



G20 Research and Innovation Working Group

Deliverable 5.1 - G20 Recommendations on Diversity, Equity, Inclusion, and Accessibility in Science, Technology, and Innovation

Context

We live in a world that is profoundly shaped and influenced by science, technology, and innovation (STI). From healthcare, energy, and agriculture to transportation, communication, and education, scientific advancements, discoveries, and applications have benefited many areas of our lives, driving progress, improving standards of living and addressing societal challenges.

Yet while the importance of STI continues to grow in daily life and in national, regional, and global development efforts, so do the asymmetries in the availability of and access to scientific knowledge, technologies, and infrastructures.

We reaffirm the Universal Declaration of Human Rights. We reaffirm the United Nations 2030 Agenda for Sustainable Development.

Diversity, equity, inclusion, and accessibility are core values that should guide and be accompanied by the advancement of STI and enable it to be more open, transparent, and participatory, and therefore connected to societal needs¹.

In practice, advancing diversity, equity, inclusion, and accessibility in STI means working to ensure that, without any form of discrimination, all persons enjoy equal opportunities for education and training needed to qualify for research and development careers, as well as ensuring that all persons who succeed in so qualifying enjoy equal access to available employment in scientific research free from all forms of violence and harassment.

It also means closing the gender gap in science and promoting stronger participation and engagement of societal actors who have been historically underserved within the scientific community, including traditional and Indigenous knowledge holders and scholars.

Combating inequalities in STI by breaking down gender, social, racial, national, economic, and knowledge barriers, enhancing public participation and community engagement, and fostering diversity, equity, inclusion, and accessibility in science will be critical for accelerating the achievement of Sustainable Development Goals and unlocking the full potential of STI to find solutions to the complex and interconnected environmental, social and economic challenges the world is facing today, while leaving no one behind.

¹ 2021 UNESCO Recommendation on Open Science.



Recommendations

Acknowledging the context above, we, the G20 Ministers responsible for research and innovation met in Manaus, Brazil on 19 September 2024 to reaffirm our commitment to diversity, equity, inclusion, and accessibility and combating inequities as keys to bridging the STI gaps and unlocking the full potential of STI for people and the planet.

We commend Brazil for prioritizing open, inclusive, and transparent STI systems during its G20 Presidency.

We take note of United Nations General Assembly Resolution 78/160 on science, technology, and innovation for sustainable development.

We recall the 2007 United Nations Declaration on the Rights of Indigenous Peoples, and the 2001 UNESCO Universal Declaration on Cultural Diversity as guiding frameworks for building the dialogue between different knowledge holders and recognizing the richness of diverse knowledge systems and knowledge producers.

We reaffirm our commitment to open science, grounded in the values of diversity, equity, inclusion, accessibility, and equality, and reaffirm our determination to implement the 2021 UNESCO Recommendation on Open Science.

We commend UNESCO on its actions to foster international scientific collaborations and open science in line with its recommendation on open science.

We thank Brazil for its leadership and commit to continuing this dialogue and reviewing the progress made in the implementation of these recommendations.

We intend to implement the following recommendations to promote diversity, equity, inclusion, and accessibility and combat inequalities in STI in accordance with our countries' specific circumstances:

Recommendation 1: Promoting diversity, equity, inclusion and accessibility in STI systems by:

- a) Taking measures, including through relevant policies, to enable equitable opportunity to the science, technology, engineering, and mathematics (STEM) education and training needed to qualify for scientific careers, and employment opportunities in scientific fields and benefiting from science without any form of discrimination.
- b) Supporting STI career continuation and advancement for individuals who may leave the workforce due to life events, including women and those with caregiving responsibilities.
- c) Identifying and addressing barriers that prevent individual opportunity to access, contribute to, and benefit from STI, including accessibility barriers in research laboratories, digital platforms, and publications.

- d) Promoting sustained enabling conditions for persons from historically underserved groups (such as women, underrepresented racial and ethnic groups, minorities, Indigenous Peoples, persons with disabilities, scholars from less-advantaged countries and those who use low-resource languages) to consider careers in sciences and working to eliminate biases against them in work environments and performance appraisals.
- e) Promoting national efforts to implement the 2017 UNESCO Recommendation on Science and Scientific Researchers and fulfill our commitment to promote open, equitable, and secure scientific collaboration and encourage mobility of students, scholars, researchers, and scientists across research and higher education institutions.
- f) Encouraging the use of native languages in science and ensuring accessibility for persons with disabilities.
- g) Promoting safe and inclusive environments in higher education institutions and research organizations by taking measures to tackle gender-based, ethnic, racial, and religious violence, harassment, and other forms of discrimination.

Recommendation 2: Closing the gender gap in science by:

- a) Taking measures to dismantle gender stereotypes and biases in science through the enhanced visibility of women in science, including in the school textbooks, media, and popular culture to establish a positive association between women and science from an early age and to recognize women's contributions to science.
- b) Actively encouraging women and girls to consider careers in science, including through the provision of scholarships, awards, and other incentives.
- c) Enacting evidence-based gender-responsive national and institutional policies to promote workplace environments that attract, retain, and advance women scientists, including in leadership positions.
- d) Ensuring the collection of data disaggregated by gender and other intersectional factors on a regular basis at country level to devise evidence-based policies and monitor progress.
- e) Integrating gender-related aspects into research questions to enhance scientific excellence and the societal relevance of the knowledge produced.
- f) Supporting and contributing to the implementation of the UNESCO 2024 Call to Action: Closing the Gender Gap in Science.

Recommendation 3: Fostering dialogue between different knowledge systems by:

- a) Taking measures to encourage collaboration in knowledge production with Indigenous Peoples and local communities, taking into account the rights of Indigenous Peoples and interests of local communities to govern and make decisions on the custodianship, ownership, transmission, and administration of data on traditional knowledge as applicable, and on their lands and resources.
- b) Providing capacity support for Indigenous Peoples and local communities to plan, implement, and manage their own research.
- c) Supporting community-based monitoring and information systems to complement national, regional, and global data and information systems.
- d) Creating opportunities and policies for empowerment of Indigenous Peoples and local communities to encourage competitiveness and preservation of culture and identity.

Recommendation 4: Transitioning to open science by:

- a) Promoting a common understanding of open science, including through public participation and community engagement, and dialogue with other knowledge systems.
- b) Prioritizing equitable access to, contribution to, and benefits from open science through policy and institutional practice, including science communication.
- c) Developing an enabling policy environment for open science according to specific national conditions, governing structures, and constitutional provisions that respect national security, human rights, equity, and fairness, and principles and rules related to academic freedom, research ethics and integrity, privacy, and protection of intellectual property.
- d) Investing as appropriate in shared and equitable open science infrastructures and services and encouraging reciprocal access to global and major scientific research infrastructure.
- e) Aligning incentives for open science and promoting international multi-stakeholder collaboration for mutual benefit in the context of open science.
- f) Actively implementing and monitoring the 2021 UNESCO Recommendation on Open Science.

Recommendation 5: Combating inequities in STI by:

- a) Building innovative, equitable partnerships and collaborative networks in the field of STI.



- b) Promoting bilateral, multilateral, and triangular STI collaboration between developed and developing countries with benefits for all actors involved.
- c) Promoting interdisciplinary approaches in STI to increase understanding and entry into STI subjects and careers, including by a more diverse group of learners, researchers and practitioners.
- d) Supporting the International Decade of Sciences for Sustainable Development, 2024–2033 as a platform to foster multidisciplinary actionable knowledge, to ensure information integrity and to build trust in science at the nexus of science, policy, and society.
- e) Facilitating the dissemination of science in all languages.