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Remarks

Presentation of IATT report and update on the TFM findings on the impact of rapid technology change
on the achievement of the SDGs
6 May 2022 , 1:15 – 2:10 p.m., via Zoom

Co-Chairs, Excellencies, Distinguished Delegates, Ladies and Gentlemen,

First of all, I would like to thank the Secretary General's 10-Member-Group, the Interagency Task Team, and all engaged TFM partners for their efforts.

It is an honour to present to you today updated "TFM findings on the impact of rapid technological change on the achievement of the SDGs".

These findings represent a collaborative, multi-stakeholder achievement, based on cumulative learning for years. Scientists and engineers from academia, NGOs, private sector and the UN system have contributed, including through virtual meetings and policy briefs.

This year, many science-policy briefs were received. 64 of them passed the peer-review process and have been included in the 2022 report of the interagency task team on "Emerging science, frontier technologies, and the SDGs."

I would like to especially thank colleagues from DESA, UNCTAD, ECE, ESCWA, ESCAP, ITU, ILO, UNEP, UNIDO, UNESCO, UNU, WFP, UN OOSA, UNDP, WIPO, and World Bank for their very substantial contributions.

Work stream 10 of the interagency task team spearheaded these efforts, bringing together lead authors from relevant flagship publications across the UN system.

Ladies and Gentlemen, a little history to help us put things in context.

Three years ago, this Forum celebrated rapid technological change and its potential for accelerating progress towards the SDGs. It looked at the wider societal and development impacts of emerging technologies and how to make institutions "fit" for rapid change.

However, we experienced multiple shocks and crises in these last two years, that have not only set-back the world in its progress towards sustainable development; They also served as a painful stress test.

COVID-19 provided a reality test for visions of digital and AI-driven societies. While it showed new ways for speeding up innovation and changing behaviours, it also left behind billions of people in all countries – after all, almost 3 billion people remain unconnected.

Last year, the task team called for replicating the massive drive for COVID vaccines also for the 20 neglected tropical diseases which continue to affect one billion people.

It is clear: our collective efforts on science, technology and innovation for sustainable development are more important than ever.

Let me briefly recap some of this year's TFM findings.

First, the 2019 and 2021 TFM findings remain valid, but new elements are necessary.

Second, there are critical institutional gaps to be filled to support modern innovation systems. Among others, proposals have been put forward for the creation of a network of banks of ideas and funds for innovation, led by autonomous, ethical councils, as well as for a network of impact entrepreneurs and for advisory services.

A third finding, many existing engineering codes and standards are not adequate to address a changing climate. The global engineering profession should review and update them and scale up capacity building. The UN might want to consider formally recognizing the role of engineering standards for the SDGs.

Fourthly, the next high-tech waves emerging from basic research labs are rapidly remaking development models. Much greater funding is needed for basic research and university-industry collaboration. Large corporations are increasingly in the lead. International "innovation cooperation" initiatives are needed to support joint demonstration projects by companies and public institutions.

A fifth point: entirely new products and services with new characteristics are emerging that require specific regulatory and policy solutions. For example, "deep neural networks" now surpass human cognitive capabilities in narrow tasks. Unbeknownst to many, narrow AI has become ubiquitous in many countries, but billions remain excluded from its benefits.

In this regard, scientists need to develop accessible scenarios and define long-term goals to support global policy making. At the UN level, recent UNESCO recommendations, on the ethics of artificial intelligence, and on open science, are very notable. Some even argue for a new "manifesto" for science, technology and innovation.

Sixth, a major international effort is proposed to deploy and synthesize technology and scientific data for providing a real-time, global picture in support of decision-making on climate change, SDGs and human rights. This needs to include accessible, trustworthy information on

the “break even” points for popular technologies. It could include sustainability footprint calculators bringing together everything we know from assessments of the “true costs” of technologies.

Finally, many of the science-policy briefs propose policy action related to specific technologies. Let me name a few examples: access to TinyML as a low-power, low-cost technology; molecular pharming; the metaverse; integrated advanced oxidation for water sanitation; modular 3D printing construction; cement recycling; bioplastics from urbanwaste; certified biodegradable materials; hydrometallurgy and recycling of electric vehicle batteries; urban food forests and aquaponics; cooling gaps; bladeless wind power; recycling of face masks; electrification and hydrogen for attaining carbon neutrality; and much more.

Ladies and gentlemen,

The deep transformations required for the SDGs can only be achieved with rapid scientific and technological change. It is up to us to steer that change into the right direction and minimize potential risks.

Going forward, the TFM findings point to areas for the work of the interagency task team and all its interested partners, in order to add value and advance understanding in support of decision-making.

Let us continue this collaboration – across disciplines, stakeholder groups and national borders – towards a prosperous and sustainable future for all people and our planet.

Thank you all.
