

**U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE AND TECHNOLOGY  
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION**

**HEARING CHARTER**

***NIST Structure and Authorities, Its Role in Standards, and Federal Agency Coordination on  
Technical Standards***

**Tuesday, March 23, 2010  
10:00 a.m.  
2318 Rayburn House Office Building**

**1. Purpose**

On Tuesday, March 23, 2010, the Subcommittee on Technology and Innovation will hold a hearing to review the proposed re-alignment of operational units at the National Institute of Standards and Technology (NIST), examine the current role that NIST plays in technical standards, and examine the need for Federal agencies and departments' coordination on technical standards.

**2. Witnesses**

**The Honorable Patrick Gallagher** is the Director of the National Institute of Standards and Technology.

**Dr. James Serum** is the President of Scitek Ventures LLC, and the past Chairman of the NIST Visiting Committee on Advanced Technology.

**Mr. Craig Shank** is the General Manager for Interoperability at Microsoft.

**Mr. Andy Updegrave** is a partner at Gesmer Updegrave LLC.

**Mr. Phil Wennblom** is the Director of Standards at Intel Corporation.

**3. Brief Overview**

The Omnibus Trade and Competitiveness Act of 1988 provided the basis by which the NIST technical program is currently organized into ten operational units. The NIST Director has proposed reorganizing the operational units and different offices within NIST to strengthen the ties of the organization to better reflect existing and future technologies and their multi-disciplinary nature.

Standards play a critical role in enabling commerce, trade, innovation and competition. With the reduction in tariff-based barriers through negotiations in bodies such as the World Trade Organization, countries and regions are increasingly using standards as potential technical

barriers to trade. Staff from various federal agencies and departments participate in private sector led standards development activities. In 2007, more than 3,300 federal staff from 26 federal departments, agencies, and commissions participated in almost 300 private sector standards developing organizations.

#### **4. Background**

The importance of standards was recognized by the founding fathers, who in Article 1, Section 8 of the U.S. Constitution noted that “The Congress shall have power to....coin money, regulate the value thereof, and of foreign coins, and fix the standards of weights and measures.” NIST’s traditional mission is to promote US innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. Thus, NIST is the only technical federal agency with a constitutional mandate.

The National Bureau of Standards (NBS), the predecessor to current-day NIST, was established in 1901. The Omnibus Trade and Competitiveness Act of 1988 changed the National Bureau of Standards to the National Institute of Standards and Technology of today and established the basis for the current laboratory structure. While this laboratory structure has worked well for the past 20 years, globalization is presenting unique challenges to U.S. industry and manufacturing. The NIST laboratory re-alignment is an attempt to better position NIST to meet U.S. industry and government’s needs in measurement science, standards and technology, and promote U.S. innovation and industrial competitiveness. The proposed reorganization will reduce the number of technical operating units from ten to six, and will create three new positions of associate directors, with responsibility for Laboratory Programs, Innovation and Industry, and Management Resources.

NIST has a unique role in standards and conformity assessment activities. Together with developing and disseminating various physical and chemical standards, NIST staff develop tools that enable U.S. interests to keep their physical standards (e.g. time, length, mass, etc.) comparable to international standards through a chain of traceability. Every day examples of this include the time signals on cell phones, the precise operation of GPS units in cars, assurance of accuracy of the annual laboratory test for cholesterol, and the confidence in the quantity and quality of gasoline at gas stations. In 2008, Over 400 NIST staff participated in over 1,000 technical (documentary) standards related activities in over 100 standards developing organizations. This technical standards development work covers numerous sectors, and ranges from standards defining the security of our financial transactions at ATMs to standards improving the fire resistance of building construction materials.

Agencies’ participation in technical standards development activities is consistent with their mission, statutory authority, and where applicable, with their regulatory authority. The varied nature of the standards system means that agencies participate in standards developing organizations in very different ways. In numerous private sector standards development activities, agencies participate independently, while in some standards developing fora such as the International Organization for Standardization (ISO), they participate through the American National Standards Institute (ANSI) as an organization. In treaty based organizations developing

standards they participate through the State Department. Coordination and communication among federal agencies and with the private sector is critical to ensure that technical standards issues that can impact U.S. innovation and competitiveness are identified early on and that the agencies with expertise are appropriately engaged.

To better understand the current situation about the effectiveness of the public-private sector cooperation model in standards development and issues confronting U.S. industry, the Chairman of the House Committee on Science and Technology sent a letter to over 200 companies asking for feedback on four different aspects of the U.S. government's interaction in the standards system. The responses highlighted the success of the public-private partnership that is the basis for the U.S. standards system. A number of respondents also pointed to the issue of federal agency coordination on standards related matters, and responded to questions about a potential NIST role in coordinating federal agencies on standards related issues. This hearing explores those issues further.

Coordination among federal agencies and departments on technical standards issues is critical, as it directly impacts the ability of the U.S. government to respond to technical standards issues that potentially impact U.S. competitiveness and innovation ability. On issues such as the Chinese promulgation of a China unique standard for encryption of wireless communication (Wireless Local Area Network (WLAN) Authentication Privacy Infrastructure (WAPI)) and biofuels standardization issues with Brazil and Europe, questions were raised by the U.S. private sector about U.S. government positions on the underlying technical standards and coordination of different agencies and departments in developing such positions.

## **5. Hearing Issues:**

**How will NIST operational units and offices be realigned and how will the proposed new NIST structure better position NIST to adequately support the needs of U.S. industry and government?**

**What role should NIST play in technical standards within the federal government? What are the issues relating to federal agencies and departments' coordination in international technical standards?**

The recently concluded Cyberspace Policy Review<sup>1</sup> identified a coordinated approach between federal agencies and recommended a strengthened and integrated interagency processes to formulate and coordinate international cybersecurity related positions.

Questions of particular interest are:

- Why is federal agency coordination and information sharing and exchange important on issues relating to international technical standards?
- How well are current efforts by federal agencies and departments to coordinate and share information on technical standards working?
- What are the potential barriers to improved federal agency coordination and information sharing on international technical standards issues?

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<sup>1</sup> [http://www.whitehouse.gov/assets/documents/Cyberspace\\_Policy\\_Review\\_final.pdf](http://www.whitehouse.gov/assets/documents/Cyberspace_Policy_Review_final.pdf)

- What would be the impact of improved federal agency coordination and information sharing on international technical standards issues?