Advances in Measuring the Impact of Voluntary Consensus Standards on Health and Safety

October 11, 2022
Agenda

• Welcome & Introductions
• Stakeholder Motivations
• Key Concepts
• Case Study
• Panel Discussion including Q&A
Stakeholder Motivations
Stakeholder Motivations

• Different stakeholders may have different priorities when assessing impact

• For the results to be accepted by all stakeholders, the assessment must meet all these multiple priorities

• Engaging stakeholders in the process early on, and keeping them engaged throughout, is critical to addressing these multiple priorities
Key Concepts
A Working Definition of Impact

\[ I = E \times C \]

Impact \hspace{1cm} Effectiveness \hspace{1cm} Conformance
The Impact Curve
When Assessing Effectiveness, Remember...

Incident data is limited

It is difficult to attribute effects to the standard
Conformance

Working definition - an attestation that products, systems, services, and processes “in the hands of the end users” meet the specified requirements of the standard.
- Users of the standard are not considered end users!

- Non-dimensional from 0 to 1 (or 0% to 100%) and is made up of a series of factors
  - Conformance motivation – Why does the manufacturer want to meet the standard? Is it mandated? Required by industry? Because the manufacturer believes it is the right thing to do?
  - Conformance assurance – How is conformance assured? Is it inspected regularly and by who? Is a third party certifying to it? Is the manufacturer self-certifying?
  - Knowledge and abilities of those involved – Are people involved knowledgeable and do they have the time to thoroughly review the standard? Pertains specifically to assurance, but anywhere where people are involved.
  - Product lifetime – Is time dependent. How long does it take for the end user to get a conforming product in their possession? Some products have short lifetimes and are replaced frequently; others take a long time to be replaced.
  - Other factors
    - It is up to the industry to weight each factor high, medium, or low. This may greatly vary based on industries
Assessing the Health and Safety Impacts of UL 325

- **Inputs:**
  - Publication
  - Awareness
  - Adoption

- **Outputs:**

  - Is it an external influence on, or evidence of activity in this stage of adoption?
    - Yes: Can it be expressed numerically?
      - Yes: Does it have the same implication for all adopters?
        - Yes: Functional Input or Output
      - No: If no, discard or revise
    - No: If no, discard or revise

- **Processes:**
  - Engage Stakeholders
  - Standards
    - Utility
    - Feasibility
    - Propriety
    - Accuracy
  - Describe the program
  - Focus Evaluation Design
  - Gather Credible Evidence
  - Ensure Use and Share Lessons
  - Justify Conclusions