Welcome to IEEE 802
Newcomer Orientation

www.ieee802.org

IEEE 802 Plenary Session
Last updated, February 20, 2014

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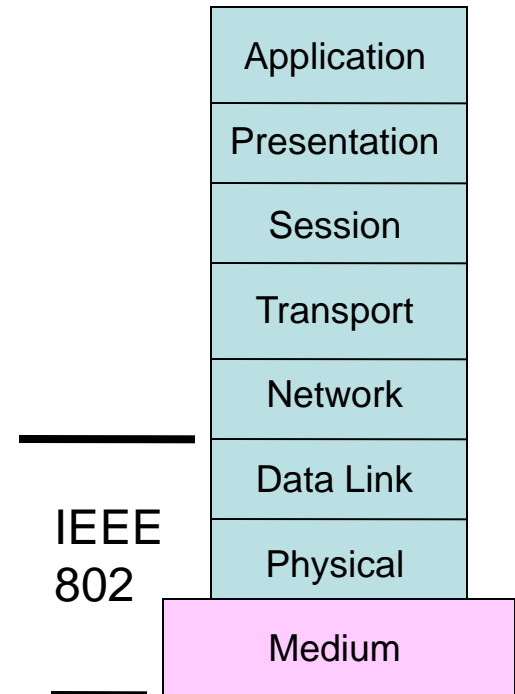- Introduction to IEEE standards process
- Getting more information

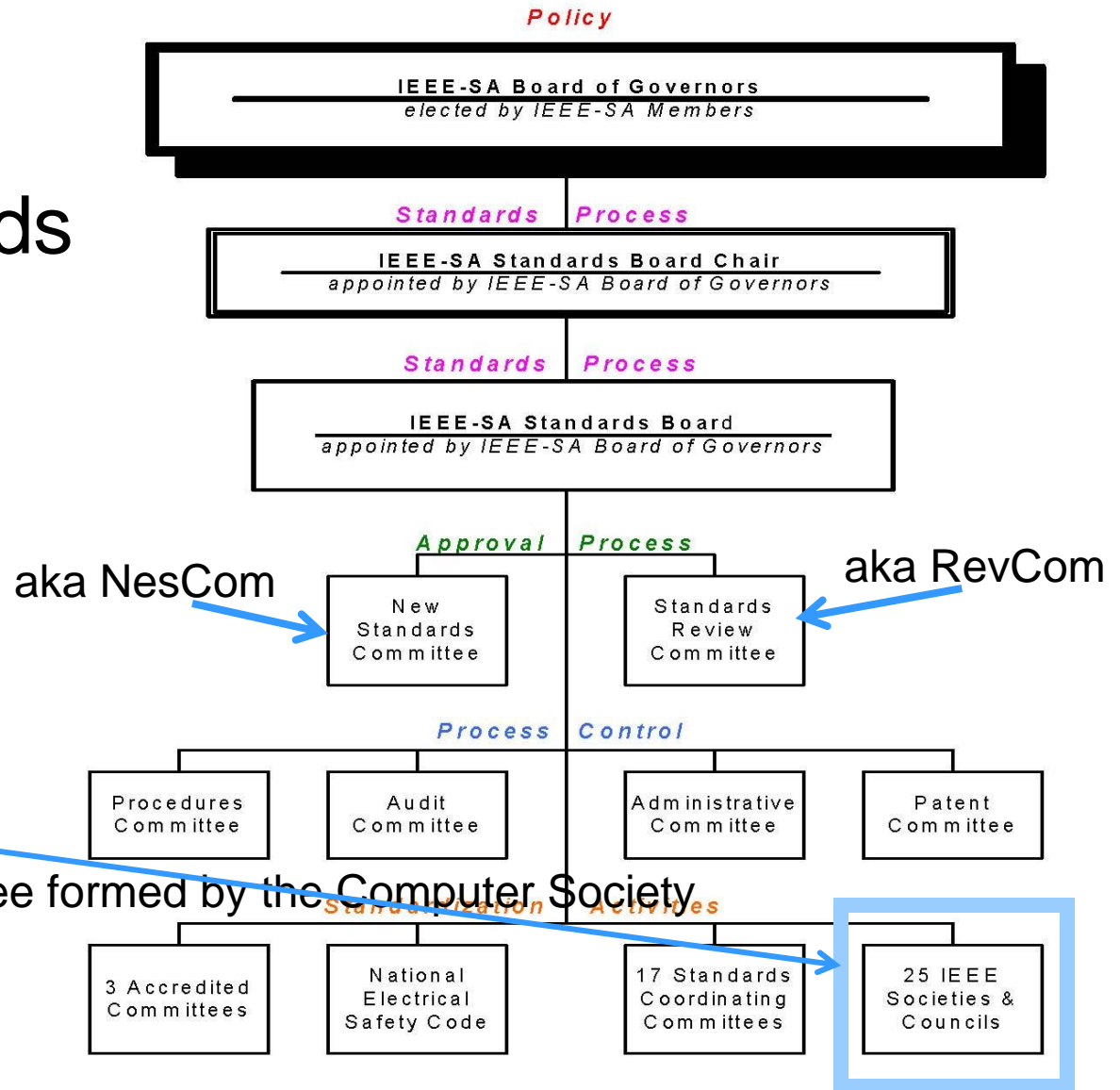# Introduction to IEEE 802

Who we are

- IEEE Project 802 LAN/MAN Standards Committee (aka IEEE 802 or LMSC)
  - Develop LAN and MAN standards
  - Mainly for link and physical layers of the network stack
  - In operation since March 1980

OSI Reference Model

Application
Presentation
Session
Transport
Network
Data Link
Physical
Medium

IEEE 802

IEEE Standards Organization

Policy

IEEE-SA Board of Governors
elected by IEEE-SA Members

Standards Process

IEEE-SA Standards Board Chair
appointed by IEEE-SA Board of Governors

Standards Process

IEEE-SA Standards Board
appointed by IEEE-SA Board of Governors

Approval Process

aka NesCom

New Standards Committee

aka RevCom

Standards Review Committee

Process Control

Procedures Committee

Audit Committee

Administrative Committee

Patent Committee

IEEE 802 is here:
a standards committee formed by the Computer Society

Standardization Activities

3 Accredited Committees

National Electrical Safety Code

17 Standards Coordinating Committees

25 IEEE Societies & Councils

Some terms

- PAR – project authorization request – the document that authorizes work on a project.

- WG - Working group – responsible for developing standards in an area

- TAG – Technical Advisory Group – experts on a topic area that crosses working groups – may develop a recommended practice.

- Task group or task force – a part of a working group which focuses on a particular project.

All those dots….decoder ring

- ➢ 802.1 Bridging and Architecture – generally the top of the link layer
- ➢ 802.3 Ethernet
- ➢ 802.11 Wireless LAN (WLAN)
- ➢ 802.15 Wireless Personal Area Network (WPAN)
- ➢ 802.16 Broadband Wireless Access (BWA)
- ➢ 802.18 Radio Regulatory TAG
- ➢ 802.19 Coexistence
- ➢ 802.21 Media Independent Handover
- ➢ 802.22 Wireless Regional Area Networks (WRAN)
- ➢ 802.24 Smart Grid TAG

IEEE 802 Organization

EXECUTIVE COMMITTEE (EC)

CHAIR
Paul Nikolich

Working Group/TAG Chairs

802.1 BRIDGING/ARCH Glenn Parsons	802.3 Ethernet David Law	802.11 WLAN Adrian Stephens
802.15 WPAN Bob Heile	802.16 BWA Roger Marks	802.18 TAG Radio Regulatory Mike Lynch
802.19 Coexistence Steve Shellhammer	802.21 Media indep. handover Subir Das	802.22 WRAN Apurva Mody
802.24 Smart Grid James P.K. Gilb		OmniRAN Study Group Max Riegel

Hibernating WG Chairs (non voting)

802.17 Resilent Packet Ring John Lemon
802.20 MBWA Radhakrishna Canchi

Appointed Officers

1st VICE CHAIR Pat Thaler	2nd VICE CHAIR James P.K. Gilb
EXECUTIVE SEC Jon Rosdahl	RECORDING SEC John D'Ambrosia
TREASURER Clint Chaplin	

Appointed Officers (non voting)

MEETING MGR MEMBER EMERITUS Buzz Rigsbee	MEMBER EMERITUS Geoff Thompson

DISBANDED

802.2 LLC	802.4 Token Bus	ECSG TV Whitespace
802.5 Token Ring	802.6 DQDB	ECSG Emergency Services
802.7 Broadband TAG	802.8 Fiber Optic TAG	802.23 Emergency Services 802.9
ISLAN	802.10 Security	
802.12 Demand Priority	802.14 CATV	

General structure of the week

	Sun	Mon	Tue	Wed	Thu	Fri
A M	Some task forces / task group meetings	- Opening EC - 802-newcomer orientation - 802.11-newcomer - Some WG Opening plenaries	Task force and task group meetings		Task force and task group	WG plenary
P M		-Remaining WG opening plenaries -Task force and task group mtgs			WG plenary or task force or group	Closing EC
E v e		tutorials	TF/TG mtgs	social	WG plenary	

Check WG agendas for details – there is some variation between groups

Introduction to IEEE standards process
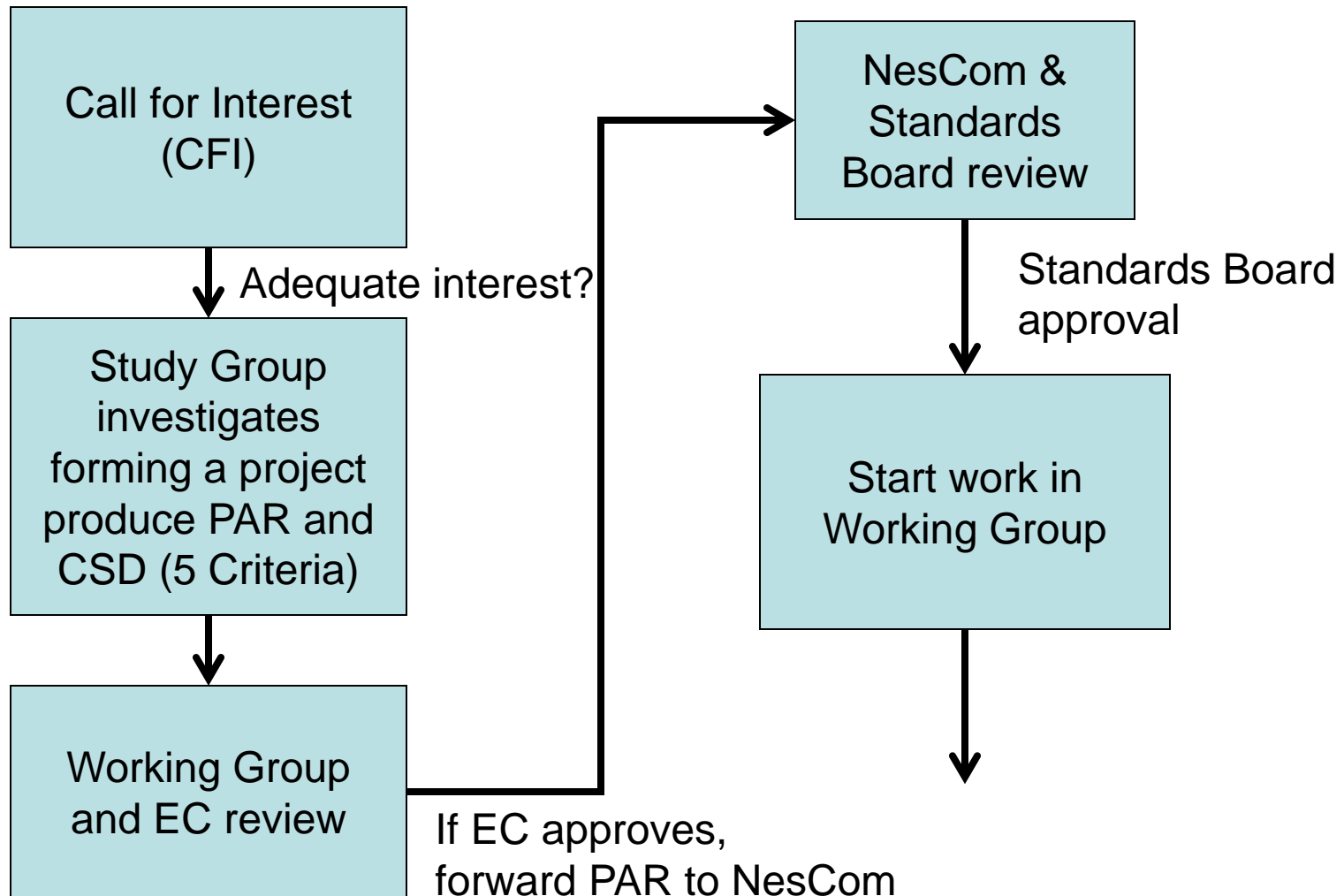
Principles of the process

- Due process – procedures are publicly available and followed consistently

- Consensus – requiring agreement of a majority or supermajority – for technical decisions here ≥75%

- Openness – ensuring materially interested and affected parties can participate

- Balance – representation from all interested parties without overwhelming influence from any one party

- Right of appeal – process to ensure due process

More terms

- CFI – Call for interest – a brief meeting to outline a topic and determine if there is interest in investigating possible project

- Study Group – a group formed to investigate a project and produce a PAR

- Criteria for Standards Development (CSD) – In IEEE 802 the basis for determining whether to forward a PAR.

- Five Criteria – a subset of the CSD

IEEE 802 standards development life cycle – part 1

Call for Interest (CFI)

Adequate interest?

Study Group investigates forming a project produce PAR and CSD (5 Criteria)

Working Group and EC review

If EC approves, forward PAR to NesCom

NesCom & Standards Board review

Standards Board approval
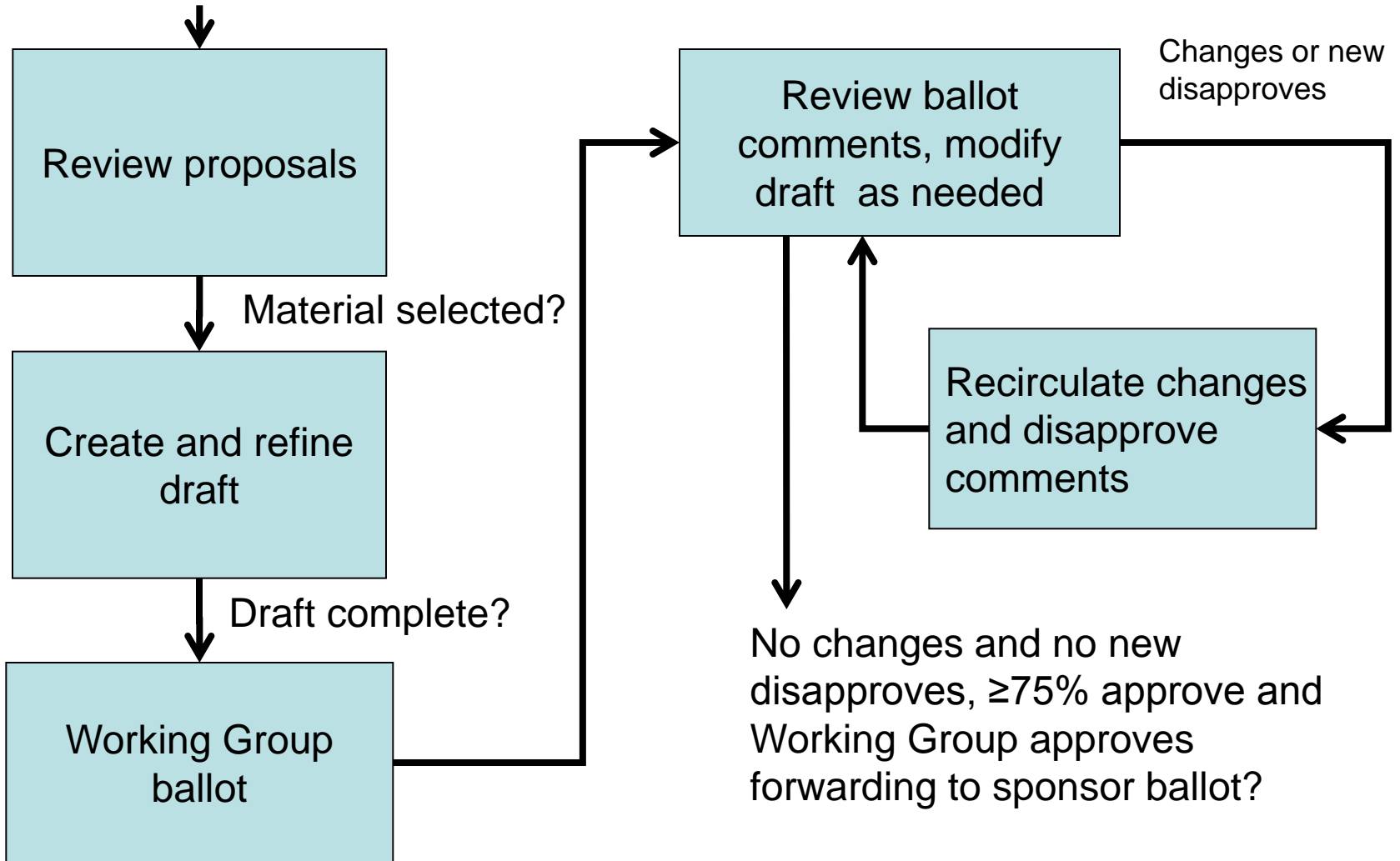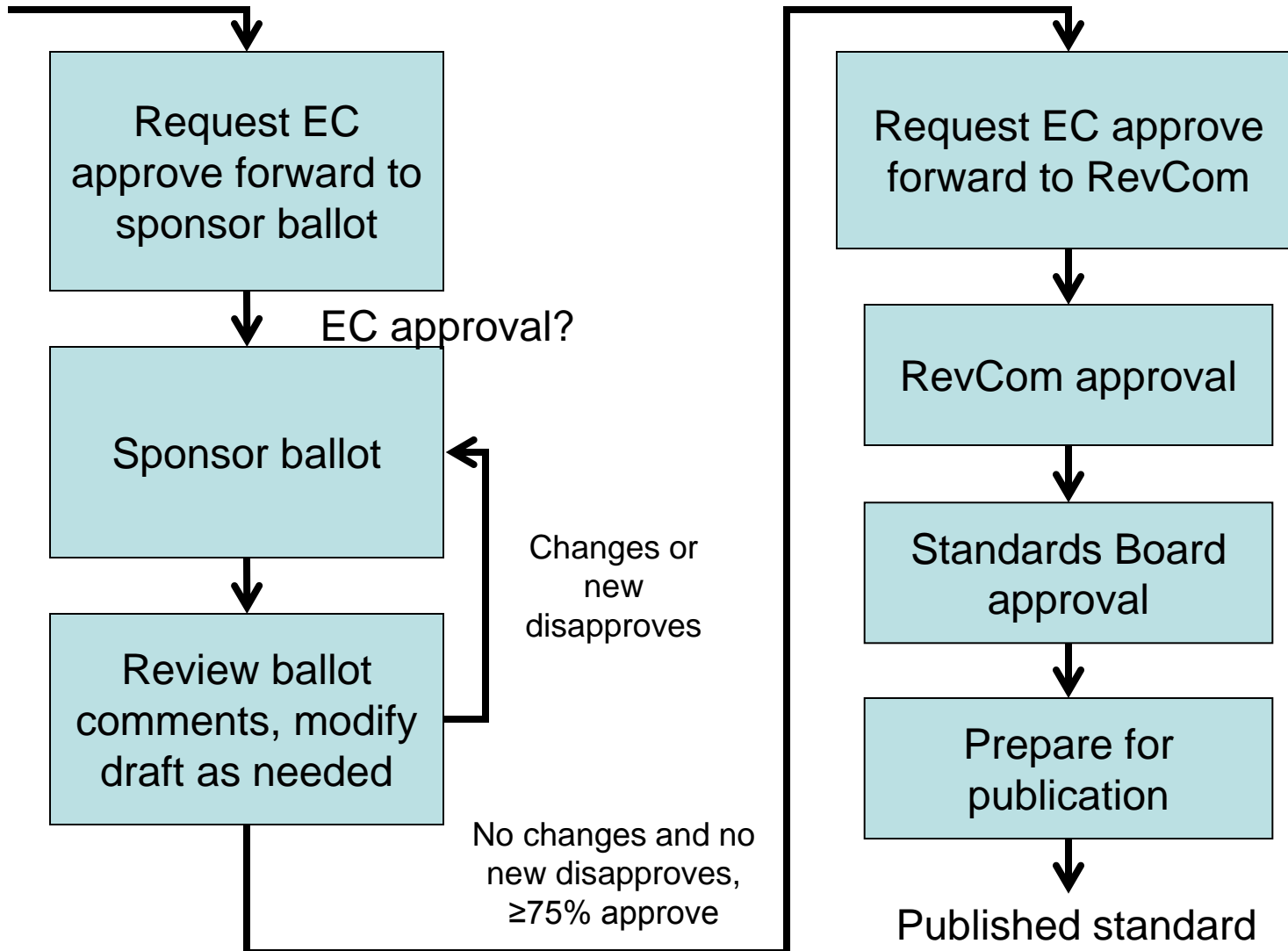
Start work in Working Group

IEEE 802 criteria for standards development (CSD)

- Project Process
  - Managed objects
  - Coexistence (for a wireless project)
- Five Criteria
  - Broad Market Potential
  - Compatibility
  - Distinct Identity
  - Technical Feasibility
  - Economic Feasibility

IEEE 802 standards development life cycle – part 2

```
Review proposals
```
↓ Material selected?
```
Create and refine draft
```
↓ Draft complete?
```
Working Group ballot
```

```
Review ballot comments, modify draft as needed
```
Changes or new disapproves

```
Recirculate changes and disapprove comments
```

No changes and no new disapproves, ≥75% approve and Working Group approves forwarding to sponsor ballot?

IEEE 802 standards development life cycle – part 3

Request EC approve forward to sponsor ballot

EC approval?

Sponsor ballot

Review ballot comments, modify draft as needed

Changes or new disapproves

No changes and no new disapproves, ≥75% approve

Request EC approve forward to RevCom

RevCom approval

Standards Board approval

Prepare for publication

Published standard

Standards life cycle – part 4

And then there is maintaining the standard

- Keep the standard current by producing amendments and corrigenda (corrections)
- Renew the life of the standard with revision
- When the standard is out of date, withdraw it.

Voting and membership

- Voters have responsibility to vote on letter ballots
- Three levels of voting occur in IEEE 802 standards development:
  - Sponsor ballot
    - Open to all interested parties
      - Via IEEE SA-membership or paying a per ballot fee
    - Participation requires an IEEE Web Account
  - Working group
    - Requirements on next page
  - Task force or task group
    - Requirements vary – consult Working group.

Acquiring Working Group voting membership

- Participating at a meeting = at least 75% presence.
- For a new Working Group, persons participating in the initial meeting become members.
- For an existing Working Group, after attending 2 of last 4 plenary sessions or 1 plenary and 1 interim, membership starts at the next plenary attended.
  - May require submitting a letter of intent.

Retaining Working Group voting membership

- Participate in 2 of the last 4 plenary sessions.
  - An interim may substitute for one of the 2 plenary sessions.

- Return working Group letter ballots
  - Membership may be lost for failing to respond or responding abstain for reason other than "lack of technical expertise" to 2 of the last 3 ballots.

Affiliation

- IEEE-SA Standards Board By-Laws, Section 5.2.1.5
    - (http://standards.ieee.org/guides/bylaws/sect5.html)
- Disclosure of Affiliation
    - "Every member and participant in a working group, Sponsor ballot, or other standards development activity shall disclose his or her affiliation."
- What is "Affiliation"
    - "An individual is deemed "affiliated" with any individual or entity that has been, or will be, financially or materially supporting that individual's participation in a particular IEEE standards activity. This includes, but is not limited to, his or her employer and any individual or entity that has or will have, either directly or indirectly, requested, paid for, or otherwise sponsored his or her participation."
- Affiliation and participation
    - "Failure to disclose every such affiliation may result in complete or partial loss of rights to participate in IEEE-SA activities. An individual is not excused from compliance with this policy by reason of any claim of a conflicting obligation (whether contractual or otherwise) that prohibits disclosure of affiliation."

Ground rules

➢ Respect … give it, get it
➢ NO product pitches
➢ NO corporate pitches
➢ NO prices
➢ NO restrictive notices – presentations must be openly available
➢ Silence your cell phone ringers

IEEE Patent policy see the slide set at:
http://standards.ieee.org/board/pat/pat-slideset.ppt

Getting more information

Resources

- IEEE 802 home page:
  - http://www.ieee802.org
- IEEE 802 chairs, etc.
  - http://www.ieee802.org/wgchairs.shtml
- Links to IEEE and IEEE 802 procedural documents:
  - http://www.ieee802.org/devdocs.shtml
- Links to IEEE 802 WG and TAG pages:
  - http://www.ieee802.org/dots.shtml
- Links to these slides and IEEE 802 orientation
  - http://ieee802.org/orientation.shtml