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**American Society of Mechanical Engineers (ASME)
 Outside Witness Testimony
 Prepared for the Subcommittee on Commerce, Justice, and Science, and Related Agencies
 Position Statement on the
 National Institute of Standards and Technology (NIST) Fiscal Year 2017 Budget Request**

**Submitted by the
 Manufacturing Public Policy (MPP) Task Force, ASME Committee on Government
 Relations Inter-Sector Committee on Federal R&D, Public Affairs and Outreach Sector**

March 25, 2016

As the federal budget faces increased scrutiny due to sequester spending caps, it is important that research and development remain among the highest priorities for domestic discretionary spending. Scientific and engineering research have long been the foundation of our nation’s economic growth and prosperity and have positioned the U.S. as a global leader in innovation. Our country’s economic strength derives from our ability to produce the world’s best scientists and engineers, nurture new ideas and innovation, and develop new technologies and industries. Now, however, with other countries investing more heavily in basic and applied research, it is becoming difficult for the U.S. to keep pace. If America is to remain a global economic leader, we must continue to invest in the scientific and engineering enterprise that generates new technologies, industries, and jobs. The ASME Manufacturing Public Policy (MPP) Task Force strongly supports the President’s budget request and urges Congress to fully fund basic research and the programs outlined below so that the full national security and economic benefits of our domestic innovations can be realized.

Overview of NIST’s Fiscal Year 2016 Budget Request

<i>\$ In Millions</i>	FY16 Enacted	FY17 Requested	Increase (%)	Increase (\$)
NIST	\$964	\$1,000	5.2	\$36
STRS	\$690	\$730.5	5.9	\$40.5
ITS	\$155	\$189	22	\$34
NNMI	\$25	\$47	88	\$22
MEP	\$130	\$142	9.2	\$12

The MPP Task Force strongly supports the Administration’s budget request of \$1 billion for NIST in FY17. This represents a 5.2 percent or \$36 million increase over FY16 enacted levels.

The National Network for Manufacturing Innovation (NNMI)

The MPP Task Force strongly supports dedicating \$47 million to funding new and established National Network for Manufacturing Innovation (NNMI) Institutes. ASME has long supported the creation of a national network of manufacturing Institutes to work towards bridging the gap between basic research and market impact of technology. The Administration’s continued efforts

to fund Department of Commerce-led NNMI Institutes through NIST reflects the vital role NIST plays in the Administration’s goal of creating a fully operational innovation pipeline.

The NNMI achieves this goal by providing a “manufacturing research infrastructure where U.S. industry and academia collaborate to solve industry-relevant problems. The NNMI is a network of Institutes for Manufacturing Innovation, each with a unique focus but a common goal to create, showcase, and deploy new capabilities and new manufacturing processes.”¹

In addition to the \$47 million in discretionary funds for NNMI, the President’s budget requests an additional \$1.9 billion in mandatory funding for NNMI over the next 10 years to achieve the Administration’s goal of a national network of 45 manufacturing Institutes.

Hollings Manufacturing Extension Partnership (MEP)

The MPP Task Force has long supported MEP as a catalyst for technological innovation and is pleased with the Administration’s request of \$142 million. MEP provides support to small and medium-sized manufacturers (SMMs) across the United States and Puerto Rico to develop sustainable practices in the U.S. These SMMs are crucial to the U.S. economy as they support and create a significant number of jobs focused in product commercialization, lean production, process improvements, and supply chain optimization.

Construction of Research Facilities (CRF)

NIST laboratories remain a critical resource that is vital to the economic health and national security of the United States, as outlined in the President’s Innovation Agenda, inspired by the original “America COMPETES Act of 2007” (P.L. 110-69). The NIST engineering laboratory “promotes the development and dissemination of advanced technologies, guidelines, and services to the U.S. manufacturing and construction industries through activities including measurement science research, performance metrics, tools and methodologies for engineering applications, and critical technical contributions to standards and codes development.” The up-keep and modernization of our laboratories is at the very crux of the research done at NIST, and without proper funding for our facilities and equipment, important programs suffer. The MPP Task Force supports the Administration’s request for \$95 million in discretionary funds for Construction of Research Facilities in FY17.

NIST’s Standards Mission

Part of the mission of NIST is to promote the use of American standards, conformity assessment programs and technology in countries and industries around the world as a means of enhancing U.S. competitiveness and opening new markets for U.S. products and services. Standards provide technical definitions and guidelines for design and manufacturing. They serve as a common, global language, define quality and establish safety criteria. In the United States, standards are developed by private-sector organizations in close collaboration with representatives from industry, government, and academia. These standards are used by industry and are frequently adopted by government agencies as a means of establishing regulatory requirements. They are vital to the economic health of many industries, and – more importantly –

¹ Manufacturing.gov

they help to ensure the health and safety of the American people and citizens in countless nations around the world.

As a standards developer, ASME is in an outstanding position to describe the value of NIST standardization efforts and their impact on American commerce. Over the years, the Department of Commerce and NIST have played an indispensable role in ensuring acceptance by other nations of U.S.-developed standards that continue to identify and incorporate technological advances and that also reflect changing needs for industry, regulation, and public safety. Unlike in the U.S. where standards development is largely the province of private sector organizations, standards development in many other countries is undertaken with strong government support. The U.S. voluntary consensus standards process enables innovation, reduces redundancy in public and private sector research, and reduces government costs. The governments of many of our key trading partners invest significant resources to promote acceptance of competing standards (developed by organizations in those countries) in the global marketplace. It is therefore essential that the U.S. government, in partnership with private sector standards development organizations, strengthen its commitment to ensuring adequate representation of U.S. interests in international standards negotiations.

Enabling U.S. manufacturers to design and build to one standard or set of standards increases our competitiveness in the world market. Similarly, decisions made in standards bodies outside of the United States have a profound impact on the ability of U.S. companies to compete in foreign markets. The ability of NIST to assist U.S. standards developers in their negotiations with international standards organizations is important to the U.S. business community. The U.S. must be a full participant in global standards development if our industries are to compete effectively in a world market. We believe that NIST plays a unique and crucial role in maintaining, and growing, the competitive edge of U.S. industry in the emerging landscape of the high technology manufacturing sector.

Conclusion

The Administration's commitment to NIST appears to be strong, as demonstrated by its willingness to support increases for key NIST initiatives for FY17. The full funding of the NNMI and MEP programs are crucial for the U.S. to remain competitive globally over the next several decades. The Task Force remains strongly supportive of these initiatives as well as the underlying goals of NIST as they relate to advanced manufacturing and technological innovation.

Introduction to ASME and the MPP Task Force

The National Institute of Standards and Technology (NIST) Task Force of the Committee on Government Relations Inter-Sector Committee on Federal R&D of the ASME Public Affairs and Outreach Sector is pleased to have this opportunity to provide comments on the FY17 budget request for NIST. The MPP Task Force and ASME Standards & Certification have a long-standing relationship with NIST and thus recognize NIST as a key government agency that contributes significantly to the development and application of technology.

Founded in 1880 as the American Society of Mechanical Engineers, ASME is a worldwide engineering society of over 140,000 members focused on technical, educational and research issues. ASME conducts one of the world's largest technical publishing operations, holds approximately 30 technical conferences and 200 professional development courses each year, and sets many industry and manufacturing standards.

Mechanical engineers play a key role in the research, technology development, and innovation that influence the economic wellbeing of the nation. ASME has supported the mission of NIST since it was founded in 1901, as the National Bureau of Standards. In fact, ASME was instrumental in establishing the Department of Commerce, NIST's parent agency. The technical programs of NIST are unique in that they foster government and industry cooperation through cost-sharing partnerships that create long-term investments based on engineering and technology. These programs are aimed at providing the technical support so vital to our nation's future economic health.

Statement approved by the ASME Manufacturing Public Policy Task Force (MPPTF).

ASME is a non-profit technical and educational organization with more than 140,000 members globally. The Society's members work in all sectors of the economy, including industry, academia, and government. This position statement represents the views of the MPP Task Force of the Committee on Government Relations Inter-Sector Committee on Federal R&D of the ASME Public Affairs and Outreach Sector and is not necessarily a position of ASME as a whole.