— UN SECRETARY-GENERAL'S —
STRATEGY ON NEW TECHNOLOGIES
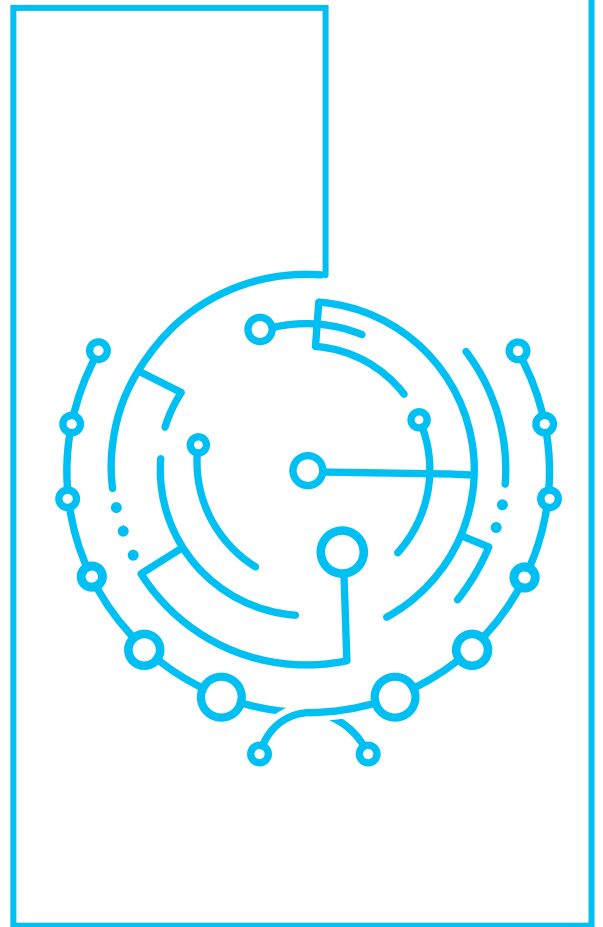
SECRETARY-GENERAL'S STRATEGY ON NEW TECHNOLOGIES

GOAL

To define how the United Nations system will support the use of these technologies to accelerate the achievement of the 2030 Sustainable Development Agenda and to facilitate their alignment with the values enriched in the UN Charter, the Universal Declaration of Human Rights and the norms and standards of International Laws.

PRINCIPLES

1 Protect and promote global values

2 Foster inclusion and transparency

3 Work in partnership

4 Build on existing capabilities and mandate

5 Be humble and continue to learn

COMMITMENTS

1 Deepening the UN's internal capacities and exposure to new technologies

2 Increasing understanding, advocacy and dialogue

3 Supporting dialogue on normative and cooperation frameworks

4 Enhancing UN system support to government capacity development

EXECUTIVE SUMMARY

New and rapidly developing technologies such as artificial intelligence, biotechnology, material sciences and robotics hold incredible promise for the advancement of human welfare. They also hold the potential to generate more inequality and more violence.

The goal of this internal strategy is to define how the United Nations system will support the use of these technologies to accelerate the achievement of the 2030 Sustainable Development Agenda and to facilitate their alignment with the values enshrined in the UN Charter, the Universal Declaration of Human Rights, and the norms and standards of international law.

We will need to work closely with new and current partners to overcome challenges and reconcile interests, especially in the areas of privacy and human rights, ethics, equality and equity, sovereignty and responsibility, and transparency and accountability.

Based on consultations across the UN system, I have identified five principles to guide UN engagement with new technologies:

1. **PROTECT AND PROMOTE GLOBAL VALUES:** our work must be anchored in the values and obligations of the UN Charter and the Universal Declaration of Human Rights.

2. **FOSTER INCLUSION AND TRANSPARENCY:** we must provide a platform for governments, businesses and civil society across generations to make collective choices about new technologies.

3. **WORK IN PARTNERSHIP:** We must promote the development of partnerships across a range of actors to increase collective knowledge, test ideas, and expand dialogue.

4. **BUILD ON EXISTING CAPABILITIES AND MANDATES:** our engagement with new technologies is necessary for preserving the values of

the UN Charter and the implementation of existing UN mandates—it is not a new mandate.

5. **BE HUMBLE AND CONTINUE TO LEARN:** for many industries, civil society groups and government bodies, the UN is not an obvious partner on these issues—so we need to engage and learn from each other.

Based on these principles, I am announcing four strategic commitments:

I will strengthen UN capacity to engage with new technologies: by training staff, increasing our knowledge and staying current with major technological advancements so that UN staff can better engage with key stakeholders on both the benefits and the risks associated with these developments, as they relate to our mandates.

I will increase my outreach and engagement: by speaking with diverse partners, calling attention to the benefits and risks of new technologies; I may consider appointing a Technology Envoy following the work of the High-Level Panel on Digital Cooperation.

We will further promote dialogue on normative and cooperation frameworks: by supporting implementation of existing agreements and recommendations and strengthening established multi-stakeholder mechanisms. As a first step I will establish a High-Level Panel of leaders from the public, private, and civic sectors to advise me on new models of cooperation.

We will increase support to Member States: by strengthening national and regional capacities, by ensuring meaningful access to knowledge and policy discussions, and by connecting governments to ideas, partners and solutions.

These commitments are part of the broader transformation of the Organization. As we continue to engage and learn, we will raise our level of ambition to ensure that new technologies are designed, managed and used for the benefit of all.

INTRODUCTION

This strategy will enhance the ability of the UN to use new technologies to realize the goals the United Nations Charter, the Universal Declaration of Human Rights and the 2030 Agenda.
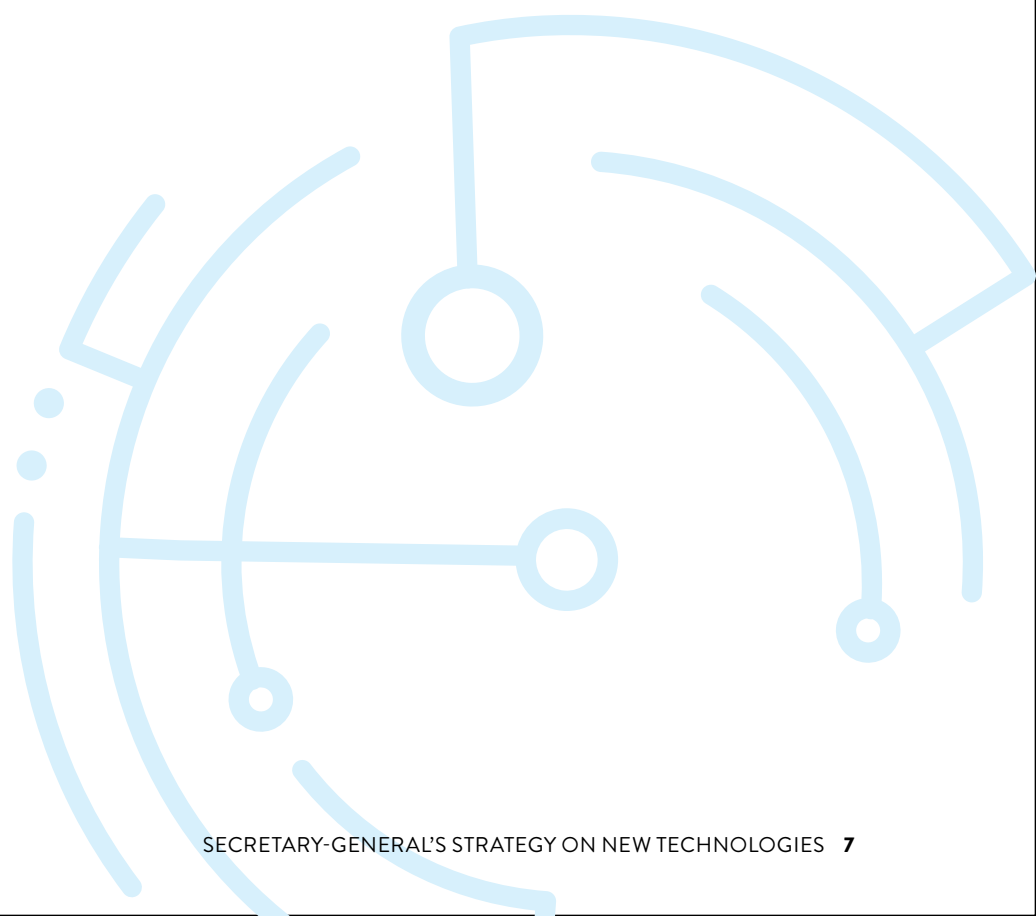
But this strategy is not an end itself. It is designed to contribute to broader efforts to reform the Organization so that it delivers on our Charter commitments in the 21st century. The reform of the UN development system calls for the strengthening of our capacity for data literacy, technology, collection and analysis and the management reform calls for the use of new technology tools to increase transparency within the Secretariat and towards Member States. This strategy should therefore be read as a cross-cutting effort to strengthen the Organization's orientation towards technology and to engage with the resulting policy, operational and management challenges.

In implementing this strategy, I believe that we should be both ambitious and humble. We must ensure that these technological advances are designed and used for the common good, to give a voice to those who are affected by new technologies, and to strengthen the capacity of all Member States to engage in difficult policy decisions. We must also remind all actors of their obligations and of our shared values. At the same time, we must work to earn and maintain credibility as a partner that can help stakeholders worldwide identify ways to effectively identify and manage the effects and consequences of new technologies and promote their responsible use.

This strategy, therefore, also has an inward-looking dimension. The UN's knowledge of the potential implications of new technologies must be continuously updated and sharpened. Beginning at the top, we must all—from headquarters to the country level—engage proactively with technology pioneers, innovators, policy makers and users. Each staff member must understand how new technologies are impacting their area of work, and they must be provided with the space to explore and test how technology can be leveraged to better deliver on respective mandates.

Without a stepped up, smart and responsible use of technology, we will fail to reach the SDGs and we will miss opportunities to prevent conflict and sustain peace. And with greater recourse to innovation using new technology, the UN's management culture can become more efficient, more agile, and more proactive—and deliver better results for our Members.

1. NEW TECHNOLOGIES AND A NEW FRONTIER FOR THE UN

Born at the dawn of the atomic age, the UN has since its early days served as a platform for realizing the benefits of and helping contain the risks posed by new technologies.

Today's rapid digital and technological transformations have brought us to another critical moment. They inspire hope of immense benefits that can elevate the human condition everywhere. We can see a future transformed by learning machines and artificial intelligence, edited genomes, autonomous cars, stateless currencies and private space travel. These new technologies hold incredible promise for human welfare. They hint at a future of individualized medicine and reduced pandemics, of globally disseminated knowledge and sustainable climate management, accelerated financial inclusion and entrepreneurship, and even asteroid mining. They offer us powerful new ways to achieve our shared commitments to each and every one of the Sustainable Development Goals (SDGs).

While these technologies hold great promise, they are not risk-free, and some inspire anxiety and even fear. They can be used to malicious ends or have unintended negative consequences. Online social networking lets us find like-minded people around the world, enlarging free speech and human creativity. But it also amplifies hate speech, contributes to ethnic and political polarization, and facilitates terrorist recruitment. Automation, artificial intelligence and robotics promise enhanced economic growth, but they can also exacerbate inequality within and between nations and can contribute to unemployment. Neural networks and deep learning offer the promise of instantaneous translation, bringing us all closer together. But they may also learn and amplify our biases, driving us further apart. The growth of the Internet and the Internet of Things offer significant economic opportunities—but also raises issues of security against intrusion and illegal surveillance.

And while cyberspace has come to underpin almost every aspect of our daily lives, the scale and pervasiveness of cyber "insecurity" is also now recognized as a major concern. The political and

technical difficulty of attributing and assigning responsibility for cyber-attacks encourages actors to adopt an offensive posture, not only amongst states but also from non-state armed and criminal groups and individuals seeking to develop or access potentially destabilizing capabilities with a high degree of impunity. This situation could weaken the delicate balance and system of reciprocity that underpins much of the contemporary international security architecture.

In this context, difficult policy dilemmas and questions relating to the source, nature and scope of regulatory and oversight responsibilities need to be addressed. Keeping up with the scale and speed of innovation is a challenge in itself. Many technologies are designed, developed and deployed on infrastructures or in spaces that remain beyond any single state's jurisdiction. Increasingly, though, the decisions that shape the public's every day experience are found not in legislative codes but software codes and are made not by elected officials in parliaments, but by scientists and innovators in private settings. Their choices will resonate for generations to come.

And increasingly, the overriding question for the United Nations has become: how can we ensure that the voices and concerns of those who may be significantly affected by new technologies are heard, even if they are developed on the other side of the globe and their effects and consequences are not yet evident?

Addressing these challenges will require broad and inclusive dialogue and cooperation at all levels and with all actors, because the promise of a technology can only be fulfilled if it maintains society's support. That is impossible if we are not all clear and in agreement about the principles, values, obligations and responsibilities that should guide the design, development and uses of the technologies that are transforming our societies.

It is, of course, the primary responsibility of governments and their societies to determine how they wish to maximize the benefits and minimize the risks of the technologies shaping their future. At the same time, the UN has an important role to play in supporting its Member States and other stakeholders to address new policy and normative challenges,

in particular those directly affecting the central Purposes and Principles of the Organization and for which collective global responses are necessary. New and emerging technologies, with their impact across borders, seem to pose just such challenges. What, therefore, could a more deliberate and effective role for the UN in this area look like in the coming decades?

The UN has already begun to play a role in encouraging those designing, developing and deploying new technologies to ensure that they are consistent with our shared, universal values, as reflected in existing international norms and standards. In Malawi, for example, the UN has established the world's largest drone test corridor for humanitarian applications covering over 13,000 square kilometers. In Zambia, the UN is supporting the creation of "Virtual Farmers Markets", where an app-based e-commerce platform connects farmer's surplus and buyers demand for crops. And there are significant efforts under way to apply new technologies in peace-making and peacekeeping contexts.

The UN is also supporting or directly participating in a number of intergovernmental or multi-stakeholder mechanisms that aim at sharing information, increasing capacity, exploring new standards or designing new regulatory frameworks. Several instruments, including the recently established Technology Bank for Least Developed Countries have been established to promote the use of technology to realize the SDGs. And various UN entities are already using new technologies in support of mandate delivery, including through innovation labs.

More is needed however. Collectively, the UN system needs to seize the urgency of the moment, to meet the risks as well as the opportunities. Without a more deliberate, organized, coherent and ambitious approach across the UN system, we risk providing insufficient support to Member States and other stakeholders to effectively address the international policy, normative and capacity challenges now upon us.

Building on work undertaken across the Organization and the outcomes of the September 2017 High Level Committee on Programmes and the November 2017 Session of the UN Chief Executives Board for Coordination, this call for action aims at enhancing our internal capacity and credibility to effectively support the engagement of all actors in ensuring that new technologies benefit all, while minimizing social, economic and security risks.

1.1 PRINCIPLES GUIDING UN ENGAGEMENT

What is evident with these technological advances, their potential and their risks, is the requirement for us to operate differently.

Based on consultations across the UN system I have identified five elements to guide our efforts to strengthen the UN system's engagement with new technologies, in the years ahead.
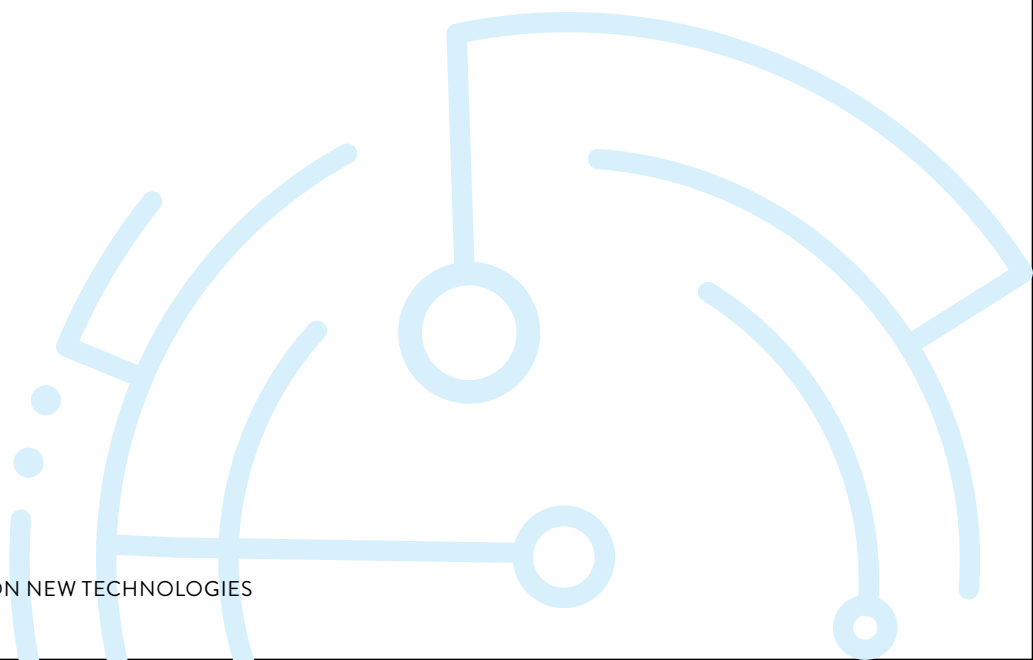
1. Protect and promote global values: UN engagement with new technologies and the policy issues they raise will be anchored in the values and obligations defined by the Charter of the United Nations, the Universal Declaration of Human Rights, and the realization of the Sustainable Development Goals. At the heart of these standards are values such as equality and equity. These should be our guiding principles in everything we do involving new technologies.

2. Foster inclusion and transparency: Our engagement must ensure that United Nations remains a trusted venue for governments, industry, academia, civil society and others to come together and make collective choices about new technologies in an open, transparent way, and based on shared values. We must become more open to new ideas and new voices, which challenge our institutional reflexes for business as usual and allow the UN to credibly engage with partners. This will include a significant role for youth, who have a unique interest in these choices, building on the work of the UN Youth Envoy.

3. Work in partnership: Effective engagement on new technologies clearly requires close partnership with a range of government, industry, academic and civil society partners. This is especially true for new technologies as the private sector is driving much of the progress.

4. Build on existing capabilities and mandates: Engagement with new technologies should be seen as a necessary component of successful mandate implementation—not a new mandate. To do

this, we must add to and reinforce the significant efforts currently underway across the system alongside ongoing reform efforts.

5. Be humble and continue to learn: For many in industry, some in civil society and some governments, the UN is not an obvious interlocutor on emerging technologies. As we step up our collective engagement and even as we must remind all actors of their shared commitments and obligations, we must be prepared to acknowledge what we do not know everything in this complex field, and to incentivize an innovative culture in which both successes and failures from exposure to new technologies are a source of learning and a guide to our contribution to policy dialogues. For that reason, as I explain further in the final section, this strategy will remain a living document, and will evolve over time as we learn about how we can best engage with technology and support Member States' technological transformations.

1.2 STRATEGIC COMMITMENTS FOR 2018-2019

Building on the numerous efforts and initiatives undertaken by many parts of the UN, especially those taken at the country level, the strategy identifies four strategic commitments on my part and on the part of other UN system leaders. These combine elements of external engagement and support with internal measures intended to upgrade our knowledge of and engagement with new technologies and foster a system of learning, innovation and entrepreneurship.

COMMITMENT 1: DEEPENING THE UN'S INTERNAL CAPACITIES AND EXPOSURE TO NEW TECHNOLOGIES

Many parts of the UN system have already embraced the operational and tactical challenges posed by new technologies. Several UN agencies and departments are using machine learning, robotics, and computational sciences, to deliver on their mandates, and to become more efficient in doing so. Yet certain parts of the system still function as a 20th century institution trying to solve 21st century problems.

In 2018, upgrading our collective understanding of, and exposure to, new technologies must be a priority. It is the fastest and most effective way for the UN system to engage with governments, industry and civil society actors in their own technological transformations.

To this end, I will ask the UN leadership to encourage initiatives at all levels and with all staff designed to deepen our understanding of new technologies and their impact on individual and entity wide mandates, how these technologies can be used to support mandate delivery and what we can all learn from them. In this regard, the UN will seek ways to enhance training for staff to develop technical skills and expertise on innovation and new technologies, including through reciprocal staff exchanges, and explore ways to increase and accelerate recruitment of people at various levels

with the requisite technological and digital literacy.

To further support the Organization's learning, the UN System Chief Executives Board for Coordination (CEB) has committed to accelerating "deep-dive" analytical work on the impacts of new technologies, as a basis for scaling up its collective support to the SDGs. In 2018, the High-Level Committee on Programmes (HLCP) will, among others, explore the future landscapes of employment and food security, two of the critical areas likely to be profoundly disrupted by technological and scientific advancements. These analytical efforts will need to be made available to all staff, and I will further incentivize a culture of cutting-edge knowledge dissemination across the Organization. This will include holding senior managers to account to ensure their engagement with and adoption of new technology solutions to fulfill their mandates.

To assist with these efforts, I have established an EOSG Innovation Lab. The goal of the lab is to promote and support innovation across the Secretariat, share best practices, and support efforts in the System to help incentivize and scale up existing and future innovative solutions for SDG acceleration. The EOSG Innovation Lab will also be tasked with organizing regular, thought-provoking exchanges between the Organization and outside innovators and technology pioneers. The lab is not set-up to coordinate innovation by UN entities but rather to support ongoing initiatives and provide an opportunity to scale up, where relevant.

I am also calling for further support to the UN Innovation Network (UNIN); building on its work on frontier technologies such as Blockchain and Artificial Intelligence, and data innovation, the UNIN will be expanded to support innovation within UN organizations (e.g. funding, procurement, partnerships) and to advise the CEB on the means to further promote the use of new technologies across the Organization.

COMMITMENT 2: INCREASING UNDERSTANDING, ADVOCACY AND DIALOGUE

While we must be humble in recognizing the limits of our own knowledge and potential impact, we must also acknowledge and be prepared to use the unique comparative advantages of the UN system. One of these is the Organization's unique global convening power, which we should leverage to continuously advocate for new technologies to be used in a manner that conforms to our shared global values.

In the coming months I intend to call global attention to the collective questions that technological innovation is compelling us to face. Through increased consultations, outreach, and public addresses, I wish to encourage UN, government, industry, academic, civil society leaders to adequately prepare for the transformational impact of new technologies; for example, the impact of automation on jobs, or the ethical implications of recent advances in synthetic biology or geo-engineering.

The collective questions that we need to answer are centered on values, benefits and cooperation. First, how can we ensure that new technologies are anchored in the values of the UN Charter and the Universal Declaration of Human Rights? I want to encourage ongoing discussions with our partners in the private and public sectors from a rights-based, ethical, and transparent perspective as they relate to the design and use of new and complex algorithms, autonomous technologies, data and cybernetworks.

Second, how can we ensure that the benefits of these new technologies are promoted while ensuring that the risks are mitigated? For example, how do we support those who lose their jobs to new technology, and at the larger social level, how do we ensure that shifts in power based on these new technologies do not threaten international peace and security or the enjoyment of human rights?

Third, how can the United Nations work with Member States to ensure that inequality does not increase further, especially when we see that these technologies are developing mostly in a small

set of countries and among a small set of organizations?

The imperative to "Leave no one behind" is just as relevant in the digital world.

In my commitment to regularly gathering diverse perspectives on the benefits and risks of new technologies, I am committed to listening to youth in particular about how they want to see new technologies developed and used. I will work with the UN Young Leaders group to raise awareness and harness their energy, capacities and ideas to inform policy dialogues.

I will explore, with the UN senior leadership how to further increase UN support to women entrepreneurs in technology fields, and how to increase their participation in UN forums where new technology related issues are being addressed.

Through new technologies, I also want to transform the way the UN communicates and interacts with the external world. While we have made important successes in using social media and strengthening our digital presence, we recognize the need for constant change if we are to remain relevant and not only maintain, but enhance our ability to reach people around the world on platforms they use and in languages that they understand.

Finally, to facilitate meaningful interactions between the UN system and the technology industry, I may consider appointing a Technology Envoy following the work of the High-Level Panel on Digital Cooperation.

COMMITMENT 3: SUPPORTING DIALOGUE ON NORMATIVE AND COOPERATION FRAMEWORKS

The UN is often viewed as a trusted platform where stakeholders can share their concerns and build trust and confidence. Yet, we urgently need to strengthen and take forward the normative and cooperation frameworks governing existing technologies as potentially bigger challenges from the risks posed by new or emerging technologies become more evident. Much broader public discussion

and strengthened coordination and co-operation are needed within and across societies on the current direction of technologically driven change and desired outcomes, and on the values and principles that should underpin that journey.

I will launch a High-Level Panel of leaders from the public, private and civic sectors to offer independent recommendations on how to ensure a constructive use of digital technology now and into the future. Without prejudging the outcome of the Panel's work, its deliberations could include models of co-operation and the promotion of synergies between existing initiatives.

I will increase the UN's engagement with existing instruments relating to international peace and security to encourage progress, including on implementing norms already agreed or recommended, identify capacity and related gaps hindering implementation, and support Member States in identifying how such gaps can be overcome. In this regard, I will consult with a number of actors to determine how the United Nations system can serve as a platform for engagement on emerging technology-related issues that risk posing a threat to international peace and security, but which are not covered by existing instruments or processes.

I will also direct the relevant UN entities to explore how to further support established initiatives, including efforts to meet the recommendations of World Summit on Information Society (WSIS)+10 and GA Resolution 70/125 and 72/242, and to examine how established mechanisms for dialogue and multi-stakeholder mechanisms, such as the Internet Governance Forum, can be further leveraged.

I will encourage greater analysis of/reporting on current technology-related normative processes and initiatives across the UN's international peace and security, humanitarian, human rights and development work, highlighting where progress on implementation has been made, where challenges lie, and how those challenges are being addressed.

COMMITMENT 4: ENHANCING UN SYSTEM SUPPORT TO GOVERNMENT CAPACITY DEVELOPMENT

For collective choices about those technologies to be sustainable, all significantly affected stakeholders must be at the table and equipped to contribute. But current capacity gaps between Member States are creating anxiety and concern. They undermine efforts to build consensus and agree on solutions that all would deem fair, and that all could implement. This puts the social license of emerging technologies at risk. Some UN entities are already engaged in providing capacity support to Member States. These efforts must be accelerated.

The UN leadership will accelerate efforts to ensure equal and meaningful Member State access to UN information-sharing, awareness raising and knowledge dissemination on the impact of new technologies globally, through UN Country Teams and Regional Commissions and through UN offices in New York, Geneva, and Vienna.

On the basis of a thorough stocktaking of UN capacities and results to date, I will explore joint opportunities for integrated UN capacity-building support to Member States on policy and national legislation development. At the country level, UN Country Teams will explore ways to increase support for the design and implementation national technology strategies, including on ICT emergency response systems. I will request that teams on the ground make full use of the Organization's capacity to provide analysis, design policy options, and connect governments with other actors regionally and internationally. The commitments under this strategy will use existing means and mechanisms of oversight and reporting.

2. OVERSIGHT AND MONITORING

In line with the efforts to reform the UN development system to make it more flexible and responsive at the country level, initiatives at the country level should be integrated into the work of our UN Country Teams and reflected in the existing planning and reporting processes where appropriate. At the global level, regular stocktaking of our adherence to the commitments stated in this strategy will be undertaken through the Executive Committee. The CEB will also play an important role in providing guidance to system wide efforts in line with this strategy, and serve as a platform for updates from all entities on efforts made in promoting responsible innovation and the use of new technologies.

The Strategic Planning and Monitoring Unit in my Executive Office, under the leadership of the ASG for Strategic Coordination will coordinate the implementation of the strategy, and support Executive Committee discussions. It will be supported by a small New Technology Reference Group, which has played an integral part in the design of this strategy. To ensure that new technology innovation at the country level is filtering up to the Secretariat, I will organize a quarterly meeting on new technology and innovation where country offices can directly present new projects to the UN leadership, explaining how they are using new technology to fulfill their mandates and how they are mitigating related risks.

Finally, this strategy is meant to be iterative and forward leaning. As we learn what is working and what is not, we will revisit the strategy and update it, ensuring its relevance to support a culture of innovation, and that our global efforts are benefitting from experiences at the country and regional levels.

To this end, my Office, with DPI, OICT and the New Technology Reference Group, will work with the UN University to establish a digital participatory platform. This platform will gather feedback and insights from a wide array of actors on how the UN can better engage with them and with new technologies. We will make periodic adjustments to the approach described in this document to best support Member States and the peoples across the globe.