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Sixth Meeting of Ministers and High Authorities of Science and Technology (VI REMCYT)

December 7 - 8, 2021

“Harnessing the Power of Transformative Science and Technologies

to Drive our Communities Forward”

**BACKGROUND**

All member states of the Organization of American States (OAS) have been significantly affected by the social, economic, and environmental impacts of the COVID-19 pandemic.

The Sixth Meeting of Ministers and High Authorities of Science and Technology (VI REMCYT) will engage member states to leverage the potential of science, technology, and innovation to address development imperatives in the Americas, including those arising as a consequence of COVID-19. The sessions will focus on how science and technology can be used to accelerate post-COVID recovery. Emphasis will be placed on actionable priorities, good practices and solutions which can be adopted by member states in their recovery process.

Member states will be invited to provide ideas for implementation and specific contributions, such as steps and measures to advance hemispheric engagement, and secure commitments for cooperation and partnerships in the VI REMCYT. Among the guiding questions for member states are: 1) What are the key gaps or challenges for your country? 2) What specific inputs or approaches can your country suggest to advance action in this area? 3) What offers of cooperation/experience can your country bring to the table to implement these proposals?

Ministers and High Authorities will work toward the adoption of the Declaration of Jamaica with focus on key priority areas for regional cooperation and recommendations to be presented for the Summit of the Americas process which will bring together the Heads of State in the United States in the summer of 2022.

**1. Science and Technology to Build Resiliency in the framework of Sustainable Development and COVID-19 recovery**

Under this topic the VI REMCYT will offer the opportunity to explore a range of technologies and data-driven capabilities that can be deployed to address the existing challenges faced by the region as it relates to disaster mitigation, adaptation and response. Existing technologies and approaches will be showcased for member states to consider their implementation, depending on their national realities and priorities. Member states will have the opportunity to share good practices, identify the main needs and explore the viability of a number of solutions and offers of cooperation from partners and other member states.

**2. Youth: Improving Skills and Readiness for Industry 4.0.**

The COVID-19 pandemic, the ensuing acceleration of the digital economy and the reshaping of global value chains have emphasized the need for OAS member states to address the skills gap and their workforce readiness to reap the benefits of the innovation-driven economy. The pandemic has resulted in increased poverty and inequality as well as diminished opportunities for social mobility. Women, minorities, and unskilled workers in sectors related to services, such as tourism and entertainment, and those occupations with high informality rates have been particularly impacted. The crisis has also deepened the challenges associated with young people’s productive participation in the labor market. Its main effects have been job losses and the outflow of the youth labor force into inactivity. On the other hand, industries, entrepreneurs, and workers, connected to the innovation and digital economy, from software, e-commerce, engineering, telecommunications, biotech, research and development, among sectors, experienced growth and have expanded opportunities and solutions to respond to countries’ most immediate needs.

In the post-pandemic recovery phase, the participation of young people in the formal labor market will depend, in part, on them having developed critical skills and capabilities to pursue job and entrepreneurship opportunities in transformative science and technologies (often referred to as Industry 4.0 technologies) such as new materials, artificial intelligence, Big Data, quantum computing, gene editing, robotics, and blockchain. Closing the skills gap will allow OAS member states to reap the benefits from emerging technologies, improve productivity, contribute to higher growth rates, and reduce poverty.

The VI REMCYT will be an opportunity to present and pursue partnerships to develop an “Americas Youth Academy on Transformative Science and Technologies,” building on existing resources and partner offerings, to provide online training, dynamic learning, remote training labs, mentoring and hands-on experiences for youth in the Americas. Outcomes include options to provide certification, training and other qualifications to equip youth with the necessary skills and credentials to operate in the jobs of the future and an environment spurred by transformative technologies. The focus will be on developing the workforce and entrepreneurs for Industry 4.0 and strategic niches for OAS member states to diversify their economies and build resilience.

**3. Science, Technology, Innovation (STI) and Entrepreneurship to reduce the digital divide and promote the inclusion of women and girls, rural and indigenous communities, and other populations in vulnerable situations**

According to the Global Gender Gap Index of the World Economic Forum (WEF),[[1]](#footnote-1)/ the COVID-19 pandemic has increased the estimated time to close the gender gap in the world by 36 years (now up to 135.6 years). The WEF report documents that the pandemic and ensuing economic activity restrictions and losses have impacted women more severely than men. Lower income households and disadvantaged communities have faced more financial, health, learning, social and emotional hardship and uncertainties. Job losses have been particularly pronounced among minorities and working mothers. Across the developing world in particular, women have borne the brunt of the pandemic challenges in a disproportioned percentage.[[2]](#footnote-2)/

The acceleration of the digital economy and e-commerce reinforced the need to develop skills and training in the innovation-driven sectors and technologies. These sectors have the potential to create opportunities aligned with the jobs of the future and to contribute to greater economic autonomy, especially for women. Access to abilities related to transformative technologies thus can become important means to ensure that women, women-led businesses and populations under vulnerable situations are not excluded from the expanding opportunities of the digital economy post-COVID.

A significant percentage of women (51.8%) are currently employed in less skilled, low productivity sectors such as care, education, health, social assistance, domestic employment, traditional commerce, light manufacturing, rural agriculture, which may be more vulnerable to rapid changes in technology. Although women in the region have higher rates of enrollment in tertiary education, they only account for about 34.5% of graduates in STEM.[[3]](#footnote-3)/

Likewise, women are currently underrepresented in sectors related to transformative technologies and skills associated to those fields. In Cloud Computing, women make up 14% of the workforce; in Engineering, 20%; and in Data and AI, 32%. Women also experience a bigger gender gap when pursuing job transitions in these fields. In Cloud Computing the job-switching difference is 58%; in Engineering the gap is 42%; and for Product Development the gap stands at 19%.[[4]](#footnote-4)/

Advancing concrete, actionable initiatives to improve access and leadership of women and communities with limited opportunities to follow STEM education, science and innovation careers are needed to address some of the existing workforce inequalities affecting economic mobility and gender equality in fields of Science and Technology in the Americas. The VI REMCYT will allow OAS member states to share good practices and cooperate to implement deliberate policies and programs to address existing gaps and inequalities affecting part of the population and communities.

**4. Effective public-private-academia collaboration to enhance competitiveness and quality of life**

The challenges of the COVID pandemic and the ensuing budgetary constraints will require increased creativity and resourceful approaches to respond to the needs to develop, adopt and deploy science and technology driven solutions to address development imperatives and pursue post-COVID recovery efforts in all member states. Aligning efforts from governments, private sector, universities, SMEs and entrepreneurial ecosystems to aggregate endeavors and resources will make a significant difference.

There is an incipient and innovative entrepreneurial capital industry developing throughout the Americas. Some new actors, in collaboration with existing investors or innovative government-led programs, have resulted in the successful creation of new financing mechanisms and opportunities for partnership. The availability of diverse, inclusive and accessible sources of funding is critical for start-up companies, SMEs as well as large companies, to develop innovation-driven solutions and businesses that can complement governmental efforts to solve critical challenges.

The VI REMCYT will provide an opportunity for member states to share experiences, good practices and offers of collaboration on innovative mechanisms to finance innovation and business development to enhance inclusion and diversity of sources and beneficiaries. The meeting will feature examples of creative systems to expand financial inclusion for innovation; technology driven approaches to expand the availability of capital and reach across different regions within a country. Moreover, it will be an opportunity to identify the gaps and needs of member states and from the perspective of private sector, entrepreneurs and financial institutions. The focus will be on offers of collaboration and initiatives of cooperation to support OAS member states to build on the resources and partnerships available under the HUB of Commercialization and Transfer of Technology of the COMCYT.

**5. Levelling the playfield for active participation in the global economy by Micro, Small, and Medium Enterprises (MSMEs) through STI**

Micro, Small, and Medium Enterprises (MSMEs) account for over 95% of the productive sector in Latin America and the Caribbean (LAC). It is estimated that 2.7 million formal small businesses closed in 2020, which means 21% of MSMEs closed, representing the loss of more than 8.5 million jobs. Since more than 60% of MSMEs are informal in the LAC region, the true impact of pandemic on this sector has been much more significant. The VI REMCYT will provide the opportunity for member states to share experiences and good practices on how STI can contribute to improve the availability of tools and resources for MSMES to transition to the digital business environment and rebuild and diversify regional value chains considering the lessons learned from the pandemic. Member states will also consider how to continue to develop the necessary frameworks to accelerate access to innovation, technology, and entrepreneurial capabilities for new business development models to support MSMEs.

**6. Technology Foresight as Input for Public Policy Decisions (Prospecta Americas)**

The objective of Prospecta Americas, a regional effort undertaken under COMCYT, is to improve the social appropriation of knowledge of transformative technologies and to build a virtual platform for regional collaboration in the context of the OAS. Furthermore, to develop a regional program on technology foresight for top transformative technologies, namely: Big Data; Robotics; Blockchain, Virtual/Augmented Reality; Artificial Intelligence; Quantum Computing; Synthetic Biology-Gene Editing; Biomedical Engineering; Additive Manufacturing and New Nanostructured Materials - and assess their possible economic, social and environmental impacts in the Americas.

The VI REMCYT will build on the recommendations agreed by COMCYT regarding technology foresight and Prospecta Americas, to:

a) Continue strengthening the regional network of experts on technology foresight to share good practices;

b) Identify and support capacity building and training needs and niches in the top transformative technologies for OAS member states;

c) Pursue opportunities to provide technical assistance and lead joint collaborative projects in the top transformative technologies;

d) Maintain the Prospecta Americas Seminar as a regular event and rotate in different host countries within the Americas; and,

e) Launch a network of Inter-American Centers of Excellence on Technology Foresight in each of the top Transformative Technologies focused on the areas of expertise, interest and existing capacities in OAS member states. The Centers would carry out studies, map trends and capabilities, identify and implement specific lines research, address strategic challenges of the Americas, find solutions to everyday problems through advanced technology, and bring together shared expertise, resources from multiple stakeholders of OAS member states including Governments, Research Universities and Centers, private sector and NGOs.

**7. Science for Decision Making**

The effects of the COVID-19, the disruption to global value chains and the scarcity of essential goods and services necessary to mitigate the health, economic and social crisis, has emphasized the importance of accelerating the deployment of resources available through science, technology and innovation. The global reach of the pandemic also highlighted the need for international, multistakeholder and inter-disciplinary cooperation to identify and implement effective solutions.

In its efforts to prepare for future global emergencies and to address the main imperatives concerning integral development in the Americas such as food security, disaster mitigation and preparedness, climate change, education, social and technology gaps, the region could benefit from the use of science and technology collaborative research, and data in driving their planning and decision-making. Sharing data driven inputs for decision making among member states can become an important source of resiliency.

Based on the lessons learned from the pandemic, there is an opportunity to undertake a hemispheric effort to promote the use of scientific knowledge in OAS member states to create collective intelligence, and make available open data, resources and other tools, to allow governments and stakeholders from the science and technology community to tailor data sources, methodologies, carry out research and deploy tools and solutions adapted to match their own reality and needs.

The VI REMCYT will highlight efforts to advance Data Driven Decision Making in the Americas and the use of Research and Development (R&D) in addressing challenges for integral development. The ministerial meeting will offer the opportunity for member states to share some of the models and results of initiatives to advance data driven approaches and science for decision making, identify which are the gaps or needs in different areas of development where member states would benefit from science and data driven inputs for decision making.

**8. Ministerial Declaration of Jamaica and Recommendations for the Summit of the Americas**

Ministers and High Authorities will discuss and consider for approval the Draft Declaration of Jamaica.

The process leading to the Summit of the Americas will provide an opportunity for the Ministers and High Authorities responsible for science and technology to highlight the importance of science, technology and innovation, and by extension, transformative technologies, as essential elements in increasing economic development and to provide guidance on the topic. The conclusions of the Sixth Ministerial and the Declaration of Jamaica will be fundamental in drawing up the recommendations to be presented for consideration of the Heads of State and Government at the Summit of the Americas, to be held in the United States in the summer of 2022.

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1. . The Global Gender Gap Indexof the WEF provides a global ranking of countries and a framework of four dimensions (Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment) to assess the magnitude of global, regional and national gender-based disparities. Available at: <http://www3.weforum.org/docs/WEF_GGGR_2021.pdf> [↑](#footnote-ref-1)
2. . McKinsey Global Institute, March 2021. [↑](#footnote-ref-2)
3. . UN ECLAC, Social Panorama of Latin America 2018 (Feb. 2019), available at <https://repositorio.cepal.org/bitstream/handle/11362/44396/4/S1900050_en.pdf> [↑](#footnote-ref-3)
4. . <http://www3.weforum.org/docs/WEF_GGGR_2021.pdf> [↑](#footnote-ref-4)