



**IMDRF**

International Medical  
Device Regulators Forum

# Guidance Structure and Key Proposal - overview -

**Optimizing Standards for Regulatory Use**

IMDRF/Standards WG/N51 FINAL: 2018

Madoka Murakami

IMDRF Standard WG

PMDA, JApan



**GHTF/SG1/N44: 2008 “Role of Standards in Assessment of Medical Devices”**

IMDRF/Standards/N51: 2014 “Final Report: List of International Standards Recognized by IMDRF Members as of March 2014”

Report: Improving the Quality of International Medical Device Standards for Regulatory Use

**IMDRF/Standards/N51: 2018 “Optimizing Standards for Regulatory Use”**

List of International Standards Recognized by IMDRF Members as of 2018/2019

Survey on standard recognition policy

Best practices and policies for the use and recognition of standards

Implementation

NWIP

SOP for liaison structure with ISO/IEC

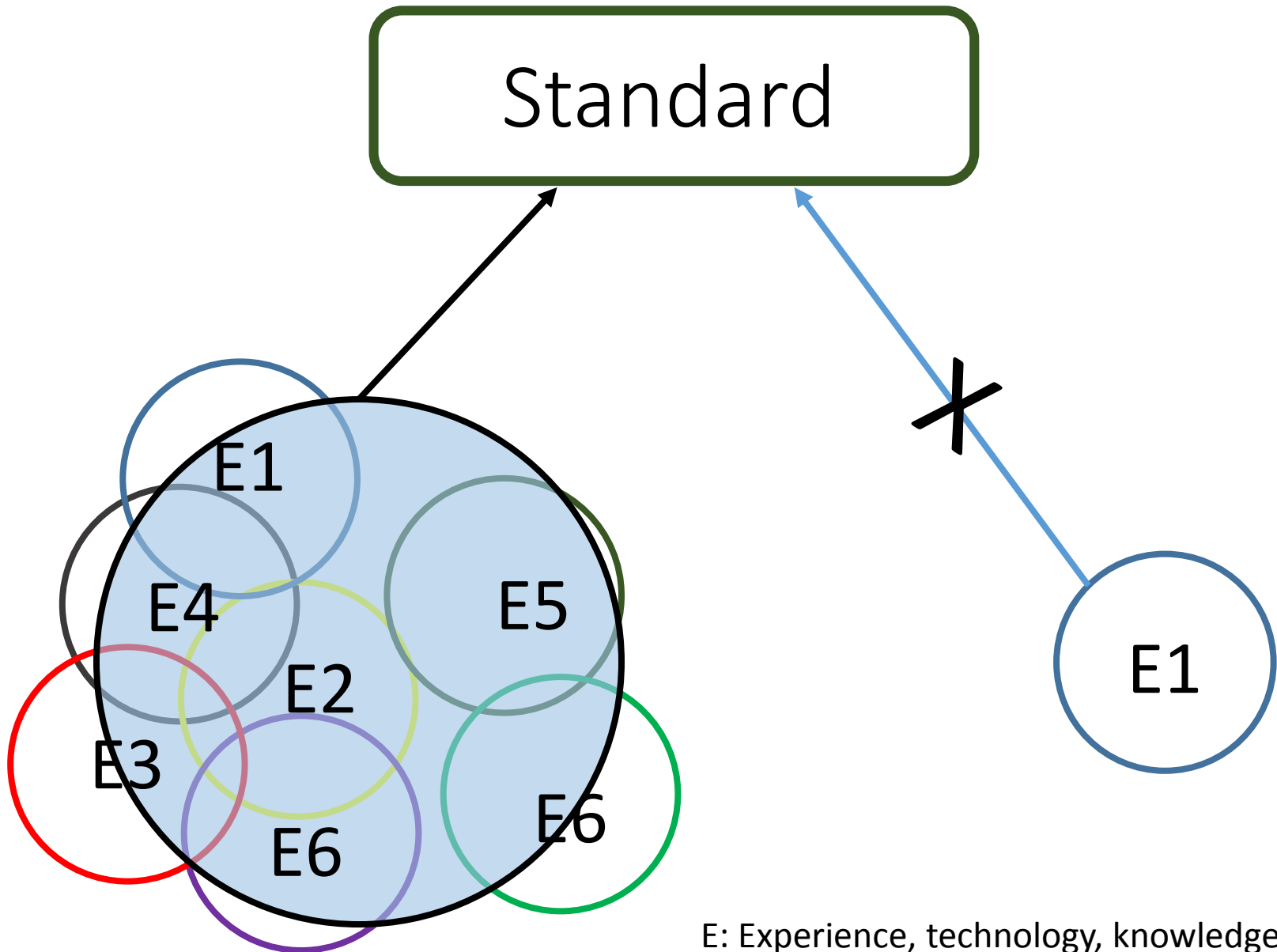
Future

Empowers IMDRF goal of harmonized regulatory approaches



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E: Experience, technology, knowledge



## IMDRF Essential Principles

- The IMDRF EPs provide **broad, high-level criteria for design, production, and postproduction (including post-market surveillance) throughout the life-cycle of all medical devices.** They provide **a framework for regulatory expectations and represent a consensus on fundamental design and manufacturing requirements** that, when met, indicate that a medical device is safe and performs as intended and offers significant benefit.



## “IMDRF Essential Principles”

Chapter 4: General Principles

Chapter 5: Essential Principles Applicable to all Medical  
Devices and IVD Medical Devices

Chapter 6: Essential Principles Applicable to Medical  
Devices other than IVD Medical Devices

Chapter 7: Essential Principles Applicable to IVD Medical  
Devices

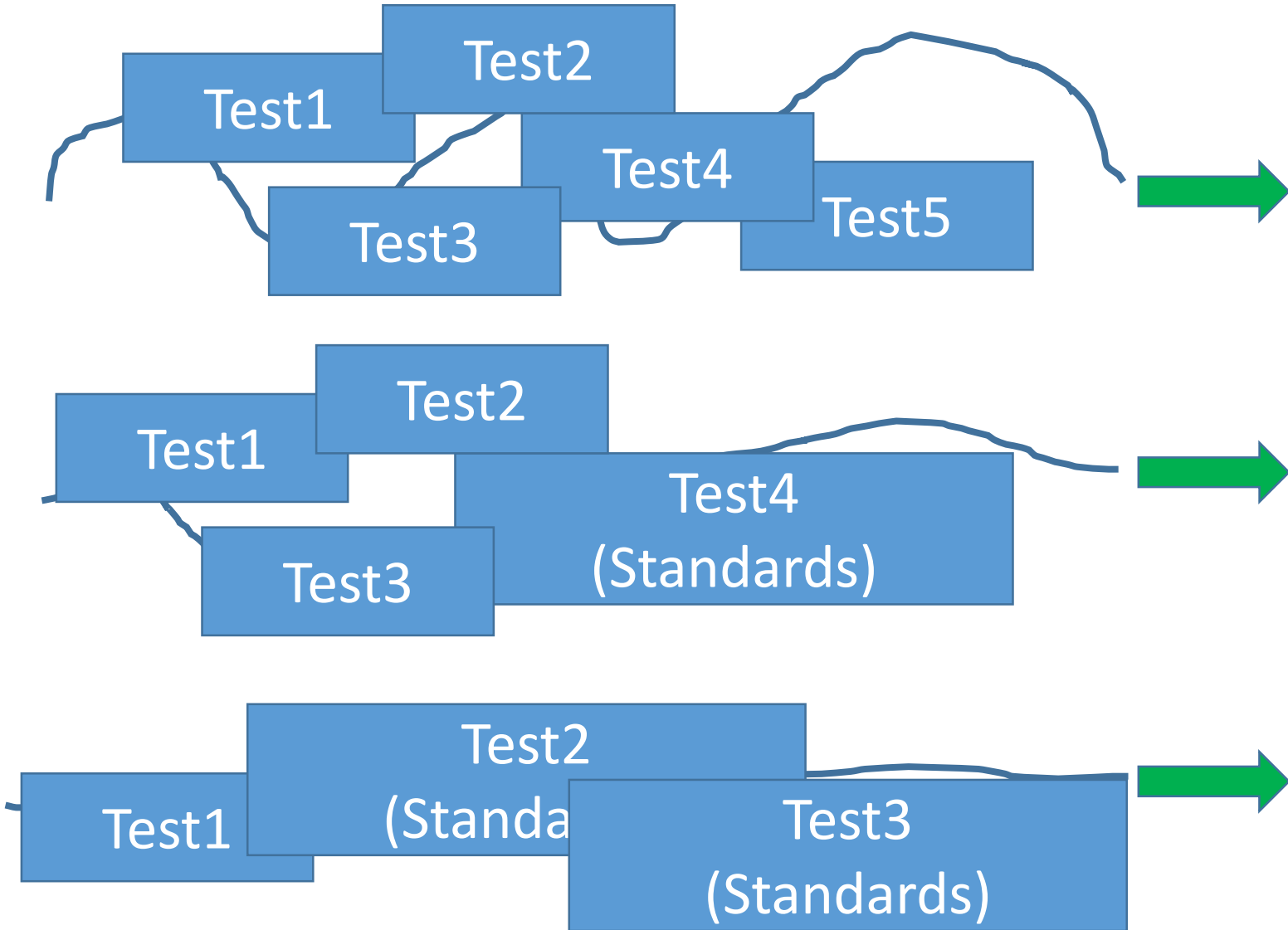
Appendix A: Use of Standards in Meeting Essential  
Principles

Appendix B: Guidance on Essential Principles



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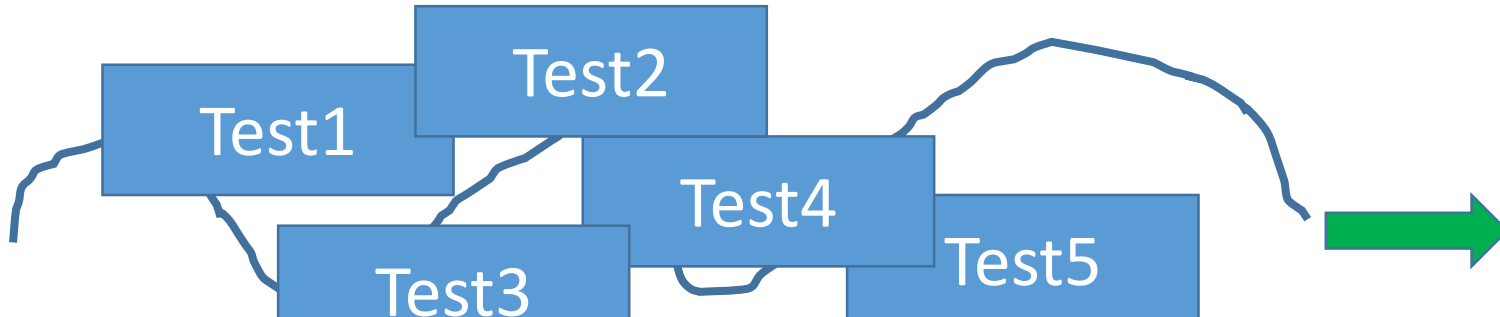


Essential Principles



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In general, any tests method should be acceptable if the result of tests shows the conformance with the EP

**But.....**

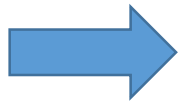


Essential Principles



## The use of consensus standards

- Enhance transparency
- Reduce duplication
- Reduce oversight

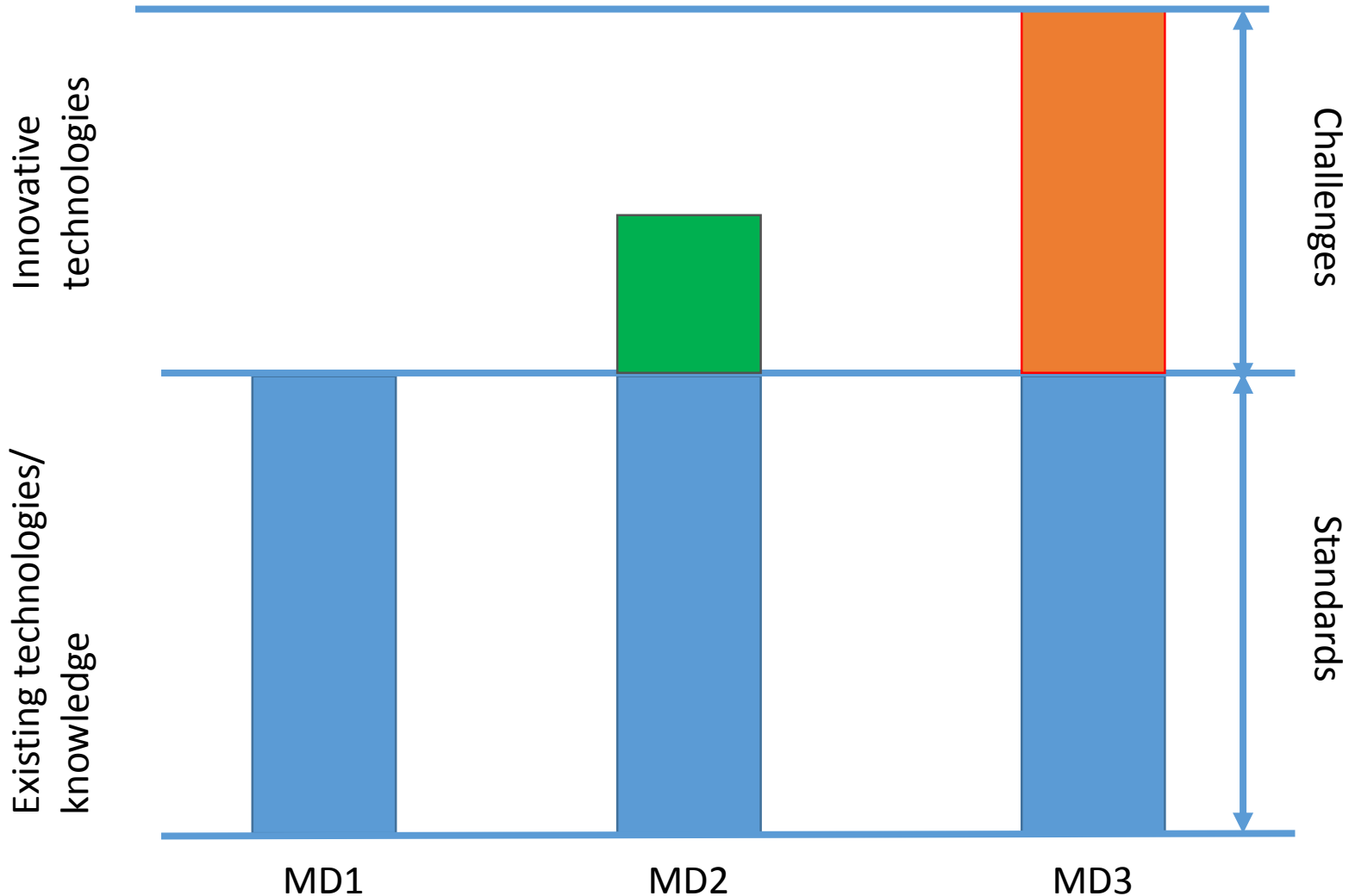


Enhancing quality of application/review  
Time saving  
Cost saving





# Technologies and Standards





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## **Final Document**

**Title:** Optimizing Standards for Regulatory Use

**Authoring Group:** IMDRF Standards Working Group

**Date:** 25 September 2018

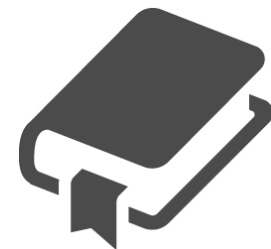
A handwritten signature in black ink, appearing to be 'Yuan Lin'.

Yuan Lin, IMDRF Chair



## How to improve standards and standards developing processes for use in device review

- Two elements
  - Improving standards' content to enhance utility for regulatory purposes
  - Encouraging regulatory authority participation in standards development
- Public consultation
- Publication October 2018





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- Audience
  - Regulators
  - SDOs
  - Medical device community
- Scope
  - Resource for standards writers and regulators
  - All medical devices, including IVD



## Main Chapters

- ✓ General
- ✓ Recommendation for Standards Development
- ✓ Enhancing Stakeholder Participation in Standards Development
- ✓ IMDRF and Standards Developing



## General

1. Standards should map to *IMDRF Essential Principles of Safety and Performance of Medical Devices and IVD Medical Devices (2018)*
2. Performance versus design stipulations
3. Characteristics for optimized international standards



## General

# 1. Map to IMDRF *Essential Principles*

- Standards should reflect:
  - A close relationship between the standard's scope and one or more of the IMDRF EPs
  - The clarity and completeness of the requirements contained in the standard as it relates to a specific EP
  - Test methods for determining compliance with each of the requirements in the standard, and clear acceptance criteria for determining that each technical requirement is met



## General

# 2. Performance versus Design Stipulations

- Express a standard's requirements with references to performance, rather than to specific device features
- Fosters innovation and healthy marketplace dynamics
- An example from the *ISO/IEC Directives Part 2* illustrates this principle:

*Different approaches are possible in the specification of requirements concerning a table:*

*Design requirements: The table shall have four wooden legs.*

*Performance requirements: The table shall be constructed such that [the table top remains level and at its original height] when subjected to ... [stability and strength criteria].*





## General

### 3. Characteristics

- **Consensus:** standards should be written under conditions that promote accessibility, transparency, broad representation and consideration of interests through consultations.
- **Fairness:** the needs of all stakeholders, including regulators, are considered in standards development.
- **Compatibility:** standards are compatible with the internationally accepted principles of safety and performance of medical devices.
- **State of the art:** standards represent the state of art in a technological field.





## General

### 3. Characteristics (cont'd)

- **Efficiency:** they should also promote economic benefits, e.g., reducing redundant reporting requirements, streamlining regulatory activities and harmonizing expectations across different countries and regions.
- **Completeness:** within its scope, a standard address all predictable elements related to Essential Principles of device safety and/or performance.
- **Verifiability:** requirements include verifiable objective measurements.
- **Repeatability:** testing methods in standards will yield consistent results across different certified test houses.
- **Consistency:** terms and symbols across standards are as consistent as possible.
- **Clarity:** standards are clear, unambiguous, and easily understood.
- **Accessibility:** standards and associated documents should be reasonably available to relevant stakeholders.



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## Recommendation for Standards Development

1. Optimizing standards content
2. Best practices for standard development procedures
3. Use of standards in meeting IMDRF Essential Principles



## Recommendation for Standards Development

# 1. Optimizing Standards Content

- Standards should be crafted so that conformity to them can reduce regulatory burden, demonstrate conformance to IMDRF's EPs, and feature:
  - A strong rationale that:
    - Explains the general requirements and identifying test methods and/or other means of demonstrating compliance
    - Demonstrates how conformance to the standard achieves its goal of satisfying the associated EPs
  - Summary of the type of stakeholder groups involved in the drafting and editing of the standard
  - Identification of risk and direction on how to address
  - A clear scope
  - Terms and definitions established and accepted in other standards
  - Means to assess clinical performance if applicable as part of the normative requirements



## Recommendation for Standards Development

# 1. Optimizing Standards Content

- Standards should feature (cont'd):
  - Clear and quantitative acceptance criteria that can adequately support IMDRF EPs
  - Explanation of how conformance can be met if no acceptance criteria are included
  - If acceptance criteria not mandatory, justification for why, and how to demonstrate conformance to the standard
  - Well accepted and verified test methods (including for new or unfamiliar methods)
  - Transparent and clear (e.g., 'track changes') revisions
  - An annex or table that cross references the standard's clauses to the Essential Principles



## Recommendation for Standards Development

### 2. Best practices

- Consider regulatory requirements at every step
- Write a strong Business Plan
  - Robust needs analysis: market, safety, regulatory
  - Expectations for regulatory utility
  - Emphasize conformity assessment
- Encourage and solicit a wide variety of expertise
- Get involved – early!



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## Enhancing Stakeholder Participation in Standards Development

1. International, regional and national level participation: joining the conversation
2. Recommendations for participation: submitting effective comments



## Enhancing Stakeholder Participation in Standards Development

### 1. Joining the conversation

- Regulators should build a strong standards program that encourages contributions to standards development
- Engagement with SDOs is essential
  - Through National Bodies and Mirror Committees
  - On SDO Technical Committees
- Contribute regulatory perspective
- Consider leadership roles





Enhancing Stakeholder Participation in Standards Development

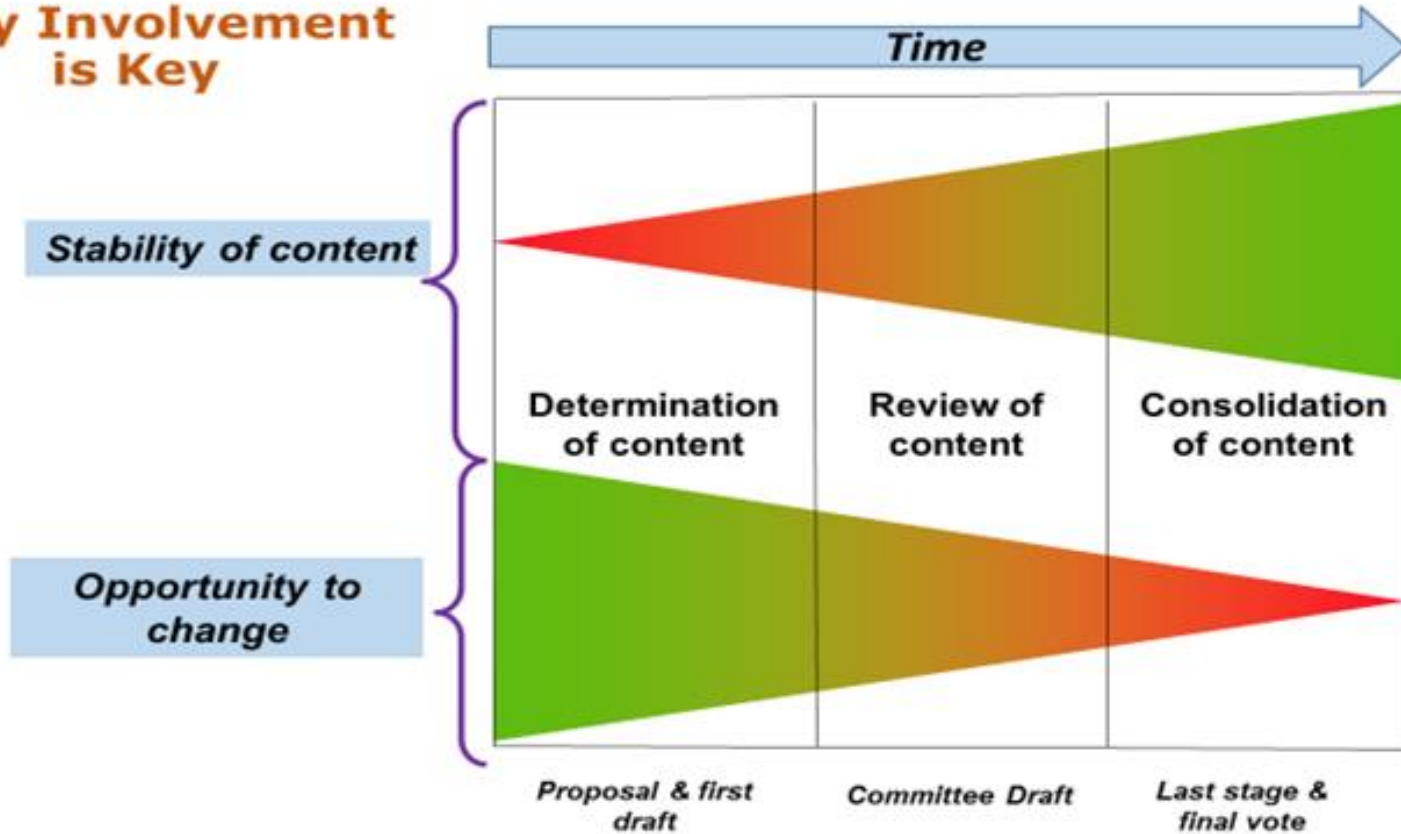
## 2. Submitting effective comments

- Get involved early (at NWIP stage) and remain engaged throughout the entire process
- Become familiar with the draft
- Listen to others, consult regulatory colleagues
- Consider impact on regulatory processes, especially conformity assessment, testing methods and audit requirements
- Articulate your position clearly and concisely
- Use SDO's approach and templates
- Offer alternative language



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**Early Involvement is Key**





## IMDRF *Essential Principles*



Optimized International Standards

International

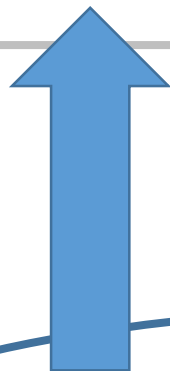
IMDRF



SDOs

Regional/National

Mirror Committees



RAs

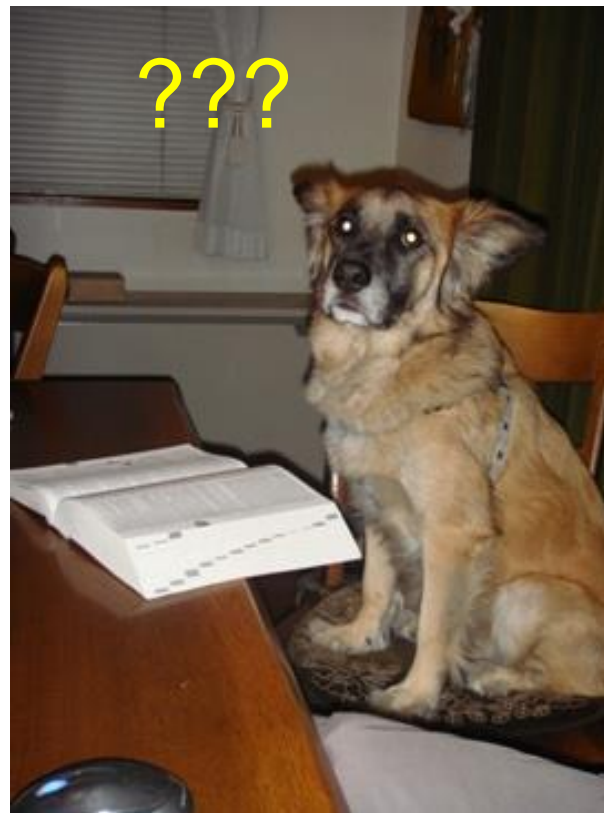
Industries



Other stakeholders



## Any Questions?





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Thank you!!