

NIST

Standards Coordination Office



Differentiating Among Standards

November 8, 2012

Definitions of a Standard (1)

Document, established by consensus and approved by a recognized body, that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context. Note. Standards should be based on the consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits. (ISO/IEC Guide 2:1996)

Document, approved by a recognized body, that provides for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method. (WTO TBT Agreement of 1995)

Definitions of a Standard (2)

Common and repeated use of rules, conditions, guidelines or characteristics for products or related processes and production methods, and related management systems practices. (NTTAA of 1995 and OMB Circular A-119 of 1998)

Market-driven technical specification for a product, service, person, process or system with which compliance is voluntary. (Anonymous)

How Voluntary is a Voluntary Standard?

- The term voluntary creates confusion
- Voluntary because ...
 - developed by private sector, for market needs
 - not legally binding
 - created by participants who freely contribute and participate usually for business reasons
- When referenced or included in a regulation, the standard is (usually) no longer voluntary
- When the standard is well recognized in the market, not abiding by its requirements may not be a successful strategy for the manufacturer

Types of Standards

- **Basic - General
Vocabulary/Terminology/Classification**
- **Testing/Test Methods**
- **Product Requirements/Specifications**
- **Process**
- **Service Standards**
- **Health and Safety Standards**
- **Interoperability Standards**

Some Other Names for “Standards”

- Recommendation
- Best practice
- Guide
- Guideline
- Guidance
- Specification
- De facto standard
- Code
- Code of Practice (defined in ISO/IEC Guide 2)

Codes

Codes are usually used in specific sectors, typically for the building-related construction and fire sector and for boilers and pressure vessels.

Codes are

- usually written in language that can be legally binding (when adopted by a government entity)
- say “when” and “where” you must do something
- references standards that say “how” to do something

Key Concepts in Standards Development

Openness

All stakeholders may participate; no single interest may dominate

Transparency

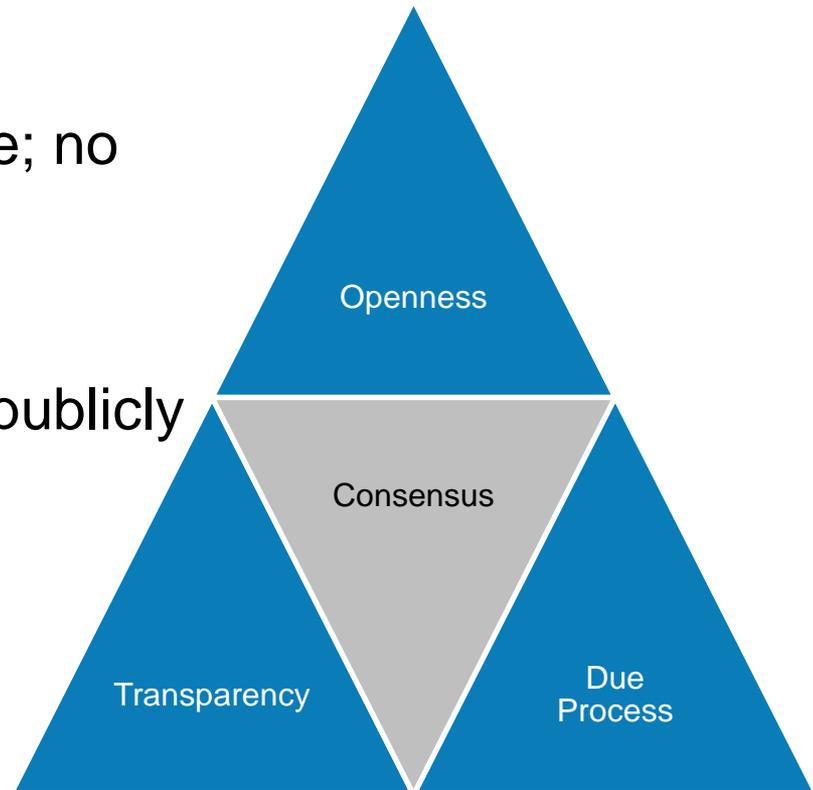
Records/ processes open and publicly available

Due Process

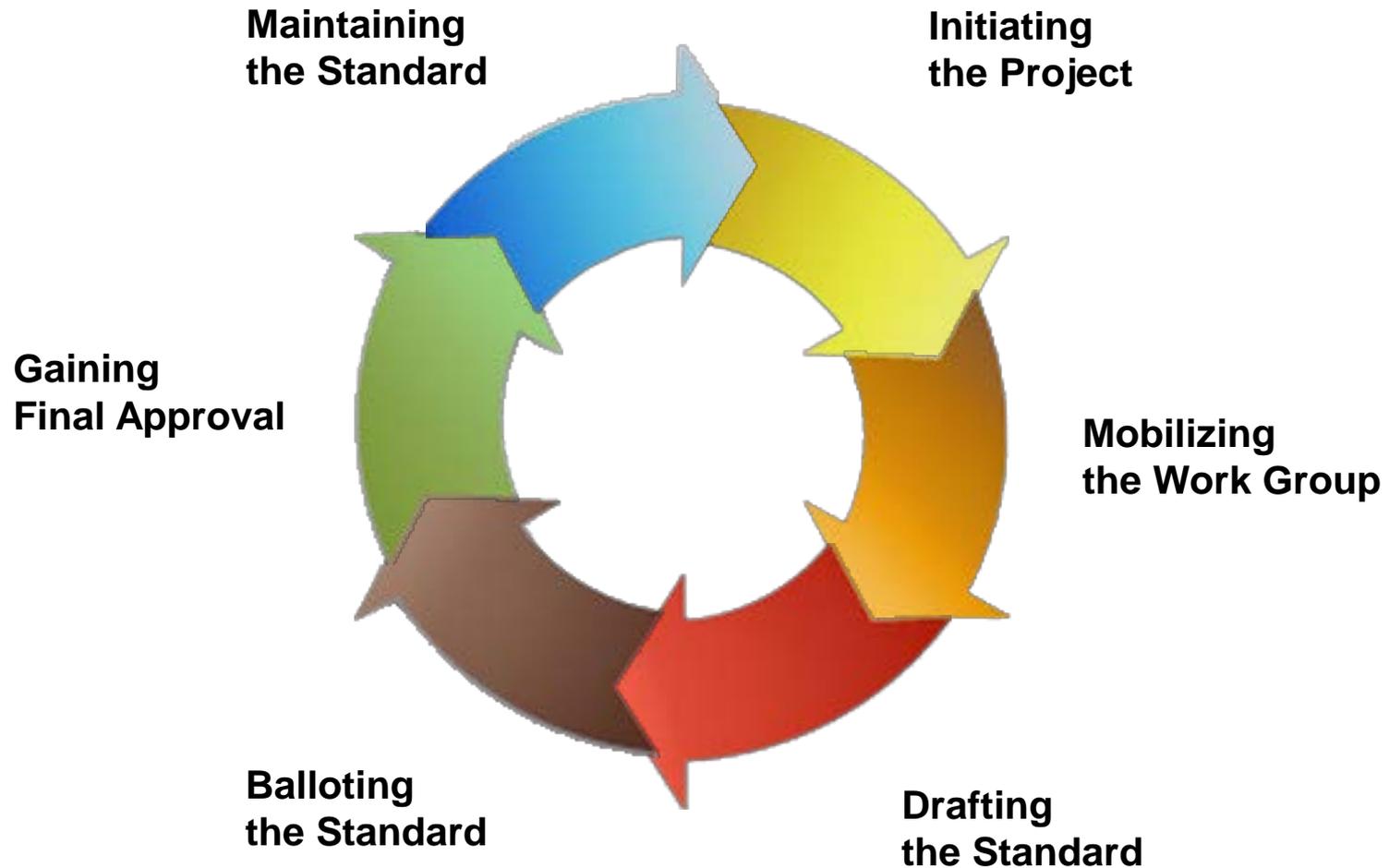
Appeals mechanism

Consensus

Decisions more than majority but not unanimity



Standards Development Life Cycle



Who Develops Standards?

Standards can be developed by

- U.S.-domiciled organizations, which may develop international or “national” standards
- Foreign national organizations – often National Standards Bodies
- International standards developing organizations
- A consortia of businesses to address a specific marketplace need
- Others

U.S.-Domiciled SDOs

- **Professional Societies** whose members seek to advance their professions, and also develop standards
- **Trade Associations** promote their industry's products, and also develop standards
- **Testing and certification organizations** produce their own standards and may also use those of other organizations
- **Organizations that primarily develop standards**



International Standards Developers

- Principles of WTO TBT Decision
- Treaty-Based Organizations
 - International Telecommunication Union (ITU-T)
 - Codex Alimentarius
 - International Maritime Organization (IMO)
 - International Organization for Legal Metrology (OIML)

Private / non Governmental Organizations

- International Organization for Standardization (ISO)
- International Electrotechnical Commission (IEC)

When to Use an International Standard

The WTO TBT Agreement states:

2.4 Where technical regulations are required and **relevant international standards** exist or their completion is imminent, **Members shall use them**, or the relevant parts of them, as a basis for their technical regulations **except** when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

The U.S. Standards System

The U.S. standards system is voluntary, decentralized, sector and market driven and is, sometimes, competitive and duplicative.

The system relies on cooperation and communication among: industry, private sector standards organizations, stakeholders and government.

Relies on principles of consensus and transparency.

The U.S. Standardization Model is
One Approach Among Many in the World

Thank You

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