Overview of the U.S. Approach to Standards

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Goal of Global Industry (1:1:1)

One Standard: One Test: One Global Acceptance

- Transparent for all stakeholders
- Effective in protecting environment, health and safety (EHS)
- Implemented efficiently and without unnecessary bureaucratic procedures
- Supports innovation and technological advances

This presentation will discuss

- The U.S. Approach to Standards and Conformance
- U.S. “Best Practices” that lead to this goal
- International Development activities
The U.S. Approach to Standards
Introduction to ANSI

ANSI is a not-for-profit private sector organization that serves as an “Umbrella Organization” for the U.S. standards and conformance systems.

Duties and responsibilities include:

- Develop and promote policies and positions in U.S. private-sector led system
- Accredit Standards Developing Organizations and approve American National Standards (ANS)
- U.S. Representative to ISO, IEC and other international and regional bodies
- Accredit laboratories, inspection bodies, certifiers of products, personnel, management systems, and greenhouse gas emissions
- Provide standards and compliance solutions domestically and internationally
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
The Bottom-up U.S. Approach

Centralized body drives standard and conformance activities

Top Down

Users drive standards and conformance activities

Bottom Up

Users drive standards and conformance activities
Unique Characteristics of the U.S. Approach

- Emphasizes private-sector **activities and solutions**
- Relies on private-sector **compliance verification** for both regulatory and non-regulatory functions
- Empowers **standards users** (companies, consumers, etc.) to influence what standards will be developed and used in the market
The National Technology Transfer and Advancement Act (NTTAA)

Section 12 d. of Public Law 104-113

...all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.......
The National Technology Transfer and Advancement Act (NTTAA)

- All Federal agencies should use private sector standards in lieu of agency unique standards
  - Agencies must annually report use of agency unique standards and provide explanation of use

- Federal agencies should participate in standards developing activities

- Identifies NIST as the coordinator of Federal standards and conformity assessment activities with those of the private sector
Policies of OMB Circular A-119

- Encourage Federal agencies to *benefit from the expertise of the private sector*

- Promote Federal agency participation in such bodies to *ensure the creation of standards that are useable by Federal agencies*

- *Reduce reliance on government unique standards* where private sector standards would suffice
  - No preference among types of standards
  - Use commercial off the shelf products regardless of source of underlying standard
Guiding Principles

The U.S. endorses the globally accepted standardization principles of the World Trade Organization Technical Barriers to Trade Agreement and Related Decisions:

- Transparency
- Openness
- Impartiality and Consensus
- Effectiveness and Relevance
- Coherence
- Development Dimension
### U.S. Standards System

Different tools for developing globally-relevant standards

<table>
<thead>
<tr>
<th>National Participation</th>
<th>Direct Participation</th>
<th>Consortia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treaty Organizations</td>
<td>Nationally Accepted</td>
<td>Examples</td>
</tr>
<tr>
<td>Non-Treaty Organizations</td>
<td>Internationally Accepted</td>
<td>IGRS, W3C, etc.</td>
</tr>
</tbody>
</table>

Examples:

- Non-Treaty: ISO, IEC
- Treaty: ITU, CODEX
- ASTM International, ASME, SAE, etc.
Companies and other private-sector stakeholders participate in U.S. Mirror Committees - i.e. Technical Advisory Groups (TAGs) on a voluntary basis:
- all stakeholders are allowed and encouraged to participate;
- no one is required to participate;
- participation costs (e.g. travel, staff time) are borne by TAG members.

U.S. TAGs develop technical positions for ISO and IEC. ANSI staff neither drives nor participates in the technical activities of the TAG.

Procedures for U.S. TAG operations include guidelines and criteria for:
- ensuring that all materially affected U.S. stakeholders are given an equal opportunity to participate;
- determining a U.S. voting position;
- approval of U.S. positions on ISO and IEC activities.
Standards Used in the U.S.: Accredited/Approved Standards

- ANSI is responsible for accrediting SDOs and approving standards as “American National Standards.”
  - Number of Accredited SDOs: 222
  - Number of Approved Standards: 9380

- National and international SDOs voluntarily choose to receive ANSI accreditation/approval (the U.S. has no legal requirement)

- Accreditation and approval do not guarantee U.S. market acceptance; individual users have complete freedom to choose which standards best suit their needs.

- ANSI accreditation and approval processes do not evaluate a standard’s technical merit, but only evaluate the process by which a standard was developed.
Many American National Standards (ANS) are International Standards

<table>
<thead>
<tr>
<th>Criteria</th>
<th>WTO/TBT Principles</th>
<th>Criteria Reflected in the ANS Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Openness</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Impartiality &amp; Consensus</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Effectiveness &amp; Relevance</td>
<td>✓</td>
<td>✓*</td>
</tr>
<tr>
<td>Coherence</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Development Dimension</td>
<td>✓</td>
<td>✓**</td>
</tr>
</tbody>
</table>

*Although the ANS process does not directly evaluate Effectiveness & Relevance, adherence to the other ANS criteria helps to assure the effectiveness and global relevance of ANS.*

**Although the ANS process does not evaluate for this criteria, it is strongly encouraged in the U.S. Standards Strategy, and many SDOs engage in extensive international outreach and development activities.
Examples of ANSI-Accredited SDOs

<table>
<thead>
<tr>
<th>American Dental Association</th>
<th>ASTM International</th>
<th>National Electrical Manufacturers Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Code Council</td>
<td>American Society of Mechanical Engineers</td>
<td>National Fire Protection Association</td>
</tr>
<tr>
<td>American Society of Civil Engineers</td>
<td>Institute of Electrical and Electronics Engineers</td>
<td>Underwriters Laboratories Inc.</td>
</tr>
<tr>
<td>Society of Automotive Engineers</td>
<td>IEEE Standards Association</td>
<td>And more than 200 additional organizations</td>
</tr>
</tbody>
</table>
ANSI Accreditation Portfolio
# U.S. Standards System: Organizational Roles

<table>
<thead>
<tr>
<th>Role Description</th>
<th>ANSI</th>
<th>SDOs</th>
<th>Companies</th>
<th>Consumers</th>
<th>Regulators/Government Procurement</th>
<th>NIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinates U.S. system and policy development</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independently runs standards development activities</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinates and monitors USG use of and participation in VCS activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Legal metrology and WTO-TBT enquiry point.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Provides technical input for standards development</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Participates in U.S. policy development</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
U.S. Standards System

* Government agencies are members of ANSI and of SDOs. Agencies participate directly in voluntary standards development and policy setting and use voluntary standards when it supports their missions.
Summary of the U.S. System

“The Vehicle”
Standards Developers & Conformity Assessment Bodies

“The Drivers”
Companies, Government Agencies and other Standards Users

“The Road”
ANSI
ANSI’s International Development Activities
ANSI International Development Activities

ANSI’s International Development activities aim to introduce new and innovative programs to help the Institute expand its international footprint, to more effectively advance U.S. positions internationally, and to help ANSI members increase their international engagement.

Examples of International Development activities include:

- StandardsPortal
- International Guest Researcher Program
- U.S. – India Standards and Conformance Cooperation Program
StandardsPortal

■ Problem:
  ➢ No central resource to help companies find the standards, conformity assessment and technical regulations needed to enter and compete in target markets.

■ Solution:
  ➢ StandardsPortal answers key questions exporters face when attempting to enter their target markets
Manufacturer Member Roundtable in China

- Forum for manufacturing companies to exchange information on key issues in China across industry sectors
- Areas of Focus: CCC Mark, China RoHS, Energy Efficiency, China’s Standards Strategy, Special Equipment Regulations, etc.
- Monthly meetings held in Mandarin Chinese; alternate between Beijing and Shanghai
- Provides front-line perspectives and “Early Warning” to all ANSI full members
International Guest Researcher Program (IGRP)

- Through IGRP, ANSI hosts international government officials and leaders with the aim of fostering mutual understanding and cooperation.

- Recent Participant: Dr. Li Aixian (Ashley)
  - China National Institute for Standardization (CNIS)
  - Director, Sub-Institute of Resource and Environmental Standardization
  - Areas of Responsibility: Voluntary and mandatory standards for energy efficiency, energy labeling and energy management systems standards
U.S.–India Standards and Conformance Cooperation Program (SCCP)

Key Organizations

- Funding Agency – U.S. Trade and Development Agency (www.ustda.gov)
- Grantee – Confederation of Indian Industry (www.ciionline.org)
- Contractor – American National Standards Institute (www.ansi.org)
- An SCCP Advisory Panel will provide recommendations as to the direction of the program and will be comprised of individuals from U.S. government and private sector organizations
U.S.–India Standards and Conformance Cooperation Program (2)

Program Components

- Expand StandardsPortal to include information on India
- Create additional U.S. information on StandardsPortal
- Create Directories on the standards, conformity assessment, and technical regulations used by U.S. industry for at least five (5) industry sectors
- Provide matching funding and support for at least five (5) sectoral workshops on China
  - Proposed Sectors: Fire Protection, Aerospace, Biometrics, Agricultural Equipment, Safe Storage of LNG, PV Technologies