

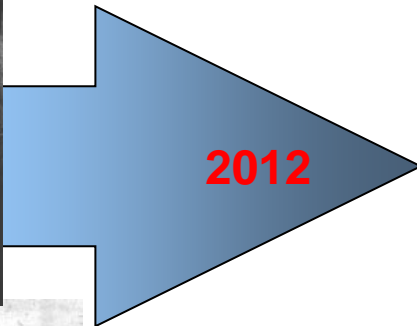
NIST Centers of Excellence (COEs)

**Visiting Committee on Advanced Technology
June 19-20, 2012**

Dr. Willie E. May

Associate Director for Laboratory Programs, NIST

Since our inception, in addition to maintaining the more traditional National physical standards, **we have also focused a significant portion of our research and measurement services activities on addressing contemporary societal needs.**

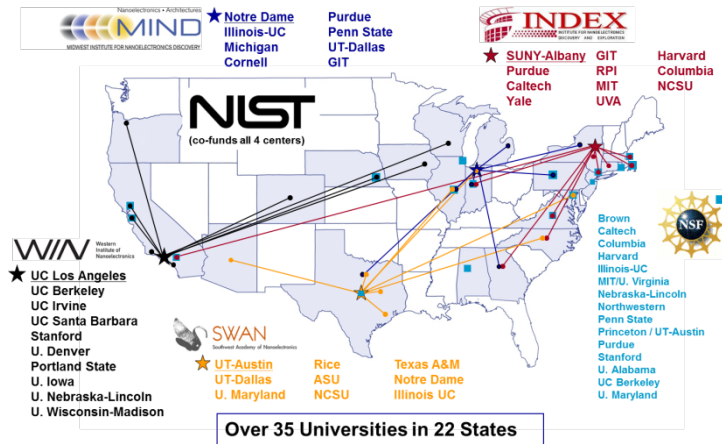


NIST Strategic Investment Priorities

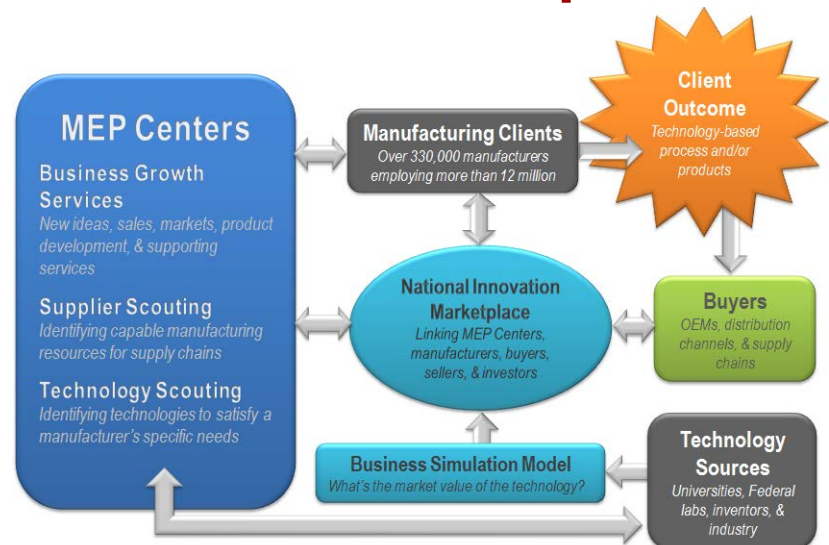
- **Advanced Manufacturing**
- **Advanced Materials**
- **the Environment and Consumer Safety**
- **Energy**
- **Bioscience and Health**
- **Information Technology & Cybersecurity**
- **Physical Infrastructure**
- **Forensics & Homeland Security**

Partnerships with Industry are Critical for NIST to carry out its Mission

Industry Driven Consortia



Manufacturing Extension Partnership



As are our partnerships with academia – NIST has four joint institutes and about to launch another



JILA

NIST + University of Colorado

Institute for Bioscience and Biotechnology Research (IBBR)

NIST + University of Maryland
Biotechnology Institute



Joint Quantum Institute

NIST + University of Maryland + NSA

Hollings Marine Laboratory

NIST + NOAA + SCDNR
+ College of Charleston
+ Medical University of South Carolina



President's FY13 Budget Request

- Includes \$20M for NIST to create up to 4 competitively-selected centers focused on emerging areas of national need, such as:
 - Advanced communications
 - Advanced manufacturing
 - Biomanufacturing
 - Cyberphysical systems
 - Materials modeling and design
 - Quantitative biology
- Centers would complement and extend NIST's measurement science capabilities and facilities in critical areas of emerging technologies
- Centers would/could expand NIST's presence beyond its two campuses in Gaithersburg and Boulder

Immediate Questions to be Answered

- Nature of the New Centers
 - Aligned with a subset of NIST investment priority areas?
 - OU based
 - All new or can some resources be used to augment existing Joint Institutes?
 - Pick one winner and invest all the chips?
- Governance Model
- Basis for selection

Proposed Framework and Governance Model

- Each Center will operate on **one-year, annually renewable cooperative agreements**, contingent on a successful annual review and funding availability, for a period not to exceed 5 years.
 - **Wonder if this is realistic**
- An executive board, comprised of NIST, institutional staff, and optionally an industrial liaison member(s), will have primary decision-making authority.
- Technical research staff to be supplied by both NIST and the partner institution, with opportunities for personnel exchanges between the two.
- **NIST will conduct a review of all programs at each Center on an annual basis**, and the Center should submit an annual progress report for the previous year as well as a proposed program plan for the upcoming year.
 - **Wonder if this is realistic**

Proposed Selection Criteria

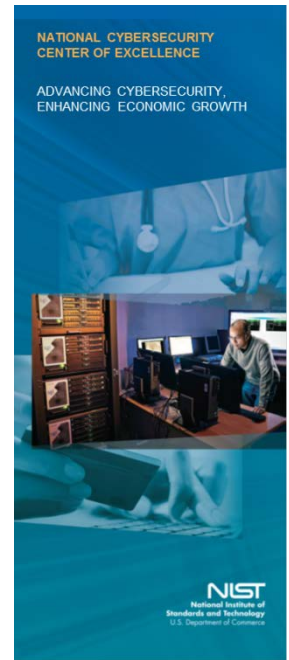
Proposers will need to address:

- Strengths and expertise in regards to technical personnel and programmatic resources (staff, facilities, equipment, external partnerships) in a specific topic area.
- Ability to develop measurement science to promote innovation in a specific topic area using pre-existing expertise and capabilities as a foundation.
- Quality of the proposed research activities to be undertaken
- Capability of providing a cohesive, collaborative, and multidisciplinary research environment.
- Proposed collaborative research with NIST researchers
- Clearly-articulated plan to engage industry in providing research direction and dissemination of measurement science to industry.
- Geographical diversity

We'd like your input

FY12: National Cybersecurity Center of Excellence (NCCoE) (\$10M)

- Public-private collaboration to design, implement, test, and demonstrate integrated cybersecurity solutions and promote their widespread adoption.
- Center hosts “Use Cases” that:
 - Represent complex cybersecurity business challenges
 - Require an integrated solution that has clear benefits for one or more particular industry sectors
- Results from NCCoE projects will be shared with the broad IT user and vendor communities.
- “Use Cases” demonstrate cybersecurity principles and practices that are feasible for businesses and measure them against standards.
 - Health Care IT Use Case - Q4FY12
 - Cloud IT Use Case - Q1FY13
 - Continuous Monitoring Use Case - Q1FY13



The State of Maryland and Montgomery County, Md., will partner with NIST in the New National Cybersecurity Center of Excellence. A Memorandum of Understanding was signed Feb. 21, 2012

Photo Credit: NIST



www.nist.gov/itl/csd/nccoe-022112.cfm

www.nist.gov/public_affairs/factsheet/upload/nccoe.pdf



Thanks for Your Attention

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Questions and Comments?

