ASTM INTERNATIONAL
Helping our world work better

Overview of conformity assessment programs and ASTM International's related activities

African Organization for Standardization
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www.astm.org

Introduction to ASTM International

35,000+ global members from 148 countries participating in ASTM

148 Main Committees and 2,013 Subcommittees

12,800 standards 195 new standards 1,819 revised standards in 2015

Collaborative

- Standards developed by consensus with participation in a transparent process, open to anyone, anywhere;

- Every member has equal say;

- Members are volunteers, they are not paid;

- Members come from: government, manufacturers, end-users, academia, laboratories, professional societies and consumers.
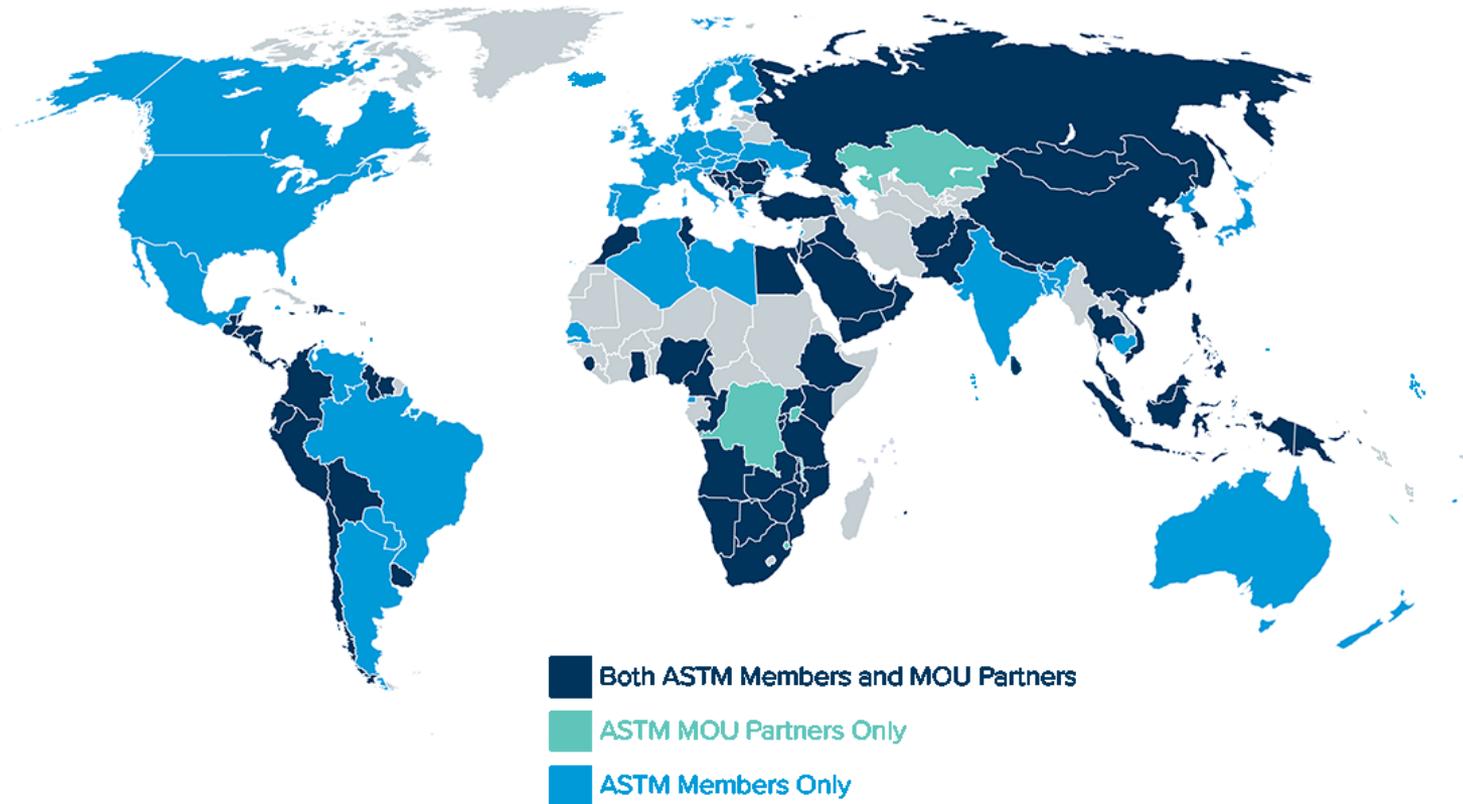
Wide range of topics and applications

- Serving 90 industry sectors from traditional to cutting edge: from additive manufacturing to steel;

- Ensuring safety, quality and reliability, market access;

- Across manufacturing and materials, products and processes, systems and services;

- The choice of many global industries; 6,900+ citations by more than 75 nations, and 50% of standards sold outside the US

Dynamic Information

- Member expertise drives the decision on standards are written and content

- ASTM standards respond to new challenges, new technology and new markets

- New standards developed in 16-18 months, revisions in 6-8 months;

- Reviewed every 5 years at a minimum

ASTM/MOU Around the Globe

Both ASTM Members and MOU Partners

ASTM MOU Partners Only

ASTM Members Only

Conformity Assessment Programs

- Personnel Certificates
- Personnel Certification
- Laboratory Accreditation
- Proficiency Testing
- Product Certification

Personnel Certificates (ASTM E2659)

– Definition: "non-degree granting education or training program…"

  – Learning Event

  – Assessment

– No Ongoing Maintenance

– No Renewal Requirements

– Certificate cannot be revoked

Personnel Certificate Program Development

Considerations

– Access to technical experts
   (staff, volunteers, contractors)

– Type of education or training

   – Face-to-face

   – E-learning (learning management system)

– Written and/or practical assessment

Personnel Certification (ISO/IEC 17024)

- Eligibility Criteria
- Standardized Assessment
- Ongoing Requirements for Maintaining Proficiency/Competency
- Renewal Requirements
- Can be revoked

Personnel Certification Program Development

Considerations

– Access to technical experts

– Developmental Costs (item banking system)

- – Job Task Analysis
- – Job Task Survey
- – Item Writing
- – Item Review
- – Exam Forms
- – Passing Score Study
- – Item Banking

– Ongoing costs (psychometrician)

– Delivery mechanism (verification of individual)

Laboratory Accreditation (ISO/IEC 17025)

Assessment

– Measurement and evaluation of equipment used in testing (calibration)

– Assess laboratory personnel performing tests

– Detailed review of quality system

– Identifies corrective actions

Performing Laboratory Assessments

Considerations

– Auditors, Assessors (staff/consultants)

– Consistency and interpretation

– Equipment/Vehicles

Proficiency Testing (ISO/IEC 17043)

- Quality Assurance
- Meet Accreditation Requirements
- Uniform, Homogeneous Samples
- Defined Test Methods
- Statistical Analysis

Proficiency Testing Program Development

Considerations

– Access to technical experts
 (staff, volunteers, contractors)

– Homogeneity Testing (laboratory)

– Sample preparation and distribution

– Data retrieval system

– Data analysis (statistics)

Product/Process/Service Certification (ISO 17065

Product Certification

– Concerns about quality of products

– False claims of compliance

– Confusion among users

– High injury rates

– Manufacturers concerned about liability

Certification Body (ISO 17065)

Audit

– Organization, operations, subcontracting, quality system, etc.

– Certification body personnel — competence

– Changes in certification requirements

– Appeals, complaints, and disputes

– Preparation for evaluation — testing and auditing

– Decision on certification

– Use of licenses and certificates and marks of conformity

– Management of impartiality, confidentiality, and conflict of interest

Product Certification Program Development

Considerations

– Access to technical experts
 (staff and contractors)

– Review of documentation, drawings,
 materials, and components

– Testing Lab (accredited to ISO 17025)

– Manufacturing audit — auditors
 (ISO 9001)

– Surveillance

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Thank you

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The Safety Equipment Institute (a subsidiary of ASTM International)
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