70th ANNIVERSARY OF ITALY'S MEMBERSHIP IN THE UNITED NATIONS

Permanent Mission of Italy
UN - New York

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High-Level Event:
Advancing Global Scientific Cooperation for Sustainable Development:
Leveraging Quantum Science for a Resilient Future

Celebrating the 60th Anniversary of the Abdus Salam International Centre for Theoretical Physics (ICTP), a UNESCO Category 1 Institute

9 May 2025, 3.00 - 4.40 pm
United Nations Headquarters, Trusteeship Council Chamber

Background

The world is falling behind in its efforts to achieve the Sustainable Development Goals (SDGs) by 2030, with significant gaps remaining in areas such as access to clean water, climate resilience, or sustainable energy transitions. Strengthening global scientific collaboration and promoting fundamental sciences, especially in underserved regions, are essential for addressing these challenges. The applications of basic sciences are vital for advances in medicine, industry, agriculture, water resources, energy planning, environment, communications and culture. Basic sciences are also essential to launching rational and innovative thinking and a knowledge-based society.

As such, the **Pact for the Future** adopted by the UN General Assembly stresses that science, technology and innovations are critical to support and enable sustainable growth and climate action and accelerate the implementation of the 2030 agenda.

In the same vein, recognizing that the full implementation of the 2023 Agenda in all its dimensions requires a more effective and inclusive approach based on synergistic cooperation of all sciences, the General Assembly decided to proclaim the International Decade of Sciences for Sustainable Development 2024–2033 (GA Resolution A/RES/77/326). UNESCO has developed a Strategic Plan for its implementation, emphasizing universal access to science, technology, and innovation, with gender equality as a key driver of progress across all SDGs.

Building on these efforts, the General Assembly further designates 2025 as the International Year of Quantum Science and Technology (GA Resolution A/RES/78/287), highlighting quantum science's potential to address global challenges. Quantum advancements offer tools for

accurate climate modeling, secure communication networks, and innovative materials, contributing to sustainable and inclusive development.

As the lead agency for sciences, UNESCO nurtures scientific talent, fosters international collaboration, and promotes fundamental sciences. Through specialized institutes, global partnerships, the Organization strengthens scientific capacity and encourages collaborative research worldwide. Its hubs, such as the Abdus Salam International Centre for Theoretical Physics, a UNESCO Category 1 Institute, drive advancements in fields like quantum science and theoretical physics, fueling innovations in artificial intelligence, climate science, and sustainable technology.

Established in 1964 in Trieste, Italy, and administered by UNESCO through a tripartite agreement with the Italian Government and the International Atomic Energy Agency (IAEA), ICTP has provided training and research opportunities, empowering scientists from developing regions to contribute globally, conducting research in diverse areas, including condensed matter physics, high-energy physics, mathematical physics, and cosmology. ICTP has gained recognition as an inclusive *Global Hub* for scientific exchange and cooperation, making important contributions to the progress of physics and related disciplines worldwide.

Organizers and event format

Co-organized by the Permanent Mission of Italy to the United Nations and UNESCO, the high-level event *"*Advancing Global Scientific Cooperation for Sustainable Development: Leveraging Quantum Science for a Resilient Future*"* will take place in person on 9 May 2025, from 3pm to 4.40pm, in the Trusteeship Council Chamber at UN Headquarters in New York.

The event will also be broadcast live on UN Web TV.

Session Objectives

1. **Promoting global scientific collaboration and knowledge exchange:**

Discuss ways to advance global scientific collaboration, leveraging opportunities such as the International Decade of Sciences for Sustainable Development (IDSSD, 2024–2033) and the International Year of Quantum Science and Technology (2025). Emphasize the importance of inclusive scientific engagement to tackle global challenges and support sustainable development, with a focus on participation from traditionally underrepresented regions.

2. **Showcasing inclusive success stories**:

Present success stories and case studies that illustrate ICTP's commitment to inclusivity and diversity in scientific research. Demonstrate how these initiatives promote gender equality, empower scientists from developing countries, and contribute to building a more diverse global scientific community.

3. Strengthening the science-policy interface based on enhanced trust in science:

Discuss the role of the science-policy interface in informing policy decisions at the UN, and how research and innovations are translated into actionable policies that address global challenges and contribute to the achievement of the SDGs.

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United Nations Headquarters, Trusteeship Council

Agenda

3.00 – 3.10 pm	**Welcoming remarks** **Moderator**: **Dr. Estelle Inack**, co-founder & CTO at yiyaniQ, Research Scientist, Perimeter Institute **H.E. Maurizio Massari**, Ambassador Extraordinary and Plenipotentiary, Permanent Representative of Italy to the United Nations **Dr. Lidia Arthur Brito,** Assistant Director-General for Natural Sciences, Assistant Director-General a.i. for Social and Human Sciences **The Honorable Ntoi Paul Rapapa**, Minister of Education and Training, Kingdom of Lesotho
3.10 – 3.25 pm	**Keynote Speaker** **Professor Duncan Haldane**, Sherman Fairchild University Professor of Physics, Princeton University, 2016 Nobel Prize in Physics
3.25 – 3.30 pm	**Video Projection on ICTP**

3.30 – 4.10 pm	**Panel discussion** **Setting the stage and moderation**: **Professor Simonetta Di Pippo**, Professor of Practice of Space Economy and Director of the Space Economy Evolution Lab, Bocconi University **Professor Atish Dabholkar**, Director, International Centre for Theoretical Physics, Assistant Director-General, UNESCO **Professor Greg Gabadadze,** Senior Vice President, Math and Physical Sciences, the Simons Foundation **Professor Aissa Wade**, Professor of Mathematics, the Pennsylvania State University
4.10 – 4.25 pm	**Statement by Member States and Q&A**
4.25 – 4.35 pm	**Testimonials by ICTP alumnae** **Dr. Estelle Inack**, Co-founder & CTO at yiyaniQ, Research Scientist, Perimeter Institute **Mr. Raji Ashenafi Mamade**, Center for Theoretical Physics (CTP), Massachusetts Institute of Technology (MIT)
4.35 – 4.40 pm	**Closing remarks** **Ms. Vivian Okeke,** Director, New York Office, and IAEA Representative to the United Nations in New York **Group photo**