

# National Institute of Standards and Technology

January 12, 2011

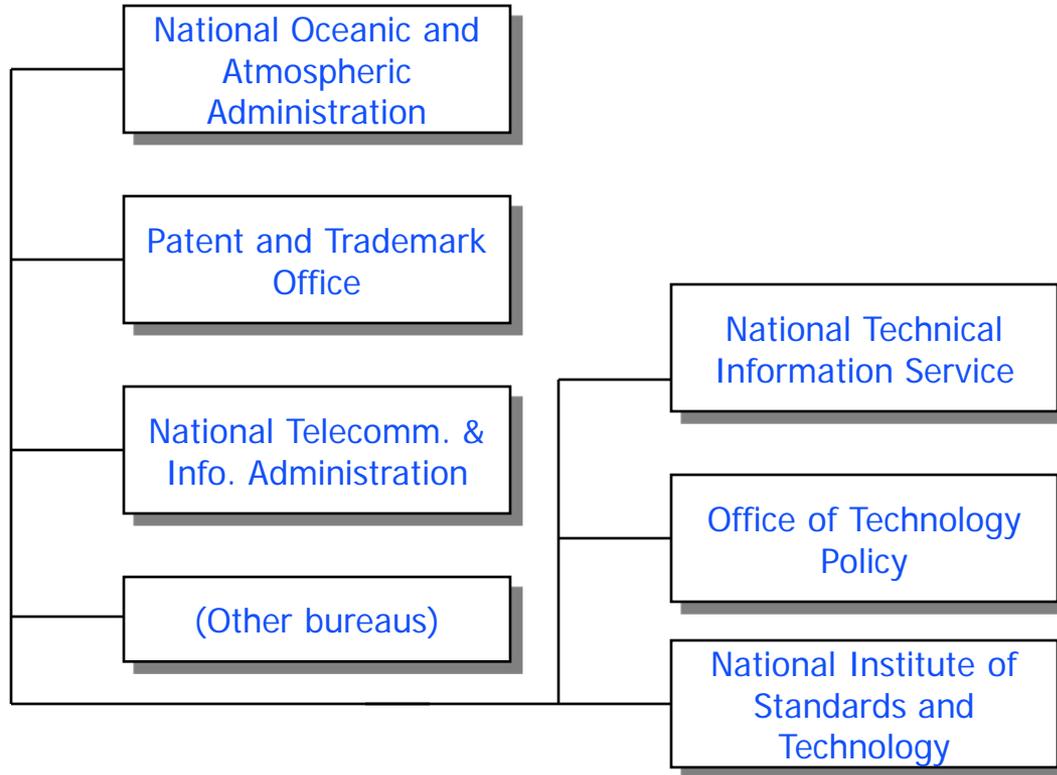
Erik Puskar  
Program Manager  
Global Standards & Information  
Standards Services



# Department of Commerce



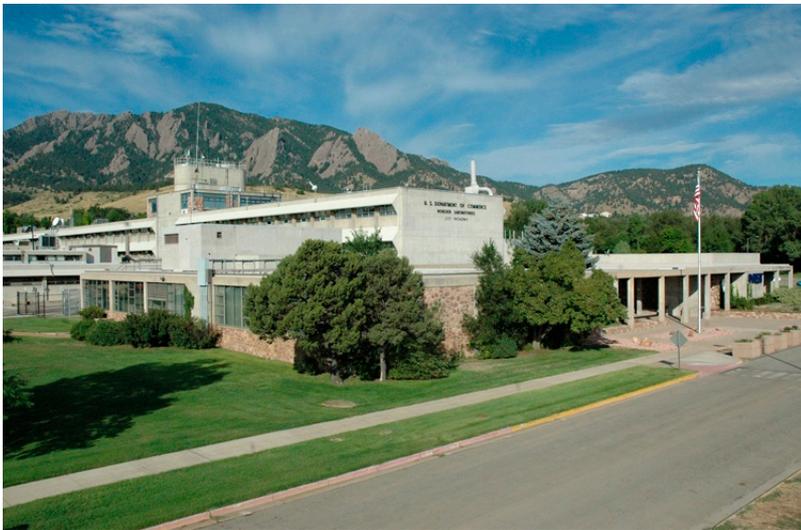
Gary Locke  
Secretary



Dr. Patrick D. Gallagher  
NIST Director

# NIST's Mission

To promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology ...



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... in ways that enhance economic security and improve our quality of life.

**NIST has ...**

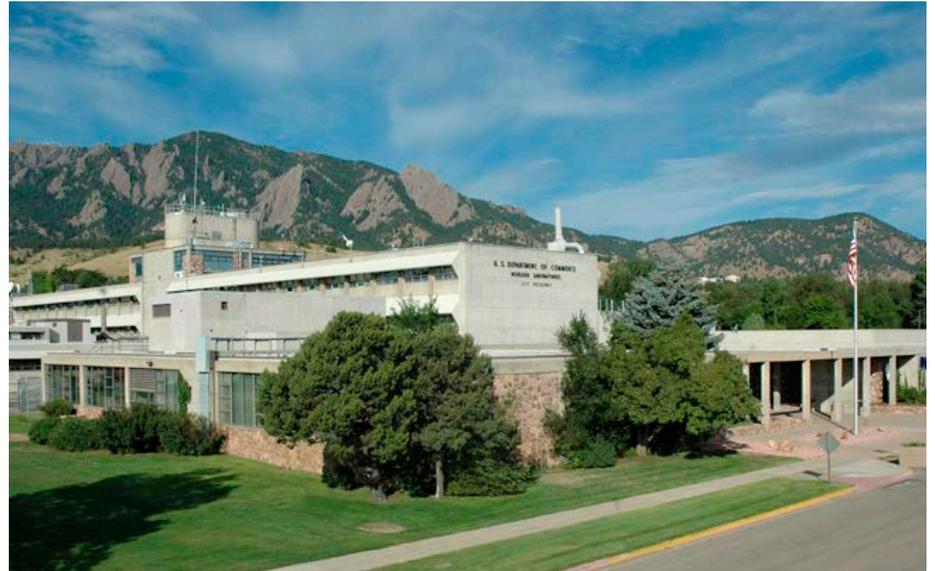
**... two main campuses**

**Gaithersburg, MD**



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**Boulder, CO**



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**NIST has...**

**... four joint institutes**



**JILA**

NIST + University of Colorado

**University of Maryland  
Biotechnology Institute**



**Joint Quantum Institute (JQI)**

NIST + University of Maryland + NSA

**Hollings Marine Laboratory**  
NIST + NOAA + South Carolina  
+ College of Charleston  
+ Medical University of South Carolina



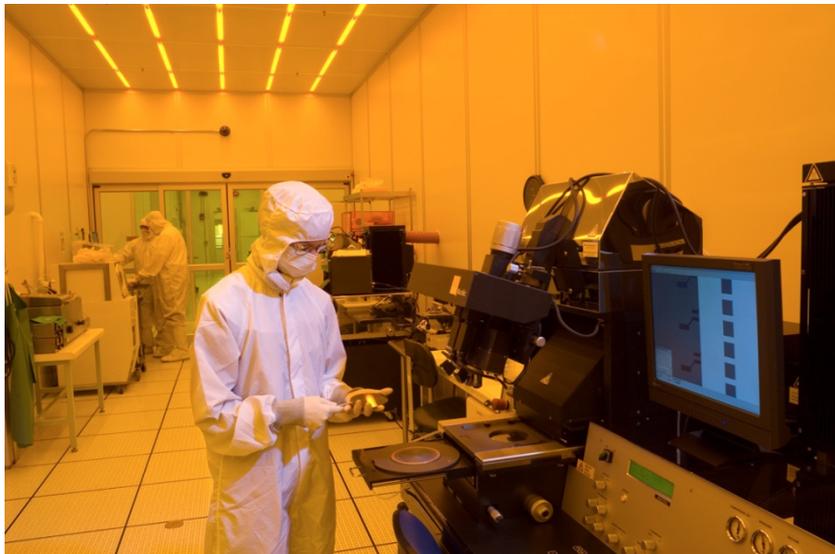
# NIST at a Glance

## Major assets:

- ~ 2,900 employees
- ~ 2,600 associates and facilities users
- ~ 1,600 field staff in more than 400 partner organizations (Hollings Manufacturing Extension Partnership)



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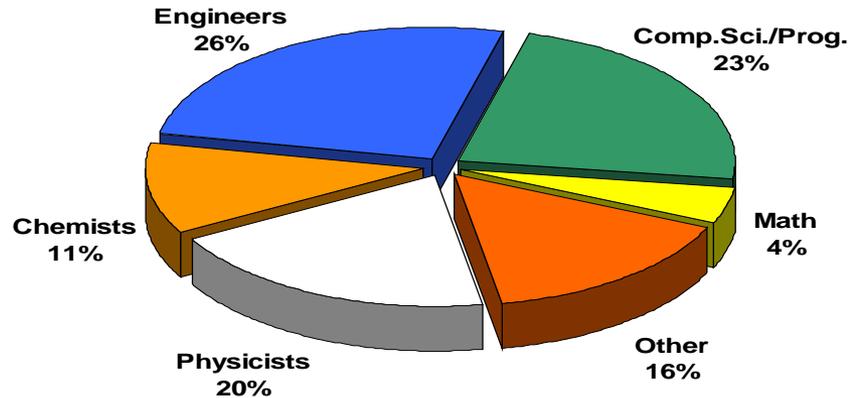
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## Major programs:

- NIST Laboratories
- Baldrige Performance Excellence Program
- Hollings Manufacturing Extension Partnership
- Technology Innovation Program

# NIST staff

By technical discipline:

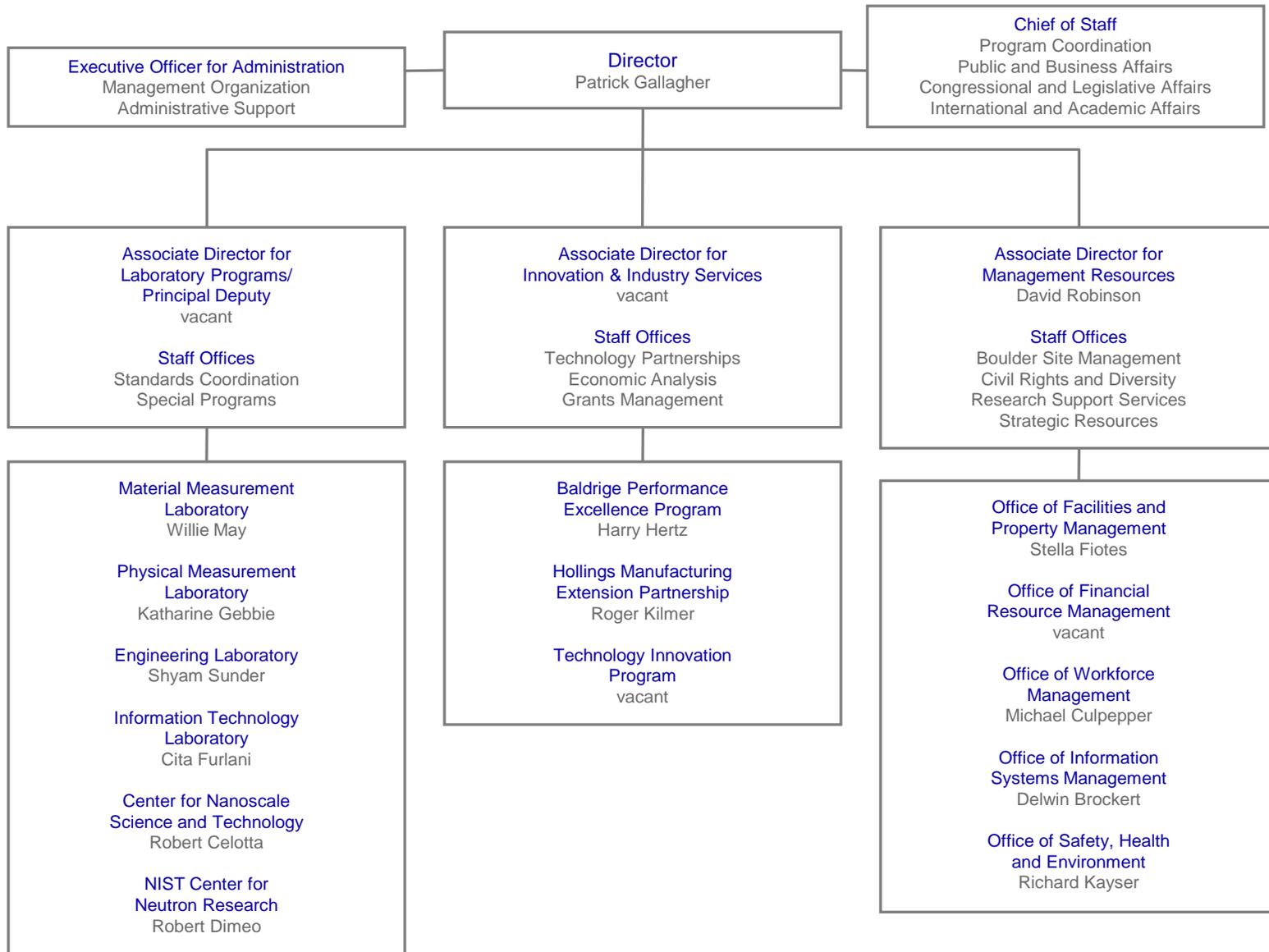


~ 1,500 full-time permanent technical staff

~ 1,400 support and administrative staff

- *Chief Financial Office*
- *Chief Information Office*
- *Chief Facilities Management Office*
- *Chief Human Capital Office*
- *Chief Safety Office*

# NIST Organization



# Standards Services Group

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Federal focal point for

- Coordination of Federal standards use
- International standards coordination
- Standards-related policy and advice
- Training and information on both standards and conformity assessment

Address regulatory and industry needs

Increase market access and U.S. trade opportunities

# NIST extramural programs

## Hollings Manufacturing Extension Partnership (MEP)

- Nationwide network of resources helping smaller manufacturers compete globally

## Baldrige National Quality Program (BNQP)

- Promoting and recognizing performance excellence via information and Presidential awards in manufacturing, service, small business, education, health care, and the nonprofit sector

## Technology Innovation Program (TIP)

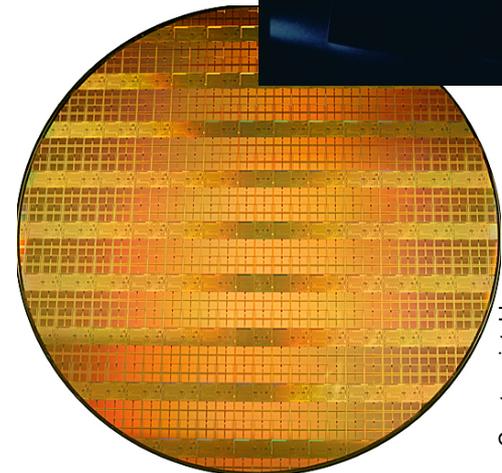
- Supports development of cutting edge technologies by the private sector and universities to address critical national needs and key societal challenges



Courtesy Stoner Inc.



Courtesy Steuben



Courtesy intel Inc.

# NIST products and services

## Measurement research

- ~ 2,200 publications per year

## Standard Reference Data

- ~ 100 different types
- ~ 6,000 units sold per year
- ~ 226 million data downloads per year



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NIST

## Standard Reference Materials

- ~ 1,300 products available
- ~ 30,000 units sold per year

## Calibration tests

- ~ 18,000 tests per year

## Laboratory accreditation

- ~ 800 accreditations of testing and calibrations laboratories per year

**NIST has...**

**... strong partnerships**

**Industry**



**Universities**



**Nonprofits**



**Government**



# NIST provides innovation infrastructure to...

...facilitate trade



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**volume and flow –  
measurements**

...improve quality of life



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**drinking  
water  
quality**

...improve public safety and security



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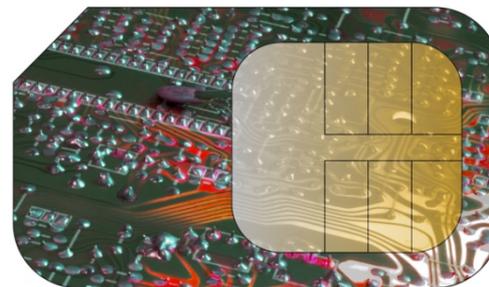
**standards for  
body armor**



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**metal detectors**

...advance manufacturing and services



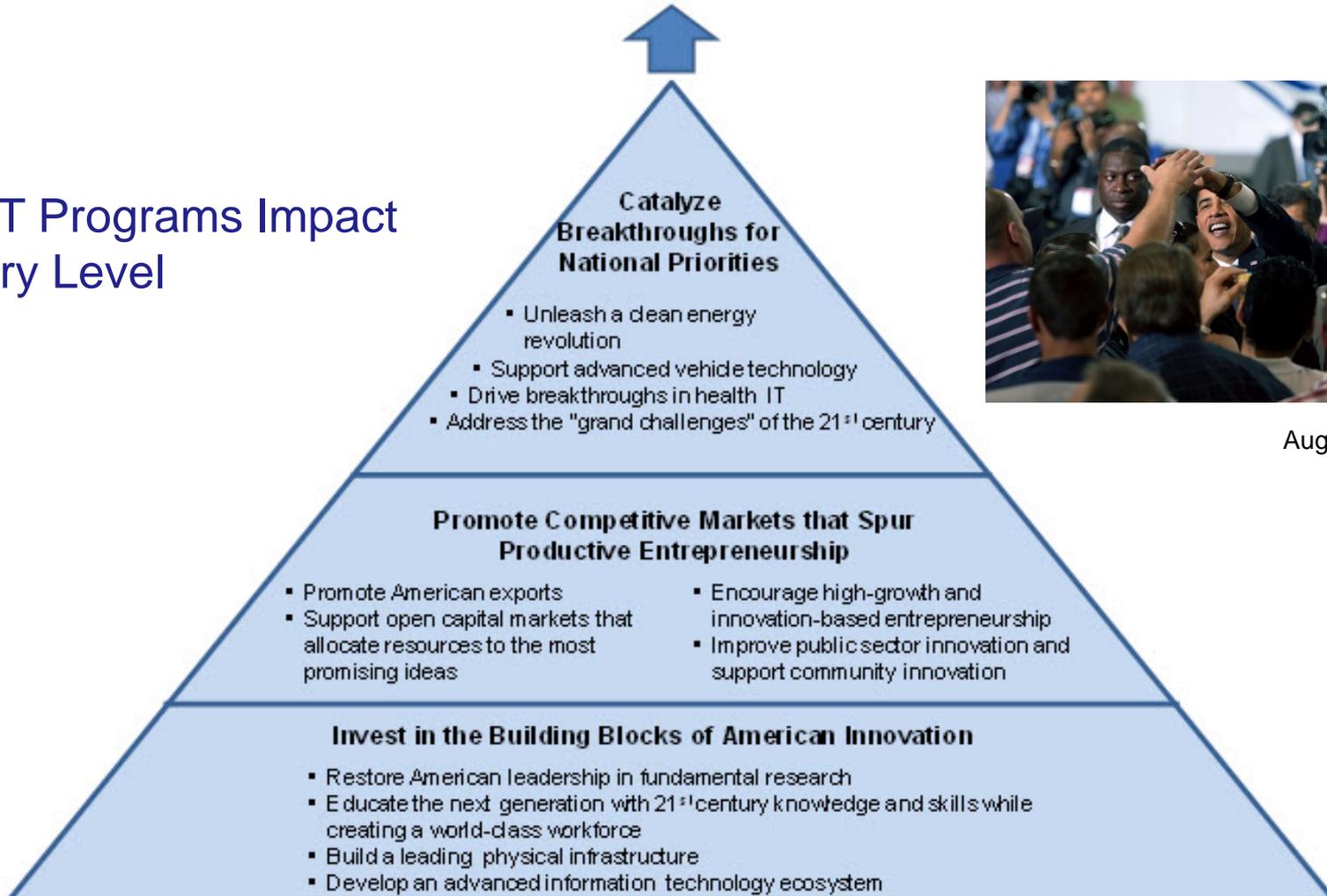
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**semiconductor  
electronics**

# President's Innovation Strategy: Driving Towards Sustainable Growth and Quality Jobs

Innovation for Sustainable Growth and Quality Jobs

NIST Programs Impact  
Every Level



August 5, 2009

# Examples of NIST laboratory programs addressing critical national needs

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## **Buildings and physical infrastructure**

- Infrastructure development and remediation

## **Energy**

- Advanced alternative energies
- Net-zero energy buildings
- Smart Grid interoperability

## **Environment**

- Greenhouse gas measurements and climate change
- Nanomaterial Environmental Health and Safety (NanoEHS)

## **Healthcare**

- Biomedical measurements to support disease diagnosis and treatment
- Health Information Technology

## **Information Technology**

- Scalable cybersecurity for emerging technologies and threats

## **Manufacturing**

- Sustainable manufacturing

# The result: a broad impact on everyday life

- Advancing manufacturing and services
- Helping ensure fair trade
- Improving public safety and security
- Improving quality of life



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