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Concept note for the General Debate

Harnessing science, technology and innovation (STI) for a more peaceful and sustainable future

Overview

With rapid technological advancements, the role of science, technology and innovation (STI) in shaping our future has never been more critical. The world is at a crossroads of unprecedented progress and potential peril. It is therefore imperative that parliaments reflect on how nations can harness the power of STI to create a more peaceful, sustainable and just world.

This focus on STI aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 9 (Industry, innovation and infrastructure) and SDG 17 (Partnerships for the goals). It is consistent with Article 27 of the Universal Declaration of Human Rights (UDHR), which affirms everyone's right to share in scientific advancement and its benefits, as well as with SDG 16 (Peace, justice and strong institutions) and the IPU's Indicators for Democratic Parliaments, which underscore the need for scientific knowledge and expertise to inform policymaking. Science, technology and innovation feature prominently in the United Nations' draft Pact for the Future, expected to be adopted by Heads of State and Government later this year.

The IPU recognizes the importance of STI in addressing global challenges. In particular, the IPU's current programme of work around artificial intelligence (AI) and the initiatives of the IPU Working Group on Science and Technology – most recently the draft Charter on the Ethics of Science and Technology, highlight the importance of engaging parliamentarians in the conscientious and beneficial use of STI. They also highlight the critical importance of placing the human being at the centre of policymaking and ensuring effective dialogue and exchange between scientists, researchers, policymakers and the public. In line with the IPU's ecosystem approach, its Science for Peace Schools project aims to turn elements of conflict into reasons for peaceful coexistence by initiating collaboration among a wide range of stakeholders.

Bridging the gap between STI and development is key in levelling the playing field for developing and developed countries, and between the Global North and Global South, as well as in forging more peaceful and prosperous societies. Building up and invigorating the current scientific systems in developing countries, as well as encouraging research and investment in these countries could reduce the "brain drain" phenomenon which is holding back their scientific and educational development. Encouraging inclusivity and enabling more women and young people of all socioeconomic backgrounds to enter STI fields is also vital.

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Potential risks and challenges

Whilst STI bring many advantages to people and societies, there are also risks and challenges associated with them. These include:

1. **Dual-use technologies:** Many technologies have both civilian and military applications. Parliaments should ensure that STI are used for peaceful purposes while not stifling innovation.

2. **Global technological divide:** There is a risk that STI advancements could widen the gap between developed and developing countries. Parliaments should therefore promote equitable access to and benefits from STI on a global scale.

3. **Regulatory lag:** The rapid pace of technological advancement often outstrips the ability of regulatory frameworks to keep up. Parliaments should become more agile in their approach to regulating STI, as described in the IPU-ASGP guide to digital transformation.

4. **Technological unemployment:** As AI, machine learning and automation advance, there is a risk of significant job displacement. Parliaments should prepare for and mitigate these potential socioeconomic impacts, in line with SDG 8 (Decent work and economic growth), particularly for groups who are in vulnerable or marginalized situations.

5. **Data privacy and security:** The increasing collection and use of personal data raises significant privacy and security concerns. Parliaments should balance the benefits of data-driven innovation with the need to protect individual rights.

6. **Misinformation and disinformation:** In an age of information overload and misinformation (including in terms of growing deepfakes), we are witnessing an alarming increase of attacks against the rule of law, the undermining of public trust in institutions of governance, and dangerous risks to public health and safety. The importance of evidence-based decision-making cannot be overstated.

7. **Inequality:** Technology can undermine human rights and exacerbate inequality if used improperly or maliciously. Parliaments have a crucial role to play in promoting a safe and non-discriminatory environment for all. This includes a safe online environment to prevent harassment, bullying and cybercrime, particularly when it is gender-based.

The General Debate is intended to provide an opportunity for IPU Member Parliaments and other participating delegations to explore how parliaments can harness science, technology and innovation to benefit of all, whilst avoiding or mitigating the risks. Delegations may wish to examine the following questions among others:

*   How can parliaments ensure the benefits of STI reach all segments of society, particularly women, youth and other vulnerable groups?

*   How can parliaments help bridge the digital divides between countries?

*   How can parliaments enhance their capacity to utilize scientific evidence in law making and scrutiny?

*   What tools and resources are needed to help parliamentarians anticipate the long-term impacts of STI-related decisions on future generations?

*   How can parliaments balance the rapid emergence of AI with the need to regulate and protect against its negative uses such as discrimination, violence and false information?

*   What mechanisms can be put in place to improve communication and interaction between parliaments, government, civil society, the scientific community and the private sector on STI issues?

*   How can parliaments contribute to the development and implementation of ethical frameworks for STI in line with the IPU draft Charter on the Ethics of Science and Technology?