Flash Report

Technology for Circular Economy:

A Prologue to the 2021 SWITCH-Asia Leadership Academy

Date: Thursday 25 March 2021 | 15:00-16:30 Beijing Time (GMT)+8

Venue: Online by ZOOM & Bilibili live broadcasting

Disclaimer
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List of Acronyms:

APRSCP	The Asia Pacific Roundtable on Sustainable Consumption and Production
CE	Circular Economy
COVID-19	Coronavirus Disease 2019
EU	The European Union
SCP	Sustainable Consumption and Production
SDGs	Sustainable Development Goals
SWITCH-Asia RPAC	SWITCH-Asia Regional Policy Advocacy Component
UNEP	United Nations Environment Programme

Background:

The EU-funded SWITCH-Asia Programme is supporting the uptake of SCP in Asia. The Regional Policy Advocacy Component implemented by UNEP is responsible for organizing the Leadership Academy which is a milestone of the SWITCH-Asia programme that works closely with selected young professionals from Asia to shift mindsets. Previous academies were organized in 2018 in Bangkok and 2019 in China to introduce the fundamental concept of Circular Economy (CE). In 2020, the Academy dived deep into the aspect of how to communicate circular economy with case studies from both Asia and Europe. This year, the RPAC sees the need to touch base on technology and innovation. Technological advancement across sectors has catalyzed circular business models, driving new processes, new communication channels and new operational efficiencies that promote achievement of circular economy through enabling the decoupling of resource use from economic growth across industries.

In collaboration with Tongji University, SWITCH-Asia RPAC is organizing the Prologue to kick off the 2021 Leadership Academy, with aims to shift mindsets and inspire action on innovative technologies towards circular economy among young professionals in the region. This will be an online event that will bring frontiers insights and integrated solutions to technology innovation for a circular economy.

Review on Participants:

116 participants were registered prior to the event, 85 participants attended the event through ZOOM virtually and more than 100 viewers joined online through Bilibili live broadcasting.

Summary of key messages:

Welcome Remarks

Ms. Feng Mei
EU Delegation to China

The event was opened by Ms. Feng Mei. She outlined the importance of technology transfer for circular economy and highlighted that "The circular economy action plan is at the heart of the European Green Deal that aims to transform Europe towards climate-neutral by 2050. Industrial and business transition play a key role in greening our economy and the Switch Asia programme has been prioritizing its support to scale-up innovative business models in promoting sustainable consumption and production in Asia.

Opening Remarks

Dr. Mushtaq Memon
UNEP Regional Coordinator for Resource Efficiency in Asia & Pacific

Dr. Memon introduced challenges on SDG 12 faced in Asia including waste management, he said "Thanks EU' support in mainstreaming sustainable consumption and production in Asia, circular economy is one of the important vehicles to bring back the SDG 12 on the track in Asia, and technology is at the center of circular economy".

Keynote Speech: Technology Transfer on Circular Economy

Professor Fengting Li
Executive Deputy Dean, Tongji University

Prof. Fengting Li introduced the investment to technology innovation and research and development in China with emphasis on the unique role of technology transfer to achieve a circular economy. He highlighted Tongji University and its innovation park and society surrounding the University, and its value. He finally shared the information on Chinese scholarship to students from developing countries to study in Tongji University.

Presentation: Technology for Resource Use Efficiency to Achieve CE

Professor Yadong Yu
East China University of Science and Technology

Professor Yadong Yu introduced the outline and objective of the Training Manual on Technology for a Circular Economy as well as its target audience. He mainly focused on the 4 parts related to technology, including the role of technology for circular economy, technology improving the efficiency of resource use, technology enabling efficient progress towards circular economy, and technology unlocking new value from circular economy with case studies.

Presentation: "Calculate" the Benefit of Circular Economy

Professor Sai Liang
Guangdong University of Technology

Professor Sai Liang emphasized that there are challenges in the incorporation of environmental impact assessment tools into decision-making. He compared several environmental assessment tools and outlined the limitations of native existing software and web-based

application. He mainly introduced the method and policy modeling framework for RaMa-Scene, an input-output tool and platform for product line efficiency assessment, which can describe the direct and indirect environmental impact caused by the supply chain.

Case Study 1: Technology to Improve Circular Economy

Mr. Nguyen Hung Cuong
SWITCH-Asia Biomass Gasification Technology (BEST) Project, OXFAM Vietnam

Mr. Cuong presented the biomass gasification technology as the sustainable energy for Agri-food processing and waste management, based on the SWITCH-Asia Grant project in Vietnam -- SWITCH-Asia Biomass Gasification Technology, which is implemented by OXFAM Vietnam, an office in Vietnam of a world-wide development organization that mobilizes the strength and voice of people against poverty, inequality and injustice. He pointed the traditional way of heat production from wood is not efficient and burning of unused biomass causes enormous emissions to the environment. The biomass gasification technology supports to solve these problems, and it achieves 50% lower cost compared with coal, diesel and gas. This technology accepts various types of biomass including high-moisture by using the highly available biomass resources at local. It is highlighted that this project enables technology transfer to local, but to make the business viable, it has to collaborate with the local community, the local government and people.

Case Study 2: Technology to Improve Circular Economy

Mr. Dhruv Khanna
CEO of Triton Foodworks

Facing the limited land available for food production in India, Dhruv introduced the hydroponic solution of Triton Foodworks. The farm use 2% water, 1% land and zero chemicals to produce event healthier food compared to conventional farms. They are also conducting experiment in producing better quality food that used to be imported from other countries to India which will reduce the resource and emission caused by transportation.

Presentation: Digitalization, Diversity and Sustainability: Circular Considerations

Dr. Roger A. Søraa
Researcher at the Department of Interdisciplinary Studies of Culture (KULT), Norwegian University of Science and Technology

Dr. Roger A. Søraa presented the topic on how can we better digitalize circular economy and how can we create sustainable digital technologies. Dr. Roger A. Søraa introduced how technology fit into a circular context with several examples covering Ant Forest (a financial service platform combining the internet, finance and a low-carbon lifestyle) and the robots application applied during the Pandemic in Wuhan that helps delivering people autonomous robot cars in special areas. In the healthcare industry, robots also play a role to help vulnerable group to live a better live. When considering what data to bring in for process, this can bring bias to the result such as gender differences, and new solutions sometimes brings new problem.

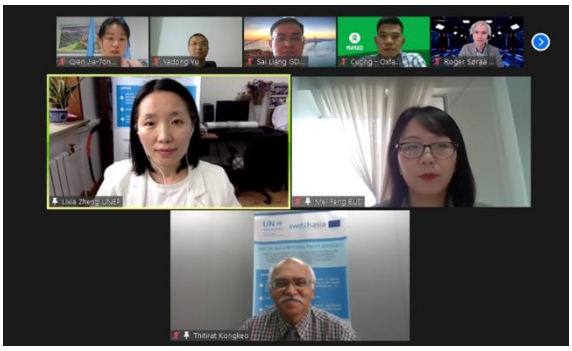
Closing and Way Forward

Ms. Tunnie Srisakulchairak

UNEP Programme Management Officer, SWITCH-Asia RPAC

Ms. Tunnie summarized the topics discussed at the event and highlighted the need to look and promote the technology with sustainability benefits. She expressed RPAC's gratitude and appreciation to the EU, speakers and participants. She also introduced the SWITCH-Asia 2021 academy on Technology for Circular Economy to be held in quarter and welcomed young professionals to join in.

Snapshots of the event



Annex:

Annex 1: The Final Agenda

Time (GMT)	Theme
1500-1505	Welcome Remarks **Ms. Feng Mei** EU Delegation to China
1505-1510	Opening **Dr. Mushtaq Memon** UNEP Regional Coordinator for Resource Efficiency in Asia & Pacific
1510-1515	Keynote Speech: Technology Transfer on Circular Economy **Prof. Fengting Li** Executive Deputy Dean, Tongji University
1515-1545	Lectures -Technology for Resource Use Efficiency to Achieve Circular Economy **Prof. Yadong Yu** East China University of Science and Technology - “Calculate” the Benefit of Circular Economy **Prof. Sai Liang** Guangdong University of Technology
1545-1605	Technology to Improve Circular Economy - Case Studies **Mr. Nguyen Hung Cuong** SWITCH-Asia Biomass Gasification Technology (BEST) Project, OXFAM Vietnam **Mr. Dhruv Khanna** CEO of Triton Foodworks
1605-1615	Digitalization, Diversity and Sustainability - Circular Considerations **Dr. Roger A. Søraa** Researcher at the Department of Interdisciplinary Studies of Culture (KULT), Norwegian University of Science and Technology
1615-1625	Q&A
1625-1630	Closing & Way Forward **Ms. Tunnie Srisakulchairak** UNEP Programme Management Officer, SWITCH-Asia RPAC

For more information

SWITCH-Asia event page:

URL: https://www.switch-asia.eu/event/technology-for-circular-economy-a-prologue-to-the-2021-switch-asia-leadership-academy/

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