Index to Charts: Guidance to NIST Funding

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USC MAPS

http://web-app.usc.edu/web/ra_maps

The DC Office of Research Advancement has created the Federal Mission Agency Program Summaries (MAPS) website to:

- 1. Connect PIs with appropriate funding agency programs/program officers
- 2. Assist in development of white papers/charts/elevator pitches

The website can be accessed using one's USC NetID and Password.

It has the following resources:

- Search Tab for a searchable database of programs/program officers
 At that website one can do keyword searches to locate the associated mission agency (DHS, DOD, DOE, DOT, ED, EPA, INTEL, NASA, NIST, NOAA and USDA) programs and program officers.
- 2. Mission Agency Tab (DHS, DHHS, DOD, DOJ, DOE, DOT, ED, EPA, INTEL, NASA, NIST, NOAA, USDA)

Guide to Agency Funding for FYXX

Agency Research Program Charts

Agency Planning Documents

Chart numbers in the text above reference the Agency Research Program Chart files.

- 3. Presentation Tab for charts from recent USC Center of Excellence in Research workshops
- 4. Proposal Tab for report / guides on writing proposals
- 5. Email Alerts Tab for URLs at which one can arrange for automatic solicitation updates
- 6. Grantee Tab for URLs at which one can find previous agency awardees

NIST Organizational Structure Director Chief of Staff Under Secretary of Commerce Kevin Kimball for Standards and Technology Executive Officer for Administration Willie E. May Management and Organization Program Coordination Public Affairs Office International and Academic Affairs Associate Director for Associate Director for Congressional and Legislative Affairs Laboratory Programs/ Innovation & Industry Services Human Subjects Protection Principal Deputy Phillip Singerman Kent Rochford Staff Offices Staff Offices Advanced Manufacturing Associate Director for Technology Partnerships Standards Coordination Management Resources Mary Saunders Special Programs Staff Offices Civil Rights and Diversity Baldrige Performance Information Services Excellence Program Material Measurement Fabrication Technology Robert Fangmeyer Laboratory Laurie E. Locascio Hollings Manufacturing Office of Acquisition and **Extension Partnership** Communications Technology Agreements Management Carroll Thomas Laboratory Cecelia Royster Kent Rochford Office of Safety, Health Physical Measurement and Environment Laboratory Richard Kayser James Olthoff Office of Financial Engineering Laboratory Resource Management Howard Harary George Jenkins Information Technology Office of Human Resources Laboratory Management Charles Romine Susanne Porch Center for Nanoscale Office of Information Science and Technology Systems Management Robert Celotta Delwin Brockett NIST Center for Neutron Office of Facilities and Research Property Management Robert Dimeo Steve Salber

Mar 2016

NIST Funding Opportunities

www.nist.gov/director/grants/grants.cfm

Measurement Science and Engineering (MSE) Research Grant Program

Support NIST laboratories with research in fields such as: material measurement; physical measurement; engineering; fire research; information technology; neutron research; nanoscale science and technology; standards services; and law enforcement standards.

Precision Measurement Grants (PMG)

Support researchers in U.S. colleges and universities for experimental and theoretical studies of fundamental physical phenomena

Standards Services Curricula Development (SSCD) Cooperative Agreement Program

Support the integration of documentary and measurement standards and standardization information and content into seminars, courses, and learning resources

Measurement Science for Advanced Manufacturing (MSAM) Research Grant Program

Development of measurement science to support high-priority metrology and standards required to advance U.S. technical programs and ongoing national investments, technology transition, and commercial activities in additive manufacturing technology.

Centers of Excellence

Four competitively selected University Centers of Excellence in measurement science areas defined by NIST that will leverage and expand NIST research capabilities.

National Strategy for Trusted Identities in Cyberspace (NSTIC)

Advance the NSTIC vision of an Identity Ecosystem that is secure and resilient; privacy-enhancing and voluntary; interoperable, and; cost effective and easy to use.

Nanoelectronics

Supports research and innovation in nanoelectronics through a partnership between NIST and the Semiconductor Research Corp.

National Network for Manufacturing Innovation (NNMI)

Accelerate innovation and transition technology to US manufacturing enterprises.

Advanced Technology Manufacturing Consortia (AMTech)

Grants fund development of research road maps and projects in advanced manufacturing and enhance the research productivity of consortia members through improved coordination and efficiencies.

Manufacturing Extension Partnerships (MEP)

Strengthening American manufacturing – accelerating its ongoing transformation into a more efficient and powerful engine of innovation driving economic growth and job creation.

Measurement Science and Engineering (MSE)

What:

This grant program offers assistance for efforts consistent with the various laboratory/center responsibilities in measurement science, metrology and standards.

- (1) Material Measurement Laboratory (MML) Grant Program;
- (2) Physical Measurement Laboratory (PML) Grant Program;
- (3) Engineering Laboratory (EL) Grant Program;
- (4) Fire Research (FR) Grant Program;
- (5) Information Technology Laboratory (ITL) Grant Program;
- (6) Communications Technology Laboratory (CTL) Grant Program;
- (7) NIST Center for Neutron Research (NCNR) Grant Program;
- (8) Center for Nanoscale Science and Technology (CNST) Grant Program;
- (9) Special Programs Office (SPO) Grant Program
- (10) Standards Coordination Office (SCO) Grant Program
- (11) International and Academic Affairs Office (IAAO)
- (12) Associate Director for Laboratory Programs (ADLP)

How Much: Depends on the program, but ranges from \$5K to \$1.5M for up to 5 years
Prior awards have totaled approximately \$22M in FY13, \$21M in FY14, and \$39M in FY15

Who: Institutions of higher education and others

When:

For FY2015 proposals are accepted on a continuing basis. Solicitation proposals received after June 12, 2015 may be processed and considered for funding under this FFO in the current fiscal year or in the next fiscal year until a new FFO is posted on the Grants.gov Web site (www.grants.gov), subject to the availability of funds.

Where: Federal Funding Opportunity 2016-NIST-MSE-01 (issued 19 Feb 2016)

Precision Measurement Grant Program (PMG)

http://www.nist.gov/pml/div684/fcdc/pmg.cfm

What:

Since 1970, the National Institute of Standards and Technology (NIST) has awarded Precision Measurement Grants to faculty members of U.S. universities or colleges for significant research in the field of fundamental measurement or the determination of fundamental constants. NIST sponsors these grants to encourage basic, measurement related research in universities and colleges and other research laboratories and to foster contacts between NIST scientists and those faculty members of academic institutions and other researchers who are actively engaged in such work. The Precision Measurement Grants are also intended to make it possible for researchers to pursue new ideas in areas where other sources of support may be difficult to find.

How Much:

For FY2016, if funding is available, two new grants in the amount of \$50K per year will be awarded for the initial period of October 1 through September 30 of the following year. Each award may be continued for up to two additional years; however, future or continued funding will be at the discretion of NIST based on satisfactory performance, continuing relevance to program objectives, and the availability of funds.

- Approximately \$100K to fund the first year of new multiyear awards.
- NIST anticipates funding two (2) projects for up to three (3) years at \$50K per year

Who: Accredited institutions of higher education and others

When:

For FY2016 - Abbreviated Proposals must be received no later than February 2, 2016. Abbreviated proposals received after this deadline will not be reviewed or considered. Review of abbreviated proposals and selection of finalists is expected to be completed by March 22, 2016. Full proposals must be received no later than May 3, 2016.

Where: 2016-NIST-PMGP-01 (issued 31 Dec 2015)

NIST

Standards Services Curricula Development Cooperative Agreement Program

http://gsi.nist.gov/global/index.cfm/L1-8/L2-55

What:

supports the integration of documentary and measurement standards and standardization information and content into seminars, courses, and learning resources. The recipients will work with NIST to strengthen education and learning about standards and standardization. Recipients are expected to:

- develop curriculum for the undergraduate and/or graduate level to educate students about
 the impact and nature of standards and standardization so that they enter the workforce
 and/or continue their academic studies with a strong understanding and appreciation for the
 value and benefits of standards and standardization, in accordance with supporting,
 advancing, and/or integrating documentary and/or measurement standards and
 standardization in the educational infrastructure;
- devolop new, sustainable approaches, methods, and models that can be replicated or builton by other educational programs to support the integration of standards and standardization information and content into undergraduate and/or graduate level curricula;
- develop a communication plan to share project information with curriculum development stakeholders;
- participate in a one-day workshop at NIST in Gaithersburg, Maryland; and
- disseminate project results for public release, including a summary of major conclusions.

How Much: Approximately \$300K may be available to fund projects in the \$25K - \$75K range with project performance periods of up to eighteen (18) months.

When: 5 April 2016

Where: 2016-NIST-SSCD-01 (issued 8 Feb 2016)

Measurement Science for Advanced Manufacturing (MSAM) Cooperative Agreement Program

http://www.nist.gov/public_affairs/factsheet/manuf_innov2013.cfm

What: Proposals that address development of measurement science to support high-priority metrology and standards required to advance U.S. technical programs and ongoing national investments, technology transition, and commercial activities in additive manufacturing technology. Measurement science includes the following activities and their associated products and outputs:

- Development of performance test methods and metrics, measurement methods, predictive models and simulation tools, knowledge models, protocols, technical data, reference materials, and/or test artifacts;
- Conduct of inter-comparison studies and calibrations;
- 3. Evaluation of technologies, systems, and practices, including uncertainty analysis; and
- 4. Development of the technical basis for standards, codes, and practices.

The funding instrument used in this program will be a cooperative agreement. The nature of NIST's "substantial involvement" will generally be collaboration between NIST and the recipient organizations.

How Much: In FY13 a total of approximately \$5M is available over a project performance period of up to 2 years.

Who: Institutions of higher education and others

When: for FY2013

LOI 12 Apr 2013 Proposal 7 May 2013

Where: Federal Funding Opportunity: 2013-NIST-MSAM-01

No subsequent solicitation as of 21 Mar 2016

University Centers of Excellence

http://www.nist.gov/coe/

What: In FY2014 NIST first received funds to establish four competitively selected Centers of Excellence in measurement science areas defined by NIST that will leverage and expand NIST research capabilities. Each Center of Excellence will provide an interdisciplinary environment in which NIST, academia and industry will collaborate in pursuing early stage basic and applied research focused on innovations in measurement science and emerging technology areas. Potential focus areas included:

- Advanced Communications
- Advanced Manufacturing
- Biomanufacturing
- Cyberphysical Systems
- Forensic Science
- Human-Robotic Integration
- Materials Modeling and Design
- Quantitative Biology
- Telecommunications

Present Centers:

2014 Hierarchical Materials and Design (Northwestern)

2015 Statistics and Applications in Forensic Sciences (Iowa State)

Risk-based Community Resilience Planning (Colorado State)

NIST looks to evolve the Center program as technologies evolve and these specific areas and Centers will be evaluated periodically and, potentially, new areas will be selected, at which time the grants will again be competitively awarded. The Centers of Excellence will spark the development of regional expertise in measurement science, while educating scientists and engineers in the importance and specifics of measurement science.

How Much: a grant for ~\$5M/year for up to 10 years.

When: One additional center is expected to be competed.

Studying the Economic Impact of Documentary Standards

What:

NIST invites applications from eligible applicants to develop and disseminate data and tools to assess the economic impact of documentary standards. The awardee will collaborate with NIST to understand and empirically assess the role of various organizations, including standards developing organizations, in standards development and analyze the impacts that documentary standards have on U.S. economic activity and innovation.

How Much:

NIST anticipates funding one multi-year project with a total budget of approximately \$150,000 and an overall performance period of up to three (3) years. Initial NIST funding that may be obligated under this announcement is approximately \$50,000 for the first year.

When: for FY2015 August 24, 2015.

Where: 2015-NIST-TPO-02 (released 8 July 2015)

Empirical Measurement of the Impact of Technology Transfer from Federal Laboratories

What:

NIST invites applications from eligible applicants to develop a data infrastructure of technology transfer activities across federal laboratories that can be used as a tool to empirically measure the economic impact of technology transfer activities from federal laboratories. Specifically, the awardee, in collaboration with NIST, will sponsor graduate and post-doctoral research; assess, define, and develop the data infrastructure and tools required to empirically measure the impact of technology transfer across the entire federal laboratory system; conduct systematic empirical analyses of technology transfer mechanisms across federal laboratories; conduct analyses to measure the economic impacts of technology transfer from federal laboratories; identify barriers to effective technology transfer from the federal laboratory system; and disseminate the data infrastructure, tools, and results of the analyses.

How Much:

NIST anticipates funding one multi-year project with a budget and performance period of up to two (2) years for up to approximately \$400K, subject to the availability of funds. Initial funding that may be obligated under this announcement is approximately \$200K for the first year.

When: for FY2015 August 24, 2015.

Where: 2015-NIST-TPO-03 (released 8 Jul 2015)

NIST

National Cybersecurity Center of Excellence (NCCoE)

http://nccoe.nist.gov/#current

The NCCoE is part of the NIST <u>Information Technology Laboratory</u> and operates in close collaboration with the <u>Computer Security Division</u>. It was established in 2012 through a partnership among NIST, the State of Maryland and Montgomery County, the National Cybersecurity Center of Excellence (NCCoE) is dedicated to furthering innovation through the rapid identification, integration and adoption of practical, standards-based cybersecurity solutions.

Projects

- Health IT
 - EHR on Mobile Devices
 - Medical Devices
- Energy
- Financial Services
- Retail
- Transportation

Building Blocks

- Trusted Geolocation in the Cloud
- Software Asset Management
- Attribute Based Access Control
- Mobile Device Security

Collaborations are welcome with:

Information Technology Users

If you have an intractable cybersecurity problem, or ideas or components for an example solution, we'd like to hear from you.

•Reference Design Users

Deploy one of our example solutions, then provide feedback to help us validate and improve it. Check our website for news about the formation of user communities.

Integrators

You can help companies implement our reference designs in real-world environments and provide feedback to help make them more easily deployable.

National Cybersecurity Excellence Partners

Our core partners provide hardware, software, knowledge or personnel, designating guest researchers to work with us in person or remotely.

NIST/NCCOE

FFRDC in support of National Cybersecurity Center of Excellence

What: The Federally Funded Research and Development Center (FFRDC) will provide scientific and engineering support needed to carry out the research and engineering agenda set by NIST. This will include engaging in, assisting, and contributing to the support of scientific activities and projects for developing practical cybersecurity solutions composed from commercial components; and performing and engaging in research, engineering, and technology transfer/integration services for trustworthy information systems to the U.S. Government. The FFRDC will address an urgent national requirement that scientific and engineering talent be rapidly assembled and put to work to enhance the trustworthiness of our nation's government and private sector information systems. The confidentiality, integrity, and assured service shortcomings of these information systems pose a serious risk to national security, public safety and economic prosperity. Widespread adoption of components and systems designed to address threats to our information technologies is inhibited by shortcomings in usability, affordability, and performance impacts. The FFRDC will enhance the National Cybersecurity Center of Excellence's (NCCoE) ability to address these shortcomings.

When: May 22, 2014

Where: Solicitation number SB1341-14-RP-0005

National Strategy for Trusted Identities in Cyberspace Grants Program

http://www.nist.gov/nstic/ http://www.nstic.us/

What: Applicants are to pilot online identity solutions that embrace and advance the NSTIC vision: that individuals and organizations utilize secure, efficient, easy-to-use, and interoperable identity credentials to access online services in a manner that promotes confidence, privacy, choice, and innovation. Specifically, the Federal government seeks to initiate and support pilots that address the needs of individuals, private sector organizations, and all levels of government in accordance with the NSTIC Guiding Principles that identity solutions will be:

- (1) privacy-enhancing and voluntary,
- (2) secure and resilient,
- (3) interoperable, and
- (4) cost-effective and easy-to-use.

NIST will fund projects that are intended to test or demonstrate new solutions, models, and frameworks that either do not exist or are not widely adopted in the marketplace today.

How Much: NIST anticipates that awards will be in the range of approximately \$1 to 2M per year per project for up to two (2) years.

When: Annually, with solicitation in February/March

Where: 2015-NIST-NSTIC-01

Joint Quantum Institute and Joint Center for Quantum Information in Computer Science

What: Under this program, University of Maryland personnel will perform research in the areas of AMO, CM, and quantum physics and the broader area of QIS. These activities will be undertaken upon request by and in close collaboration with staff members of the NIST Quantum Measurement Division (QMD)and the Applied and Computational Mathematics Division (ACMD) or their successors who are engaged as Fellows of the Joint Quantum Institute (JQI) and the Joint Center for Quantum Information in Computer Science (QuICS). The collaboration will include the development, fabrication, and construction of scientific apparatuses and the collection, analysis, and modeling of experimental results as well as related theoretical activities. These activities will require computing (both hardware and software) support, electronics and instrument maker support and a full range of administrative and clerical support, including outreach and web/communications support.

This currently includes research within the following broad areas:

- Atomic, molecular, and optical physics, e.g. ultra-cold atomic gases, cavity quantum electrodynamics, matter wave optics, quantum optics, degenerate gases, optical lattices; and
- · Condensed matter physics, e.g. quantum dots, optomechanics, superconductivity; and
- Quantum information science, e.g. quantum measurement theory, quantum computation, quantum based measurements, quantum communication, and quantum computer science; and
- Engineering of simple quantum systems.

When: Proposal from University of Maryland due 1 April 2016 for the 2016 solicitation

Where: 2016 NIST-JQI-01 (released 11 Jan 2016)

Nanoelectronics Research Initiative (NRI)

Semiconductor Research Corporation / NIST / University Partnership http://www.src.org/program/nri/nri-projects/

May 15, 2013 The Semiconductor Research Corporation (SRC) and the National Institute of Standards and Technology (NIST) today announced the second phase of the Nanoelectronics Research Initiative (NRI). For this phase, the SRC and NIST will provide a combined \$5 million in annual funding for three multi-university research centers tasked with demonstrating, over the course of the next 10 years and beyond, a number of nonconventional, low-energy technologies that outperform current devices on critical applications. The three research centers are:

- the Institute for Nanoelectronics Discovery and Exploration (INDEX) at SUNY's College of Nanoscale Science and Engineering (CNSE);
- · the Center for Nanoferroic Devices (CNFD) at the University of Nebraska-Lincoln; and
- the South West Academy of Nanoelectronics (SWAN) at the University of Texas at Austin.

The second phase of the NRI also features joint projects with the National Science Foundation (NSF) and the multi-university research network, which involves 34 universities in 17 states.

Advanced Manufacturing Office

http://www.nist.gov/public_affairs/releases/npo-121911.cfm

Advanced Manufacturing National Program Office (NPO)

Mr. Michael Molnar, Director

- Advanced Manufacturing National Program Office
 - Announced by Secretary Bryson, December 19, 2011
 - True interagency staff, with IPA/fellows from industry and academia
 - Hosted by Department of Commerce/NIST

The AM-NPO will:

- Lead other federal agencies involved in U.S. manufacturing and support interagency coordination of advanced manufacturing programs
- Provide a linkage to the private-sector partnerships between manufacturers, government, and universities.
- Satisfy the PCAST report recommendation to create an integrated private/public advanced manufacturing initiative.
- Work to implement recommendations from AMP



Credit: Carnegie Mellon Univ.

Institute for Manufacturing Innovation (IMI) Key Attributes

1) Technology

- Well-defined technology focus with broad applications
- Focus on applied research, commercialization and manufacturability (TRL/MRL 4-7 range)
- For Pilot IMI, consistent with funding agency missions (agreed list of priority technologies)
- Addresses industrially-relevant challenges with clearly defined outputs

2) Budget

- Planned 5 year budget (including co-investment) of roughly \$100 million
- Planned industry (multi-company) and 3rd party (state, foundation, etc.) co-investment of at least 50% of 5 year budget. State or regional organization is a key participant.
- Multi-agency start-up investment for Pilot
- Co-investment match of federal start-up investment
- Demonstrates a plan to be self-sustaining in roughly five years

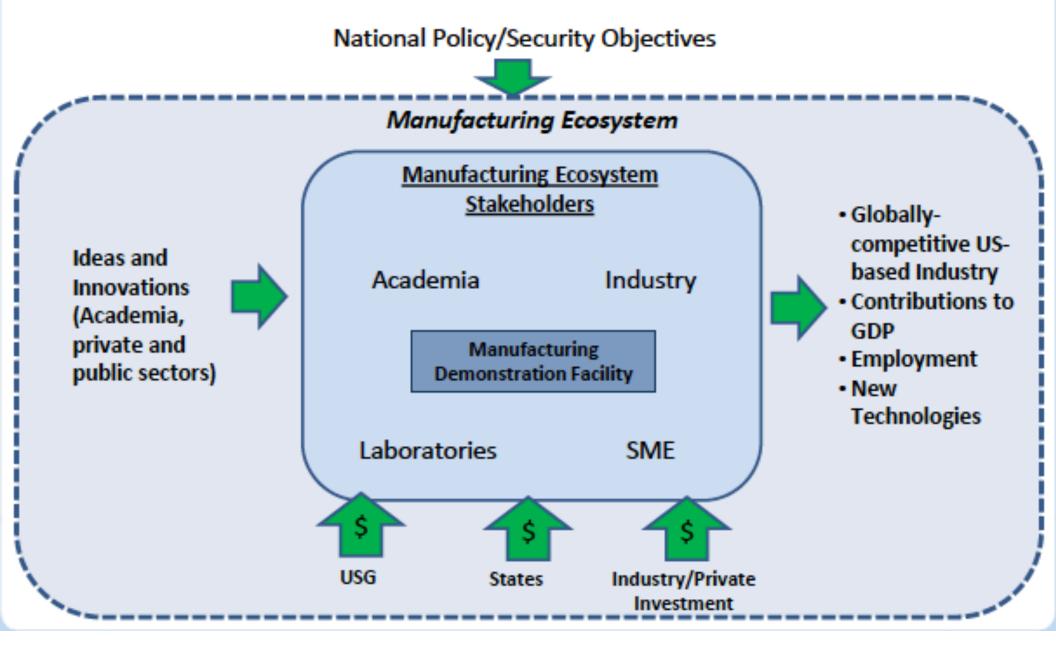
3) Governance

- Grantee is self-assembled team of organizations
- Separate identity, linked to a research institution (university, national lab, or non-profit)
- Governing board representing all key stakeholders and plurality of industry representatives

4) Activities must extend beyond RD&D:

- Effective for Small and Medium size Enterprises (SMEs) through shared use of facilities and tools
- Enhances manufacturing education and workforce training opportunities for the local area

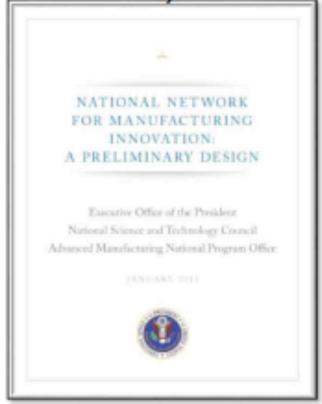
Proposal for Pilot Manufacturing Innovation Institute

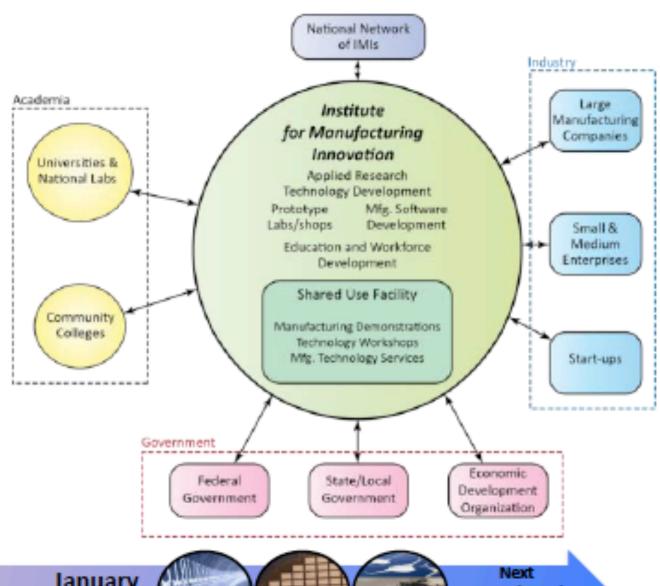


National Network Manufacturing Institutes

From Falcone Presentation to NDIA 2014

White House Report NNMI Framework Design January 2013





March 2012



January 2013





Next Steps: #'s 5-9 in 2014/15

Additive Mfg Pilot

Digital Mfg Power Electronics Lgt-weight Metals

Photonics,

National Network for Manufacturing Innovation (NNMI)

http://www.manufacturing.gov/nnmi.html

See report - "National Network for Manufacturing Innovation: A Preliminary Design, NSTC, Advanced Manufacturing National Program Office, Jan 2013

What: The Federal investment in the National Network for Manufacturing Innovation (NNMI) serves to create an effective manufacturing research infrastructure for U.S. industry and academia to solve industry-relevant problems. The NNMI will consist of linked Institutes for Manufacturing Innovation (IMIs) with common goals, but unique concentrations. In an IMI, industry, academia, and government partners leverage existing resources, collaborate, and co-invest to nurture manufacturing innovation and accelerate commercialization.

As sustainable manufacturing innovation hubs, IMIs will create, showcase, and deploy new capabilities, new products, and new processes that can impact commercial production. They will build workforce skills at all levels and enhance manufacturing capabilities in companies large and small. Institutes will draw together the best talents and capabilities from all the partners to build the proving grounds where innovations flourish and to help advance American domestic manufacturing.

Current Institutes

1	National Additive Manufacturing Innovation Institute (2013) - (America Makes)		
_	\mathbf{o}	DOD, NIST, NSF, and the DOE funded	
2	 Next Generation Power Electronics Manufacturing Innovation Institute (2014) (Po 	,	
	North Carolina State University, lead institution	DOE funded	
3	. Digital Manufacturing and Design Innovation Institute (2014)		
	UI Labs, Chicago, II (part of Univ Illinois), lead Institution	DOD funded	
4	4. Lightweight and Modern Metals Innovation Institute (2014) (Lightweight Innovations for Tomorrow)		
	EWI, Columbus Ohio, lead Institution	DOD funded	
5	Institute for Advanced Composites (2014)		
	University of Kentucky, lead Institution.	DOE funded	
6	. Flexible Electronics (2015)		
	FlexTech Alliance, lead institution	DOD funded	
7	Integrated Photonics (2015)		
	Research Foundation, SUNY, lead institution	DOD funded	
8	B. CEMII on Smart Manufacturing: Adv Sensors, Controls, Platforms and Modeling (2016)	
		DOE funded	
(9. Revolutionary Fibers and Textiles (2016)		
	,		

Future Institutes:

Additional opportunities expected in 2016, one by DOC/NIST, two by DOE, two by USDA and one by DOD

DOD funded

National Network for Manufacturing Innovation (NNMI) Institute Awards

What: NIST is soliciting applications for National Network for Manufacturing Innovation (NNMI) Institute Awards from eligible applicants to establish and operate a Manufacturing Innovation Institute in an area of U.S. advanced manufacturing national need. Proposed Institutes in any area of advanced manufacturing will be considered so long as they do not duplicate the technical scope and programs of both existing programs of federally funded Institutes within the National Network for Manufacturing Innovation (NNMI), and technical focus area(s) that are identified within any inprogress Institute funding opportunity announced by a federal agency.

The Institutes bring industry, academia (universities, community colleges, technical institutes, etc.), Federal laboratories, and Federal, state, and local governments together to: address challenges in advanced manufacturing; assist manufacturers in retaining or expanding industrial production in the United States; and address precompetitive industrial problems with economic or national security implications. The Institutes have a predominant focus on a manufacturing process, novel material, enabling technology, supply chain integration methodology, or another relevant aspect of advanced manufacturing.

How Much: \$25M in FY2016, with up to \$70M across 5 years with possibility of renewal for another 2 years. Matching funds to contribute at least 50% of the total cost from non-federal sources over the lifetime of the award. The cost sharing contributions that an Institute assembles may include cash, in-kind and other contributions, each with its own merits, uncertainties, and/or risks.

When: full applications 22 July 2016

Where: 2016-NIST-NMMI-01

Advanced Manufacturing Technology Consortia

(AMTech)

http://nist.gov/amo/amtech/

What: Support R&D in advanced manufacturing and strengthen long term US leadership in critical technologies leading to sustainable economic growth and job creation

- Convene key players on eliminating critical barriers to innovation, increasing efficiency of domestic innovation efforts and collapsing time scale to deliver new products and services based on scientific and technological advances.
- Promote the development of technology roadmaps and the formation of new, industry-led consortia to address critical, long-term industrial research needs.
- Consortia will develop road-maps of critical long-term industrial research needs as well as fund facilities, equipment and research at leading universities and government laboratories.
- AMTech is based on NIST's experience with Nanoelectronics Research Initiative (NRI) partnership with the Nation's semiconductor industry.

When: required preapplication, 5 Sep 2014 for the last competition

There will not be a competition in 2016

Where: 2014-NIST-AMTECH-01 (released 30 July 2014)

As of January 2016, AMTech and the NNMI have been merged. The Consolidated Appropriations Act of 2016 (H.R. 2029) states that the Act "merges the activities of the Advanced Manufacturing Technology Consortia (AMTech) into NNMI." The operational implications of this merger will be fleshed out further down the road.

Manufacturing Extension Program (MEP)

http://www.nist.gov/mep/

What: The MEP is to act as a strategic advisor to promote business growth and connect manufacturers to public and private resources essential for increased competitiveness and profitability.

The National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership (MEP) works with small and mid-sized U.S. manufacturers to help them create and retain jobs, increase profits, and save time and money. The nationwide network provides a variety of services, from innovation strategies to process improvements to green manufacturing. MEP also works with partners at the state and federal levels on programs that put manufacturers in position to develop new customers, expand into new markets and create new products.

MEP field staff has over 1,400 technical experts – located in every state – serving as trusted business advisors, focused on solving manufacturers' challenges and identifying opportunities for growth. As a program of the U.S. Department of Commerce, MEP offers its clients a wealth of unique and effective resources centered on five critical areas: technology acceleration, supplier development, sustainability, workforce and continuous improvement.

MEP's mission is to support, strengthen, and grow U.S. manufacturing. To do this, MEP provides customized and direct assistance to manufacturers through the nationwide network of MEP centers, with over 350 locations across the country, and more than 1400 field staff working every day with companies in their plants and offices.

MEP center specialists provide an array of services to companies, from initial assessments prioritizing opportunities for improvement, to implementation projects guiding companies through process improvements, productivity increases and growth. Centers provide companies with access to training resources as well as specific project assistance. Some engagements are short-term classes or basic projects. Other companies engage in multiple projects with their local field specialist as one project often leads to several others.

When: periodically

Where: http://www.nist.gov/mep/ffo.cfm