Announcement of Award under 2019-NIST-TPO-01

On July 12, 2019, the Technology Partnerships Office (TPO) at the National Institute of Standards and Technology (NIST) announced an Amended Notice of Federal Funding Opportunity entitled *Economic Research and Analysis of the National Need for Technology Infrastructure to support the Internet of Things (IoT)*. As a result of this competition, NIST has selected Strategy of Things LLC to receive $400,000 for the grant made under this competition with a performance period of two years. There was only one award made under this federal funding opportunity.

Under this opportunity, NIST invited proposals from eligible applicants for a two-year study to assess the potential economic impacts, resulting from federal research investments, of meeting the Nation’s need for technology infrastructure to support the Internet of Things (IoT). By identifying technological and economic trends in IoT research and assessing critical gaps in the Nation’s IoT technology infrastructure, the recipient will produce an economic study to help guide industry, academia, and federal researchers in their efforts to accelerate the critical research needed for timely IoT development.

It is expected that the recipient will 1) assess the technological and economic trends in research, development, adoption, and deployment of IoT related technologies, including demonstrated and anticipated adopters of IoT technologies, across relevant industry sectors and stakeholders, including technologies being developed and transferred from federal agencies and laboratories; 2) identify and qualitatively assess gaps in technology infrastructure (i.e., hardware, software, networking components, applications, systems, standards, etc.) needed to support the IoT, in terms of industry investment criteria and research mechanisms used; 3) produce a quantitative empirical ranking of the technology infrastructure gaps, based on novel data and modeling, reflecting the economic benefit of eliminating the top three ranked gaps; 4) estimate the economic benefits that would accrue from future Federal research investments focused on eliminating those top three ranked gaps; 5) assess the expected U.S. and international government policy responses—specific to phases in the R&D cycle, technology transfer efforts, and subsequent scale-up (capital formation)—given the economic assessment of the identified IoT infrastructure needs; 6) identify potential areas for future IoT-related federal research investments that would enhance U.S. competitiveness and national and economic security; 7) broadly disseminate the results of the prospective economic impact assessment of the benefits that would accrue from eliminating the top three ranked gaps using Federal research funding; and 8) contribute to the development of the next generation of researchers focused on science, R&D, and technology transfer impact analysis.

NIST has a central coordination role in the Administration’s Lab-to-Market efforts, though coordination of a Cross Agency Priority goal and co-chairing a National Science and Technology Council subcommittee under the Committee on Science and Technology Enterprise. Lab-to-Market aims to empower effective collaborations and advance commercialization of federal R&D through partnership and technology transfer best practices.

The federal government invests over $150 billion annually in research and development, including over $50 billion annually in extramural research conducted by universities, companies, and nonprofit organizations. The Department of Commerce, as delegated to NIST, has the responsibility for promoting commercialization of technologies resulting from federally sponsored research across all government agencies under the Stevenson-Wydler Act of 1980 and the Bayh-Dole Act of 1980, as amended.