

# **Agenda and General Information**

**IEEE P802.3ca 50G-EPON**

Curtis Knittle  
CableLabs  
Waikoloa, HI  
November 11, 2019

# Agenda

NG-EPON

- ❑ Appoint Recording Secretary
- ❑ Welcome and Introductions
- ❑ Decorum
- ❑ Approve Agenda
- ❑ Approve Minutes
- ❑ Reflector and Web
- ❑ Ground Rules
- ❑ IEEE
  - Structure, Bylaws and Rules
  - Call for Patents
  - IEEE Standards Process
- ❑ Liaisons and Communications
- ❑ Goals for this meeting
- ❑ Presentations
- ❑ Motions and Closing Business
- ❑ Future Meetings

# P802.3ca Task Force Organization

- ❑ Chair: Curtis Knittle, CableLabs
- ❑ Vice Chair: Glen Kramer, Broadcom
- ❑ Chief Editor: Marek Hajduczenia, Charter

# Task Force 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. (June 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 (June 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

# Motion #1

NG-EPON

Approve the agenda for 802.3ca November 2019 Task Force meeting as shown in file agenda\_3ca\_1\_1119.pdf.

Moved:

Seconded:

Procedural (> 50%)

Motion: passes by voice vote without opposition

# Motion #2

NGAEPON

Approve the Minutes of 802.3ca Task Force meeting held September 2019, in Indianapolis, Indiana as shown in minutes\_unapproved\_3ca\_0919.pdf and post the approved minutes as minutes\_approved\_3ca\_0919.pdf.

Moved:

Seconded:

Procedural (> 50%)

Motion: passes by voice vote without opposition

# Reflector and Web

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- ❑ To subscribe to the 50G-EPON Task Force reflector, send an email to:  
**ListServ@ieee.org**

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

**subscribe STDS-802-3-NGEPON** <yourfirstname> <yourlastname>  
**end**

- ❑ Send 50G-EPON reflector messages to:  
**STDS-802-3-NGEPON@listserv.ieee.org**

- ❑ Task Force web page URL:  
**<http://www.ieee802.org/3/ca/index.shtml>**

# Task Force Private Area

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- ❑ Access from 802.3ca home page: <http://www.ieee802.org/3/ca/index.shtml>
  
- ❑ Draft 2.2:
  - [http://www.ieee802.org/3/ca/private/drafts/draft\\_ver.shtml?D2\\_2](http://www.ieee802.org/3/ca/private/drafts/draft_ver.shtml?D2_2)
  
  - Username:
  
  - Password:
  
- ❑ Write it down...
  
- ❑ Note - The draft, and any other 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.



# Ground Rules

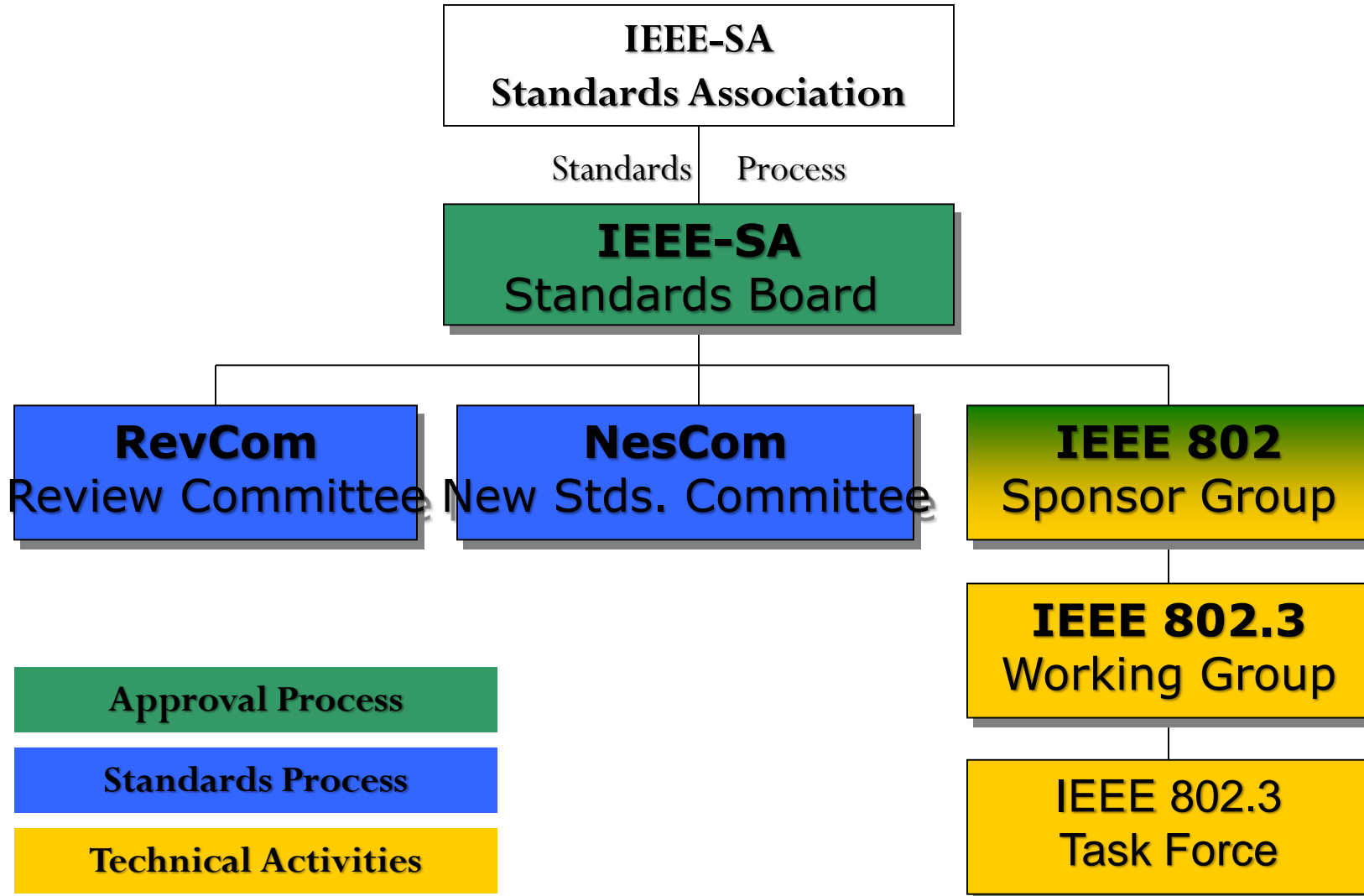
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- ❑ Based upon IEEE 802.3 Rules
  - Foundation based upon Robert's Rules of Order
  - Anyone in the room may speak
  - Anyone in the room may vote
- ❑ **RESPECT**... give it, get it
- ❑ NO product pitches
- ❑ NO corporate pitches
- ❑ NO prices!!!
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

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

# IEEE Structure

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# Important Bylaws and Rules

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- ❑ **IEEE-SA Operations Manual**  
[http://standards.ieee.org/develop/policies/sa\\_opman/](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](http://ieee802.org/3/rules/P802_3_rules.pdf)

# Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

Early identification of holders of potential Essential Patent Claims is encouraged

# Ways to inform IEEE

- ❑ **Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or**
- ❑ **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- ❑ **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

# Other guidelines for IEEE WG 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 of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
      - » Technical considerations remain the 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.

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For more details, see IEEE-SA Standards Board Operations Manual, clause 5.3.10 and  
Antitrust and Competition Policy: What You Need to Know at <http://standards.ieee.org/develop/policies/antitrust.pdf>

# Patent-related information

The patent policy and the procedures used to execute that policy are documented in the:

- **IEEE-SA Standards Board Bylaws** (<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
- **IEEE-SA Standards Board Operations Manual**  
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

Material about the patent policy is available at

<http://standards.ieee.org/about/sasb/patcom/materials.html>

**If you have questions, contact the IEEE-SA Standards Board  
Patent Committee Administrator at [patcom@ieee.org](mailto:patcom@ieee.org)**



**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

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- ❑ 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](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

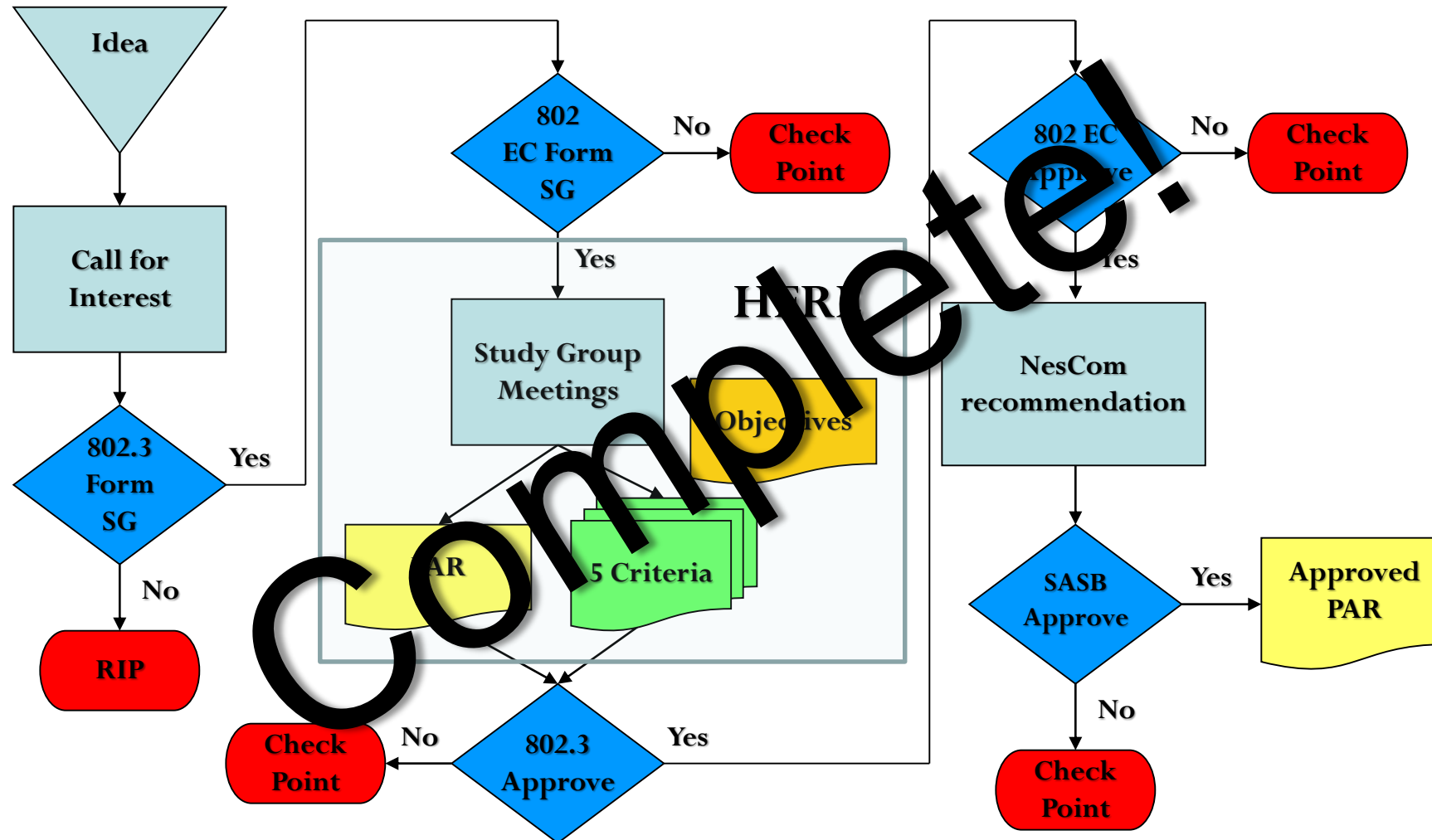
# IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

- ❑ 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

# Role of the Chair

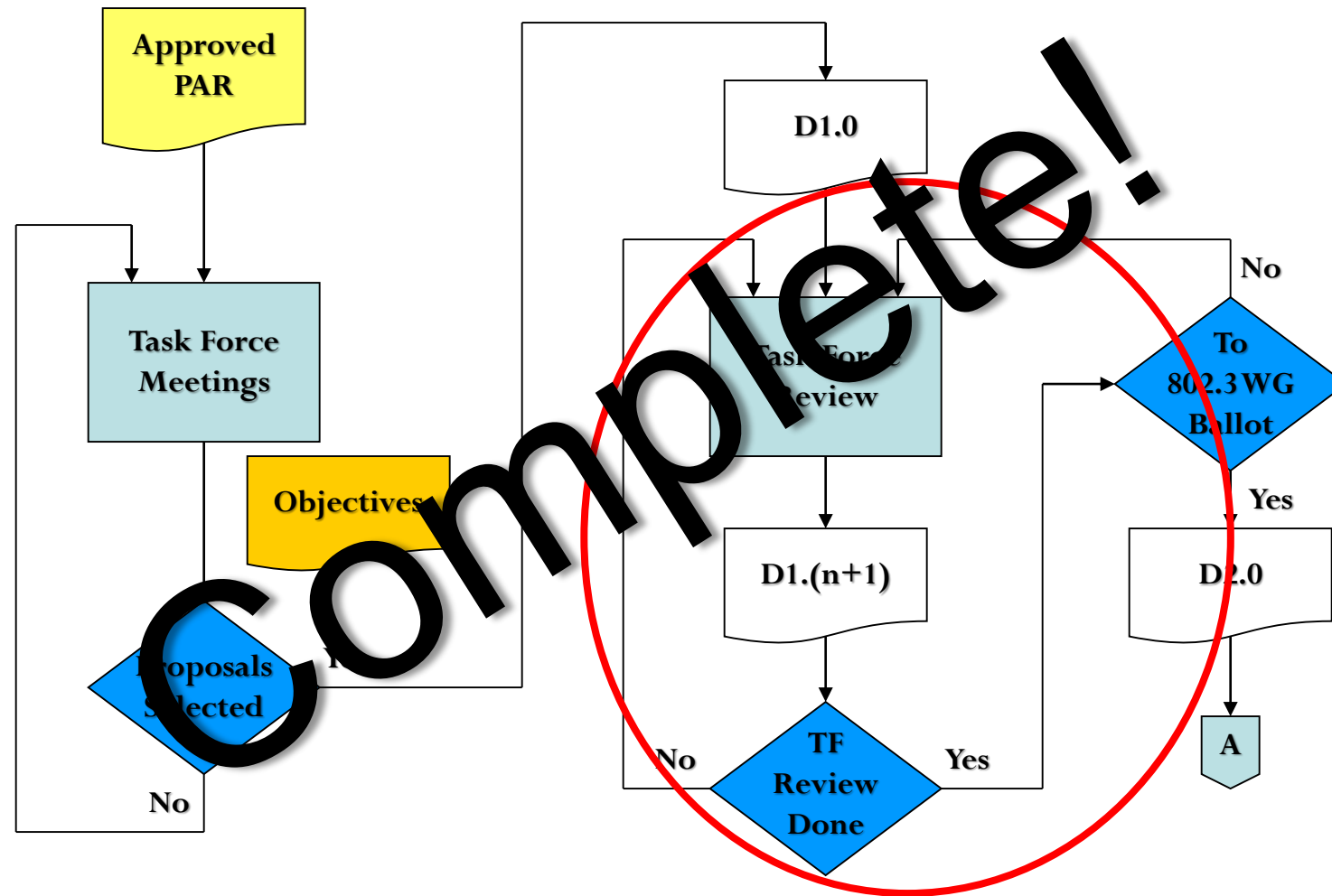
- ❑ Per the IEEE 802.3 Ethernet WG Operations Manual ([http://www.ieee802.org/3/rules/P802\\_3\\_rules.pdf](http://www.ieee802.org/3/rules/P802_3_rules.pdf))
  - The operation of the TF has to be balanced between democratic procedures that reflect the desires of the TF members and the TF Chair's responsibility to produce a draft standard, recommended practice, or guideline in a reasonable amount of time for review and approval by the WG. Robert's Rules of Order shall be used in combination with these operating rules to achieve this balance.
  - The full responsibilities of the chair are specified in 3.4.3 Task Force Chair's Responsibilities.
  
- ❑ Reminder - individual standards activities within the WG are, at the discretion of the WG, carried out by Task Forces (TF) operating under, and reporting to, the WG.

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



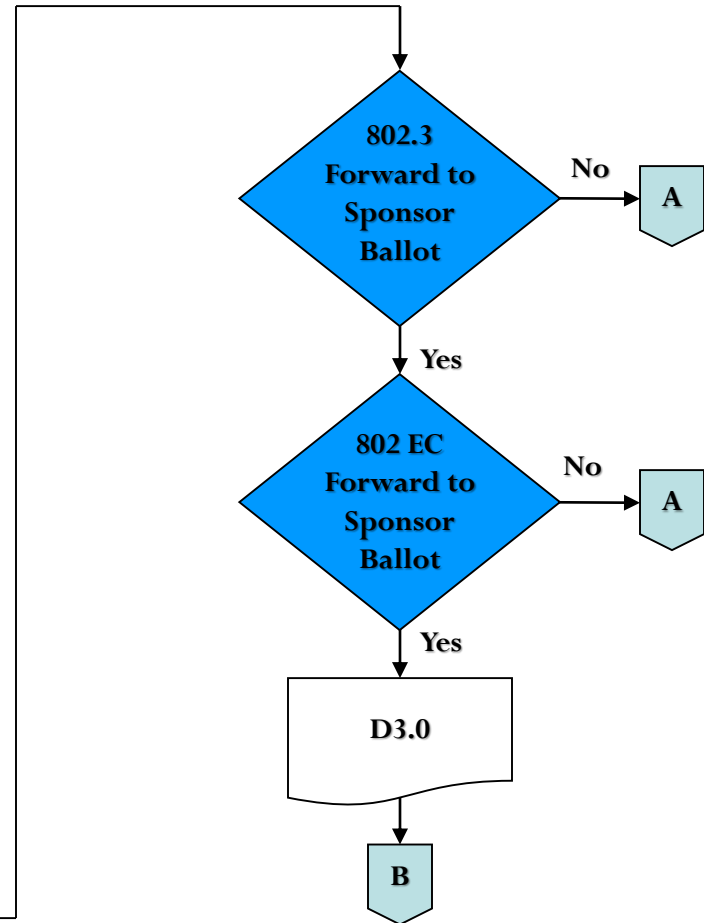
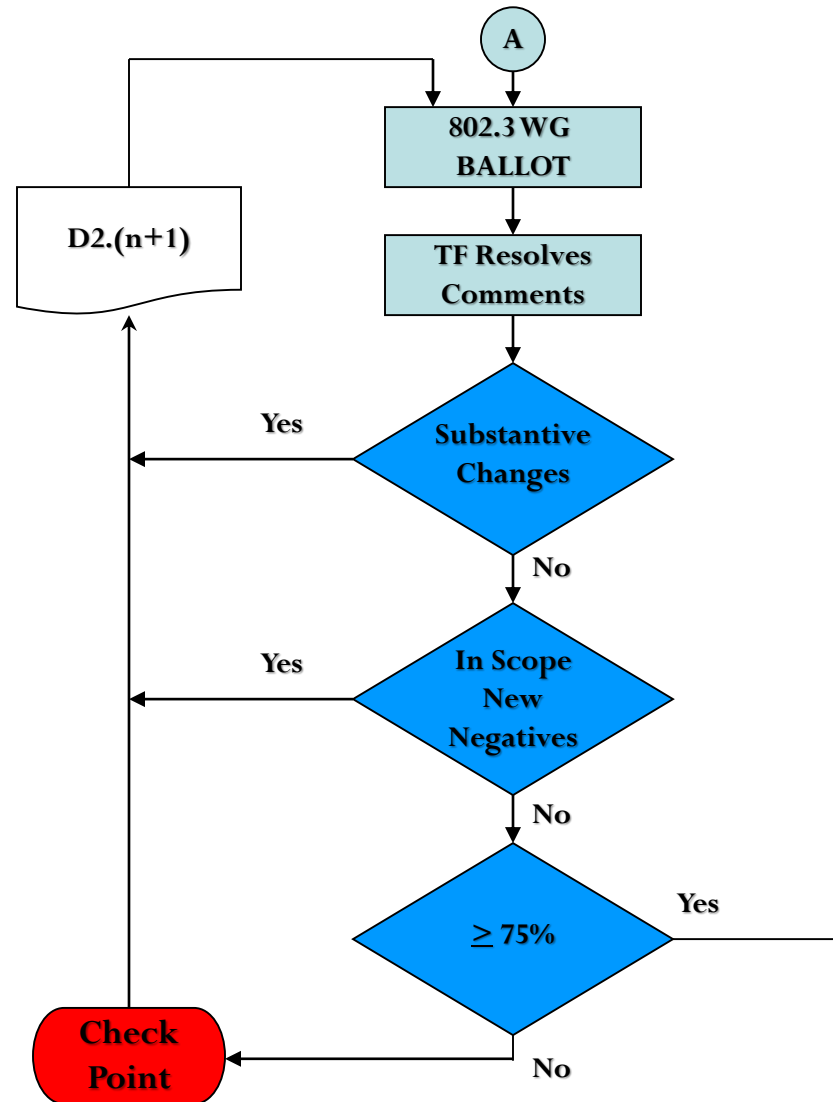
Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



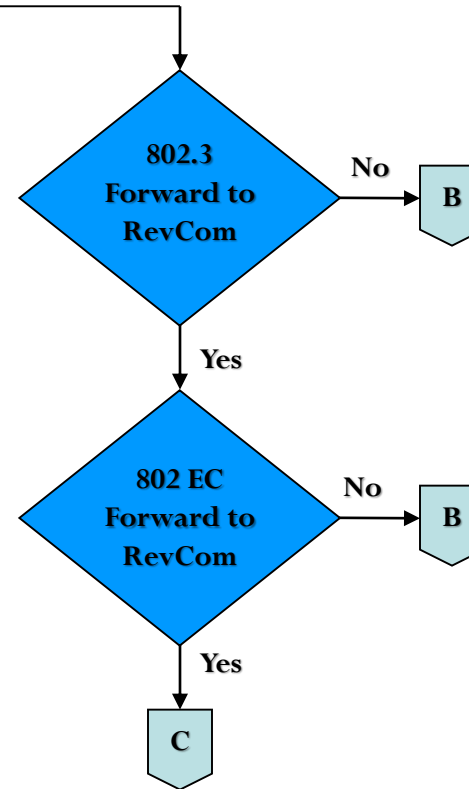
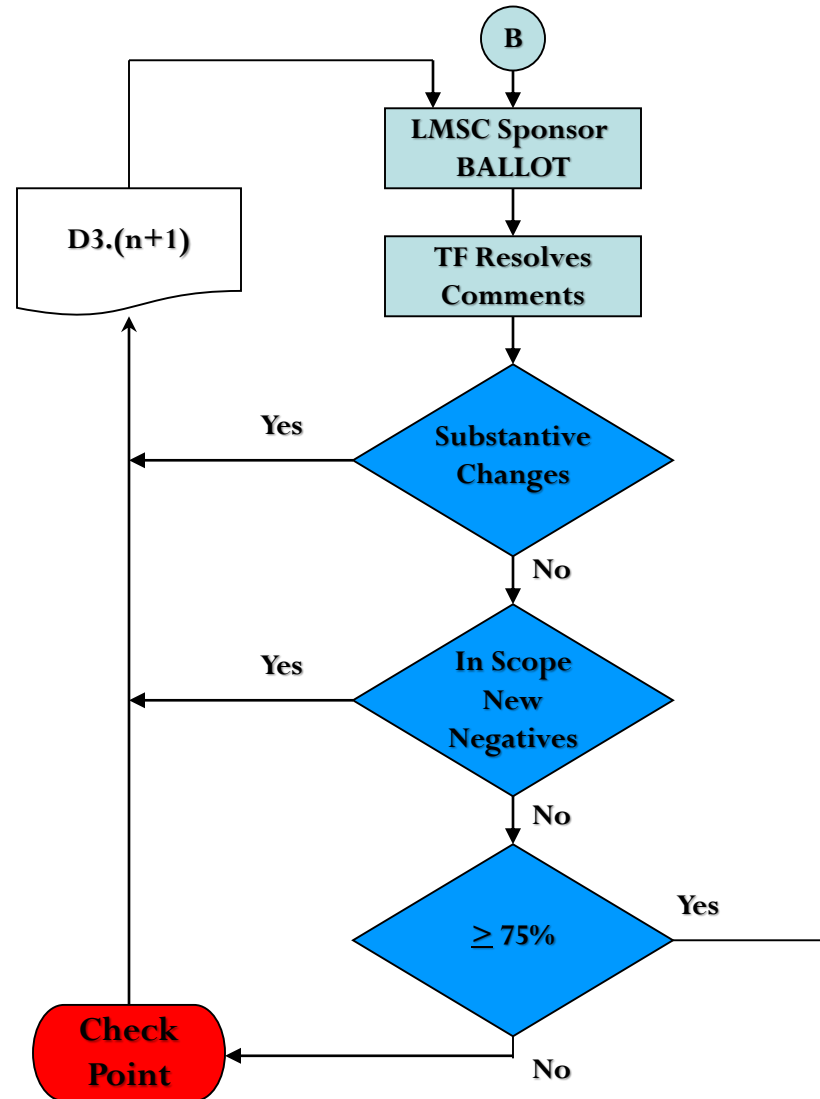


# Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



**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 Operating Rules 7.1.4 and listed references for complete description

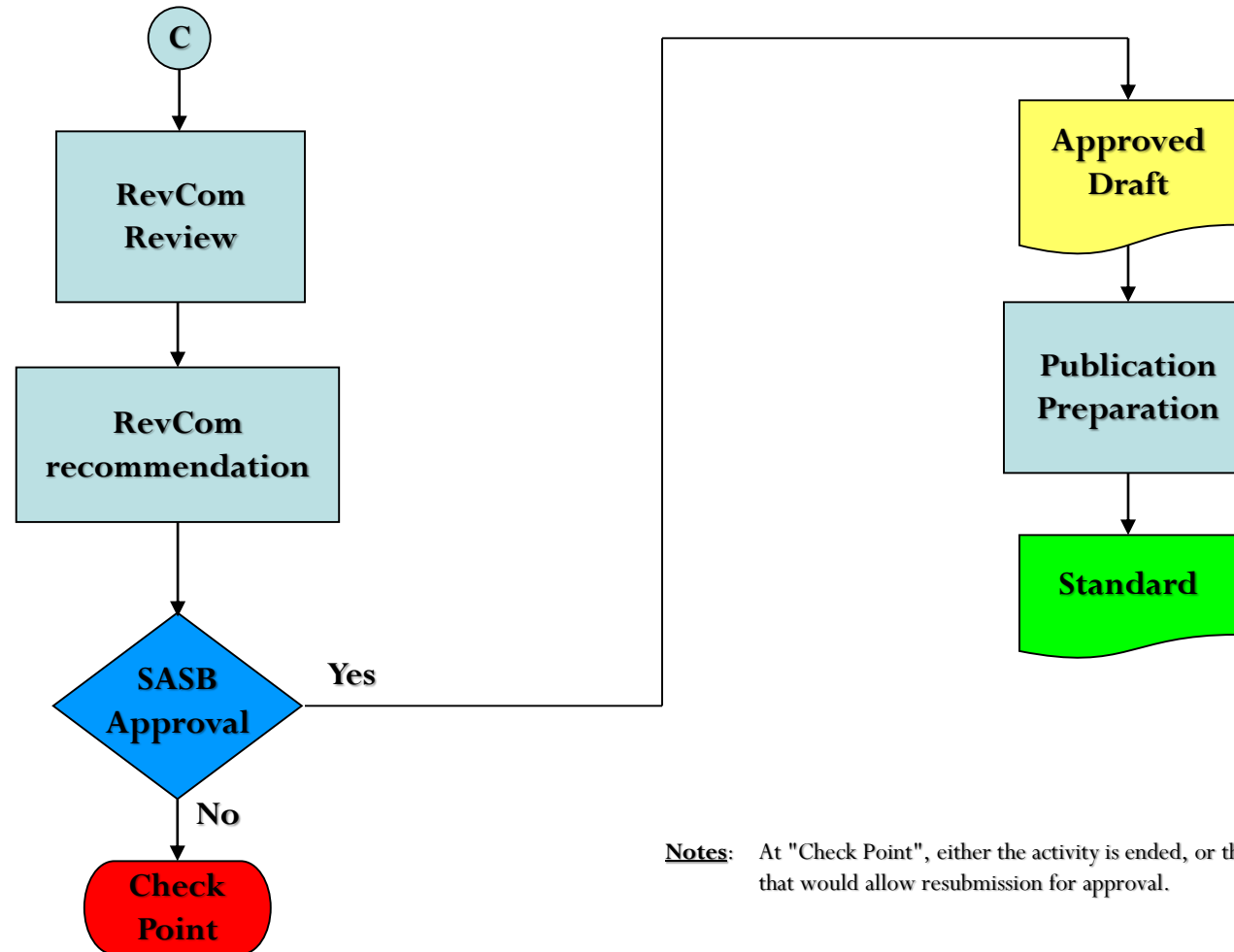
# Overview of IEEE 802.3 Standards Process (4/5)- Standards Association Ballot Phase



**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 Operating Rules 7.1.5 and listed references 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.

# Liaisons and Communications

None

# Goals for this Meeting

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- Prepare for SA ballot
- Motion approval of D3.0

# IEEE P802.3ca 50G-EPON Approved Project Documents

## □ PAR

- [http://www.ieee802.org/3/ca/documents/P802\\_3ca\\_par\\_approved.pdf](http://www.ieee802.org/3/ca/documents/P802_3ca_par_approved.pdf)

## □ CSD

- <https://mentor.ieee.org/802-ec/dcn/15/ec-15-0100-00-ACSD-802-3ca.pdf>

## □ Objectives

- [http://www.ieee802.org/3/ca/documents/P802\\_3ca\\_objectives.pdf](http://www.ieee802.org/3/ca/documents/P802_3ca_objectives.pdf)

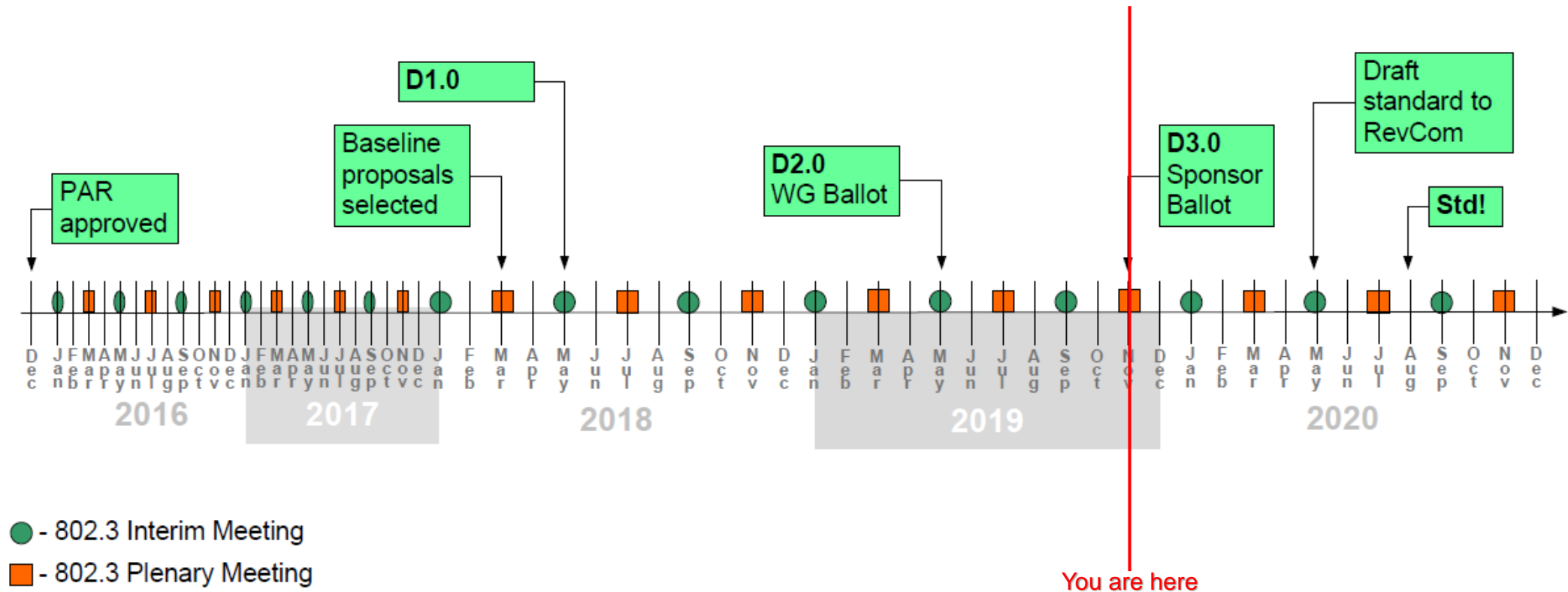
# IEEE P802.3ca 50G-EPON Objectives

- ❑ Support subscriber access networks using point-to-multipoint topologies on optical fiber
- ❑ Provide Physical Layer specifications that
  - Operate over a single SMF strand
  - Support symmetric and/or asymmetric MAC data rates of:
    - 25 Gb/s in downstream and 10 Gb/s or 25 Gb/s in upstream (25G-EPON)
    - 50 Gb/s in downstream and 10 Gb/s, 25 Gb/s, or 50 Gb/s in upstream (50G-EPON)
  - Have a BER better than or equal to  $10^{-12}$  at the MAC/PLS service interface (or the frame loss ratio equivalent)
  - Support coexistence with select legacy PON technologies
    - Optical power budgets to accommodate channel insertion losses equivalent to PR20 and PR30, as defined in Clause 75.
    - Wavelength allocation allowing concurrent operation with 10G-EPON, XG-PON1, and XGS-PON PHYs (1575nm-1580nm downstream, 1260nm-1280nm upstream)
    - Wavelength allocation allowing concurrent operation of 25G-EPON and G-PON reduced wavelength set (1480nm-1500nm downstream, 1290nm-1330nm upstream) PHYs

# IEEE P802.3ca 50G-EPON Timeline

50G-EPON

## IEEE P802.3ca Timeline





# Future Meetings

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- ❑ See: <http://www.ieee802.org/3/interims/index.html>
  
- ❑ January 2020 Interim
  - Geneva, CH
  - Week of Jan 20, 2020
  
- ❑ March 2020 Plenary
  - Atlanta, GA
  - Week of Mar 16, 2020
  
- ❑ Anyone interested in hosting a interim meeting contact me or the IEEE 802.3 Executive Secretary [Steve Carlson](#).

# Attendance at Future Meetings

NG-EPON

Attend Jan 2020 802.3 meeting in Geneva, CH:  
Y: 7 N: 1 M: 2

Attend Mar 2020 802.3 meeting in Atlanta, GA:  
Y: 7 N: 1 M: 2

Total in the room: 10

**Thank you!**