

NOTICE OF FUNDING OPPORTUNITY (NOFO)
Advanced Manufacturing Technology Services

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)
- **Funding Opportunity Title:** Advanced Manufacturing Technology Services
- **Announcement Type:** Initial
- **Funding Opportunity Number:** 2020-NIST-MEP-AMTS-01
- **Assistance Listing (Catalog of Federal Domestic Assistance (CFDA) Number):** 11.611, Manufacturing Extension Partnership
- **Dates:** Applications must be received at Grants.gov no later than 11:59 p.m. Eastern Time on February 6, 2020. Applications received after this deadline will not be reviewed or considered.

Applicants should be aware, and factor in their application submission planning, that the Grants.gov system is expected to be closed for routine maintenance at the following times. Applications cannot be submitted when Grants.gov is closed:

From 12:01 A.M. Eastern Time	To 6:00 A.M. Eastern Time
January 18, 2020	January 21, 2020

NIST expects to complete its review, selection of successful applicants, and award processing by April 1, 2020. NIST expects the earliest start date for awards under this NOFO to be April 1, 2020.

Applicants are strongly urged to read Section IV.B.2. of this NOFO, Attachment of Required Application Documents, with great attention. Applicants should carefully follow the instructions and recommendations regarding attachments and use the Download Submitted Forms and Applications feature on www.Grants.gov to check that all required attachments were contained in their submission. Applications submitted without the required documents will not pass the Initial Administrative Review, described in Section V.B.1. of this NOFO and may not be considered for funding by NIST.

When developing the submission timeline, please keep in mind that: (1) all applicants are required to have current registrations in the electronic System for Award Management (SAM.gov) and Grants.gov; (2) the free annual registration process in SAM.gov (see Section IV.D. and Section IV.G.1. of this NOFO) generally takes between three and five business days but can take more than two weeks; and (3) applicants will receive e-mail notifications over a period of up to two business days as the application moves through intermediate systems before the applicant learns via a validation or rejection notification whether NIST has received the application. (See [Grants.gov](https://www.grants.gov) for full information on application and notification through Grants.gov). Please note that a federal assistance award cannot be issued if the designated recipient's registration in SAM.gov is not current at the time of the award. See Section IV. in the Full Announcement Text of this NOFO.

- **Application Submission Address:** Applications must be submitted using Grants.gov. NIST will not accept applications submitted by mail, facsimile, or by e-mail. See Section IV. in the Full Announcement Text of this NOFO.
- **Funding Opportunity Description:** NIST invites proposals from current recipients of Manufacturing Extension Partnership Center cooperative agreements (MEP Centers) to deploy advanced manufacturing technology services to U.S. manufacturers in the broad area of Industry / Manufacturing 4.0, with an emphasis on serving the technology-based needs of small U.S. manufacturers (hereinafter referred to as small U.S. manufacturers). For the purpose of this program, Industry / Manufacturing 4.0 includes any combination of technologies that, when implemented individually or collectively, enables the operation of digitally-connected, smart manufacturing systems within factories and across manufacturing supply chains. Implementation of these Industry / Manufacturing 4.0 technologies by small U.S. manufacturers should facilitate improved product quality and innovation, improved manufacturing process efficiency, and increased supply chain connectivity. Ultimately, this should result in small U.S. manufacturers being more competitive in the marketplace and being afforded business growth opportunities. See Section I. in the Full Announcement Text of this NOFO.
- **Anticipated Amounts:** NIST anticipates funding no more than 3 awards pursuant to this NOFO, with each award being funded at a total amount of up to \$1,000,000. The project(s) awarded under this NOFO will have a budget and performance period of up to three (3) years. The awards are expected to be fully funded at the time of award. See Section II. in the Full Announcement Text of this NOFO.
- **Funding Instrument:** Cooperative Agreement. See Section II.A. of this NOFO for additional information concerning the funding instrument for these awards.

- **Eligibility:** Applicants for this program must be active MEP Centers that are operating pursuant to a current NIST MEP cooperative agreement. A MEP Center may work individually or may include proposed subawards to eligible organizations or proposed contracts with any other organization as part of the applicant's proposal, effectively forming a team. An MEP Center may serve as the MEP Center applicant on only one (1) proposal. There are no restrictions on the number of applications in which MEP Centers may be proposed as subrecipients or as non-funded collaborators. See Section III.A. of this NOFO for more information regarding funding opportunity eligibility. MEP Centers are strongly encouraged to propose projects that demonstrate program delivery approaches to be applied on a regional or on a national basis, and that would be implemented through teaming arrangements involving the meaningful participation of multiple MEP Centers and other partners, thereby serving small U.S. manufacturers in multiple states. Applicants proposing regional or national projects involving the meaningful participation of multiple MEP Centers may receive priority from NIST during the award selection process. See Section I.C. of this NOFO for information on the Program Priorities.
- **Cost Sharing Requirements:** Non-federal cost share is not required for awards issued pursuant to this NOFO. See Section III.B. of this NOFO for more information regarding cost sharing requirements.
- **Public Website:** NIST has a public website <https://www.nist.gov/mep/advanced-manufacturing-technology-services> that provides information pertaining to this funding opportunity. Any amendments to this NOFO will be announced through Grants.gov.

Applicants must submit all questions pertaining to this funding opportunity via e-mail to mepnofo@nist.gov.

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FULL ANNOUNCEMENT TEXT

I. Program Description

NIST is publishing this NOFO pursuant to the Hollings Manufacturing Extension Program (MEP) Competitive Awards Program, which is authorized by 15 U.S.C. § 278k-1. This program is not a Federal research and development program, and it is not the intent of this program that MEP Center awardees will perform systematic research.

A. Program Overview

1. Background

In today's domestic and global manufacturing markets, U.S. manufacturers increasingly face competitive pressures that require them to make products that are better and more innovative than those of their competitors, as well as to make their products more quickly and at less cost. "Better, cheaper, and faster" is a business driver for U.S. manufacturers that underpins a company's ability to differentiate itself and its products in the marketplace – and to ultimately be competitive and be able to capitalize on opportunities to grow.

Achieving marketplace differentiation depends on a vast number of business and technological factors that impact manufacturers. The ability for a manufacturer to incorporate and deploy best manufacturing practices and advanced technology is key. For small U.S. manufacturers, this can be especially challenging. Having

knowledge of and access to the most current and leading-edge trends and techniques can give companies the competitive edge they need.

The physical and cyber-based systems that constitute the manufacturing factories and supply chains of today are increasingly interconnected through advanced networking and computing technologies to enable products and production capabilities that far exceed that which was available in previous generations. This current state of manufacturing that is based upon cyber-physical connectivity is often called Industry 4.0 or Manufacturing 4.0 (hereinafter referred to as Industry / Manufacturing 4.0) and is the focus of this program.

For the purpose of this program, Industry / Manufacturing 4.0 includes any combination of technologies that, when implemented individually or collectively, enables the operation of digitally-connected, smart manufacturing systems within factories and across manufacturing supply chains. An emphasis of Industry / Manufacturing 4.0 also “focuses on the end-to-end digitization of all physical assets and integration into digital ecosystems with value chain partners.”¹

Industry / Manufacturing 4.0 technologies implement a digital thread to connect the cyber and physical systems that operate in manufacturing factories and supply chains. Implementation of Industry / Manufacturing 4.0 technologies by small U.S. manufacturers should facilitate improved product quality and innovation, improved manufacturing process efficiency and overall manufacturing productivity, and increased supply chain connectivity. Ultimately, this should result in small U.S. manufacturers being more competitive in the marketplace and being afforded business growth opportunities.

Through its nationwide network of MEP Centers operating in every U.S. state and Puerto Rico, the MEP Program facilitates and accelerates the transfer of manufacturing technology in partnership with industry, professional associations, educational institutions including universities and community colleges, state government, and NIST and other federal and non-federal research laboratories and agencies. MEP Centers provide direct, hands-on assistance to thousands of small U.S. manufacturers each year. The acceleration of new and emerging technology into the hands of these small U.S. manufacturers is critical to the MEP mission of enhancing the productivity and technological performance of U.S. manufacturers.

Further information regarding the MEP Program is provided in the information packet that may be obtained at www.grants.gov, with additional background information

¹ PwC, 2016 Global Industry 4.0 Survey, April 2016; available at <https://www.pwc.com/gx/en/industries/industries-4.0/landing-page/industry-4.0-building-your-digital-enterprise-april-2016.pdf>

provided at www.nist.gov/mep. Refer to Section VII. of this NOFO, “Federal Awarding Agency Contacts,” “Grant Rules and Regulations”, if you seek the information at this link or for any link in this NOFO, and it is either no longer working or you need more information.

2. Learnings from the MEP Center – Manufacturing USA Institutes Pilot Projects

As MEP Center applicants are developing proposed approaches for deploying advanced manufacturing technology services to small U.S. manufacturers in response to this NOFO, applicants should contemplate incorporating learnings and results from the series of NIST MEP-funded pilot projects (beginning in 2016) conducted by MEP Centers that focused on partnering with the 14 Manufacturing USA Institutes operating around the Nation. These funding awards facilitated partnerships between MEP Centers and the Manufacturing USA Institutes that led to the development and testing of various approaches and business models by which MEP Centers could engage small U.S. manufacturers in the technology focus areas and market opportunities associated with the Institutes. All of these pilot projects focused on working with small U.S. manufacturers relating to advanced manufacturing technologies. Whether an applicant MEP Center was involved in any of these MEP – Manufacturing USA Institute pilot projects, or not, applications submitted in response to this Industry / Manufacturing 4.0 NOFO should consider incorporating and leveraging the results of this previous work, which are summarized below.

The 14 MEP – Manufacturing USA Institutes pilot projects demonstrated the following learning and produced the following results regarding the acceleration of advanced manufacturing technology use by small U.S. manufacturers:

- Deploying advanced manufacturing technology in small U.S. manufacturers must account for certain unique needs and issues that are a function of the unique operating and business environments of small companies;
- Small U.S. manufacturers generally seek technology solutions that are market ready and can be implemented in the very near term, without significant periods of time associated with development;
- Most manufacturing companies engaged by MEP Centers about advanced manufacturing technology showed interest in exploring opportunities before making decisions to commit or implement;
- Small U.S. manufacturers expressed interest in demonstration sites and interactive experiences that help them understand technologies;
- Local resources (less than a two-hour drive) are particularly helpful for engagement with small manufacturers relating to advanced manufacturing technology; and

- Data submitted to NIST MEP from the MEP Centers that conducted the pilot projects indicated the most successful methods of engagement of small U.S. manufacturers included:
 - participating in workshops and conferences highlighting and providing awareness about a given technology or opportunity;
 - supporting free assistance (up to 40 hours) for investigatory discussions with key resources and other forms of hands-on assistance; and
 - hosting visits and activities at demonstration centers for companies in an active and structured way.

Industry / Manufacturing 4.0 technical assistance provided by MEP Centers to small U.S. manufacturers may be implemented through many different project approaches. NIST MEP is seeking innovative service delivery approaches that address assistance needs related to awareness and education, training, technology assessment, technology demonstration, and technology deployment and implementation.

Other efforts have recently occurred or are ongoing around the MEP National Network that are also relevant to this NOFO. In particular, consistent with MEP National Network Strategic Plan guidance for 2017-2022 (https://www.nist.gov/system/files/documents/2018/09/04/mep_national_network_plan_2017to2022final.pdf), the MEP National Network has recently begun developing approaches to providing awareness and technical assistance services for delivery by MEP Centers to small U.S. manufacturers relating to Manufacturing / Industry 4.0. These MEP Center efforts are building on the work of the MEP pilot projects with the Manufacturing USA Institutes. They are being led by teams of MEP Centers who are working together to develop and deliver advanced manufacturing technology services for the network of MEP Centers. The NIST MEP funding provided through this NOFO seeks to accelerate these efforts on a national scale.

B. Program Requirements

NIST MEP invites applications from current MEP Centers to support the needs of the Nation's manufacturers in adopting and in improving upon existing Industry / Manufacturing 4.0 technologies, thereby helping to improve productivity and technological performance in United States manufacturing. MEP Centers whose proposals are selected for funding will conduct projects that will add capabilities to the MEP Program by demonstrating various methods for providing technical assistance services to U.S. manufacturers, especially small U.S. manufacturers, in deploying advanced manufacturing technology solutions.

To receive funding under this NOFO, an applicant MEP Center must propose a project that focuses on the provision of technical assistance services by the MEP Center or by a team of MEP Centers to U.S. manufacturers, with an emphasis on

small manufacturers, that deploy, integrate, or otherwise capitalize on advanced manufacturing technologies as they relate to the broad topic of Industry / Manufacturing 4.0. Projects may also include training, education, and awareness for small U.S. manufacturers on topics pertaining to Industry / Manufacturing 4.0.

All projects funded under this NOFO should demonstrate cyber-physical connections within manufacturing systems, whether at the factory level, enterprise / supply chain level, or both. This is the essence of Industry / Manufacturing 4.0. Implementation of Industry / Manufacturing 4.0 technologies by small U.S. manufacturers should facilitate improved product quality and innovation, improved manufacturing process efficiency, and increased supply chain connectivity. The services provided by MEP Centers through awards made under this NOFO should result in small U.S. manufacturers being more competitive in the marketplace and better positioned to capitalize on business growth opportunities.

The following technical areas are integral to Industry / Manufacturing 4.0 and are within the scope of awards that will be funded under this NOFO:

- Additive manufacturing;
- Advanced and lightweight materials, including composites and lightweight metals associated with product or process innovations;
- Cybersecurity;
- Digital manufacturing, including the use of modeling and simulation;
- Robotics, especially relating to flexible automation; and
- Smart manufacturing, including the use of sensors, data analytics, and different forms of artificial intelligence to optimize processes and products.

The technical areas above are not an exhaustive list of the technologies that constitute Industry / Manufacturing 4.0. These examples are provided because they are technologies that are widely available and can be implemented by U.S. manufacturers serving markets across multiple manufacturing industries – they are essentially infrastructural, enabling technologies that are market ready.

Moreover, projects funded under this NOFO may serve small U.S. manufacturers operating in a broad cross section of the U.S. manufacturing sector that may include, for example, the following industries: automotive, aerospace, biomedical / biomanufacturing, chemical processing, communications, computers, consumer electronics, energy products, food processing, heavy equipment, instrumentation, machinery, medical equipment, national defense, pharmaceuticals, recycling, remanufacturing, transportation, and others.

Awards made under this NOFO must provide technical assistance services to U.S. manufacturers, with an emphasis on small U.S. manufacturers, through project-level

engagements between MEP Centers and small manufacturers. Applicants are required to provide estimates of the numbers of such project-level engagements that will occur over the proposed period of performance, up to three years. Applicants must also include the basis for such estimates.

Additionally, applicants must clearly articulate in their proposals how the impacts of the assistance projects that are conducted will be captured via the MEP project and client reporting and independent survey processes. Awards made through this NOFO will be required to provide reports that detail technical and budget status and performance, and that also capture the impacts of project engagements with the manufacturers served. Details of reporting requirements are provided in Section VI.C. of this NOFO.

Finally, applicants must clearly articulate in their proposals how the results of the awards made through this NOFO will be shared with other MEP Centers across the MEP National Network. Results include, but are not limited to, learning associated with project-level engagements between participating MEP Centers and the small U.S. manufacturers receiving technical assistance. Examples of learning that may result from MEP Center services provided under this NOFO include: correlations between which technologies are most suited to certain industries; which types of engagements prove most beneficial to small U.S. manufacturers; and the means by which the MEP Center provision of technical assistance to small U.S. manufacturers in Industry / Manufacturing 4.0 areas enabled MEP Center relationships that could be leveraged into other assistance areas with the manufacturers being served.

C. Program Priorities.

In accordance with 15 U.S.C. § 278k-1(e)(3)(A)-(D), the program priorities for this competition include projects that the Selecting Official determines will achieve one or more of the following:

1. Improve the competitiveness of industries in the region in which the Center or Centers are located;
2. Create jobs, or train newly hired employees;
3. Promote the transfer and commercialization of research and technology from institutions of higher education, national laboratories or other federally funded research programs, and nonprofit research institutes; and
4. Recruit a diverse manufacturing workforce, including through outreach to underrepresented populations, including individuals identified in section 33 or section 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. §§ 1885a and 1885b).

In addition, pursuant to 15 U.S.C. § 278k-1(e)(3)(E), it is a priority of this program

that MEP Centers work together as a team to serve the Industry / Manufacturing 4.0 technical assistance needs of small U.S. manufacturers on a regional or on a national scale. As such, MEP Centers are strongly encouraged to propose projects that would be implemented through teaming arrangements involving the meaningful participation of multiple MEP Centers and other collaborators, thereby serving small U.S. manufacturers in multiple states. Applicants proposing regional or national projects involving the meaningful participation of multiple MEP Centers may receive priority from NIST during the award selection process. See Section V.B.4. of this NOFO for information on the Selection Factors for this program.

II. Federal Award Information

A. Funding Instrument. The funding instrument that will be used for awards issued pursuant to this NOFO is a cooperative agreement. The nature of NIST's "substantial involvement" will generally include collaboration with the recipient organization in developing and in implementing the approved scope of work.

B. Funding Availability. NIST anticipates funding no more than 3 awards pursuant to this NOFO, with each award being funded at a total amount of up to \$1,000,000. The project(s) awarded under this NOFO will have a budget and performance period of up to three (3) years. The awards are expected to be fully funded at the time of award.

C. Award Kick-Off Meeting.

Recipients should anticipate attending a video kick-off conference which will be held within 30 calendar days from the start date of award to ensure that the recipient has a clear understanding of the program requirements and project components.

The kick-off conference will typically take between 3 and 4 hours and must be attended by the project manager and appropriate key project personnel who will play a significant role in managing and/or executing the cooperative agreement. The kick-off meeting should also involve appropriate personnel from the lead MEP Center, as well as other MEP Center(s) participating in the project and may, as necessary, include personnel from other third-party collaborating entities.

D. MEP National Network Meetings.

NIST MEP typically organizes MEP Center project meetings up to two (2) times per year to share best practices and to discuss new and emerging trends, as well as additional topics of interest. These meetings are planned throughout the United States and typically involve 2-3 days of resource time and associated travel costs for

each meeting. One (1) key representative from the lead MEP Center should attend these meetings.

Applicants must include travel and related costs for at least one (1) representative from the lead MEP Center to participate in the scheduled MEP Center project meetings in each of one (1) or two (2) project years (up to two (2) meetings per year; up to six (6) total meetings, over an award period of up to 3 years). These costs must be reflected in the budget tables and budget narratives for each of the project's years of operation, which are submitted as part of the Technical Proposal. (See Section IV.B.1.g) of this NOFO). If travel and related costs for the MEP Center representatives are already accounted for under another NIST MEP award, the applicant should note this in the budget narrative and should not include travel and related costs in the budget.

The recipient will be required to provide detailed analysis of the lessons learned through this work at the MEP Center project meetings. These analyses will include, but are not limited to, attributes of manufacturing companies served; participant roles from MEP Centers and partner organizations; planning of the intended approach and interactions with NIST MEP, participating manufacturers, and other partners; root cause(s) for successes/failures, recommendations for how the outcomes of the NOFO-funded work might inform expansion of the intended goals; and how the NOFO-funded efforts align with and impact the many Advanced Manufacturing Technology related activities underway across the network of MEP Centers that are developing national capabilities for MEP Centers to provide Advanced Manufacturing Technology assistance to U.S. manufacturers.

E. Indirect (F&A) Costs.

NIST will reimburse applicants for proposed indirect (F&A) costs in accordance with 2 C.F.R. § 200.414. Applicants proposing indirect (F&A) costs must follow the application requirements set forth in Section IV.B.1.h. of this NOFO.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants for this funding opportunity are MEP Centers that are operating pursuant to a current NIST MEP cooperative agreement. A MEP Center may work individually or may include proposed subawards to other MEP Centers, effectively forming a team. An MEP Center may serve as the MEP Center applicant on only one (1) proposal. There are no restrictions on the number of applications in which MEP Centers can be proposed as subrecipients or as non-funded collaborators.

MEP Centers are strongly encouraged to propose projects that demonstrate program delivery approaches to be applied on a regional or on a national basis, and that would be implemented through teaming arrangements involving the meaningful participation of multiple MEP Centers and other collaborating partners, thereby serving small U.S. manufacturers in multiple states. Collaborating entities may include local economic development organizations, universities, community colleges, technology incubator programs, the Manufacturing USA Institutes, and other organizations. Applicants proposing regional or national projects involving the meaningful participation of multiple MEP Centers may receive priority from NIST during the award selection process. See Section I.A.3. of this NOFO for information on the Program Priorities.

B. Cost Sharing or Matching

Non-federal cost share is not required for awards issued pursuant to this NOFO.

1. Prohibition on Profit and Fees.

A profit, fee, or other incremental charge above actual cost is not an allowable cost under this program.

2. No Double Charging Against other NIST MEP Awards.

Costs charged against awards issued pursuant to this NOFO, whether paid by federal or non-federal funds, may not also be charged as costs against any other NIST MEP award (i.e., no double-billing of costs). In addition, NIST MEP funding provided by a MEP Center to another MEP Center or other collaborator may not be used by such MEP Center or collaborator as a non-federal cost share contribution for an MEP Center or collaborator award (i.e., federal funds may not be used as cost share for other federal awards).

3. Program Income.

For purposes of this program, applicants should not budget program income as non-federal cost share. Rather, the recipient and any subrecipients of an award issued pursuant to this NOFO must expend all program income (as defined in 2 C.F.R. § 200.307) generated by the project using the "additive method" under 2 C.F.R. § 200.307(e)(2), with any excess program income to be disposed of pursuant to the "deductive method" under 2 C.F.R. § 200.307(e)(1).

The applicant must clearly identify in its proposal whether the applicant or any of its subrecipients anticipate generating program income pursuant to the proposed project (e.g., registration fees, client service fees, etc.). If program income is

anticipated under the project, the applicant must identify the anticipated amount of program income as part of the overall project budget (including subrecipient budgets) and must budget for the expenditure of such program income using the "additive method," with any excess program income to be disposed of pursuant to the "deductive method."

I IV. Application and Submission Information

A. Address to Request Application Package

The application package is available at [Grants.gov](https://www.grants.gov) under Funding Opportunity Number 2020-NIST-MEP-AMTS-01.

B. Content and Form of Application Submission

1. Required Forms and Documents. The Application must contain the following:

a) SF-424, Application for Federal Assistance.

- i) The SF-424 must be signed by an authorized representative of the applicant organization.
- ii) SF-424, Item 8.d. Zip/Postal Code field, should reflect the Zip code + 4 (#####-####) format.
- iii) SF-424, Item 12, should list the NOFO number 2020-NIST-MEP-AMTS-01.
- iv) SF-424, Item 18, should list the total budget information for the duration of the project.
- v) The list of certifications and assurances referenced in Item 21 of the SF-424 is contained in the SF-424B.

b) SF-424A Budget Information for Non-Construction Programs.

- i. i) The budget should reflect anticipated expenses for the entire project, considering all potential cost increases, including cost of living adjustments. The budget should also include the MEP National Network meetings for the MEP Center as described in Sections II.4. and II.5., respectively, of this NOFO.

- ii. The applicant should reflect each year of the project, up to three (3) years, on the **SF-424A form**.
 - iii. In Section A, the Grant Program Function or Activity on Line 1 under Column (a) should be entered as “Manufacturing Extension Partnership”. The Catalog of Federal Domestic Assistance Number in on Line 1 under Column (b) should be entered as “11.611”. The total budget amount for the term of the award should be listed in Section A, Line 1, Column (e).
 - iv. Section B, Column (1) of the SF-424A should reflect funds for the first year of the award.
Section B, Column (2) of the SF-424A should reflect funds for the second year of the award.
Section B, Column (3) of the SF-424A should reflect funds for the third year of the award.
 - v. Section D requires a breakdown of the first year’s budget by quarter. The budget estimate for the second year of the award should be entered in Section E, Line 16, Column (b). The budget estimate for the third year of the award should be entered in Section E, Line 17, Column (b).
- c) SF-424B, Assurances – Non-Construction Programs.** The SF-424B is required for all applicants that have not updated their System for Award Management (SAM.gov) entity registration since February 2, 2019 to include the Federal financial assistance certifications and representations (certs and reps). If an applicant has updated their SAM.gov entity registration since February 2, 2019 to include the certifications and representations, then the SF-424B is not required.
- d) CD-511, Certification Regarding Lobbying.** For the Award Number, enter “2020-NIST-MEP-AMTS-01”. In the Project Name field, use the Descriptive Title of Applicant’s Project from field 15 of the SF-424, or an abbreviation thereof.
- e) SF-LLL, Disclosure of Lobbying Activities** (if applicable).
- f) Project Narrative.** The Project Narrative is a word-processed document of no more than 25 pages (double-spaced between lines), which is responsive to the program description (see Section I. of this NOFO) and to the evaluation criteria (see Section V.A. of this NOFO). The projective narrative should contain the following information:
- i) Executive Summary.** An executive summary of the proposed approach, consistent with the evaluation criteria (see Section V.1. of this

NOFO). The executive summary should include information indicating how each evaluation criterion and its sub-factors are addressed. A table can be helpful in providing this information. The executive summary should not exceed two (2) pages.

Please note, if an applicant's proposal is selected for funding, NIST may use all or a portion of the Executive Summary as part of a press release issued by NIST, or for other public information and outreach purposes. Applicants are advised not to incorporate information that concerns business trade secrets or other confidential commercial or financial information as part of the Executive Summary. See also 15 C.F.R. § 4.9(c) concerning the designation of business information by the applicant. (Does not count towards page limit).

ii) Project Approach. A description of the applicant's approach to clearly address the program requirements and program goals (see Section I. of this NOFO).

iii) Statement of Work. A complete statement of work (SOW) covering all aspects of the project, including a schedule of measurable events and milestones as well as measurable performance objectives that can be used to determine the success of the project (see Section I. of this NOFO).

The SOW must include a clear description of how the proposed work will provide technical assistance services to small U.S. manufacturers via project-level engagements between MEP Centers and manufacturers. Applicants are required to provide estimates of the numbers of such project-level engagements that will occur in conjunction with a NIST MEP funding award via this NOFO over the proposed period of performance, up to three years. Applicants must also include the basis for such estimates.

Additionally, the SOW must clearly articulate how the impacts of the proposed assistance projects that are conducted as part of the proposed effort will be captured via the MEP project and client reporting and independent survey processes. Awards made via this NOFO will be required to provide reports that detail technical and budget status and performance, and that also capture the impacts of project engagements with the manufacturers served. Details of reporting requirements are provided in Section VI.C. of this NOFO.

Finally, the SOW must clearly articulate how the results of the proposed effort will be shared with other MEP Centers across the MEP National Network. Results include learning associated with project-level

engagements between participating MEP Centers and the small U.S. manufacturers receiving technical assistance. Examples of learning that may result from MEP Center services provided under this NOFO include correlations between which technologies are most suited to certain industries; which types of engagements prove most beneficial to small U.S. manufacturers; and means by which the MEP Center provision of technical assistance to small U.S. manufacturers in Industry / Manufacturing 4.0 areas enabled MEP Center relationships that could be expanded into other assistance areas with the manufacturers being served.

iv) Dissemination Plan. Applicants must clearly articulate in their proposals how the results of the awards made through this NOFO will be shared with other MEP Centers across the MEP National Network. Results include, but are not limited to, learning associated with project-level engagements between participating MEP Centers and the small U.S. manufacturers receiving technical assistance. Examples of learning that may result from MEP Center services provided under this NOFO include: correlations between which technologies are most suited to certain industries; which types of engagements prove most beneficial to small U.S. manufacturers; and the means by which the MEP Center provision of technical assistance to small U.S. manufacturers in Industry / Manufacturing 4.0 areas enabled MEP Center relationships that could be leveraged into other assistance areas with the manufacturers being served

v) Qualifications. A description of the qualifications of the key personnel, the time commitments of the key personnel, and how the project staff qualifications will enable them to conduct the project work.

vi) Resumes of Key Personnel must be included. Resumes are not included in the page count of the Project Narrative. Resumes included as part of the application must be a maximum of one page each. Additional pages beyond the one page per resume will not be considered during the evaluation of the application.

g) Budget Narrative and Justification.

In addition to the SF-424A form (see Section IV.2.a.(2). of this NOFO), applicants must provide a detailed budget table and budget narrative for the proposed period of performance, fully explaining and justifying all proposed project funding (both revenue and expenses) in accordance with applicable federal cost principles. All applicants are required to use the MEP budget table and budget narrative templates when submitting a budget narrative and justification. The budget should reflect anticipated expenses for the entire

project, considering all potential cost increases, including cost of living adjustments. The budget table and budget narrative template should also include the MEP National Network meetings for the MEP Centers as described in Sections II.4. and II.5., respectively, of this NOFO. The budget summary table and narrative template is available on the MEP website,.

<https://www.nist.gov/mep/advanced-manufacturing-technology-services>.

The written justification should include the necessity and the basis for the cost. Proposed funding levels must be consistent with the project scope, and only allowable costs should be included in the budget. Information on cost allowability is available in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200 (<http://go.usa.gov/SBYh>), which apply to awards in this program.

The Budget Narrative and Justification must clearly identify whether the applicant or any of its subrecipients anticipate generating program income pursuant to the proposed project (e.g., registration fees, client service fees, etc.). If program income is anticipated under the project, the applicant must identify the anticipated amount of program income as part of the overall project budget (including subrecipient budgets) and must budget for the expenditure of such program income using the "additive method," with any excess program income to be disposed of pursuant to the "deductive method." For purposes of this program, applicants should not budget program income as non-federal cost share.

The Budget Narrative does not count against the 25-page limit of the Project Narrative.

This section will be evaluated in accordance with the Budget Narrative evaluation criteria (see Section V.A.4. of this NOFO). It will also be reviewed to determine if all costs are reasonable, allocable, and allowable under 2 C.F.R. Part 200 Subpart E, Cost Principles.

Information needed for each category is as follows:

i) Key Personnel – At a minimum, the budget justification should include the following: name, job title, commitment of effort on the proposed project in terms of average number of hours per week or percentage of time, salary rate, total direct charges on the proposed project, description of the role of the individual on the proposed project and the work to be performed.

Fringe benefits should be identified separately from salaries and wages and based on rates determined by organizational policy. The items included in the

fringe benefit rate (e.g., health insurance, parking, etc.) should not be charged under another cost category.

ii) Other Personnel - Data is requested at the project role level, and not at the individual level for Other Personnel. The budget justification should include the following: job title, commitment of effort on the proposed project in terms of average number of hours per week or percentage of time, salary rate, total direct charges on the proposed project, description of the role of the position on the proposed project and the work to be performed.

Fringe benefits should be identified separately from salaries and wages and based on rates determined by organizational policy. The items included in the fringe benefit rate (e.g., health insurance, parking, etc.) should not be charged under another cost category.

(iii) Equipment Description – Equipment is defined as an item of property that has an acquisition cost of \$5,000 or more (unless the organization has established lower levels) and an expected service life of more than one year. The budget justification should list each piece of equipment, the cost, and a description of how it will be used and why it is necessary to the successful completion of the proposed project. Please note that any general use equipment (computers, etc.) charged directly to the award should be allocated to the award according to expected usage on the project. Applicants should provide at least two (2) quotes, if available, for equipment costing \$25,000 or more. If two (2) quotes are not available, please provide a statement as to why two (2) quotes are not available. Any items that do not meet the threshold for equipment can be included under the Materials and Supplies line item in Section F, Other Direct Costs.

iv) Travel - For all travel costs, required by the recipient to complete the project, including attendance at any relevant conferences, the budget justification for travel should include the following: destination; names or number of people traveling; dates and/or duration; mode of transportation, lodging and subsistence rates; and description of how the travel is directly related to the proposed project. For travel that is yet to be determined, please provide best estimates based on prior experience. If a destination is not known, an approximate amount may be used with the assumptions given for the location of the meeting.

v) Other Direct Costs – For costs that do not easily fit into the other cost categories, please list the cost, and the breakdown of the total costs by quantity or unit of cost. Include the necessity of the cost for the completion of the

proposed project. Only allowable costs can be charged to the award.

Each subaward or contractual cost should be treated as a separate item in the Other Direct Costs category. Describe the services to be provided and the necessity of the subaward or contract to the successful performance of the proposed project. Contracts are for obtaining goods and services for the primary benefit of the contracting party and are for services incidental to the project. Subawardees perform part of the project scope of work. See 2 C.F.R. § 200.330.

Applicants must use the MEP SRA-TPC table template included as part of the Budget and Narrative template. For each subaward, applicants must also provide budget detail justifying the cost of the work performed on the project.

vi) Indirect Costs – Commonly referred to as Facilities & Administrative Costs, Indirect Costs are defined as costs incurred by the applicant organization that cannot otherwise be directly assigned or attributed to a specific project. For more details, see Section IV.2.b.(9) of this NOFO.

h) 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. If the successful applicant includes indirect costs in the budget and has not established an indirect cost rate with a cognizant Federal audit agency, the applicant will be required to obtain such a rate in accordance with Section B.06 of the [Department of Commerce Financial Assistance Standard Terms and Conditions](#), dated April 30, 2019.

Alternatively, in accordance with 2 C.F.R. § 200.414(f), applicants that have never received a negotiated indirect cost rate may elect to charge indirect costs to an award pursuant to a de minimis rate of 10 percent of modified total direct costs (MTDC), in which case a negotiated indirect cost rate agreement is not required. Applicants proposing a 10 percent de minimis rate pursuant to 2 C.F.R. § 200.414(f) should note this election as part of the budget portion of the application.

i) Current and Pending Support Form. Any application that includes investigators, researchers, and key personnel must identify all sources of current and potential funding, including this proposal. Any current project support (e.g., Federal, state, local, public or private foundations, etc.) must be listed on this form. The proposed project and all other projects or activities requiring a portion of time of the Principal Investigator (PI), co-PI, and key personnel must be included, even if no salary support is received. The total award amount for the entire award period covered, including indirect costs, must be shown as well as the number of person-

months per year to be devoted to the project, regardless of the source of support. Similar information must be provided for all proposals already submitted or that are being submitted concurrently to other potential funders.

Applicants must complete the Current and Pending Support Form, using multiple forms as necessary to account for all activity for each individual identified in the PI, co-PI and key personnel roles. A separate form should be used for each identified individual.

Applicants must download the Current and Pending Support Form from the NIST website at <https://www.nist.gov/oaam/grants-management-division/current-and-pending-support> and reference the guidance provided as it contains information to assist with accurately completing the form.

j) Table of Abbreviations and Acronyms. (Does not count toward the page limit). An alphabetical list of all abbreviations and acronyms, and their meaning, should be included.

k) Table of Funded Project Participants and Unfunded Informal Collaborators. (Does not count toward the page limit). Provide a table that identifies all organizations that will participate in and contribute to the project, if funded, known at the time of the application submission. The table should consist of an alphabetically ordered list, by organization, of all Funded Project Participants and all Unfunded Informal Collaborators. The table should include the organization's name, address, administrative role, scope of work (funded participants only) and proposed funding amount (funded participants only). Administrative roles are: applicant, subrecipient, or contractor for funded participants; or collaborator if they will not receive funding.

l) Bibliographic List of References. (Does not count toward the page limit). A complete bibliographic listing of all references used within the application should be included.

m) Required Letters of Commitment. (Do not count toward the page limit). Each application must include a letter of commitment from an authorized representative of: (i) the MEP Center applicant; and from (ii) other MEP Centers that will be participating in the project. The letter of commitment should discuss the scope of work of the subject MEP Center and its relevance to the proposed project.

n) Letters of Interest. Letters of interest are not needed and should not be submitted.

2. Attachment of Required Documents

Items in Section IV.B.1.a) through 1.e) above are part of the standard application package in Grants.gov and can be completed through the download application process.

Items in Section IV.B.1.f) through 1.m) above 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 indicates only that an application was transferred to a system. It does not provide details concerning whether all attachments (or how many attachments) transferred successfully. Applicants will receive a series of e-mail messages over a period of up to two business days before learning whether a Federal agency’s electronic system has received its application.

Applicants are strongly advised to use Grants.gov’s “Download Submitted Forms and Applications” option to check that their application’s required attachments were contained in their submission.

After submitting the application, check the status of your application here: [CHECK APPLICATION STATUS](#). If any, or all, of the required attachments are absent from the submission, follow the attachment directions found above, resubmit the application, and check again for the presence of the required attachments.

If the directions found at:

<https://www.grants.gov/help/html/help/index.htm#t=GetStarted%2FGetStarted.htm> are not effective, please contact the Grants.gov Help Desk immediately. If calling from within the United States or from a U.S. territory, please call 800-518-4726. If calling from a place outside the United States or a U.S. territory, please call 606-545-5035. E-mails should be addressed to support@grants.gov. 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.

Applicants can track their submission in the Grants.gov system by following the procedures at the Grants.gov site (<http://go.usa.gov/cjamz>). It can take up to two business days for an application to fully move through the Grants.gov system to NIST.

NIST uses the Tracking Numbers assigned by Grants.gov, and does not issue Agency

Tracking Numbers.

3. Application Format

- a) Paper, Email, and Facsimile (fax) Submissions.** Will not be accepted.
- b) Figures, Graphs, Images, and Pictures.** Should be of a size that is easily readable or viewable and may be displayed in landscape orientation. Any figures, graphs, images, or pictures will count toward the page limits for the Project Narrative.
- c) Font.** Easy to read font (11-point minimum). Smaller type may be used in figures and tables but must be clearly legible.
- d) Page Limit.** The Project Narrative is limited to twenty-five (25) pages double spaced, noting the limit of two (2) pages for the Executive Summary. Resumes are not included in the page count of the Project Narrative. However, if resumes are included, resumes must be a maximum of one (1) page each.
- e) Page Limit Exclusions:**
 - SF-424, Application for Federal Assistance;
 - SF-424A, Budget Information – Non-Construction Programs
 - SF-424B, Assurances – Non-Construction Programs;
 - CD-511, Certification Regarding Lobbying;
 - SF-LLL, Disclosure of Lobbying Activities;
 - Budget Narrative and Justification;
 - Indirect Cost Rate Agreement;
 - Current and Pending Support Form
- f) Page Layout.** The Proposal must be in portrait orientation.
- g) Page size.** 21.6 centimeters by 27.9 centimeters (8 ½ inches by 11 inches).
- h) Page numbering.** Number pages sequentially.
- i) Application language.** English. All documents must be in English, including but not limited to the initial application, any additional documents submitted in response to a NIST request, all reports, and any correspondence with NIST.
- j) Typed document.** All applications, including forms, must be typed; handwritten forms will not be accepted.

4. 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.

5. Pre-Applications. Pre-applications will not be accepted under this NOFO.

C. Certifications Regarding Federal Felony and Federal Criminal Tax Convictions, Unpaid Federal Tax Assessments and Delinquent Federal Tax Returns. In accordance with Federal appropriations law, an authorized representative of the selected applicant(s) may be required to provide certain pre-award certifications regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns.

D. Unique Entity Identifier and System for Award Management (SAM). Pursuant to 2 C.F.R. part 25, applicants and recipients are required to: (i) be registered in SAM before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency, unless otherwise excepted from these requirements pursuant to 2 C.F.R. § 25.110. NIST will not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time that NIST is ready to make a Federal award pursuant to this NOFO, NIST may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

E. Submission Dates and Times

Applications must be received at Grants.gov no later than 11:59 p.m. Eastern Time, February 6, 2020. NIST will consider the date and time recorded by Grants.gov as the official submission time. Applications received after this deadline will not be reviewed or considered.

Applicants should be aware, and factor in their application submission planning, that the Grants.gov system is expected to be closed for routine maintenance at the following times. Applications cannot be submitted when Grants.gov is closed:

From 12:01 A.M. Eastern Time	To 6:00 A.M. Eastern Time
January 18, 2020	January 21, 2020

When developing the submission timeline, please keep in mind that: (1) all applicants are required to have current registrations in the electronic System for Award Management

(SAM.gov) and Grants.gov; (2) the free annual registration process in the SAM.gov (see Sections IV.3. and IV.7.a.(1).(b). of this NOFO) generally takes between three and five business days but can take more than two weeks; and applicants will receive e-mail notifications over a period of up to two business days as the application moves through intermediate systems before the applicant learns via a validation or rejection notification whether NIST has received the application. (See [Grants.gov](https://www.grants.gov) for full information on application and notification through Grants.gov.) Please note that a Federal assistance award cannot be issued if the designated recipient's registration in the System for Award Management (SAM.gov) is not current at the time of the award.

F. Intergovernmental Review

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

G. Other Submission Requirements

1. Applications must be submitted electronically.

a) Applications must be submitted at [Grants.gov](https://www.grants.gov).

i) Applicants should carefully follow specific Grants.gov instructions to ensure that all 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 2020-NIST-AMTS-01 announcement, contact the Grants.gov HelpDesk at 800-518-4726.

ii) 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. The typical registration process takes three to five business days. If problems are encountered, the registration process can take two weeks or more. Applicants must have a valid unique entity identifier number 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 (also see Section IV.3. of this NOFO). 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 individuals authorized as organization representatives 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, except for Federal holidays. Help Desk service will resume at 7:00 a.m. Eastern Time the day after Federal holidays. For assistance using Grants.gov, the applicant may also contact support@grants.gov.

iii) To find instructions for submitting an application on Grants.gov, applicants should refer to the “Applicants” tab in the banner just below the top of the Grants.gov home page. Clicking on the “Applicants” tab produces two exceptionally useful sources of information, Applicant Actions and Applicant Resources, which applicants are advised to review.

Applicants will receive a series of e-mail messages over a period of up to two business days before learning whether a Federal agency’s electronic system has received its application.

Applicants should pay close attention to the guidance under Grants.gov’s “[Applicant FAQs](#),” as it contains information important to successful submission, including essential details on the naming conventions for attachments to applications.

All applicants should be aware that adequate time must be factored into applicants’ schedules for delivery of their application. Applicants are advised that volume on Grants.gov may be extremely heavy leading up to the deadline.

The application must be both received and validated by Grants.gov. The application is “received” when Grants.gov provides the applicant a confirmation of receipt and an application tracking number. If an applicant does not see this confirmation and tracking number, the application has not been received. After the application has been received, it must still be validated. During this process, it may be “validated” or “rejected with errors”. To ascertain whether the application was rejected with errors and the reasons for the rejection, the applicant must log in to Grants.gov, select “Applicants” from the top navigation, and select “Track my application” from the drop-down list. If the status is “rejected with errors,” the applicant may still seek to correct the errors and resubmit the application before the deadline. If the applicant does not correct the errors, the application will not be forwarded to NIST by Grants.gov.

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

2. **Amendments.** Any amendments to this NOFO will be announced through Grants.gov.

V. Application Review Information

A. Evaluation Criteria

The evaluation criteria, review and selection processes and the selection factors for this program are set forth below. Reviewers will evaluate how well the applicant's proposed approach will achieve the goals, objectives and priorities of this program as described in Section I. of this NOFO. NIST will use the following evaluation criteria in evaluating applications and in assigning weights, with a maximum score of 100.

1. Focus on Industry / Manufacturing 4.0 technology assistance services via project – level engagements with small U.S. manufacturers (45 points; sub-criteria will receive equal weight). The award(s) funded through this NOFO will provide project-level, hands-on technical assistance to U.S. small manufacturers in the broad space of Industry / Manufacturing 4.0. This criterion evaluates the extent to which the proposed approach is in scope and focuses on Industry / Manufacturing 4.0 technologies, as well as the extent to which the proposed approach is focused on the actual conduct of project-level manufacturer engagements.

- a) Reviewers will evaluate the extent to which the proposed approach is focused on Industry / Manufacturing 4.0 technologies as defined in Section I.2 of this NOFO, including cyber-physical connectivity within manufacturing systems;
- b) Reviewers will evaluate the extent to which the proposed approach focuses on provision of actual technical assistance services to small U.S. manufacturers via project-level engagements as discussed in Section I.4. of this NOFO; and
- c) Reviewers will evaluate the applicant's methodology for the number of project-level engagements targeted in the proposal and the extent to which the proposed number of engagements are reasonable and consistent with the approach being proposed, as described in Section I.B. of this NOFO.

2. Quality and rigor of the proposed approach for MEP National Network provision of Industry / Manufacturing 4.0 technical assistance to small U.S. manufacturers, including building on existing MEP capabilities (30 points; sub-criteria will receive equal weight). The technical quality and merit of the

proposed approach to providing technical assistance by MEP Centers to small U.S. manufacturers will be evaluated to ensure that the goals, objectives and priorities of this program will be successfully met. This includes evaluation of the quality of the approach, along with the extent to which the proposed effort builds from MEP Center activities already existing in the proposed service area, as referenced in Section I. of this NOFO.

- a) Reviewers will evaluate the processes being proposed for engaging small U.S. manufacturers in terms of the likelihood that the engagements will both provide actual assistance to small U.S. manufacturers and also result in the conduct of actual technical assistance projects conducted by the participating MEP Centers;
- b) Reviewers will evaluate the extent to which the proposed approach builds upon previous and ongoing efforts of the network of MEP Centers to provide advanced manufacturing technology services to small U.S. manufacturers, specifically in conjunction with MEP Center efforts connected to the MEP National Network Strategic Plan and MEP Center collaborations with the Manufacturing USA Institutes, as referenced in Section I.A.2.) of this NOFO; and
- c) Reviewers will evaluate the innovativeness and technical rigor of the proposed approach.

3. Key Personnel, Teaming and Organizational Structure (15 points; sub-criteria will receive equal weight). Reviewers will assess the ability of the key personnel and the applicant's proposed management structure and teaming to successfully conduct the project being proposed. Reviewers will evaluate the significance of the effort being proposed in terms of amount of staff time being allocated to the project personnel identified by the lead MEP Center applicant and participating MEP Centers in relation to the overall proposed effort.

Reviewers will evaluate the quality, merit, and extent to which the following is evident when evaluating the qualifications of the applicant and the effectiveness of the proposed program management approach:

- a) Proposed personnel identified from the participating MEP Center(s) have the appropriate experience in providing MEP technical assistance to U.S. manufacturers, with an emphasis on assistance to small U.S. manufacturers;
- b) Proposed management structure and organizational roles are clearly defined and aligned to plan, direct, monitor, organize and oversee the

implementation of the proposed approach to achieve project objectives, and the proposed organizational structure flows logically from the specified approach to the project deliverables; and

- c) Proposed team of partners is aligned with and appropriate to the resources required to successfully conduct the project. Participating MEP Centers and other partners as technical resources will be evaluated, including the applicant's rationale for why partners are included, along with the rationale for the operation of the proposed approach on a state, regional, or national basis, including alignment of proposed team to operate at the state, regional, or national level.

4. Budget. (10 points; sub-criteria will receive equal weight). Reviewers will assess the suitability and focus of the applicant's budget. It is expected that the amount of award funding that is applied to direct project activity costs should be maximized and allocated among participating MEP Centers to appropriately support the achievement of project tasking, goals, and objectives. The reviewers will consider the extent to which the:

- a) Proposed budget projections are reasonable and appropriate for the scale of effort to be undertaken by the applicant; and
- b) The proposal's narrative explains the rationale for each of the budgeted items, including assumptions the applicant used in budgeting for the overall project, and the proposed budget is aligned to support the execution of the proposed project consistent with the goals, objectives and priorities of this program.

B. Review and Selection Process

Proposals, reports, documents and other information related to applications submitted to NIST and/or relating to financial assistance awards issued by NIST will be reviewed and considered by Federal employees, or non-Federal personnel who have entered into conflict of interest and confidentiality agreements covering such information.

1. Initial Administrative Review of Applications.

All timely received applications in response to this NOFO will be reviewed by NIST to determine whether they are eligible, complete, and responsive to this NOFO and aligned with the program objectives, requirements and priorities as described in Section I. of this NOFO. Applications determined to be ineligible, incomplete, and/or nonresponsive will be eliminated from further review. However, NIST, in its

sole discretion, may continue the review process for an application that is missing non-substantive information, the absence of which may easily be rectified or cured.

2. 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:

a) Merit Review. Each application will be reviewed by at least three technically qualified individual reviewers who will evaluate each application based on the Evaluation Criteria for this program (see Section V.A. of this NOFO). Applicants may receive written follow-up questions during the review process relative to requested clarifications of items contained in the applicant's proposal. Each reviewer will provide a written technical assessment against the evaluation criteria and based on that assessment will assign each application a numeric score, with a maximum score of 100. If a non-Federal reviewer is used, the reviewers may discuss the applications with each other, but scores will be determined on an individual basis, not as a consensus.

Applicants whose applications receive an average score of 70 or higher out of 100 will be deemed finalists. If deemed desirable by NIST MEP, finalists will be invited to participate in a site visit with the same reviewers conducting the technical review described above. A site visit may be conducted using one of the following methods: a conference call, a video conference, and/or an in-person visit either at NIST or at the applicant's location. Applicants will be evaluated during the site visits, and reviewers may revise their assigned numeric scores based on the evaluation criteria (see Section V.A. of this NOFO) as a result of these sessions.

Based on an average of the reviewers' final scores, applications will be assigned adjectival ratings in accordance with the following scale:

Fundable, Outstanding (90-100);
Fundable, Very Good (80-89);
Fundable (70-79); or
Unfundable (0-69).

For decision-making purposes, applications receiving the same adjectival rating will maintain a rank order based on the average of the reviewers' scores – both within the particular adjectival ranking, as well as overall.

The Subject Matter Expert (SME), who will be a NIST MEP federal employee,

will review all the reviewers' final scores, written technical comments and the final ranking of the proposals, and will provide a written recommendation to the Selecting Official concerning the funding of awards under this NOFO. The Subject Matter Expert may recommend to the Selecting Official that awards be made out of rank order based upon one or more of the selection factors described in Section V.B.4. of this NOFO or that no applications be recommended for funding.

3. Selection.

The Selecting Official is the Director of NIST MEP or designee. The Selecting Official makes the final recommendation to the NIST Grants Officer regarding the funding of applications under this NOFO. The Selecting Official shall be provided all applications, all scores and all technical assessments by the reviewers, a written funding recommendation from the SME, and all information obtained from the applicants during the review, evaluation, and negotiation processes.

The Selecting Official shall generally select and recommend the most meritorious application(s) for award(s) based upon the rank order of the applications. The Selecting Official retains the discretion to select and recommend an application out of order based on the Selection Factors (see Section V.B.4. of this NOFO) or not to recommend any applications for funding.

4. Selection Factors. The Selection Factors for this NOFO are:

- A. Relevance of the proposed project to the overall goals, objectives and priorities of this program (see Section 1 of this NOFO);
- B. Reviewers' evaluations, including technical comments, and the SME recommendation;
- C. Ensuring broad geographic coverage in the award of NIST MEP funding to accelerate the achievement of national capabilities and capacities for MEP Centers to provide advanced manufacturing technology services to meet small U.S. manufacturer needs on a regional or national scale;
- D. Whether the proposed project duplicates other projects funded by the Department of Commerce or by other Federal agencies; and
- E. Availability of Federal funds.

5. Pre-Award Negotiations

NIST reserves the right to negotiate the budget costs with any applicant selected to receive an award, which may include requesting that the applicant removes certain costs. In addition, NIST may request that successful applicants modify objectives

or work plans and provide supplemental information required by the agency prior to award. NIST may select some, all, or none of the applications, or part(s) of any application. In some cases, NIST may ask applicants to consider combining projects. The final approval of selected applications and issuance of awards is the responsibility of the NIST Grants Officer. The award decisions of the NIST Grants Officer are final.

6. Federal Awarding Agency Review of Risk Posed by Applicants.

After applications are proposed for funding by the Selecting Official, the NIST Grants Management Division (GMD) performs pre-award risk assessments in accordance with 2 C.F.R. § 200.205, which may include a review of the financial stability of an applicant, the quality of the applicant's management systems, the history of performance, and/or the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

In addition, prior to making an award where the total Federal share is expected to exceed the simplified acquisition threshold (currently \$250,000), NIST GMD will review and consider the publicly available information about that applicant in the Federal Awardee Performance and Integrity Information System (FAPIIS). An applicant may, at its discretion, review and comment on information about itself previously entered into FAPIIS by a Federal awarding agency. As part of its review of risk posed by applicants, NIST GMD will consider any comments made by the applicant in FAPIIS in making its determination about the applicant's integrity, business ethics, and record of performance under Federal awards. Upon completion of the pre-award risk assessment, the Grants Officer will make a responsibility determination concerning whether the applicant is qualified to receive the subject award and, if so, whether appropriate special conditions that correspond to the degree of risk posed by the applicant should be applied to an award. NIST reserves the right to reject an application where information is uncovered that raises a reasonable doubt as to the responsibility of the applicant.

C. Anticipated Announcement and Award Date

Review of applications, selection of successful applicants, and award processing is expected to be completed by April 1, 2020. The earliest start date for awards under this NOFO is expected to be April 1, 2020.

D. Additional Information

1. Notification to Unsuccessful Applicants. Unsuccessful applicants will be notified by e-mail and will have the opportunity to receive a debriefing after the opportunity is officially closed. Applicants interested in a debrief must make such

request in writing within 10 business days of the email notification. The program office will then work with the unsuccessful applicant in arranging a date and time for the debrief.

2. Retention of Unsuccessful Applications. Unsuccessful applications will be retained in accordance with the [General Record Schedule 1.2/021](#).

VI. Federal Award Administration Information

A. Federal Award Notices. Successful applicants will receive an award package from the NIST Grants Officer.

B. Administrative and National Policy Requirements

- 1. Uniform Administrative Requirements, Cost Principles and Audit Requirements.** Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to <http://go.usa.gov/SBYh> and <http://go.usa.gov/SBg4>.
- 2. Department of Commerce Financial Assistance Standard Terms and Conditions.** The Department of Commerce will apply to each award in this program, the Financial Assistance Standard Terms and Conditions in effect on the date of award. The current version, dated April 30, 2019, is accessible [here](#). Refer to Section VII. of this NOFO, Federal Awarding Agency Contacts, Grant Rules and Regulations, if you need more information.
- 3. Pre-Award Notification Requirements.** The Department of Commerce will apply the Pre-Award Notification Requirements for Grants and Cooperative Agreements dated December 30, 2014 (79 FR 78390), accessible at <http://go.usa.gov/hKkR>. Refer to Section VII. of this NOFO, Federal Awarding Agency Contacts, Grant Rules and Regulations, for more information.
- 4. Funding Availability and Limitation of Liability.** Funding for the program listed in this NOFO is contingent upon the availability of appropriations. NIST or the Department of Commerce will not be responsible for application preparation costs, including but not limited to the program's failure to receive funding or cancellation due to agency priorities. Publication of this NOFO does not oblige NIST or the Department of Commerce to award any specific project or to obligate any available funds.

5. **Supporting Documentation.** Following the issuance of a MEP award, NIST may require recipients to provide copies of sub-tier agreements, including subawards and contracts over \$150,000.

C. Reporting

1. **Reporting Requirements.** The following reporting requirements described in Sections A.01, Reporting Requirements, of the [Department of Commerce Financial Assistance Standard Terms and Conditions](#), dated April 30, 2019, apply to awards in this program:

a) Financial Reports. The Recipient shall submit an SF-425, Federal Financial Report, into the MEP's Enterprise Information System (MEIS) on a quarterly basis of each operating year, unless other reporting intervals and/or due dates are identified by the NIST Grants Officer pursuant to a Specific Award Condition. Reports will be due within 30 days after the end of each quarterly reporting period. The Recipient shall submit a final SF-425 within 90 days after the expiration date of the award.

b) Performance Progress Report (PPR). The Recipient shall submit a Technical Report (completing all required MEIS elements and fields) on a quarterly basis of each operating year, unless other reporting intervals and/or due dates are identified by the NIST Grants Officer pursuant to a Special Award Condition. Reports are due in MEIS no later than 30 days following the end of each reporting period. The Recipient shall submit a final Technical/Quarterly report within 90 days after the expiration date of the award,

Technical/Quarterly Report details are accessible on the MEIS website (<https://meis.nist.gov/>). Technical progress reports shall contain information as prescribed in the NIST MEP Reporting Guidelines (OMB Control Number 0693- 0032). For further information regarding the NIST MEP Reporting Process, you may download a copy of the NIST MEP Reporting Guidelines at <https://www.nist.gov/mep/advanced-manufacturing-technology-services>.

c) Post Client Project Follow-Up. The recipient will be required to provide client and project data on a quarterly basis (unless otherwise directed by the NIST Grants Officer) and in a 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). For further information regarding the NIST MEP Reporting process, you may download a copy of the NIST MEP Reporting Guidelines: <https://www.nist.gov/mep/advanced-manufacturing-technology-services>

d) Patent and Property Reports. From time to time, and in accordance with the Uniform Administrative Requirements (see Section VI.B.1. of this NOFO) and other terms and conditions governing the award, the recipient may need to submit property and patent reports.

e) Recipient Integrity and Performance Matters. In accordance with section 872 of Public Law 110-417 (as amended; see 41 U.S.C. 2313), if the total value of a recipient's currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of an award made under this NOFO, then the recipient shall be subject to the requirements specified in Appendix XII to 2 C.F.R. Part 200, <http://go.usa.gov/cTBwC>, for maintaining the currency of information reported to SAM that is made available in FAPIIS about certain civil, criminal, or administrative proceedings involving the recipient.

D. Audit Requirements. The Department of Commerce Financial Assistance Standard Terms and Conditions, Section D.01, and 2 C.F.R. Part 200 Subpart F, adopted by the Department of Commerce through 2 C.F.R. § 1327.101, require any non-Federal entity (i.e., including non-profit institutions of higher education and non-profit organizations) that expends Federal awards of \$750,000 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 Subpart. Additionally, unless otherwise specified in the terms and conditions of the award, entities that are not subject to Subpart F of 2 C.F.R. Part 200 (e.g., for-profit commercial entities) that expend \$750,000 or more in DOC funds during their fiscal year must submit to the Grants Officer either: (i) a financial related audit of each DOC award or subaward in accordance with Generally Accepted Government Auditing Standards; or (ii) a project specific audit for each award or subaward in accordance with the requirements contained in 2 C.F.R. § 200.507. Applicants are reminded that NIST, the Department of Commerce Office of Inspector General, or another authorized Federal agency may conduct an audit of an award at any time.

E. 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 (Public Law 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 available here <http://go.usa.gov/hKnQ>.

VII. Federal Awarding Agency Contacts

Questions concerning this NOFO should be directed to the following:

Subject Area	Point of Contact
Programmatic and Technical Questions	Wiza Lequin Phone: 301-975-4395 E-mail: adelwiza.lequin@nist.gov with "NIST-MEP-AMTS-01" in subject line
Technical Assistance with Grants.gov Submissions	grants.gov Phone: 800-518-4726 E-mail: support@grants.gov
Grant Rules and Regulations	Gilberto Castillo Phone: 301-975-3726 Fax: 301-975-6368 E-mail: gilberto.castillo@nist.gov

VIII. Other Information

A. Personal and Business Information

The applicant acknowledges and understands that information and data contained in applications for financial assistance, as well as information and data contained in financial, performance and other reports submitted by applicants, may be used by the Department of Commerce in conducting reviews and evaluations of its financial assistance programs. For this purpose, applicant information and data may be accessed, reviewed and evaluated by Department of Commerce employees, other Federal employees, and also by Federal agents and contractors, and/or by non-Federal personnel, all of whom enter into appropriate conflict of interest and confidentiality agreements covering the use of such information. As may be provided in the terms and conditions of a specific financial assistance award, applicants are expected to support program reviews and evaluations by submitting required financial and performance information and data in an accurate and timely manner, and by cooperating with Department of Commerce and external program evaluators. In accordance with 2 C.F.R. § 200.303(e), applicants are reminded that they must take reasonable measures to safeguard protected personally identifiable information and other confidential or sensitive personal or business information created or obtained in connection with a Department of Commerce financial assistance award.

In addition, Department of Commerce regulations implementing the Freedom of Information Act (FOIA), 5 U.S.C. Sec. 552, are found at 15 C.F.R. Part 4, Public

Information. These regulations set forth rules for the Department regarding making requested materials, information, and records publicly available under the FOIA. Applications submitted in response to this funding opportunity may be subject to requests for release under the Act. If an application contains information or data that the applicant deems to be confidential commercial information that should be exempt from disclosure under FOIA, that information should be identified, bracketed, and marked as Privileged, Confidential, Commercial or Financial Information. In accordance with 15 CFR § 4.9, the Department of Commerce will protect from disclosure confidential business information contained in financial assistance applications and other documentation provided by applicants to the extent permitted by law.

B. Public Website

NIST MEP has a public website, <https://www.nist.gov/mep/advanced-manufacturing-technology-services> that provides information pertaining to this funding opportunity.²

Any amendments to this NOFO will be announced through Grants.gov. Applicants must submit all questions pertaining to this funding opportunity in writing to mepnofo@nist.gov.

² Refer to Section VII. of this NOFO, Federal Awarding Agency Contacts, Programmatic and Technical Questions, if more information is needed.