

Agenda and General Information

IEEE 802.3

Greater than 10 Gb/s Automotive Ethernet Electrical PHYs
Study Group

Steve Carlson, Chair

High Speed Design, Inc., Robert Bosch, Marvell

Waikoloa, HI, USA

November 12, 2019

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve minutes from September
- Goals for this meeting
- Big Ticket Items
- Reflector and Web
- Ground Rules
- IEEE
 - Structure, Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Liaisons and Communications
- Presentations
- Motions and Closing Business
- Future Meetings

Study Group Decorum



- An officer is permitted to make an audio or slideshow recording of this meeting exclusively for the purpose of generating minutes which shall not be copied or distributed. **IEEE 802.3 meetings do not use this option.** Recording of the proceedings by any other participant or observer, in part or in whole, via any means, is prohibited. (December 2018 IEEE-SA Standards Board Ops Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (December 2018 IEEE-SA Standards Board Ops Manual 5.3.3.3)
- Cell phone ringers off
- Wear your badges at all times in meeting areas
 - Help the hotel security staff improve the general security of the meeting rooms
 - **PCs HAVE BEEN STOLEN** at previous meetings
 - **DO NOT** assume that meeting areas are secure
- Please observe proper decorum in meetings

Goals for the meeting

- Review of purpose and operation of an IEEE 802.3 Study Group
- Presentations on Project Authorization Request, Criteria for Standards Development, Objectives
- Link Segment and PHY technical and economic feasibility
- Lay the groundwork for the next meeting

Big ticket items

- Lay the ground work to finish PAR, CSD and objectives (January 2020)

Reflector and Web

- To subscribe to the reflector, **Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group**, send an email to:

ListServ@ieee.org

with the following in the body of the message (do not include “<>”):

subscribe stds-802-3-B10GAUTO<*yourfirstname*> <*yourlastname*>
end

- Send **Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group** reflector messages to:

stds-802-3-B10GAUTO@listserv.ieee.org

- Study Group web page URL:

<http://ieee802.org/3/B10GAUTO/index.html>

Study Group Private Area

- We currently have NO Study Group private area.
- Should we have one, the username and password will be shown at the face-to-face meetings only, and not be in the posted slides.
- If we receive copyrighted material, for example, specs from another SDO, we would establish a study group private area.
- Note - The content is posted for your review only, and neither the content nor access information should be copied or redistributed to others in violation of document copyrights.

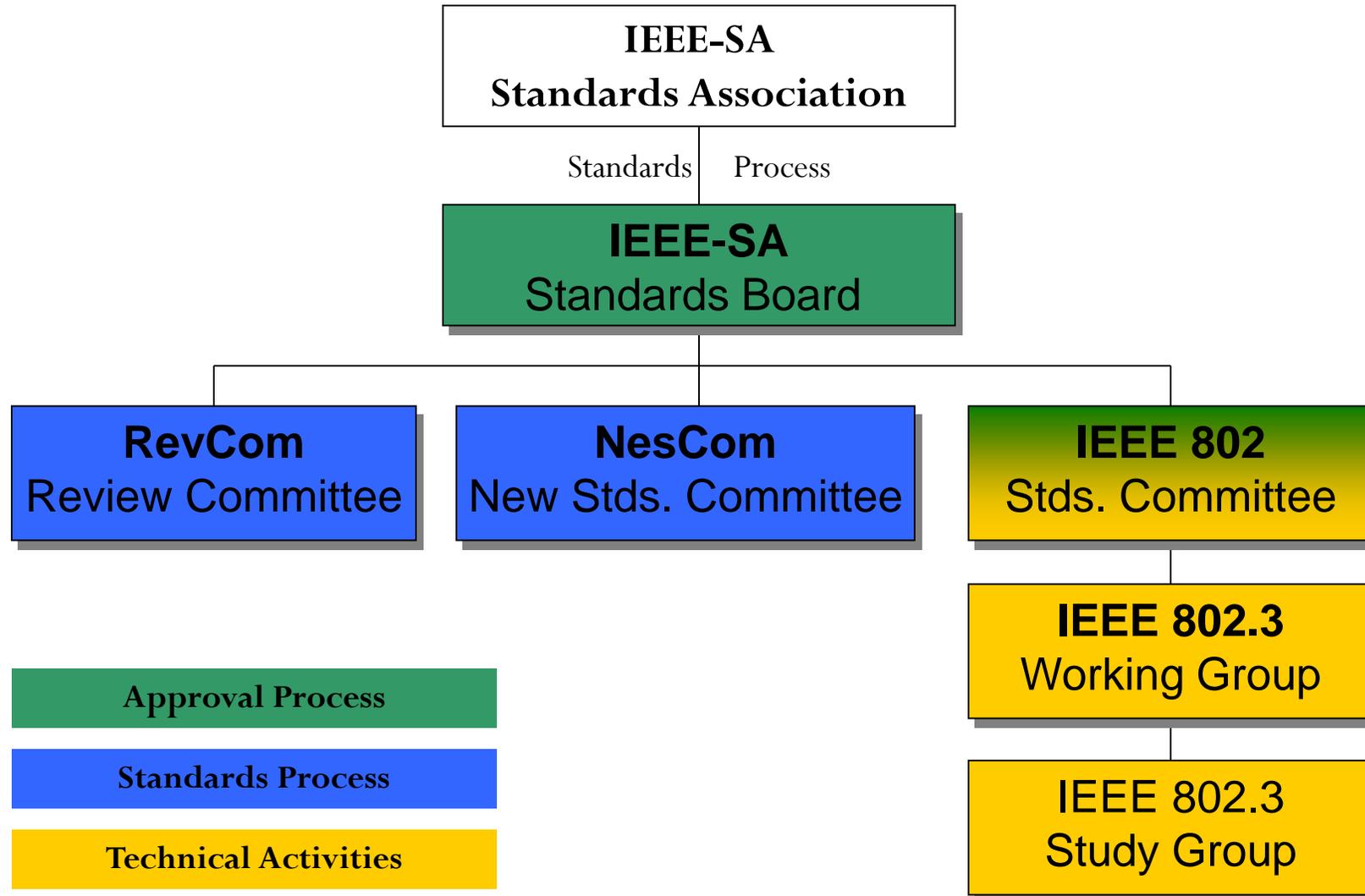
Presentation Filenames

- Please use the following filename convention:
presenter_last_name_B10GAUTO_presentation_number_revision_level_date_code
- Example of a filename: *presenter_last_name*: Smith; *B10GAUTO*; *presentation_number* is the number of the presentation, e.g. 01 for your first presentation, 02 for the second, etc.; *revision_level* is appended if the presentation is updated, e.g. 01a, 01b, etc.; *date_code* is the number of the month followed by the year, e.g. 0519 for May 2019. The resulting filename would be ***smith_B10GAUTO_01_0519***.

Ground Rules

- Based upon IEEE 802.3 Rules
 - Foundation based upon Robert's Rules of Order
 - Anyone in the room may speak
 - Anyone in the room may vote
- **RESPECT**... give it, get it
- NO product pitches
- NO corporate pitches
- NO prices!!!
 - This includes costs, ASPs, etc. no matter what the currency
- NO restrictive notices

IEEE Structure



Important Bylaws and Rules

- **IEEE-SA Operations Manual**
http://standards.ieee.org/develop/policies/sa_opman/
- **IEEE-SA Standards Board Bylaws**
<http://standards.ieee.org/develop/policies/bylaws/>
- **IEEE-SA Standards Board Operations Manual**
<http://standards.ieee.org/develop/policies/opman/>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**
<https://ieee.app.box.com/v/PandP-LMSC>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802.3 Working Group Operating Rules**
http://ieee802.org/3/rules/P802_3_rules.pdf

Guidelines for IEEE-SA Meetings

- ▣ All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
- ▣ Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
- ▣ Don't discuss specific license rates, terms, or conditions.
 - ▣ Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
 - ▣ Technical considerations remain primary focus
- ▣ Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
- ▣ Don't discuss the status or substance of ongoing or threatened litigation.
- ▣ Don't be silent if inappropriate topics are discussed... do formally object.

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit <http://standards.ieee.org/about/sasb/patcom/index.html>

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and “Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association’s Antitrust and Competition Policy” for more details.

This slide set is available
at <https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.ppt>

IEEE SA COPYRIGHT POLICY

By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.

- Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
- Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
- For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA COPYRIGHT POLICY

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
 - IEEE SA Copyright Policy, see
 - Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
 - Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>
- IEEE SA Copyright Permission
 - <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>
- IEEE SA Copyright FAQs
 - <http://standards.ieee.org/faqs/copyrights.html/>
- IEEE SA Best Practices for IEEE Standards Development
 - http://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf
- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
 - <https://standards.ieee.org/about/policies/opman/sect6.html>

Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

- All participants in IEEE-SA activities are expected to adhere to the core principles underlying the:
 - [IEEE Code of Ethics](#)
 - [IEEE Code of Conduct](#)
- The core principles of the IEEE Codes of Ethics & Conduct are to:
 - *Uphold the highest standards of integrity, responsible behavior, and ethical and professional conduct*
 - *Treat people fairly and with respect, to not engage in harassment, discrimination, or retaliation, and to protect people's privacy.*
 - *Avoid injuring others, their property, reputation, or employment by false or malicious action*
- The most recent versions of these Codes are available at <http://www.ieee.org/about/corporate/governance>

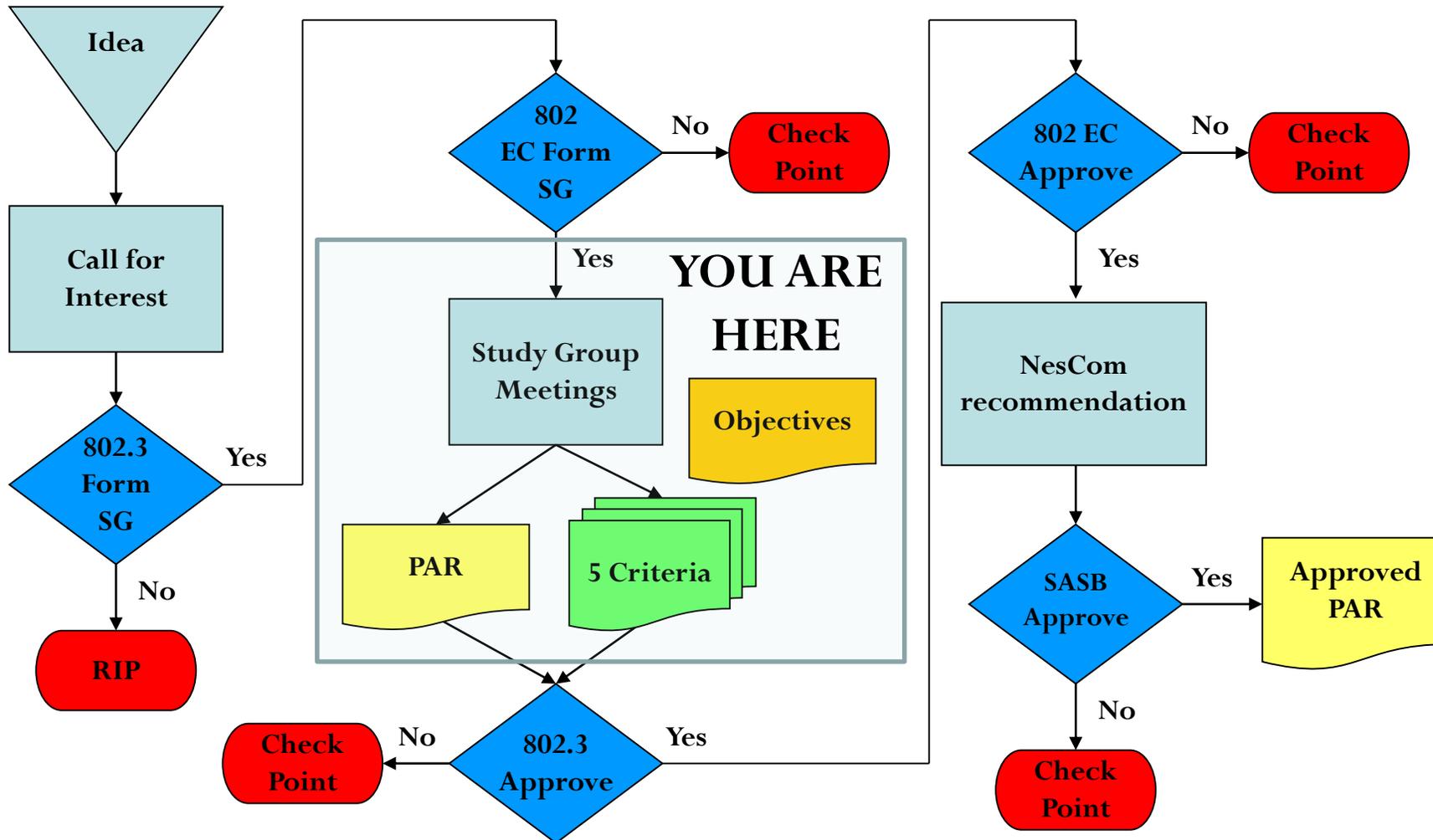
Participants in the IEEE-SA “*individual process*” shall act independently of others, including employers

- The [IEEE-SA Standards Board Bylaws](#) require that “*participants in the IEEE standards development individual process shall act based on their qualifications and experience*”
- This means participants:
 - **Shall act & vote** based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
 - **Shall not act or vote** based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
 - **Shall not direct** the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions
- By participating in standards activities using the “*individual process*”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

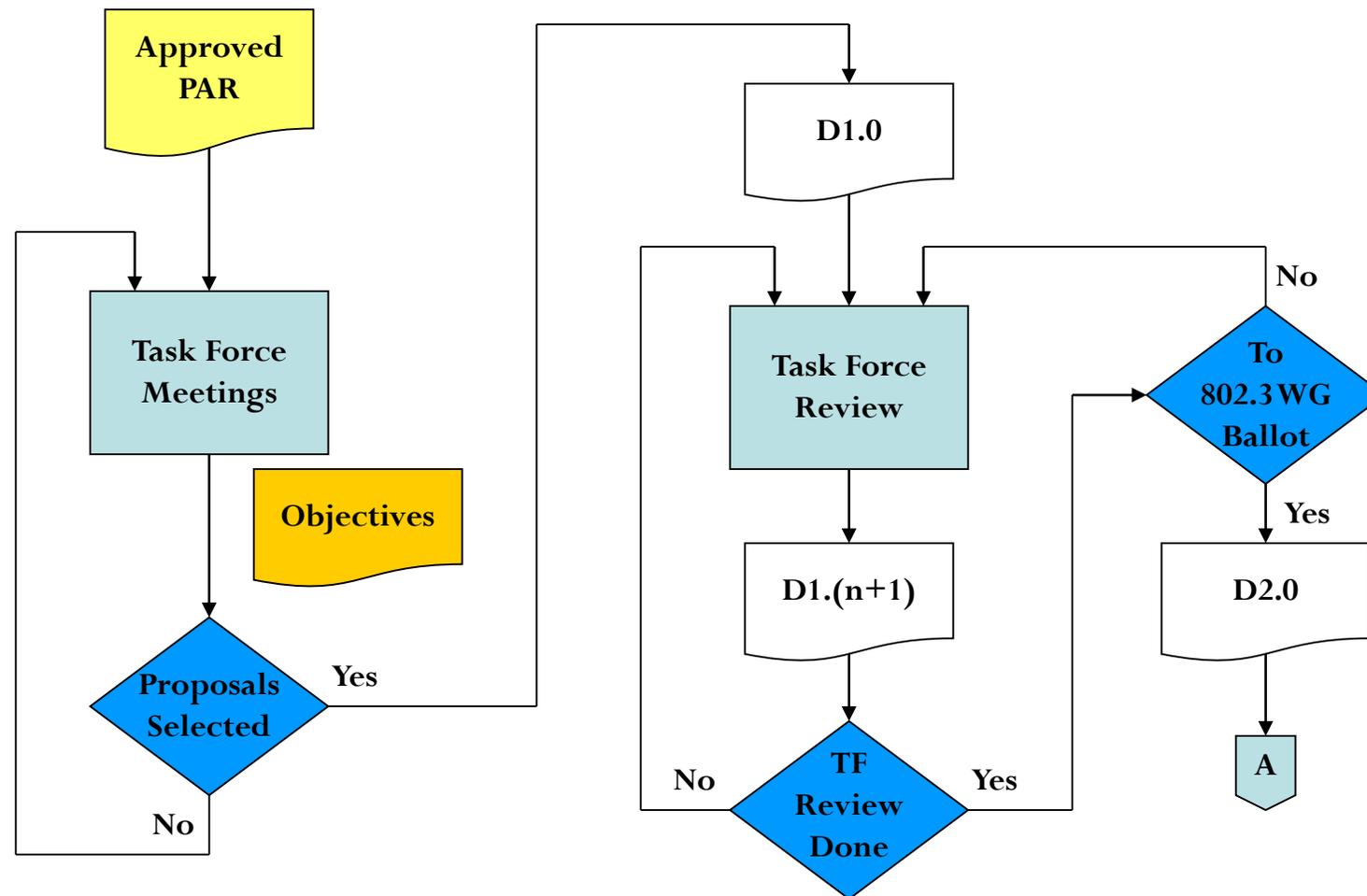
- The [IEEE-SA Standards Board Bylaws](#) (clause 5.2.1.3) specifies that “*the standards development process shall not be dominated by any single interest category, individual, or organization*”
 - This means no participant may exercise “*authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints*” or “*to hinder the progress of the standards development activity*”
- This rule applies equally to those participating in a standards development project and to that project’s leadership group
- Any person who reasonably suspects that dominance is occurring in a standards development project is encouraged to bring the issue to the attention of the Standards Committee or the project’s IEEE-SA Program Manager

Overview of IEEE 802.3 Standards Process (1/5)- Study Group Phase

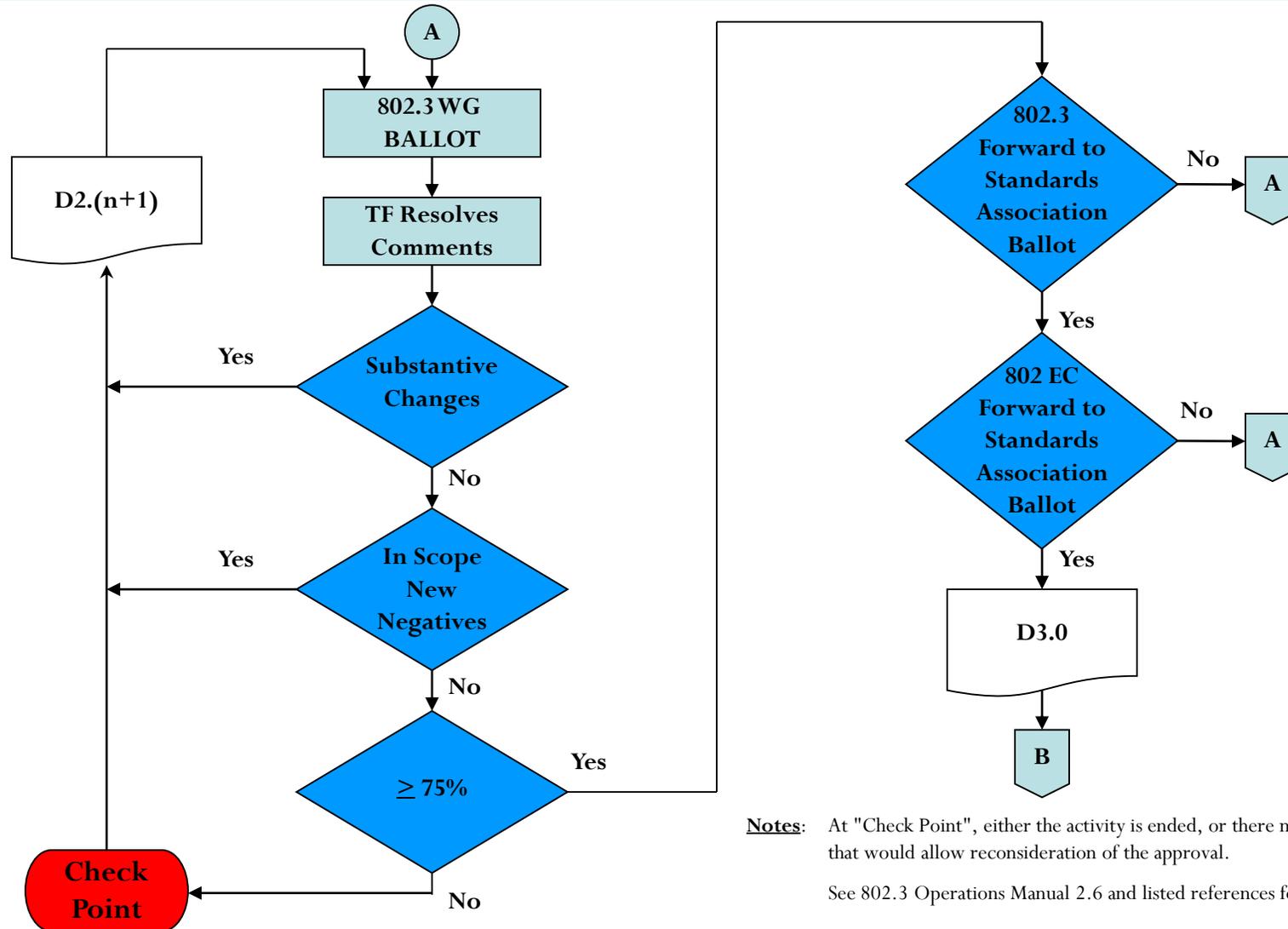


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase



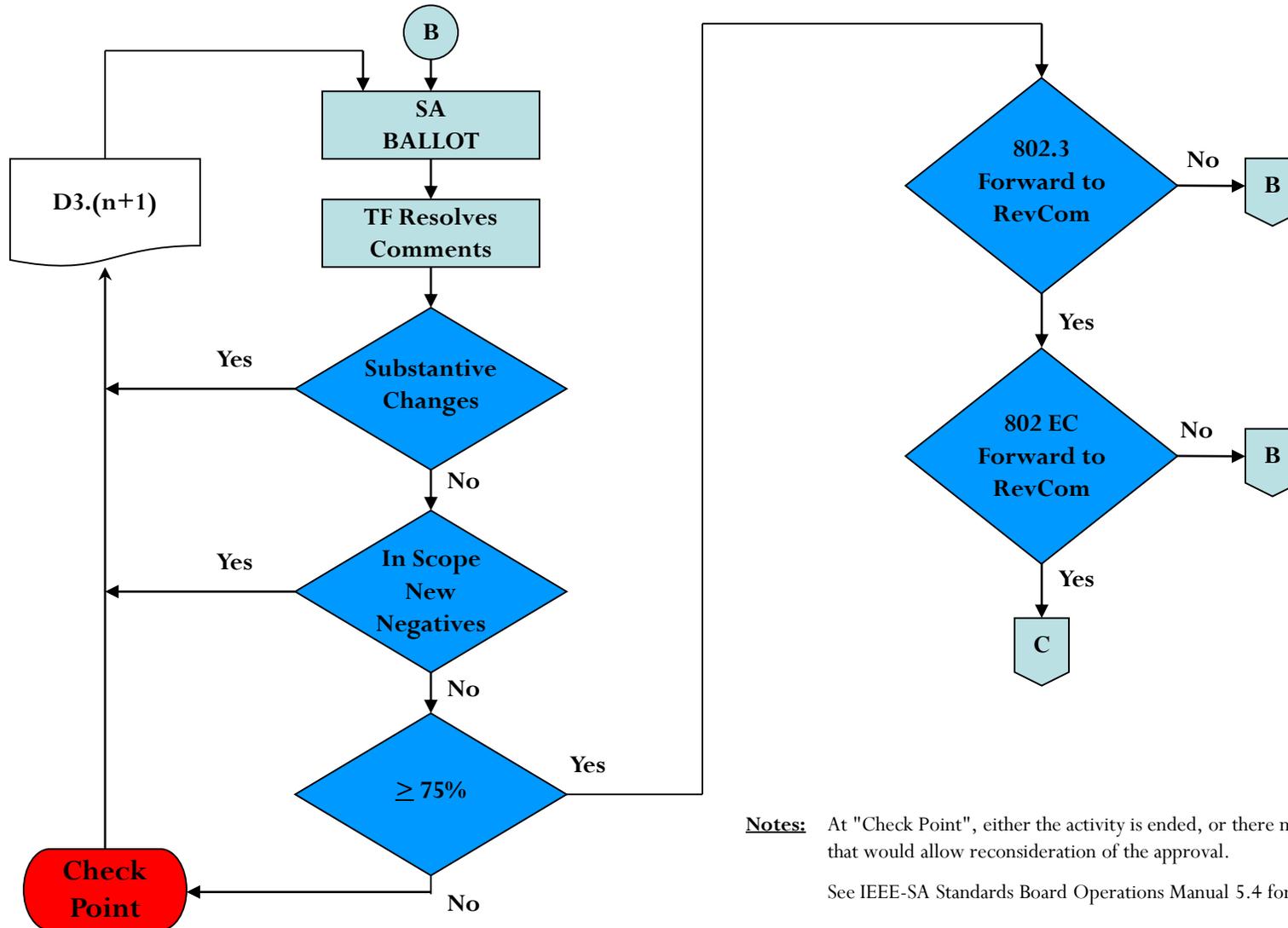
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

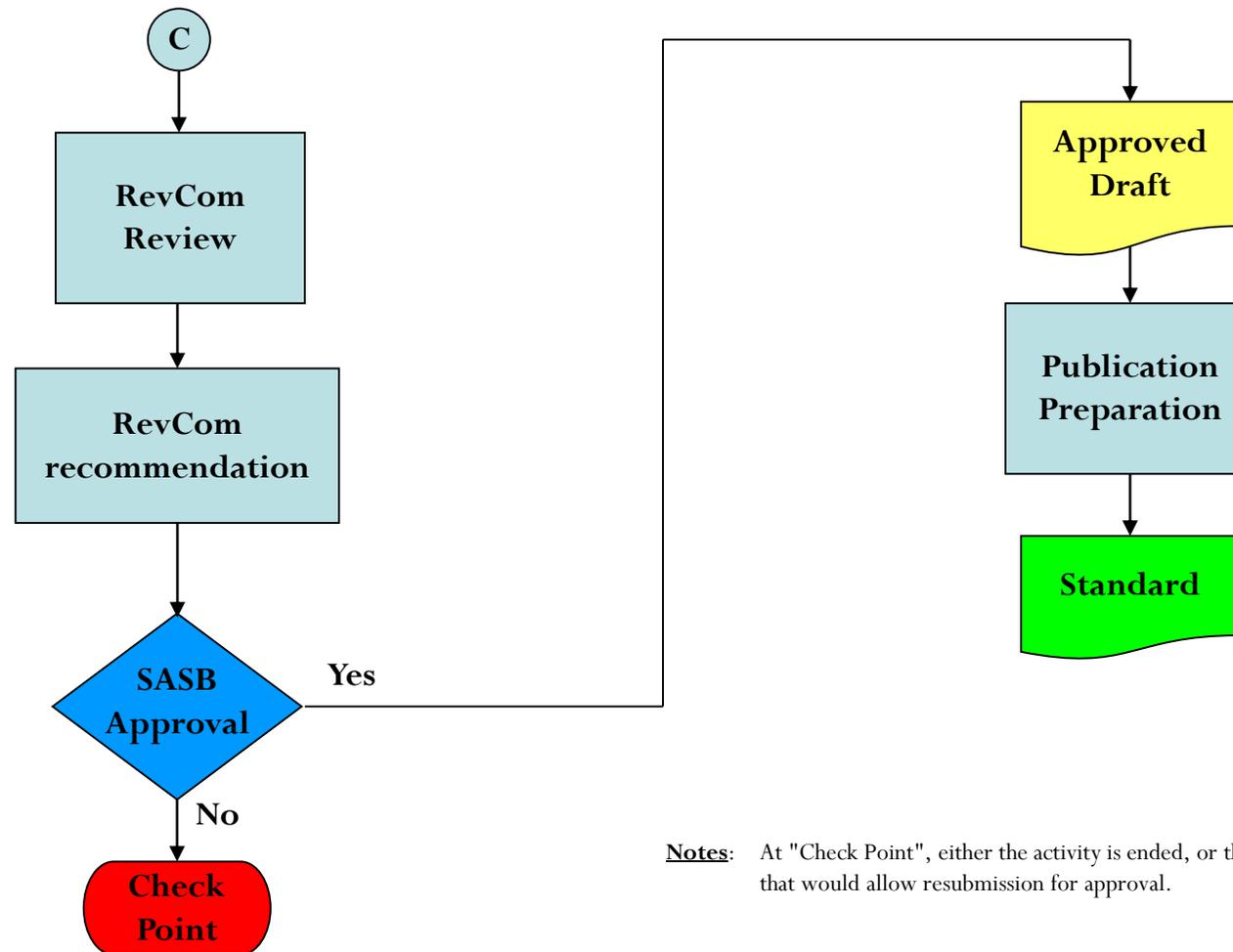
See 802.3 Operations Manual 2.6 and listed references for complete description

Overview of IEEE 802.3 Standards Process (4/5)- IEEE Standards Association (SA) Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.
See IEEE-SA Standards Board Operations Manual 5.4 for complete description

Overview of IEEE 802.3 Standards Process (5/5) – Final Approvals / Standard Release



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow resubmission for approval.

The Study Group

- Normal function is to draft a complete PAR and Five Criteria
- Provide a plenary week tutorial to the LMSC.
- Gain approval at the IEEE 802.3 WG, IEEE 802 EC, IEEE-SA NesCom and IEEE-SA Standards Board.
- SG only exists for 6 months
 - Extensions can be requested
 - Voted on by IEEE 802.3
 - Ratified by IEEE 802 EC
- Development of Objectives helps set the goals for the Task Force
- Consensus required to move forward

- Not a goal – choosing a solution.

Request for Formation of Study Group (as per Motion #17 March 2019 Plenary)

- Move that the IEEE 802.3 Working Group request the formation of a Study Group to develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for **Greater than 10 Gb/s Automotive Ethernet Electrical PHYs**
- M: Steve Carlson S: Chris Mash
- (>50%)
- Y: 87 N: 0 A: 2

Request for Formation of Study Group (as per Motion #17 March 2019 Plenary)

- The motion sets the scope of the Study Group

Liaisons and Communications

- None at this time

Presentations

Link Segment		
<u>Channel Data Capacity Analysis for B10GAUTO</u>	Eric DiBiaso Bert Bergner	TE Connectivity
<u>Need for Generic 10G+ Channel Model (01a)</u>	Sandeep Sankararaman Thomas Müller Stephan Kunz Gunnar Armbrecht	Rosenberger
<u>PoDL Feasibility for B10GAUTO Systems</u>	Gitesh Bhagwat	Analog Devices
PHY Feasibility and Objectives		
<u>Technical Feasibility - EEE for Asymmetry</u>	George Zimmerman	CME Consulting, Inc / Marvell
<u>Technical Feasibility – PHYs beyond 10G</u>	George Zimmerman	CME Consulting, Inc / Marvell

Attendance

- Tutorial Material on attendance tool
 - http://ieee802.org/3/minutes/attendance_procedures.pdf
- Access details
 - URL: <http://imat.ieee.org/>
 - (For interim)

Motions and Straw Polls

Move that the IEEE 802.3 Working Group request the second re-chartering of the IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group.

M:

S:

Procedural >50%

Future Meetings

- See: <http://www.ieee802.org/3/interims/index.html>
- January 2020 Interim
 - January 20 - 24, ITU, Geneva, CH
 - Joint 802.1/802.3/ITU Workshop January 25
- March 2020 Plenary
 - March 16 -19
 - Hilton Atlanta, Atlanta, GA, USA
- Anyone interested in hosting an interim meeting contact the IEEE 802.3 Executive Secretary [Steve Carlson](#).

Future Meetings

Attendance:

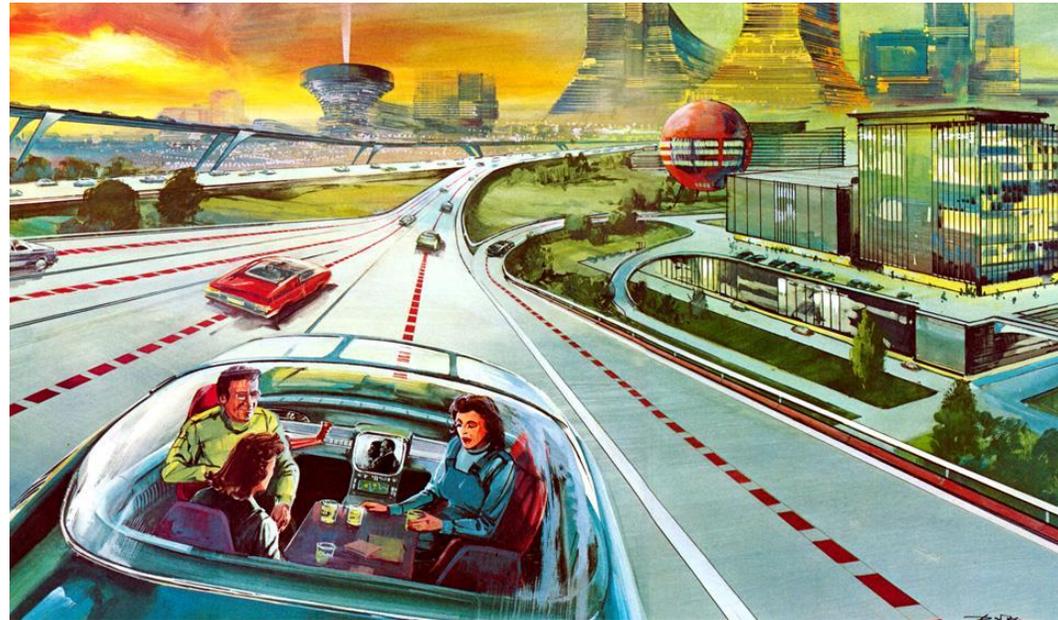
Attend January 2020 interim, Geneva, CH:

Y: N: M:

Attend March 2020 802 Atlanta plenary:

Y: N: M:

Questions?



Thank you!