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Diversifying economies in a world of accelerated digitalization

Statement by

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PANEL
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Frontier Technologies, Digitalization and Economic Diversification in Guatemala

I am inspired by the alignment between the title of this session and the Popol Vuh, the sacred book of the Maya civilization, which states: "*Que todos se levanten, que nadie se quede atrás*" ("Let everyone rise, let no one be left behind"). This vision highlights the fundamental importance of inclusiveness and collective progress, which are essential to achieving the Sustainable Development Goals (SDGs). By embracing this principle, we ensure that development efforts leave no one behind, fostering a more just, equitable, and sustainable future for all.

Frontier technologies and digitalization present both challenges and opportunities for Guatemala's economic diversification. While limited digital infrastructure, skills gaps, and unequal access to technology hinder progress, digitalization offers new pathways for inclusive growth, particularly in agriculture, manufacturing, and services. By investing in digital literacy, fostering entrepreneurship, and expanding connectivity, Guatemala can leverage technology to create new economic sectors and reduce reliance on traditional industries.

Industrial and innovative policies must evolve to support this transformation. Prioritizing data-driven decision-making, promoting technology adoption in small and medium-sized enterprises (SMEs), and fostering a regulatory environment that encourages digital entrepreneurship are crucial steps. Additionally, policies should ensure that indigenous and rural communities are integrated into the digital economy through tailored programs and access to funding.

Guatemala faces important challenges in nutrition, ranking among the countries with the worst indicators globally. Food security plays a crucial role in addressing this issue. In recent years, biofortification and sustainable agriculture have emerged as key pillars of national efforts. Integrating traditional knowledge with biotechnology enhances sustainability and effectiveness. Furthermore, we are exploring the potential use of real-time malnutrition monitoring systems utilizing artificial intelligence and big data.

One initiative gaining traction is the empowerment of small-scale farmers and agri-preneurs through access to technology, training, and financial resources. Programs like PROINNOVA-Guatemala, are at the forefront of this effort. Inclusive policies should focus on STEM education, gender equity in technology, and public-private partnerships to drive sustainable innovation. Investments in digital infrastructure,

along with open data initiatives and AI-driven solutions, can enhance productivity and create new value chains in emerging industries.

Through the National Funds for Research at Senacyt, we are driving specific actions, such as integrating science and technology education from an early age, with an emphasis on digital skills and STEM subjects through programs like the Science Clubs initiative. We also promote scholarships and internship programs, particularly aimed at young researchers, women, and indigenous communities, to bridge gender and access gaps. A key challenge remains strengthening linkages between universities, businesses, and local communities to enhance knowledge transfer and innovation.

To support economic diversification, Guatemala must invest in digital infrastructure, upskill its workforce, and promote access to open data and emerging technologies. Public-private partnerships can accelerate the deployment of digital tools in sectors like agriculture, health, and financial services, enabling broader economic participation.

One step in this direction is the Government's Plan for Guatemalan Digital Transformation, which prioritizes expanding connectivity, especially in rural areas, to bridge the digital divide. This initiative aligns with the National Electricity Plan, as a significant percentage of Guatemala's population still lacks access to electricity. The plan also incorporates the use of AI-driven platforms in sectors such as healthcare (e-health), education, and financial systems to enhance the efficiency of public policies.

International cooperation, including through the UN Commission on Science and Technology for Development (CSTD), is crucial to ensuring that digital transformation reduces inequalities rather than exacerbates them. Guatemala can benefit from technology transfer, capacity-building programs, and global best practices to create a more inclusive, sustainable, and innovation-driven economy. Through strategic collaboration and targeted policies, digitalization can become a catalyst for economic resilience and social equity in Guatemala.