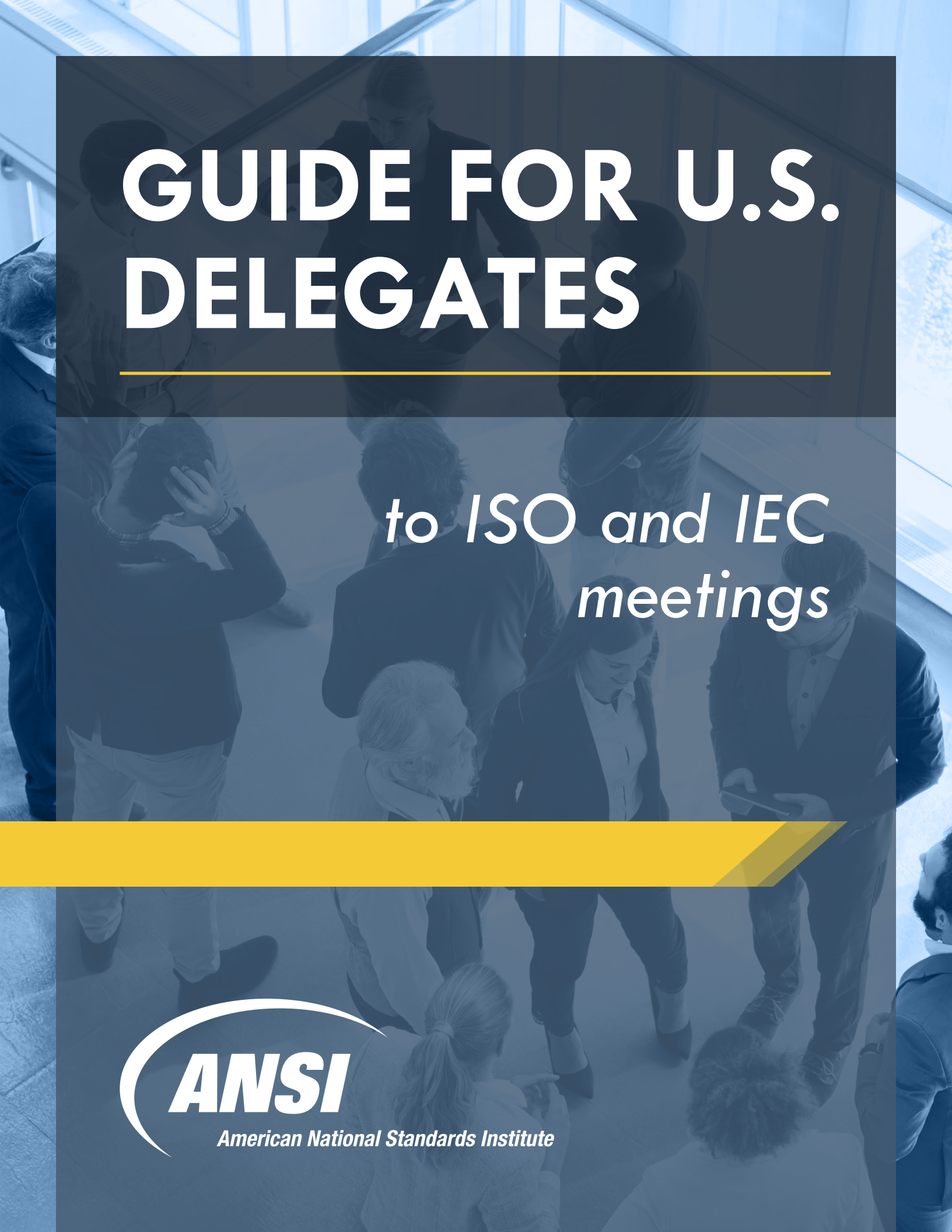

GUIDE FOR U.S. DELEGATES

to ISO and IEC meetings

ANSI

American National Standards Institute

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LETTER FROM ANSI'S PRESIDENT & CEO: S. JOE BHATIA

Congratulations on your appointment as a delegate to a technical meeting of the International Organization for Standardization (ISO) or the International Electrotechnical Commission (IEC). You have been chosen for your expertise in a given field along with your ability to effectively present the U.S. viewpoint as part of a delegation to an international standards forum.

On behalf of the American National Standards Institute (ANSI), I would like to express our appreciation to you and the company or organization that supports your participation in international standardization activities. The United States believes that standards development is a global effort, focused on market needs and facilitated by full and open cooperation and collaboration among industry participants worldwide. Together, we are making important contributions to the national economy, the elimination of non- tariff barriers to world trade, and improved safety and health for the world's citizens.

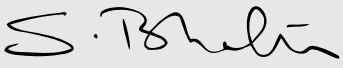
You will be thoroughly briefed by the U.S. Technical Advisory Group (TAG) responsible for determining the U.S. position on work underway within the particular ISO or IEC technical committee, subcommittee, project committee, or systems committee whose meeting you will be attending. You may also need an orientation on your role and responsibilities as a representative of the U.S. standards community on overall policy matters, especially if you are a newly appointed delegate.

This document contains a summary of numerous guidelines and policy statements issued over the past several years by ANSI and the U.S. National Committee (USNC) for the IEC. It is intended to provide you with background information about the organizations and procedures you will experience in your ISO or IEC work, as well as advice and guidance on questions such as:

- Whom do you represent in international negotiations?
- What U.S. contributions may be submitted to ISO and the IEC?
- May your delegation accept the secretariat of a technical committee or subcommittee or invite the technical group to meet in the United States?

Our goal is to help public- and private-sector interests realize the vision of globally relevant, technically valid standards for their sectors. Education and shared information will be critical for cooperation and future success, as will open, ongoing communications between the U.S. and its global trading partners.

Again, congratulations on your appointment. We wish you a safe and pleasant journey to your meeting and much success in your negotiations.



INTRODUCTION: YOU THE DELEGATE

You have been chosen as one of the experts to represent U.S. interests in the deliberations of an International Organization for Standardization (ISO) or International Electrotechnical Commission (IEC) committee. As a delegate, you represent the American National Standards Institute (ANSI), the U.S. member of ISO and, through its U.S. National Committee (USNC), the IEC. Your employer has agreed to financially support your participation and you are willing to provide your technical expertise—now it is time for action.

Participation in standards development activities provides you with an opportunity to influence domestic and international policy, benefit from unique networking opportunities, and learn from international colleagues. It also provides a forum for the presentation of U.S. positions, and the opportunity to comment upon proposals submitted by others.

U.S. businesses and organizations increasingly recognize the strategic importance of International Standards and their implications for world trade.

The implicit benefits of participation include:

- Key contacts with industry leaders
- New business opportunities for your organization
- Competitive intelligence through early involvement on technology implementation
- Informal benchmarking through improved understanding of where your organization stands in the market

To remain competitive in world trade, U.S. standards and engineering practices must be in line with International

Standards. Otherwise, the U.S. will face a competitive disadvantage. Effective global standards also help eliminate excess costs, boost productivity, satisfy consumer needs, and protect the workforce and the public.

Ideally, the final ISO or IEC document you help produce will be accepted and implemented throughout the global economy. One thing to keep in mind however, is that just as American National Standards (ANS) are voluntary, so are the International Standards (IS) of ISO and the IEC. They will be used by industry, national standards bodies, and governmental regulatory agencies only if they can stand on their technical merit and meet the needs of the countries involved.

Even if they are not adopted outright as national standards, these documents are frequently used as the basis for national inspection, approval, and certification systems. From the U.S. point of view, International Standards should be equally suitable for approval as ANS. And it is also important to note that the U.S. standardization system embraces the "multiple-path approach," where multiple standards or conformance systems may achieve global relevance and applicability.

Today, standardization has moved beyond product specifications and service requirements to encompass such broad domestic issues as the environment, healthcare, safety, and consumer protection programs. Standards are the foundation for innovation. They are also essential tools that help today's businesses reduce costs, improve quality, and market products and services. Standardization helps to break down barriers to trade, provide industry stability, and encourage commerce. Standards impact every organization's bottom line and should be strategically managed just like other important factors such as quality, safety, and intellectual property.

You, the delegate, have the important job of helping to produce quality standards that are compatible with U.S. and international needs. A standard that finds worldwide acceptance will eliminate one more barrier to the free flow of international trade and help keep U.S. industries competitive in the global markets.

If you have never attended an ISO or IEC meeting before, you will naturally have many questions about the nature of your responsibilities and how to best carry them out. As a newly appointed member of a U.S. delegation to a meeting of an ISO or IEC Technical Committee (TC), Subcommittee (SC), Project Committee (PC), or Systems Committee (SyC)[1] you will receive confirmation of your accreditation from either ANSI or the USNC officially confirming your delegate status. The leadership of the related committee, as well as the host country if it is an in-person meeting, will be notified of your attendance.

This booklet is intended to answer some questions you may have now that you are an accredited U.S. delegate. It will explore how a U.S. delegate prepares for a meeting, participates in the meeting, and what is needed after the meeting when delegates return home. This booklet also provides general information about procedure and policy within the ISO and IEC that will help you in your standards development work.

1 Referred to hereafter as "committees"

THE MEETING: HOW TO PREPARE, PARTICIPATE, AND FOLLOW UP

If the ISO or IEC committee meeting you are about to attend is for a new committee, the first meeting will likely focus on deciding on the scope of the work and discussion of an initial work program. Alternatively, if the committee is already well established, your delegation may be dispositioning comments on a standard or hearing report outs from various Working Groups (WGs).

Whatever the case may be, you will be operating in a multicultural workplace with the goal of opening doors for a global economy.

PREPARING FOR THE MEETING

Your first task is to bring yourself up to date on the past work and present activities of your ISO or IEC committee and familiarize yourself with the ISO and IEC Codes of Conduct.[1] As a delegate you will have access to the agenda and supporting documents via your U.S. Technical Advisory Group (U.S. TAG). In USNC/IEC, a delegate in good standing can obtain access rights, if they do not already have them, from the USNC Office to download draft documents directly from the IEC Server (www.iec.ch). It is important that you have copies early enough to familiarize yourself with their contents, formulate your positions, and seek help where needed.

Shortly before a committee meeting, the U.S. TAG should meet to establish U.S. consensus positions on agenda items. Positions on meeting agenda items should be agreed upon before the international meeting through prior meetings, letter ballots, etc., of the respective U.S. TAG for an ISO or IEC committee.

If there is more than one delegate to an ISO or IEC committee meeting, one individual is designated as the Head of the Delegation (HOD). They will be the delegation's principal spokesperson at the meeting and will be responsible for casting the official U.S. vote on issues coming before the committee.

Before you leave for your ISO or IEC meeting, the HOD may call a meeting of the delegation to go over housekeeping-type arrangements and review positions with the delegates. Because of your technical expertise and familiarity with the needs and attitudes of your industry or organization, you should be able to make a valuable contribution to these positions by attending the TAG meeting and participating fully in the discussion.

1 *ISO Code Of Conduct For The Technical Work* and *IEC Code Of Conduct For Delegates And Experts*

PARTICPATING IN THE MEETING

MEETING PROTOCOL

At the ISO or IEC committee meeting, your delegation will have the opportunity to defend its contributions or comment on other proposals when the appropriate item on the agenda is considered. The HOD is the official spokesperson, but if they feel that another delegate is more technically qualified to speak on a particular point, they may, after asking for the privilege of speaking, designate the individual.

Whoever speaks must speak for the entire U.S delegation. Any differences that may exist among the members of the delegation must be settled before any delegate rises to speak at a committee meeting. Ordinarily at in-person meetings this is done in private conference over meals or after hours; differences should not be aired in front of delegates from other countries, nor should any U.S. delegate ever act to undermine and disassociate themselves from the officially approved U.S. position.

If an issue arises during a meeting on which the U.S. position is not absolutely clear—perhaps one that was not on the meeting agenda—the HOD may request a recess for consultation. If the delegation is not sure what position to take, it is acceptable for the HOD to state that the U.S. needs more time in which to formulate its opinion and to recommend that a recess be called or that the issue be deferred to a future meeting or handled by correspondence.

ETIQUETTE

Your responsibility at the meeting is to press for adoption of U.S. viewpoints on proposed documents. You must, however, proceed diplomatically. Delegates from other countries are accredited by their respective ISO or IEC national standards bodies, and they, like you, are experts in their field; they should always be shown the respect due to official representatives of any standards organization. Be sure to listen thoroughly to other countries' contributions and to be open to their suggestions. Negotiate on the benefits of specific technical merits and use the respective committee procedures. Be aware of regional sensitivities towards the U.S.

The following arguments are unacceptable for why other countries should accept our views:

- They have been in effect in the U.S. for many years.
- We make more of the item under discussion than any other country.
- The U.S. was the first in the field or has the most experience.
- The U.S. is the most technologically advanced country in the world.

Such expressions, in addition to being rude and provincial, are more likely to irritate than to convince.

While many countries respect U.S. technical competence and productive know-how, the best way to win acceptance of your point of view is always to present it on its technical merits.

Networking is another important means for winning acceptance. Not only should U.S. delegates participate actively and fully in the formal meetings of an international group, but it is also beneficial to participate in informal gatherings and scheduled social events. Agreements at an international meeting are commonly first formed in a social setting and then later finalized across the conference table.

You, and anyone who may accompany you, should get to know the delegates from other countries. Establishing

friendly relationships is not only personally rewarding, but also provides an opportunity for other delegates to know you and your thinking on related technical subjects. These allies are extremely important. Not only do they help improve U.S. bargaining power, but they help to form alliances. In cases when the U.S. raises many issues, it is often helpful to have an ally present a proposal to the international group and give the U.S. the opportunity to agree with someone else, rather than raising every issue ourselves.

VIRTUAL MEETINGS

Virtual ISO and IEC meetings are becoming more and more common and require additional considerations. Virtual meetings still require the same preparation as in-person meetings. We recommend that delegates take the following additional precautions:

- Join the meeting early to test your equipment and connection to ensure it is working properly.
- Dial into the meeting through a phone with headphones. Speakerphones, video, and computer microphones are not recommended, as they tend to interfere with the quality of the call.
- Ensure when called on to speak that both your phone/computer audio AND the virtual meeting tool mute functions are disabled. When not speaking, mute your audio to avoid feedback.
- Consider using chat applications to communicate with each other throughout the plenary meeting.

DRESS AND COMPORTMENT

A U.S. delegate should review the dress and business culture of the host country before departure and never do anything that might reflect adversely on themselves, ANSI, the USNC, or the U.S. You should visit the U.S. Department of State's website (www.state.gov) to review travel advisories, regulations, visa information, and customs for your host country.

COMMUNICATION

A few basic communication skills will be valuable:

- Hearing is not the same as listening. Listening requires skill and patience. Comprehensive listening is listening to understand a message. Critical listening is listening to comprehend and then evaluate the message.
- Pay attention to all communication cues. Rephrase or paraphrase, in your own words, the essence of the message you have heard from other delegates.
- Limit your own talking. Be concise. Don't use unnecessary words. Be patient. Concentrate. Use feedback to clarify and elaborate. Avoid jumping to conclusions.
- Establish a rapport. Try to stay "in tune" with each other throughout the meeting.
- Don't assume that because a person has heard you, he or she has also agreed with you.

Also, please keep in mind that English is not everyone's native language and you will need to speak slowly and concisely when presenting or clarifying your points. Confusion is often inevitable when verbal and non-verbal communication passes across languages and cultures.

OFFICIAL LANGUAGES

While the official languages of the ISO and IEC are English, French, and Russian, most meetings you will attend will be conducted in English. The National Body for the Russian Federation provides all interpretation and translation into and from the Russian language.

EXTENDING INVITATIONS FOR MEETINGS IN THE UNITED STATES

Suppose that after attending several meetings of your committee in other countries, you decide it's time the

group should meet in the United States. You may believe that a meeting on your home ground will promote understanding of your delegation's proposals. Also, you've enjoyed the other countries' hospitality, and you'd like to return it. May you or your delegation issue an invitation?

The answer is yes, provided that ANSI or the USNC has given prior written authorization, with concurrence by the TAG and its Administrator. Even if you have this authorization, the actual formal invitation must be issued by ANSI or the USNC. You may extend a tentative invitation to be subsequently confirmed. It must be understood, however, that all meetings must be coordinated with the related committee Secretariat.

The reasons for this policy are practical and procedural. As the U.S. member body of ISO and, through the USNC, to the IEC, ANSI is the official host for committee meetings held in the U.S. and is solely responsible to ISO and the IEC for the effective and efficient conduct of these meetings. U.S. TAGs that wold like to host technical meetings in the U.S. are expected to pay all the necessary administrative and meeting costs associated with those meetings. Before an invitation to a meeting is issued, ANSI or the USNC must be satisfied that all financial and administrative arrangements are adequately supported.

ACCEPTING SECRETARIATS

During meetings of ISO or IEC committees, delegations are often asked to volunteer to accept the Secretariat of the committee or a subgroup on behalf of the national standards bodies they represent.

Administration of a committee Secretariat is a weighty responsibility requiring:

- Extensive project management experience in coordinating and expediting work programs
- Financial commitments
- Strict neutrality
- Mechanism for maintaining close liaison with other ISO and IEC committees, national standards bodies of the ISO and the IEC, other international organizations, governmental bodies, and regional organizations
- Maximum electronic communications capability
- Resources for efficiently handling countless details
- Adherence to the joint *ISO/IEC Directives* or JTC 1 Supplement on meetings, minutes, documents, and reports

National standards bodies holding TC or PC Secretariats are responsible to the ISO/IEC TMB/SMBs for their effective operation. SC Secretariats, also administered by ISO national standards bodies or IEC national committees, are responsible for the management and internal coordination of their programs and are accountable to the TC for efficient operation.

ANSI and the USNC, therefore, will accept a Secretariat only when they are satisfied that the necessary professional and financial resources are available from the industry or industries concerned and that these resources will be committed to ANSI or the USNC on a long-term basis to support the endeavors.

ANSI's procedures allows for a secretariat to be assigned to ANSI staff at an industry's request, or delegated to an external organization. When desired and supported by the industry and U.S. TAG, ANSI staff administers ISO and JTC 1 Secretariats in house. Currently, all IEC Secretariats held by the USNC are delegated.

ANSI firmly supports the decentralization of standards development. All technical functions, national and

international, should be assigned to organizations willing and capable of assuming this responsibility. Where international Secretariats are concerned, ANSI and the USNC must assume responsibility for their administration in order to satisfy its obligations to ISO and the IEC. To ensure this, close liaison with U.S. TAGs developing U.S. positions is maintained at all times.

AFTER THE MEETING

REPORTING ON MEETINGS

To gain management and government support for international standardization activities, it is important to communicate the results of meetings to industry, the public, ANSI, and the USNC through regular reports. These are usually of two varieties: announcements to newspapers and trade, technical, and professional journals; and through private communications to your U.S. TAG, ANSI, and the USNC.

WHAT IS YOUR RESPONSIBILITY FOR THESE REPORTS?

Suppose you've participated in a highly successful meeting of an ISO or IEC committee. Several drafts significant to your industry have been approved; the committee has set target dates for completion of several others; study of a new item of work has been planned. You think these accomplishments deserve publicity. Who should get in touch with the press?

The convening of press conferences and issuance of press releases in the course of an international committee meeting are the responsibility of the committee Secretariat. A U.S. delegation must not hold a conference of its own or issue statements for publication on its own behalf.

If, after the meeting, your delegation believes a U.S. press release on the significance of the meeting's accomplishments is warranted, the HOD or their designee should consult, as soon as possible, with the General Secretary of the USNC/IEC or the ANSI ISO Team (ISOT) and ANSI's Director of communications and public relations. They should provide ANSI with a statement of the results of the meeting plus any written report that may have been prepared. ANSI will issue a brief release based on the statement of results, on the delegates' written report, and on advice from the HOD.

The news release will give credit to the delegates for their participation in the meeting and to their companies and organizations for support of international standardization. News releases not coordinated by ANSI, particularly if they are not consistent with the expressed U.S. position, may seriously damage the effectiveness of U.S. participation.

Where reports to the U.S. TAG, ANSI, and the USNC are concerned, it is the responsibility of the HOD to prepare a comprehensive account of the meeting. The report should summarize accomplishments and emphasize accord with, or variance from, U.S. opinions and practices and the potential effect on U.S. interests. It should record the extent of U.S. participation in the deliberations and its effectiveness, and may include criticism of or comment on the conduct of the meeting, participation by other countries, and the value of the activity.[2] Copies of this report may be of interest to other entities.

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2 To obtain a copy of the Head of Delegation Report Template, click here or contact the USNC Office or ANSI ISO Team (ISOT).

WHO IS INVOLVED IN ISO AND IEC ACTIVITIES?

International Standards developed within the procedures of ISO and the IEC represent a global consensus of the member nations participating in these bodies. The resulting documents have been developed and applied on a voluntary basis. In recent years, a growing number of them have been adopted or referenced by governmental bodies. It is important for you to understand where you fit in the scheme of the standardization process.

MANAGEMENT OF ISO AND THE IEC

International Standards are developed through ISO and the IEC via an organized network of hundreds of councils, committees, and subcommittees. ISO is governed by the General Assembly (GA), while the IEC is governed by the Council; each body sets the overall policy for its respective organization. The management of the actual standards development work is primarily conducted by the Technical Management Board (TMB/SMB) of ISO and the Standardization Management Board (SMB) of the IEC.

All committees report to these management boards. The Central Secretariat of ISO and the Central Office of the IEC facilitate the administration of ISO and IEC, respectively.[1]

MEMBERSHIP

The membership of ISO and the IEC is comprised of national standards bodies who each get one vote. Both ISO and the IEC have different types of membership available depending on the conditions existing in each country. Every national body registered as a full member of ISO or a National Committee of the IEC has the right to membership on committees of the organization to which they belong.[2] Members may then choose to participate either as an active Participating member (P-member) or as an Observing member (O-member) of the committee. National standards bodies with little or no interest in the technical work may elect not to participate at all. Full members also have the opportunity to participate in governing and policy committees.

THE ROLE OF ANSI

ANSI is the U.S. member body to ISO and, through the USNC, to the IEC. In your committee, you represent the United States through ANSI, not the company or organization that sponsors your participation.[3]

TECHNICAL COMMITTEES, SUBCOMMITTEES, PROJECT COMMITTEES, AND SYSTEM COMMITTEES

Technical Committees (TC) are established by the TMB/SMB to manage the scope of technical work. A TC develops standards. When they are first formed the TCs develop their own title, scope, and organizational

1 *For further information, please see the ISO and IEC websites and the organizational charts in the appendix of this document.*

2 *See the ISO and IEC websites for further information on forms of membership and access rights to committees.*

3 *For further information, please see the ANSI website and the organizational charts in Appendix E of this document.*

structure; the TMB/SMB must then approve these recommendations.

A TC can form one or more subcommittees (SC) to help manage the committee's work. The SCs report on their work to the parent TC. Project committees (PC) are established by the TMB/SMB to prepare a single standard not falling within the scope of an existing technical committee. When necessary, committees are dissolved by the TMB/SMB. Committees may form Working Groups (WGs), Project Teams (PTs), and Maintenance Teams (MTs)[4] for specific tasks and/or subjects, and ad hoc groups to study precisely defined problems.

The term "Secretariat" refers to the country that leads the work and assigns the Committee Manager/Secretary and appoints a committee Chair. When a Secretariat position is vacant, national standards bodies that want to assume leadership of specific technical work may volunteer to serve in this role. The Secretariat of a TC or PC is allocated by the TMB/SMB, and the Secretariat of an SC is allocated by the parent TC. If more than one national body offers to assume the Secretariat of a SC, the TMB/SMB makes the decision. Holding the position of committee Secretariat is often a strategic decision for a national member body, as this is the position that has the responsibility of nominating the committee's Chair and steering the committee's work.

Each committee is led by a Committee Manager (ISO)/ Secretary (IEC) and committee Chair. Chairs of TCs or PCs are appointed by the TMB/SMB for a maximum of nine years or a shorter period as may be appropriate. A committee Chair is responsible for the overall management of their committee, including oversight of the activities of its subgroups, and presides over its meetings. They must act as a representative of ISO/ IEC and cannot serve as a delegate of their national standards body or display any bias. SC Chairs also serve for a maximum of 9 years and are nominated by the Secretariat of the SC and approved by the TC.

ISO/IEC JTC 1

ISO/IEC JTC 1, Information Technology, is a Joint Technical Committee (JTC) established between ISO and the IEC to develop, maintain, promote, and facilitate standardization in the field of IT. Its structure and procedures differ somewhat from those of ISO and the IEC and are outlined in a separate JTC 1 Supplement to the ISO/IEC Directives. You may find JTC 1 referenced in the course of your work.[5]

U.S. TECHNICAL ADVISORY GROUPS

U.S. Technical Advisory Groups (U.S. TAGs)[6] have the primary responsibility for developing U.S. positions on technical matters coming before the committee and coordinating U.S. participation in the international committee's work. It is the U.S. TAG's job to recruit U.S. TAG members, approve delegations, appoint Working Group experts, and determine ANSI/USNC positions on proposed International Standards.

Between meetings, the U.S. TAG Administrator and U.S. TAG Chair channel official communications to ISO or IEC committee leadership through ANSI or the USNC office. Please note that the term "TAG" is a product of

4 In the IEC, a Maintenance Team is a group of experts designated to keep a publication or set of publications up to date.

5 For further information, please see the ISO/IEC JTC 1 website

6 Throughout this document, the term "U.S. TAG" refers either to an ANSI-accredited TAG to an ISO committee; or to a USNC-approved TAG to an IEC committee.

the U.S. system and is not necessarily an internationally recognized body. Other countries have similar groups that go by different names, for example National Mirror Committee (NMC).

Prior to each meeting, the U.S. TAG will nominate a delegation to attend an international meeting and designate a Head of Delegation. Not all members of the U.S. TAG will be able to attend the international meeting, so they rely on the appointed delegation to represent the U.S. TAG's consensus position.

WORKING GROUPS

Working groups (WG) consist of a restricted number of individually appointed experts by a P-member or a liaison organization of the WG's parent body to deal with the specific task or tasks allocated to the WG. In the U.S., the U.S. TAG approves the appointment of any U.S. WG experts. Unlike U.S. delegates at TC, SC, or PC meetings who relay U.S. consensus positions through the Head of Delegation (HoD), WG experts act in a personal capacity. WG experts consequently do not necessarily represent the positions of their national standards bodies, but are strongly encouraged to ensure alignment whenever possible.

WGs appoint a Convener, who reports back to the parent committee about the work of the WG. In special cases, a joint WG may be established with more than one ISO and/or IEC committee. A proposal to establish a joint ISO/IEC WG must be submitted to the respective TMB/SMBs. During the process of approving a new work item, P-members are encouraged to appoint WG experts able to participate in the development of the project. These WG experts can form a project team operating under the responsibility of the Project Leader. The Project Leader is typically the WG Convener or another designated expert nominated by a committee. It is this individual's responsibility to bring the project to completion in the shortest time possible. Once the project has been finished, the project team is disbanded.

When a new ISO or IEC Working Group, Project Team, or Maintenance Team is formed, or when the scope of an existing WG is expanded to include new work, the U.S. is invited to officially appoint experts. The respective U.S. TAG carefully considers the nature of the work and attempts to locate and appoint the most technically qualified individual(s) available and able to serve. The U.S. TAG administrator will send the list of experts to the ANSI for registration.

Upon the completion of a WG's task(s), the WG is disbanded.

LIAISONS

ISO and IEC work is of interest to many international organizations; some of these make a direct technical contribution to standards development through participation as a liaison organization. Liaison representatives may participate at meetings or through correspondence, but they do not have an official vote. There are several types of liaisons:

- **Category A liaisons** make an effective contribution to the work of the committee and are given access to all relevant documentation, are invited to meetings, and may nominate experts to participate in a WG
- **Category B liaisons** are organizations that are kept informed of the technical work of the committee. This category is reserved for inter-governmental organizations in the ISO.
- **Category C liaisons** are organizations that make a technical contribution to and participate actively in the work of WG, MT or PT.

HOW ISO/IEC STANDARDS ARE DEVELOPED

International Standards developed within the procedures of ISO and the IEC represent a global consensus of the participating member nations. Consensus as per the ISO/IEC Directives (clause 2.5.6) is defined as:

…general agreement characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. A consensus need not imply unanimity

The standards development process takes roughly 36 months to develop a standard through the traditional multi-stage process. The global standardization system, however, is continually facing new challenges. To address this, ISO and IEC offer alternative deliverables such as Technical Specifications (TS), Publicly Available Specifications (PAS), Technical Reports (TR), and International Workshop Agreements (IWA) to better handle the dynamic changes in international trade and technology, while still maintaining the importance of open communication and collaboration worldwide. These alternative deliverables are discussed in further detail below.

TYPICAL STAGES OF DEVELOPMENT

Standards developed within the ISO and IEC arenas are normally created using a multi-stage consensus-building process. Projects are managed throughout this process through the use of target dates. Target dates correspond to the shortest development time possible for progression through the process. Requests for extensions to proposed target dates must be made through the Committee Manager.

Note: The acronyms following each stage below refer to the corresponding document of that stage.

PRELIMINARY STAGE (PWI)

A committee may initiate new work into its work program by simple majority vote of its P-members on preliminary work items (PWI) that are not yet sufficiently mature for processing to further stages.

All preliminary work items are subject to regular review by the committee. All preliminary work items that have not progressed to the proposal stage in the IEC by the expiration date given by the TC/SC and in ISO within 3 years will be automatically canceled. More information

on this stage can be found in Clause 2.2 or ISO/IEC Directives Part 1.

PROPOSAL STAGE (NP)

A New Work Item Proposal (NP) may be submitted by any number of sources on Form 4 in ISO or Form NP in IEC. An NP must also be accompanied by a draft or, at a minimum, an outline of the proposed document. An NP is required for a new standard, a new part of an existing standard, and a Technical Specification (TS) or Publicly Available Specification (PAS).

A decision to add the item to the program of work is taken by correspondence with a 12-week vote. The committee may decide on a case-by-case basis by way of a resolution to shorten the voting period for new work item proposals to 8 weeks. In ISO and the IEC, approval by a two-thirds majority of the P-members is required, excluding abstentions. Acceptance requires a commitment by the P-members who voted in favor of the proposal—at least 4 members in committees with 16 or fewer P-members, and at least 5 P-members in committees with 17 or more P-members. More information on this stage can be found in Clause 2.3 or ISO/IEC Directives Part 1.

PREPARATORY STAGE (WD)

The next step is to prepare a working draft (WD) in conformity with the ISO/IEC Directives – Part 2. Responsibility for the preparation of a working draft is delegated to a WG and its WG experts, or a project team.

Successive WDs may be considered until the group is satisfied that it has developed the best technical solution to the problem being addressed. At this stage, the draft is forwarded to the WG's parent committee for the consensus-building phase and is registered with the ISO Central Secretariat or IEC Central Office (Office of the Chief Executive Officer).

Texts must reach the stage of WD within six months of approval of the new work item. More information on this stage can be found in Clause 2.4 or ISO/IEC Directives Part 1.

More information on this stage can be found in Clause 2.4 of ISO/IEC Directives Part 1

COMMITTEE STAGE (CD)

The Committee Stage is the principal stage at which comments from national standards bodies are taken into consideration. The CD ballot can be 8, 12, or 16 weeks in length, as agreed on by the committee, though the default for CD circulation is 8 weeks.

National standards bodies are encouraged to submit substantive comments as early in the process as possible. Once a text is approved for progression to Draft International Standard (DIS) ballot, there should be as few technical comments as possible. National standards bodies should therefore carefully study the texts of Committee Drafts (CDs) and submit all pertinent comments, particularly technical comments, at this stage. At this point, delegates to international meetings should be fully briefed on U.S. national positions. The decision to circulate an enquiry draft is taken on the basis of the consensus principle.

Projects must reach the stage of (final) CD within eighteen months of the date of approval of the new work item. The Committee Stage ends when a CD is accepted for circulation as an enquiry draft and is registered by the Office of the CEO. This stage should take no more than 12 months. More information on this stage can be found in Clause 2.5 or ISO/IEC Directives Part 1.

ENQUIRY STAGE (ISO/DIS, IEC/CDV)

During the Enquiry Stage, the enquiry draft (DIS in ISO, Committee Draft for Vote (CDV) in IEC) is circulated by the Office of the CEO to all national standards bodies for a 12 week vote with an 8 week translation period for national standards bodies to translate the text into their native language.

Affirmative votes may be accompanied by editorial or technical comments at this stage, but it is required that negative votes be accompanied by a statement of the technical reasons for the disapproval.

National standards bodies may indicate that the acceptance of specified technical modifications will change their vote from negative to affirmative, but they should not cast an affirmative vote that is conditional on the acceptance of modifications. In the case where a national standards body has voted negatively without submitting a justification, the vote will not be counted.

The DIS or CDV is approved if a two-thirds majority of the P-members of the committee are in favor, excluding abstentions, and not more than one-quarter of the total number of votes cast are negative.

If the approval criteria are met and there are no technical changes to be included, the document will proceed directly to publication.

If the approval criteria are met, but there are technical changes to be included, the document will proceed as modified as a final draft international standard (FDIS).

Please note that if the draft document is under the Frankfurt or Vienna Agreements there may be additional coordination to resolve comments before proceeding to FDIS or publication.

If the approval criteria are not met, the committee leadership in consultation with the office of the CEO will either circulate a revised enquiry draft for vote, circulate a revised committee draft for comments, or discuss the enquiry draft and comments at the next meeting.

The Enquiry Stage ends with the registration, by the Office of the CEO, of the text for circulation as a Final Draft International Standard (FDIS), or publication as an IS. More information on this stage can be found in Clause 2.6 or ISO/IEC Directives Part 1.

APPROVAL STAGE (FDIS)

Following approval of a DIS or CDV with technical changes, the text is revised to incorporate agreed-upon comments submitted during the enquiry ballot. An FDIS is circulated by the Office of the CEO to all national standards bodies for an 8-week ballot.

Any technical comments submitted at this time will be held and addressed at the next revision. Editorial comments can be accepted. If a national standards body votes to disapprove at this stage, a statement of the technical reasons for the negative ballot must accompany the negative vote.

The FDIS is approved for publication as an IS if a two-thirds majority of the P-members of the committee are in favor and not more than one-quarter of the total number of votes cast are negative.

If the FDIS is not approved, the document is referred back to the committee for reconsideration in light of the technical reasons submitted.

The Approval Stage ends with the circulation of the voting report stating that the FDIS has been approved for publication as an IS. More information on this stage can be found in Clause 2.7 or ISO/IEC Directives Part 1.

PUBLICATION STAGE

Within 6 weeks, the Office of the CEO will correct any typographical errors indicated by the Secretariat of the committee and print and distribute the IS. This stage ends with the publication of the IS, approximately 36 months after the NP.

OTHER DELIVERABLES

ISO and the IEC offer several deliverables other than the traditional international standards. Even upon publication, these types of documents are not called "standards." They include the following:

- **Technical Specifications and Publicly Available Specifications:** Technical Specifications (TS) and Publicly Available Specifications (PAS) are developed within an ISO or IEC committee structure, but require a lower level of consensus than do traditional IS carrying the ISO or IEC logos. They are generally issued when there is either not enough support for an IS or they are not technologically developed enough to become an IS. Neither PAS nor TS have the same status as IS and should not be regarded as such. Committees, however, have the option to continue work on a PAS or TS after it is published. Subsequent revisions may proceed through the normal standards development process into a full consensus-based IS. It should be noted that JTC 1 had a unique PAS process that results in an ISO/IEC standard.[1]
- **Technical Reports:** Technical Reports (TRs) are informative documents differing from normative documents. Allowance is made in the ISO/IEC Directives for TRs which can be published under certain clearly defined circumstances. A TR may be a collection of data.
- **International Workshop Agreements:** An International Workshop Agreement (IWA) is an ISO document produced through workshop meeting(s) and not through the traditional committee process. It can be developed in less than 12 months to address a rapidly emerging market need or public policy requirement. Participants in the development of an IWA do not have to be members of ISO or accredited by a U.S. TAG. Any individual who has a vested interest in the topic may participate.

MAINTENANCE

A standard is a living document and accordingly requires maintenance. The group that produced the standard generally provides the necessary upkeep. Maintenance can consist of revising the document to include new or different materials based upon technology changes, expanded scope, or corrections.

In ISO, standards must be reviewed at least every five years. At that time they can be continued, changed, or recommended for elimination. Any modification, revision, amendment, or other change is generally considered to be new work and must follow the same protocol for any other new work item.

Within IEC, the program for maintenance of publications shall be included in the committee's Report to the SMB. The Report shall include the maintenance cycle for each of its publications (typically between 3 and 12 years).

If the periodic review results in a recommendation that a standard be withdrawn, an official ballot will be conducted to ensure that all interested parties concur with the proposal for withdrawal. If that vote is affirmative, the standard can be "taken off the books."

The designation for a withdrawn standard is normally not re-used.

1 JTC 1 supplement

OTHER CONSIDERATIONS

» **Fast Track:** The fast-track procedure offers a speedier alternative for publishing certain standards. Any existing standard may be nominated by a P-member or category-A liaison to be submitted to vote as a DIS. Alternatively, any standards developing organization (SDO) recognized by ISO or the IEC may submit an existing standard as a DIS or may submit a draft standard developed by that organization as an enquiry draft. This procedure tends to be used frequently in fields with rapidly developing technologies.[2]

» **Global Relevance:** Both ISO and the IEC recognize the diversity of global market needs. In an effort to address regional differences, terms of global relevance have been drawn by ISO and the IEC to ensure a standard does not favor one region over another. The criteria state that a standard should effectively respond to regulatory and market needs; respond to scientific and technical developments in various countries; not distort the market or impede fair competition, innovation, or technological development; try to meet the needs and interests of as many regions as possible; and be based on performance. The Global Relevance initiative is an extremely important area in maximizing the global use of standards.

» **"In Some Countries" Clause:** The IEC has approved a procedure for the inclusion of statements on conditions existing in certain countries. These so-called "In Some Countries" clauses provide for permanent regional differences (such as climate or voltages) and differing regional practices that exempt those particular regions from an otherwise IS. In all such cases, the relevant IEC National Committee must provide a statement requesting the clause, and at the FDIS stage, the clause is voted upon for approval. The USNC has an implementation mechanism with which U.S. delegates to IEC meetings should be familiar.[3]

» **IEC Dual-Logo/Dual-Development:** The dual-logo agreement is an arrangement in which the logos of two organizations (for example, IEC and IEEE) will appear on standards accepted and approved by the IEC. The IEC and IEEE agreed to an extension of this agreement on dual-logo publications to include a procedure for joint development of International Standards. The new procedure facilitates input from all parties into the content of documents.

» **Vienna and Frankfurt Agreements:** The Vienna Agreement is intended to coordinate work between ISO and CEN (the European Committee for Standardization). The cooperation agreement between the IEC and CENELEC (the European Committee for Electrotechnical Standardization) is known as the Frankfurt Agreement. The objective of both of these agreements is to avoid duplication of standards development efforts, speed up the preparation of standards, maximize information exchange and transparency, and ensure the best use of the resources available and particularly of experts' time.

» **China:** China is fast becoming a major player in the International Standards arena and a vital contributor with which you will interface. ANSI has a staff expert on issues related to China available for advice and counsel. To get in contact with ANSI's International Policy department, please reach out to the email here.

2 *For further details on the fast-track procedure, please refer to the ISO/IEC Directives, Part 1, F.2.*

3 *The IEC has developed a Global Relevance Toolbox that provides a variety of tools to permit TCs/SCs to accommodate various needs to ensure that their publications can be used worldwide. The Toolbox presents examples of different cases which can occur when attempting to develop a globally relevant standard and indicates how each of these cases can be integrated.*

CONCLUSION

You now have the basic tools needed to represent ANSI at your ISO or IEC committee meeting. You should use this guide as a template for further reading. Almost every standards-setting body has specific guidelines for governing itself; it is important that you review the relevant policy and procedures manuals in preparation for your meeting. Individual committees may also provide detailed statements of their specific programs, objectives, and procedures. Organizational rules and procedures are updated often, so make sure you work with the latest version.

Understanding the procedures is probably one of the most valuable tools an expert can have when working in the standards development arena. Not understanding these policies and procedures could jeopardize your company and/or its representatives legally, place your strategy at risk, or give the competition an unearned advantage. Through an understanding of the requirements, it is possible to effectively engage in discussions regarding requirements for the stages of the development process.

Your participation as a knowledgeable expert is key if U.S. interests are to successfully influence the contents of International Standards and ensure the global relevance of the standards produced.

ANSI and the USNC hope you enjoy your experience and find it personally rewarding. Feel free to contact us should you have any further questions; we strive to offer you the information and services you require to succeed.

Have a wonderful time and good luck!

APPENDICES

APPENDIX A: ORGANIZATIONAL INFORMATION

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

The American National Standards Institute (ANSI) has served in its capacity as administrator and coordinator of the United States private sector voluntary standardization system since it was founded in 1918. Created by five engineering societies and three government agencies, the Institute remains a private, non-profit membership organization supported by a diverse constituency of private- and public-sector entities.

Throughout its history, the ANSI Federation has maintained as its primary goal the enhancement of global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and promoting their integrity. The Institute represents the interests of its nearly 1,000 company, organization, government agency, institutional, and international members through its office in New York City and its headquarters in Washington, DC.

With the help of its federated membership, ANSI provides management, leadership, coordination, and financial and administrative support for effective U.S. participation in international standardization. As the official U.S. member of the International Organization for Standardization (ISO) and to the International Electrotechnical Commission (IEC) through the U.S. National Committee (USNC), ANSI is responsible for setting policy for participation in these forums. It also pays the total dues for U.S. membership to both the ISO and the IEC.

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

Following a meeting in London in 1946, delegates from 25 countries decided to create a new international organization, "the object of which would be to facilitate the international coordination and unification of industrial standards." The new organization, known as the International Organization for Standardization (ISO), began to function officially in 1947.

Note: Because the name of the International Organization for Standardization would have different abbreviations in different languages (IOS in English, OIN in French), it was decided to use a word derived from the Greek isos, meaning "equal." Therefore, the short form of the organization's name is always ISO.

The object of ISO is to promote the development of standardization and related activities in the world with a view to facilitating international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological, and economic activity. The organization's scope covers standardization in all fields except

electrical and electronic engineering standards, which are the responsibility of the International Electrotechnical Commission (IEC).

As a worldwide federation of national standards bodies, ISO's membership comprises more than 160 nations in three categories: national standards bodies, correspondent members, and subscriber members. A member body is the national body "most representative of standardization in its country"; it follows that only one such body for each country is accepted for ISO membership. ISO encourages the participation of developing nations and those with developing national standardization systems through its correspondent and subscriber members.

ISO has approximately 110 national standards bodies, and more than 70% of these are governmental institutions or organizations incorporated by public law. The remaining bodies have close links with the public administration in their own countries. Member bodies are entitled to participate and exercise full voting rights on any technical committee of ISO, are eligible for leadership positions, and have seats at meetings of the organization (the "General Assembly").

Both directly and through its national standards bodies, ISO brings together the interests of producers, users (including consumers), governments, and the scientific community in the preparation of International Standards. Standards-setting activities are carried out through about 3,300 TCs, SCs, PCs, and WGs. More than 30,000 experts from all parts of the world participate each year in ISO technical work which, to date, has resulted in the publication of over 19,000 ISO standards and standards-type documents.

INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)

Founded in 1906, the International Electrotechnical Commission (IEC) now comprises more than 82 national electrotechnical committees that collectively represent approximately 85% of the world's population and 95% of the world's electrical generating capacity. The work of the IEC is done through about 170 TCs and SCs and 450 WGs, each developing standards on the safety, performance, construction, and installation of electrical equipment and services for specific, well- defined product sectors. More than 6,000 international electrotechnical standards, in English and French, are listed in the IEC catalogue of publications.

One of the fundamental goals of the IEC is to bring into use a coherent and common set of electrotechnical standards worldwide. The benefits are two-fold: adoption of IEC standards by manufacturers removes barriers to international trade in electrical and electronic equipment, and specification of IEC standards by users ensures that they have a common and valid base for examining and comparing competing products. A measure of the success in meeting this goal is the fact that more than 100 countries now voluntarily adopt IEC standards as the basis of their national rules and standards. Many have adopted them without change.

The IEC does not, of course, work independently of other international national standards bodies. While the IEC concentrates on standards in the electrical and electronic fields, including some areas of telecommunications, the

ISO is concerned with technical standards covering a diverse range of other subjects. The two organizations work closely together, in particular in a joint committee developing international standards in the information technology field.

Close relations are also maintained with the International Telecommunication Union (ITU), the European Committee for Electrotechnical Standardization (CENELEC), and many other organizations that produce standards, codes of practice, and rules for specific disciplines.

The IEC enjoys close links with other bodies in non- electrotechnical areas, as well. Among these are close liaison relationships with the World Health Organization (WHO), International Labor Office (ILO), International Federation of Standards Users (IFAN), and International Laboratory Accreditation Cooperation (ILAC).

INTERNATIONAL TELECOMMUNICATION UNION (ITU)

The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies (ICTs). The agency allocates global radio spectrum and satellite orbits, develops the technical standards that ensure networks and technologies interconnect, and strives to improve access to ICTs to underserved communities worldwide.

An organization based on public-private partnership since its inception, ITU currently has a membership of 193 countries and over 700 private-sector entities and academic institutions. ITU is headquartered in Geneva, Switzerland, and has twelve regional and area offices around the world.

ITU membership represents a cross-section of the global ICT sector, from the world's largest manufacturers and carriers to small, innovative players working with new and emerging technologies, along with leading R&D institutions and academia. ITU is at the heart of the ICT sector, brokering agreement on technologies, services, and allocation of global resources like radio-frequency spectrum and satellite orbital positions, to create a seamless global communications system that is robust, reliable, and constantly evolving.

Founded on the principle of international cooperation between governments (Member States) and the private sector (Sector Members, Associates, and Academia), ITU is a global forum through which parties work towards consensus on a wide range of issues affecting the future direction of the ICT industry.

APPENDIX B: COMMONLY USED ACRONYMS

LISTED ALPHABETICALLY

AHG	Ad Hoc Group
AIC	ANSI ISO Committee
AIF	ANSI ISO Forum
ANS	American National Standards
ANSI	American National Standards Institute
AWI	Approved Work Item
CAPC	Conformity Assessment Policy Committee
CASCO	Committee on Conformity Assessment
CD	Committee Draft
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CIB	Committee Internal Ballot
COPANT	Pan American Standards Commission
COPOLCO	Committee on Consumer Policy
CS	Central Secretariat
DEVCO	Committee on Developing Country Matters
DIS	Draft International Standard
DTR	Draft Technical Report
DTS	Draft Technical Specification
ETSI	European Telecommunications Standards Institute
ExSC	Executive Standards Council
FDIS	Final Draft International Standard
HoD	Head of Delegation
IAA	International Activity Assessment
IEC	International Electrotechnical Commission
INFCO	Committee on Information Systems and Services
IPC	International Policy Committee
IPRPC	Intellectual Property Rights Policy Committee
IS	International Standard
ISO	International Organization for Standardization
ISOT	ISO Team
ITU	International Telecommunications Union
IWA	International Workshop Agreement
JTC	Joint Technical Committee
JWG	Joint Working Group
MA	Maintenance Agency
MSS	Management Systems Standard
NMB	National Member Body
NPC	National Policy Committee
NTTAA	National Technology Transfer & Advancement Act
NWIP	New Work Item Proposal
OBP	Online Browsing Platform
O Member	Observing Member
OMB	Office of Management and Budget
PAS	Publicly Available Specification
PASC	Pacific Area Standards Congress
PC	Project Committee
PL	Project Leader
P Member	Participating Member
PSA	Procedures and Standards Administration
PWI	Preliminary Work Item
RA	Registration Authority
REMCO	Committee on Reference Materials
RSC	Regional Standing Committees

SC	Subcommittee
SDO	Standards Developing Organization
SPB	Strategic Business Plan
SR	Systematic Review
TAG	Technical Advisory Group
TC	Technical Committee
TMB	Technical Management Board
TPM	Technical Programme Manager
TR	Technical Report
TS	Technical Specification
TS/P	Technical Subject Proposal
USNC	U.S. National Committee
VA	Vienna Agreement
WD	Working Draft
WG	Working Group
WTO	World Trade Organization

LISTED CATEGORICALLY

DOCUMENTS AND BALLOTS

AWI	Approved Work Item
CD	Committee Draft
CIB	Committee Internal Ballot
DIS	Draft International Standard
DTR	Draft Technical Report
DTS	Draft Technical Specification
FDIS	Final Draft International Standard
IS	International Standard
IWA	International Workshop Agreement
MSS	Management Systems Standard
NWIP	New Work Item Proposal
PAS	Publicly Available Specification
PWI	Preliminary Work Item
SR	Systematic Review
TR	Technical Report
TS	Technical Specification
TS/P	Technical Subject Proposal
WD	Working Draft

GROUPS WITHIN ANSI

AIC	ANSI ISO Committee
AIF	ANSI ISO Forum
ANSI	American National Standards Institute
CAPC	Conformity Assessment Policy Committee
ExSC	Executive Standards Council
IPC	International Policy Committee
IPRPC	Intellectual Property Rights Policy Committee
ISOT	ISO Team
NPC	National Policy Committee
PSA	Procedures and Standards Administration
RSC	Regional Standing Committees
SDO	Standards Developing Organization
TAG	Technical Advisory Group
USNC	U.S. National Committee

GROUPS WITHIN ISO

AHG	Ad Hoc Group
CASCO	Committee on Conformity Assessment
COPOLCO	Committee on Consumer Policy
CS	Central Secretariat
DEVCO	Committee on Developing Country Matters
INFCO	Committee on Information Systems and Services
ISO	International Organization for Standardization
JTC	Joint Technical Committee
JWG	Joint Working Group
MA	Maintenance Agency
NMB	National Member Body
PC	Project Committee
RA	Registration Authority
REMCO	Committee on Reference Materials

SC	Subcommittee
TC	Technical Committee
TMB	Technical Management Board
WG	Working Group

OTHER INTERNATIONAL GROUPS

CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
COPANT	Pan American Standards Commission
ETSI	European Telecommunications Standards Institute
IEC	International Electrotechnical Commission
ITU	International Telecommunications Union
PASC	Pacific Area Standards Congress

OTHER ACRONYMS

ANS	American National Standards
HoD	Head of Delegation
IAA	International Activity Assessment
NTTAA	National Technology Transfer & Advancement Act
OBP	Online Browsing Platform
OMB	Office of Management and Budget
O Member	Observing Member
PL	Project Leader
P Member	Participating Member
SPB	Strategic Business Plan
TPM	Technical Programme Manager
VA	Vienna Agreement
WTO	World Trade Organization

APPENDIX C: ADDITIONAL RESOURCES

- IEC/ISO Directives – Part 1, Procedures for the technical work
- IEC/ISO Directives – Part 2, Rules for the structure and drafting on International Standards
- IEC Supplement – Procedures Specific to IEC
- ISO Supplement – Procedures Specific to ISO
- USNC Model Operating Procedures
- ANSI Procedures for U.S. Participation in the International Standards Activities of the ISO
- USNC Statutes and Rules of Procedure
- ISO/IEC JTC 1 Supplement
- Global Relevance in ISO and IEC
- Guidelines for Implementation of the ANSI Patent Policy
- ISO Committee on Consumer Policy
- ISO/CEN Vienna Agreement
- IEC/CENELEC Frankfort Agreement

APPENDIX D: CONTACTS

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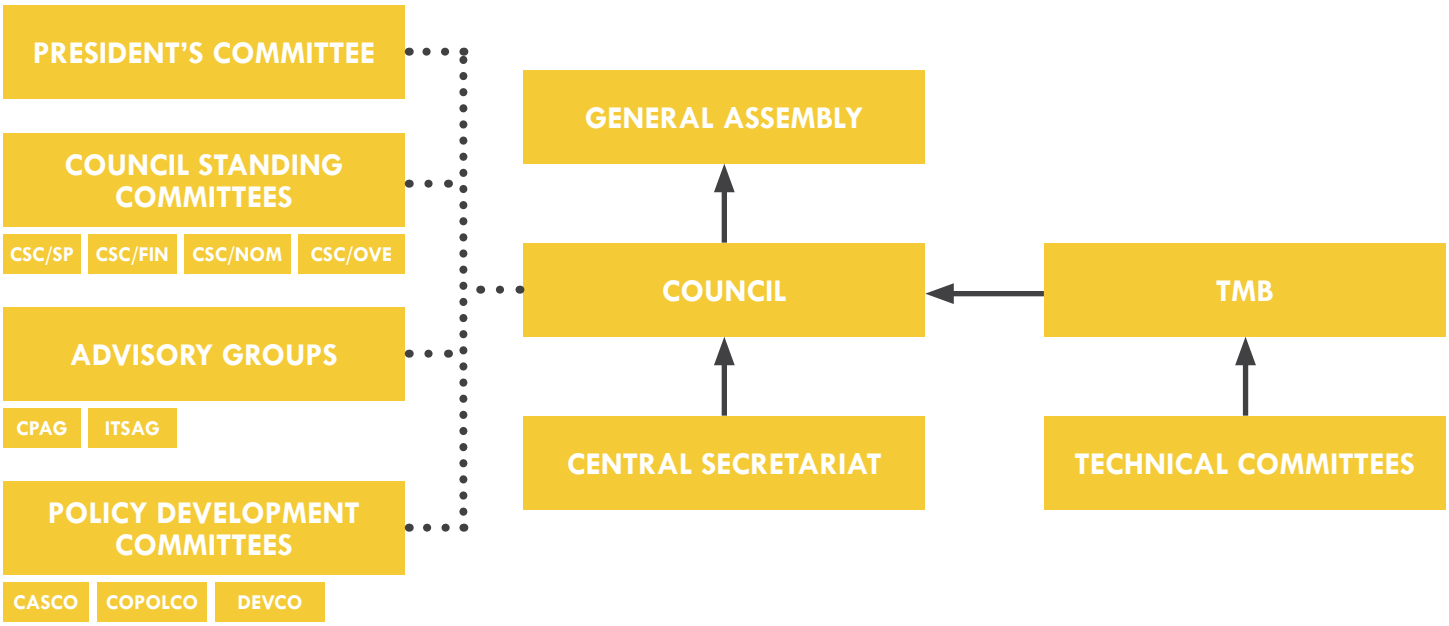
APPENDIX E: ORGANIZATION STRUCTURES

ISO ORGANIZATION CHART



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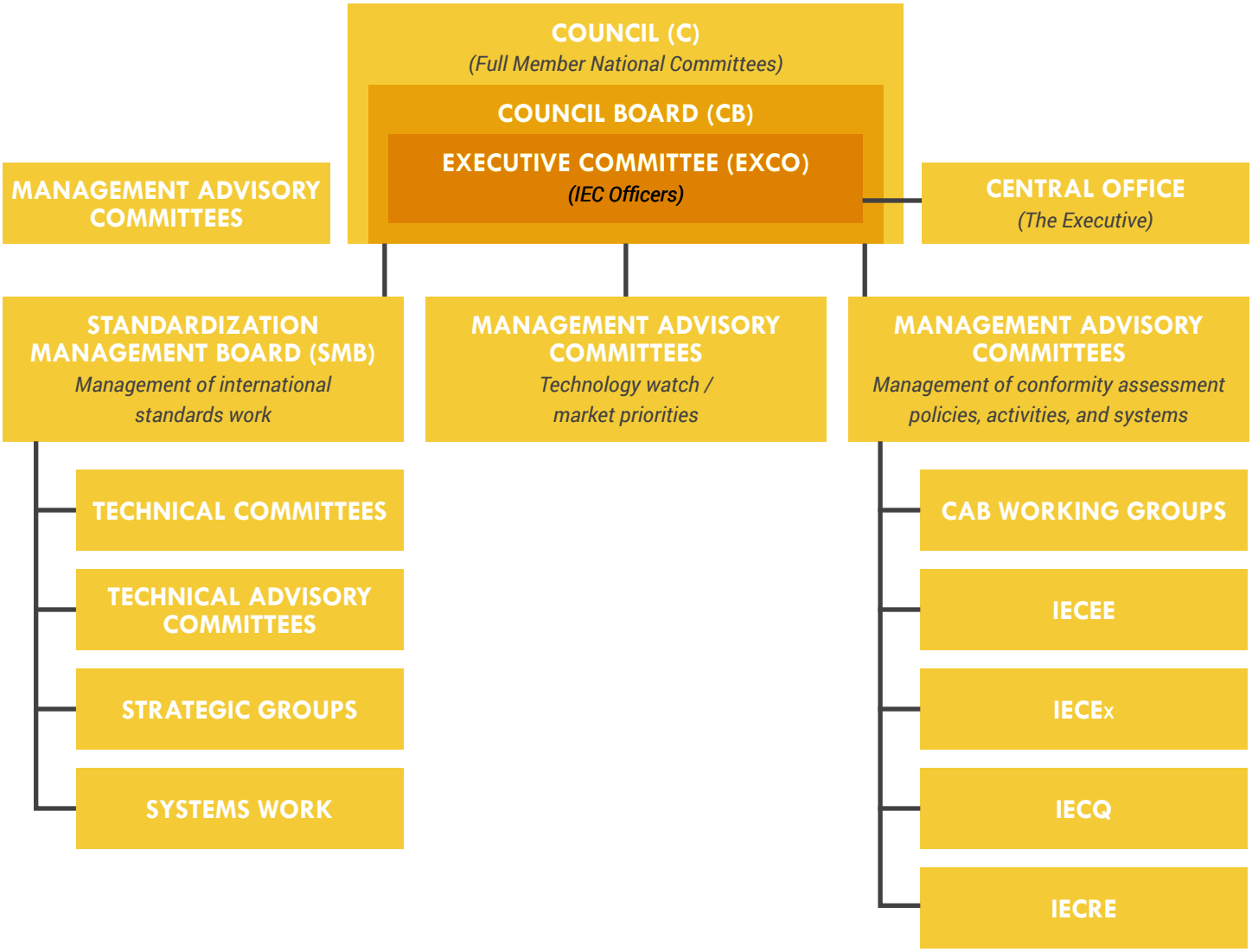

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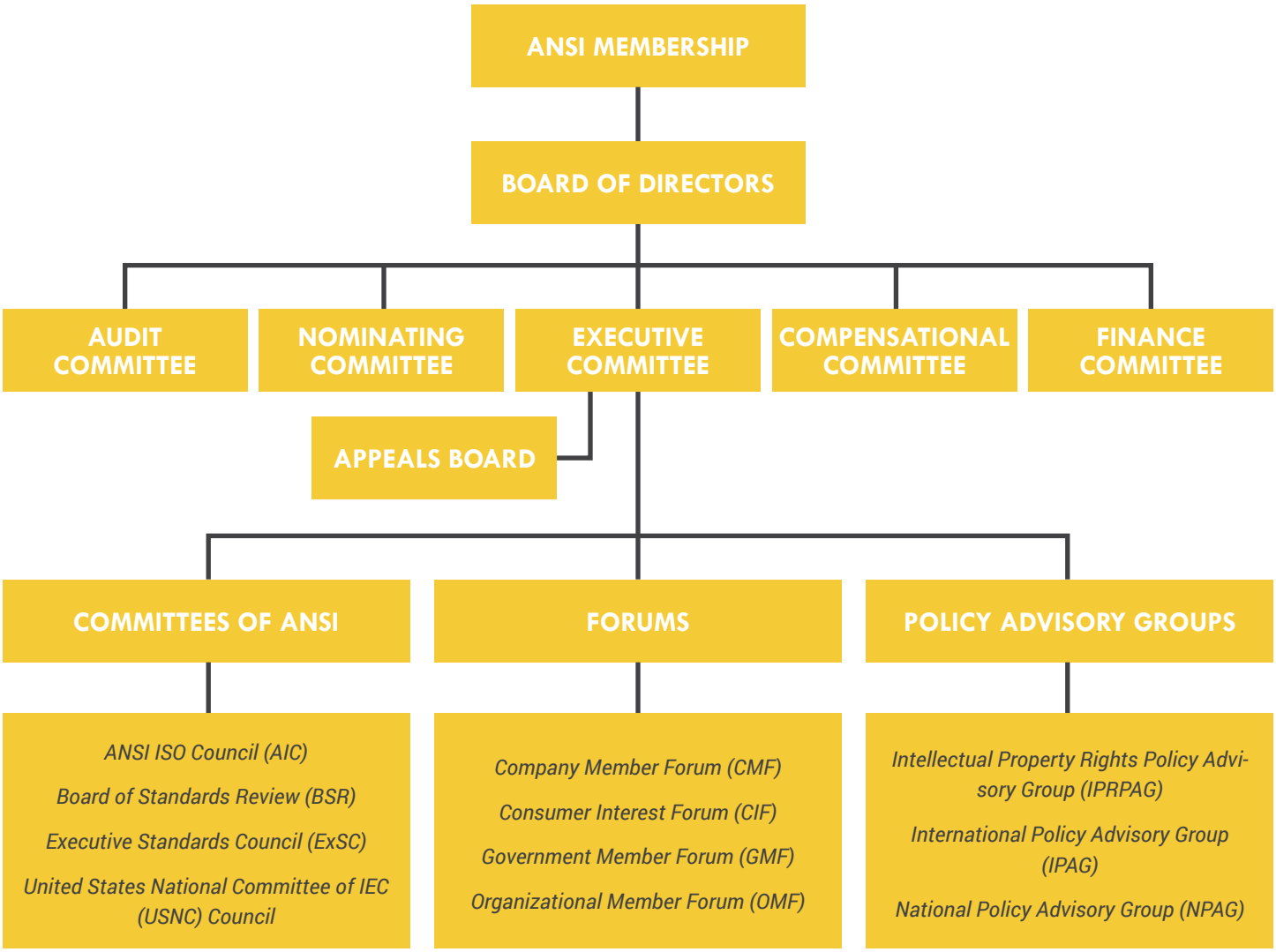
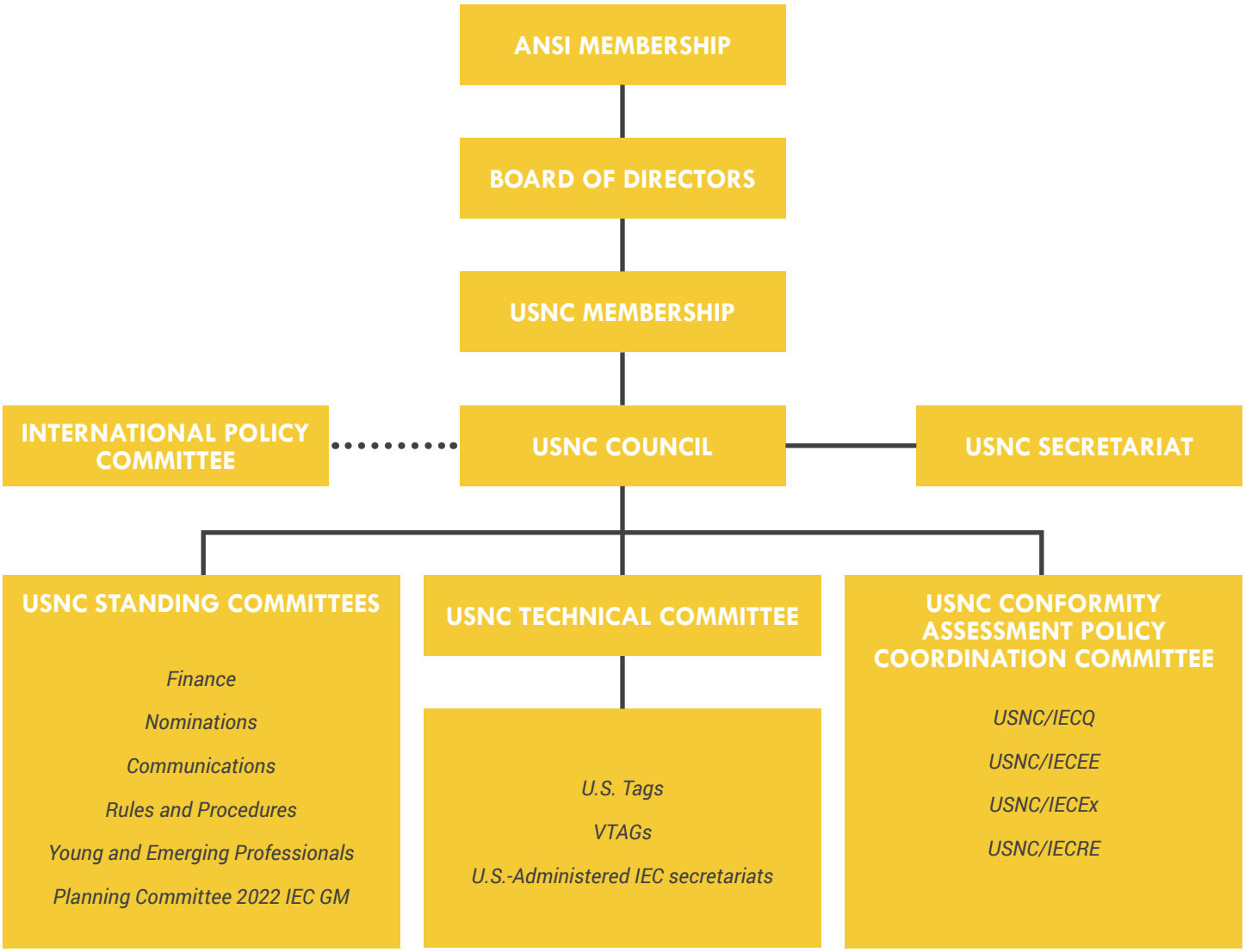


USNC ORGANIZATION CHART



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