

## The Science20

The G20, comprising the 19 largest economies plus the European Union and African Union, established the Science20 (S20) in 2017 to serve as its science and technology engagement group. The S20 operates independently from governments and includes the Academies of Sciences of G20 nations, facilitating dialogue between the scientific community and policymakers.

The Brazilian Academy of Sciences was the sherpa for the S20 and had a motto "Science for Global Transformation". The document aims to guide G20 leaders with recommendations on critical global issues. The draft of the S20 Brasil 2024 Communiqué is briefly discussed.

### Preamble

In 2015, UN member states committed to the 2030 Agenda for Sustainable Development, emphasizing the eradication of poverty and sustainable development. The S20 Brasil 2024 aligns with this agenda, focusing on five interconnected areas:

1. Artificial Intelligence: ethics, social impact, regulation, and knowledge sharing.
2. Bioeconomy: shaping the world toward a sustainable planet.
3. Energy Transition Process: renewable energies, social and economic considerations.
4. Health Challenges: quality, equity, access, and preparedness for epidemics and climate change.
5. Social Justice: promoting inclusion, ending poverty, and reducing inequalities.

### Key Recommendations

**AI:** Encourage global AI governance and ethical use, knowledge sharing, and responsible management of AI technologies to benefit all countries equitably; address AI-related risks such as inequality, data privacy, and energy consumption.

**Bioeconomy:** Invest in education, research, and sustainable practices to drive innovation and economic growth while protecting natural resources; promote sustainable practices and social justice to create inclusive economic models.

**Energy Transition:** Promote renewable energy sources, carbon capture, and social equity in energy access to create a sustainable energy future; engage communities in the transition to ensure a just and sustainable energy future.

**Health:** Develop equitable health systems with a focus on universal health coverage, enhance digital health, prioritize mental health, particularly for vulnerable populations. and climate-related health impacts.

**Social Justice:** Integrate scientific knowledge into policies to reduce inequalities, promote social justice, address discrimination and ensure cultural diversity.

### Conclusion

The S20 Brasil 2024 Communiqué underscores the importance of science and technology in addressing global challenges and achieving the UN's Sustainable Development Goals. The G20, as major global economies, plays a pivotal role in implementing these recommendations to create a more equitable and sustainable world. G20 nations must adapt to workforce and demographic changes to sustain social security, pension systems, and economic growth. The educational system should address the needs of both aging and youthful populations, while healthcare demands shift with an aging populace. Understanding demographic trends is crucial for policy planning and guiding technological innovation and investments.