

IEEE SA

STANDARDS
ASSOCIATION



STANDARDS DEVELOPMENT PROCESS

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AGENDA

- IEEE SA Governance Structure
- Standards Committee and Working Groups
- Standards Development Process

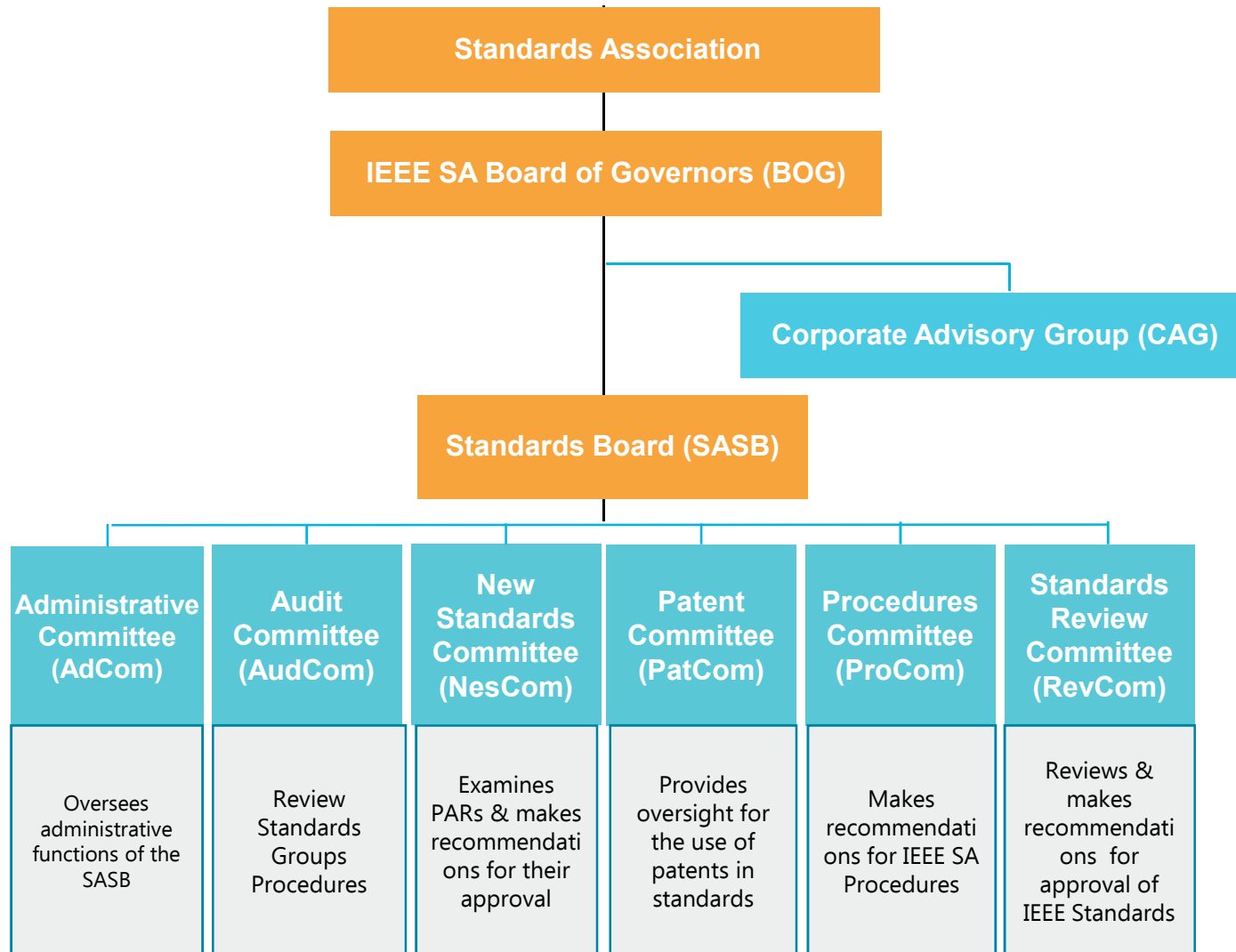


IEEE SA Governance Structure

IEEE GOVERNANCE

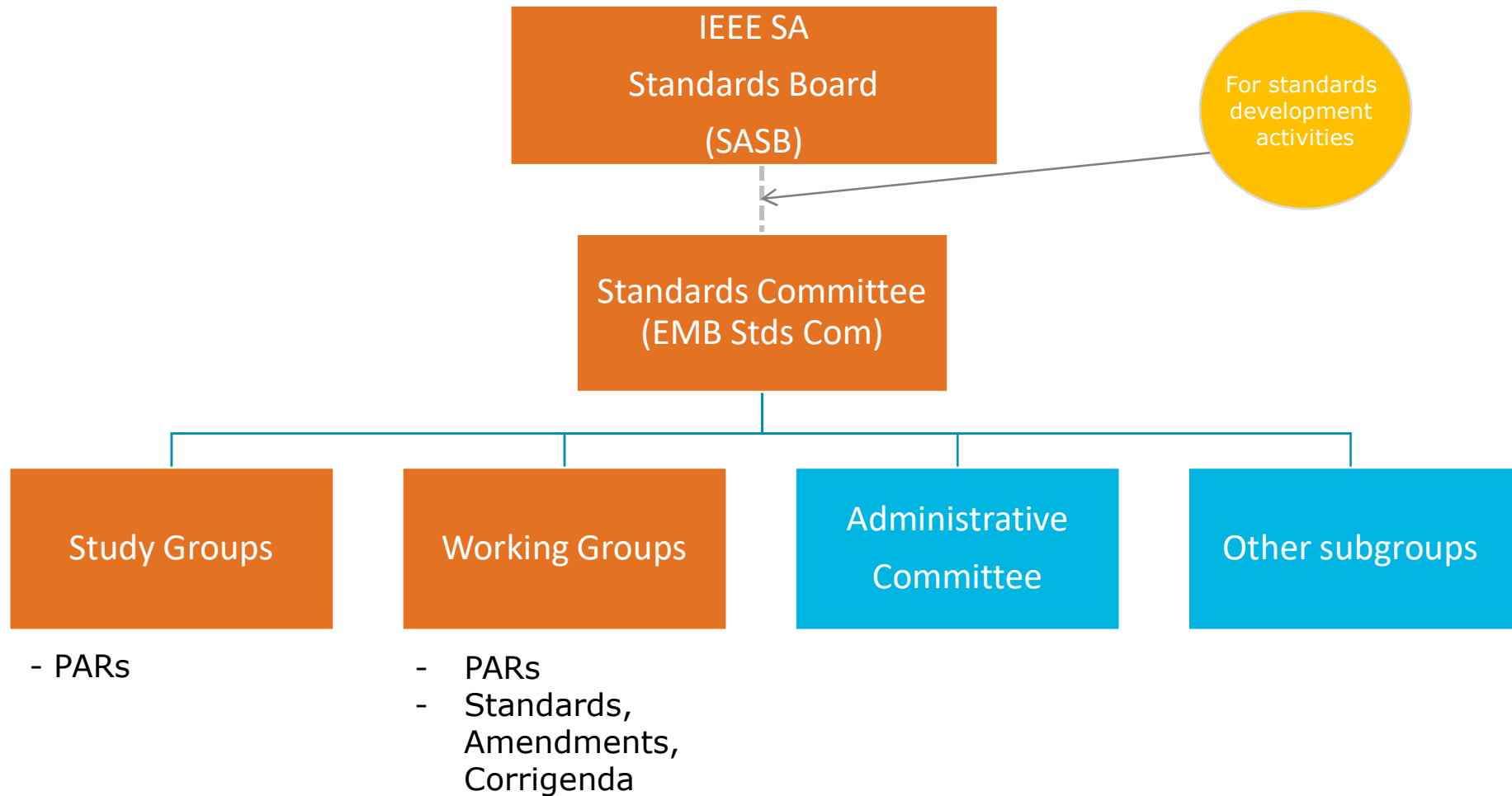


IEEE STANDARDS ASSOCIATION



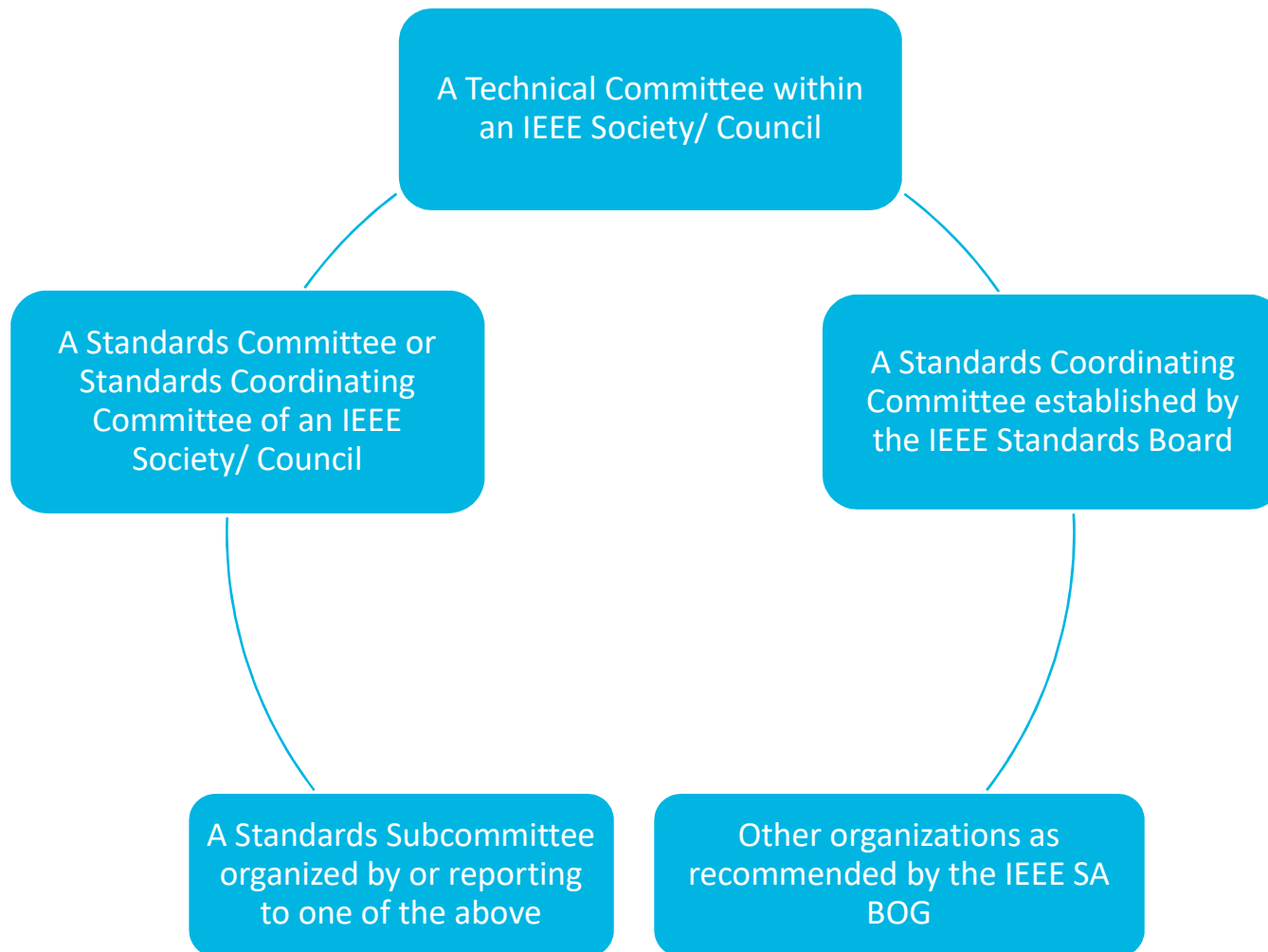
Standards Committees and Working Groups

STANDARDS DEVELOPMENT GROUPS



STANDARDS COMMITTEE

Standards Committees that are responsible for the development and maintenance of standards shall be one of the following:



WORKING GROUP OVERVIEW

- With PAR approval, a WG is defined, and it can officially begin its work to draft the standard.
- WGs are open to anyone interested in participating.
 - For individual standards projects, IEEE or IEEE SA membership is not required to participate.
 - For entity standards projects, IEEE SA corporate membership is required.
- WG meetings typically operate using Robert's Rules of Order Newly Revised (RONR)
- WGs abide by General Data Protection Regulation Guidelines (GDPR)
- *All WGs operate in accordance with a written set of policies and procedures (WG P&Ps) that has been approved by the EMB Standards Committee (EMB Stds Com).*
- The WG P&P is the document that defines the WG officer roles, the preparation of agendas, meeting minutes, voting requirements, etc.

RESOURCES

- [IEEE Standards development Life Cycle](#)
- [SA Working Group Chair Quick Reference Guide](#)
- [http://standards.ieee.org/develop/policies/ieee sa toolkit.pdf](http://standards.ieee.org/develop/policies/ieee_sa_toolkit.pdf)
- [Best Practices for IEEE Standards Development](#)
- [Standards and the Law Reference Guide](#)
- [IEEE GDPR Volunteer Dashboard](#)
- [IEEE Electronic Meeting Guide](#)



Standards Development Process

TYPES OF IEEE STANDARDS PROJECTS

IEEE standards are classified as:

Standards

- Documents with mandatory requirements
- “Shall” indicates mandatory requirements to be strictly followed without deviation in order to conform to the standard

Recommended practices

- Documents in which procedures and positions preferred by the IEEE are presented
- “Should” indicates a particular recommendation among several possibilities without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required

Guides

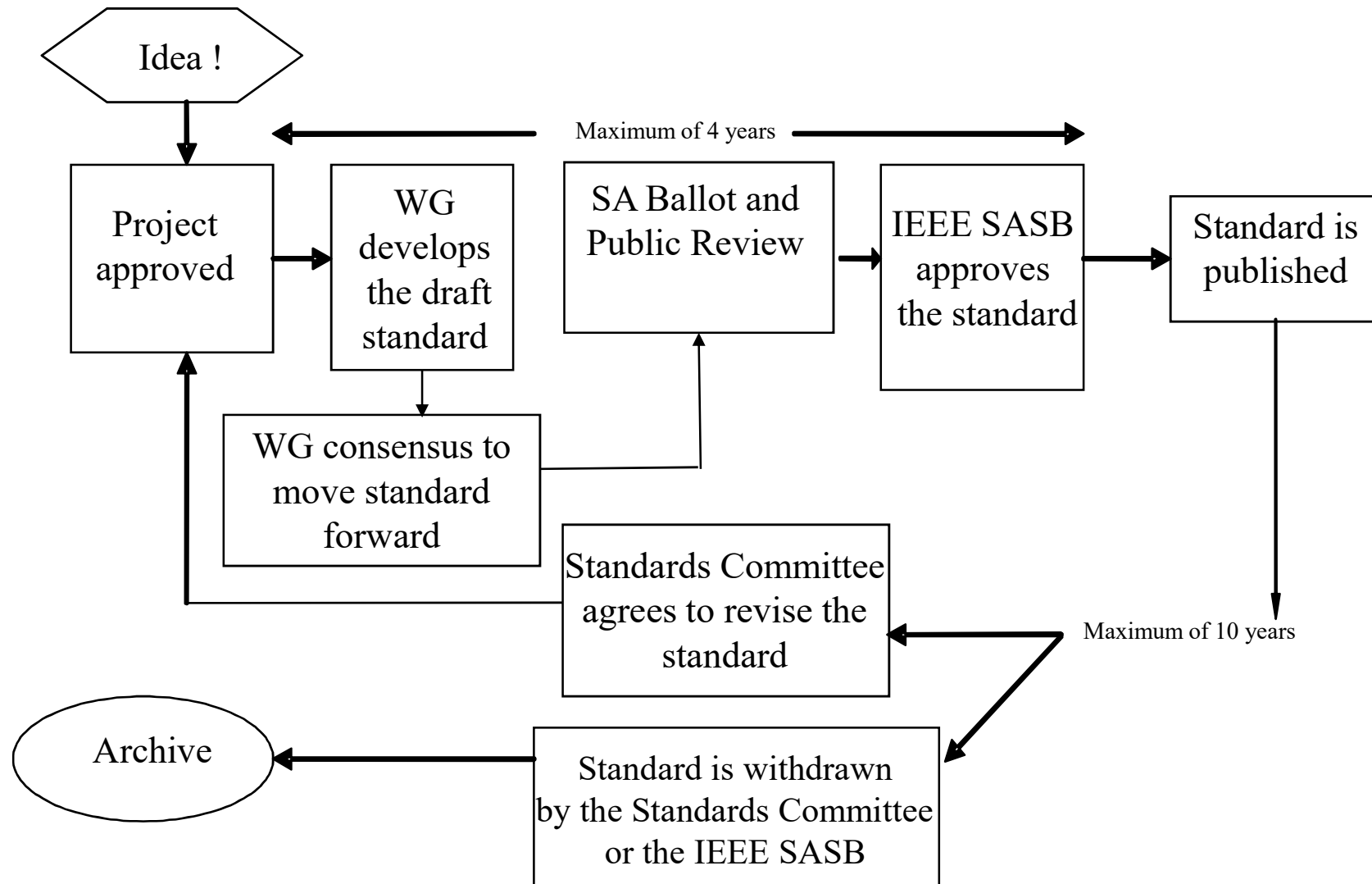
- Documents in which alternate approaches to good practice are suggested but no clear-cut recommendations are made
- “May” indicates a course of actions permissible within the limits of a standard
- “Can” indicates possibility and capability

PRINCIPLES OF STANDARDS DEVELOPMENT

Standards development follow a well-defined path from concept to completion, guided by a set of eight basic principles:

- 1 Direct Participation
- 2 Due Process
- 3 Broad Consensus
- 4 Balance
- 5 Broad Openness
- 6 Coherence
- 7 Development Dimension
- 8 Transparency

STANDARDS DEVELOPMENT LIFECYCLE

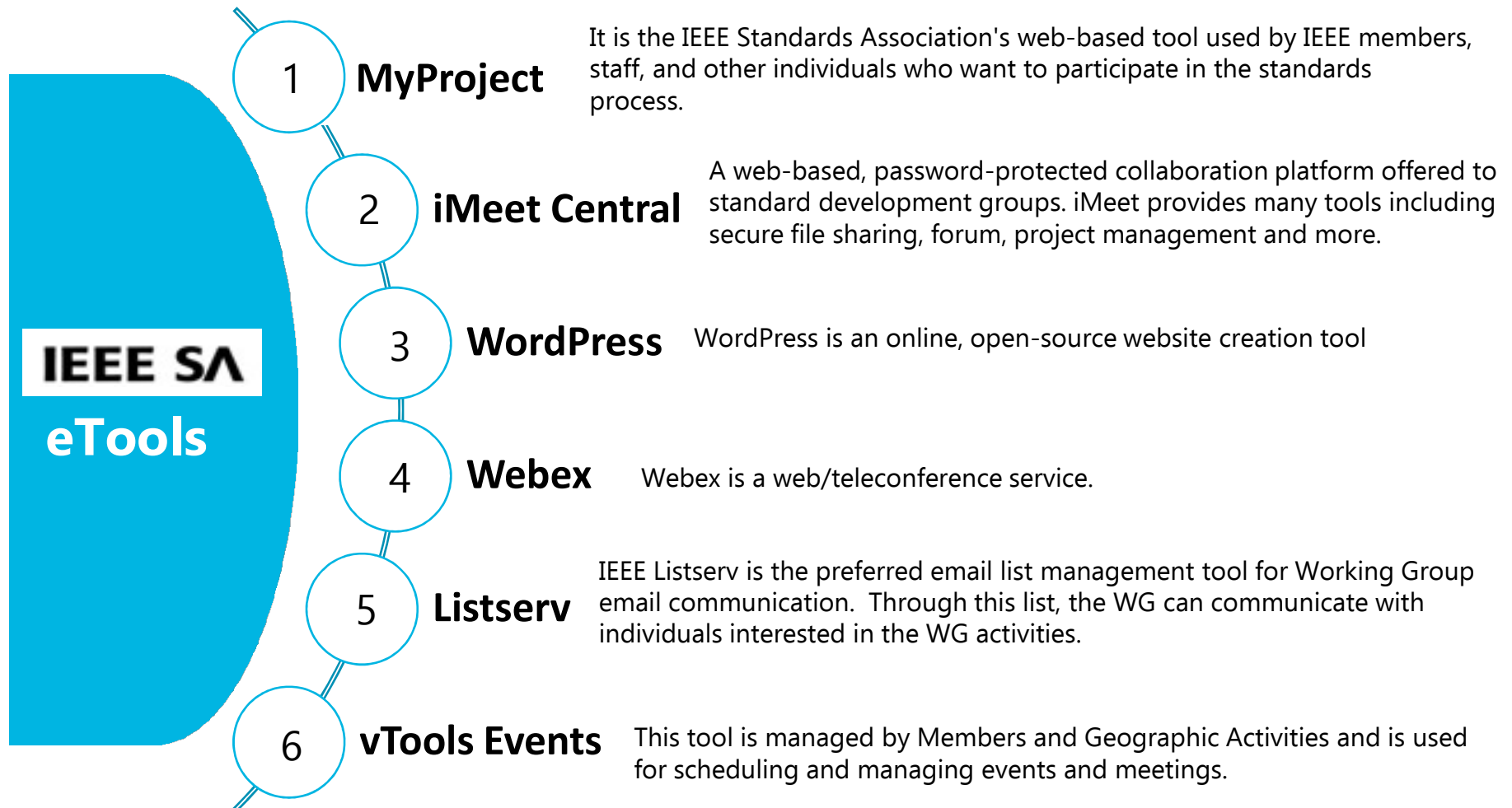


Standards Process Overview: <http://standards.ieee.org/develop/overview.html>

KEY STEPS IN STANDARDS DEVELOPMENT

- EMB Standards Committee is formed. EMB Stds Com P&Ps approved by the IEEE Standards Association Board (SASB).
- EMB Stds Com uses the IEEE SA baseline WG P&Ps template to develop and approve WG P&Ps for all WGs to follow.
- EMB Stds Com authorizes a PAR (via NesCom) for SASB approval.
- PAR approved and call for participation (CFP) issued, as needed.
- Program Manager works with WG Chair to provide WG tools (e.g., website, email reflector, document repository)
- WG meets and appoints officers in accordance with the WG P&Ps
- WG develops the draft standard and obtains permission for previously published material prior to being included in the draft.
- WG obtains consensus to move draft forward to Standards Association (SA) Ballot.
- WG Chair submits draft standard for Mandatory Editorial Coordination (MEC).
- WG Chair initiates and oversees SA balloting and Public Review.
- WG Chair submits draft standard (via RevCom) for SASB approval.
- IEEE SA Editor performs final editing. Standard published. Complimentary copies are provided to WG members.
- EMB Stds Com maintains the standard.

ETOOLS



STANDARDS DEVELOPMENT MEETINGS

Meetings shall be conducted in compliance with the following:

- WG Policies and Procedures (P&P's)
- IEEE SA Antitrust and Competition Policy
- Patent Policy
- Copyright Policy
- Robert's Rules of Order
- GDPR

Do not discuss the following at WG meetings:

- Interpretation, validity, or essentiality of patents/patent claims
- License rates, terms, or conditions. (Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed)
- Setting product prices, allocation of customers, or division of sales markets
- The status or substance of ongoing or threatened litigation

KEY CONSIDERATIONS WHEN DRAFTING A STANDARD

- The content of the draft must remain within the title, scope, and purpose of the approved Project Authorization Request (PAR)
- The Working Group may appoint a technical editor. The technical editor gathers working group-approved technical contributions and ensures technical consistency throughout the draft standard.
- Develop an outline of the draft; this will serve as the structure for the standard.
 - Topics in the outline will become clauses and sub-clauses
 - The development of the outline should take no longer than 3 months or 6 months from PAR approval.
 - Avoid writing the document in working group meetings. Use working group meetings only to review important points in the draft and resolve areas of disagreement.
 - IEEE SA editors are available to answer questions on style and formatting
- Divide each topic or clause among the WG members
 - Subgroups can be created to develop sections of the draft or to discuss a specific topic. Subgroups report back to the WG.
 - Approval of material may need to be voted on, check WG policies for voting requirements
- Keep track of the contributions and contributors
- Refer to IEEE SA Standards Style Manual and utilize IEEE Templates
- The Working Group Chair shall request a Letter of Assurance (LOA) from potential essential patent holders and obtain all copyright permissions
- Do not make the draft public. Do not share the draft with people who are not participants of the working group (See draft sharing policy)

PRE BALLOT ACTIVITIES

Mandatory Editorial Coordination (MEC)

MEC is preliminary review of your draft by IEEE SA editorial staff to identify problems that would prevent the document from moving forward into the IEEE SA balloting process

- The MEC is initiated by the Working Group (WG) Chair
- Ensures that basic elements of the document, such as draft labeling, copyright statements and releases are all handled properly in the draft.
- Is required prior to the start of an IEEE SA Ballot in order to ensure conformance with IEEE requirements
- IEEE SA Editor will review and provide comments or guidance to the WG Chair, copying the Program Manager (PM)

PRE BALLOT ACTIVITIES CON'T

SA Ballot Invitation

- SA Ballot invitation is initiated by the Working Group (WG) Chair, or designated individual with authority in myProject™
- At minimum, the interested participants who have indicated interest in this project, along with the EMB Stds Com and WG of this project, will receive invitation
- WG officers and members are not automatically added into the ballot group and need to join the SA ballot group
- Balloters classify their relationship relative to the scope of the draft standard (e.g. producer, user, academic, government).
- Ballot groups shall be balanced
- Ballot groups must have at least 10 members for Individual ballots and 5 members for Entity ballots.

SA BALLOTING

- Balloting shall begin within 6 months of when the ballot invitation closes.
- Working Group Chair submits draft for balloting in myProject system. The SA Ballot opens when the PM approves the request.
 - Balloters are notified that ballot is open
 - The initial ballot is opened for at least 30 days
 - Balloters can approve, disapprove, abstain
- Consensus must be reached for the standard to move forward (75% approval rate /75% response rate)
- Public Review
- The 60 day Public Review period begins once the initial SA ballot is initiated and will be based only on the initial balloted draft. The online Public Review system is used to facilitate the process;
 - allows systematic feedback on initial SA ballot drafts by a broad, inclusive community.
 - Any materially interested person, anywhere can sign up as a Public Review commenter and submit comments against the initial ballot draft
 - Does not need to be an IEEE or SA member to submit comments

SA BALLOTING – COMMENT RESOLUTION AND RECIRCULATION

Comment Resolution

After SA Balloting, the WG shall:

- Form a “Comment Resolution Group” (CRG) to review and resolve the comments
- Consider all comments received from the SA Ballot through the comment resolution process.
- Conduct recirculation ballot(s) as needed

Recirculation Ballot -

Required if substantive changes were made to the draft, or if there are any unresolved *Do Not Approve (with Comments)* votes (not editorial comments).

- Until 75% approval is achieved, comments can be based on any part of the document.
- Once 75% approval is achieved, comments shall be based only on the changed portions of the draft, portions of the draft affected by the changes, or portions of the draft that are the subject of unresolved comments associated with *Do Not Approve* votes.
- Recirculation ballots are opened for at least 10 days
- Balloters have the opportunity to change their vote, and those who did not vote previously can cast their vote at this time

SUBMITTAL TO REVCOM

RevCom Submittal Process

- The draft standard is ready to submit to the IEEE SA Standards Board for approval when the following is met:
 - Consensus is achieved
 - All comments are responded to
 - All comments accompanying *Do Not Approve* votes have been circulated to the ballot group.
 - WG Chair, Standards Committee Chair, or a designee submits the draft with source material and other documentation to RevCom in myProject.

RevCom Review Process

- RevCom members review the draft, ballot results and submit comments in myProject.
 - For more details on the RevCom Review Process click [here](#)
- The WG Chair or Standards Committee Chair should respond to RevCom comments in a timely manner
- RevCom provides its recommendation to approval/disapprove the draft standard to the SASB.
- SASB makes the final determination on the approval of the draft standard.
 - ❖ WG must not change the draft after the last ballot. Editorial changes are allowed by IEEE SA editors during final editing.

PUBLISHING THE STANDARD

- After the IEEE SASB approves the standard, an IEEE SA editor edits the document to ensure that the standard is grammatically and syntactically correct using American English.
- The editor ensures that the document meets the rules in the IEEE Standards Style Manual.
- The IEEE editor works with a primary contact for the WG (usually the WG Chair or technical editor).
- The primary contact is responsible for reviewing the edited and formatted pages to ensure that no errors have been introduced into the document during the editorial and publishing process.
- The contact will also receive the final standard to review and approve prior to publication.
- After review and inclusion of any changes, the document is published as an IEEE standard.
- WG members receive complimentary PDF copies of the standard.

MAINTAINING THE STANDARD

- Standards must have a revision approved by the IEEE SA Standards Board prior to the close of year 10 in order to remain active
- Any standard without an approved revision will become inactive after year 10
- A revision action can result in:
 - Changes to the standard
 - Changes to only the references or bibliography
 - No changes
 - If no changes are made, the standard will retain its designation (i.e., the year will not change).
 - The title page will reflect the fact that a maintenance action occurred but no changes were made.
- In between revisions of a standard, the EMB Stds Com may develop:
 - Amendments: Documents that contains new material to an existing IEEE standard and may contain technical corrections to that standard.
 - Corrigenda: Documents that only contains technical corrections to the standard.

ADDITIONAL RESOURCES

Standards Board Bylaws <http://standards.ieee.org/develop/policies/bylaws/>

IEEE-SA Standards Board Operations Manual <http://standards.ieee.org/develop/policies/opman/>

IEEE-SA Baseline Operating Procedures <http://standards.ieee.org/about/sasb/audcom/bops.html>

IEEE Standards and the Law <http://standards.ieee.org/develop/policies/stdslaw.pdf>

IEEE Policies https://www.ieee.org/documents/ieee_policies.pdf

IEEE-SA Website <http://standards.ieee.org/index.html>

AntiTrust: <http://standards.ieee.org/develop/policies/antitrust.pdf>

SASB Primary Governing Documents:

- SASB Bylaws: <http://standards.ieee.org/develop/policies/bylaws/index.html>
- SASB Operations Manual: <http://standards.ieee.org/develop/policies/opman/>
- Copyright Policy: <http://standards.ieee.org/ipr/copyright.html>
- Copyright FAQs: <http://standards.ieee.org/faqs/copyrights.html>
- Refer to the IEEE SA Style Manual for document structure.
<https://development.standards.ieee.org/myproject/Public/mytools/draft/styleman.pdf>

IEEE SA Patent Materials: <http://standards.ieee.org/about/sasb/patcom/materials.html>

SASB Operations Manual on comment resolution:

<http://standards.ieee.org/develop/policies/opman/sect5.html#5.4.3.3>

Comment Resolution Guidelines: <http://standards.ieee.org/about/sasb/revcom/guidelines.pdf>

WG Fundamental Training Module

<https://iln.ieee.org/Public/ContentDetails.aspx?id=AE404C2328DA4A39AAD7AB5117681F05>

Public Review: Support material will be available in the help tab on the Public Review system
<http://publicreview.standards.ieee.org/public-review-web/public-app>

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Visit the IEEE-SA web site:
<http://standards.ieee.org>

QUESTIONS?
