Symposium on Accelerating Science, Technology, and Circular Innovation in Southeast Asia

September 5-7, 2023

Park Hyatt Hotel Jakarta, Indonesia

As a strong, reliable, and durable partner of ASEAN, the United States supports initiatives that promote cooperation in science and technology and foster sustainable economic growth. The U.S.-ASEAN Smart Cities Partnership (USASCP), Arizona State University, and the Rochester Institute of Technology, are collaborating to host the Symposium on Accelerating Science, Technology, and Circular Innovation in Southeast Asia.

The Symposium is structured in three mutually reinforcing tracks: smart sustainable cities, cooperation in science, technology, and innovation, and circular economy and entrepreneurship. It will bring together public and private sector actors involved in programming across multiple disciplines and urban sectors.

Tuesday, September 5, 2023

The first day of the symposium will feature parallel programs by the U.S.-ASEAN Smart Cities Partnership (USASCP), and Arizona State University's US-ASEAN Science Technology and Innovation Cooperation (STIC)

U.S.-ASEAN Smart Cities Partnership

8:00-8:30 **Check-In**
Ballroom 1 & 2

8:30-9:00 **Opening Remarks**
Ballroom 1 & 2 *Ms. Kate Rebholz, Deputy Chief of Mission, U.S. Embassy to ASEAN*

9:00-10:00 Ballroom 1 & 2

Climate Finance: Smart Cities Business Innovation Fund

Awardees from six ASEAN countries will present innovative low-carbon products and services

10:00-10:30 **Coffee/Tea Break**

10:30-12:00 Ballroom 1 & 2

Green Buildings: Lifecycle Assessment and Net-Zero Innovation (virtual)

Presented by Dr. Weimin Wang and Dr. Kyoung Hee Kim, University of North Carolina – Charlotte

12:00-13:30 **Joint Lunch** (90 minutes)

13:30-15:00 Ballroom 1 & 2

Integrated Urban Services: Pilot Projects and Peer Learning

Public authorities from Iskandar, Malaysia and Cagayan de Oro, Philippines, will present their agri-tech pilot projects to advance food security together with experts from the National Renewable Energy Laboratory (NREL) and Regenerative Impact Ventures (RIV)

15:00-15:30 **Coffee/Tea Break**

15:30-16:30 *Ballroom 1 & 2*

Smart Mobility in Jakarta and ASEAN

Presented by Mr. Roshan Desai, U.S. Department of Transportation
Mr. Juan Intan, Jakarta Smart City Administration

16:30-17:00 *Ballroom 1 & 2*

Research/Innovation: U.S. National Science Foundation Green Garden Alleys: Makassar Pilot Project

Presented by Professor M. Donny Koerniawan, Institut Teknologi Bandung

17:00-18:00 *Ballroom 3*

STIC Research and Publishing Poster Showcase

Thirty five participants from six countries in Southeast Asia were competitively selected to present their proposals for a science and technology research project, aligned with the nine technical academies of STIC. The posters will be evaluated by a committee of subject matter experts to select four projects that will receive $12,500 USD each in grant funding to jump start their research and publishing projects.

18:00-20:00 **Joint Welcome Reception**

Observatory *Opening remarks from Daniel Kritenbrink, Assistant Secretary, Bureau of East Asian and Pacific Affairs, U.S. Department of State*

U.S.-ASEAN Science, Technology, and Innovation Cooperation

08:00-8:30 **Check-In**

Residence 3 *The Entrepreneurship and Innovation (E&I) participants will be asked to gather in the waiting lobby (Residence 3). The Science and Technology (S&T) participants are invited to attend the Smart Cities Conference which will be running in parallel to the STIC pitch competition.*

08:30-12:00 **STIC Startup Pitch Competition Round 1**

Residence 1&2 *The group will be split into 2 subgroups and will be assigned to a pitch room. Each participant will be called one by one from the waiting lobby to their assigned pitching room, where they will deliver a 5-minute pitch to a panel of 3 judges. There will be 5 minutes for questions from judges, who will score the participant's pitch using a standard rubric. The top 4 ventures from each room will be selected to advance to the Final Round. Waiting Lobby: Residence 3*

12:00-1:30 **Joint Lunch** (90-minutes)

Ballroom 1 & 2 During this time, judges will deliberate and select the top 4 pitches from each room to advance to the final round.

13:30-15:00 **STIC Pitch Competition Round 2**

Residence 3 *The top 8 ventures that were selected from the parallel pitch competition will each get 10 minutes to deliver their final pitches and 5 minutes for Q&A before a panel of 6 judges. The participants not selected for the final round will also be in attendance during the final pitches and can ask questions.*

15:00-18:00 **STIC Research and Publishing Poster Showcase**

Lobby - Ballroom

Thirty five participants from six countries in Southeast Asia were competitively selected to present their proposals for a science and technology research project, aligned with the nine technical academies of STIC. The posters will be evaluated by a committee of subject matter experts to select four projects that will receive $12,500 USD each in grant funding to jump start their research and publishing projects.

18:00 - 20:00 **Joint Welcome Reception**

Observatory

Opening remarks from Daniel Kritenbrink, Assistant Secretary, Bureau of East Asian and Pacific Affairs, U.S. Department of State

Wednesday, September 6, 2023

The second day of the symposium will feature parallel programs by the U.S.-ASEAN Smart Cities Partnership (USASCP), and Arizona State University's US-ASEAN Science Technology and Innovation Cooperation (STIC)

U.S.-ASEAN Science, Technology, and Innovation Cooperation

06:00 – 08:00 **Breakfast**

Participants from the Science and Technology (S&T) track who are presenting a poster will be asked to set up their poster during this time.

08:00 – 08:30 **STIC Check-In and Networking**

Attendees are invited to visit the poster session area

08:30 – 09:00 **STIC Opening Ceremony and Welcome Remarks**

Ballroom 1 & 2

Speaker: **Michael Kleine**, Deputy Chief of Mission, U.S. Embassy in Jakarta

Group Photo

09:00 – 09:30 **STIC Program Overview**

Ballroom 1 & 2

Speaker: **Jose Quiroga**, STIC Program Director, ASU

This presentation will provide an overview of the U.S. – ASEAN Science, Technology, and Innovation Cooperation (STIC) Program.

09:30 – 10:00
Ballroom 1 & 2

Keynote: Advancing Science and Technology in Southeast Asia: Opportunities and Challenges

Speaker: **Zurina Moktar**, Assistant Director/Head of Science and Technology Division, ASEAN Secretariat

This keynote presentation will explore the dynamic landscape of science and technology in Southeast Asia. The speaker will discuss the boundless opportunities these domains offer for regional advancement, as well as the challenges that underscore the need for innovative solutions. How can ASEAN shape a path toward a thriving future driven by scientific progress and technological innovation?

10:00 – 10:30

Coffee/Tea Break and Networking

Attendees are invited to visit the poster session area.

10:30 – 12:00
Ballroom 1 & 2

Panel Discussion: Building Resilient and Secure Digital Infrastructure in Southeast Asia

Moderator: **Mr. Arthur Glenn Maal**, Senior ICT Officer, ASEAN Economic Cooperation, ASEAN Secretariat

Panelists:

- **Dr. Hoang Anh Tuan**, Lecturer and Research Manager, Tech and Cybersecurity, Institute for Nontraditional Security (INS) under HSB, VNU, Vietnam (TBC)
- **Mr. Thy Try**, Executive Director, Open Development of Cambodia, Cambodia
- **Mr. Kamarudin bin Abd. Ran**i, Under Secretary, Control and Compliance Division, Ministry of Communication and Digital, Malaysia (TBC)

This panel will explore the importance of resilient and secure digital infrastructure in Southeast Asia. Panelists will discuss strategies for strengthening ICT infrastructure, including broadband connectivity, data centers, and cloud services. They can also address the evolving cybersecurity landscape and ways to ensure the robustness and resilience of digital systems against cyber threats.

The panelists and moderator participated in the STIC Cybersecurity Study Tour in Washington DC during March 2023 and will also share their experiences in the program.

12:00 – 13:30 **STIC: Lunch and Networking**

Ballroom 1 & 2 *Attendees are invited to visit the poster showcase area.*

13:30 – 15:00 **Parallel Workshops**

Residence 1 & 2 *Attendees can choose to participate in one of two parallel workshops according to their interests.*

Room: Residence 1

A Paradoxical Approach to Scientific Innovation: How Out-of-the-Box Thinking Can Expand the "Box"

Presenter: Ken Mulligan, Adjunct Professor of Entrepreneurship and Innovation at Arizona State University

Using our imaginations to think of something that has never been seen before while "limited by the conditions that come from our knowledge of the way nature really is" requires a paradoxical approach to explore the impossible and improbable while simultaneously observing the laws of nature. To solve "a problem that we have never solved before, we must leave the door to the unknown ajar."

Room: Residence 2

From Concept to Capital: Essential Insights for the Startup Founder's Journey

Presenter: Christopher Gresham, Technologist and Serial Entrepreneur

This session explores the pivotal stages that drive a startup founder's path to funding success. Delve into the initial phases focusing on customer discovery and achieving product-market fit that lays the foundation for a compelling business proposition. Discover valuable strategies for identifying the best-fit, value-aligned angel and venture capital investors to make your dream a reality. You will leave with an understanding of how to validate your idea, capitalize your business, and practical next steps for your venture.

15:00 – 15:30 **Coffee/Tea Break and Networking**

15:30 – 16:00 **Awards Presentation**

Ballroom 1 & 2 *Attendees will be invited back to the main room where the winners of the 2023 STIC pitch and research poster competitions will be announced.*

16:00 – 16:30 **Closing Remarks**

Ballroom 1&2

Wednesday, September 6, 2023

U.S. ASEAN Smart Cities Partnership: ASEAN Circular Economy Seminar

14:00-14:15 Residence 3

Opening Remarks
Ms. Latifahaida Abdul Latif, Assistant Director, Analysis and Monitoring on Finance and Socioeconomic Issues Division, ASEAN Secretariat

14:15-14:45 Residence 3

Circular Economy for Smart Sustainable Cities
Dr. V Anbumozhi, Director of Research Strategy and Innovations, Economic Research Institute for ASEAN and East Asia (ERIA)

14:45-15:00 Residence 3

Indonesian Commitments to Smart Cities
Dr. Yudhistira Nugraha, Director of Jakarta Smart City

15:00-15:15 **Coffee/Tea Break**

15:15-15:30 Residence 3

Promoting Circularity at the Regional and Sub-National Scale
Ms. Helen Santiago Fink, Program Manager, U.S.-ASEAN Smart Cities Partnership

15:30-16:00 Residence 3

Strengthening the Enabling Environment for Circular Economy in ASEAN
Mr. Masami Tamura, Minister, Deputy Chief of Mission, Embassy of Japan in Indonesia
Mr. Hiroyuki Sato, Vice-Chairman and Chief Engagements and Partnerships Officer, AMITA Holdings Co. Ltd.

16:00-16:15 Residence 3

Identifying Economic Opportunities through Material Flow Analysis
Dr. Eric Williams, Rochester Institute of Technology

16:15-16:45
Residence 3

Panel Discussion – ASEAN Cities Decarbonization and Dematerialization Activities: Market Opportunities and Operational Challenges

Moderator: **Helen Santiago Fink**, USASCP
Panelists: USASCP Smart Cities Innovation Fund Awardees:

- **Dr. The Can Do**, Co-founder of 5RTECH, a solar panel recycling facility in
  Da Nang, Vietnam
- **Ms. Viengvilay Phimmasone**, Co-founder of PatiHoub, a plastics recycler in Luang Prabang, Laos
- **Dr. Noryawati Mulyono**, S.Si., Co-founder and Director of PT Seaweedtama BioPac Indonesia, a seaweed packaging company in Tangerang, Indonesia

16:45-17:00
Residence 3

Private Sector Commitment to Circular Economy

Mr. Jim Salzano, CEO of Jones & Vining

17:00-17:30
Residence 3

Panel Discussion – Investment and Finance for Circular Entrepreneurship

Moderator: Dr. Clyde Erikur Hull, Rochester Institute of Technology
Panelists:

- U.S. Trade and Development Agency
- Dave Del Rosario, Head of Operations, IdeaSpace Philippines

17:30-18:00
Residence 3

Q&A and Discussion

Thursday, September 7, 2023

RIT Saunders College of Business

The third day of the symposium will feature a programs by the Rochester Institute of Technology's Saunder's College of Business on Circular Economy Entrepreneurship

Circular Economy Entrepreneurship

8:00-8:30 *Observatory*
Event Check-in

8:30-9:00 *Observatory*
Opening Remarks
Helen Santiago Fink, Program Manager, U.S. Department of State

9:00-9:30 *Observatory*
Circular Economy Entrepreneurship Project Launch Presentation
Clyde Eiríkur Hull, Professor, Rochester Institute of Technology
This presentation introduces the project to promote circular economy in the ASEAN region through training of trainers of entrepreneurs and research.

9:30-10:00 *Observatory*
Circular Economy Entrepreneurship Curriculum for Incubators and Universities and
Israa Thiab, Visiting Asst. Professor, Rochester Institute of Technology
This presentation summarizes the educational curricula being prepared to support the training of circular economy entrepreneurs.

10:00-10:30
Coffee/Tea Break

10:30-11:00 *Observatory*
Circular Economy Case Study: Electronic - Waste Opportunities in ASEAN Countries
Eric Williams, Professor & Shenying Zhang, PhD student, Rochester Institute of Technology
This presentation discusses the current state of e-waste in the ASEAN region, and discusses policies and interventions to improve circularity in the sector.

11:00-11:20
Audience Q&A

11:20-12:00 *Observatory*
Transforming Business to Circularity
Jim Salzano, CEO, Jones & Vining

Mr. Salzano will discuss how Jones & Vining transitioned from a linear business to a much more successful circular business under his leadership.

12:00-13:30 **Lunch**

13:30-13:40 **Teaching Circular Entrepreneurship: A Showcase**
Observatory
Israa Thiab, Visiting Asst. Professor, Rochester Institute of Technology
Introduction to the workshop
This workshop engages young entrepreneurs over the course of 3.5 hours to teach them how they can innovate products and services which achieve the principles of circular economy. Observers from universities and incubators are welcome to join and engage in this workshop.

13:40-13:50 **Networking Activity**
Observatory
This activity aims to establish initial connections among the participants in the session.

13:50-14:00 **Brainstorming Activity**
Observatory
This activity teaches students to effectively brainstorm within their groups/teams

14:00-15:00 **Circular Economy - Definition, Principles and Strategies**
Observatory
The definition, principles, strategies and business models of circular economy will be presented and explained. The use of circular economy business modeling tools will be explained.

15:00-15:30 **Coffee/Tea Break**
Observatory

15:30-16:30 **Breakout Group/ Group work**
Observatory
Teams will break out and work on applying the knowledge they gained during the previous presentation to a business model.

16:30-17:00 **Show and tell**

Observatory *Each group will present the outcomes of their work for 5 minutes.*

17:15-17:10 **Closing Remarks**

Observatory Clyde Eiríkur Hull, Professor, Rochester Institute of Technology

About the U.S.-ASEAN Smart Cities Partnership

The U.S.-ASEAN Smart Cities Partnership (USASCP) is a Department of State initiative that aims to promote sustainable, resilient, and inclusive solutions to advance urban quality of life in Southeast Asian cities. The USASCP works across urban sectors to address local challenges through knowledge-sharing and capacity building, systems modeling and data collection, research and innovation, catalytic financing, and private sector engagement. Since 2018, USASCP has committed over $10 million to over 20+ projects in ASEAN member states to strengthen cities' capacities to improve critical urban services. A focus on climate action, circular economy, and net-zero innovation reinforces ASEAN cities to better address socio-economic and environmental challenges and global trends.

USASCP engagement strategies include U.S.-ASEAN city partnerships/pairings, U.S.-ASEAN academic pairings, ASEAN targeted pilot cities, ASEAN demand-driven alliances, innovation funding, and regional knowledge sharing. USASCP's whole-of-government approach works with U.S. government agencies, national labs, NGOs, subnational authorities and cities, university institutions, and private sector partners.

About the STIC Program

Sponsored by the U.S. Department of State's Bureau of East Asian and Pacific Affairs Office of Multilateral Affairs (EAP/MLA) and implemented by Arizona State University (ASU), STIC aims to strengthen science, technology, and innovation cooperation between the U.S. and the ASEAN member states. This 3-year program (2022 - 2025) focuses on three major activities:

Science, Technology, and Innovation Policy Study Tour in Washington D.C.
The STIC Study Tour convenes policymakers and technical experts from ASEAN-member states in Washington D.C. to participate in an intensive 1-week program to promote collective action around policy, best practices, and the adoption of shared standards and capacity-building strategies to foster cooperation in science, technology, and innovation in the ASEAN region.

STIC Education Portal
In partnership with Coursera, the STIC Portal provides access to hundreds of upskilling and reskilling courseware developed by top universities in the United States that specifically align with the priority areas identified in the ASEAN Plan of Action on Science, Technology, and Innovation (APASTI 2016-2025). The courses available in the STIC Portal have been carefully curated and grouped into three learning tracks:

- **Science and Technology (S&T) Track**
  The S&T Track includes 9 technical academies aligned with the priority areas identified by APSATI 2016 2025. Each year, participants will be invited to submit research concepts and 35 will be competitively selected to present at the annual conference where $50k will be awarded in research grants.
- **Entrepreneurship and Innovation (E&I) Track**
  The E&I Track has curated content to develop skills around ideation, prototyping, financial literacy, and business growth. Each year, 35 participants will be selected to join an online business venture incubator leading to the pitch competition during the annual conference where $50k will be awarded in seed funding.
- **Industry Professional Credentials (IPC) Track**
  The IPC Track includes content from companies like IBM, Google, Meta, and Microsoft. This track provides certification courses on skills that are in high demand such as cloud computing, AI, machine learning, cybersecurity, etc.

STIC Regional Conference
Each year, the program will host a 2-day regional conference with keynote speakers and panel discussions with international subject matter experts, networking opportunities, roundtable discussions, collective projects, and advanced skill-building workshops. The conference will host a research seed grant competition and a business venture creation pitch competition. Annually, $100,000 will be awarded to 4 research projects and 4 business ventures through a competitive process.

About the RIT Circular Entrepreneurship Program

The project is funded by the United States Department of State in partnership with the U.S.-ASEAN Science, Technology and Innovation Cooperation (STIC) Program and the U.S.-ASEAN Smart Cities Partnership (USASCP). This program involves working with partners across the ten member states of ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Thailand, Singapore, Vietnam) to spread awareness and build capacity for circular economy (CE), and develop networks to disseminate circular entrepreneurship training as widely as possible across the region to promote the establishment of more circular businesses, accelerate sustainable economic development, and achieve environmental stability.

This 2-year project includes the following activities:

1) Engaging with partners such as business incubators, universities, and NGOs in ASEAN to gain a deep understanding of local challenges and opportunities.

2) Analyzing the status of electronic waste in terms of economic opportunity, environmental impact, and the governing regulatory framework, focusing on opportunities for new technology to supplant older, more wasteful technology.

3) Based on the input from the two previous activities and prior work on training circular entrepreneurs, develop a locally relevant circular economy entrepreneurship curriculum and an intensive in-person training program for entrepreneurs, making this training available to and through local partners.

4) Developing CE business models and sharing them with local partners, leading to the incubation of new CE businesses in local incubators, and helping existing businesses transition to CE technology and solutions.