

2016 NIST NNMI Institute Competition

Webinar 2 – June 6, 2016



Congratulations!
Power to Transform U.S.
Manufacturing

2016 NIST NNMI Institute Competition

Webinar 2 – June 6, 2016



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NNMI: The Power To Compete

*Telling a Cohesive Story
through your Budget*

Today's Agenda

- **Competition Update**
- **NNMI Institutes**
- **Assembling a Budget**
- **Commonly Asked Questions**
- **Available Resources for the Full Applications**

Competition Update

■ Pre-Applications

- Review and selection results sent on May 23, 2016
- Approximately 50% of the Pre-Applicants invited to submit a Full Application
- FAQs updated and found at <http://www.nist.gov/amo/upload/NNMI2016FAQ.pdf>

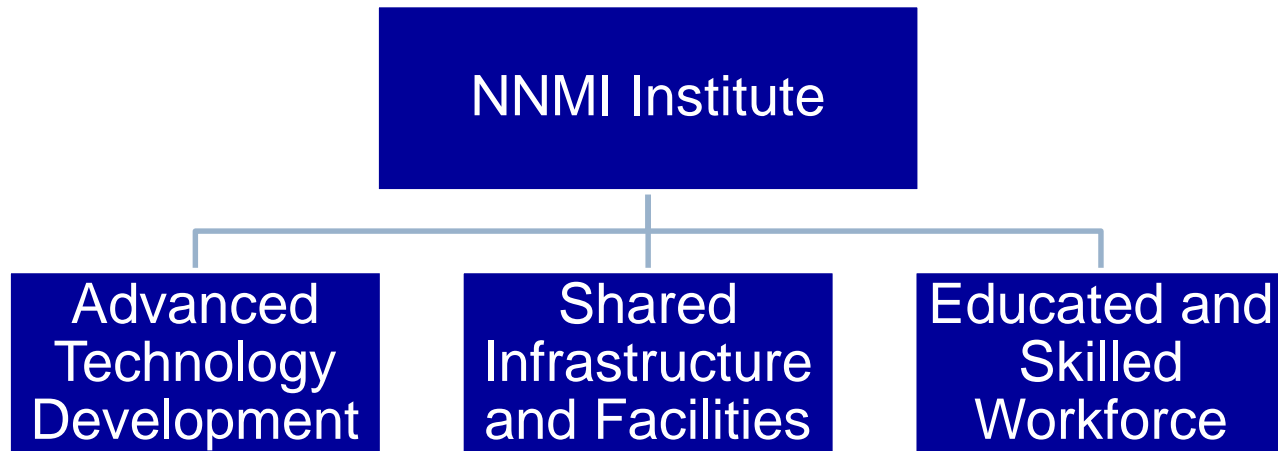
■ Fed Funding Opportunity **NO CHANGE**

■ Competition Timeline **NO CHANGE**

February 19, 2016	Announced on Grants.gov (2016-NIST-NNMI-01)
April 20, 2016	Pre-Applications received
May 23, 2016	Pre-Application review and selection notification
July 22, 2016, 11:59 p.m. ET	Full Applications due through Grants.gov
Q1, Calendar Year 2017	Anticipated start date for awards

- **A public-private partnership of:**
 - Industry
 - Academia
 - Government (local, State, and Federal)
- **Accelerate innovation by co-investing in industrially relevant, cross-cutting advanced manufacturing**
- **Focus on the “missing middle” – that is, the gap between basic research to manufacturing scale-up (Manufacturing Readiness Levels 4–7)**
- **Catalyze stakeholders to work on big challenges solvable only by collaboration**

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- ***Start with the end game in mind***
 - *E.g. What are the measures of success?*
 - *E.g. What is your elevator speech*
- ***Write the Complete Story, using the Full Application Criterion***
- ***Insure the technical scope, Annual Institute Plan (AIP), Work Breakdown Structure (WBS) and the financial documents are all integrated***
- ***Have people, other than you, read the Full Application completely***
- ***Give your self time to submit the Full Application***

Eligibility - Who, Where, Funding?

■ Who

- Eligible Applicants & Subrecipients
 - State, local, or tribal Governments
 - Institutions of Higher Education (IHE)
 - Non-profit and for-profit organizations
 - Organized and operated in the U.S. with majority domestic ownership or control
- Ineligible entities
 - Pre-Award - may be included as an unfunded participant
 - Post-Award - may be included on a case-by-case basis

■ Where

- Here in the U.S., unless there is compelling reason

■ Cost Share

- At least 1:1 match of Federal Funding annually



Husai Rahman
Grants Officer
Grants Management Division, NIST

NNMI: The Power To Compete

*Telling a Cohesive Story
through your Budget*

Today's Goals and Expectations

- **Provide a greater understanding of those documents required for the application**
- **Provide the knowledge needed to successfully complete the various financially related documents**
- **Ensure documents align with one another**
- **Know what resources are available**

NNMI Institute Authorities

- **15 USC § 278s: Revitalize American Manufacturing & Innovation Act (RAMI)**
- **2 C.F.R. § 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards**
- **2016-NIST-NNMI-01: NNMI Federal Funding Opportunity**
- **DOC Financial Assistance Standard Terms and Conditions dated December 26, 2014**
- **DOC Pre-Award Notification Requirements**
- **DOC Grants and Cooperative Agreements Manual, March 2013**
- **Special Award Conditions (incorporated at time of the award)**

2016 NIST NNMI Institute Competition

THREE KEY OVER ARCHING BUDGET PRINCIPLES

1. Decreasing Federal Funds after Two Years
2. Cost Share or Matching Requirement
3. Voluntary Cost Share or Matching

Decreasing Federal Funds

- **The goal is for the NNMI Institute to be independent and to function without NIST NNMI Federal assistance within 5 to 7 years of when financial assistance to the Institute is first awarded**
- **The amount of federal funds provided will decrease after the 2nd year of funding**
- **It will continue to decrease thereafter in each year for which financial assistance is provided to the Institute**

Definitions of Cost Sharing or Matching

- **Cost sharing** is that portion of the costs not borne by the Federal Government
- May include cash, services, and third party in-kind contributions, as described at 2 C.F.R. § 200.306

Examples of Cost Share

- **Cash Contributions**
- **State funds**
- **Third party in-kind contributions**
- **Salary commitments**
- **Contributed Service**
- **Donated equipment**

- **See <http://www.nist.gov/amo/nnmi/2016competition.cfm> for Guidance on Merits and Uncertainties of Cost Share**

Cost-Sharing or Matching in the Budget

- The program requires at least a 50% cost-share on a per year basis from non-federal sources over the lifetime of the award (more is better)
- Comply with the requirements in 2 C.F.R. § 200.306 and DOC Financial Assistance Standard Terms and Conditions
- Known committed cost share must be sufficient to complete no less than the first year of technical work
 - Anticipated cost share should be enough to complete technical work beyond first year and cover all remaining years
- Cost share must be clearly described and justified in budget tables and budget narrative
 - Should include the basis for determining the valuation in the budget narrative

Voluntary Cost Sharing or Matching

- **Voluntary cost share** is that portion of the cost share that is over and above the required minimum 1:1 cost share/matching in the total budget by the non-Federal entity
- It will become a binding requirement of the Federal award per 2 C.F.R. § 200.99.
- Letter of commitment is required from an authorized representative of the applicant's organization for the total amount and must include a per year break-out of cash and in-kind contributions for the duration of the award

Documents Reflecting Cost Share

- **SF424 – Application for Federal Assistance**
 - Block 18: Estimated Funding
- **SF424A – Budget Information**
 - Section C - Non-Federal Resources (total for all 5 years)
 - Section D - Forecasted Cash Needs,
Row #14 Non-Federal (1st year only)
- **Budget Narrative**
- **Letters of Commitment for the Proposed Institute**
 - Required for Applicant Non-Federal Cost Share
 - Strongly Encouraged for Third Party Cost Share
- **Table of Cost Share**

Cost-Sharing or Matching in the Budget (cont.)

- **Available Resource - Suggested Template at:**
 - <http://www.nist.gov/amo/nnmi/2016competition.cfm>

- **Table of Cost Share Components and Contributors**
 - Details of all contribution of cost share (cash and in-kind)
 - Rationale for selection of cost share contribution
 - Merits and risks associated with each known and anticipated cost share contribution
 - See page 25 of the FFO for more details

Cost Share Deviation Large Capital Facilities and Equipment Purchases

- **NIST may allow cost share ratio deviation in cases of large capital facilities or equipment purchases**
 - Request with strong and compelling justification must be made to NIST
 - See Section III.5 on Page 18 of the FFO for more information
- **Large Capital facilities and equipment purchases defined as \$500,000 or more and allowable under 2 C.F.R. §200, Subpart E**
- **Per 2 C.F.R. §200.318(d), analysis must be made of lease vs. purchase alternatives and any other appropriate analysis**

Third Party Cost Share - Letters of Commitment

- **Not required but strongly encouraged letters from authorized representative of each third-party organization**
 - Letter should state total amount of third-party contribution for cash, in-kind contributions or combination (and amount break-out between the two); time period they will be made
- **Review Section IV.14(c) on page 25 and 26 of the FFO for more information**

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COMPLETING A BUDGET

Financial Related Submission Requirements

- **SF-424 Application for Federal Assistance**
- **SF-424A, Budget Information**
 - **Non-Construction Programs**
- **Table of Funded Participants and Unfunded Collaborators**
- **Table of Cost Share Components and Contributors**
- **Required Letters of Commitment**
- **Letters of Interest**
- **Estimated Funding by Work Breakdown Structure (WBS)**
- **Budget Table and Budget Narrative**
- **Indirect Cost Rate Agreement (if applicable)**

Filling out the SF-424A

- Refer to <http://www.grants.gov/web/grants/form-instructions/sf-424a-instructions.html> for additional guidance
- Section A, line 1, column (b), enter “11.619”
- Section B, fill out column 1 with requested total for 1st year
- Section C, fill out expected cost share or match totals for entire period
- Section D, fill out first year expenses
- Section E, column (b) First, represents Year 2 totals, column (c) Second represents Year 3 totals, etc.
- Section F: Total Direct Charges for entire budget, Total Indirect Charges for entire budget

Budget Tables and Budget Narrative Overview

- **Provide a more in-depth and detailed breakdown of the budget through:**
 - Budget Tables – include entire expected award period
 - Budget Narrative – cover start-up phase (up to 12 months) and 1st year of ongoing operations phase
 - However, narrative for subsequent years not required as part of application
 - Refer to Section IV.3.a.(17) of the FFO for more info

Budget Narrative Format and Content

- **Startup phase (up to 12 months)**
 - Will account for the first increment of funds provided under award
 - Examples of activities for this phase are listed in Section I.7 page 13 of FFO
- **1st Year of Ongoing Operations Phase**
 - Examples of activities for this phase are listed in Section I.7 page 13 of FFO
- **Suggested templates for the budget table and budget narrative can be found at:**
 - <http://www.nist.gov/amo/nnmi/2016competition.cfm>

Cost Categories in the Budget Narrative

- **Personnel**
- **Fringe Benefits**
- **Travel**
- **Equipment**
- **Supplies**
- **Contractual**
- **Construction – Not applicable to program**
- **Other**
- **Indirect Costs**

Personnel

- Name or TBD, Job title
- Role of individual and description of work to be performed
- Base Salary
- Level of effort (in hours or percentage of time)
- Include cost of living adjustments (if any)
- List total personnel cost to project

** Consultants/contracted personnel should be listed under the Contractual budget category*

Fringe Benefits

- **Identified separately from salaries and wages**
- **Based on rates determined by organizational policy**
 - Provide a copy of the organization policy in application to support the rate(s)
- **Costs included as fringe should not be charged under another cost category**

- **Applicants must include travel and related costs for:**
 - **Kick-Off Conference for Year 1**: at NIST or at applicant's site (if they have a facility). Key personnel should attend
 - **NNMI Network Meetings**: semi-annually each year to share best practices, new and emerging trends, additional topics of interest
- **Budget for 3-4 days of resource time and associated travel costs for NNMI Institute Director and up to 3 additional Institute employees**
- **2 semi-annual meetings per year, for a total of 10 meetings over the 5-year award period**

Travel (cont.)

- For other travel that is yet to be determined or destinations that are not known, provide best estimates based on prior experience
- Narrative should include: destination; travel dates or duration of trip; names of travelers or number of people traveling; transportation rate; lodging rate; subsistence rate (per diem); and description of how travel is directly related to the award

Equipment

- **2 C.F.R § 200.33 Equipment defined as: property with an acquisition cost of \$5,000 or more (unless the organization has established lower levels) and expected service life of more than one year**
 - Items that do not meet the threshold for “equipment” may be placed under the Supplies budget category
- **Identify each piece of equipment, the cost, and provide a description of how it will be used and why it is necessary for the successful completion of the award**
- **Prorate costs for equipment that will be used for other purposes besides project-related effort**
- **As discussed earlier in slide 20, large equipment purchases maybe exempt from the cost share requirement**

Supplies

- **Supplies are those items that are valued at less than \$5,000, and don't meet the equipment threshold**
- **Identify each supply item**
- **Provide a breakdown of costs by quantity or unit of cost**
- **Describe the necessity of the cost for the completion of the award**

Contracts and Subawards in the Proposal

■ Two key points

- Sub-recipient can contribute cost share, a contractor cannot contribute towards cost share
- The rules and regulations of the award will flow down to the sub-recipient

Sub-award

An award of financial assistance made under an award by a recipient to an eligible sub-recipient or by a sub-recipient to a lower tier sub-recipient (DoC Grants Manual)

Contract (via a Vendor/Procurement)

Principal purpose of the relationship is the acquisition by purchase, lease, or barter, of property or services (DoC Grants Manual)

Sub-awards vs. Contracts

The primary distinction between a sub-recipient and a contractor/vendor is the performance of programmatic work

Sub-recipient

- Performs substantive portion of the programmatic work
- Involved in the design and conduct of the project
- Usually on cost-reimbursement
- Flow-through of OMB/CFR and award requirements
- No fee or profit can be charged on the grant for subrecipients

Vendor

- Provides the goods and services within normal business operations
- Provides similar goods or services to many different purchasers
- Operates in a competitive environment
- Not subject to Federal programmatic compliance requirements
- Profit can be charged

Contractual

- **Treat each contract or subaward as a separate line item**
- **Describe the services provided and their purpose**
- **Describe the necessity of the contract or subaward**
- **Describe how costs were determined**
- **Include in the Table of Funded Participants and Unfunded Collaborators**
- **Costs related to audits and certifications should be included**
 - May be paid by Federal or cost-share funds
 - For awards containing subawards or contracts to commercial organizations, audits by an external auditor may be required

Other Direct Costs

- Include costs that do not easily fit into the other cost categories
- Identify the cost, and provide a breakdown of the cost by quantity or unit of cost
- Describe the necessity of the cost for the completion of the award

Indirect Cost Rate

- Indirect costs include business expenses that are not easily assignable to the award, but are necessary to conduct the general operations of the institute
- NIST will reimburse applicants for proposed indirect (F&A) costs in accordance with 2 C.F.R. § 200.414
- Applicant should provide a copy of the approved negotiated agreement if this rate was negotiated with a cognizant Federal audit agency
- If no established indirect cost rate, the applicant will be required to obtain one in accordance with the Department of Commerce Financial Assistance Standard Terms and Conditions, available at: <http://go.usa.gov/hKbj>
- Alternatively, applicants that have never received a negotiated indirect cost rate may choose to use a de minimis rate of 10 percent of modified total direct costs (MTDC), as noted in 2 C.F.R. § 200.414(f) in which case a negotiated indirect cost rate agreement is not required

Indirect Costs in the Proposal

- Indirect cost rates are negotiated with the recipient's cognizant Federal agency
- Identify the rates that will be used, and the cost base applied
- If using the 10% de minimis rate, please state that in your budget narrative

General Rules of Thumb - Budget Format

- Separate work and associated costs by project year
- Costs should be placed under the applicable budget categories of Personnel, Fringe Benefits, Travel, Equipment, Supplies, Contractual, Other, and Indirect Charges
- Cost computations and written justification must be provided for all costs in the budget narrative
- Best estimates are acceptable
- If selected for funding, budget and scope are subject to negotiation and amendment
- Total dollar amounts listed under each budget category in the Budget Narrative must match the dollar amounts listed on the SF424A

Audit Requirements

- **Any non-Federal entity (i.e. non-profit institutions of higher education and other non-profit organizations) that expends \$750,000 or more in Federal awards in the recipient's fiscal year must conduct a single or program-specific audit**
 - Outlined in 2 C.F.R. § 200, Subpart F
- **For-profit entities must comply with the audit requirements specified in the Department of Commerce Financial Assistance Standard Terms and Conditions, dated December 26, 2014**
 - These terms and conditions are accessible at <http://go.usa.gov/hKbj>
- **Recipients should budget for audit costs as needed**

Filling out the SF424 and SF424A (Budget)

- **Common mistakes in the Pre-Application stage**
 - SF424, #18 – reflect only 1 year totals - Incorrect
 - Should reflect totals of the 5 year budget – Correct
 - SF424A:
 - Only 1 year totals were filled out
 - Incorrectly filled out sections
 - 5 years placed where it should be 1 year, vice versa
 - Amount of cost share should reflect entire period in section C – Non-Federal Resources
 - Section D- Forecasted Cash Needs will reflect cost share for the first year only

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*Budget-
related
Questions?*

Advice

- **Full Applications must stand on their own and should not rely on information presented within a Pre-Application**
- **Submitted through Grants.gov only**
 - Follow instructions given in your notification letter
 - Do NOT follow the process that you used for the Pre-Applications
- **Due by July 22, 2016, 11:59 PM ET**
 - *Last minute upload to grants.gov is very risky!*
- **Changes in applicant, requested budget and reteaming are permitted prior to submission of the Full Application and are expected; however, you must provide written notice of its intent in advance of the Full Application due date by mail or email to nmifund@nist.gov**
 - Change lead entity, revise the Pre-Application requested budget amount, or reteam (subrecipients, contractors or contributors to the Institute)

Lessons Learned from Pre-Applications

- **Often the Application was strong in either technical or workforce development; however, it wasn't clear how one supported the other**
- **Technical Scopes were often too broad given the budget information provided**
- **Tell a complete story**
 - Technical, Financial and Operational plans failed to show evidence how they supported one another
 - Applications lacked a cohesive plan on how the Institute's goals will be managed in all three primary areas of operation: technology development, shared facility(ies), and workforce development

Keep in mind that the panel and reviewers come from a diverse background – technical and operational – but all are looking for a complete story

Common Questions

Ineligible Topics and Alignment with Other NNMI Institutes?

Any area of advanced manufacturing will be considered so long as it does not duplicate or overlap the technical scope and programs of:

- Existing Institutes within the NNMI Network or
 - Current list of NNMI Institutes can be found at <http://www.manufacturing.gov/nnmi-institutes/>
- The technical focus area(s) that are identified within any in-progress Institute(s) funding opportunity announcement led by another federal agency

*Full Applications will be evaluated for “**uniqueness and complementarity**” of the proposed Institute*

Common Questions (cont'd)

- **Published Notice of Intent's (NOI's) include:**

- DOD: Advanced Tissue Biofabrication Manufacturing Innovation Institute – announced May 24, 2016
- DOE: Modular Chemical Process Intensification Institute – announced Feb. 19, 2016
- DOE: Reducing Embodied-energy and Decreasing Emissions (REMADE) in Materials Manufacturing – announced May 13, 2016

- **Should a new funding opportunity be announced while this competition is in progress, applications within these areas may be considered “ineligible”.**

- Applicants will be notified ASAP so that they have time to re-direct their efforts if they so choose
- See manufacturing.gov/funding/ for information on the current Institutes and for funding competitions in-progress

Common Questions (cont'd)

▪ How Should I Include Foreign or Federal (& FFRDC) Participation?

– Pre-Award

- Foreign organizations (if organized and operated in the U.S.), Federal Labs, and FFRDCs may be included in a team or consortium as an unfunded collaborator

– Post-Award

- On a case-by-case basis majority foreign-owned or foreign-controlled entities organized and operated in the U.S. may be allowed as subrecipients or contractors based on the unique and specific needs of the Institute.
- FFRDCs may be allowed as subrecipients or contractors, based on the unique and specific needs of the Institute, subject to the provisions of FAR 35.017-1

Competition Resources

- **Available on the Competition Website**

- <http://www.nist.gov/amo/nnmi/2016competition.cfm>

- **How-To Instructions**

- Getting a DUNS number
- Getting and Understanding the EIN
- SAM Registration
- Human Subject Regulations & Live Vertebrate Animals Care

- **Guidance**

- Merits and Uncertainties of Cost Share
- Notional Multiyear Budget Example
- Budget Narrative

Competition Resources – Full Application

■ Suggested Templates

- Annual Institute Plan (AIP)
- Budget Narrative and Budget Table
- Work Breakdown Structure
- Estimated Funding of Work Breakdown Structure
- Rough Order of Magnitude Budgets
- Table of Funded Participants and Unfunded Collaborators

WBS ESTIMATED FUNDING 2016 NIST NNM Competition

Organization: _____ Major room: _____

Project Title: _____

ESTIMATED FUNDING BY WORK BREAKDOWN STRUCTURE (WBS)

Year	Task	Amount
1	1. Stamp 1. Set up legal business structure, including identifying the business opportunities.	\$75,000
1	2. Stamp 2. Establish a membership structure.	\$12,000
1	3. Stamp 3. Establish a comprehensive education and workforce development program.	\$207,000
1	4. Stamp 4. Initial Project Costs.	\$124,000
	TOTAL	\$418,000
	Funding Request	\$300,000

A table of Estimated Funding by Work Breakdown Structure (WBS) must be provided by the applicant (see Section 1.2.3.1 (1) of the NIMC). If the applicant wants to consider providing the information as presented in this example or in an alternative format of the applicant's choice in further detail, use the proposed format as shown. NIST will use this information to make a determination of the full application.

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a. Principal investigator and organization:
 b. Technical contact (name, address, phone/fax, electronic mail address):
 c. Administrative/business contact (name, address, phone/fax, electronic mail address):
 d. Period of performance:
 e. Project collaborators and contributors, including organizations:
 f. Technical Approach and Justification: (The major objective of the proposed Technical Project consisting of a clear description of the anticipated proposed technical approach. This discussion should provide insight into the technical foundation/justification for pursuing this particular approach/direction and why one would expect it to enable meeting the objectives of the Technical Project.)

Page 3 of 5

Participant	Funding
	•
	•
	•
	•

Fig. 4.25

Competition Resources – Helpful Documents

■ Publications

– References

- FFRDC's
- Intellectual Property
- Revitalize American Manufacturing and Innovation Act (RAMI), 15 U.S.C. § 278s – Network for Manufacturing Innovation, 2014

– Reports

- NNMI Program Annual Report & Strategic Plan (2016)
- Accelerating U.S. Advanced Manufacturing (2014)
- NNMI: A Preliminary Design (2013)
- A National Strategic Plan for Advanced Manufacturing (2012)
- Capturing Domestic Competitive Advantage In Advanced Manufacturing (2012)

Competition Resources

- **Cooperative Agreements & Award Requirements**
 - Automated Standard Application for Payments (ASAP)
 - DOC Standard Terms and Conditions & Grants/Cooperative Agreement manuals
 - OMB Uniform Guidance 2 CFR Part 200

Full Application – Complete Submission

1. Federal Forms: (Full set needed)

- 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 (if applicable)
- Project/Performance Site Location(s)

2. Technical Volume

- Executive Summary (one single-side page)
- Table of Contents
- Application Narrative
- Annual Institute Plan (AIP)
- Gantt Chart or Timeline

Full Application – Complete Submission (cont'd)

3. Table of Abbreviations and Acronyms
4. Bibliographic List of References
5. Compliance Matrix
6. Table of Funded Participants and Unfunded Collaborators
7. Table of Cost Share Components and Contributors
8. Resumes of Key Personnel
9. Letters of Commitment
10. Letters of Interest (optional)
11. Estimated Funding by Work Breakdown Structure (WBS)
12. Detailed Budget Table and Budget Narrative
13. Indirect Cost Rate Agreement (if established)
14. Data Management Plan (NOT to exceed 2 pages)

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■ Website and Resources

- Visit www.nist.gov/amo/nnmi/2016competition.cfm
- Resources to assist Applicants, include:
 - FFO, Documents, FAQs, Suggested Templates and Guidance, and How-To's
 - Cooperative Agreements & Award Requirements, and Publications
- Send questions to NIST hotline at nnmifund@nist.gov or (301) 975-0404

■ Competition Timeline

February 19, 2016

Released on Grants.gov (2016-NIST-NNMI-01)

April 20, 2016

Pre-Applications received

May 23, 2016

Pre-Application review and selection notification

July 22, 2016, 11:59 p.m. ET

Full Applications due through Grants.gov

Q1, Calendar Year 2017

Anticipated start date for awards

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Questions?

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Thank you

The latest NIST NNMI updates can be found at:
www.nist.gov/amo and manufacturing.gov

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Competition questions? Send an email to
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or telephone
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