability of Federal funds.
b. Whether the project duplicates other projects funded by the Department of Commerce (DoC) or by other Federal agencies.
c. Diversity of geographic distribution of awardees, including MEP Center participation.
d. Diversity of business models tested and deployed by awardees.
e. Diversity of industry sectors and/or supply chains addressed by awardees.

3. Review and Selection Process.

a. Initial Administrative Review of Applications. An initial review of timely received applications will be conducted to determine eligibility, completeness, and responsiveness to this FFO and the scope of the stated program objectives. Applications determined to be ineligible, incomplete, and/or non-responsive may be eliminated from further review.

b. Full Review of Eligible, Complete, and Responsive Applications. Applications that are determined to be eligible, complete, and responsive will proceed for full reviews in accordance with the review and selection process below:

(1) Merit Review. All eligible, complete and responsive applications will be reviewed by at least three (3) independent, objective individuals with appropriate professional and technical expertise relating to the topics covered in this FFO to conduct a merit-based technical review of each application. Reviews will be limited to technical and cost matters, based on the evaluation criteria (*see* Section V.1 of this FFO). Any mix of Federal and non-Federal reviewers may be used. The reviewers' scores will be determined on an individual basis not as a consensus. The reviewers may ask questions of some or all applicants in writing. Reviewers will assign each application a score, based on the application's responsiveness to the FFO evaluation criteria, with a maximum score of 100.

(2) Program Review. Following the merit review described above in Section V.3.b.(1) of this FFO, an evaluation panel will conduct a programmatic review of the eligible, complete and responsive applications. The evaluation panel will consist of at least three (3) persons and will be comprised of any mix of NIST staff, including staff members from NIST MEP, and other federal agency employees with appropriate professional and technical expertise. Taking into consideration the relevance of an application to the program goals and objectives described in Section I of this FFO, the results of the merit reviewers' evaluation, and any additional information obtained from the applicant through written questions posed by the evaluation panel, the evaluation panel will prepare a preliminary adjectival rating of all proposals. If deemed necessary, prior to providing the Selecting Official with a final adjectival rating, the evaluation panel may conduct a teleconference and/or site visit with each applicant that received a Fundable or higher adjectival rating, which may result in the evaluation panel revising their adjectival ratings. The evaluation panel will prepare and provide a final adjectival rating of the applications to the Selecting Official. The adjectival ratings are based on the following scale:

Fundable, Outstanding (91-100);
Fundable, Very Good (81-90);
Fundable (71-80); or
Unfundable (0-70).

(3) Ranking and Selection. Based on the Evaluation Panel's final adjectival ratings, a rank order will be prepared and provided to the Selecting Official for further consideration. The Selecting Official, who is the NIST Associate Director for Innovation and Industry Services and Acting

Director of the NIST MEP Program, or designee, will then select funding recipients based upon the rank order and the selection factors (*see* Section V.2 of this FFO).

NIST reserves the right to negotiate the budget costs with any applicant selected to receive an award, which may include requesting that the applicant remove certain costs. Additionally, NIST may request that the successful applicant(s) modify objectives or work plans and provide supplemental information required by the agency prior to award. NIST also reserves the right to reject an application where information is uncovered that raises a reasonable doubt as to the responsibility of the applicant. NIST may select part, some, all, or none of the applications. The final approval of selected applications and issuance of awards will be by the NIST Grants Officer. The award decisions of the NIST Grants Officer are final.

4. **Anticipated Announcement and Award Date**. Review, selection, and award processing is expected to be completed in March 2014. The earliest anticipated start date for awards made under this FFO is expected to be March 2014.

5. **Additional Information**

a. **Application Replacement Pages.** Applicants may not submit replacement pages and/or missing documents once an application has been submitted. Any revisions must be made by submission of a new application that must be received by NIST by the submission deadline.

b. **Notification to Unsuccessful Applicants.** Unsuccessful applicants will be notified in writing.

c. **Retention of Unsuccessful Applications.** One (1) copy of each non-selected application will be retained for three (3) years for record keeping purposes and the other two (2) copies will be destroyed. After three (3) years the remaining copy will be destroyed.

VI. Award Administration Information

1. **Award Notices.** Successful applicants will receive an award from the NIST Grants Officer. The award cover page, i.e., CD-450, Financial Assistance Award is available at http://ocio.os.doc.gov/s/groups/public/@doc/@os/@ocio/@oitpp/documents/content/dev01_002513.pdf and the DoC Financial Assistance Standard Terms and Conditions (January 2013), which may be updated by the time of award, are available at

2. **Administrative and National Policy Requirements.**

a. **DoC Pre-Award Notification Requirements.** The DoC Pre-Award Notification Requirements for Grants and Cooperative Agreements, which are contained in the *Federal Register* notice of December 17, 2012 (77 FR 74634), are applicable to this FFO and are available at http://www.osec.doc.gov/oam/grants_management/policy/documents/Department%20of%20Commerce%20Financial%20Assistance%20Pre%20Award%20Notice%20-%2077%20FR%2074634.pdf.

b. **Employer/Taxpayer Identification Number (EIN/TIN), Dun and Bradstreet Data Universal Numbering System (DUNS), and System for Award Management (SAM).** All applicants for Federal financial assistance are required to obtain a universal identifier in the form of DUNS number and maintain a current registration in the Federal government's primary registrant database, SAM. On the form SF-424 items 8.b. and 8.c., the applicant's 9-digit EIN/TIN and 9-digit DUNS number must be consistent with the information in SAM (https://www.sam.gov/) and Automated Standard Application for Payment System (ASAP). For complex organizations with multiple EIN/TIN and DUNS numbers, the EIN/TIN and DUNS numbers MUST be the numbers for the applying organization. Organizations that provide incorrect/inconsistent EIN/TIN and DUNS numbers may experience significant delays in receiving funds if their application is selected for funding. Confirm that the EIN/TIN and DUNS number are consistent with the information on the SAM and ASAP.

Per 2 C.F.R. Part 25, each applicant must:

(1) Be registered in the Central Contractor Registry (CCR) before submitting an application noting the CCR now resides in SAM;

(2) Maintain an active CCR registration, noting the CCR now resides in SAM, with current information at all times during which it has an active Federal award or an application under consideration by an agency; and

(3) Provide its DUNS number in each application or application it submits to the agency.

The applicant can obtain a DUNS number from Dun and Bradstreet. A DUNS number can be created within one business day. The CCR or SAM registration process may take five or more business days to complete. If you are currently registered with the CCR, you may not need to make any changes. However, please make certain that the TIN associated with your DUNS number is correct. Also note that you will need to update your CCR registration annually. This may take three or more business days to complete. Information about SAM is available at SAM.gov. *See* also 2 C.F.R. Part 25 and the *Federal Register* notice published on September 14, 2010, at 75 FR 55671.

c. Collaborations with NIST Employees. All applications should include a description of any work proposed to be performed by an entity other than the applicant, and the cost of such work should ordinarily be included in the budget. If an applicant proposes collaboration with NIST, the statement of work should include a statement of this intention, a description of the collaboration, and prominently identify the NIST employee(s) involved, if known. Any collaboration by a NIST employee must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the approval of the proposed collaboration. Any unapproved collaboration will be stricken from the application prior to the merit review.

d. Use of NIST Intellectual Property. If the applicant anticipates using any NIST-owned intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described in 35 U.S.C. §§ 200-212, 37 C.F.R. Part 401, 15 C.F.R. § 14.36, and in Section B.21 of the DoC Pre-Award Notification Requirements, 77 FR 74,634(December 17, 2012). Questions about these requirements may be directed to the Chief Counsel for NIST, (301) 975-2803.

Any use of NIST-owned intellectual property by an applicant is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this FFO, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain

e. Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects Including Software Testing. Any application that includes research involving human subjects, human tissue/cells, data or recordings involving human subjects, including software testing, must meet the requirements of the Common Rule for the Protection of Human Subjects ("Common Rule"), codified for the Department of Commerce (DoC) at 15 C.F.R. Part 27. In addition, any such application that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other Federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, the Food and Drug Administration, and other Federal agencies on these topics, and all Executive Orders and Presidential statements of policy on these topics.

NIST reserves the right to make an independent determination of whether an applicant's research involves human subjects. If NIST determines that your research project involves human subjects, you will be required to provide additional information for review and approval. If an award is issued, no research activities involving human subjects shall be initiated or costs incurred under the award until the NIST Grants Officer issues written approval. Retroactive approvals are not permitted.

NIST will accept applications that include exempt and non-exempt human subjects research activities. Non-exempt human subjects research activities will be required to have protocols approved by an Institutional Review Board (IRB) currently registered with the Office for Human Research Protections (OHRP) within the DHHS and that will be performed by entities possessing a currently valid Federal-wide Assurance (FWA) on file from OHRP that is appropriately linked to the cognizant IRB for the protocol. Information regarding how to apply for an FWA and register and IRB with OHRP can be found at http://www.hhs.gov/ohrp/assurances/index.html. ***The applicant should clearly indicate in the application, by separable task, all research activities believed to be exempt or non-exempt research involving human subjects and the expected institution(s) where the research activities involving human subjects may be conducted.***

Generally, NIST does not fund research involving human subjects in foreign countries. NIST will consider, however, the use of **preexisting** tissue, cells, or data from a foreign source on a limited basis if all of the following criteria are satisfied:

(1) the scientific source is considered unique,
(2) an equivalent source is unavailable within the United States,
(3) an alternative approach is not scientifically of equivalent merit, and
(4) the specific use qualifies for an exemption under the Common Rule.

If an activity/task involves data obtained through intervention or interaction with living individuals or identifiable private information obtained from or about living individuals but the project participant believes that the activity/task is not research as defined under the Common Rule, the following may be requested for that activity/task:

Justification, including the rationale for the determination and in some cases additional documentation, to support a determination that the activity/task in the project is not research as defined under the Common Rule. *See* 15 C.F.R. 27.102. Some cases may result in a NIST determination or an applicant or recipient may choose to provide an IRB approval (if the project participant uses a cognizant IRB).

If an activity/task involves data obtained through intervention or interaction with living individuals or identifiable private information obtained from or about living individuals but the project participant believes that the task/activity is not research as defined under the Common Rule, the following will be required for that activity/task:

Documentation or an IRB approval (if the project participant has a cognizant IRB), including the rationale for the determination, to support a determination that the activity/task in the project is not research as defined under the Common Rule [see 15 C.F.R. 27.102].

If the application appears to include research activities involving human subjects the following information may be requested during the review process:

(1) The name(s) of the institution(s) where the research will be conducted;
(2) The name(s) and institution(s) of the cognizant IRB(s), and the IRB registration number(s);
(3) The FWA number of the applicant linked to the cognizant IRB(s);
(4) The FWAs associated with all organizations engaged in the planned research activity/task-linked to the cognizant IRB;
(5) If the IRB review(s) is pending, the estimated start date for research involving human subjects;

(6) The IRB approval date (if currently approved for exempt or non-exempt research);
(7) If any FWAs or IRB registrations are being applied for, that should be clearly stated.

Additional documentation may be requested, as warranted, during review of the application, but may include the following for research activities involving human subjects that are planned in the first year of the award:

(1) A signed (by the study principal investigator) copy of each applicable final IRB-approved protocol;
(2) A signed and dated approval letter from the cognizant IRB(s) that includes the name of the institution housing each applicable IRB, provides the start and end dates for the approval of the research activities, and any IRB-required interim reporting or continuing review requirements;
(3) A copy of any IRB-required application information, such as documentation of approval of special clearances (i.e., biohazard, HIPAA, etc.) conflict-of-interest letters, or special training requirements;
(4) A brief description of what portions of the IRB submitted protocol are specifically included in the application submitted to NIST, if the protocol includes tasks not applicable to the application, or if the protocol is supported by multiple funding sources. For protocols with multiple funding sources, NIST will not approve the study without a non duplication-of-funding letter indicating that no other federal funds will be used to support the tasks proposed under the proposed research or ongoing project;
(5) If a new protocol will only be submitted to an IRB if an award from NIST issued, a draft of the proposed protocol may be requested.
(6) Any additional clarifying documentation that NIST may request during the review process to perform the NIST administrative review of research involving human subjects.

f. Funding Availability and Limitation of Liability. Funding for the program listed in this FFO is contingent upon the availability of appropriations. In no event will NIST or DoC be responsible for application preparation costs if this program fails to receive funding or is cancelled because of agency priorities. Publication of this FFO does not oblige NIST or DoC to award any specific project or to obligate any available funds.

g. Collaborations Making Use of Federal Facilities. All applications should include a description of any work proposed to be performed using Federal facilities.

If an applicant proposes use of NIST facilities, the statement of work should include a statement of this intention and a description of the facilities. Any use of NIST facilities must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the availability of the facilities and approval of the proposed usage. Any unapproved facility use will be stricken from the application prior to the merit review. Examples of some facilities that may be available for collaborations are listed on the NIST Web site, http://www.nist.gov/user-facilities.cfm.

h. Award Implementation. Given the potential partnership nature of the subject pilot projects and to clarify and support the project activities and budget, NIST may ask recipients to provide copies of sub-tier agreements, including subawards and contracts over $100,000. In addition, to better understand and implement the national manufacturing extension network and partnership, NIST may ask recipients to provide an Operating Plan and Budget showing manufacturing extension service activity and costs in which the awardee is engaged outside this award. NIST may request recipients to provide their proposed sub-recipient performance monitoring plans. Failure to comply with NIST request for this information may result in the withholding of funding from the awardee by NIST.

i. DoC Representation by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction Under Any Federal Law. In accordance with the Federal appropriations law expected to be in effect at the time of project funding, NIST anticipates that the selected applicant will

be provided a form and asked to make a representation regarding any unpaid delinquent tax liability or felony conviction under any Federal law.

3. Reporting

a. Reporting Requirements. In lieu of the reporting requirements described in sections A.01 Financial Reports and B.01 Performance (Technical) Reports of the DoC Financial Assistance Standard Terms and Conditions dated January 2013 (http://www.osec.doc.gov/oam/grants_management/policy/documents/DOC_Standard_Terms_and_Conditions_01_10_2013.pdf) the following reporting requirements shall apply:

(1) Financial Reports. Each award recipient will be required to submit an SF-425, Federal Financial Report in triplicate (an original and two (2) copies), on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31 of each year. Reports will be due within 30 days after the end of the reporting period. A final financial report is due within 90 days after the end of the project period.

(2) Performance (Technical) Reports. Each award recipient will be required to submit a technical progress report in triplicate (an original and two (2) copies), on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31 of each year. Reports will be due within 30 days after the end of the reporting period. A final technical progress report shall be submitted within 90 days after the expiration date of the award. Two (2) copies of the technical progress report shall be submitted to the Project Manager and the original report to the NIST Grants Officer. Technical progress reports shall contain information as prescribed in the NIST MEP Reporting Guidelines available at http://www.nist.gov/mep/ (OMB Control Number 0693-0032).

b. Audit Requirements. Single or program-specific audits shall be performed in accordance with the requirements contained in OMB Circular A-133, *"Audits of States, Local Governments, and Non-Profit Organizations,"* and the related *Compliance Supplement*. OMB Circular A-133 requires any non-Federal entity (*i.e.*, including non-profit institutions of higher education and other non-profit organizations) that expends Federal awards of $500,000 or more in the recipient's fiscal year to conduct a single or program-specific audit in accordance with the requirements set out in the Circular. Applicants are reminded that NIST, the DoC Office of Inspector General, or another authorized Federal agency may conduct an audit of an award at any time.

c. Federal Funding Accountability and Transparency Act of 2006. In accordance with 2 C.F.R. Part 170, all recipients of a Federal award made on or after October 1, 2010, are required to comply with reporting requirements under the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. No. 109-282). In general, all recipients are responsible for reporting sub-awards of $25,000 or more. In addition, recipients that meet certain criteria are responsible for reporting executive compensation. Applicants must ensure they have the necessary processes and systems in place to comply with the reporting requirements should they receive funding. Also see the *Federal Register* notice published September 14, 2010, at 75 FR 55663.

4. Post Client Project Follow-Up. The recipient will be required to provide client and project data in the specified format to the organization identified by NIST/MEP in order for post-project follow-up data to be obtained (OMB Control Number 0693-0021).

VII. Agency Contact(s)

Questions should be directed to the following contact persons:

Subject Area	Point of Contact
Administrative, budget, cost-sharing, eligibility questions and other programmatic questions.	Diane Henderson Manufacturing Extension Partnership NIST

	Phone: 301-975-5105 Fax: 301-963-6556 E-mail: diane.henderson@nist.gov
Grants.gov - application submission	Christopher Hunton Grants & Agreements Management Division NIST Phone: 301-975-5718 Fax: 301-840-5976 E-mail: christopher.hunton@nist.gov
Grant rules and regulations	Calvin Mitchell Grants & Agreements Management Division NIST Phone: 301-975-4585 Fax: 301-840-5976 E-mail:calvin.mitchell@nist.gov

VIII. Other Information

- **Webinar Information Session.** NIST MEP will hold an information session for organizations considering applying to this opportunity. An information session in the form of a webinar will be held approximately 14 business days after posting of this FFO on Grants.gov. The exact date and time of the webinar will be posted on the MEP website at http://www.nist.gov/mep/. Organizations wishing to participate in the webinar must sign up by contacting Diane Henderson at diane.henderson@nist.gov. The webinar material will be posted on the MEP website after it is conducted for archival purposes.