



802.3 Standards Development: Lessons Learned

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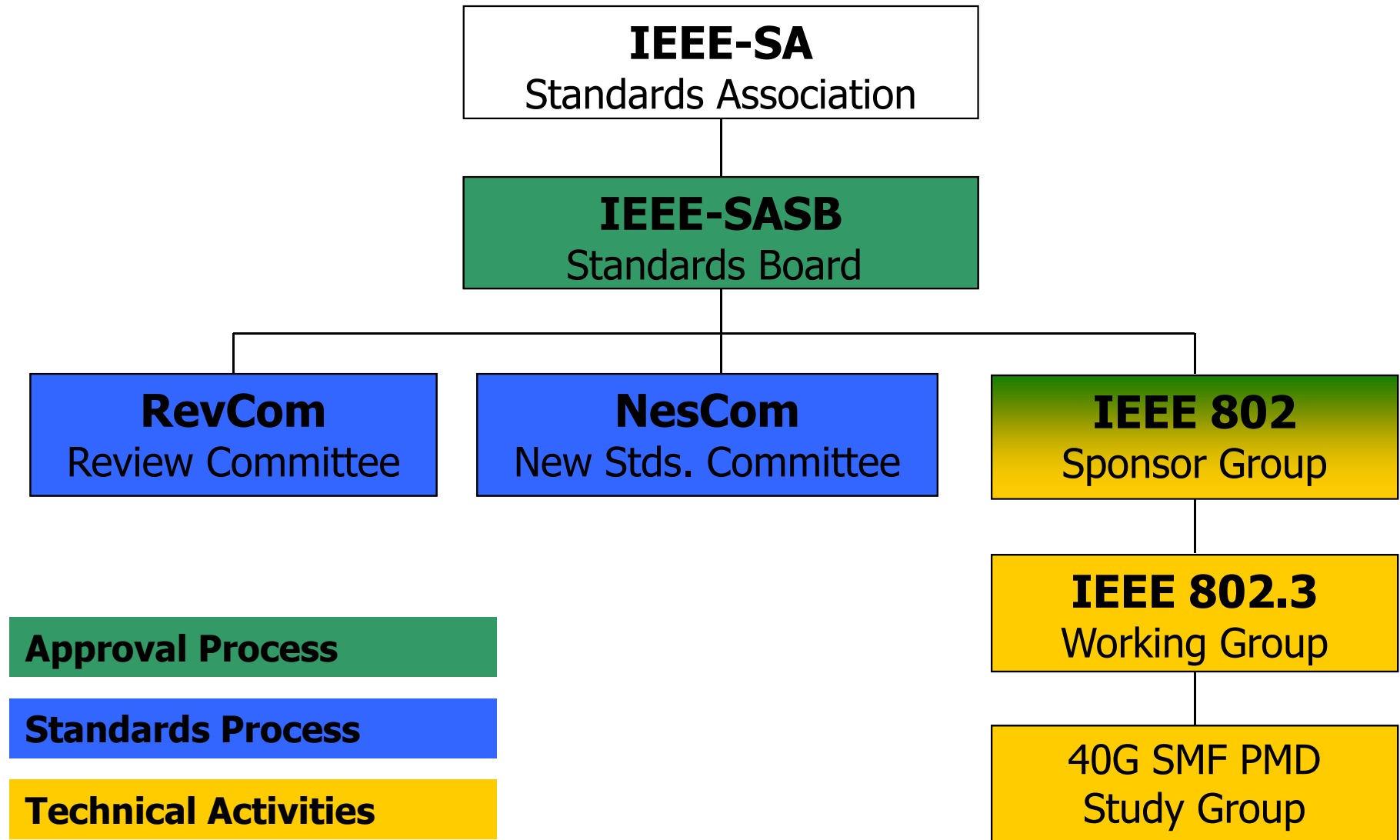
Outline

- Initial Thoughts
- Standards Development Process
- Study Group Phase
 - Documents
 - The 5 Criteria
- Final Thoughts
- Q&A

Initial Thoughts

- Keep this project focused
 - SG was formed around a 40G SMF PMD for Carrier Client
 - WG will expect the SG to respond to this question
- Building off of IEEE P802.3ba
 - Was a stated objective of the CFI and SG
 - Project should highlight there are no needs to modify anything P802.3ba has created
- Targeted goals
 - PAR, 5 Criteria and Objectives should be ready for approval at the March 2010 Plenary
 - Ratification could be done within 2 years

IEEE Standards Association Structure



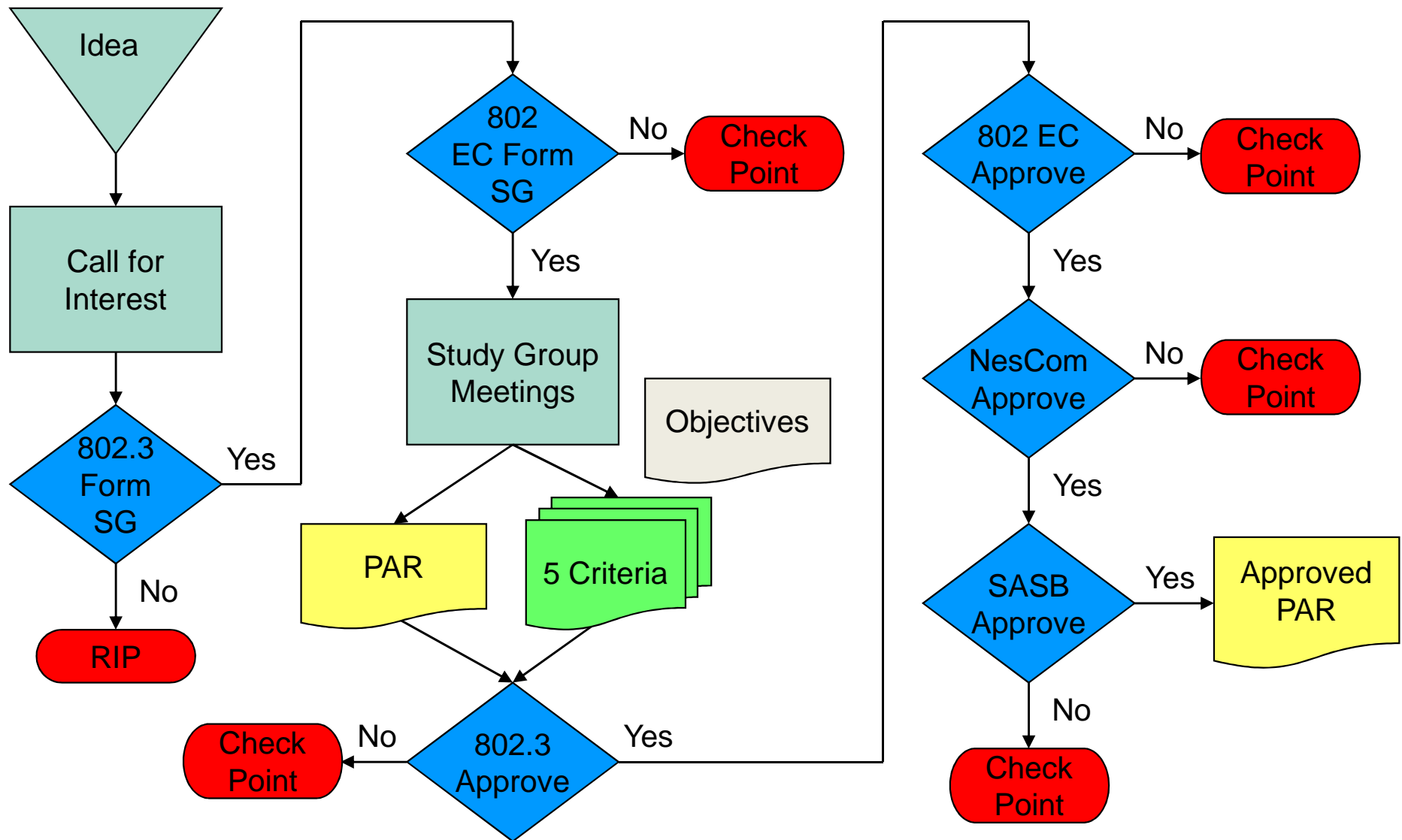
Approval Process

Standards Process

Technical Activities

IEEE Standards Process

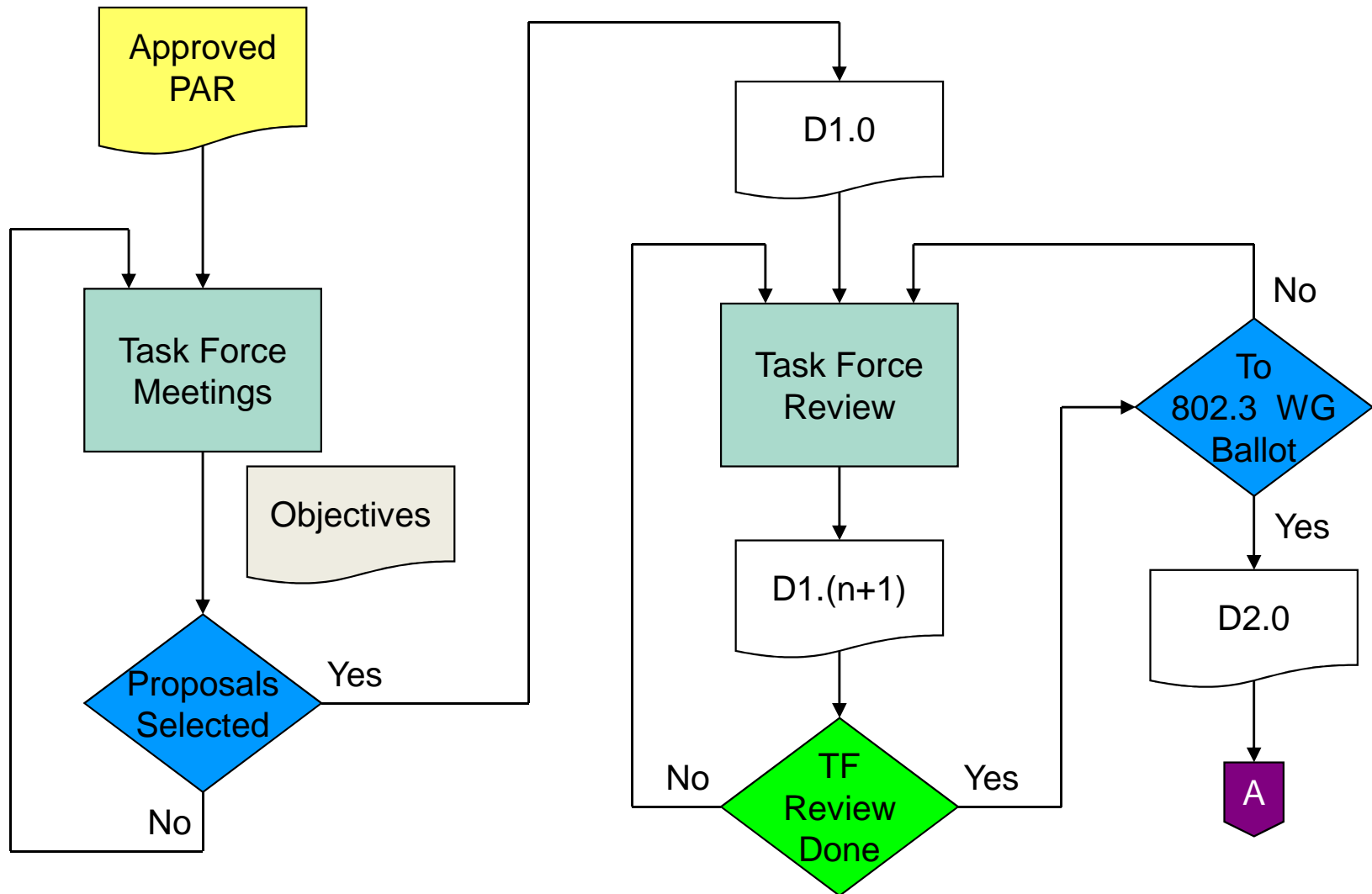
Study Group Formation



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

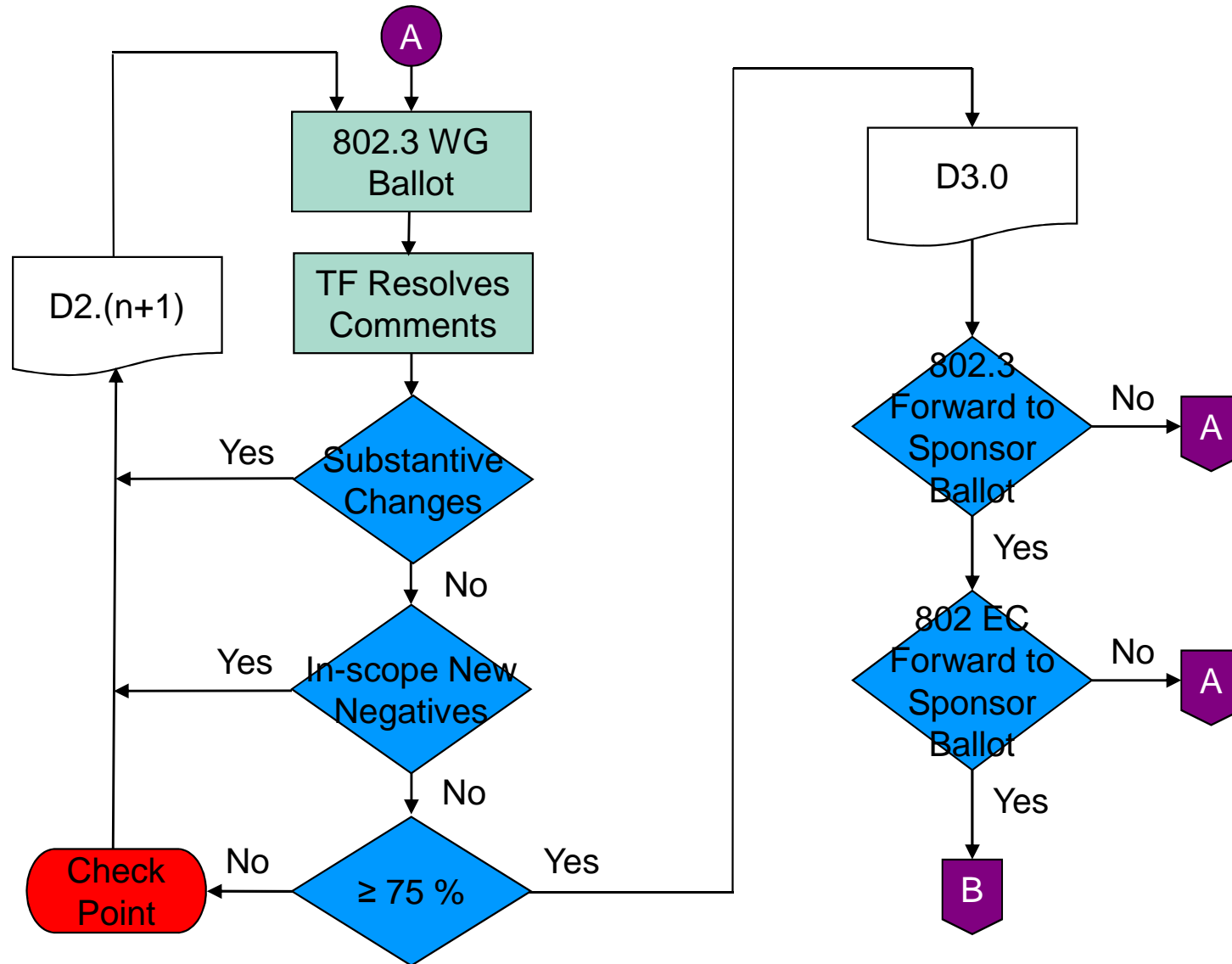
IEEE Standards Process

Task Force Review



IEEE Standards Process

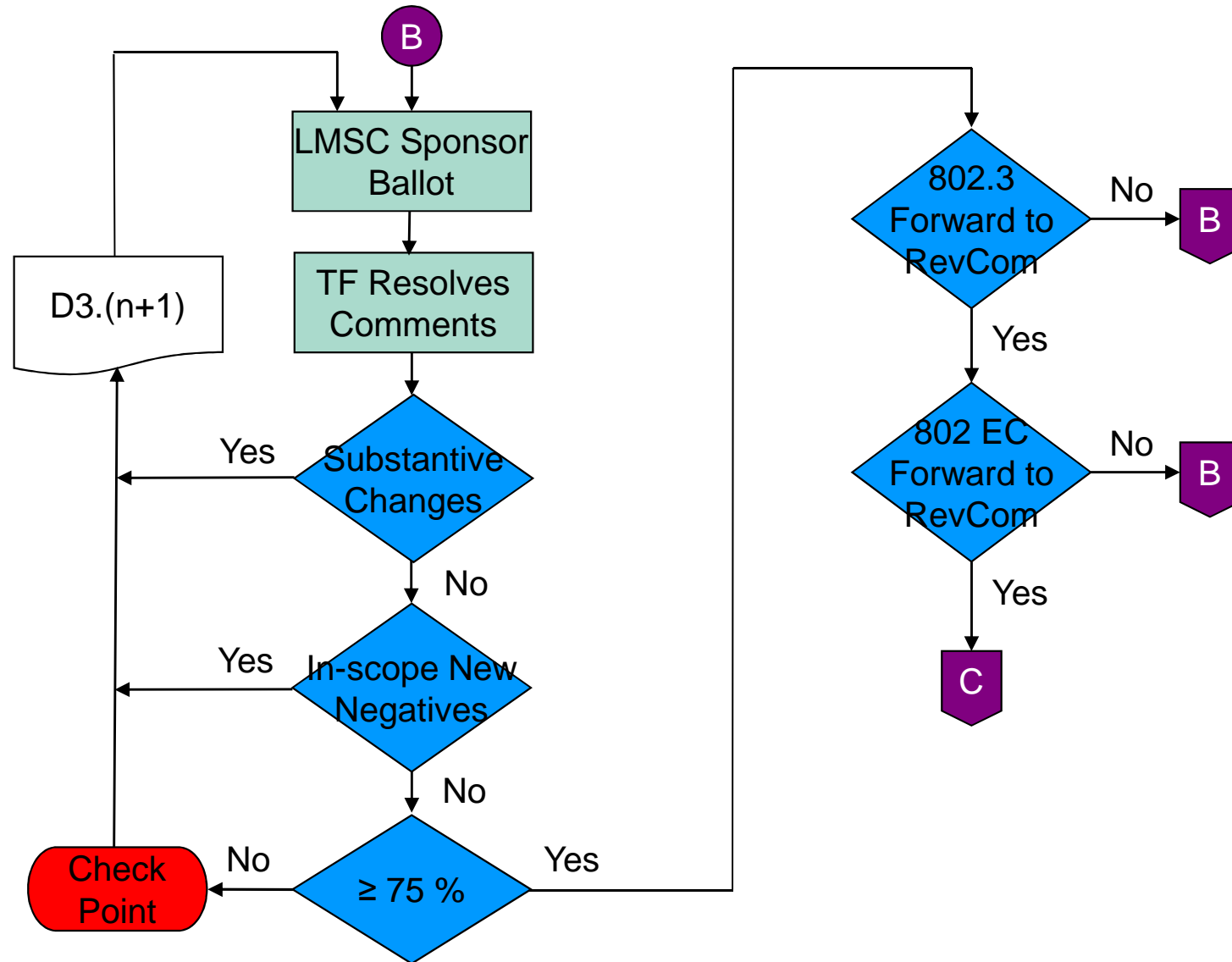
Working Group Ballot



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

IEEE Standards Process

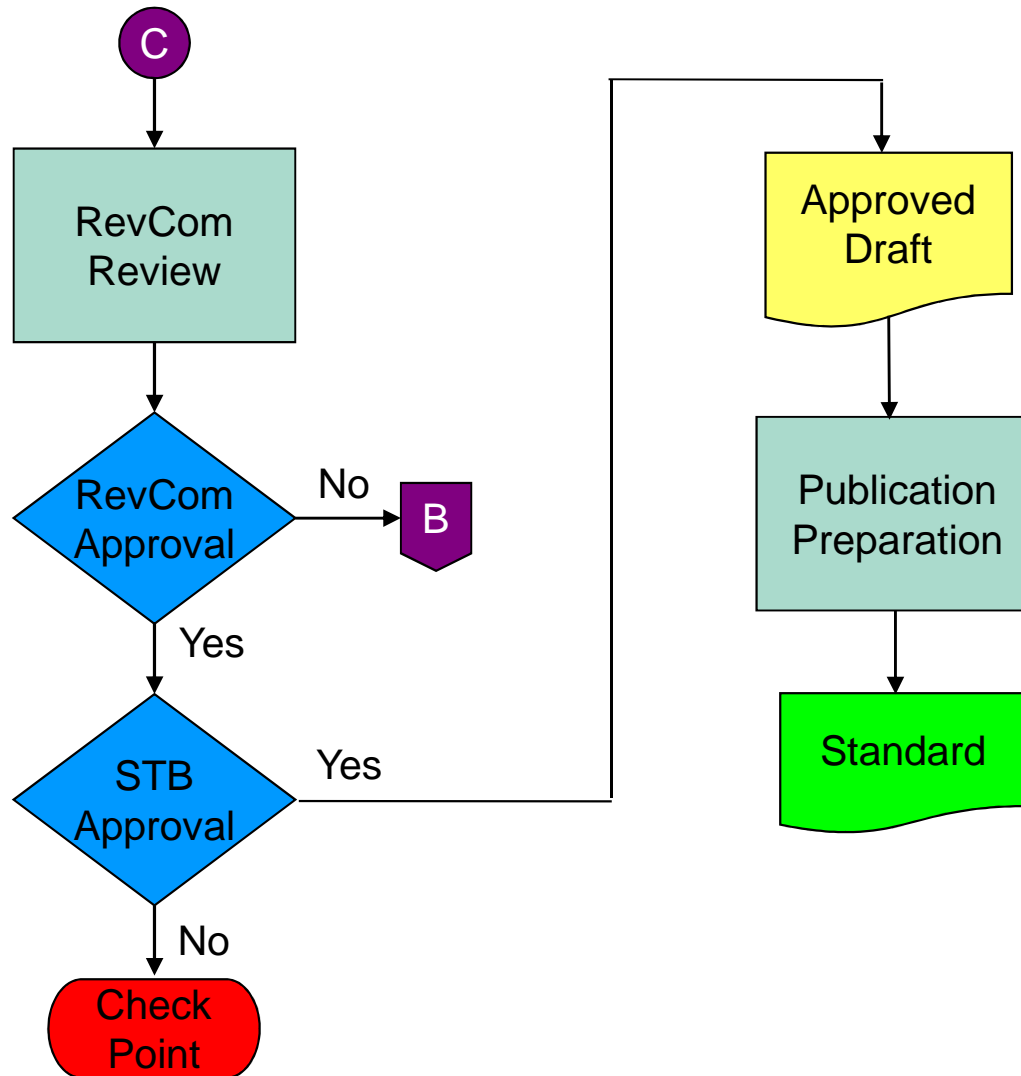
Sponsor Ballot



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

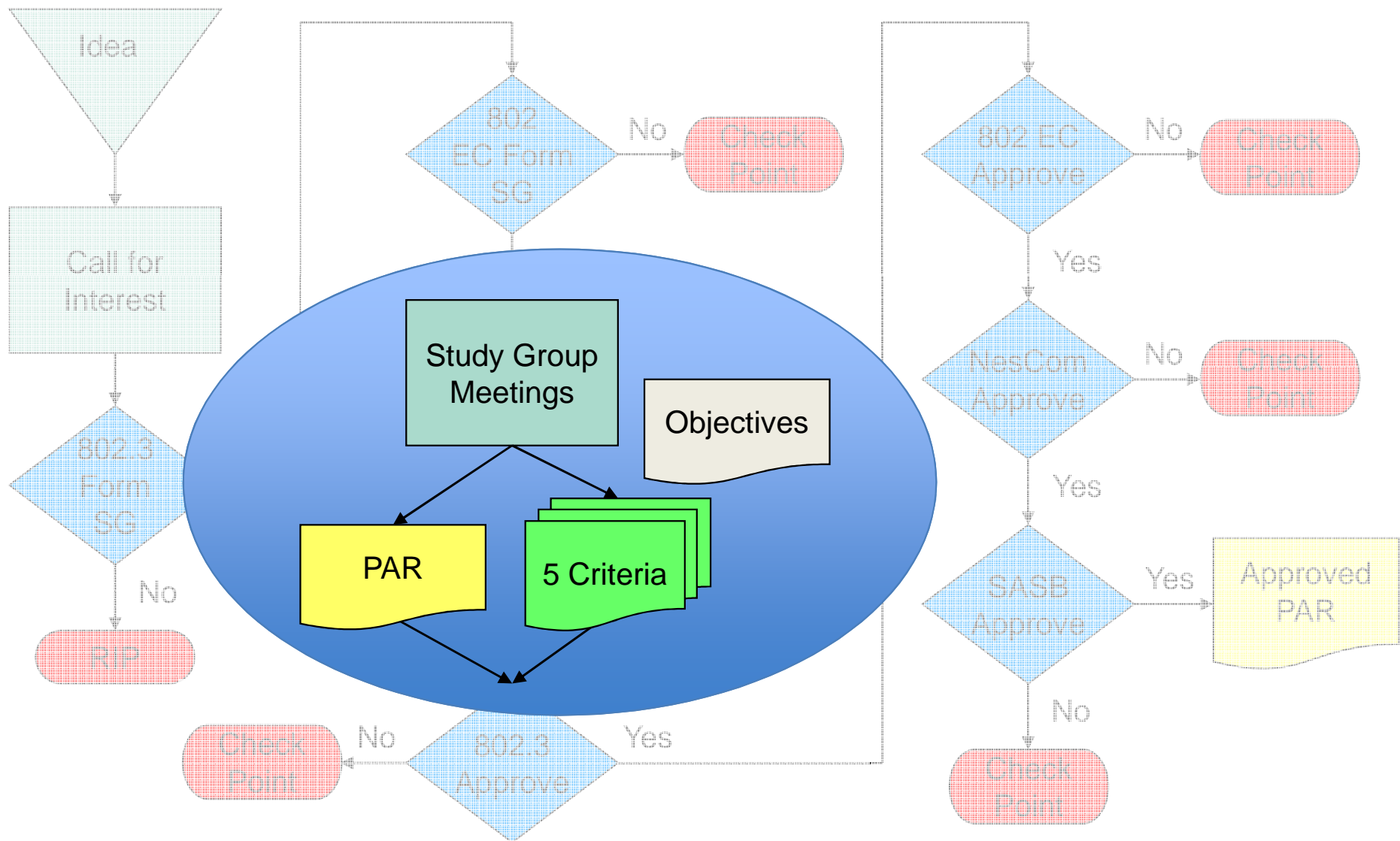
IEEE Standards Process

Standard Approval



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

Study Group Phase



Documents

- Three documents required
 - Objectives
 - 5 Criteria (aka 5 Critters)
 - Project Authorization Request (PAR)
 - Collectively define the project and what the standard should satisfy
 - Alterations to the documents or project must be reflected in the other
- Objectives
 - Needs approval from SG, 802.3 WG
 - Should be simple
 - Deal with the contentious ones quickly
 - ***SELECT/APPROVE OBJECTIVES FIRST!!***

Documents (cont.)

- 5 Criteria
 - Needs approval from SG, 802.3 WG, 802 EC
 - Compatibility and Distinct Identity
 - Technical Feasibility
 - Broad Market Potential and Economic Feasibility
 - Should be worked on after the objectives are set
- PAR
 - Needs approval from SG, 802.3 WG, 802 EC, NesCom & IEEE-SA Standards Board
 - Once approved, SG will become an 802.3 Task Force
 - Very easy to do once the other documents are done
 - Last document to be worked on

The 5 Criteria (aka The 5 Critters)

- Thanks to Howard Frazier for the critter slides!



Broad
Market
Potential



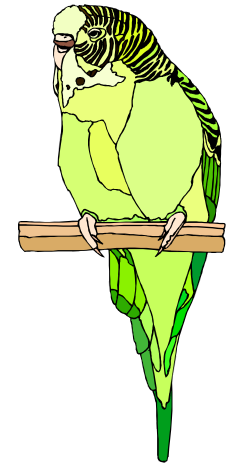
Compatibility



Distinct
Identity



Technical
Feasibility



Economic
Feasibility



Broad Market Potential

- IEEE 802 criteria:
 - Broad sets of applicability
 - Multiple vendors and numerous users
 - Balanced costs (LAN versus attached stations)



Compatibility

- **IEEE 802 criteria:**
 - IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management, and Interworking documents as follows: 802. Overview and Architecture, 802.1D, 802.1Q, and parts of 802.1F. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802.
 - Each standard in the IEEE 802 family of standards shall include a definition of managed objects that are compatible with systems management standards.
- **IEEE 802.3 criteria:**
 - Compatibility with IEEE Std 802.3
 - Conformance with the IEEE Std 802.3 MAC
 - Managed object definitions compatible with SNMP



Distinct Identity

- IEEE 802 criteria:
 - Substantially different from other IEEE 802 standards
 - One unique solution per problem (not two solutions to a problem)
 - Easy for the document reader to select the relevant specification
- IEEE 802.3 criterion:
 - Substantially different from other IEEE 802.3 specifications/solutions



Technical Feasibility



- IEEE 802 criteria:
 - Demonstrated system feasibility
 - Proven technology, reasonable testing
 - Confidence in reliability



Economic Feasibility

- IEEE 802 criteria:
 - Known cost factors, reliable data
 - Reasonable cost for performance
 - Consideration of installation costs

Guidelines for Critter Responses

- Respond to each criteria on a separate slide
 - Repeat the criteria verbatim at the top of each slide
 - Respond to each point of the criteria
- Be prepared to defend every word of the responses
 - Responses must be specific
 - Responses must be succinct
 - Responses must be honest
- A project must satisfy all 5 of the criteria simultaneously

PAR Information

- Project Number (IEEE P802.3b?)
- Title of standard
- Working group and contact information
- Estimated dates
- Scope and Purpose of the proposed standard
 - Need for the project
 - Stakeholders
- Intellectual property statement

Final Thoughts

- Stay focused
 - Avoid “let the market decide” mentality
 - Avoid the “science experiment”
- Level setting
 - Use 802.3 or agreed upon terminology
 - Develop new terminology if appropriate
- Consensus
 - 75% is the magic number
 - Develop consensus proposals with broad support
- Follow the process

Q&A

- Thank you!