STATEMENT OF THE SCIENTIFIC ADVISORY BOARD ON
OPEN SCIENCE

15 September 2025

Open science — the practices of widely sharing all forms of scientific knowledge — offers crucial benefits to the vitality of research, to connecting science to policy-makers and society, and to addressing global inequality. However, worldwide barriers to scientific collaboration are rising amidst fast changing geopolitical and economic contexts. We call upon the global community to actively advance open science for the benefit of all, leaving no one behind.

When deployed for the common good, science can help us address our most pressing global challenges, from biodiversity decline to pandemic responses to food insecurity to the impacts of rapid technological change. Science can be a vital linchpin for effective decision-making and action and has unique potential to foster international cooperation under even the harshest political conditions.

However, the ability of science to support urgently needed global solutions is under threat. Geopolitical tensions are constraining international scientific collaboration. Trust in public scientific institutions is eroding, while the risks of mis- and disinformation are on the rise. Short-term financial and political pressures are eclipsing anticipatory action for a sustainable future. To safeguard science and enable its societal benefits, **this Scientific Advisory Board calls for urgent cooperation to advance science as a global public good – and we stress that doing so requires accelerated transformation to open science.**

"Open science" is a global movement to make scientific knowledge available and accessible for all. It encompasses processes such as open research methods, open data, open access publications, and open-source software and hardware, improving our ability to produce, reproduce, and refine scientific knowledge. These are central components of thriving science systems.

The practices of open science produce better results and faster responses to emerging risks. They accelerate scientific breakthroughs, use resources more effectively, and have developed strong safeguards against misuse. All countries can advance their national interests by supporting open science. Open science is also one of the necessary steps to uphold the globally-agreed commitment that all people have the right to share in scientific advancement and its benefits. Its practices support equity in science through transparency and inclusivity, engaging diverse stakeholders and knowledge systems including Indigenous and local knowledge – which in turn strengthens science.

For example, open science is critical to advancing education, innovation, and public understanding. It encourages critical thinking and stronger reliance on evidence-based decision-making, at a time when misinformation and disinformation are increasingly central challenges. It can transform the dissemination and communication of science, enabling anticipatory action and collaborative responses to global threats. This is especially important in low- and middle-income countries, which may face barriers to enhancing scientific capacity and reaping the benefits of scientific breakthroughs.

As the Scientific Advisory Board to the UN Secretary-General, we stress the importance of open science to the multilateral system. Open science supports all three pillars of the UN, including by:

- enabling the human right to participate in and benefit from science, as stated in the Universal Declaration of **Human Rights**;
- facilitating **peaceful international cooperation** through science; and
- supporting much-needed progress toward the **Sustainable Development Goals** with just five years remaining to achieve the 2030 Agenda.

Open science also supports efforts to revitalize and enhance multilateralism through more efficient, effective, evidence-informed decision-making.

The Scientific Advisory Board commends significant progress toward and support for open science in recent years, as demonstrated by the 2021 UNESCO Recommendation on Open Science, the UN Pact for the Future, and impactful governmental as well as non-governmental policies around the world.

However, it is becoming increasingly difficult to implement these commitments to open science. Growing geopolitical tensions, a loss of trust in institutions worldwide, intellectual property protection challenges, strong financial pressures, and a trend of privatizing science all tend to inhibit the free flow and common usage of science. Recognizing that some scientific developments may pose security, privacy, and safety concerns, the scientific community has developed innovative approaches and technological solutions that support openness, while also respecting legitimate limitations. The insights of scientists with deep expertise are vital to identifying effective solutions, especially in delicate and fast-moving circumstances such as those faced by the multilateral system.

To address these challenges and enable the benefits of open science, **the Scientific Advisory Board calls on UN Member States to:**

- Accelerate implementation of the 2021 UNESCO Recommendation of Open Science;
- Action commitments on open science and open data outlined in the Pact for the Future and the Global Digital Compact; and
- Ensure active contribution of scientists within Member State efforts to address barriers to open science and advance science as a global public good.

We call on the UN system to:

- Implement its obligations under the Global Digital Compact to advance shared global infrastructures and models to support open science, including data continuity, interoperable data systems, and expanded access to shared research and knowledge; and
- Embed open science in UN mandates and activities, including as a central component of UN reform.

We further call on decision-makers across sectors to:

- Develop open science programs to enhance scientific capacity and close global science, technology, innovation, and digital divides;
- Support open data, open access to publication processes and products, open infrastructure, and respect for Indigenous data sovereignty;
- Encourage continued transition of science systems toward open science, including through reform of research assessment processes;
- Take concrete steps to remove financial barriers to production and access to science;
- Embed open science principles and practices in the private sector, including among private publishers and social media platforms, ensuring they contribute to equitable access and responsible dissemination of scientific knowledge;
- Promote inclusive governance of science, including leadership from the scientific community across geographies, languages, and disciplines; and
- Monitor open science implementation to ensure accountability, equity, and guide continuous improvement toward science as a global public good.
- Invest in infrastructure, training, and institutional support for open science in the Global South to ensure equitable participation and benefit-sharing.

This Scientific Advisory Board is committed to promoting open science through the work of Board Members and Network Institutions. We stand ready to support the UN Secretary-General and the broader multilateral system in taking forward our common commitments to open science.

Together, we can advance open science and transform scientific knowledge into a shared global resource, supporting policy-makers and communities worldwide to address the greatest challenges of our time.

ABOUT THE SCIENTIFIC ADVISORY BOARD

In August 2023, Secretary-General António Guterres appointed a Scientific Advisory Board to advise on critical issues at the intersection of science, technology, and society, fulfilling a commitment made in the "Our Common Agenda" report. The primary purpose of the Board is to provide the Secretary-General and senior UN leaders with independent, rigorous, and actionable advice on cutting-edge science, anticipate emerging issues, and offer recommendations for how the UN can manage risks and harness benefits. The Board is composed of seven eminent scientists in the fields of artificial intelligence, environmental sciences, and biology. It is supported by the UN's Chief Scientists, the UN Technology Envoy, the Rector of UN University, and a network of 11 scientific organizations that expand its geographic and topical coverage. The Scientific Advisory Board seeks to foster greater trust in science, increase the United Nations' use of scientific evidence in decision-making, and elevate the role of science across multilateral forums.

For questions please contact: scientificadvisory@un.org

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