



Overview of the U.S. Standardization System



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Premise

***The international language of commerce
is standards.***

Source:

U.S. Secretary of Commerce – Donald Evans

Report on Standards and Competitiveness –

Removing Standards-Related Trade Barriers Through Effective Collaboration

May 18, 2004

A Standard is a Document

Standard

***Document** established by consensus and approved by recognized body that provides for common and repeated use, rules, guidelines or characteristics for activities ...*

ISO/IEC Guide 2:2004

*Standardization and related activities –
General vocabulary*

Voluntary Consensus Standard • Conformity Assessment Procedure
Technical Regulation • Metrology Standard • Consortia Standard

In the U.S. most standards are developed and used on a voluntary basis

- Most standards are developed by technical committees formed within the private sector
- Government and industry representatives participate as “equal partners” in many of these technical committees
- Costs are borne by the participants

Voluntary vs. Mandatory

- “Voluntary Standards” become mandatory only when:
 - They are incorporated into contracts; or
 - They are referenced or adopted by government agencies as part of a regulation to protect public health, safety, and the environment.

- “Voluntary” and “Mandatory” are terms of Conformity Assessment (i.e. the mechanism chosen to ensure compliance to a particular standard)

The U.S. Standardization Model

A Unique Structure Among Many in the World

- resembles the nation's governmental (federal) structure
- resembles the nation's economic structure
 - sector-based and driven by market needs
- relies strongly on diversity and decentralization

Structure of the U.S. Standardization System

- **ANSI – Coordinator of the Private Sector**
 - Private sector, non-profit, membership organization
 - Supported by membership fees, sale of publications, funded programs and a periodic government grant

- **Standards Developing Organizations (SDOs)**
 - Private trade and professional organizations, often non-profit
 - Some, but not all, accredited by ANSI

- **NIST (National Institute of Standards & Technology – U.S. Department of Commerce)**
 - Coordinates the standards activities of Federal agencies
 - Sets Legal Metrology Standards; Accredits Laboratories

The ANSI Federation and its Roles & Responsibilities

American National Standards Institute (ANSI)

- Founded in 1918 by five professional / technical societies and three federal government agencies
- From the beginning, a private- and public-sector partnership
- Only accreditor of U.S. standards developers
- Only body that approves standards as American National Standards (ANS)

American National Standards Institute (ANSI)

A Federation of members representing . . .

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

A Private- and Public-Sector Partnership Since 1918

ANSI is not a government agency or a standards developer.

ANSI's Roles and Responsibilities Domestically

- Accreditation. ANSI Accredits:
 - U.S. Standards Developing Organizations (SDOs)
 - Certifiers of Products
 - Certifiers of Personnel
 - Certifiers of Quality and Environmental Management Systems (QMS/EMS) together with ASQ under the ANSI-ASQ National Accreditation Board (ANAB)
- Approves American National Standards (ANSs)
- Ensures integrity of the U.S. voluntary consensus standards system
- Protects the public's participation in standardization activities
- Offers a neutral policy forum
- Provides a central resource for information and education on standards, conformity assessment and related activities

American National Standards Institute (ANSI)

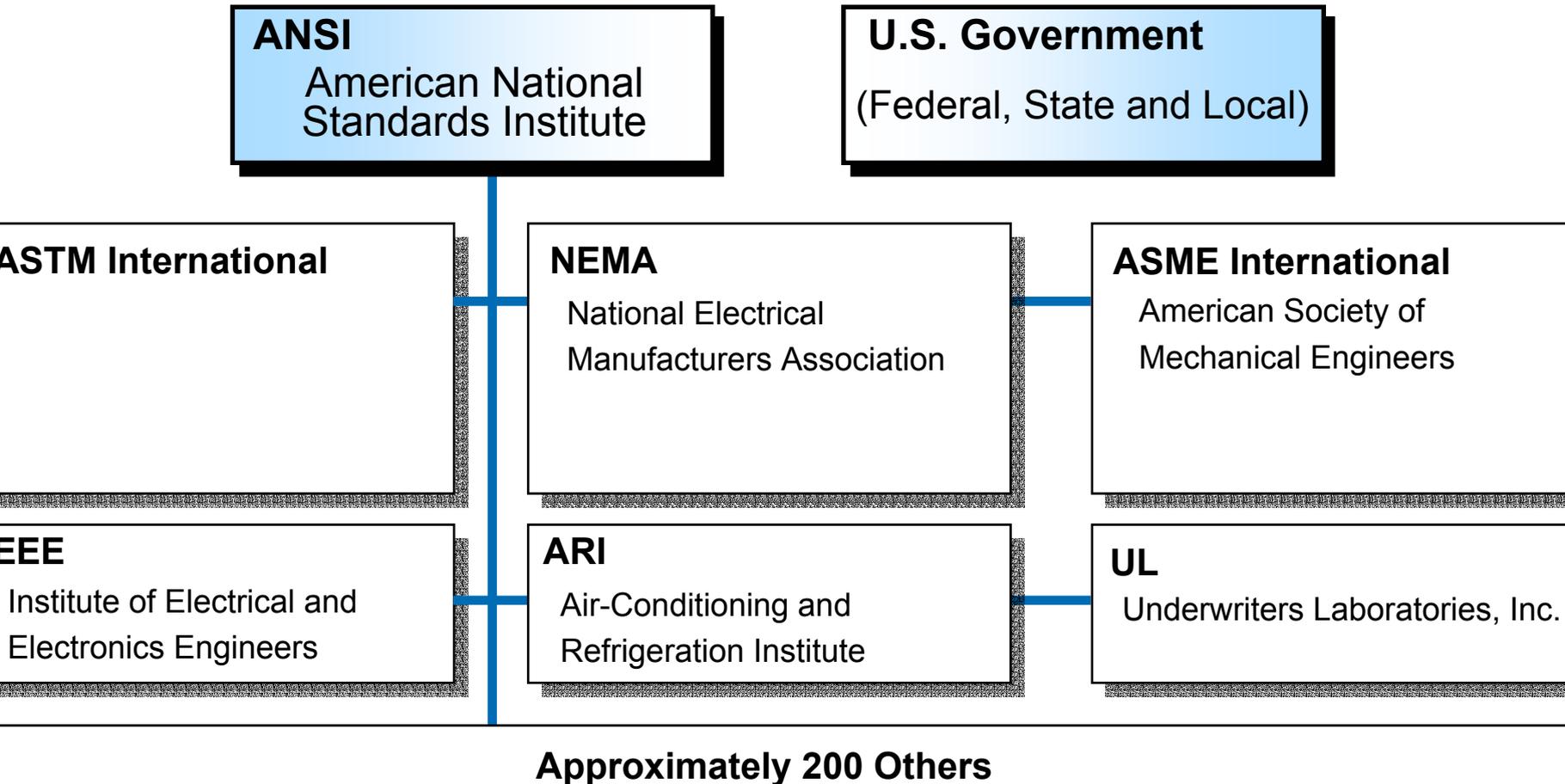


- Facilitates U.S. *standardization* policy development
- Develops and promotes global *standardization* policies

ANSI is the bridge for standardization

- between industry and government
- among and within industries

Examples of U.S. Standards Organizations Accredited by ANSI



ANSI Accredited Standards Developing Organizations (SDOs)

3-A	ASC X9	ASA	ACCA	AMCA	ARI	ATIS	AA	AAMA	AAMVA	ABMA	ABYC	ABMA	ACC	ACI	ADA	AFPA	AG
AGMA	AH&LA	AIHA	AIAA	AISC	AITC	AISI	ALI	ANS	ANLA	API	ASNT	ASQ	ASAE	ASB	ASCE	ASHRAE	ASME
ASSE	AWWA	AWS	AWEA	ATA	ACMI	ASIS	AIIM	AMT	NPES	AAMI	ACDE	AHAM	ARMA	ASTM	AIM	AGRSS	AL
BHMA	BICSI	BOMA	BIFMA	CCPA	CSAA	CAPA	CLSI	CFPMI	CAP	CPA	CAGI	CGA	CAM-I	CEA	CSPA	CEMA	CT
CSA	DISA	DASMA	EIMA	EASA	EIA	ESTA	EIA	EOS/ ESD	FCI	FM	GTEEMC	GICC	GEIA	GEI	HPVA	HIBCC	HL
HFES	HFES	HI	IESNA	ITSDF	IEEE	IEST	IIE	INMM	12AMA	IAF	IAAMC	IAPMO	ICPA	ICC	ITI	NETA	I3
ISEA	ISEA	ISA	ISANTA	IWCA	IPC	ISA	JCSEE	KCMA	LIA	MSS	MHI	MBC	NACE	NAHBRC	NAAMM	NBBPVI	NBF
CMMA	NCSL	NCPDP	NECA	NEMA	NFPA	NGA	NGCMA	NISO	NIMS	NIST/ ITL	NPPC	NSC	NSAA	NADCA	NERC	NAESB	NAL
ASPO	NSF	NIRMA	OLA	OPCC	OEOSC	OPEI	PMMI	PSA	PCA	PWMA	PMI	RPTIA	RSTC	RVIA	RESNA	RIA	RM
SIA	SSFI	SIA	SMA	SPRI	SBS	SAE	SCTE	SMPTE	SVIA	SAAMI	SES	SDI	SJI	SSCI	TIA	TCATA	CI
TMS	SPI	TCA	TOY-TIA	TAPS	TCIA	TPI	USDA	USPRO	UL	UAMA	UAMA	UCC	VITA	WQA	WDMA	WCMA	WMI

[Click Here online for the full list of ANSI accredited SDOs](#)

The Role of Government

- In the U.S., **no** single government agency has control over standards

- **National Institute of Standards & Technology (NIST) – Technology Administration (TA) - U.S. Department of Commerce**
 - www.nist.gov
 - Coordinates the standards activities of Federal agencies
 - Sets Legal Metrology Standards; Accredits Laboratories

- **International Trade Administration (ITA) – U.S. Department of Commerce**
 - <http://trade.gov/index.asp>
 - Looks at standards issues as they are implemented and the role they play in ensuring market access for international trade

The Role of Government

- **Interagency Committee for Standards Policy (ICSP)**
 - <http://ts.nist.gov/Standards/Conformity/icspdes.cfm>
 - Advises the Secretary of Commerce and other executive branch agencies in standards policy matters. The committee reports to the Secretary of Commerce through the Director of the National Institute of Standards and Technology (NIST).

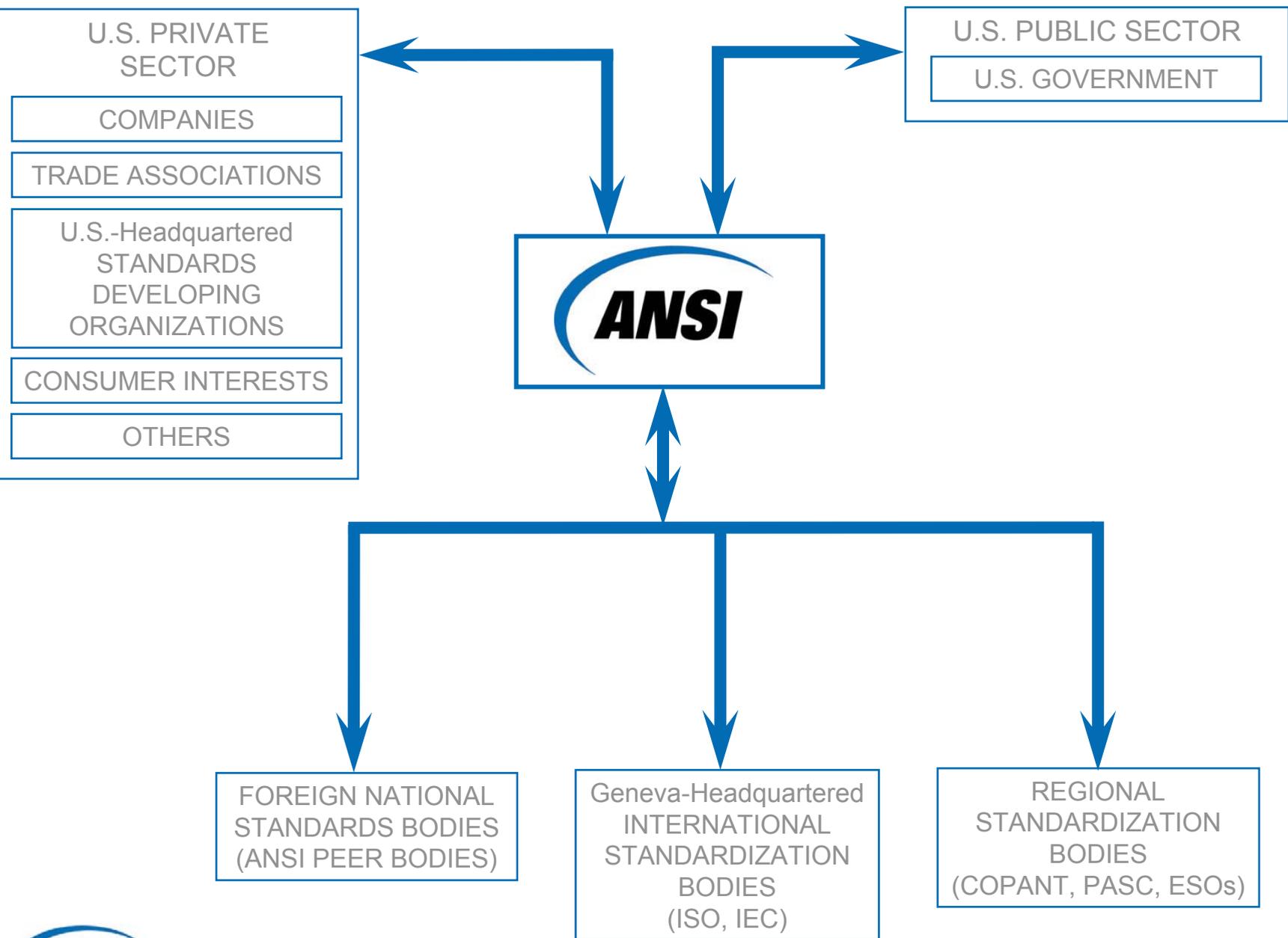
- **Trade Policy Staff Committee / Subcommittee Standard & Technical Barriers (TPSC SC-S&TB)**
 - The United States Trade Representative (USTR) consults with other government agencies on trade policy matters through the Trade Policy Review Group (TPRG) and the Trade Policy Staff Committee (TPSC). These groups, administered and chaired by USTR and composed of 19 Federal agencies and offices, make up the sub-cabinet level mechanism for developing and coordinating U.S. Government positions on international trade and trade-related investment issues. The TPSC is the primary operating group, with representation at the senior civil service level. Supporting the TPSC are more than 90 subcommittees responsible for specialized areas and several task forces that work on particular issues.

- **Industry Trade Advisory Committees (ITAC 16)**
 - www.ita.doc.gov/itac
 - The ITACs are a set of committees in a unique public-private partnership jointly managed by the U.S. Department of Commerce and the Office of United States Trade Representative established to engage business leaders in formulating U.S. trade policy. ITAC16 is the ITAC that deals with Standards and Technical Barriers to Trade issues.

The Role of Government

- Each government agency determines which standards meet its needs
- An agency is responsible for determining whether a private sector standard already exists that is appropriate for its needs
 - If so, the agency will use the private sector standard
 - If not, the agency is expected to work with the private sector to develop the needed standards, and will reference them in its regulations (in accordance with the National Technology Transfer and Advancement Act - NTTAA)
 - Agencies creating their own standards must report to Congress on an annual basis the justifications for doing so

ANSI's Roles and Responsibilities Internationally, Regionally, and Bilaterally



ANSI International Interaction (Standardization)

- ANSI serves as the official U.S. member and sets policy for U.S. participation in the
 - International Organization for Standardization (ISO)
 - International Electrotechnical Commission (IEC)
- U.S. technical positions for ISO and IEC activities are developed by Technical Advisory Groups (US TAGs)
 - Allows all affected parties (including U.S. government) to participate in standardization activities



ANSI Regional Interaction (Standardization)

- ANSI serves as the official U.S. member of regional bodies
 - Pan American Standards Commission (COPANT)
 - Pacific Area Standards Congress (PASC)
- The Institute holds dialogues with representatives of the European Standards Organizations (CEN, CENELEC and ETSI) and the European Commission

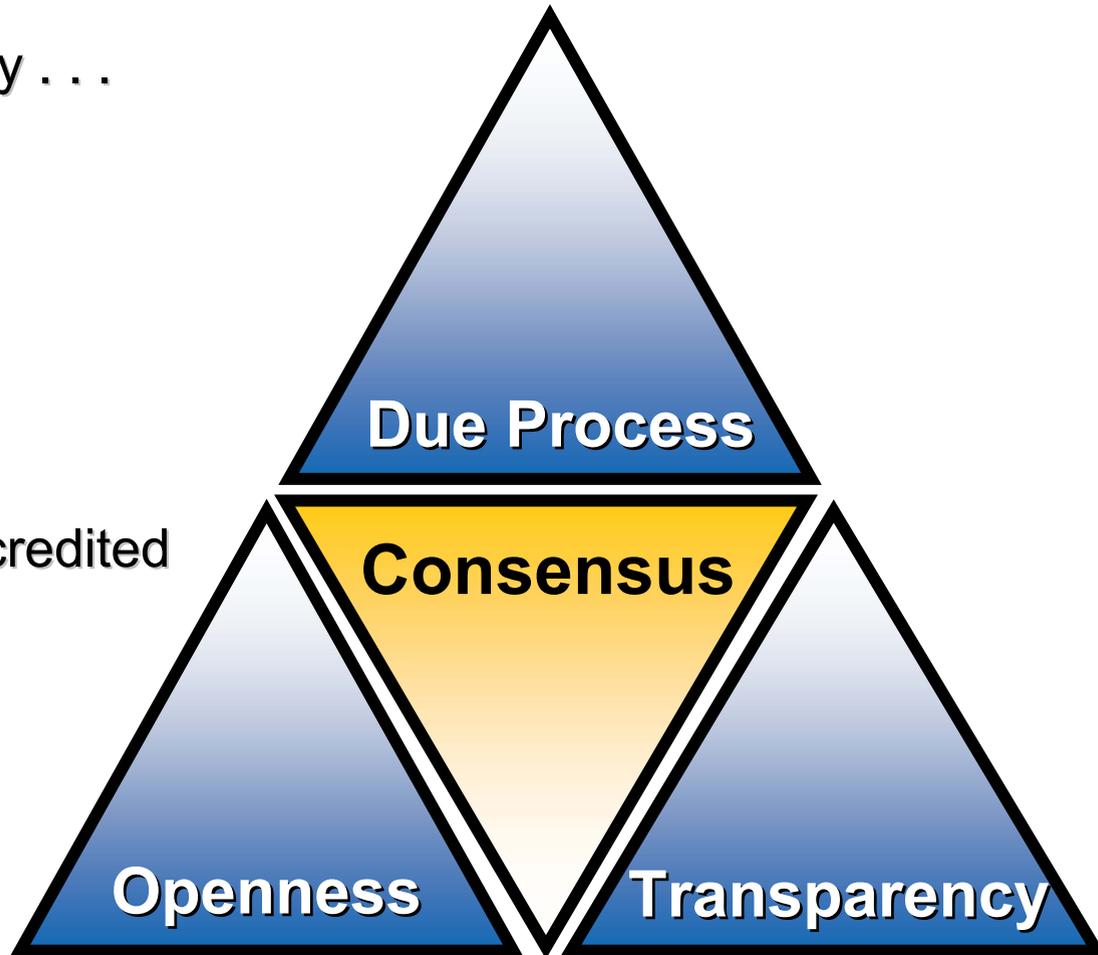


ESOs



Internationally Accepted Standards and Conformity Assessment Principles

- Agreed to by . . .
 - WTO
 - ISO
 - IEC
 - ANSI
 - ANSI Accredited SDOs



The United States Standards Strategy (USSS)

USSS - Highlights

- Strategy contains 12 initiatives focused on:
 - Participation of government
 - Importance of health, safety and the environment
 - Responsiveness to consumer interests, balance
 - Globally accepted principles for standards development
 - Government use of standards to meet regulatory needs
 - Preventing the use of standards as technical barriers to trade

USSS - Highlights

- 12 initiatives (continued):
 - Outreach to promote consensus-based, market-driven processes – in the U.S. and internationally
 - Efficiency in development and distribution of standards
 - Cooperation and coherence within the U.S. system
 - Standards education as a high priority
 - Stable funding models for the U.S. system
 - Emerging national priorities and converging/cross-cutting technologies

Globalization & The Growing Impact of International Standards on Trade

Roughly 80 percent of global merchandise trade is affected by standards and by regulations that embody standards.

Source:

National Institute of Standards and Technology

Testimony before the U.S. House of Representatives –
Committee on Science, Subcommittee on Technology

September 13, 2000

Objective

One Standard : One Test : One Acceptance (1:1:1)



In a global marketplace, the objective of the standardization process must be a single, technically valid and globally relevant standard with a single test of conformance to that standard.

This will allow products to be distributed for worldwide commerce without change or modification.

One Standard – One Test – One Acceptance

Global Impact to Trade – Trends



- Increasing use and adoption of international standards
- Increasing implementation of governmental regulations that reference voluntary consensus standards and conformity assessment programs
- Increasing participation in international and regional standards development and conformity assessment activities by all stakeholders (government, industry, local standards developers, and consumers)
- Increasing standards development in accordance with the WTO-TBT criteria: Transparency, Openness, Consensus, Due Process
- Standards and conformity assessment programs increasingly globally relevant, responsive to real world needs, and performance-based

For more information:



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