Joint Meeting of the United Nations General Assembly Second Committee and the Economic and Social Council

11 October 2017 – United Nations, New York

The future of Everything – Sustainable Development in the Age of Rapid Technological Change

CONCEPT NOTE

Introduction

The General Assembly Second Committee and the Economic and Social Council will hold a joint meeting on 11 October 2017. The joint meeting will engage in an open, multi-disciplinary discussion on *"The future of everything – sustainable development in the age of rapid technological change."* The meeting will seek to analyse the key trends that have been observed in technology and innovation in recent years, with differentiated impacts on people and prosperity. It will also aim to review how multilateral institutions, particularly the United Nations, should respond to the potential effects of scientific and technological progress. It will particularly focus on identifying options to harness the potential of technological change to achieve sustainable development. It will analyse the potential risks and benefits of technological advancements, and focus on what policy approaches are required to ensure that no one is left behind in an age of rapid technological change.

Context

The future will no longer be what we once thought. It is widely acknowledged that the pace and breadth of technological change is intensifying. In the year 2030, when the Sustainable Development Goals embedded in the 2030 Agenda for Sustainable Development are to be met, the world will have undergone a period of deep changes with regards to the design of many day-to-day human interactions. Already, examples of how technological innovation has changed our daily lives are omnipresent. In a very short time span, cell phones have become indispensable parts of daily routines of billions of people. Facilitating navigation, banking transactions, and social networking, new technologies have changed human behaviour and informal norms.

In industrial processes, ever-more complex operations are being taken over by robotized plants, with human intervention confined to design, control, and quality analysis. The rapid growth in large datasets, as well as the capacity to store and analyse big data, is having a deep impact on our economies and societies at large. Ubiquitous computing, facilitated by advances in the Internet of Things, in combination with 5G, big data, and nanotech, among others, will be the key drivers for change. Moving to "new frontiers", self-driving cars and service robots are no longer fiction. While

improved algorithms have spurred progress in artificial intelligence, the consequences of the latter for human interactions in all aspects of life have only started to be felt. We may truly be at the beginning of what has been referred to as the 'Fourth Industrial Revolution'[1].

For the global workforce, there are negative and positive aspects to these profound changes underway in technology, while some of their effects are yet unknown. It has been estimated that over a billion jobs are "automatable" with the use of current technologies, and the emergence of 3-D printing has the potential to disrupt and revolutionize existing production patterns. Innovation and technological advances will act as catalysts for the transformation of the global economy, and societies at large in the upcoming decades.

In other areas, technological innovation is continuing to helping increase the productivity of arable land, offering solutions for climate-smart agriculture, as well as for agro-based industrial development to foster food security. Progress in medical research to cure diseases and to design personalized treatments for patients is also promising.

In many of these areas, ethical questions arise, questioning how technological advancements which, if not addressed, risk to undermine existing societal norms. Similarly, the challenge of cybersecurity and the increasing use of drones reveal the need to shape new policies and regulations to provide frameworks for the transparent use of big data and artificial intelligence.

However, public response is lagging technological progress. Governments are widely seen as being behind the curve on many of these technological changes. Yet, they are required to partner with industries, academia and civil society to ensure that technology, including artificial intelligence, develops in a transparent, ethical and responsible manner that leaves no one behind and promotes resilience for their workforce and societies.[2]

The role of 'technology foresight' has been highlighted as a tool for policy planning in assessing the potential impact of emerging digital developments on societies. In the current context of globalization, competition and sweeping technological progress, using technology foresight methodologies can be instrumental for countries to detect opportunities for future technological and productive specialization to catch up, leapfrog and forge ahead.[3]

If the scalable power of technology can be leveraged in an inclusive manner, it has the potential to accelerate progress across the SDGs, building on data as this generation's natural resource. Whether artificial intelligence and the Internet of Things constitute effective tools for achieving the 2030 Agenda will depend, however, on providing opportunities to all, including people living in vulnerable situations, and on devising effective ways to mitigate the challenges and risks associated with these

[1] Klaus Schwab, The Fourth Industrial Revolution: what it means, how to respond. http://bit.ly/1pBfye4
[2] See presentations by Mr Thomas Friedman and others at the Joint Meeting of the Second Committee and ECOSOC, 7 October 2016. http://bit.ly/2gcenTy
[3] See the work of the Commission on Science and Technology for Development, and the report of the Secretary-General, "Foresight for digital development" at the Commission's nineteenth session (E/CN.16/2016/3). See also the CSTD Issues Paper on "Foresight for Digital Development" and Foresight into the Future of WIPO's Development Agenda, World Intellectual Property Organization Journal, Vol. 1, No. 2, 2010.

technologies. Looking to the future, whatever progress is made in the "Fourth Industrial Revolution", it will be different from the past experiences.

Key issues

Against this backdrop, the joint meeting will focus on the following key issues:

- As technological changes are of transnational nature, it will be impossible for a single country alone to effectively address these challenges. At the same time, the rapid pace of change requires a pro-active approach to anticipate the developments ahead and to devise potential solutions collectively. How can both intended and unintended consequences of technology and innovation be more efficiently identified and addressed at the national, regional and global levels?
- The benefits of technological change and innovation to all people are far from clear. Its impact on poverty, hunger, and inequality have yet to be proven. How can equitable sharing of the burdens and benefits of technological change truly be achieved? What policy approaches will truly ensure that no one is left behind from the benefits of innovation?
- Multi-stakeholder approaches can bring together governments, the private sector and civil society to elaborate integrated, transparent and regulatory frameworks. At the global level, lessons can be drawn from the ITU "Artificial Intelligence for Good" Summit convened in Geneva in June 2017, which aimed at exploring how frontier technologies can advance and democratize AI solutions through offering a neutral multi-stakeholder platform. How can new technologies be used as a catalyst for achieving the 2030 Agenda, without exacerbating inequalities? What are options to better manage and mitigate risks of technological innovation? How can the role of emerging digital developments be assessed, and their potential contribution towards the implementation of the SDGs be leveraged through 'technology foresight' at the national, regional and global levels?
- Governments, and multilateral organizations, need to reflect on new forms of collaboration and multilateralism in view of technological change. How should the United Nations respond to the potential effects of innovation and technological change, including through its Commission on Science and Technology for Development? How can multilateral platforms be used to create benefits for all? What policy approaches and institutional capacities are needed for the UN to support countries to tap into the potential of innovation?

Expected outcomes for the discussions

The discussions will aim at identifying the normative and operational means required at the global level to address the opportunities and threats associated with technological advances through multilateral entities. Proposals will be made for national policy makers on how to effectively address the intended and unintended consequences of progress in science and technology, including through exchange of best practices and multi-stakeholder partnerships, and ideas for institutional initiatives.

Format

The joint meeting will take the form of a three-hour expert panel presentation and interactive discussion. Presenters will be drawn from Government, academia, the private sector, and civil society. The meeting will be chaired jointly by the President of the Council and the Chair of the Second Committee. It will be moderated by an experienced and well-known expert journalist.

The joint meeting will be supported by Office for ECOSOC Support and Coordination of DESA. Feedback has been received from ITU, WIPO, UNCTAD and UNESCO, as well as other DESA Divisions. Key institutional and other stakeholders in the areas of technology, innovation as well as trade and investment will be invited to provide inputs for the substantive preparation of the meeting.

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19 September 2017