Remarks by Mr. Peter Major, Chair of the CSTD

Session 5, STI Forum (virtual), 5 May, 2021

Excellencies,

Ladies and gentlemen,

In my capacity as chairperson of the twenty-fourth session of the Commission on Science and Technology for Development (CSTD), I am pleased to highlight the important contribution of our commission in analyzing the sustainable development implications of frontier technologies.

The CSTD has a long track record of addressing the implications of a broad range of frontier technologies for the achievement of the SDGs.

As an example, the critical role of frontier technologies in addressing health issues and accelerating progress towards SDG 3, which is one of the priority themes on the agenda of this year's CSTD session, has been vividly brought to light in the context of the COVID-19 pandemic. From the use of artificial intelligence for contact tracing, telemedicine, and disease monitoring; to the application of genome sequencing for the development of vaccines; frontier technologies have been key weaponries against the virus.

The other priority themes for this year's CSTD is on *Harnessing blockchain for sustainable development: prospects and challenges.* This is a frontier technology which development potential still needs to be fully understood and harnessed. In the CSTD we have discussed examples of blockchain being implemented to contribute to the SDGs, both in developed and developing countries.

Allow me to share three of these with you:

For SDG 2.1 to end hunger and ensure access by all people, particularly the poor and people in vulnerable situations – The World Food Programme has created the "Building Blocks" voucher delivery platform to simplify voucher transactions by removing the need to create virtual custodial accounts with financial services providers. The initiative benefited 700,000 people in 2020.

For SDG 6.4 to increase water use efficiency and ensure freshwater supplies – The Government of the State of New South Wales in Australia has built a proof-of-

concept that uses blockchain technology to make the water trading system more reliable, transparent, and efficient to manage.

For SDG 10.3 to ensure equal opportunity – The United Nations Children's Fund (UNICEF) *Project Connect* is a blockchain technology-based platform to map every school in the world and each school's connectivity, which provides real-time data on the quality of each school's Internet connectivity.

Our Commission also highlights several challenges that need to be overcome to ensure that blockchain contributes to sustainable development.

One hope was that cryptocurrencies could increase financial inclusion. Currently, however, ownership of cryptocurrencies is highly concentrated; 95% of bitcoins are held by only 3% of all bitcoin addresses.

Another concern is the high energy consumption of blockchain technology. Bitcoin alone, was consuming as much energy as Switzerland, according to some 2019 estimates. Other challenges of blockchain include the appeal of cryptocurrency for criminal activities, privacy concerns and the development of adequate regulatory frameworks.

Overall, frontier technologies in health, finance or other sectors have great promise to support sustainable development. But they can also generate several unplanned risks, with implications for the resilience of social, cultural, and political institutions. These need to be tempered and controlled as much as possible.

For example, "infodemics" – the overabundance of inaccurate health information online – can make it difficult to access trustworthy and reliable guidance on the COVID-19 pandemic. In blockchain, cryptocurrencies raise a growing need to prevent systemic risk from speculative activities that create asset bubbles.

Ladies and gentlemen,

In the context of the progress made in the implementation and follow-up to the outcomes of the World Summit on the Information Society (WSIS) at the regional and international levels, our Commission continues to monitor recent trends in critical areas related to the digital economy.

The CSTD has been raising the concern that the digital divide is fast becoming a development divide. This pandemic has demonstrated this reality. While for people with good digital access, the Internet has been a lifeline at a time of repeated lockdowns, for almost half the world's population who lack that access the economic and social costs of lockdowns have been far worse.

The Commission has also highlighted issues of rights, duties and ethics for digital technologies. Information about individuals is now gathered in the digital space and held by private corporations. Public concern has grown about the intrusiveness and potential impact of such data gathering, the risk of surveillance and the increasing use of algorithms to automate decisions that affect our lives. This concern has led to regulatory interventions such as the European Union's General Data Protection Regulation and to a proliferation of proposed normative frameworks for the deployment and use of digital technologies.

Digital technologies are setting the stage for an increasingly complex and diverse information society. We need a global, inclusive and holistic discourse about the multi-dimensional impacts of these technologies on the noble vision of WSIS of a "people-centred information society". As never before, there is an urgent need for all actors in the digital space to cooperate and act together.

The CSTD also noted that policy directionality is needed to ensure that the fruits of technological change can be reaped by many people, without leaving behind those that currently feel marginalized.

One prospect is that grassroots social activism can be mobilized as a positive force in steering the trajectory of technological advances towards equitable outcomes. A movement, driven by citizens, supported by civil society organizations, can lobby governments to ensure that they, along with big tech corporations and innovators, adopt a more human-centered technology agenda that addresses the needs of all people in every country, with a view to reversing the trend of growing inequality.

In conclusion, the role of frontier technologies in addressing sustainable development issues is unquestionable. But positive outcomes can not be taken for granted. Proactive policy is need to ensure that their benefits can be maximized, and their risks can be mitigated.

Our Commission calls for the international community to actively promote an inclusive global dialogue on all aspects of frontier technologies and their impact on society, including the ethical and normative dimensions.

All countries will be affected by technological change, but not all have an equal voice in ensuring these changes will ultimately be a game-changer for their people's lives.

The Commission on Science and Technology for Development (CSTD), offers a platform for this urgent dialogue, and a place where countries have an equal voice in it.