



# Smart Cities Agenda for ASEAN: Challenges, Opportunities and Strategies

CENTRE for  
**LiveableCities**  
SINGAPORE

 UNITED NATIONS  
**ESCAP**  
Economic and Social Commission for Asia and the Pacific

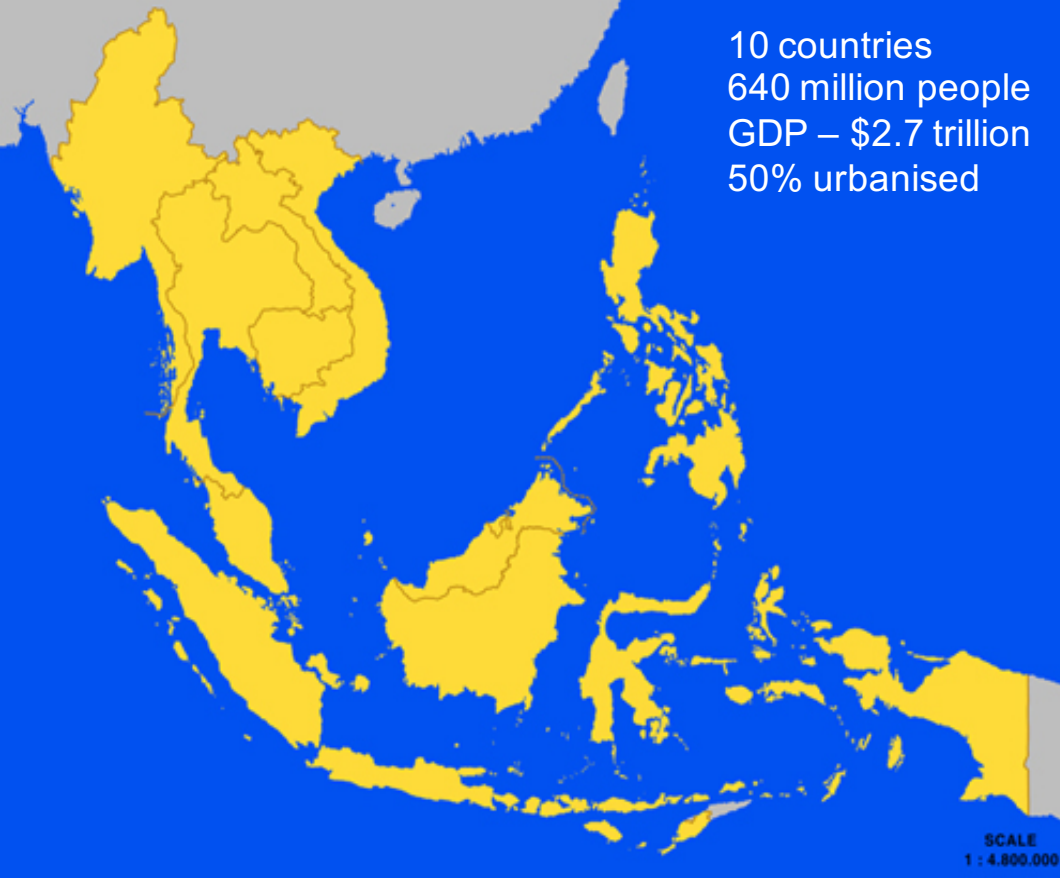
 WORLD  
CITIES  
SUMMIT

**Zhou Yimin**  
Centre for Liveable Cities, Singapore



# FACTS ON ASEAN

10 countries  
640 million people  
GDP – \$2.7 trillion  
50% urbanised



SCALE  
1 : 4,800,000



# URBAN ISSUES FACING ASEAN CITIES



***Housing Problems***



***Waste Management***



***Security***



***Climate Change***



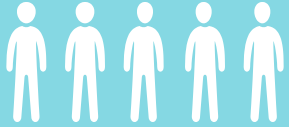
***Pollution***



***Traffic Congestion***



# BUILDING BLOCKS OF SMART CITY DEVELOPMENT



**YOUNGER  
POPULATION**



**PENETRATION OF  
DIGITAL TECH**



**CITY'S  
AUTONOMY**



**INVESTMENTS**



**GROWING CAPACITY AND INTEREST IN SMART CITY SOLUTIONS**



# SMART CITY ARCHETYPES ACROSS ASEAN

## AGILE SEEDBEDS

- Smaller population
- Basic ICT infrastructure
- Lack of comprehensive plans, but more greenfield opportunities
- Nimble in piloting and scaling up



## EMERGING CHAMPIONS

- Mid-sized cities
- Systems need integration
- Wider use of technological solutions for urban development & management
- Need larger-scale investment



## PRIME MOVERS

- Large cities
- Major hardware and software are in place
- Clear smart city development plans & strategies
- Need optimise systems to serve more people





# ASEAN SMART CITIES NETWORK (ASCN)



ASEAN 2018

Resilient &  
Innovative



- A regional ecosystem to synergise smart city development across ASEAN.
- A network of smart cities as hubs to prepare the region for challenges and opportunities.

Complement existing national plans and for cities to focus on specific areas

A joint framework for ASEAN and city-specific action plans

**Collaborative Platform:**  
improving citizens' lives, using technology as an enabler

Secure support from ASEAN's external partners

Catalyse bankable projects with private sector





**26 CITIES**



**INDUSTRY  
PARTNERS**



**15 EXTERNAL  
PARTNERS**

# ASEAN

## SMART CITIES NETWORK

— Pilot Cities —





# ASCN ACTIVITIES (SINCE MAY 2018)



- Policy Forums
- Action Planning Sessions
- Dialogue with Industry Partners
- Workshop discussions
- Site Visits





# ASEAN SMART CITIES FRAMEWORK

Version 2  
(Updated as of 14 June 2018)

SMART CITY STRATEGIC OUTCOMES



URBAN  
SYSTEMS

- Integrated Master Planning and Development
- Dynamic and Adaptive Urban Governance

DEVELOPMENT FOCUS  
AREAS

## Civic & Social

- Social Cohesion
- Culture and Heritage
- Tourism
- Public and Municipal Services

## Health and Well-being

- Housing and Home
- Healthcare
- Education

## Safety and Security

- Resource Security
- Cybersecurity
- Public Safety, City Surveillance and Crime Prevention

## Quality Environment

- Clean Environment
- Resource Access and management.
- Urban Resilience

## Built Infrastructure

- Utilities
- Mobility and Transportation
- Buildings and Construction

## Industry and Innovation

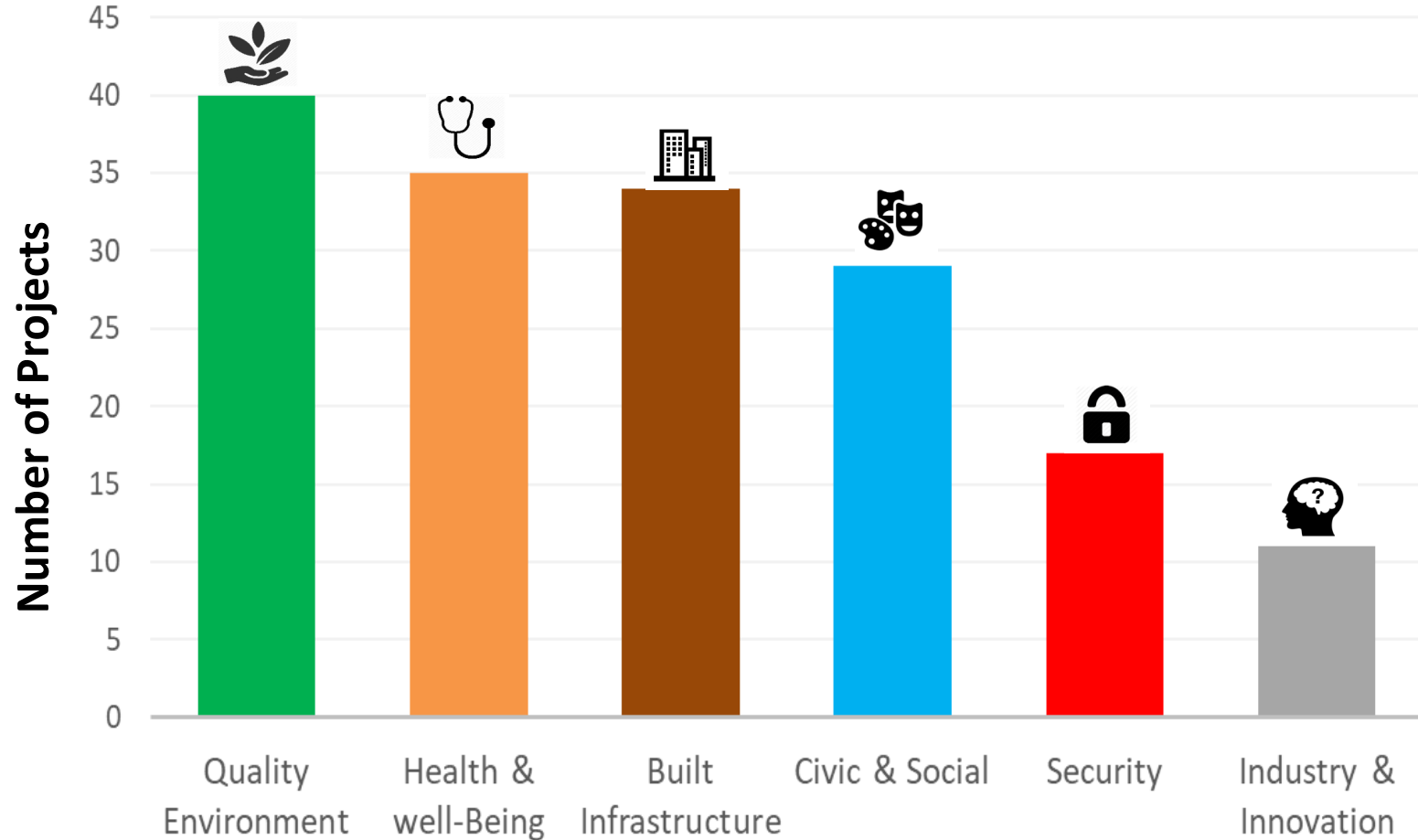
- Business & entrepreneurship
- Trade and Commerce
- Upskilling
- Technology Incubation
- Research

ENABLERS

Digital Infrastructure & Applications

Partnership & Funding

# ASCN 2018 PRIORITY PROJECTS







Quality  
Environment

*Smart Solid Waste Management  
(Kuching)*

*Public Spaces Smartalization  
(Phnom Penh)*

*Flood Management System  
(Vientiane)*



Civil and Social

*Disaster Response Alert In Hallway  
(Makassar)*

*E-government Services  
(Hanoi)*

*Smart Tourist Management System  
(Siem Reap)*



Health and Well-being

*Integrated Health Service  
(Banyuwangi)*

*E-Health  
(Manila)*

*Revitalising Kampung Ayer  
(Seri Begawan)*



Security

*Eagle Eyes Project  
(Phuket)*

*Security Operations Centre  
(Ho Chi Minh City)*

*Urban Observatory System  
(Johor Bahru)*



Built  
Infrastructure

*Pahonyothin Transport Centre (Bangkok)*

*Intelligent Traffic Control System  
(Da Nang)*

*Smart Nation Sensor Platform  
(Singapore)*



Industry and Innovation

*Developing Enterprise Database  
(Ho Chi Minh City)*

*Digital Market Place  
(Banyuwangi)*

*E-Learning  
(Manila)*

● Major barrier    ● Minor barrier    ● Not a barrier

Implementation  
Barriers

Lack of capacity / skills to implement



Lack of regulatory structures to support



Coordination challenges



Financial  
Barriers

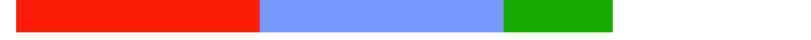
Lack of fiscal capacity for govt to finance



Lack of alternative source to finance



Low return on investment

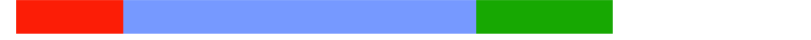


Decision-  
making  
Barriers

Resistance of influential stakeholders



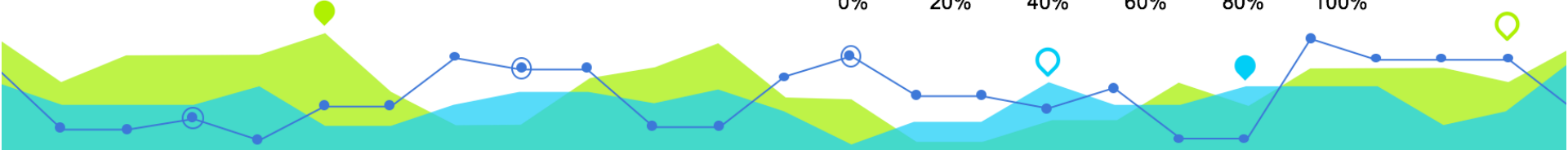
Lack of information on opportunities



Lack of priority for key decision-makers



0% 20% 40% 60% 80% 100%







## **INTEGRATED PLANNING**

*e.g. focus on the problem & use cases instead of technology*

*pair smart solutions with existing policies and initiatives*



## **PROVIDE COMMON INFRASTRUCTURE**

*e.g. start with simple digital platforms and open source applications*



## **DEVELOPING PARTNERSHIPS**

*e.g. Government – Private Sector – Citizen*

*platform across cities*

# **IMMEDIATE STEPS FOR CITIES**

# THANK YOU

CENTRE for  
**LiveableCities**  
SINGAPORE

