INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

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Contribution of Latvia

to the CSTD 2018-19 priority theme on 'The impact of rapid technological change on sustainable development'

1. From the perspective of your country/region what are the key emerging technologies and their current and potential applications that could give an opportunity to solve great societal challenges and achieve the SDGs in your country or region?

In the context of sustainable development, resource efficiency/life cycle approach and energy efficiency are the key areas where technologies provide solutions to achieve the 17 sustainable development goals (SDG), with particular emphasis on SDGs 8, 9, 12, 14 and 15.

Data driven concept, which envisages democratization of data (both in terms of data access and use); data based involvement of society in public management processes and data and technology based innovation advancement and commercialization will particularly promote the achievement of the SDGs 8 and 9.

Artificial intelligence and big data would make a significant contribution to the SDGs 3, 4,8,9,11,16.
Blockchain technologies to SDGs 3,7,8,9,11,12,13,14,15,16.
Material science (intelligent food contact materials, composites, polymers, etc.), nanotechnologies, 3D and 4D printing to SDGs 2,3,6,7,8,9,11,12,13,14,15.
Mechatronics and robotics to SDGs 1,2,3,4,8,11.
Virtual reality, the augmented reality to SDGs 4, 8,9,11.
Quantum computing to SDGs 3, 8, 9.
Living and inanimate cellular convergence, synthetic biology, genetics, bionics, bioengineering to SDGs 1, 2, 3,6,8,9,13,14,15.
Thermonuclear synthesis to SDGs 1,2,8,9,11,12,13.

2. Can you provide examples of policies/projects/initiatives that promote rapid technological change in your country/region and mitigate their potential negative effects? Are there any of these policies/projects/initiatives directed to women, youth or other groups of the society? How have the policies targeted inequalities? What are the challenges confronted in implementing these projects?

The introduction of the principles of green procurement to public procurement promotes the utilization of environmentally-friendly, innovative and sustainable technologies in the manufacture of goods. In Latvia green public procurement is encouraged by the regulatory framework: the Public Procurement Law and, in particular, the Cabinet of Ministers Regulation on Requirements for Green Public Procurement and Procedures for Application that establish requirements and criteria to certain groups of products and services, based on innovative and environmentally-friendly technological solutions and approaches. Application of the principles of green public procurement to the projects channeled to the EU Structural Funds financing, allows to earn additional (bonus) points in the project evaluation. The application of these principles is aimed at all the societal groups. The greatest challenge for the introduction of green procurement principles in public procurement is the concerns raised by procurement agents about the increased complexity and expenses, however, in this context it is essential to evaluate the product life cycle costs in their entirety.

The portal ManaBalss.lv (My voice) is a public initiative platform where every citizen of Latvia who has attained the age of 16 can place an initiative and gather signatures for further submission it to the Parliament (Saeima). When the initiative reaches 10 000 signatures it is submitted to the Saeima for consideration. Initiatives with a smaller, undetermined number of signatures may be submitted to any of Latvia's municipalities,

thus influencing the policy implementation. The ManaBalss.lv initiative allows for a broader community involvement in the national decision making process, ensuring the possibility to exert real impact on the decision making in a relatively short period of time. In addition the platform informs the public about the needs of different segments of society, and involves the whole of society in addressing these needs.

3. What are the actions that the international community, including the CSTD, can take to contribute to maximize the benefits and mitigate the risk associated to rapid technological change? Can you give any success stories in this regard from your country or region?

Elaboration of internationally recognized and scientifically justified requirements and criteria as well as conformity checks of the goods and services that provide the highest contribution to environmental protection and climate change mitigation, in turn promotes the development of technologies and innovative approaches to the production of the goods corresponding to these requirements and criteria. The exposure of goods and services qualifying for the objective green procurement criteria expands accordingly. This allows to reduce the risks associated with untested technologies entering the market. Substantial contributions to the interpretative work (through guidelines and seminars) are crucial in order to ensure that professionals get the opportunity to appreciate and apply this approach in their daily work. The requirements and criteria established in the legislation of Latvia based on the guidelines elaborated by the EU Joint Research Centre and approved by the European Commission provide a good practice example of the ways to promote the development of innovative and environmentally sound technologies as well as to implement the target 12.7 (SDG 12) through legally binding requirements.

Sharing of good practices allows to provide additional information and knowledge on the opportunities and solutions in technological development. It provides also additional ideas about the further development and application prospects of technological solutions.

4. Could you suggest some contact persons of the nodal agency responsible for policies related to rapid technological change and its impact on sustainable development as well as any experts (from 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.

Ministry of Environmental Protection and Regional Development is the responsible institution for green public procurement and data driven nation action plan.

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

Addition information about the projects and work accomplished as well as legislation and reports in the area of green public procurement in Latvia can be found at (in English):
http://www.varam.gov.lv/eng/darbibas_veidi/green_public_procurement/
Addition information about data driven nation action plan can be found at:
https://joinup.ec.europa.eu/document/cooperation-data-driven-nation-development-latvia

Riga Technical University Innovation and Technology Transfer Centre:
inovacijas@rtu.lv

Quantum Computing Center at the University of Latvia:
http://home.lu.lv/~df/quantum/