The IEC: US Committee Activities and Organizational Structure

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Chair, Subcommittee 62C
Convener, WG-1
Chair, US TAG for IEC 62C
IEC Mission

• Leading platform for Standards and Conformity Assessment Systems
• Facilitate international trade and enhance user value
• Encourage national adoption of International Standards
• Ensure technical and market relevance
Which is a key benefit of IEC International Standards?

a. Enable new laws to regulate sale of electrical equipment
   - 3%

b. Generate revenue for member states
   - 0%

c. Facilitate international trade and market relevance of products
   - 52%

d. Ensure the highest possible technical performance
   - 44%

e. Eliminate requirements for testing new products
   - 2%
Which is a key benefit of IEC International Standards?

c) Facilitate international trade and market relevance of products

Ref:  [http://www.iec.ch/about/activities/standards.htm](http://www.iec.ch/about/activities/standards.htm)
St. Louis 1904: palace of electricity
Scope of the IEC

Millions of devices and systems that use or produce electricity and contain electronics.

Interoperability, safety, performance, EMC, waste management and environment
one test...
one certification...
many countries
global knowledge platform

<15 000 experts
> 170 TC/SCs
7 000 International Standards
> 1 million certificates issued
IEC is a voluntary association of National Committees
USNC represents US manufacturers, research & development, and consumers
IEC Family: 166 countries

83 Members

83 Affiliates

IEC CO
Geneva

ReCNA
Boston

LARC
Sao Paulo

APRC
Kenya in 2015

APRC
Singapore

IECQ-IECEx
Sydney
IEC in figures

- Number of TC/SC: 97 + 77 = 174
- Number of WG/PT/MT: 1 320
- Number of experts: over 13 500
- Number of pubs. in catalogue (incl. 6178 IS): 6939
- Number of pubs. issued in 2014 (incl. 418 IS): 487
- Number of active projects (2014/12/31): 1577
- Average development time (in 2014): 32.5 Months
TC 62 in figures – Experts by NC

Number of Experts

National Committees & I-Members
Structure of the IEC

COUNCIL (C)
(Full Member National Committees)

COUNCIL BOARD (CB)

EXECUTIVE COMMITTEE (EXCO)
(IEC Officers)

CENTRAL OFFICE
(The Executive)

SMB
(STANDARDIZATION MANAGEMENT BOARD)
Management of International Standards work

Technical Committees
Technical Advisory Committees
Strategic Groups
Systems Work

MSB (MARKET STRATEGY BOARD)
Technology watch / market priorities

Special Working Groups

CAB (CONFORMITY ASSESSMENT BOARD)
Management of conformity assessment policies, activities and systems

CAB Working Groups
IECEx
IECQ
IECRE

Management Advisory Committees

IECEE
Technical Committee 62

- 62A - Common Aspects of electrical equipment used in medical practice
  - Fundamental aspects of safety; general requirements,

- 62B - Diagnostic imaging equipment
  - Safety requirements for specific equipment such as CT, MR, x-ray tubes; characteristics and performance guidelines

- 62C - Equipment for radiotherapy, nuclear medicine and radiation dosimetry
  - Safety requirements for specific equipment such as linac, IGRT, gamma units; characteristics and performance guidelines

- 62D - Electromedical equipment
  - Safety requirements for specific equipment such as cardiac defibrillators, shortwave therapy, high-frequency surgery; characteristics and performance guidelines
## TC 62 in figures

<table>
<thead>
<tr>
<th></th>
<th>TC 62</th>
<th>SC 62 A</th>
<th>SC 62 B</th>
<th>SC62 C</th>
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<tr>
<td>P - Members</td>
<td>28</td>
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<tr>
<td>O - Members</td>
<td>19</td>
<td>16</td>
<td>17</td>
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<td>Number of Experts</td>
<td>1172</td>
<td>528</td>
<td>205</td>
<td>109</td>
<td>445</td>
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<td>Total participation in all groups</td>
<td>1930</td>
<td>875</td>
<td>302</td>
<td>159</td>
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</table>

(aktiv Expert kann in mehrere Gruppen aktiv sein)

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Adoption of IEC Standards

In Europe:
- IEC standards selected for “parallel voting” by CENELEC
- When approved, assigned “EN” number
- Standards adopted as written and carry the force of law
- However, up to EC members to enforce
Adoption of IEC Standards

In US:

- IEC standards (or sections) incorporated into ANSI standards, FDA regulations, NEMA guidelines, etc.
- IEC standards can be used as written; FDA requires vendor to report compliance

Elsewhere?
IEC publications

• International Standard (IS)
• Technical Specification (TS)
• Publicly Available Specification (PAS)
• Technical Report (TR)
What is an IEC International Standard?

• technical guidelines or characteristics developed by experts representing all stakeholders
• based on international consensus
• always voluntary
How are IEC IS developed?

- established standards development process
- National Committees involved at each stage
- Technical Committees established for specific fields of activity
Standards development stages

- New Proposal
- Committee Draft
- Committee Draft for vote
- Final Draft International Standard
- International Standard
• Coordination of U.S. involvement in the IEC and other electrotechnical bodies associated with the IEC

• Develops annual plans to achieve the USNC strategic objectives, implements these plans, measures successes, and reports progress to the USNC constituency.
Role of US Technical Advisory Group

1. Review and recommend vote on New Work Item Proposals
2. Review, comment and recommend vote on Draft Standards
3. Recommend technical experts to serve on Working Groups
4. Technical Advisor (Chair of TAG) relays recommendations to USNC
The role of the Technical Advisory Group (TAG) is which of the following?

- **15%** a. Publish new International Standards
- **9%** b. Pass regulations regarding new equipment
- **6%** c. Attend Subcommittee meetings and cast votes
- **41%** d. Submit comments and votes to the Working Group
- **30%** e. Advise the National Committee how to vote
The role of the Technical Advisory Group (TAG) is which of the following?

e) Advise the National Committee how to vote

Ref: http://www.ansi.org/standards_activities/iec_programs/governance_committees/gen_info.aspx?menuid=3#tag
Thank You!