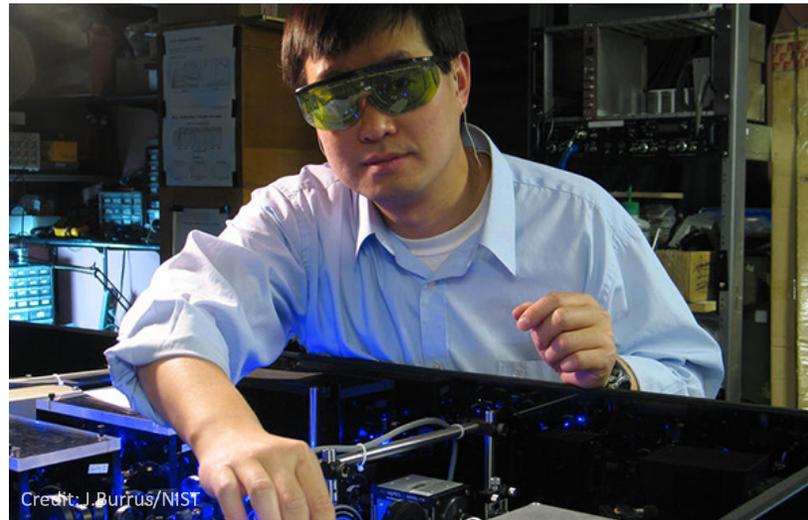


Standards: the good, the bad and the applicability

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To promote U.S. innovation and industrial competitiveness by advancing **measurement science, standards, and technology** in ways that enhance economic security and improve our quality of life



Measurements essential to commerce, trade, and innovation

Federal role
established in the
U.S. Constitution

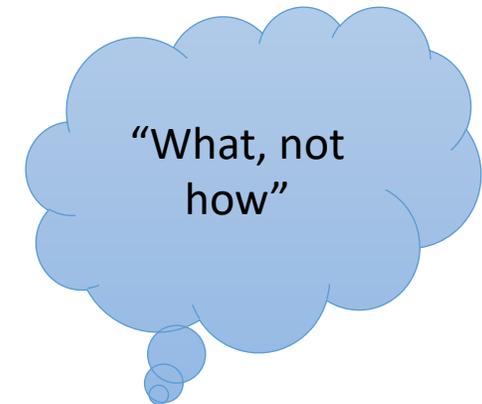
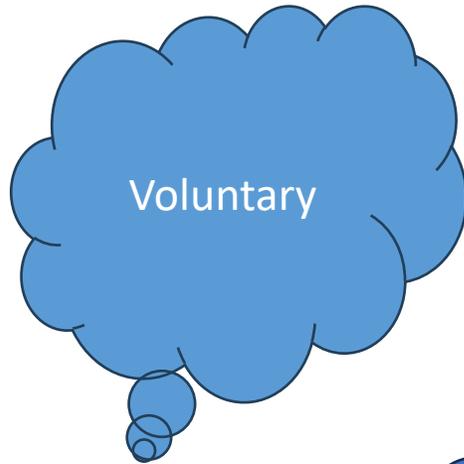


Overview

- What standards are (and what they are not)
- How standards are created

What standards are

- Common phrases



Voluntary

- No force of law
- Conformance vs. compliance
- Peer pressure may occur



“What, not how”

- Standards are technology neutral
- Should allow for multiple methodologies
- Provide flexibility for the experts to accommodate their situations
- Provide
 - Requirements
 - Recommendations
 - Permissions

Created for experts by experts

- Standards are written for those already familiar with a field
 - Specialized terminology
 - Strong knowledge of the field is assumed
- Written by the IDKA people in the field
- Written at a technical level



Technical

- Standards deal with technical issues

- Measurements
- Processes
- Practices

- In almost all areas

- Medical
- Technology
- Manufacturing
- Transportation
- Creation of standards

- And everything else you can think of – really, if humans do it, there is probably a standard out there for it

There are standards on:

- Canoe buoyancy
- Food sensory analysis
- Tea preparation

Consensus-based

- What does 'consensus' mean?
 - Substantial agreement among the participants
 - Participants represent a balance of all directly and materially affected interests
 - Due process is documented and followed
 - All comments and objections are addressed
 - Evidence of consensus exists

SDOs (the alphabet soup)

- Standards development organizations
 - Are accredited
 - Yes, there are standards for that
 - Have clear rules for membership
 - To create consensus
 - Keep balance of interests
 - Provide the structure for the development of standards
 - Process
 - Style guides

Types of SDOs

- Non-governmental organizations
 - Individual membership
 - Country-based membershipOr
 - Company/organizational membership
- Treaty-based organizations
 - Members are nation states
 - Voting is by nation state
 - Non-government experts may join in development of documents

The Good

- A standard developed correctly can:
 - Become a base position of an industry
 - Be adopted as basis of regulatory actions, providing consistency across different countries
 - Provide a common language for industry

The Bad

- Resource intensive
 - Time (3-5 years)
 - Expertise
 - Travel
- Reactive
 - Expertise requires experience
 - Follows issues

And the Accountability

- Conformance
 - Standards are designed for conformance
 - Conformance
 - Uses conformance standards (you knew it was coming)
 - Measures that the organization/process meets the requirements and recommendations of the standard
 - Often there are conformance organizations, so results are comparable
- Compliance
 - Standards can be adopted into regulation
 - Regulations can reference standards

Questions?

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