

# Module II-A

IEC Organizational and Governance Structure



# Module II-A: Learning Objectives

- This module provides an overview of the International Electrotechnical Commission:
  - Membership
  - Policy and management groups
  - Technical committee structure
  - Overview of Shared Committees
  - Overview of Systems Approach



# Module II-A: Disclaimer

- The information contained in this self-taught learning module is intended as a summary of [documents and procedures](#) frequently used within the IEC and the USNC/IEC.
- For additional information about content addressed in this module, please contact the USNC/IEC Staff ([usnc@ansi.org](mailto:usnc@ansi.org)).
- Additional information is also available via [USNC/IEC Education & Training](#).

# Reference Materials & Source Documents

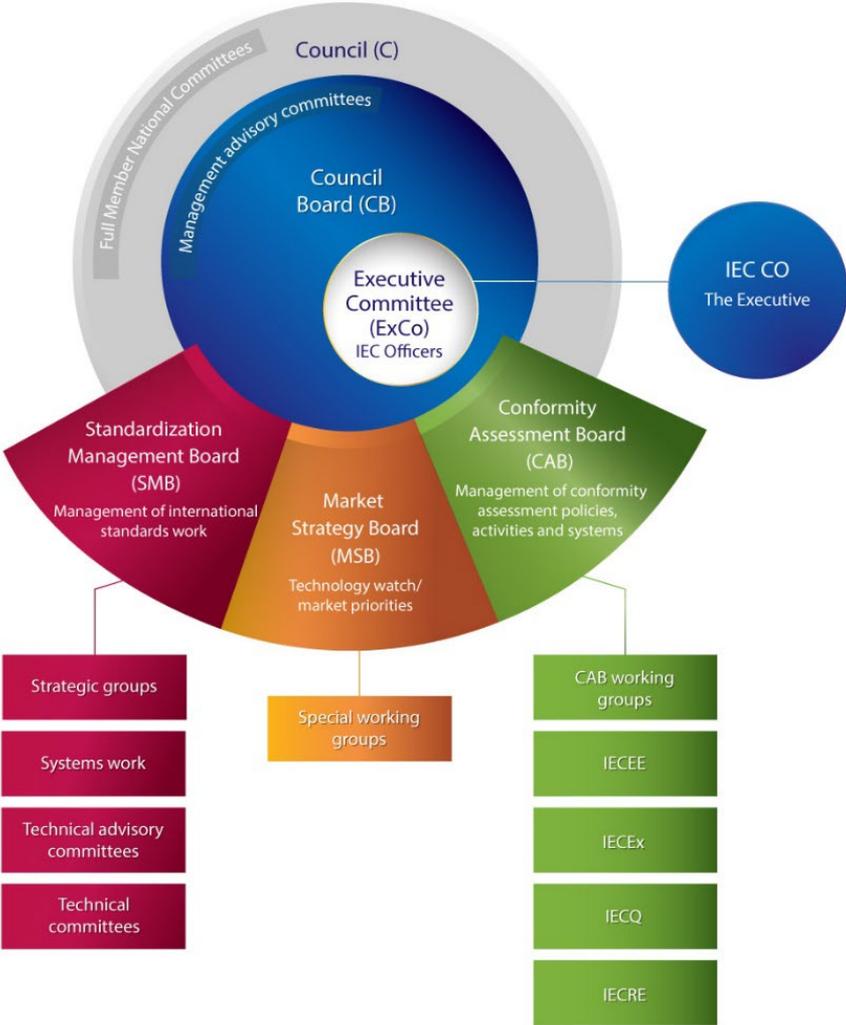
- [ISO/IEC Directives, Part 1: 2021](#)  
*Procedures for the technical work*
- [ISO/IEC Directives, Part 2: 2021](#)  
*Rules for the structure and drafting of International Standards*
- [ISO/IEC Directives, Part 1:2021 + IEC Supplement:2021](#)  
Procedures specific to IEC
- [IEC Statutes and Rules of Procedures](#)  
*IEC membership and participation procedures*
- [USNC Statutes: 2018](#)
- [USNC Rules of Procedure: 2005](#)
- [Model Operating Procedures for USNC/IEC TAGS: 2019](#)
- [Guide for U.S. Delegates to meetings of ISO and the IEC](#)
- [IEC Code of Conduct \(Patent Policy included\)](#)
- [IEC Diversity Statement](#)

# Objectives of the IEC

- Meet the requirements of the global market efficiently
- Ensure primacy and maximum world-wide use of its standards and conformity assessment schemes
- Assess and improve the quality of products and services covered by its standards
- Establish the conditions for the interoperability of complex systems
- Increase the efficiency of industrial processes
- Contribute to the improvement of human health and safety
- Contribute to the protection of the environment



# IEC Organizational Structure



# Dues and Budget



- IEC derives its income from the following:
  - annual dues paid by its members
  - the sale of publications
  - other sources (as approved by the Council)

# Dues and Budget (cont)

- The Council determines the annual budget, including the annual dues of its members, which are divided as:
  - Group A: Those NCs that pay the highest fixed percentage of the total dues
  - The remainder from all other Full Member National Committees



# IEC Membership and Participants

- **National Committees (NC)**

- A National Committee (NC) is an IEC member body
- Each NC represents a nation's electrotechnical interests in IEC management and standardization work
- NC's are comprised of private and public sector organizations
- Membership structure:
  - a. Full Member NC – full participation rights
  - b. Associate Member NC – limited participation
  - c. Affiliates – nonmembers with limited access to resources



# Rights of IEC National Committees



Full Member	Associate Member	Affiliate
Vote on <i>all</i> TC/SC and Council documents via electronic voting system	Authorized to submit votes on documents of 4 selected TC/SCs via electronic voting system	No voting rights
Comment on all TC/SC and Council documents	Authorized to submit comments only on TC/SC documents, but not on Council documents	Authorized to submit comments on the documents of 10 selected TC/SCs via email
<u>FULL</u> Participation Rights	<u>LIMITED</u> Participation Rights	<u>NOT A MEMBERSHIP</u> and access to information only

# National Committee Participation: TCs, SCs, and SyCs

- National committees have the right to participate in the work of every IEC TC, SC and SyC\*. They may register as either a Participating (P) or an Observer (O) Member. All Members should:
  - Organize efficient and timely votes and comments on all matters coming before the committee(s) in which they participate
  - Take into account all relevant interests at their national level
  - Provide input at the earliest possible time so as to mitigate duplication, overlap and redundancy

*\*Associate members may participate, under certain conditions, in a limited number of committees*

# National Committee Participation: TCs, SCs, and SyCs (cont)

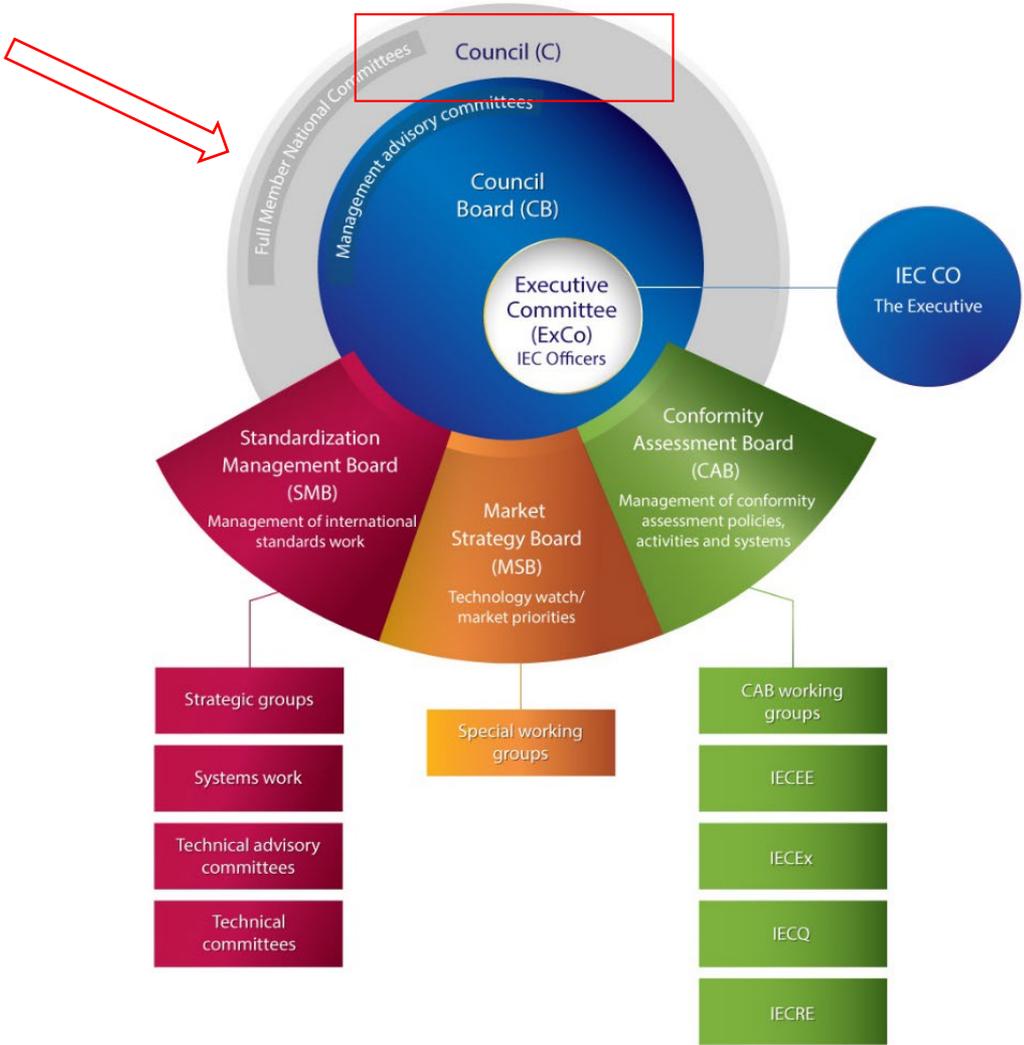
- Participating “P” Members
  - Responsible for submitting votes and/or comments on all technical matters coming before the committee
    - Votes are submitted within the given timeframe. Failing to vote on questions before the committee will be reported by the Secretariat to the IEC Office.
  - Send delegation or accredited experts to meetings
    - Failing to make a contribution to two (2) consecutive meetings, either by direct participation or by correspondence, will be reported by the Secretariat to the IEC Office
  - Nominates members on Project Team (PTs), Working Groups (WGs), Maintenance Teams (MTs)
  - May host meetings of the committee

# National Committee Participation: TCs, SCs, and SyCs (cont)

- Observer “O” Members
  - Monitor the technical work, but do not actively participate
    - Have options to attend meetings and to receive and comment on documents
    - Have no power of vote within the committee\*
    - May not nominate members in PTs, WGs, MTs

*\*All national bodies, regardless of their status within a particular technical committee or subcommittee, have the right to vote on enquiry drafts and on final draft International Standards (see Module 4 for additional information)*

# IEC Council



# IEC Council (cont)

- Sets IEC policy, long-term strategic and financial objectives
- Members are the Presidents of all National Committees of the IEC, past presidents, IEC officers, CB members
- Approves financial matters, IEC membership, revisions to *Statutes and Rules of Procedures*
- Elects IEC officers and members of Council Board (CB), Standards Management Board (SMB), Conformity Assessment Board (CAB), and Market Strategy Board (MSB)



# IEC Council Board



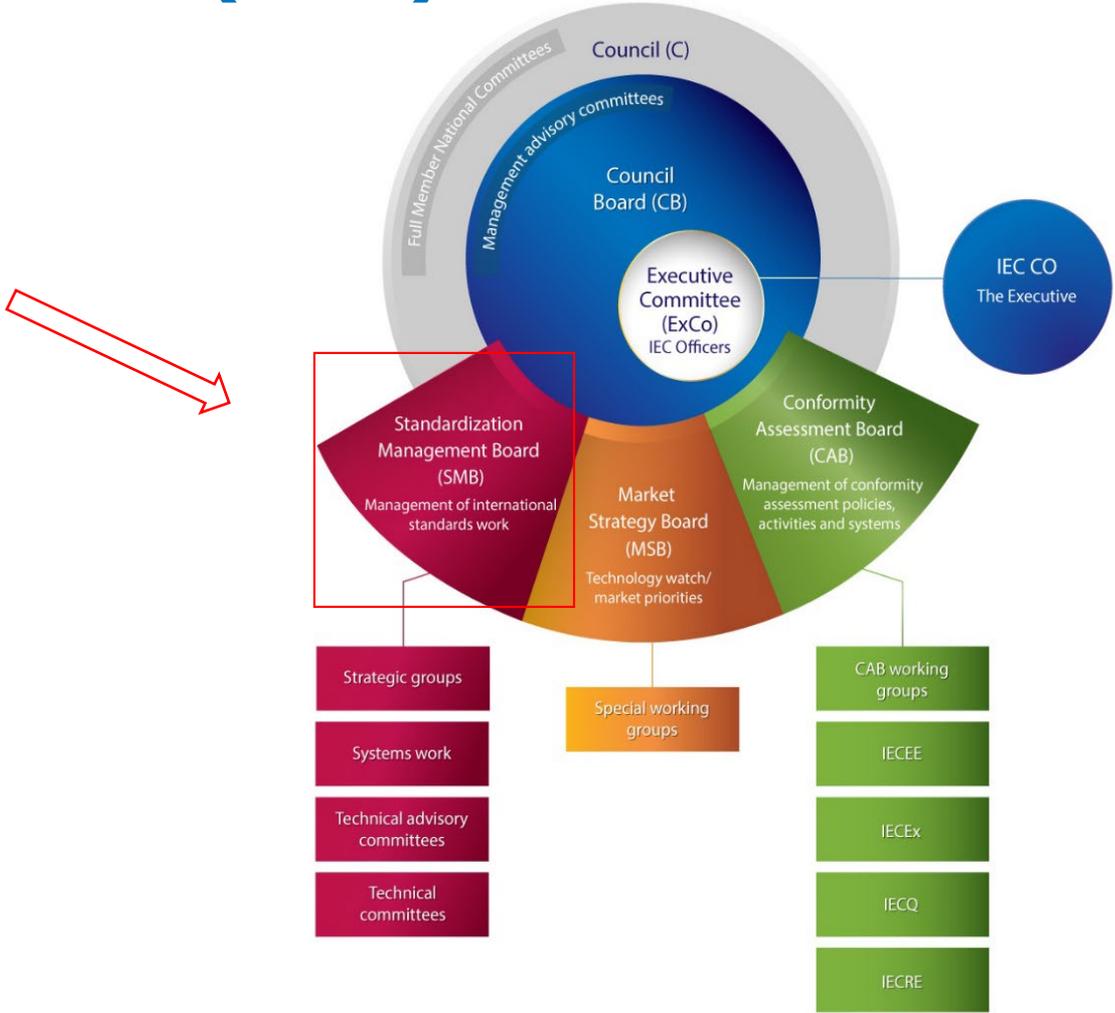
- Works for the good of the whole Commission and its constituency
  - Implements the IEC Council policy and makes policy recommendations
  - Comprised of IEC Officers and 15 voting members elected by Council
  - CB reports all of its decisions to Council

# IEC Council Board (cont)

- Members are elected on their professional qualifications
  - Some permanent elected members are appointed from those National Committees in financial Group A
  - The other individual members are from the Full Member National Committees



# Standardization Management Board (SMB)



# Standardization Management Board (cont)

- The Standardization Management Board ([SMB](#)) is responsible for management of the activities of the [IEC technical committees](#)
- Oversees operation of Advisory Committees
  - Environmental Aspects (ACEA)
  - Electromagnetic Compatibility (ACEC)
  - Energy Efficiency (ACEE)
  - Safety (ACOS)
  - Information security and data privacy (ACSEC)
  - Electricity Transmission and Distribution (ACTAD)

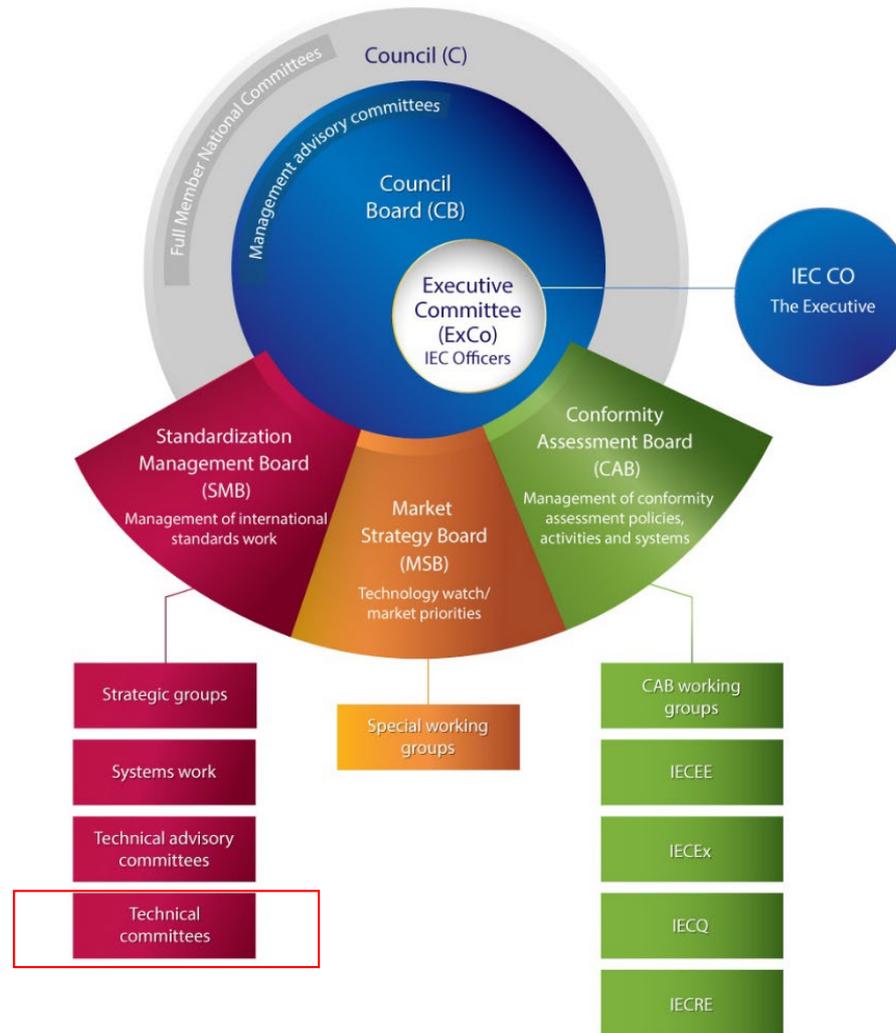
# Standardization Management Board (cont)

- Manages the technical work through TC/SC/SyC Reports/Strategic Policy Statement (SPS) and data prepared by IEC Central Office (CO)
- Reviews the functioning of TC/SC/SyCs and proposed changes
- Approves nominations for Chairpersons and Secretariats of TCs, SCs, and SyCs
- Creates/disbands new TCs, ratifies creation/disbanding of new SCs, SyCs.
- Develops rules for standards development process
  - *ISO/IEC Directives and the IEC Supplement*
- Reports to the Council Board

# Standardization Management Board (cont)

- Comprised of 15 members
  - Chair Elected by Council
  - Secretariat held by the IEC Central Office (CO)
  - USNC is one of the permanent members of the SMB
- Meets 3 times a year
- Documents, comments and votes normally handled electronically
  - Decisions require a two-thirds majority of those members voting; if fewer than eight members vote, the decision must be deferred to the next meeting of the SMB

# Technical Committees (TCs)



# Technical Committees (cont)

- Responsible for conducting **technical work of IEC**
  - Formed when new area of technical work is identified and if
    - at least two thirds majority of the IEC National Committees submitting votes in favor
    - at least five IEC National Committees express their intention to actively participate
  - Established (including title and scope) by the Standardization Management Board
  - Title and Scope determined by SMB

# Technical Committees (cont)

- Recently established IEC TCs:

- Binary power generation systems ([PC 126](#))
- Communication Technologies and Architectures ([SyC COMM](#))
- Low-voltage auxiliary power systems for electric power plants and substations ([PC 127](#))
- Network Management in Interconnected Electric Power Systems ([SC 8C](#))
- Operation of electrical installations ([PC 128](#))
- Personal e-Transporters (PeTs) ([TC 125](#))
- Robotics for electricity generation, transmission and distribution systems ([TC 129](#))



# Subcommittees (SC)

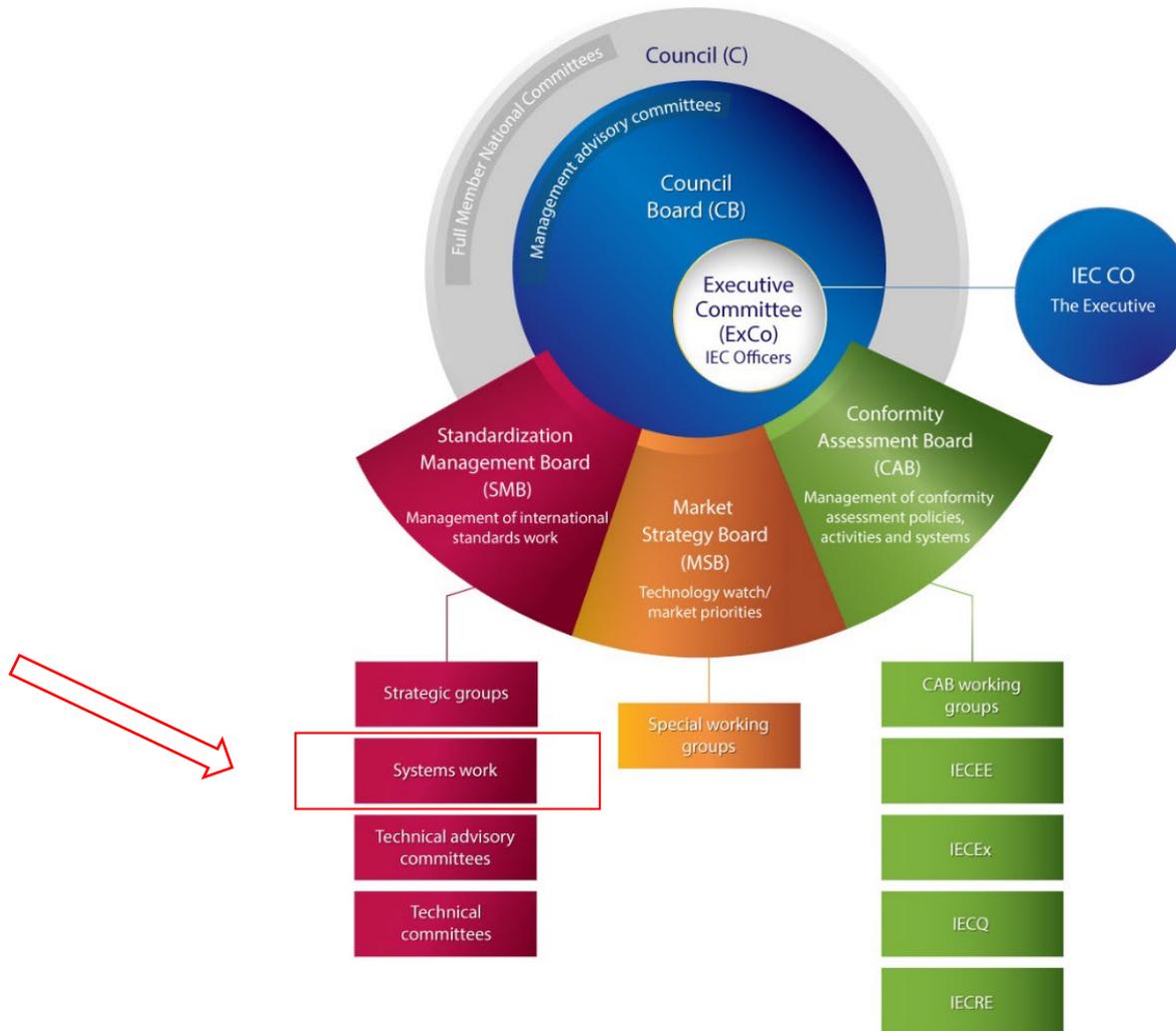
- Established and dissolved by the parent TC, subject to ratification by the IEC SMB
  - Responsible for progressing the technical activities of a more narrowly defined aspect of the TC's program of work
  - Title and scope defined by the TC (within the scope of the TC)
  - At least five members of the TC are willing to participate actively



# Relationship between TCs and SCs

- A Subcommittee (SC) is created by, dissolved by, and reports directly to its parent Technical Committee (TC)
- Not all TCs have SCs
- For individual standards that fall outside the scope of a TC/SC, a Project Committee may be formed, which is dissolved once the standard is published
  - A Project Committee is independent of a TC or SC

# Systems Committees (SyCs)



# What is a System?

A group of interacting, interrelated, or interdependent elements forming a purposeful whole of a complexity that requires specific structures and work methods in order to support applications and services relevant to IEC stakeholders.

System standards are increasingly necessary in sectors such as the environment, safety, and health.

# Systems Committees (SyC)

- Systems Committees operate within the defined scope of a system. They develop high-level interfaces and functional requirements that span the work areas of several TC/SC. Through collaboration and consensus, the SyC develops a work plan that involves, and is followed by all relevant TC/SCs. However, the SyC does not have the authority to dictate to TCs what work they must carry out.
- IEC Member countries ([National Committees](#)) who are willing to send experts (P-members), form the membership of each SyC. The secretariat of all SyCs is provided by IEC central office in Geneva.

# Project Teams (PT), Working Groups (WG), and Maintenance Teams (MT)

- Created if necessary by TC or SC for further defined focus
  - WGs are responsible for a grouping of related projects
  - PTs are responsible for a single project
  - MTs work on a revision project
    - New edition
    - Amendment
- Conveners (i.e. the chair of the PT, WG or MT) are appointed by the parent TC or SC

# IEC Standards Development

- IEC standards development work is conducted within this technical committee structure
  - To facilitate the broadest participation possible, most development work is undertaken “virtually” (e.g., via e-mail correspondence, online development, video- and teleconferences, etc.)
  - Meetings of IEC technical committees are held only when work cannot be conducted by other means
  - Agenda and documents must be circulated at least four months before a meeting to allow adequate time for review by the National Committee delegates

# Overview of Shared Committees

- Shared Committees are committees that coordinate the activities of multiple standards development organizations to minimize work duplication
  - Information technology ([ISO/IEC JTC 1](#))
  - Joint Directives Maintenance Team ([JDMT](#))
  - IEC/ISO/ITU World Standards Cooperation ([WSC](#))
  - IEC-ISO-ITU Joint Smart Cities Task Force ([J-SCTF](#))

# ISO vs. IEC Terminology

- Terminology between ISO and IEC differs slightly

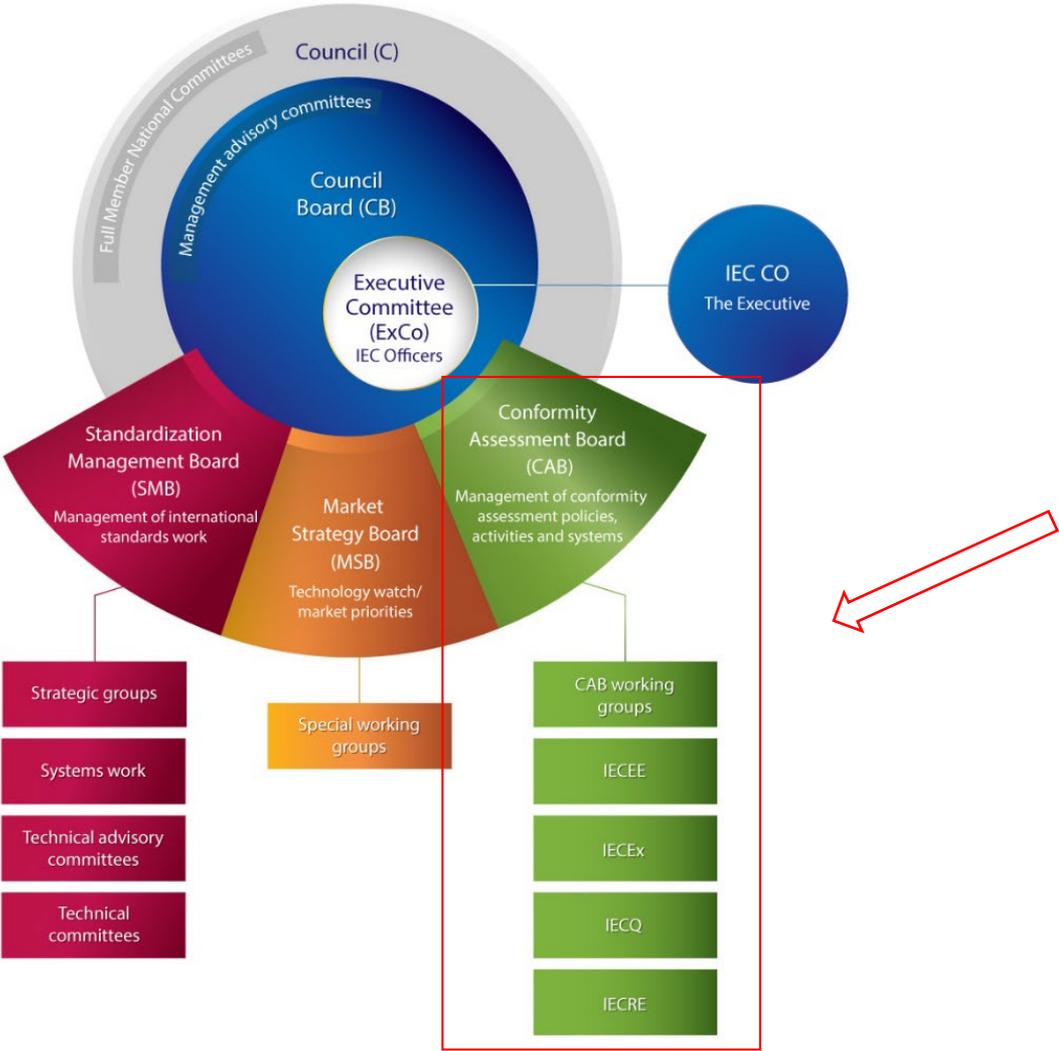
Term	ISO	IEC
National Body	Member Body (MB)	National Committee (NC)
technical management board (TMB)	Technical Management Board (ISO/TMB)	Standardization Management Board (SMB)
Chief Executive Officer (CEO)	Secretary-General	General Secretary
office of the CEO	Central Secretariat (CS)	Central Office (CO)
council board	Council	Council Board (CB)
advisory group	Technical Advisory Group (TAG)	Advisory Committee
Secretary	Committee Manager	Secretary
Committee	TCs, SCs, and PCs	TCs, SCs, PCs, and SyCs
For other concepts, ISO/IEC Guide 2 applies.		

- These terms may be altered occasionally – check the IEC/ISO Directives for any updates ([https://www.iec.ch/members\\_experts/refdocs/](https://www.iec.ch/members_experts/refdocs/))

# Overview of Systems Approach

- Abundance of technologies converging in new and emerging markets, has necessitated a different approach to standardization
- Systems work
  - Systems work takes a top-down approach
  - Start with the architecture of a system instead of working from the product level
  - Intended to ensure complex market sectors (e.g., environment, safety, health) are adequately addressed/supported.
- IEC Systems Work includes:
  - Standardization Evaluation Groups (SEGs)
  - Systems Committees (SyCs)
- Learn more at:
  - <https://www.iec.ch/standards-development/systems-approach>
  - Specific SEGs, and SyCs can be found under the Systems Work Tab here: [https://www.iec.ch/dyn/www/f?p=103:48:0:::::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:3228,25#3](https://www.iec.ch/dyn/www/f?p=103:48:0:::::FSP_ORG_ID,FSP_LANG_ID:3228,25#3)

# Conformity Assessment Board (CAB)



# Conformity Assessment Board (cont)

- The Conformity Assessment Board (CAB) is responsible for the overall management of the IEC's conformity assessment activities
  - Comprised of a Chair, 12 voting members (and alternates) who are elected by Council, one representative from each IEC conformity assessment scheme, the IEC Treasurer and General Secretary
  - Reports all its decisions to the Council Board



# Conformity Assessment Systems

- Responsible for evaluating and maintaining, as necessary, the IEC conformity assessment systems:



## IECEE

- IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components



## IECEX

- International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres



## IECQ

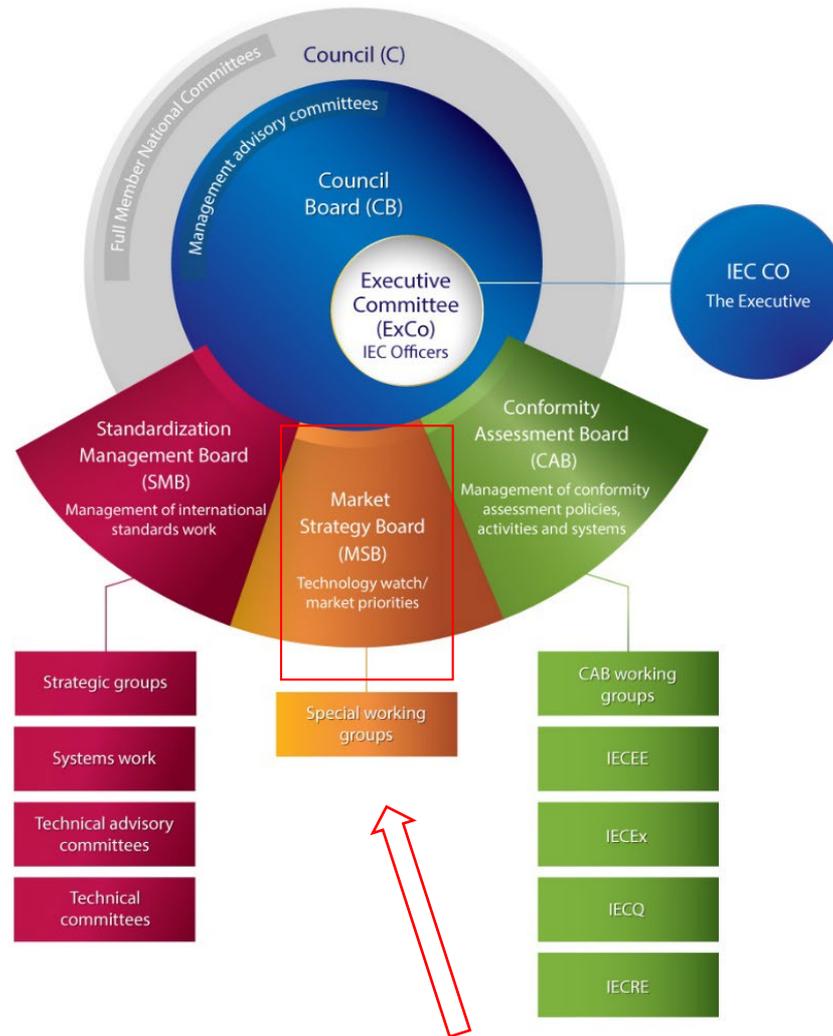
- IEC Quality Assessment System For Electronic Components



## IECRE

- IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

# Market Strategy Board (MSB)



# Market Strategy Board (cont)

- The Market Strategy Board ([MSB](#)) is Comprised of 15 members
- Reports to the IEC Council Board
- Identifies the main technological trends and market needs in the IEC's fields of activity
- Sets strategies to maximize input from primary markets and establishes priorities for the technical and conformity assessment work of the IEC

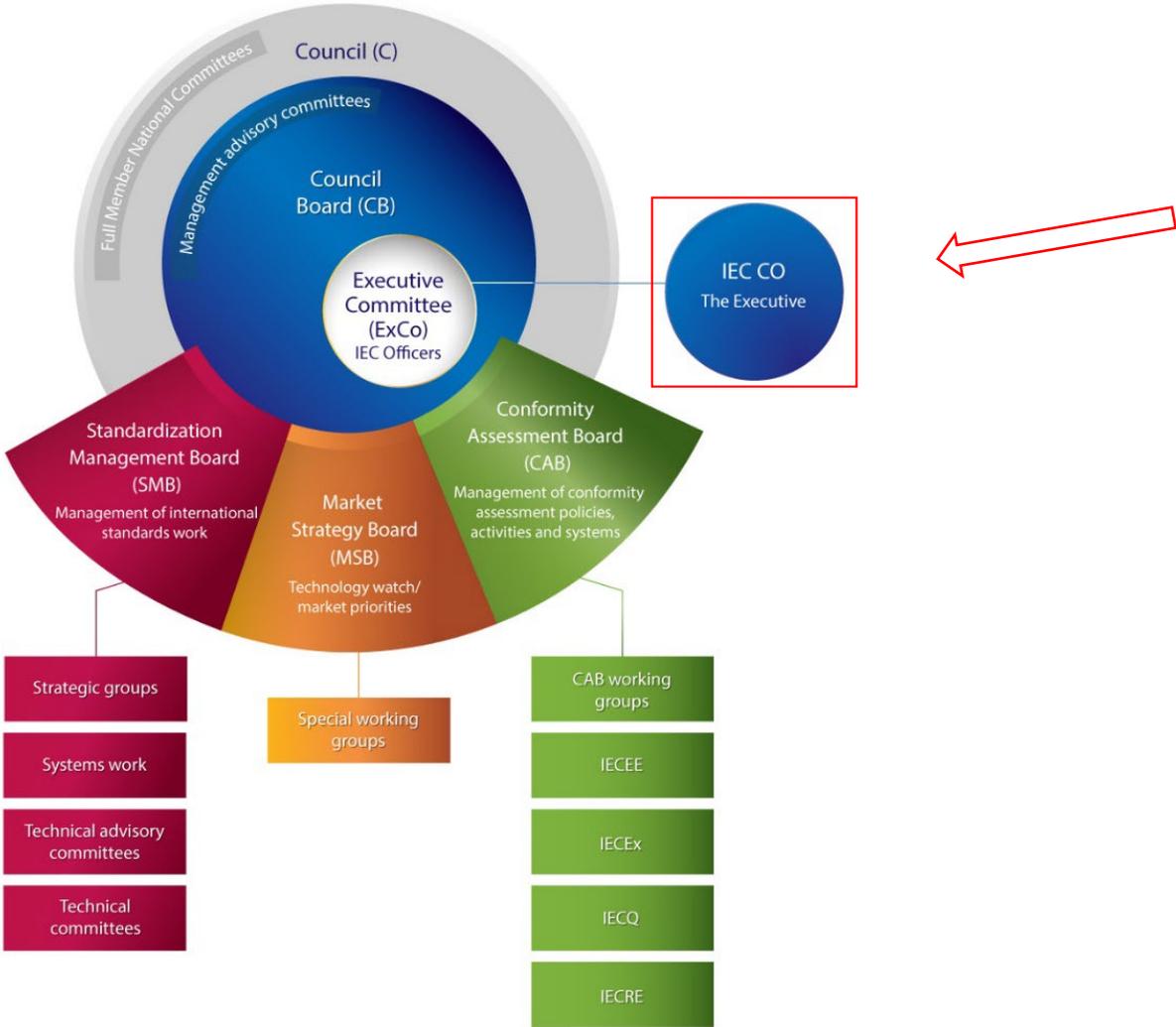


# Market Strategy Board (cont)



- The MSB meets at least once a year
- It is composed of:
  - A chairperson
  - 15 high level technology expert members appointed from industry
  - IEC Officers

# IEC Central Office (CO)



# IEC Central Office (CO)

- The IEC CO is responsible for:
  - Providing support to IEC Members/Affiliates
  - Supervising the proper application of rules and procedures
  - Ensuring the smooth progress of work by TC/SC/SyCs and the IEC Conformity Assessment Systems
  - Publishing standards and other publications
  - Contributing to the organization of the annual General Meeting
  - Hosting meetings, seminars and workshops

# USNC Constituent Training Program

*Module II-A*

*Complete*

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