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Contribution by UNESCO

to the CSTD 2019-2020 priority theme on "Harnessing rapid technological change for inclusive and sustainable development"

The CSTD secretariat is in the process of drafting an issues paper on the theme to be presented at the CSTD inter-sessional panel meeting. This paper will serve as the basis for the UN SG Report on the same topic that will be presented at the 23rd session of the CSTD in March 2020. In this context, we would like to solicit inputs from the UN System on this theme. We would be grateful if you could kindly answer the following questions based on your experience from your Agency.

PRIORITY THEME 1: Harnessing rapid technological change for inclusive and sustainable development

We live in a time of growing prosperity alongside growing concerns about inequality. Recent developments in frontier technologies (e.g. AI, robotics, big data, blockchain, space technologies, biotechnology, and nanotechnology) have shown tremendous potential for making development truly sustainable, but they also have raised fears of increasing disparities by worsening and creating new divides between the technology-haves and have-nots. This priority theme will critically examine how to make frontier technologies work for all. The analysis will explore the potential of frontier technologies to improve inclusiveness not only in terms of income, gender, various age groups, people with special needs or other groups facing specific challenges, but also to improve the situation of small economies including Least Developing Countries, Landlocked Developing Countries, and Small Island Developing States. The analysis will focus on the strategies, policies and immediate actions at national and international levels for creating an environment for harnessing frontier technologies to ensure that no one is left behind.

1. Can you prove examples of initiatives of your Agency for creating national ecosystems for innovation on frontier technologies for inclusive and sustainable development? What are the most effective ways to support the improvement of skill levels and better match the supply and demand of skills? What is the role of the government in facilitating a fair relation between workers and employers in the digital economy? What are the current options and lessons learned from policies to protect people affected by rapid changes in labour markets (e.g. greater benefits for those whose jobs are destroyed, retraining, federal job guarantee)? What is the role of redistributive policies to ensure that no one is left behind in a world of rapid technological change?

UNESCO is accompanying Member States for the development and implementation of inclusive STI policies, as well as training for policy-makers to strengthen their capacities in inclusive policy-making and implementation. Guidelines and methodologies have been developed for Member States, such as GOSPIN, SAGA, as well as the Guidebook, jointly elaborated with UN agencies and international partners, on STI for SDGs roadmaps. Iclusiveness and gender equality are key concepts taken into account in the policy-making tools. UNESCO is cooperating also with the UN Technology Bank for the LDCs to address these countries' specific needs and challenges related to STI.

2. Can you provide examples of STI policies/projects/initiatives intended to promote and give directionality to technological change to make it work for inclusive and sustainable development? Are there policies/projects/initiatives that mitigate the potential negative effects of rapid technological change on inequality? Are there any of these policies/projects/initiatives directed to women, youth, people with special needs or other groups facing specific challenges? How have the policies targeted inequalities? What are the challenges confronted in implementing these policies/projects/initiatives?

As mentioned above, UNESCO has developed methodolodologies for inclusive and gender-transformative policy-making. Such projects include the SAGA (gender advancement in STEM) and Global Observatory on STI policy instruments (GO-SPIN) which propose tools to assess and indetify gaps in terms of lack of inclusive policies and actions, as well as gender equality gaps and barriers, due also to rapid technological changes. With SAGA, eight countries have assessed the gender inequality in STEM and some pilot countries have adjusted their STI

policies by introducing specific gender measures in their STI policies (ex. Argentina, Gambia, Province of Quebec, Sudan and Uruguay). With GOSPIN, UNESCO has mapped existing policy instruments that promote traditional and indigenous knowledge, women and youth in STI in various countries (ex. Traditional medicine in Guatemala, Inclusive policies for women, youth and vulnureble groups and legislation on tranditional knowledge in Botswana).

3. Can you provide examples of innovative initiatives in partnership with (or by) the private sector in/from your country that harnesses frontier technologies for inclusive and sustainable development? What are the innovations in terms of the use of technology? What are the innovations in terms of business models?

4. What are the actions that the international community, including the CSTD and STI Forum, can take to contribute to maximize the benefits associated to rapid technological change and mitigate the risk of these technologies widening or creating new inequalities within and across countries? Can you give any success stories in this regard?

Within the framework of the Technology Faciliation Mechnism (TFM), the UN-Inter Agency Task Team (IATT) workstream on STI for SDGs roadmaps developed a Guidebook for the preparation of STI roadmaps and launched in 2019 the Global Pilot Programme on STI roadmaps. The programme aims among other objectives to explore pathways that maximize opportunities and mitigate risks of STI and frontier technologies to accelerate the achievement of the SDGs in countries undertake roadmaps development.

5. Could you suggest some contact persons responsible for policies related to rapid technological change and its impact inequality as well as any experts from your Agency, academia, private sector, civil society or government dealing with projects in this area? We might contact them directly for further inputs or invite some of them as speakers for the CSTD inter-sessional panel and annual session.

6. Do you have any documentation, references, or reports on the specific examples on the priority theme in your country or region?