IEEE Nanotechnology Council Strategic Plan

The IEEE Nanotechnology Council (NTC) Strategic Plan aligns with the IEEE Strategic Plan 2025–2030 and the Technical Activities (TA) Impacts approved by the IEEE Technical Activities Board (TAB). It articulates NTC's role as IEEE's interdisciplinary home for nanotechnology, establishes the Council's strategic direction, and outlines how its priorities will be translated into action over the coming years.



Mission

We advance and coordinate nanotechnology across IEEE and around the world, uniting our member societies with academia, industry, and government through trusted publications, conferences, education, and standards that empower professionals and foster responsible innovation.

Vision

To be the essential global community for nanotechnology, advancing nanoscale innovation for the benefit of humanity.

Core values

NTC adopts the IEEE's six core values and applies them to the nanotechnology community:

- **Trust:** Maintain rigorous peer review and consensus standards so NTC publications and standards remain reliable sources of nanotechnology knowledge.
- **Growth & Nurturing:** Provide education, mentoring, and recognition for learners and professionals at every career stage while ensuring continuity and reinforcing shared values.

- **Partnership:** Build collaboration among member societies, volunteers, staff, industry, academia, and government and promote the exchange of knowledge, ideas, and best practices.
- **Integrity in Action:** Uphold research integrity and advance responsible, safe, and sustainable nanotechnology, thereby earning trust, confidence, and respect.
- **Global Community Building:** Connect nanotechnology professionals across all IEEE Regions through chapters, conferences, and online communities.
- **Service to Humanity:** Apply nanoscale innovation to health, energy, the environment, computing, and other societal needs for the benefit of humanity.

Strategic goals

The six NTC strategic goals below align with the corresponding IEEE goals and TA Impacts. An unnumbered organizational foundation supports their implementation:

1. **Trusted Knowledge:** Position NTC as a leading, trusted source of nanotechnology knowledge through high-quality publications and standards that support research, industry, and public policy *(IEEE Goal 1; TA Impact 1)*
2. **Responsible Innovation:** Advance nanoscale innovation while promoting research integrity, ethics, and the safe and sustainable development and use of nanotechnology *(IEEE Goal 2; TA Impact 2)*
3. **Convergence & Collaboration:** Serve as IEEE's interdisciplinary hub for nanotechnology by connecting NTC's 22 member societies and engaging academia, industry, and government through conferences, technical committees, and partnerships *(IEEE Goal 3; TA Impact 3)*
4. **Next-Generation Innovators:** Inspire and support students, young professionals, and entrepreneurs as they explore, invent, and build careers in nanotechnology *(IEEE Goal 4; TA Impact 4)*
5. **Public Engagement & Global Reach:** Expand public understanding of nanotechnology and its contributions to society through TryNano, digital channels, chapters, and partnerships *(IEEE Goal 5; TA Impact 5)*
6. **Lifelong Career Value:** Support nanotechnology professionals throughout their careers through education, mentoring, networking, recognition, and leadership opportunities *(IEEE Goal 6; TA Impact 6)*

Foundation. Sustainable & Inclusive Council: Maintain NTC's long-term strength, reach, and vitality through sound financial management, effective and adaptable governance, and an open and inclusive volunteer community

Delivering on this plan

Each strategic goal will have a designated accountable officer, defined measures and targets, and an annual action plan. Progress will be reported to AdCom at least annually, and the action plan will be reviewed and updated each year. Implementation will reflect IEEE's commitment to a collaborative environment that is open, inclusive, and free of bias.

NOTE – **Status & next steps**: The full NTC Strategic Plan, currently under development, will include objectives, measures, targets, an action plan, and a framework for the Council's coordination and reporting with IEEE and TAB. The plan is expected to be completed by the end of Q3 2027**.** Once adopted, it will supersede the NTC Strategic Plan of November 2009. NTC will report progress to AdCom at least annually, including at the joint ExCom–AdCom meeting held in conjunction with IEEE NANO—and will update the action plan annually