

IEEE Long Range Planning committees: structure, precedent, and playbook for SC-5

IEEE societies universally use President-Elect-chaired Long Range Planning committees operating on 2-year cycles to produce multi-year strategic plans — and PES's new SC-5 on Emerging Technologies, Digitalization, and AI Readiness has strong precedent across the organization. The PES LRPC has produced at least three documented strategic plan cycles since 2012, with a consistent operating model of sub-committees meeting monthly and full committees convening twice yearly before Governing Board meetings. Across IEEE, at least 10 societies maintain formal LRP or strategic planning committees, several with dedicated emerging-technology sub-bodies that directly parallel SC-5's mandate. This report synthesizes the structures, deliverables, timelines, and best practices that can inform an effective 2-year Co-Chair term.

How the PES LRPC actually works

The PES Long Range Planning Committee is a **Standing Committee of the PES Governing Board**, formally chaired by the President-Elect during their 2-year term. The PES Operations Manual (Section 2.5.2) codifies a specific operating rhythm: the President-Elect must "organize two meetings per year, typically scheduled in conjunction with Governing Board meetings" and "release an update of the LRP report every two years." At each PES Board and ExCom meeting, the chair recommends an LRP topic for dedicated agenda time to solicit feedback on accomplishments and future direction.

The current 2026–2027 cycle expanded the LRPC to **seven sub-committees (SC-1 through SC-7)**, up from what appear to have been fewer, more ad-hoc groupings in prior cycles. The sub-committees and their focus areas are: SC-1 (Global Partnerships, Policy, and Leadership), SC-2 (Technical Activities, Conferences, and Publications), SC-3 (Chapter Activities and Membership), SC-4 (Education, Skills, and Workforce Development), **SC-5 (Emerging Technologies, Digitalization, and AI Readiness)**, SC-6 (Global Standards, Interoperability, and Regulatory Engagement), and SC-7 (Women in Engineering, Young Professionals, and Social Impact). Time commitments are clearly defined: **4 hours/month for sub-committee members and 8–10 hours/month for sub-committee chairs**. The LRPC shapes a **3–5 year strategic vision** that the President-Elect then implements upon becoming President.

The committee composition deliberately seeks diversity across regions, career stages, and sectors — academia, utilities, industry, government, regulators, and students/young professionals. Action items from the LRPC can be transferred to the PES Secretary's Action Item List for formal implementation tracking, creating a direct pipeline from strategic recommendation to operational execution.

What prior PES LRPC cycles delivered

Four documented LRPC cycles reveal a pattern of increasingly structured output. The **2012–2013 cycle** under Saifur Rahman produced the IEEE PES Strategic Plan for 2014–2019 — the earliest specifically named strategic plan from the LRPC. Rahman had previously chaired the Emerging Technologies Coordinating Committee (ETCC) from 2005–2009, establishing a direct lineage between emerging-technology coordination and long-range planning within PES.

The **2014–2015 cycle** under Damir Novosel focused on expanding PES's global presence and membership value. A key concrete outcome was the creation of an **Education Strategic sub-committee** — demonstrating

that LRPC sub-committees can spawn new focused initiatives mid-cycle. The cycle also drove publications collaboration with China and multilingual IEEE Xplore development.

The **2020–2021 cycle** under Jessica Bian produced the most publicly accessible deliverable: the **IEEE PES Strategic Direction: 2021–2025**, published as a one-page strategic infographic organized around core pillars (Membership & Chapters, Technical Activities, Education, Publications, Conferences & Meetings) with an outer ring of Initiatives & Outreach. This cycle introduced four strategic commitments — DEVELOP stronger industry engagement, GROW lifelong learning, IMPROVE global diversity in technical committees, and REINVIGORATE chapter communications. The Smart City Program emerged as a flagship initiative.

The **2024–2025 cycle** under Shay Bahramirad set the stage for the current expanded 7-sub-committee structure. SC-5 as a dedicated emerging-technology sub-committee appears to be **new or significantly reframed** for 2026–2027, reflecting the accelerating impact of AI and digitalization on the power and energy sector.

PELS offers the richest model for technology-focused strategic planning

IEEE PELS (Power Electronics Society) provides the most instructive parallel for SC-5's work because PELS operates **two complementary planning bodies**: a Long Range Planning Committee and a separate Strategic Planning Committee. But PELS's most distinctive innovation is **FEPPCON — Future of Electronic Power Processing and Conversion** — a biennial technical forecasting workshop that directly feeds strategic planning. FEPPCON XI, held in Reykjavik in June 2022 with the theme "Powering Global Progress," exemplifies how a society can create a structured venue for identifying future R&D tracks, potential technology show-stoppers, and disruptive opportunities across materials, components, equipment, and systems.

PELS produced a detailed **Five-Year Strategic Plan for 2021–2025** with five measurable goals: membership growth, industry content development, agile technical programs in fast-changing fields, sustainability enablement, and virtual platform development. A **draft 2026–2030 plan** has been released for member feedback, explicitly built on FEPPCON insights. The plan development process includes a **Strategic Retreat with Vice Presidents** for tactical planning updates — a practice worth emulating.

In 2017, PELS created a **Best Practices and New Programs Committee** specifically to identify practices from other IEEE societies and translate strategic ideas from FEPPCON into operational reality. This "implementation bridge" committee, chaired by Prof. Tom Habetler of Georgia Tech, addresses a common weakness in strategic planning: the gap between recommendations and execution. PELS also documented its **Policies and Procedures for the Strategic Planning Committee**, which were reviewed positively during the TAB Society Review Committee's 2022 assessment.

At least ten IEEE societies run similar committees

The President-Elect-as-chair model dominates across IEEE. The **IEEE Computer Society** calls its version the "Planning Committee" and requires it to propose **strategic goals with measurable objectives and measurable outcomes**, provide an annual report to the Board of Governors, and ensure each program board establishes a **vitality review process** for products and services. The Computer Society initiated formal strategic planning in 1991 and explicitly links strategic priorities to financial planning through coordination with its Finance Committee.

The **IEEE Communications Society** operates a Strategic Planning Standing Committee with members serving **staggered 2-year terms** (ensuring continuity across leadership transitions). Its current strategic plan rests on

four pillars: promoting engagement and belonging, expanding outreach, reshaping technical balance, and expanding the portfolio. Critically, ComSoc also maintains a separate **Emerging Technologies Standing Committee** that nurtures topic-specific sub-committees including one on **Large Generative AI Models in Telecom (GenAINet)** — a direct parallel to SC-5's AI readiness mandate.

The **IEEE Signal Processing Society** offers perhaps the most sophisticated tracking mechanism: its 2024–2029 Strategic Plan goals are tracked in a **public Smartsheet dashboard**, making progress visible to all members. The President-Elect chairs both an annual Board of Governors Long-Range Planning Retreat and an annual Executive Committee Strategic Planning meeting. Other societies with documented LRP committees include Robotics & Automation (reviews "trends of science and technology" and recommends organizational changes), Control Systems, Intelligent Transportation Systems, Systems Man and Cybernetics (which has both a standing Organization and Planning Committee and an ad hoc Strategic Foresight committee), Computational Intelligence, and the Education Society.

Strong precedent exists for technology-focused strategic sub-bodies

SC-5's mandate has extensive organizational precedent within IEEE. PES itself already operates several technology-focused coordinating committees: the **Artificial Intelligence in Power Systems Coordinating Committee (AIPSCC)**, the **Intelligent Grid & Emerging Technologies (iGET) Coordinating Committee** covering next-generation power systems, and the **Strategic & Emerging Technologies Standards Committee (SETCom)**. What SC-5 adds is strategic integration — connecting these technical activities to the society's long-range direction rather than operating as standalone technical bodies.

At the IEEE-wide level, the **Future Directions Committee (FDC)** manages approximately nine formal emerging-technology initiatives at any time, each with a **4–6 year lifecycle**. The FDC's newest activity is a coalition across Technical Activities and IEEE on AI. Initiatives are assessed via a scorecard evaluating innovativeness, strategic importance, achievable objectives, and clear deliverables. After their lifecycle, initiatives may become standalone Technical Communities, be absorbed into a Society, or conclude. The FDC also oversees the **IEEE Technology Roadmaps Committee**, which builds infrastructure for technology roadmap development — relevant since PES has already published an **IEEE Power and Energy Technology Assessment and Roadmap** spanning to 2035 covering renewable integration, reliability, grid-edge technologies, computation, and cybersecurity.

The **IEEE-USA AI Policy Committee** provides a policy-oriented model, having produced position papers on AI Education Pipeline & Workforce Alignment, Democratic Use of AI, and Privacy/Equity/Justice in AI (all November 2024), plus a 26-country AI Global Survey. The IEEE Computer Society operates an **Artificial Intelligence Standards Committee (C/AISC)** for AI governance and practice standards. These bodies demonstrate that technology-focused strategic work within IEEE spans technical roadmapping, standards development, policy recommendations, and workforce planning — all potential deliverable categories for SC-5.

The IEEE volunteer leadership toolkit is substantial

IEEE provides several structured resources for committee leaders. The **TAB Strategic Planning Resources page** offers both an IEEE Strategic Planning Guidance document and an IEEE Strategic Planning Template — standardized tools designed for society-level strategic planning. The **TA Volunteer Leadership Resource Center** includes a Robert's Rules of Order video series specifically for IEEE meetings and product briefings for executive-level understanding of major activities.

The **Volunteer Leadership Training (VoLT) Program**, IEEE's flagship development program since 2013, has graduated **over 663 leaders** across all 10 IEEE Regions. It runs in two tracks: Track 1 covers organizational fundamentals (April–June), and Track 2 delivers weekly live webinars on leadership topics (September–December). Teams of 5–6 produce business plans and presentations. The **IEEE Center for Leadership Excellence (CLE)** at ieee-elearning.org provides role-specific quick-start modules and professional development training. For governance specifics, the TAB Operations Manual (Section 3.41) and MGA Operations Manual codify committee chair duties, meeting procedures, minutes requirements, financial accountability, and conflict-of-interest obligations.

Key operational standards from these documents: meetings must be "strongly focused on the business laid out in the agreed agenda"; minutes must record attendance, actions, and discussion substance and be distributed before the next meeting; committee chairs bear budget responsibility with monthly financial tracking; and all volunteers in leadership positions must submit Conflict of Interest Disclosure Statements by February 1 annually.

Actionable playbook for a 2-year SC-5 Co-Chair term

Synthesizing across all IEEE societies' practices, the most effective approach for an SC-5 Co-Chair term follows a clear arc. **Months 1–3** should focus on foundation: review the TAB Strategic Planning Guidance and Template, establish the sub-committee charter (scope, authority, organizational structure), set a monthly meeting cadence (consistent with the 4 hrs/month member commitment), and audit existing PES technology-focused bodies (AIPSCC, iGET, SETCom) to define SC-5's unique strategic value versus their technical scope. The Signal Processing Society's Smartsheet-based goal tracking is worth adopting immediately for transparency.

Months 4–12 should emphasize assessment and strategy development. Following ComSoc's model, gather reliable data on membership trends, technology adoption patterns, and industry needs. Consult across PES stakeholders — the iGET Coordinating Committee, the AI in Power Systems body, chapter leaders, and industry members. Develop 3–5 strategic recommendations with measurable objectives, drawing on PELS's FEPPCON model of structured technology forecasting workshops (even virtually). Present draft recommendations at Governing Board meetings for feedback, using the dedicated LRPC agenda time the Operations Manual guarantees.

Months 13–24 should focus on deliverable production and implementation handoff. Concrete deliverable options with strong IEEE precedent include: a technology assessment white paper (modeled on the PES Technology Roadmap to 2035), a strategic recommendations report to the Governing Board, position papers on AI readiness for the power sector (modeled on IEEE-USA AIPC papers), proposed new programs or technical committee modifications, and contributions to the next PES Strategic Direction document. Before term end, prepare succession materials and ensure action items are transferred to the PES Secretary's tracking system.

Conclusion

The infrastructure for SC-5's success already exists within IEEE's organizational DNA. **Three practices separate the most effective LRP efforts from routine committee work:** PELS's FEPPCON model of structured technology forecasting that feeds directly into strategic plans, the Signal Processing Society's public Smartsheet goal tracking that creates accountability, and the Computer Society's requirement for measurable objectives linked to financial planning. SC-5's distinctive opportunity lies in bridging PES's existing technical

bodies (AIPSCC, iGET, SETCom) — which identify what technologies matter — with the LRPC's strategic mandate to determine what PES should *do* about them. The most impactful deliverable would be a concise strategic roadmap that translates AI and digitalization trends into specific membership services, educational programs, conference content, and standards initiatives, with measurable milestones the next President-Elect can execute against.