



Overview of the U.S. Standards and Conformity Assessment System

Roles and Responsibilities of the American National Standards Institute

S. Joe Bhatia meeting with the
NIST Visiting Committee on Advanced Technology

December 11, 2007

Key Terms

Standards

Market-driven product and service specifications
(e.g., technical requirements, management systems, etc.)

Regulations

Mandatory technical specifications, which may include particular standards or conformity assessment procedures

Conformity Assessment

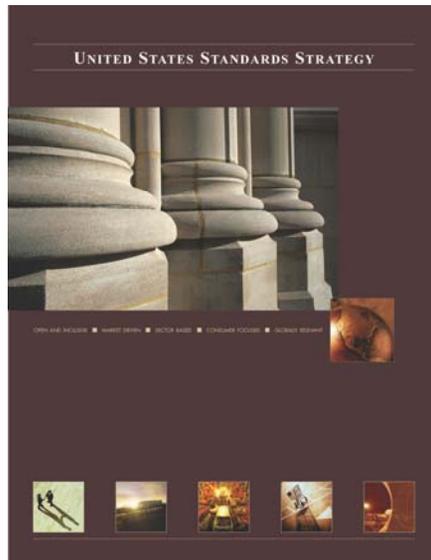
Processes and systems used to verify the compliance of a product, person, process or system to either a standard or a regulation
(e.g., testing, certification)



U.S. Standards and Conformity Assessment System

Reliable - Flexible - Responsive

- ❑ Market driven
- ❑ Flexible and sector-based
- ❑ Industry-led and government-supported



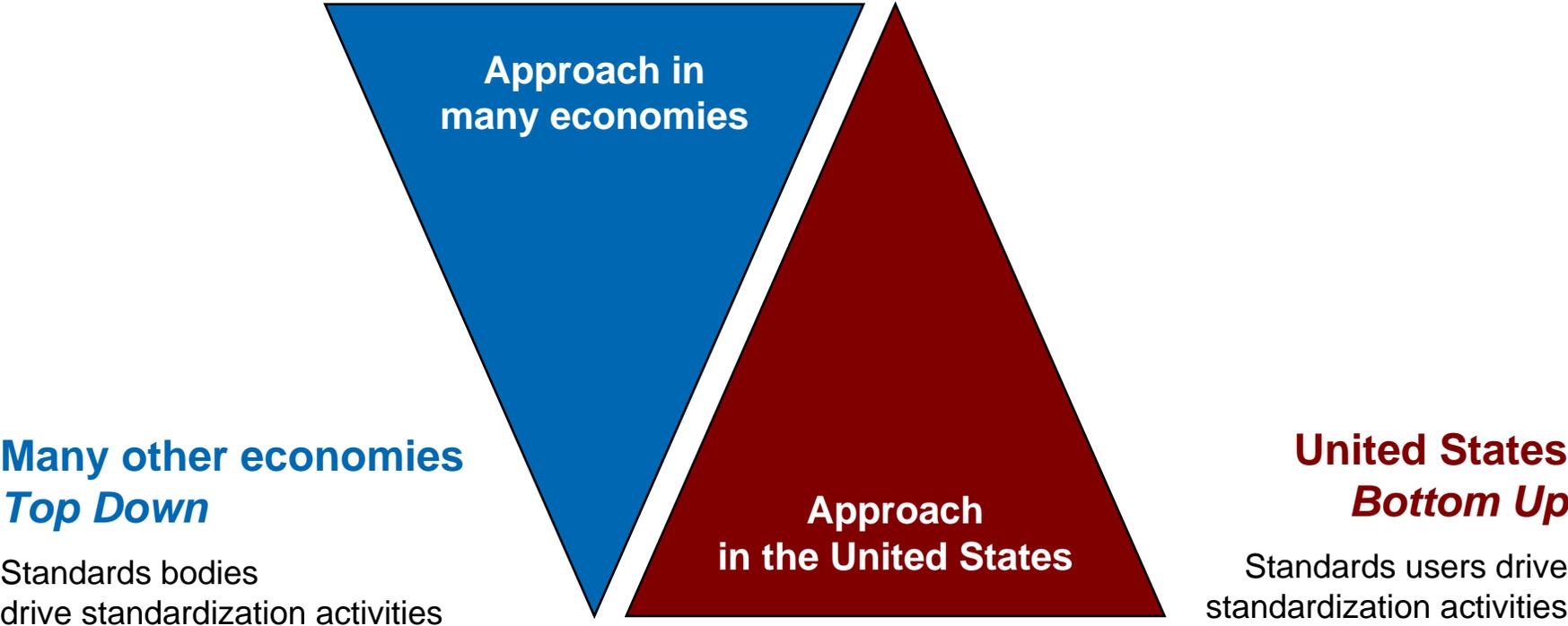
This system is designed to . . .

- **Support** a broad range of stakeholder engagement
- **Address** emerging priorities and new technologies
- **Allow** stakeholders to find the solutions that best fit their respective needs

As defined in the *United States Standards Strategy*
www.us-standards-strategy.org

U.S. Standards and Conformity Assessment System

comparison with many other economies



U.S. Standards and Conformity Assessment System

comparison with many other economies

- ❑ Emphasizes private-sector **standards solutions**
- ❑ Relies on private-sector **compliance verification** for both regulatory and non-regulatory functions
- ❑ Provides a strong voice and greater authority to standards users and individual stakeholders





The American National Standards Institute leads standards, conformity assessment and related activities in the United States of America.





The ANSI Federation represents more than **125,000 companies and organizations** and **3.5 million professionals** worldwide

Members of the ANSI Federation include . . .

- ❑ Academia
- ❑ Individuals
- ❑ Government
- ❑ Manufacturing
- ❑ Trade Associations
- ❑ Professional Societies
- ❑ Service Organizations
- ❑ Standards Developers
- ❑ Consumer and Labor Interests
- ❑ and many more





ANSI's mission is to enhance the global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and ensuring their integrity.





- ❑ Represents U.S. globally
- ❑ Ensures integrity of the standards and conformity assessment system
- ❑ Offers neutral forum
- ❑ Accredits standards developers and conformity assessment organizations





- ❑ U.S. member of ISO
- ❑ U.S. member of the IEC, via ANSI's U.S. National Committee
- ❑ member of regional forums in the Pacific Rim and the Americas
- ❑ liaison with groups in Europe, Africa and the Middle East
- ❑ bilateral agreements with other national standards bodies



COPANT



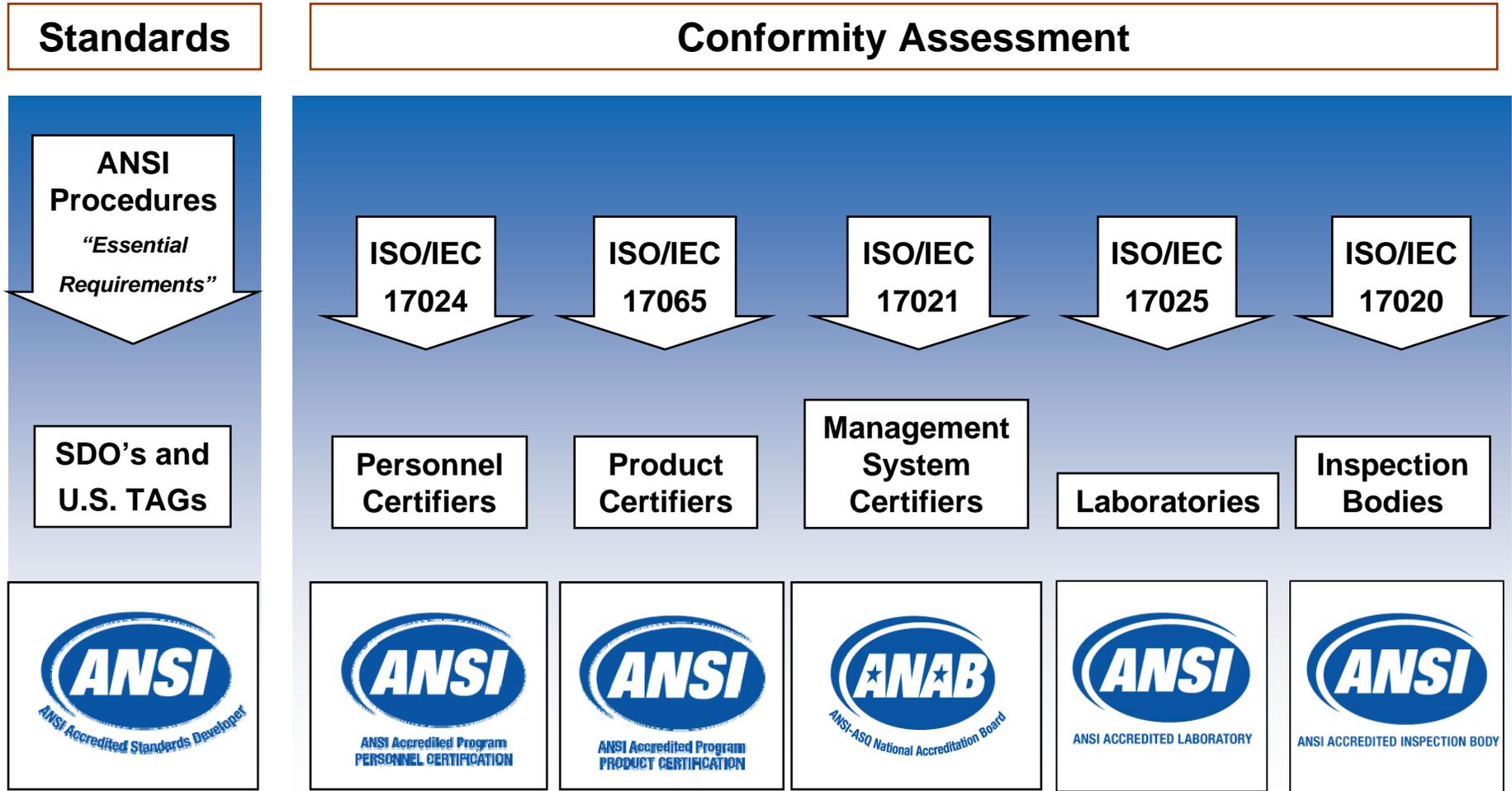
80% of world commodity trade is impacted by standards

30% of the total value of America's exports is services

In line with the USSS, ANSI accreditation promotes the consistent, worldwide application of globally relevant standards and compliance programs.



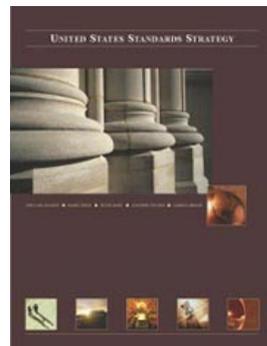
ANSI Accreditation Services Portfolio



ANSI accreditation of SDOs and U.S. Technical Advisory Groups promotes alignment with the WTO's Internationally Recognized Principles for Standards Development

ANSI Essential Requirements for the development of American National Standards

World Trade Organization
Technical Barriers to Trade Agreement*



openness
transparency
due process
consensus

Referenced in the *United States Standards Strategy*

* Referenced in the WTO TBT Committee Second Triennial Review – Annex 4

Examples of ANSI-Accredited Standards Developers and U.S. TAGs

ASTM International

UL Inc.
Underwriters Laboratories

NFPA
National Fire
Protection Association

ADA
American Dental
Association

API
American Petroleum
Institute

ICC
International Code Council

SAE
Society of
Automotive Engineers

IEEE
Institute of Electrical
and Electronics Engineers

TIA
Toy Industry Association

**U.S. Green
Building Council**

AHAM
Association of Home
Appliance Manufacturers

Others

Multiple Path Approach to Standard-Setting



- Traditional SDOs and consortia each have a role to play
 - Common concerns
 - Global recognition of work products
 - How best to serve a broad spectrum of industries
 - Intellectual property rights
 - Use of work products in regulations

ANSI hosts an Annual “Open Forum for Standards Developers” to bring together SDOs and consortia

U.S. Standards System

different tools for different needs



National Participation

- Treaty Organizations
- Non-Treaty Organizations

Examples

ISO, IEC, ITU, CODEX, etc.

Direct Participation

- Nationally Accepted
- Internationally Accepted

Examples

ASTM International, ASME, SAE, etc.

Consortia

Examples

IGRS, W3C, etc.

Coordination and Harmonization Activities

- ANSI **Standards Panels** are cross-sector coordinating bodies established to promote the development and compatibility of voluntary consensus standards and conformity assessment programs necessary to support national and global priorities
 - **Coordinate** the efforts of the private and public sectors
 - **Identify** existing standards and compliance programs
 - **Define** where gaps exist
 - **Recommend** where additional work is needed
 - **Identify** organizations that can perform the needed work

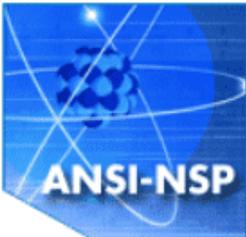
Coordination and Harmonization Activities

ANSI Standards Panels



2003

Homeland Security Standards Panel



2004

Nanotechnology Standards Panel



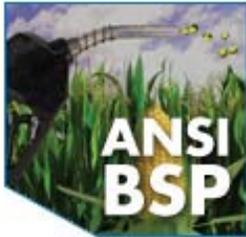
2005

Healthcare Information Technology Standards Panel



2006

ID Theft Prevention and ID Management Standards Panel



2007

Biofuels Standards Coordination Panel

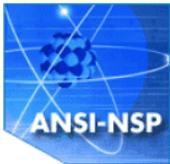
Coordination and Harmonization Activities

ANSI Standards Panels (continued)



Homeland Security Standards Panel

Partnership with the U.S. Department of Homeland Security to accelerate development and adoption of consensus standards critical to homeland security. Support also provided to the 9-11 Commission for private sector preparedness.



Nanotechnology Standards Panel

Established at the request of the Office of Science and Technology Policy, Executive Office of the President of the United States to facilitate the development of standards supporting nomenclature/terminology; materials properties; testing, measurement and characterization procedures; and health, safety and environmental issues.



Healthcare Information Technology Standards Panel

Contract with the U.S. Department of Health and Human Services to support widespread interoperability among healthcare software applications, accelerate decision making, and eliminate barriers to standards harmonization.

Coordination and Harmonization Activities

ANSI Standards Panels (continued)



ID Theft Prevention and ID Management Standards Panel

Partnering with the Better Business Bureau to facilitate within 18 months the timely development of voluntary consensus standards aimed at minimizing the scope and scale of identity theft and fraud.



Biofuels Standards Coordination Panel

Launched in conjunction with the U.S. Department of Energy and several other federal agencies to promote the development and compatibility of voluntary consensus standards and related conformity assessment programs necessary to support the large-scale commoditization of biofuels.

Coordination and Harmonization Activities

Next on the horizon . . .



Chemical controls and regulations



Import safety / Supply Chain



Energy management



Biotechnology

U.S. Standards and Conformity Assessment System

The public-private partnership

- In the U.S., no single government agency has control over standards
 - Each government agency determines which standards meet its needs

- **National Technology Transfer and Advancement Act (NTTAA)**
(Public Law 104-113)
 - Encourages each government agency to seek existing private sector standards that are appropriate for its needs

U.S. Standards and Conformity Assessment System

The public-private partnership (continued)

NIST

National Institute of Standards and Technology

Technology Administration, U.S. Department of Commerce

- ❑ NIST has the legal responsibility of implementing the NTTAA
- ❑ Coordinates the standards activities of Federal agencies
- ❑ Sets Legal Metrology Standards; Accredits Laboratories

ANSI-NIST Memorandum of Understanding

Latest edition: December 27, 2000

MEMORANDUM OF UNDERSTANDING
between the
American National Standards Institute (ANSI)
and the
National Institute of Standards and Technology (NIST)

1.0 Purpose

- 1.1 The underlying purpose of this Memorandum of Understanding (MOU) is to enhance and strengthen the national voluntary consensus standards system of the United States and to support continued U.S. competitiveness, economic growth, health, safety, and the protection of the environment.
- 1.2 The National Institute of Standards and Technology (NIST) of the Department of Commerce and the American National Standards Institute (ANSI) agree on the need for a unified national approach to develop the best possible national and international standards, as reflected by the U.S. National Standards Strategy adopted by ANSI on August 31, 2000. This approach requires the best technical efforts of the United States in standards to ensure that our needs and interests are considered as national and international standards are developed, so that our international competitiveness is strengthened.
- 1.3 ANSI and NIST agree on the need for better communication within and between the private sector and Federal Government on voluntary standards and conformity assessment. There is a need to ensure the timely flow of relevant information about developments that affect those interests, and for improved liaison to facilitate decision-making and implement actions on standards and conformity assessment at the national and international levels. It is also critical that affected U.S. Government agencies are encouraged to contribute to the development and implementation of national and international voluntary standards.

This MOU is intended to facilitate and strengthen the recognition of ANSI as the representative of U.S. interests at the international level by all participants; improve domestic communication and coordination among both private and public sector parties in the United States on voluntary standards issues; and increase the effectiveness of U.S. Government agency participation in the national and international voluntary standards-setting process. It is also intended to facilitate the implementation by both parties of the National Standards Strategy.

2.0 Agreement

- 2.1 ANSI is the recognized U.S. member body to the International Organization for Standardization (ISO), and, through the U.S. National Committee, to the International Electrotechnical Commission (IEC). It is also the U.S. member body to the Pacific Area Standards Congress (PASC), the Pan American Standards Commission (COPANT), and the International Accreditation Forum

ANSI-NIST Memorandum of Understanding

Recent partnerships and accomplishments



Options for Action Summit

July 2006 event to identify standards-related actions to improve U.S. competitiveness



StandardsPortal.org

Online resource designed to facilitate U.S.-China trade

Looking ahead . . .

- Open discussion

For more information



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