Ladies and Gentlemen,

Good afternoon

I am Patricia Bozza from the Brazilian Academy of Science here representing the Science 20. I would like to start by thanking the unique opportunity to share at this very special forum the key messages and recommendations of the Science20.

Under the theme “Science for Global Transformation” the S20 Academies of Sciences focused on five critical interconnected areas aligned with the UN 2030 Agenda: Artificial Intelligence, Bioeconomy, Energy Transition, Health Challenges, and Social Justice.

Artificial Intelligence is a critical driver for development, especially in healthcare, education, and tackling climate change. It may also pose risks, including the potential to widen inequalities and negatively impact the environment. To navigate these challenges effectively, AI's advancement requires a robust ethical framework. The rapid pace of AI innovation creates significant uncertainties for governance, complicating efforts to manage its implications. While AI might result in job losses in some industries and regions, it also has the potential to create new job opportunities in others. Our recommendations emphasize creating flexible, adaptable policies that protect workers' rights, fostering international standards for AI governance, and investing in educational initiatives to empower citizens about AI’s potential and risks.

The **bioeconomy** encompasses the sustainable use of biological resources, aiming to transform major sectors of the economy and promote sustainable innovation. The sustainable use of biological resources can transform major economic sectors while conserving our natural heritage. Our focus must be on promoting inclusive bioeconomic models that protect traditional knowledge, foster technological innovation tailored to diverse biomes, and ensure social justice.

The **energy transition process** requires continued innovation and international collaboration to achieve a sustainable and resilient future, balancing technological, economic, environmental, and social dimensions to create a cleaner and more equitable world. Transitioning from fossil-based to affordable and clean energy systems is essential for addressing climate change, resource depletion, and ensuring global energy security. Integrating social and economic considerations remains crucial to guarantee universal access to sustainable, clean, affordable, and reliable energy. Energy transition should integrate clean energy sources such as solar, wind, hydropower, and geothermal, as well as mitigation and negative emissions through technological and nature-based approaches. We must embrace technologies such as carbon capture and storage, promote biofuels and sustainable hydrogen, and ensure full lifecycle recycling of renewable energy materials. It's not just about clean energy; it's about achieving an equitable energy transition that creates jobs and stimulates economic growth.

Developing a more equitable, sustainable, and resilient **health** system is urgent, with a focus on preventive care and promoting healthy lifestyles, especially in vulnerable communities. Achieving universal health coverage, with an emphasis on access, quality, and community engagement, can significantly improve disease management, mental health, maternal and child health, and longevity in aging populations. Despite the heavy burden of mental ill-health on individuals and economies, many countries neglect mental health care, leading to high unmet treatment needs. Prioritizing mental health policies will greatly enhance well-being and yield social and economic benefits.

Climate and environmental changes, biodiversity loss, and pollution impact health and sustainability, affecting food production, prices, energy availability, and access to clean water and air. Low- and middle-income countries, along with vulnerable groups, suffer the most from these impacts. Rising global temperatures and extreme weather events foster the spread of diseases, necessitating an integrated One Health approach that considers the health interdependencies between people, animals, and ecosystems.

To address **health** challenges, we must: Ensure global access to essential vaccines, medicines, and diagnostic tools. Promote sustainable local production through research and innovation capacity-building, knowledge sharing, and technology transfer. Strengthen global surveillance, open science, and information sharing for early detection of health emergencies. Leverage resources to focus on the health impacts of climate change, particularly for vulnerable groups, enhancing climate-resilient health systems to better prepare for crises.

Despite technological progress, inequalities and poverty persist. Many lack access to food, shelter, medical care, energy, clean water, and sanitation. The rapid job market changes challenge workforce retraining, especially in low- and middle-income countries. Ending poverty, reducing inequalities, and promoting inclusion are essential. Harnessing the power of science is not only a pathway but a responsibility in this quest. Societies can create a more equitable and sustainable future through technological innovation, data-driven policymaking, and advancements in various scientific fields. Through the integration of scientific knowledge, technological innovations and development strategies, we can address the root causes of poverty and exclusion, paving the way for a world where everyone can thrive and contribute to the betterment of humanity.

Let us work together to create a sustainable and equitable future for all, ensuring that no one is left behind on this journey towards global transformation.

Thank you.