

Priorities and Challenges for NIST and Focus of VCAT in the Near Future

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NIST – Who We Are and What We Do

NIST is a world class scientific and technical agency uniquely focused on driving innovation and economic competitiveness.

We drive U.S. innovation and economic competitiveness through:

- **a world-class scientific research program** that leads the world in providing measurement solutions and technologies to our stakeholders
- **a nation-wide network of centers** focused on strengthening our nation's small and medium manufacturers
- **a program in performance excellence** used to assess the nation's companies and organizations which is recognized, utilized, and emulated around the world

NIST Core Values

- **People:** We value and support an inclusive, engaged, and diverse workforce capable of fulfilling the NIST mission
- **Environment:** We sustain a safe, healthy and productive working environment
- **Culture:** We are objective, ethical and honest
- **Performance:** We understand the needs of our stakeholders, and are committed to meeting or exceeding their expectations
- **Excellence:** We expect world-class results and continuous improvement in all we do

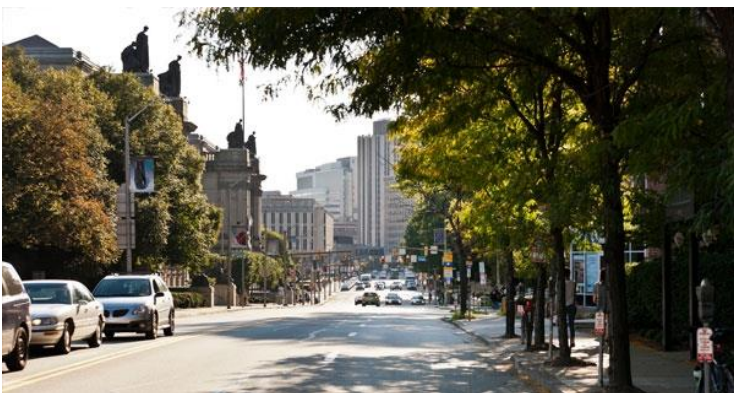
Current NIST Goals

- Strengthen NIST's laboratories and facilities to ensure U.S. leadership in measurement science
- Provide measurements, standards, and technology to address National Priorities
- Maximize NIST's impact through effective collaboration and coordination
- Develop world class operations to support NIST Mission

Farewell and Thanks.....



Patrick D. Gallagher talks with well-wishers after a University of Pittsburgh board of trustees meeting at which he was elected the new chancellor. He will begin as the 18th Chancellor in August 2014.



Courtesy of: University of Pittsburgh



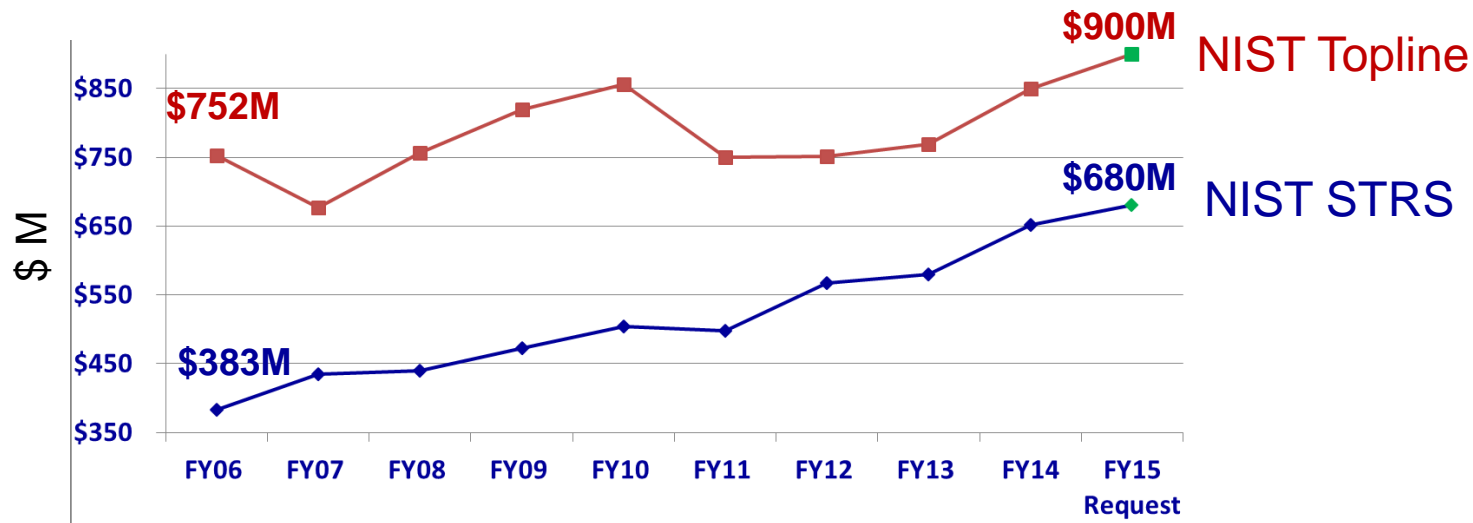
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NIST under Pat Gallagher's Leadership

Dr. Gallagher has done an excellent job of positioning NIST as:

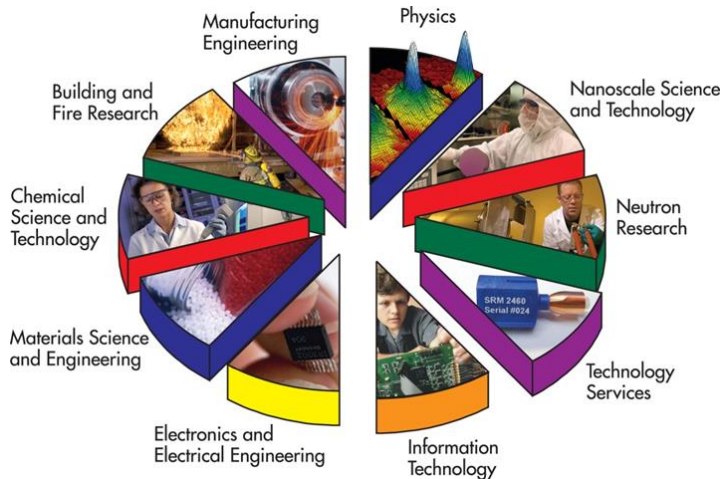
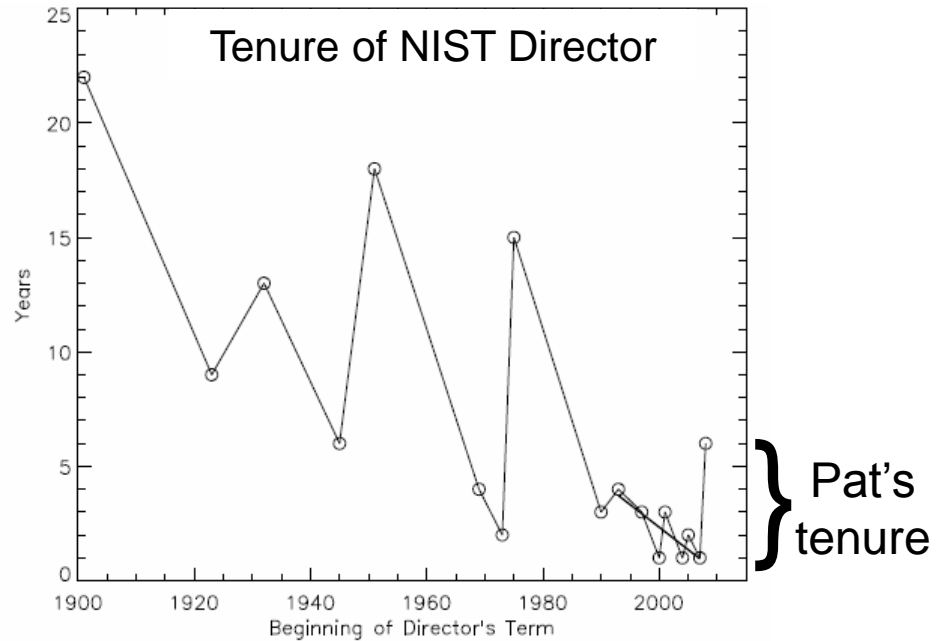
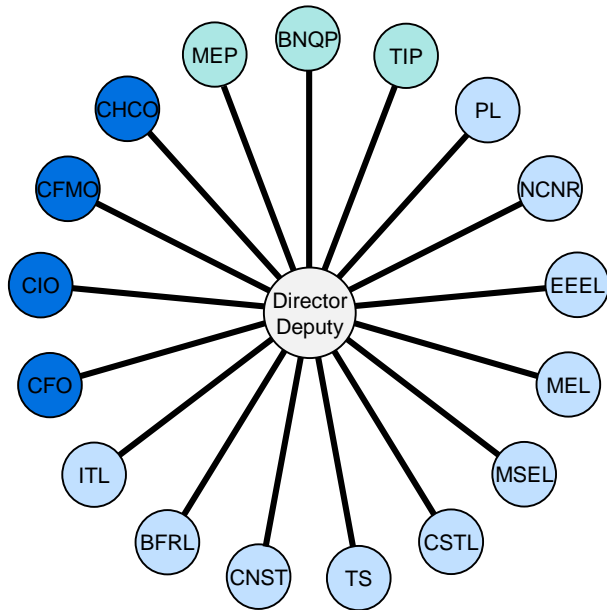
- a key player in the Administration's Innovation Team
- the nation's go-to agency for measurements, standards, and technology *to underpin and facilitate innovation, foster U.S. industrial competitiveness, and improve our quality of life.*

Under his leadership, NIST has established a very strong safety culture and realized significant budget growth.



Dr. Gallagher has also established, and is leaving NIST with, a strong Senior Leadership Team.

NIST (circa 1992 – 2010)



Congressional Appropriations were provided as line items for various scientific disciplines

In 2010, the Organizational Structure of NIST was transformed

Current NIST Organizational Structure



NIST Director still:

- is responsible for Agency Policies and Priorities
- directs the Development and Execution of NIST's Scientific, Technical, Innovation, Industrial and Administrative Programs within guidelines set by the Secretary of Commerce

But now:

- is assisted in this role by:
 - an **ADLP** who serves as Principal Deputy to the Director, assists in the overall direction of NIST and has specific responsibility for the Laboratory Program
 - an **ADMR** who assists in the direction of NIST by managing and carrying out administrative and technical infrastructure and support programs essential for daily operations throughout NIST.
 - an **ADIIS** who serves as the principal executive and advisor to the Director on all matters related to NIST's innovation and industry services programs

This new structure has improved the efficiency and effectiveness of NIST in realizing its mission by:

- strengthening and stabilizing the Director's Office by establishing a core Senior Career Leadership Team
- facilitating better coupling of "corporate level" strategic planning with agile R&D planning within each Laboratory
- better integration of research and measurement service activities
- facilitating a stronger client-service model between the Management Resource Functions & the NIST Labs in carrying out the "Business of NIST"

NIST now has a clear Planning Framework



- **Planning framework has three perspectives:**
 - Alignment with critical national needs
 - Long-term evolution and capacity building
 - Internal goals and process improvements
- **Each perspective is defined by different planning processes and interactions with different stakeholders.**
- **Objective is to support strategic decision-making.**

Programmatic Priorities

Process Owner: NIST Director's Office



NIST programs respond to top national needs, e.g.:

- **Advanced manufacturing**
- **Cybersecurity**
- **Advanced communications and spectrum sharing**
- **Forensic science measurements**
- **Disaster resilience**

New Capabilities/Capacity

Process Owners: OU Directors



Looking forward, what new capabilities does NIST need to develop or enhance to effectively carry out its mission?

Technical Competencies, e.g.

- **Bioscience**
- **“Big data”**
- **Cryptography**
- **Nanoscience**
- **Systems Engineering**
- **Quantum Science**

In addition, we recognize that new capabilities need to be developed to support Management Resources and Innovation and Industrial Services.

Operational Excellence in Internal Processes

- **Objective**

- NIST operational activities are planned and carried out in a manner that is effective, efficient and maximizes mission impact

- **Underlying principles**

- How we carry out our work is as important as what we do
- It takes the entire organization: administrative, support and program staff are jointly responsible and accountable for operational performance
- There must be a shared definition of success



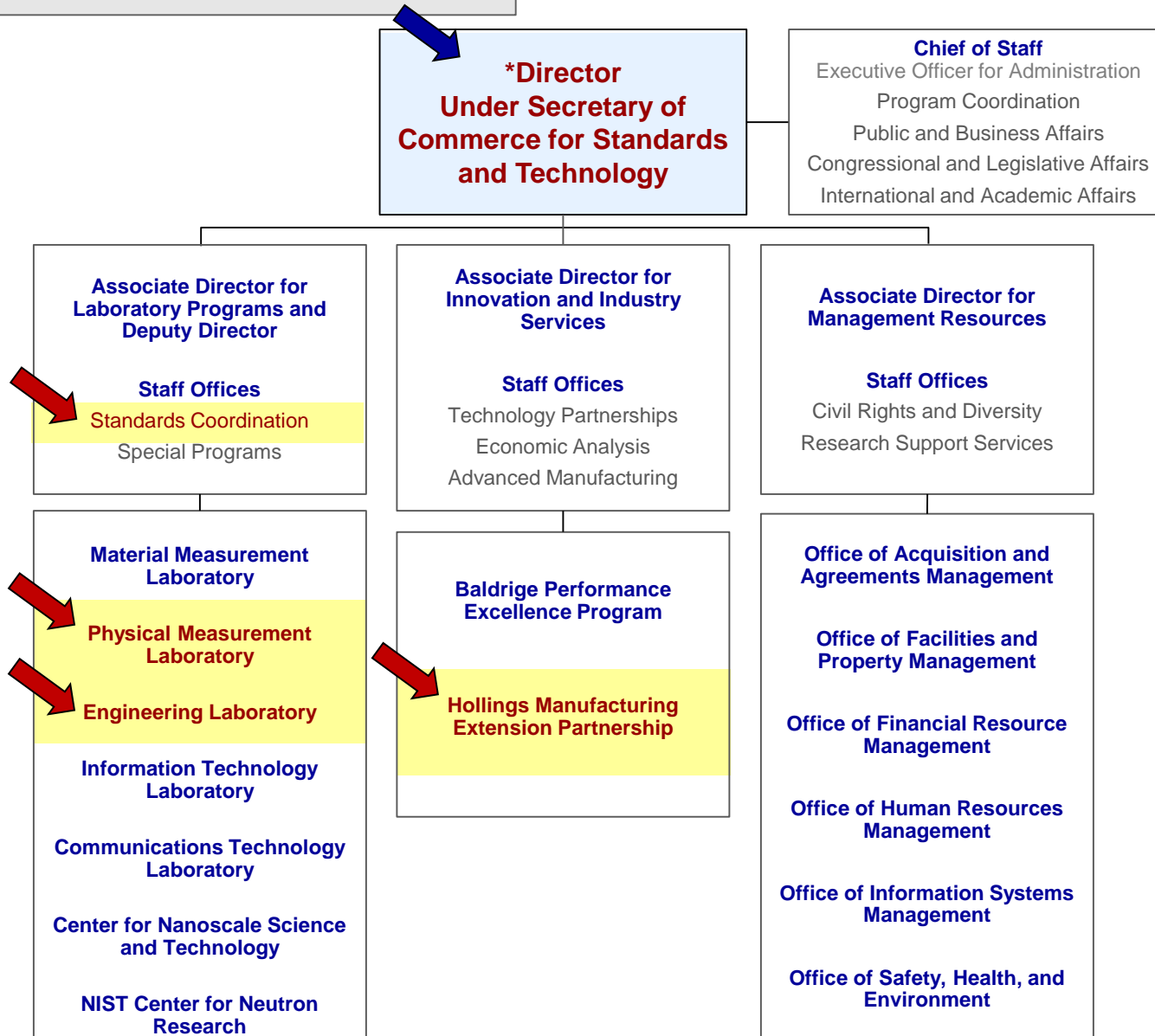
My Priorities

As Acting NIST Director, I see my primary responsibilities to be:

- **filling key leadership vacancies**
- **working with the Senior Leadership Team in:**
 - Continuing to strengthen the NIST Safety Culture
 - Completing the successful implementation of programs that NIST has initiated in response to pressing national needs
 - Enhancing current and developing new capabilities needed to enhance mission delivery
 - Improving the efficiency and effectiveness of our internal operations. *Key initiatives already underway include safety management, procurement, and grants management.*
 - Developing and strengthening NIST's career senior management team
 - Establishing/Strengthening strategic external partnerships
 - Addressing long-term sustainability of the Baldrige Program
 - Supporting the Secretary in the execution of the Department's Strategic Plan overall and personally leading/coordinating the Plan's Innovation Goal Activities

Key Vacancies to be filled

*President nominates / Senate confirms



My Ask from VCAT

In general:

- Assistance in determining, establishing, and sustaining strategies for a “Healthy NIST”
- Helping us to determine “what we should”, rather than “what we could” be doing to address pressing national needs

more specifically:

- In the near-term
 - Help NIST ensure it can meet its responsibilities and expectations in **Disaster Resilience, Cybersecurity, and Advanced Manufacturing**
 - Assess NIST’s growing programs in **Advanced Communications** to ensure maximum relevance and effectiveness
- In the longer-term
 - Continue examination of NIST’s **measurement service programs**
 - Advise NIST on the effectiveness of its portfolio of **international engagements and programs beyond its “Treaty-of-the-meter” related responsibilities**

and:

- Identification of other areas where you -- VCAT-- think I should focus

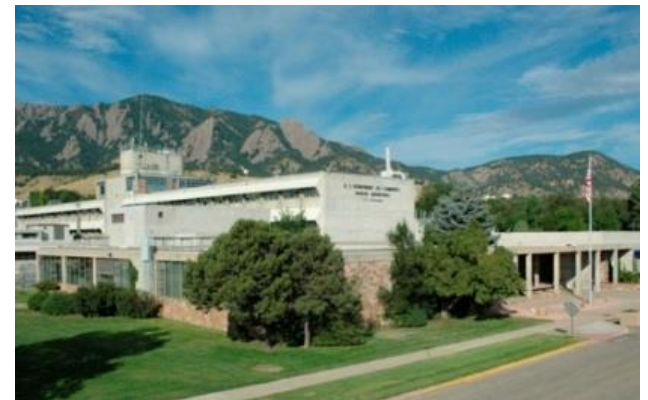


Thanks for Your Attention

Questions and Comments?



Gaithersburg, MD
62 buildings; 578 acres



Boulder, CO
26 buildings; 208 acres