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Position Statement on the
National Institute of Standards and Technology (NIST) FY 2016 Budget Request
submitted by the
NIST Task Force, ASME Board of Government Relations Inter-Sector Committee on Federal R&D, Public Affairs and Outreach Sector

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The federal budget has been under increasing scrutiny over the past several years with significant cuts to programs across all federal agencies. While all of these programs offer return on investment, it is critical that research and development remain one of the highest priorities for domestic discretionary spending. Scientific and engineering research has long been the foundation of our nation's economic growth and prosperity. Our country's economic strength comes from our ability to produce the world's best scientists and engineers, nurture new ideas and innovation, and develop new technologies and industries. 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.

Overview of NIST's Fiscal Year 2016 Budget Request

The NIST Task Force strongly supports the Administration's budget request for NIST in FY 2016 at $1.1 billion. This represents a 29.6 percent increase over the FY 2015 (FY15) enacted amount. This budget includes $754.7 million for the Scientific and Technical Research and Services (STRS), which is $79.2 million over the FY15 enacted amount. The FY16 budget would provide $661.6 million to support laboratory programs, a $70.3 million increase over the FY15 enacted amount.

A large portion of the NIST budget is devoted to the Industrial Technology Services (ITS) programs. ITS would be funded at $306 million, a 121.6 percent or $167.9 million increase over FY15. $150 million would be devoted to the newly authorized National Network for Manufacturing Innovation (NNMI), a network of manufacturing centers focused on transforming innovative technology into manufacturing capability. ASME has strongly supported the NNMI program since it was first recommended by the President's Council of Advisors on Science and Technology report of 2011 entitled *Report to the President on Ensuring American Leadership in Advanced Manufacturing*. "The National Network for Manufacturing Innovation (NNMI) provides 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 that each has a unique focus, but a common goal to create, showcase, and deploy new capabilities and new manufacturing processes."[1]

[1] Manufacturing.gov

Hollings Manufacturing Extension Partnership (MEP) would receive $141 million in FY16, an $11 million increase over the FY15 enacted amount. In more recent years, the erosion of U.S. manufacturing jobs has become a key issue for the MEP to develop sustainable practices for industries in the US. The MEP incorporates competitive business practices and technologies into small- to medium-sized enterprises – companies that create a significant number of jobs. The Administration's request of $141 million reflects the importance of NIST as a part of the Administration's goals for innovation and manufacturing revival. The NIST Task Force has long supported MEP as a catalyst for technological innovation and is pleased with the Administration's support for this program as NIST seeks to facilitate the development of new industries that will catalyze manufacturing and industrial practices in the U.S. The Task Force supports the total request to fund the ITS in FY16 with the understanding that the additional funds will go toward programmatic spending such as the development of centers of excellence and galvanizing dispersed talents and not administrative costs. These funds will help to support the program's mission to help U.S. manufacturers be globally competitive.

NIST has also called for a significant increase to the Advanced Manufacturing Technology Consortia (AMTech) at $15 million as it received in FY16, an 83.5 percent increase over FY 15 enacted. The program has functioned as a vehicle for aiding private industry seeking to develop products for the manufacturing sector. AmTech has begun to assemble a consortium of public and private stakeholders to identify, and collectively fund, long-term technical challenges to this high-technology manufacturing sector. This program has demonstrated the value of NIST as a convener of U.S. stakeholders to collectively work toward the establishment of groundbreaking new industries like the nanotechnology field. Although, difficult fiscal challenges lay ahead, the Task Force strongly urges Congress to honor the request to continue to fund AmTech. We believe that investment should be made into initiatives such as the AMTech program because of their potential for high return on investment and to maintain global US competitiveness. It must also be made clear that this program differs from the NNMI because AMTech supports early stage planning and technology roadmaps rather than the research or implementation found in the NNMI.

Finally, the Construction of Research Facilities (CRF), which would receive $59 million, a 17 percent increase from the FY 2015 enacted amount of $50.3 million. 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, in part, 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."

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 such as ASME in close collaboration with representatives from industry, government, and academia. These standards are used by industry and also 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 – they help to ensure the health and safety of the American people and of citizens in countless nations around the world.

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. Congress must be aware that, 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 their competitiveness in the world market. The ability of NIST to assist U.S. domiciled standards developers in their negotiations with international and national 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. Decisions made in standards bodies outside the United States have a profound impact on the ability of U.S. companies to compete in foreign markets. We believe that NIST plays a unique and crucial role in maintaining, and growing, the competitive edge of US 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 their willingness to support increases for key NIST initiatives for FY16. The full funding of the NNMI and MEP programs are crucial if the U.S. is 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 it relates to advanced manufacturing and technological innovation. The Task Force also strongly recommends ensuring additional funding amounts provided this year be done so with the express purpose of expanding crucial programs rather than addressing additional administrative costs.

Introduction to ASME and the NIST Task Force

The National Institute of Standards and Technology (NIST) Task Force of the Board 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 Fiscal Year (FY)

2016 budget request for NIST. The NIST 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.

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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 NIST Task Force of the Board 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.