

ASEAN Smart Cities Network



Total of 26 cities

Dialogue with Dr Anbu of ERIA (Realizing Smart Cities)

Kok-Chin (KC) Tay
Chairman
Smart Cities Network

Thu 14th May 2020

<https://www.clc.gov.sg/docs/default-source/books/book-asean-smart-cities-network.pdf>

About ERIA and the Research Study

1. *The Economic Research Institute of ASEAN and East Asia ("ERIA"), based in Jakarta, is one of the top regional Economic Policy Think Tanks ranked by the 2018 Global Go To Think Tank Index Report. In July 2019, ERIA launched a one-year research study of "Realizing Smart Cities" in Chiangmai, Thailand.*
2. *The Research study will perform the need and gap analysis of converting a city into a smart city.*
 - *It will review what has been done in the major cities regarding the energy revolution - energy access, energy resilience;*
 - *how they conceptualize smart cities – depending on the level of development, willingness to adopt and reform; and*
 - *Learning from these experiences, a plan of action and a public –private – community protocol will be proposed for smart city programs in the region.*

About this Dialogue

In this Dialogue, the Principal Researcher of this Research Study, Dr Venkatachalam Anbumozhi (“Anbu”), will share the following:

- *An overview of the Research Study;*
- *An update of their findings to date; and*
- *What's next?.*

The Dialogue will be moderated by Kok-Chin (KC) Tay, Chairman of Smart Cities Network, who is involved in the Workgroup of this study.

Launch of the Realizing Smart Cities Research Study in Chiang Mai, Thailand – 23rd July 2019



Group photo taken with ERIA senior management and staff, participants, speakers and industry partners.



The Nuts and Bolts of Smart City Implementation - Case of Singapore

An event by



Realizing Smart Cities

Inception Workshop & The First Working Group Meeting

23-24 July, 2019

Dusit Princess Hotel, Chiang Mai, Thailand

By TAY Kok Chin

**Chairman, Smart Cities Network
ASEAN Leader, Smart Cities Council**

KC.Tay@SmartCitiesCouncil.Com

Summary: The Nuts and Bolts of Smart City Implementation

- Case of Singapore -



Awareness

- External
- Internal



Building Capabilities

- Identify the Gaps
- Learn New Skills



Commitment

- Integration
- Call for Action

No	Workshop Objectives	About This Presentation
1	To examine how cities can embark into a smart city program and what could be the costs and the benefits.	Share how the Singapore Smart Nation started in 2014 , with costs and benefits
2	To analyze the critical needs and existing gaps realizing smart cities in regard to energy, economy, environment and governance parameters	Outline the various Smart Nation key initiatives in building the necessary infrastructure (e.g. Identity & Payment)
3	To share and exchange experiences on key adjustments required in policy planning relating to the transition of smart city;	Share how the Smart Nation Initiative has evolved over the years to where we are today – and key policy and structural changes
4	To discuss the sustainability implications (reductions in Carbon emissions) in the path towards smart city realization;	An update about Singapore's position regarding Sustainability and our efforts.
5	To identify necessary measurements and data protocol required to enhance the readiness of ASEAN smart cities.	Offer suggestions on how Singapore could play a role in such measurements and data protocol.

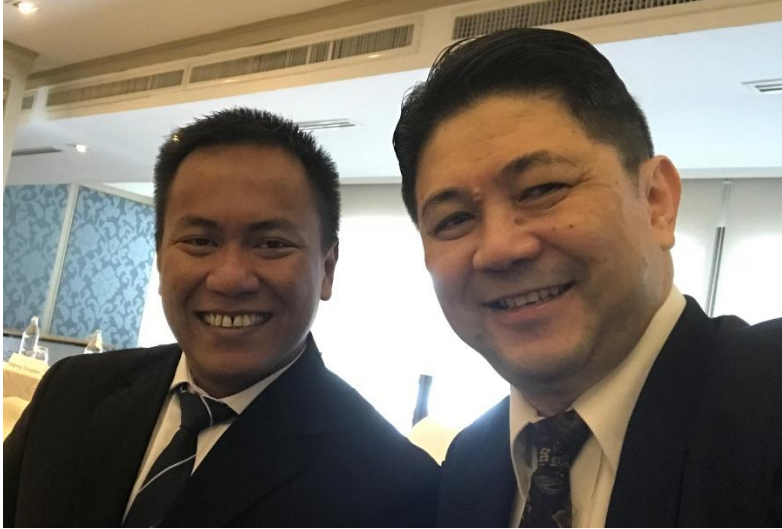


ASEAN



Presentation by Tay Kok Chin

Delegates at the Launch of the Research Study in Chiang Mai, Thailand – 23rd July 2019



Example Cities & Industry Partners Represented

- Chiang Mai (Thailand)
- Jakarta (Indonesia)
- Makassar (Indonesia)
- Johor Bahru (Malaysia)
- Luang Prabang (Lao PDR)
- NEC & Oracle

Creating Enabling Environment for Smart Cities in ASEAN



Group Photo taken of the Speakers and the ASEAN Connectivity Coordinating Committee (ACCC) at the ASEAN Connectivity Symposium in Bangkok on 27th August 2019

Shared Key Challenges:

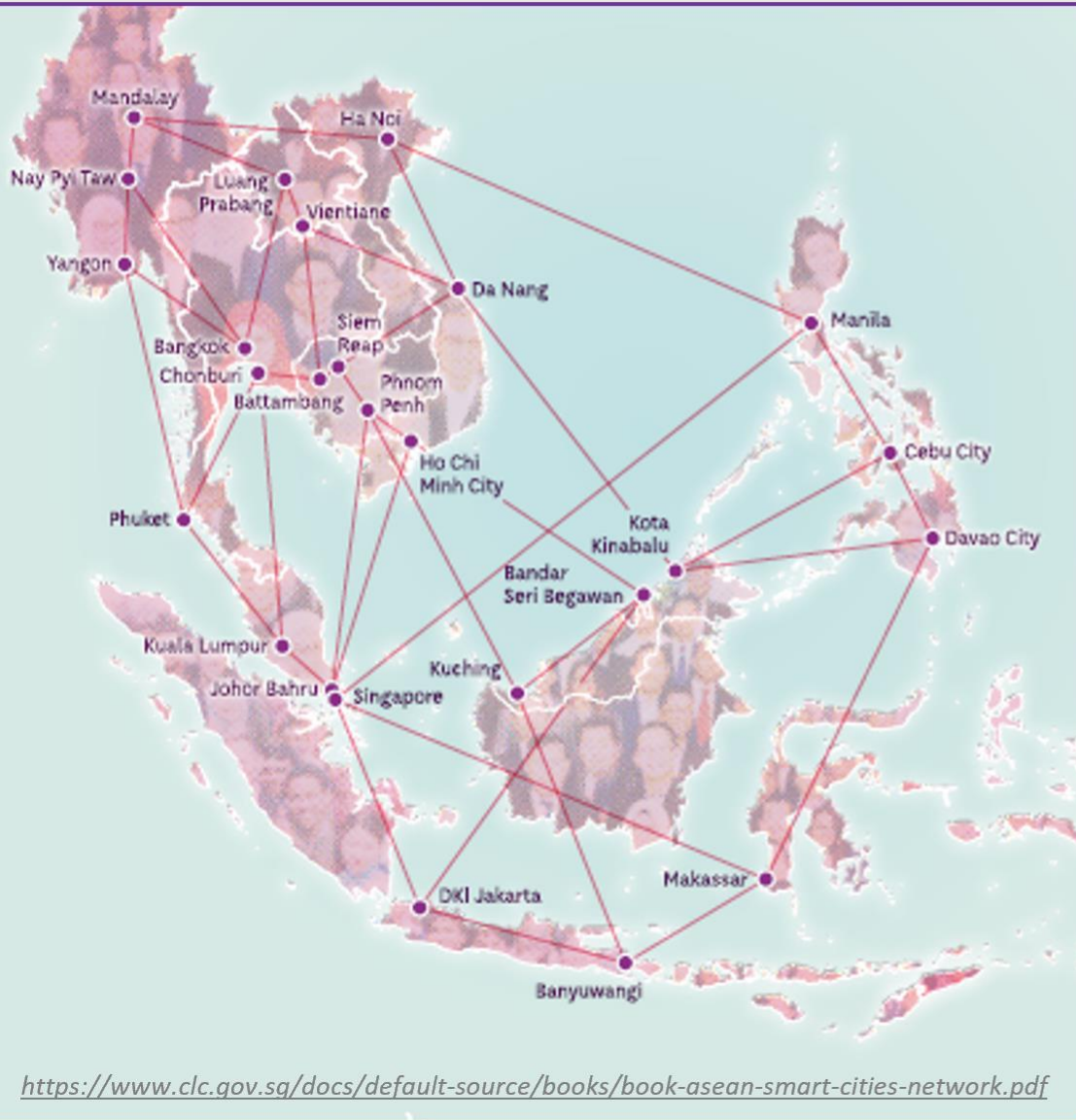
- Political Leadership & Funding

Status (since Sep 2019)

1. Formed a Social Media Group (using WhatsApp, by “invitation only”) for those interested in Smart Cities in ASEAN
2. Participants include a Global Network from the US, Europe, ANZ, Japan, Korea, China, India and ASEAN
3. The Group Approach (ABC)
 - A - Awareness and Thought Leadership
 - B - Building Capabilities & Capacities
 - C - Commitment to Collaborate

Realizing Smart Cities

Periyar University, Salem, India, 27-29 Feb 2020



Day 2: Friday, 28 February 2020

International Symposium on Driving Sustainability Innovations through Smart Cities

Lessons from Smart Cities Implementations in Asia

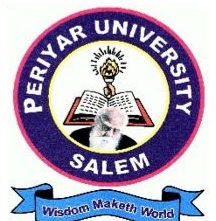
What are the Critical Success Factors?

By TAY Kok Chin

Chairman, Smart Cities Network

Director (ASEAN), Smart Cities Council

Organized by



Smart Cities – A Key National Development Strategy for India since 2015



https://en.wikipedia.org/wiki/Smart_Cities_Mission



*"Smart Cities Mission, sometimes referred to as **Smart City Mission**, is an **urban renewal and retrofitting** program by the [Government of India](#) with the mission to develop 100 [smart cities](#) across the country making them citizen friendly and sustainable"*

*"100 Smart Cities Mission" was launched by Prime Minister Modi on 25 June 2015. A total of ₹98,000 crore (**US\$14 billion**) has been approved by the Indian Cabinet for the development of **100 smart cities and the rejuvenation of 500 others.**"*

FUNDING ALLOCATED

Critical Success Factors – Political Leadership & Funding

Formed in May 2017 (2.5 Years after launch)

Singapore govt establishes Smart Nation and Digital Government Group in the Prime Minister's Office

This organisational restructure aims to accelerate the roll-out of digital and smart solutions to citizens



<https://e27.co/singapore-govt-establishes-smart-nation-digital-government-group-prime-ministers-office-20170320/>

Singapore government reaffirms \$1.7B commitment to smart nation, digital transformation

First announced earlier this year as part of the country's 2017 budget, Singapore's IT office says it will put out S\$2.4 billion in ICT tenders encompassing data analytics and Internet of Things sensors.



By Eileen Yu for By The Way | May 24, 2017 -- 10:40 GMT (18:40 GMT+08:00) | Topic: Innovation

The Singapore government has reaffirmed plans to dish out S\$2.4 billion (US\$1.73 billion) to drive the country's smart nation efforts and digital transformation.

The funds would go towards ICT tenders in its fiscal 2017, which would encompass investments in various technology areas including data analytics and Internet of Things (IoT) sensors, as well as enhancements to the necessary communications infrastructures.

Source: <https://www.zdnet.com/article/singapore-government-reaffirms-1-7b-commitment-to-smart-nation-digital-transformation/>

Objectives of this Dialogue

What is the ASEAN Smart Cities Network (ASCN)?

- 1) Facilitate Cooperation on Smart Cities Development
- 2) Catalyse bankable projects with the private sector
- 3) Secure support from ASEAN external partners



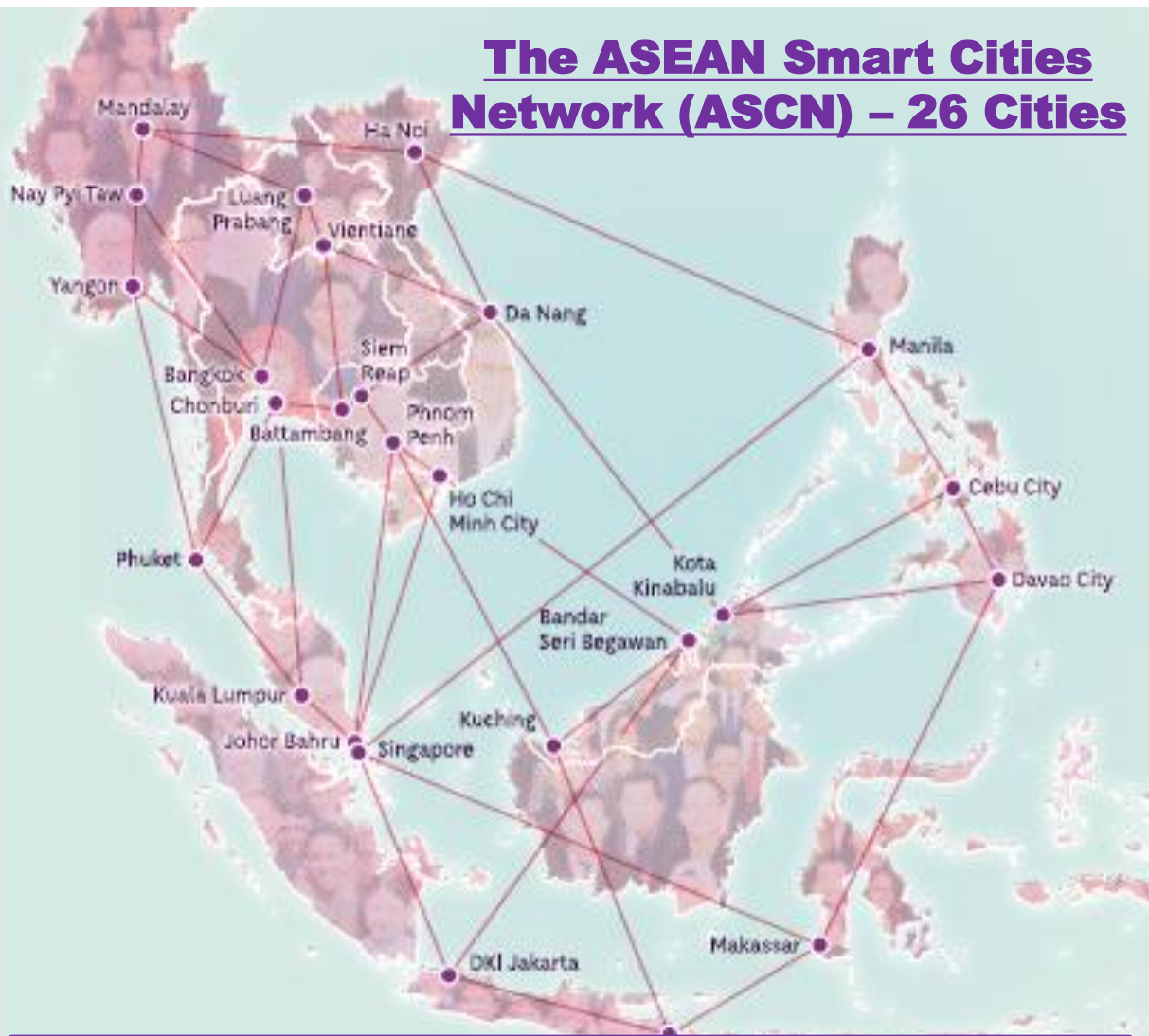
Sharing by Tham Borg Tsien from the Singapore Ministry of Foreign Affairs (MFA) on 13th Jan 2020 at the ASEAN Smart Cities Update event in Singapore co-organized by the Singapore Business Federation and Smart Cities Network

We hope to explore collaboration with ERIA and Ecosystem Partners

Sharing by Dr Anbu of ERIA

Regional Collaboration

The ASEAN Smart Cities Network (ASCN) – 26 Cities



Participate in the Getting to Know ASCN Series – April & May 2020

<https://www.clc.gov.sg/docs/default-source/books/book-asean-smart-cities-network.pdf>

The ASEAN, India & China Internet

<u>ASEAN, India & China</u>	Population (2020 Est.)	Internet Users Est Jan 2020
<u>Brunei Darussalam</u>	437,479	416,798
<u>Cambodia</u>	16,718,965	8,005,551
<u>Indonesia</u>	273,523,615	171,260,000
<u>Laos</u>	7,064,242	3,056,000
<u>Malaysia</u>	32,365,999	26,353,017
<u>Myanmar</u>	54,409,800	22,200,000
<u>Philippines</u>	109,581,078	79,000,000
<u>Singapore</u>	5,850,342	5,173,907
<u>Thailand</u>	69,799,978	57,000,000
<u>Vietnam</u>	97,338,579	68,541,344
<u>Total: ASEAN</u>	667,090,077	441,006,617
<u>China *</u>	1,439,323,776	854,000,000
<u>India</u>	1,380,004,385	560,000,000
<u>Total: ASEAN, CH & IN</u>	3,486,418,238	1,855,006,617

<https://www.internetworldstats.com/stats3.htm> (as of Jan 2020)

Post 2018, Singapore as “Shepherd” for the ASEAN Smart Cities Network



Singapore Ministry of Foreign Affairs is with Navjeev Singh.

19 November 2018 ·

One key outcome of Singapore’s ASEAN 2018 Chairmanship is the ASEAN Smart Cities Network, which was developed to create a common framework for smart city development and mutual exchange of action plans. The network also connects cities with external private sector partners to co-develop solutions for sustainable urbanisation – another mega-trend of our time.

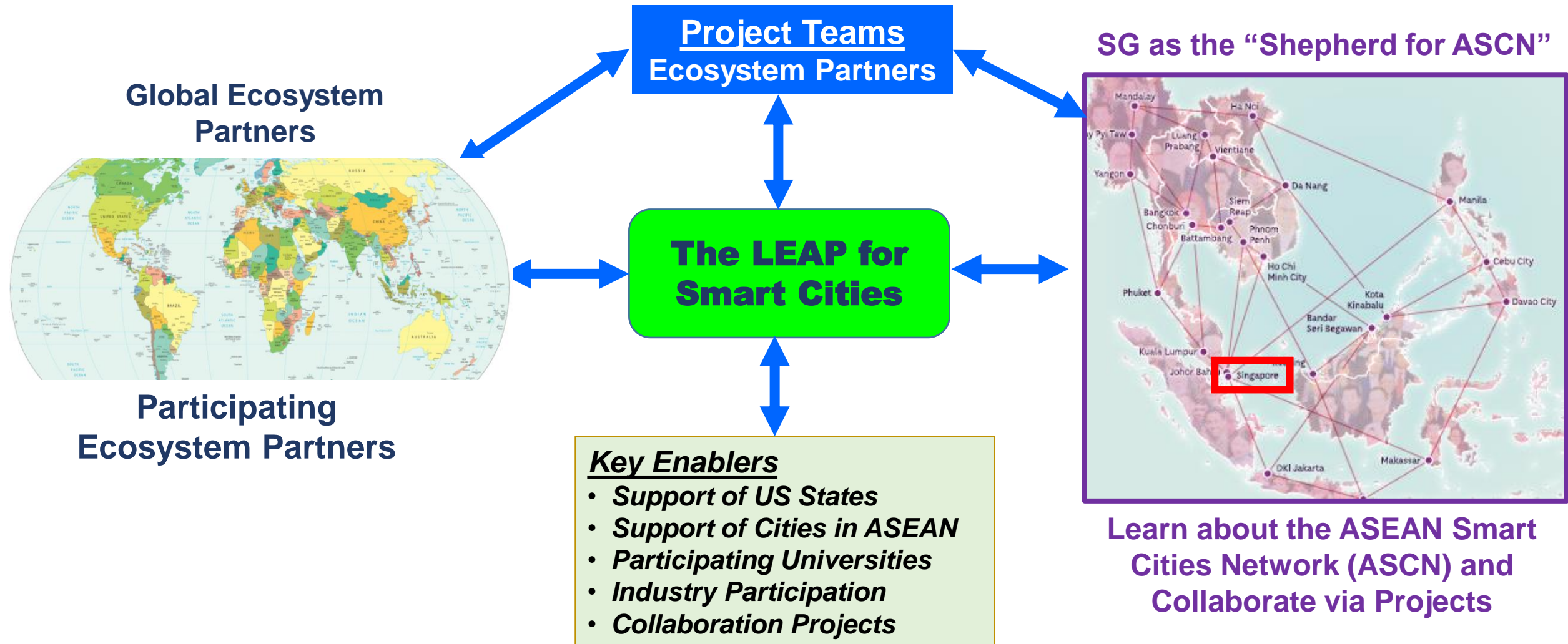
Post-2018, Singapore will continue the role of ‘Shepherd’ for the ASEAN Smart Cities Network, and bring new ideas to the table. There is much more that ASEAN can achieve, and we will work with our counterparts to build a more united, resilient and innovative ASEAN in the years to come.

Photo: A delegate from Singapore showcasing the key workings of the ASEAN Smart Cities Network with an interactive feature at the 51st ASEAN Ministerial Meeting in August.



<https://www.facebook.com/SingaporeMFA/photos/one-key-outcome-of-singapores-asean-2018-chairmanship-is-the-asean-smart-cities-/2191769401108121/>

Global Collaboration with Smart Cities Network (SCN) Ecosystem Partnerships with the ASEAN Smart Cities Network



Partnering the Academic Institutions in the Region

Example with the National University of Singapore (NUS)



School of Continuing
and Lifelong Education

Email

Library

ScaleStudent

InsideScale

Alumni

About Us

Programmes

News

Contact

Apply

Subscribe



MSc in Industry 4.0

Industry Consulting and Application Project

Overview of the Project

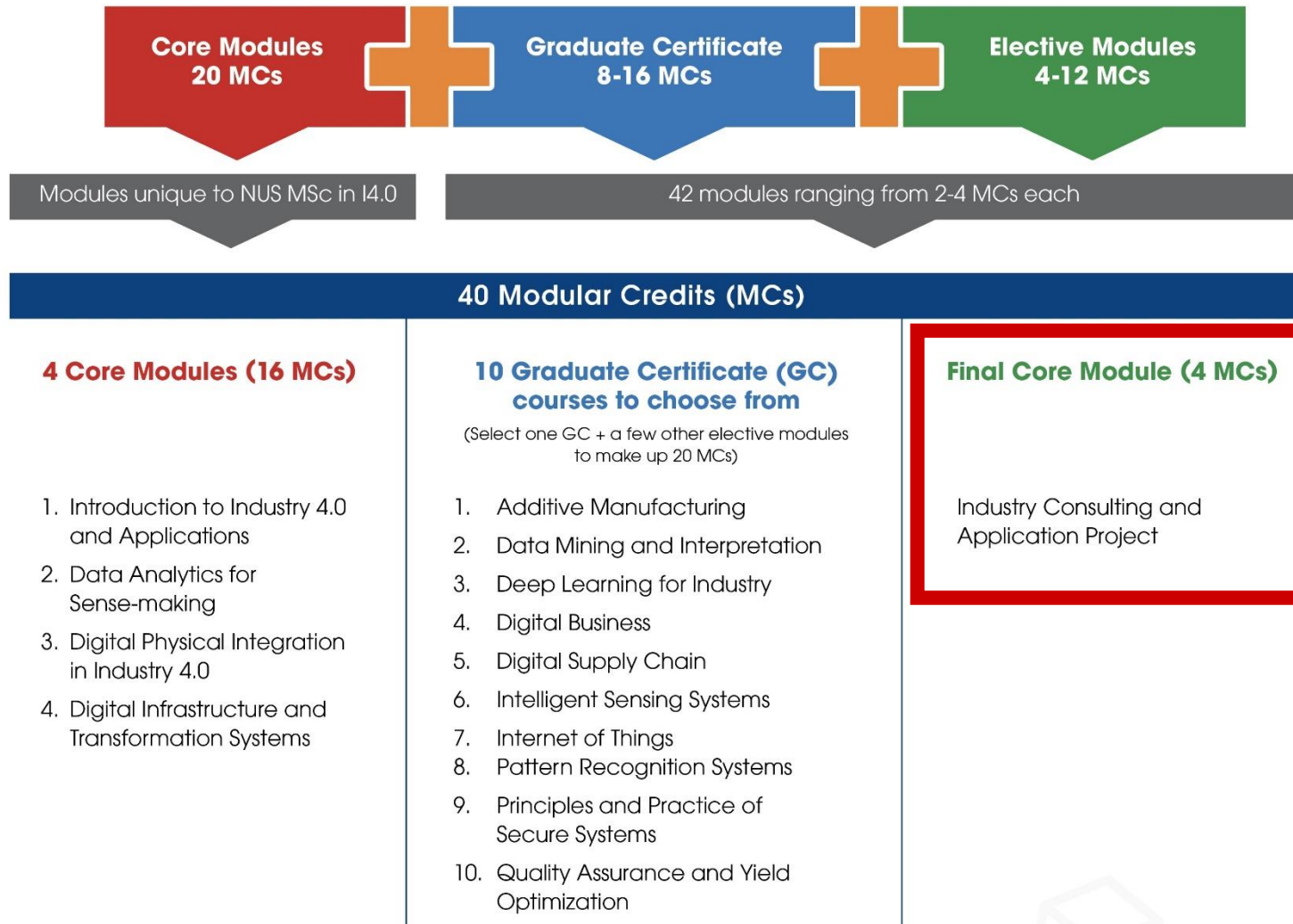
By Tay Kok Chin, Smart Cities Network

6th January 2020

Application of Selected Industry 4.0 Technologies for the Built Environment
- Smart Integration for Cold Chain Logistics Jan-June 2020

Flexible programme structure

Development of Prototype



CORE MODULE (IND5005) Industry Consulting and Application Project

This capstone project is meant to help students apply what they have learnt to companies in areas of operations concerning Industry 4.0.

Working in teams and in consultation with the relevant NUS academic unit, students would develop a prototype solution based on an implemented project in a company, craft a report about it and then present it for evaluation at the end of the module.

https://scale.nus.edu.sg/programmes/graduate/MSc-Industry-4_0

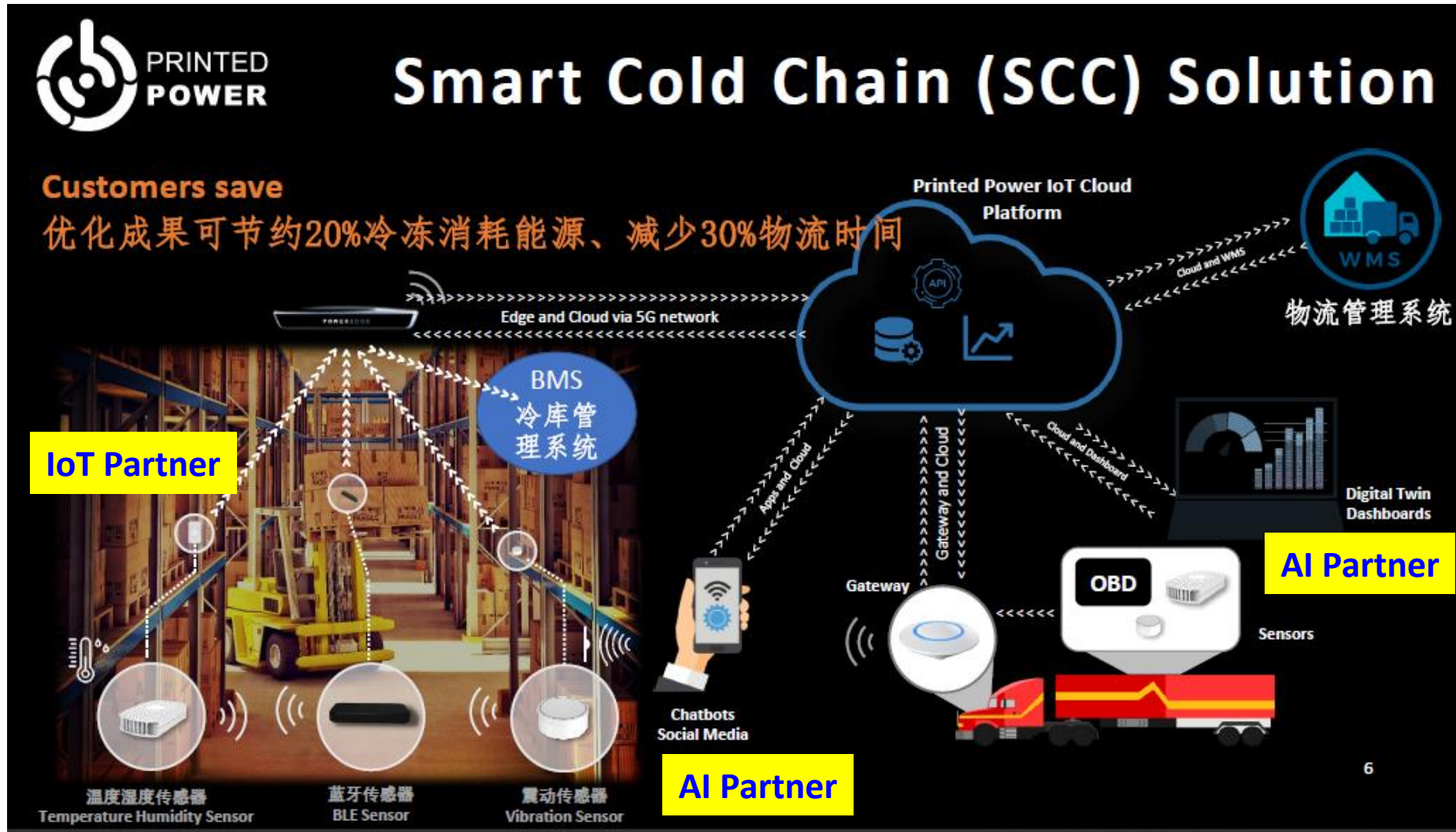
Project: Smart Integration for Cold Chain Logistics

Partnership with Industry Partners

Draft Schematic of the Overall solution for Cold Chain logistics showing the use of the following:

- Communication and Sensor Network with IoT
- Cloud-based solution
- Chatbot Social Media for user interactions
- Data Analytics with Digital Twin Dashboard (use of aerial photography by drone to create the 3-D Model)

Ecosystem Partners
can collaborate in
similar Projects too



Source: Presentation by Dr Tan Yen Kheng of Printed Power to the Consortium Partners of this Project (5th Dec 2019)

Example Catalyst Programme with NUS (June to Nov 2020)

The Learning Entrepreneurship via Attachment Program (**LEAP**) for Smart Cities

Participating Partners

- Mentors for NUS Students
- Participating SCN Members
 - Digital Twin
 - Emergency Management
 - AR, VR and Smart Food Chain Security
 - Smart Tourism
 - Artificial Intelligence, etc
- Business Model for replication to other cities

PROGRAMME for NUS Students

1. An Introduction to 4th Industrial Revolution (IOT, Cloud, AI, Data, etc)
2. Fundamentals of Smart Cities Series
 - Briefings by Participating SCN Members
 - Sharing Industry Experts
 - Use of Technologies for Industries
3. Life Skills (7 Habits, Design Thinking, etc)
4. More to be added

Smart Cities Network (SCN) Catalyst Program

- Already established partnership with National University of Singapore (NUS) – MSc Industry 4.0
- Industry Projects in SG
- Model to be replicated in ASEAN.

Define Collaboration Projects in ASEAN

Dialogue with Dr Anbu

In this Dialogue, the Principal Researcher of this Research Study, Dr Venkatachalam Anbumozhi (“Anbu”), will share the following:

- An overview of the Research Study;
- An update of their findings to date; and
- What's next?.

The Dialogue will be moderated by Kok-Chin (KC) Tay, Chairman of Smart Cities Network, who is involved in the Workgroup of this study.

Thank You



TAY Kok-Chin (KC)

KC.TAY@SmartCitiesCouncil.com

(65) 9822 4345