Outcome document of the General Debate on *Parliamentary leadership in promoting peace and development in the age of innovation and technological change*

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The collective body of scientific knowledge of the world we live in is greater today than at any time in history. Scientific research continues to push back the boundaries of our known universe. This knowledge fuels rapid innovation and technological change, which in turn can enhance human well-being and stimulate economic growth, among a wealth of other potential benefits. Over the years, advancements in the natural and social sciences, including the development of incredibly effective drugs and medical procedures, have resulted in a better quality of life for everyone.

The associated technological developments have generated, among many other things, extraordinary improvements in connectivity and communication. Digitalization and big data offer new ways of creating innovative solutions, such as early warning systems to prevent violence, and empower young people and women to solve social issues through technology. They also present a great opportunity to make substantial progress in the areas of biology, renewable energy, financial technology, as well as towards Industry 4.0, commonly referred to as the fourth industrial revolution.[1]

The 2030 Agenda and its 17 Sustainable Development Goals (SDGs) highlight the key role that science and technological innovation play in sustainable development, emphasizing their importance not only for economic growth and prosperity but also for environmental protection, development and social inclusion. However, we recognize that scientific discovery and technological change do not automatically lead to positive developments for society. The manipulation of the human genome, autonomous killer robots, cybercrime and the implications of the use of artificial intelligence are just some of the ethical and societal challenges of our time. Shying away from these difficult questions is not an option.

In an ever-changing world, we must be at the forefront of deliberations on new issues that can have a major impact on our societies. We must approach our task with humility, recognizing our own limitations, encouraging dialogue and avoiding ideological responses. As parliamentarians, we are responsible for fostering an environment where science, technology and innovation make a positive contribution to peace, development and human well-being, while simultaneously limiting or mitigating the associated risks and protecting the planet. We do not take these responsibilities lightly. Our debate has identified several **avenues for parliamentary action** to promote peace and development through science and technological innovation:

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[1] Industry 4.0 refers to the current trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of Things (IoT), cloud computing and cognitive computing.

Strengthen legal frameworks favourable to technological and scientific innovation for peace and development

As lawmakers, we have the means to create a legal framework that is favourable to innovation, as well as a regulatory environment that enables businesses to flourish while guaranteeing respect for the environment and international law, particularly international human rights law. Our role is to safeguard the interests of society and people. Therefore, we decide to:

- Promote education in science, technology, engineering and mathematics (STEM) and, in particular, encourage the participation of women and girls, with the aim of achieving gender equality and reducing the gender imbalance in STEM education and in scientific careers;
- Promote universal digital literacy, especially among young people, in view of the transformation of work skills required for a future labour market built on a digital and knowledge-based economy, making sure to leave no one behind;
- Adopt timely and effective national and international legislation in favour of technological innovation that promotes peace, security, sustainable development and social inclusion and that defines common ethical boundaries;
- Ensure, by using our legislative and oversight prerogatives, that no development driven by science and technology impedes or violates human rights or results in the irrational use of natural resources; and
- Guarantee respect for the international human rights framework as the beacon that guides our decisions on how to address difficult ethical issues.

Make parliaments drivers of technological innovation in favour of transparency and inclusion

Science and technological innovation are radically transforming every aspect of human existence, including the way parliaments work. The use of modern technology can make parliaments more efficient and effective. We want to assume parliamentary leadership in technological innovation not only through our legislative function, but also by transforming our parliamentary processes and promoting a culture of engagement with our people. Therefore, we decide to:

- Increase the level of transparency, accountability and responsiveness to our constituencies through the use of modern information and communications technologies, such as live video streaming of parliamentary sessions and improved online information access;
- Make use of the available technological tools and instruments to improve the design and monitoring of our policies and legislations;
- Take steps to ensure that our parliaments are open and transparent institutions; that they are willing to consider innovative working methods, such as the establishment of parliamentary committees on the future; and that parliamentary research services are appropriately funded and resourced so that they can provide parliamentarians with timely, non-partisan analyses;
- Reduce the carbon footprint of parliaments and work towards the realization of e-parliaments; and
- Strengthen inter-parliamentary collaboration in the fields of science and technology and share best practices and lessons learned.

Establish strong connections with the scientific community

It is our duty to facilitate and promote regular and systematic interaction between parliaments and the scientific community. Access to the best available expertise is essential for us to make informed choices. The rational, scientific approach to making sense of the world needs to be encouraged and supported by everyone, including politicians and the media. Therefore, we decide to:

- Recognize that scientific research plays a fundamental role in developing knowledge and technologies that can allow parliaments to formulate evidence-based policies aimed at tackling societal challenges;
- Support mechanisms and budgetary measures that guarantee science-based policymaking to ensure the sustainable well-being of future generations;
- Reaffirm that non-partisan funding for scientific research is an investment in our future;
- Underline the importance of scientific methods for elucidating facts that can be checked, verified and accepted by society, especially at this current time when factual information is increasingly being called into question in political discourse, and when scientific consensus is no longer valued by all sectors of society; and
- Promote and value the presence in parliaments of scientists, engineers, innovators and STEM educators.

Support international scientific cooperation in favour of peace and development

Science and technology provide a neutral umbrella under which parliamentarians with different political opinions can come together and address global challenges related to the 2030 Agenda for Sustainable Development. Science can be used to build bridges and to bring countries in conflict together through scientific cooperation that benefits their respective populations. Therefore, we decide to:

- Support models of peaceful scientific cooperation, such as the ones developed by the European Organization for Nuclear Research (CERN) and the International Centre for Synchrotron Light for Experimental Science and Applications in the Middle East (SESAME);
- Support the initiative by the IPU Committee on Middle East Questions to establish, in cooperation with CERN, an IPU Science for Peace Schools programme aimed at bridging the worlds of science and politics and creating inter-parliamentary networks to address common challenges;
- Enhance North-South, South-South and triangular regional and international cooperation on science, technology and innovation, and enhance knowledge-sharing as envisaged in the 2030 Agenda;
- Call for open access to scientific publications as a way of reducing the unequal distribution of scientific knowledge and technological innovation and of increasing the ability of people to contribute more effectively to society;
- Support the technology transfer process in developing countries by conducting effective capacity-building activities in the receiving country, with a view to ensuring that technological innovation does not further increase global inequalities; and
- Include scientific knowledge in the parliamentary oversight of the 2030 Agenda implementation process.

The future is, by definition, uncertain. Scientific discovery, innovation and technological change bring great opportunities, but also risks that we must control. Parliaments have a critical role to play in that regard. We can greatly contribute to this process by raising parliamentary awareness of the importance of science, technology, innovation and STEM education for society; by making sure that science is systematically brought into public debates and decision-making; by considering the implementation of appropriate regulations to foster technological innovation; and by promoting cross-border initiatives based on scientific cooperation. In our role as representatives of the people, we pledge to engage the scientific community in an ongoing dialogue on the ways in which we can enhance peace and development, improve human well-being and safeguard the interests of all members of our society.