

Scientific and Technological Community Major Group position paper for 2025 HLPF

Advancing sustainable, inclusive, science- and evidence-based solutions for the 2030 Agenda for Sustainable Development and its Sustainable Development Goals for leaving no one behind

Executive Summary: Securing the future of science and engineering, overcoming threats to global cooperation

- 1. The future of global scientific collaboration is at risk, jeopardizing progress on the SDGs.** Geopolitical tensions, the securitization of research, and growing restrictions on scientific freedom are undermining international cooperation at a time when collective action is essential. To safeguard science and engineering as global public goods, governments and funders must strengthen STI ecosystems and protect the right to participate in and benefit from science¹.
- 2. Amid these growing challenges, science and engineering must be leveraged as tools for peace and cooperation.** One pressing example is ocean governance, where environmental degradation and resource competition intersect. A shared stewardship approach integrating resilience strategies can turn potential conflicts into sustainable cooperation. Science and engineering must play a central role in peace-building efforts, from technology governance to environmental management.
- 3. Emerging technologies, including digital and biotechnology, can accelerate sustainability when governed responsibly.** In particular, Artificial Intelligence is reshaping science systems² and decision-making, with the capacity to advance all 17 SDGs. However, its use must be guided by policies that uphold ethical principles, transparency, and human rights to avoid exacerbating inequalities and undermining scientific integrity. The UN must play a leading role in shaping global governance to ensure these technologies serve the common good.
- 4. Insufficient financial and policy commitments are restraining progress despite scientific breakthroughs.** Science, engineering, technology, and innovation remain critical drivers of SDG progress, with breakthroughs in areas such as public health or climate resilience providing solutions for SDGs 3, 5, 8, 14, and 17. Over the past decade, the UN STI Forum has showcased successful examples of scientific cooperation driving sustainable development. However, mechanisms for scaling these efforts such as the UN's Technology Facilitation Mechanism remain underfunded.
- 5. A mission-driven, transdisciplinary approach to science and engineering is essential to accelerate sustainability.** The International Science Council's Science Missions for Sustainability pilot projects³ show how co-designed, solution-driven science can deliver real-world impact across climate, biodiversity, and social equity. However, achieving this requires moving research funding from short-term models to problem-oriented investments in line with global sustainability priorities.
- 6. Diverse leadership strengthens the credibility and impact of science-informed solutions.** The persistent underrepresentation of women and other marginalized groups in scientific organizations and forums, including in equitable representation, participation and leadership⁴ weakens the global science system, limiting research and innovation.
- 7. Trust in science is crucial for ensuring the effective use of scientific knowledge in policy.** However, it is increasingly challenged by political polarization and mis- and disinformation. When trust is compromised, the capacity for coordinated global action diminishes. As a universal language for cooperation, science, grounded in evidence, observation, and peer review, must be communicated transparently. Continuously strengthening science-policy interfaces⁵ can ensure science remains a trusted tool for policy.

¹ <https://council.science/our-work/right-to-science/>

² <https://council.science/publications/ai-science-systems/>

³ <https://council.science/news/science-missions-for-sustainability-pilots-launch-to-transform-science-and-deliver-real-world-solutions/>

⁴ <https://council.science/our-work/gender-equality/>

⁵ <https://council.science/publications/reframing-trust-in-science/>