

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

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**CSTD 2019-2020 priority theme on ‘Harnessing rapid technological change for inclusive
and sustainable development’**

Statement submitted by

Thailand

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FINAL INTERVENTION (8 November 2019)
Interactive Discussion on “Harnessing rapid technological change for inclusive and sustainable development”

Mr. Chair (Mr. Kekgonne Edinton Baipoledi)
Deputy Secretary-General of UNCTAD (Ms. Isabella Durant) /
Director, DTL and Head of the CSTD Secretariat, UNCTAD (Ms. Shamika N. Sirimanne)
Excellencies
Distinguished Delegates
Ladies and Gentlemen

First of all, I would like to take this opportunity to thank CSTD and UNCTAD for organising this inter-sessional discussion for us to share and learn from each other on how to harness rapid technological change for inclusive and sustainable development.

Citing the issue paper that achieving the SDGs by 2030 requires filling a funding gap of 2 to 4 trillion US dollars annually, and the Co-Founder and President of leading innovation consultancy Fahrenheit 212, Mark Payne observation that 90% of innovation efforts fail, it is crucial to look into quantifying and increasing the conversion ratio of investment (both public and private) into value created through innovation for inclusive and sustainable development.

This requires integrating the management of technical and market risks, which is two separate fields.

The exploration process of technical and market aspects is often carried out by two separate teams comprising of research team and commercialisation team and the exploration progress is indicated by Technology Readiness Level (TRL) and Investment Readiness Level (IRL) respectively. When the understanding and direction of both technical and market at appropriate readiness levels are appropriately correlated, this exploration process converges to commercialisation and scaling.

This STI management is inter-linked with STI strategy.

At the core of Thailand’s STI strategy is the philosophical principle of a sustainable economy of King Rama IX, which guides the national STI policies to achieve SDGs.

The national STI policies focus on:

1. “People preparedness for the 21st Century”, through initiatives such as
 - a. Science Expo (in 4 regions)
 - b. S&T Caravan (20 schools in provinces nationwide)
 - c. Science Square (Pre-Futurium & Maker space) (1 BKK + 3 regions)
 - d. Coding with Kid-bright electronic programming circuit (100,000 sets, 500 schools)
 - e. Science Contest (Robotics & Maker competition)
 - f. Science School (30 science schools, 900 students)
 - g. Fabrication Lab for STEM@school (150 schools)
2. “Gap reduction”, through initiatives such as:
 - a. One Ampur One Agri-innovator (One District One Agri-innovator)

- b. One Tambon One Product (OTOP) (One Sub-district One Product)
 - c. Tech-based Startups (Innovation Hub)
 - d. Talent Mobility @ Science Park
 - e. Food Fabrication Pilot Plant (Chiang Mai)
3. “Competitiveness”, through initiatives such as:
- a. DentiiScan (which is development of cone-beam CT scanner)
 - b. National Bio Bank
 - c. Herbal Plant Factory
 - d. Eastern Economic Corridor of Innovation (EECi)

Bringing the different aspects of the national STI strategy into a unified model for holistic approach based on Sufficiency Economy Philosophy (SEP) and to achieve SDGs, Thailand developed the Bio-economy – Circular-economy – Green-economy model (BCG model) as an economic model to achieve inclusive and sustainable development.

Based on this BCG model, Thailand will invest with approved budget of 24.6 billion baht in the programme, BCG in Action.

The programme will support generally three areas for four target industries (under S-curves).

The three areas are:

1. For bio-economy, the programme will support STI to increase the efficiency of the production base; and encourage entrepreneurs to manufacture products and services with high added-value or innovation;
2. For circular-economy, the programme will support the development of innovations to design products and production processes to minimize waste (eco-design and zero-waste), promote reuse-refurbish-sharing, and the management of waste from production and consumption; and
3. For green-economy, the programme will support the development of environment friendly innovations.

The four (4) target industries (under S-curves) are:

1. agriculture and food industry;
2. energy and materials industry;
3. health and medical industry; and
4. tourism and service industry.

With equal importance to the STI strategy is the STI management. The Thailand Institute of Science and Technological Research (TISTR) developed their R&D management framework, which consists of:

1. Information compilation of technology, trend, foresight, policy and platform, for analysis to identify priority R&D areas;
2. Technology roadmap (TRM) development of a plan that matches goals with specific technology solutions;
3. Project proposal formulation and selection in consideration of TRM, Technology Readiness Level (TRL) and Business Model Canvas (BMC);
4. Project implementation, monitoring, evaluation with possible termination and assessment of impact;
5. Output management; and

6. Technology licensing and transfer.

Harnessing rapid technological change for inclusive and sustainable development is challenging, and at the same time of utmost importance. We believe that in sharing, cooperation and collaboration, we can learn the best ways to achieve SDGs.

Thank you.

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