



Inter-Parliamentary Union
For democracy. For everyone.

149th IPU Assembly

Geneva
13–17 October 2024



Geneva Declaration

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

*Endorsed by the 149th IPU Assembly
(Geneva, 17 October 2024)*

We, Members of Parliament from around the world, gathered together at the 149th IPU Assembly in Geneva, Switzerland, reaffirm our commitment to harnessing science, technology and innovation (STI) to address the pressing global challenges of our time and to advance peace, sustainable development and human rights.

We are meeting at a time of unprecedented technological advancement and interconnectedness. From the transformative potential of artificial intelligence and the urgent need to combat climate change, to the persistent digital divide and the ethical challenges posed by emerging technologies, the multifaceted opportunities, challenges and risks we face underscore the need for parliaments to take urgent collective and forward-looking action, informed by common ethical standards regarding STI development and governance. We note that some nations have already taken bold decisions to pre-emptively ban certain inhumane technologically advanced weapons, creating a good practice precedent. The challenges we face demand a shared global commitment to leveraging STI for the common good.

We conclude this Assembly recognizing the potential of STI, when guided by ethical principles and inclusive governance, as a powerful means for building trust, promoting cooperation, bridging divides and enhancing the contribution of parliaments and parliamentarians to build a more peaceful, equitable and sustainable world. We welcome the work of the IPU to foster dialogue and cooperation on issues related to STI and we commit to continue and expand these efforts.

We note with satisfaction that the themes of science, technology and innovation permeate the important commitments adopted by the United Nations General Assembly in September 2024, namely the Pact for the Future, the Global Digital Compact and the Declaration on Future Generations. We are committed to working closely with the executive branches of our governments, the United Nations system and civil society on implementing these commitments.

As representatives of the people, we parliamentarians are keenly aware of our responsibility to ensure that the benefits of STI reach all segments of society, to bridge the technological divide between and within nations, communities, genders and generations, and to find consensus on how to overcome the challenges posed by rapid technological change.

We recognize that parliamentarians are uniquely positioned to develop and implement ethical frameworks for STI governance, ensuring that scientific and technological progress aligns with human rights standards and societal values, and contributes to the well-being of all.

Parliaments must address the complex challenges of an increasingly interconnected and rapidly changing world, leveraging strategic foresight to anticipate future trends, opportunities and risks. Parliaments have an important role to set legal boundaries, establish accountability mechanisms and prevent uses of technology that lead to human rights violations, exacerbate inequalities or undermine the rule of law and democratic processes.

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We must pay particular attention to the situation of women, youth and groups in vulnerable or marginalized situations who risk being left behind in the digital age, and recognize the vital role they can and should play in shaping the future of STI. Parliamentary action is crucial in empowering all sections of society to participate in and benefit from technological advancements. Parliaments must address the specific needs of these groups by embracing inclusive technological solutions that simultaneously preserve dignity, uphold rights, reduce exposure to digital risks and provide the conditions for them to realize their socioeconomic potential.

We especially commit to fostering the more substantial involvement of women and youth in STI, including in education, public health, research, innovation and technology governance, and to the effective implementation of gender-responsive and youth-inclusive STI policies by ensuring that technological development processes integrate diverse perspectives and guarantee the equal and meaningful participation of all segments of society.

We reiterate our commitment to evidence-based and efficient policymaking and to fostering a culture of scientific inquiry and innovation. We urge all States to invest in research and development, promote international science diplomacy, and adhere to global standards for responsible innovation. We advocate for increased recourse to scientific expertise in parliamentary decision-making processes as an essential mechanism for addressing complex global challenges.

We recognize the close link between STI, peace and development. The ethical and inclusive application of STI is crucial for achieving the Sustainable Development Goals, building resilient societies and strengthening accountability. Conversely, the misuse of or unequal access to technology can exacerbate existing inequalities and conflicts, or risk creating new ones.

Our focus should be on harnessing STI to tackle the underlying causes of global challenges, which are often rooted in socioeconomic exclusion, inequality, discrimination, lack of access to education and environmental degradation. We should increase our focus on leveraging technology to enhance human security, which encompasses citizens' protection by addressing essential needs such as food security, healthcare, shelter, education – including digital literacy – political security, environmental sustainability and climate action. STI can also be harnessed to anticipate and mitigate the impacts of natural hazards and public health emergencies.

We must monitor the potential risks and challenges posed by emerging technologies and take necessary and pre-emptive action to mitigate negative impacts, foster responsible innovation and ensure compliance with international standards and ethical principles. In this vein, we recognize the importance of ethical AI development, cybersecurity and digital privacy protection to ensure the peaceful use of technology that is grounded in human rights. In particular, we commit to ensuring a safe online environment to prevent harassment, bullying and cybercrime, particularly when they are gender-based. Particular attention must be paid to addressing, through regulation and targeted policy, the proliferation of misinformation, disinformation, and AI-generated content that propagates hate speech, as these can undermine public trust and threaten social cohesion.

Today's technological challenges transcend borders and demand a collective global response. As members of parliament, we agree on the importance of international cooperation in STI governance. It is only through collaborative efforts and upholding ethical standards that we can bridge the STI gap between and within nations, address growing technological risks, build digital solidarity, strengthen common security and trust to reduce tensions, find lasting solutions to establish a shared sense of security and prosperity in the digital age, and strengthen worldwide collaboration and exchange in scientific knowledge development and related technological innovations.

We reconfirm our commitment to inter-parliamentary dialogue and cooperation on STI issues. We emphasize the IPU's unique role in fostering global parliamentary cooperation on STI governance. We welcome the adoption of the IPU Charter on the Ethics of Science and Technology and IPU resolution on *The impact of artificial intelligence on democracy, human rights and the rule of law*. We further acknowledge the reports, recommendations and guidelines on digital transformation and AI that have been developed through the IPU's Centre for Innovation in Parliament, including the World e-Parliament Report 2024. We commit to work for the implementation of these new standards.

We pledge to take this Declaration back to our respective parliaments, disseminate the outcome of our collective work to our national authorities and seek to implement its principles through legislative, budgetary and oversight actions.

As parliamentarians, we commit to lead the way towards a more equitable, sustainable and technologically advanced world, pursuing informed, inclusive and innovative approaches to STI governance. We therefore pledge to do our utmost, individually and collectively, to harness the power of science, technology and innovation for the benefit of all humanity and the preservation of our planet.



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The impact of artificial intelligence on democracy, human rights and the rule of law

*Resolution adopted unanimously by the 149th IPU Assembly
(Geneva, 17 October 2024)*

The 149th Assembly of the Inter-Parliamentary Union,

Reaffirming international law, in particular the Charter of the United Nations, and *recalling* the Universal Declaration of Human Rights,

Recognizing that rapid advancements in artificial intelligence (AI) may provide significant opportunities and challenges for humanity, with impacts, including on human rights, experienced differently between nations,

Acknowledging that greater knowledge and understanding of AI systems is a prerequisite for informed debate and decision-making, including the following considerations:

- a. ongoing initiatives that call for a balanced, inclusive and risk-based approach to the governance of AI, as a means to achieve an open, sustainable, fair, free and secure future for all,
- b. the methods by which AI systems are trained and deployed, which have the potential to entrench existing societal prejudices, discrimination, biases and inequalities, both within developing countries as well as between developing and more developed countries,
- c. the ways in which AI can facilitate the spread of false or misleading information, discrimination, and extremism leading to misinformation, disinformation, distrust and online violence, as well as AI-facilitated gender-based violence against women, including women serving in politics, all of which undermines the credibility of democratic institutions and actors, posing significant challenges to public discourse and societal trust,

Noting that advances in AI have impacts on democracy, human rights and the rule of law, including by facilitating the spread of misinformation and disinformation which can undermine democratic institutions, incite extremism and violate personal rights to privacy and data ownership, all of which may disproportionately affect children, women and girls, as well as disabled persons,

Aware that, at the same time, AI technologies, if developed and harnessed in a responsible manner and made available to all, can have a positive impact on democracy, including through increasing the accountability and transparency of public institutions, and facilitating citizens' engagement in political processes,

Highlighting the risk of AI widening economic inequalities on a global scale,

Acknowledging that an inclusive, responsible, human-centric and evidence-based approach to setting rules that mitigate risks pertaining to the creation, development, deployment and use of AI technologies is required in order to ensure equitable policy outcomes for the entire world, including the Global South and countries which may face unique challenges caused by disparities in keeping up with the rapid pace of AI development and deployment,

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Stressing that, in the absence of gender-balanced perspectives, data and decision-making, AI technologies, in particular generative AI, can create, perpetuate and amplify gender inequalities and gender-based discrimination and violence,

Noting that AI-generated deepfake material can negatively impact all women, and that for women in politics, these impacts often have the effect of silencing and excluding them from public and political life,

Concerned by the lack of comprehensive legislation, regulations and a globally agreed upon framework for the responsible creation, deployment and use of AI technology, and by the slow pace of the global community in developing these rules, and *underlining* the need for transparency and respect for democratic values in AI development,

Acknowledging the importance of regulating AI without constraining the emergence of responsibly developed and managed innovations that positively benefit humanity,

Alarmed that big technology companies have lobbied extensively to influence and set rules that may primarily benefit them, and to assert their control over training data sets and thus the technological development of AI for the foreseeable future to the detriment of the global community and the preservation of individual rights, including through the manipulation of personal data, unethical business marketing, non-socially responsible behaviour and algorithmic biases that reinforce existing inequalities and discrimination,

Noting that countries may already have existing legislation and regulations that could be adapted to meet emerging challenges and opportunities relating to AI, and that the principle of national sovereignty should be recognized in any initiative to regulate AI,

Noting also numerous international and regional initiatives to develop ethical standards and governance frameworks for AI, and that any such initiatives should employ a multi-stakeholder approach that guarantees a broad consensus across the global community,

Applauding the welcome efforts of key international organizations to assist parliamentarians and other actors in developing regulatory frameworks and policies,

1. *Calls for* increased international multi-stakeholder cooperation, collaboration, and exchange of information and experiences to ensure a united worldwide effort to maximize the benefits of AI, while mitigating risks to humanity, including through initiatives designed to reduce disparities in technological development between nations;
2. *Calls for* urgent measures to bridge the divides among and within countries in terms of digital infrastructure, connectivity and skills, including by removing digital gender barriers and scaling up international digital cooperation, as a precondition for equitable and inclusive access to AI benefits for all;
3. *Insists* on the inclusion of perspectives from, and the equal participation of, all countries of the world in debates on AI standards, frameworks and other governance mechanisms, while emphasizing the need for the active presence of the Global South;
4. *Calls upon* parliaments to effectively and transparently adopt or maintain strong legal frameworks and policies for the responsible creation, deployment and use of AI technology, and to contribute to efforts to establish global standards and frameworks;
5. *Recommends* that these legal frameworks set out requirements for transparency and information in the implementation of AI systems, affirm the accountability of the public and private entities who use them, and provide recourse for victims whose rights are violated by AI technology;

6. *Invites* parliaments, in cooperation with civil society groups, academia and research groups, to give priority to reviewing existing legislation and regulations to ensure that advances in AI technology do not result in loopholes in existing protections for democracy, human rights, the rule of law and State sovereignty;
7. *Urges* parliaments to prioritize the prevention and elimination of, and response to, all forms of gender-based violence and discrimination generated or facilitated by AI, including better content moderation, accessible and effective reporting mechanisms and the establishment of procedures to remove illegal content;
8. *Calls on* parliaments, with a view to enhancing gender mainstreaming in the development of AI, to promote legislation and policies aimed at enabling and increasing girls' and women's access to education, careers and leadership in science, technology, engineering and mathematics;
9. *Invites* parliaments to ensure that advances in AI do not result in the perpetuation of discrimination stemming from biases present in training data and algorithms;
10. *Urges* legislative action to prevent the creation and distribution of deepfake intimate images, recognizing that most of such content is pornographic in nature and disproportionately targets women and girls, as well to as to prevent the distribution of other AI-generated content that propagates hate speech or incites violence, including gender-based violence;
11. *Calls for* the development, deployment and accessibility of new and existing tools to help people verify the provenance and authenticity of AI-generated images and content, to protect data privacy, and to prevent the misuse of personal information and data;
12. *Calls upon* parliaments to promote AI systems that advance, protect and preserve linguistic and cultural diversity, taking into account multilingualism in their training data and throughout the life cycle of the AI system;
13. *Urges* parliaments to place a high priority on debates related to AI and to ensure their policy responses evolve in line with advances in AI technology, so as to ensure these responses are conducive to the well-being of humanity and the principles of sustainable development;
14. *Calls on* parliaments to strengthen their capacity to proactively address rapid technological developments, particularly in the AI field, including through: training programmes for members of parliament and staff; the establishment of specialized bodies; innovative formats for policy dialogues with the technical and academic communities, the private sector and all other stakeholders; and platforms for enhanced inter-parliamentary cooperation and sharing knowledge, good practices and solutions related to AI;
15. *Calls for* the development of effective strategies to address the impact of AI on the labour market, including education, training and measures to mitigate the effects of automation on specific job sectors and to provide support to affected individuals;
16. *Urges* parliaments to cooperate with their governments in raising the awareness of citizens on the impact of AI on democracy, human rights and the rule of law;
17. *Calls for* increased and ongoing education and capacity-building on the uses and risks of AI, including for parliamentarians, to keep pace with quickly evolving technological developments;
18. *Calls upon* parliaments to accelerate efforts to tackle information privacy violations caused by the use of unacceptable AI practices, such as AI-enabled surveillance and biometric categorization technology in unwarranted political surveillance and personal data collection, which threatens citizens' fundamental rights and individual freedoms, thereby weakening democracy and the rule of law;

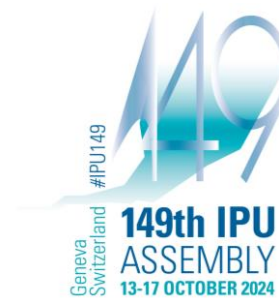
19. *Urges* parliaments and the Inter-Parliamentary Union to advocate against international decoupling of data sets and AI models in order to prevent censorship and the walling in of individual systems, and to make AI as inclusive, culturally open and nuanced as possible;
20. *Notes* the need for independent research on AI, guided by high ethical standards;
21. *Calls for* the promotion of sustainable research and development in the field of AI, encompassing innovations designed to address global challenges related to human rights, particularly in the areas of epidemic prevention, public health enhancement, educational development and climate change mitigation;
22. *Urges* the enhancement of transparency and accountability in the deployment of AI by establishing standards that require companies to disclose their data usage and decision-making processes involved in AI applications;
23. *Calls for* the development of specific cybersecurity standards for AI to safeguard systems against cyberattacks and bolster the security of personal and sensitive data;
24. *Invites* the Inter-Parliamentary Union, given the crucial role of parliaments in achieving internationally agreed AI commitments, to explore modalities of providing a parliamentary input to AI-related processes at multilateral organizations;
25. *Urges* parliaments and the Inter-Parliamentary Union to continue to focus attention on the responsible development, deployment and use of AI, including through capacity-building initiatives and establishing linkages with relevant global initiatives, as a critical goal of their work.



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Response by parliamentarians to the urgent plea by the UN Secretary-General to recommit to multilateralism for global peace, justice and sustainability

*Resolution adopted unanimously by the 149th IPU Assembly
(Geneva, 17 October 2024)*

The 149th Assembly of the Inter-Parliamentary Union,

Deeply concerned that, at the United Nations General Assembly on 24 September 2024, UN Secretary-General António Guterres said: “Our world is in a whirlwind. We are in an era of epic transformation – facing challenges unlike any we have ever seen – challenges that demand global solutions. Yet geo-political divisions keep deepening. The planet keeps heating. Wars rage with no clue how they will end. And nuclear posturing and new weapons cast a dark shadow. We are edging towards the unimaginable – a powder keg that risks engulfing the world”, echoing his warning just two years earlier, on 20 September 2022, when he underscored his increasing despair at the state of global affairs, saying: “Our world is in big trouble. Divides are growing deeper, inequalities are growing wider, challenges are spreading faster... We need hope... We need action across the board”,

Alarmed that the UN Secretary-General has also consistently described numerous times in recent years international action on major challenges as being “paralysed by dysfunction and held hostage to geopolitical tensions”,

Fully comprehending the UN Secretary-General’s concerns of a world destabilized by interconnected crises driven by impunity, inequality and uncertainty, which threaten global stability and solidarity and undermine the collective commitment to the principles of multilateralism,

Comprehending the dire circumstances facing the world, which motivated the UN Secretary-General to call on the international community to mobilize collectively to address these crises, uphold human rights and work towards sustainable solutions,

Preoccupied by the erosion of global commitments to democratic values and universal human rights,

1. *Reaffirms* its unwavering support for multilateralism, both through the United Nations system and other key global and regional institutions, and its attachment to an international order based on the fundamental principles of the Charter of the United Nations, as laid out in the Pact for the Future;
2. *Fully respects* that the United Nations remains the cornerstone of the multilateral system and of international cooperation and *pledges* its full support to its mission through a deepening cooperation;

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3. *Highlights* the gravity of the challenges the global community is facing, from a growing number of international conflicts to the consequences of climate change and the risk of pandemics, as well as other global threats like famine and food insecurity, resulting in a multiplication of humanitarian crises;
4. *Emphasizes* the urgent need for a collective response, founded on renewed political will, to cooperate at the international level and to share responsibilities across geopolitical divisions, to build a more peaceful world and create a better future for current and succeeding generations;
5. *Calls for* a significant concerted effort by the international community, including the IPU membership, to achieve:
 - a. complete rejection of the indiscriminate targeting by armed forces of civilians, wherever they may be, particularly emergency personnel, health and education workers, and medical, education and other public infrastructure, which represents a grave breach of international humanitarian law based on the Geneva Conventions and their Additional Protocols;
 - b. the end of sexual violence, war crimes against women and girls in international and domestic conflicts; greater recognition of the insidious impact of gender discrimination and the undermining of women's rights; and the identification of urgent remedies to address these phenomena;
 - c. concerted action to end the appalling impact of conflict on children, who are experiencing unacceptable levels of death and injury in war, forced displacement and kidnapping, loss of education and economic opportunity, and the wanton destruction of their families and wider communities;
6. *Expresses* its full commitment to:
 - a. strengthen multilateralism by working tirelessly to uphold and reinforce the multilateral frameworks that are essential for addressing global challenges, including undertaking the necessary reforms to ensure the legitimacy and efficiency of the multilateral system, such as: the expansion of the membership of the Security Council, ensuring fair and balanced representation of all regions of the globe; the modernization of UN peacekeeping tools in compliance with the New Agenda for Peace; and the reform of international financial institutions;
 - b. promote equity and justice by advocating for food security and fair access to resources, including water and health supplies, and strive to bridge the gaps which perpetuate inequality and poverty to ensure that no one is left behind, especially the most vulnerable in our communities, particularly women and girls, people with disabilities and the elderly;
 - c. tackle the climate crisis by pursuing ambitious climate action in line with the Paris Agreement, fully appreciating that the urgency of the situation requires immediate and sustained efforts to reduce emissions and support climate resilience, particularly through financial support for developing countries;
 - d. defend the rights of all people by being champions for the protection and promotion of universal human rights, ensuring that the fundamental freedoms and dignity of all individuals are respected and upheld, including by rebuilding faith in the integrity of independent accountability and human rights institutions;
 - e. call for action against impunity for international crimes;
 - f. rebuild trust by addressing misinformation on both social and traditional media and by addressing the new challenges posed by rapidly developing advances in artificial intelligence and other technologies;

- g. foster inclusive dialogue, particularly encompassing the most vulnerable in our societies, to enhance global prospects for cooperation based on collective values, shared principles and common objectives in the interests of all peoples;
7. *Resolves* to raise awareness that a recommitment to the cause of multilateralism and the collective efforts of the international community through the United Nations and other global institutions is a critical move in stepping back from the brink of a geopolitical abyss of increasingly violent conflict, social injustice and economic decline, which, without a change in course, threatens all countries;
 8. *Underscores* the full relevance of the founding principles of the IPU in its 135th year of existence, in favour of the pursuit of peace and cooperation through worldwide parliamentary dialogue, and *reaffirms* its commitment to deepening parliamentary cooperation with the United Nations and other multilateral institutions;
 9. *Highlights* the obligations of Member Parliaments to ensure legislators hold to account their respective national governments to show full respect for the Charter of the United Nations, redouble their efforts to achieve the Sustainable Development Goals and to fully implement the newly adopted Pact for the Future, which also seeks to deepen cooperation between the IPU and the United Nations;
 10. *Reaffirms* its commitment to the defence of the principles of peace, human rights, dignity, equality, justice and solidarity, and *confirms* the determination of Member Parliaments to play a key role in navigating the complexities of current crises, to recommit to the purposes and principles of multilateralism, and to contribute to building a more resilient, just and sustainable world for the benefit of every nation and the constituents of all parliamentarians.



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Executive Committee
Item 12
Governing Council
Item 13

EX/294/12-P.1
CL/214/13-P.1
2 October 2024

IPU Charter on the Ethics of Science and Technology

The exponential growth of new technologies and their current and potential profound ramifications on society and the environment provide a compelling reason for parliamentarians, scientists and researchers to forge a synergy by cultivating a mutually-beneficial working partnership. Parliamentarians face the daunting task of crafting legislation in an era of unprecedented technological advancements that outpace the current legislative process and framework, necessitating a growing need to align policy with evidence and facts.

In 2014, the IPU Secretary General initiated discussions with the scientific community on how to apply scientific evidence-based approaches to politics. Subsequently, the IPU institutionalized this science-oriented strategy by signing a Memorandum of Understanding with the European Organization for Nuclear Research (CERN) in 2016. In this context, the IPU Working Group on Science and Technology (WGST) was established in 2021, and its members quickly identified the crucial need to protect the human rights and dignity of people, even in the economic realm, taking into account their overall well-being worldwide and acknowledging their connection to their respective ecosystems.

Accordingly, the WGST members devoted three years to developing a Charter on the Ethics of Science and Technology (the Charter) to ensure that the development and deployment of science and technology were carried out in a responsible, ethical and sustainable manner. It should serve as a reference point for parliaments, national governments, international organizations, scientists and researchers and other stakeholders, in the process of developing legislations, laws, policies and regulations related to science and technology. By promoting a global dialogue on ethical issues in science and technology, the Charter should facilitate international cooperation, foster innovation and enhance public trust in science and technology. It should also help parliamentarians embrace and promote science as a tool for advancing peace and development, while addressing the public's concerns and misconceptions often amplified by social media.

To meet this objective, the Charter establishes a framework of principles, values and guidelines that serve to guide decision-making, research and development, ensuring that science and technology are used for the betterment of humanity, society and the environment. This framework helps bridge the gap that separates scientific innovation from legislative and parliamentary oversight and ensures that technological progress aligns with human values and principles, particularly those enshrined in the United Nations Universal Declaration of Human Rights.

At the 148th IPU Assembly in Geneva, held from 23 to 27 March 2024, the initial draft Charter, signed off by the WGST members, was circulated to all IPU Member Parliaments and relevant partners to solicit their feedback and input. During this consultation process, feedback was received from the Parliaments of Canada, Nicaragua, the Russian Federation and Switzerland, as well as from academics, scientists and partner organizations, which helped enrich and enhance the Charter, making it more comprehensive and inclusive. Following the feedback deadline of 7 September 2024, the WGST convened in two meetings to review the proposed amendments. After carefully integrating relevant feedback, the WGST officially signed off on the finalized Charter on 23 September 2024. The IPU Executive Committee is invited to review this final version and recommend it to the Governing Council for formal adoption.

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IPU Charter on the Ethics of Science and Technology

Preamble

Reaffirming the Inter-Parliamentary Union's commitment to peace, democracy and development, and *convinced* that scientific knowledge and expertise should substantively inform the efforts of parliamentarians, parliamentary researchers and decision and policymakers to attain the goals,

Reaffirming also the calling and commitment of the Inter-Parliamentary Union to prioritize a common understanding of science, placing humanity at its core, and to foster ethical considerations in the realm of science and technology, leveraging its platform to promote informed discussions, exchange good practices and develop frameworks that align scientific progress with ethical principles,

Acknowledging the profound impact of science and technology on humanity's progress, welfare and environment, the ethical responsibilities inherent in the pursuit and application of scientific knowledge, and the importance of ethical considerations in guiding the development, deployment and governance of emerging technologies,

Acknowledging also the persistent inequality between the Global North and South in accessing, benefiting from and contributing to scientific and technological progress, and the inherent gender, social and economic inequalities therein, and *emphasizing* the need for ethical frameworks that address these disparities and strive for equitable global participation, including youth participation, gender equality and social equality in accessing knowledge and contributing to advancements,

Recognizing the imperative for global collaboration and adherence to ethical principles in shaping the trajectory of scientific and technological advancements, mitigating their potential risks for the betterment of present and future generations without distinction and discrimination of any kind,

Recognizing also the profound influence of science and technology on societies, with the potential for both beneficial and adverse effects, the need for parliaments and parliamentarians to safeguard the interests of the people they serve and the ethical complexities inherent in the advancement of science and technology for the benefit of all humanity,

Taking into account the imperative of respecting the diversity of religions, beliefs, cultures and civilizations, of treating different social groups with fairness, equity and inclusiveness, and avoiding discrimination and biases in the pursuit and governance of scientific and technological advancements,

Recognizing the crucial need to safeguard and protect humanity from the potential risks and hazards inherent in scientific and technological advancements, including the risk of compromising human agency, autonomy and democratic principles, and from humanity being disempowered by present and future technological advancements,

We, parliamentarians present at the 149th IPU Assembly in Geneva, adopt the following Charter on the Ethics of Science and Technology, to serve as a framework of ethical principles to uphold the dignity, human rights and well-being of individuals and societies, while fostering innovation, sustainability and responsible stewardship of scientific and technological endeavours, sharing of knowledge, advocacy for policies that promote ethical practices in science and technology, and the harmonization of progress with the values and aspirations of our constituents and the global community. We urge governments, parliaments, international organizations, civil society, the private sector, academic and research institutions, and all other relevant actors around the world to be guided by its content.

PART I: Key ethical principles for regulating science and technology

In order to establish a comprehensive ethical framework, it is important to first clarify the scope of science as addressed by the present Charter. Science is referred to as a collective endeavour to advance knowledge and innovation across multiple fields, each contributing uniquely to the understanding, improvement and protection of human life and the environment, encompassing diverse disciplines such as natural, social and applied sciences.

Article 1 – Duty, responsibility and rational decision-making

Parliaments and parliamentarians are endowed with the significant responsibility of crafting laws that promote societal values, well-being, human fulfilment and harmony. This responsibility underscores the importance of rational and evidence-informed decision-making in the legislative and anticipatory governance process. To achieve this, proactive understanding, assessment, shaping and regulation of scientific and technological developments, while considering their long-term impacts and ethical ramifications, are of the utmost importance.

Article 2 – Rule of law

Acknowledging the foundational importance of the rule of law in enacting ethical principles for scientific and technological advancements, science and technology must be developed and applied within the framework of the rule of law at the national and international levels. Any development of science and technology should adhere to the ethical principles of equality, fairness, accountability and justice, established national and international legal principles, and human rights standards enshrined in international human rights law and international humanitarian law. Due process should guide the governance of technological innovation and its integration into societies. Upholding the rule of law safeguards against arbitrary use of power, fosters transparency, and promotes responsible behaviour in scientific and technological domains, ensuring alignment with ethical principles and societal well-being.

Article 3 – Preservation of research freedom and independence

Scientific curiosity, intellectual freedom and independence are fundamental values of research, requiring the autonomy of scientific enquiry to be upheld and protected, with ethical considerations guiding the process to ensure responsible and morally sound practices throughout scientific endeavours. Researchers have the right and liberty to explore, investigate and disseminate their findings without undue influence, censorship or restrictions that inhibit the pursuit of knowledge and the advancement of scientific understanding. This includes safeguarding intellectual property rights and the rights of researchers to choose methodologies, pursue innovative avenues of enquiry, and communicate their results transparently and responsibly to contribute positively to societal progress and the common good.

Article 4 – Transparency and accountability

Promoting transparent processes in scientific research, technological development and policymaking entails holding all involved parties accountable for their actions. It necessitates clear communication regarding the objectives, methodologies, outcomes and limitations of scientific research, as well as the reasoning behind policy decisions leading together to more comprehensive and inclusive public policy outcomes. Engaging a broad spectrum of stakeholders, including but not limited to scientists and researchers, ethicists, industry experts and civil society representatives in policy dialogue is essential, in order to ensure that scientific knowledge is properly integrated into political decision-making. Particularly in areas such as artificial intelligence and robotics, this principle underscores the need for clarity, transparency and human oversight to ensure societal well-being.

Article 5 – Data and privacy

The ethical handling of data is a critical pillar in mitigating the risks of scientific and technological advancements, including emphasizing the importance of responsible management and use of data and advocating for robust frameworks that prioritize and protect the privacy rights of individuals,

while harnessing the potential of data for societal progress. The ethical handling of data entails transparent data practices, informed consent and mechanisms to ensure accountability for data misuse. Cooperation and collaboration among nations is pivotal to establishing international standards for ethical data practices, fostering a future where scientific and technological advancements align with the ethical principles and values upheld by different societies.

Article 6 – Risk assessment and management

Scientific and technological advancements must be subject to regular evaluation for risks, including in relation to any unintended consequences emerging from their use. Effective strategies should be put in place to manage, communicate and address risks as an essential component for maintaining public trust, for safely integrating new technologies into societies and for mitigating any harm caused to various societies, in both the Global North and Global South. Ensuring protection against foreseeable risks is integral to the responsible development, deployment and use of technological advancements. This approach will contribute to the creation of safer and more resilient technological and digital landscapes in societies.

Article 7 – Continuous learning and adaptation

Acknowledging the rapid evolution of science and technology, the establishment of responsive policies and regulations founded on continuous learning is of crucial importance. This approach advocates for an iterative policymaking process that evolves in response to new information and changing circumstances. It emphasizes the need for ongoing learning, capacity-building, critical thinking and education that keeps pace with technological advancements and leads to the review and revision of standards, laws and regulations.

Article 8 – Preservation of peace and harmony

The primary objective of legislation and policymaking, including in the area of technological advancements, must be to ensure integral and lasting peace, understanding and cooperation among individuals and nations. The fundamental goal of these legislative and policy endeavours remains the fostering of harmonious relations, both within societies and across borders, underscoring the importance of steering technological advancements in a direction that not only serves human progress but also actively contributes to the development of humanity, global peace and international cooperation. While science can be used to advance national or regional interests, it should also stand as a unifying force transcending geopolitical boundaries, enabling mutual understanding and cultivating shared endeavours among nations. This includes leveraging the transformative potential of science in fostering diplomacy through dialogue, better international understanding, trust and collective problem-solving.

Article 9 – International cooperation

Humanity is a community with a shared future. Acknowledging that science transcends borders and should serve for the collective benefit of humankind, it is essential to strengthen worldwide collaboration and exchange in scientific knowledge development and related technological innovations, their ethical considerations, the assessment of impacts and mitigation of risks. Guided by principles of mutual respect, justice, equality, equity and non-discrimination, all countries and scientific research entities must have equal access to participate in international scientific and technological cooperation through inclusive and transparent international institutions. Any attempt to politicize, instrumentalize or militarize such cooperation must be firmly opposed. Countries must uphold genuine multilateralism, explore new models for global technological cooperation and partnerships that are mutually beneficial, and ensure that the achievements in scientific and technological innovation benefit humanity.

Article 10 – Sustainability and environmental stewardship

Recognizing the growing impact of technology on the environment, and ensuring that scientific and technological advancements are sustainable and environmentally benign, is of paramount importance. It is important that relevant actors advocate for and incentivize the development of technologies that contribute to the long-term sustainability of our planet, and call for international collaboration in formulating model regulations and international agreements that balance ecological sustainability with human rights, human integrity and human dignity.

Article 11 – Social justice and equity

A commitment to a fairer and more equitable distribution of the benefits of scientific and technological advancements across societies must underpin the work of all parliaments and governments. This approach addresses concerns that technology may exacerbate social inequalities, by ensuring that vulnerable groups, including people with disabilities and the poorest and most marginalized, are not overlooked, and advocating for technology to serve as an enhancer of human capabilities for all, actively combating societal disparities and ensuring equal access to knowledge for all.

PART II: Guidelines and recommendations for legislators

Legislators should endeavour to:

1. Recognize the importance of maintaining, and promoting the creation of, parliamentary and inter-parliamentary structures for the presentation of regular, neutral and evidence-based information to parliamentarians on science and technology, including the provision of advice on the relevant ethical aspects of technological development.
2. Periodically interact with relevant national, regional and/or international competent organizations on the ethics of science and technology, to acquire the best and most up-to-date understanding of the ethical implications of ongoing research, studies and applications, as well as of the most probable future scenarios, as presented by scientists and technologists.
3. Periodically interact with relevant national, regional and/or international competent organizations with expertise in the field of ethics, to obtain diverse perspectives on current and future scientific and technological developments, including humanistic and philosophical points of view. This interaction and these exchanges will help to define the evolving ethical limits that science and technology must not exceed with regard to respect for human rights, human integrity and human dignity.
4. Make available in a usable format to parliamentarians evidence-based and validated information provided by “technical” internal parliamentary science and technology advisory bodies for specific consultations with competent organizations or groups of experts on ethics. This will provide parliamentarians with a solid basis to establish the ethical limitations when considering new legislation or amending and updating existing laws.
5. Develop and agree on simple and clear checklists, possibly in coordination with the international parliamentary community, that parliamentarians can use to scrutinize existing legislation against ethical aspects or their expected evolution over time, and to determine ethical principles when considering new legislation or amending and updating existing laws.
6. When considering, drafting and examining new legislation that requires scientific evidence, ensure from the outset that such evidence is openly accessible and of the highest possible quality, adhering to the validation standards of the relevant scientific community or communities. This scientific evidence, including impact assessments and risk mitigation, must be as comprehensive as possible.
7. Promote monitoring and regular exchanges of experiences with other parliaments, both multilaterally through the Inter-Parliamentary Union and directly through open-source databases and other tools, on any relevant acquired knowledge relating to the development and use of science and technology and any associated ethical considerations. Exchanges of good practices on how this knowledge is translated into legislation should also be promoted.
8. Set up adequate structures, tools and platforms to periodically inform and consult civil society and the general public on parliament’s actions and programmes regarding the ethical considerations of science and technology in legislation, at the national, regional and international levels.

9. Before incorporating ethical principles related to science and technology into legislation, familiarize themselves with and evaluate the ethical guidelines that the science and technology communities have already established on their own. The ethical principles should be aligned with both national and international laws. Their incorporation into legislation should be the result of dedicated collaborative discussions and decisions by parliamentary committees, adhering to the diverse rules and procedures governing the legislative processes of each individual parliament.
10. Informed by open dialogue and extensive consultations with relevant experts from the areas of science, technology and ethics, monitor the adoption of new charters on the ethics of science and technology and the international instruments signed in this area, as well as the development of existing ethical charters, and intervene in legislation if its provisions breach national or internationally recognized ethical principles.
11. Regardless of the specific domain of application, regarding new legislation on science and technology related topics and the revision of existing laws, ensure respect of human rights, human integrity and human dignity, as well as compliance with the existing international conventions and charters recognized by the international community, as applicable.
12. Periodically review regulations and legislation concerning scientific research and technological innovation to ensure that they keep pace with rapid scientific and technological advancements, are effective in practice as intended and have no unintended consequences. Should parliaments deem it necessary, it is recommended to establish specialized parliamentary committees, to support the review and assessment of these regulations and legislation.
13. Support the dissemination of the results of scientific and technological innovation through open-access and peer-reviewed publications by allocating dedicated funding and necessary budgetary resources.
14. Integrate the ethical principles outlined in the present Charter into their national development plans, as well as into regulations and legislation related to scientific and technological advancements, ensuring that such progress prioritizes the well-being of humanity.