

Smart Solutions for Real Problems: Exploring Innovations in Southeast Asia's Cities



With over <u>70% of the world's population</u> predicted to live in cities by 2050, smart cities that use data, technology, and Al to streamline services are key to ensuring a healthy and safe environment for all who live, work, or visit them.

Fueled by rapid urbanisation, Southeast Asia is experiencing a smart city boom with an estimated 100 million people expected to move from rural areas to cities by 2030.

Despite their diverse populations and varying economic stages, ASEAN member countries are increasingly on the same page: they are all united by the belief that smart cities offer a solution to the complex urban and socio-economic challenges they face.





ASCN: A Network for Smarter Cities

The <u>ASEAN Smart Cities Network (ASCN)</u> is a collaborative platform where cities in the region exchange insights on adopting smart technology, finding solutions, and involving industry and global partners. They work towards the shared objective of fostering sustainable urban development and enhancing livability in their cities.

As of 2024, the ASCN includes 30 members, with new additions from Thailand and Indonesia.

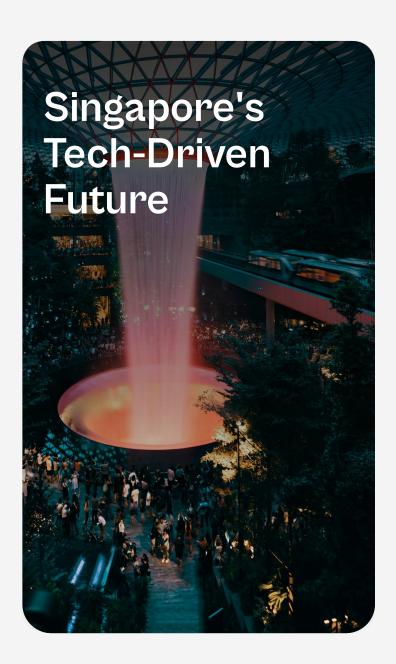
"The ASEAN Smart Cities Network provides the sort of open platform needed to drive the smart city agenda. Different cities are at different levels of developments and "smartness" and ASEAN's diversity is well suited for such a network that allows for cities to learn from one another."

Taimur Khilji

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)







The <u>Smart Nation Initiative</u> harnesses technology and data to improve citizens' lives, boost economic competitiveness, and tackle urban challenges.

Smart mobility solutions, including sensor networks, realtime traffic management, and integrated public transportation with smart cards and mobile apps, have reduced congestion and travel times.

Ranked 5th globally and Asia's smartest city, Singapore is developing a national digital twin to for better urban management. The 3D maps and subsurface model, created by the Singapore Land Authority, will help in managing infrastructure and assets.

The Smart City Initiative promotes sustainability with innovative systems like <u>automated pneumatic waste</u> <u>collection</u> and investments in <u>water management</u> and <u>energy-efficient solutions</u>.





With aspirations to become a <u>Smart Nation by 2040</u> (outlined in their Fourth National Physical Plan - NPP4), Malaysia is making strides.

Five pilot cities, including Kuala Lumpur and Johor Bahru, are testing the waters by integrating advanced technologies to modernise infrastructure.

Pilots embrace sustainability, with <u>projects like Gamuda Cove</u> showcasing smart technologies for intelligent traffic management and centralised security within eco-friendly developments.

Malaysia's Smart Cities go beyond infrastructure, adopting international standards like the <u>WELL</u> <u>Building Standard</u> to enhance resident health, well-being, and productivity. The Ministry of Housing and Local Government, collaborating with PLANMalaysia and the Department of Standards Malaysia, has established clear indicators for Smart City development.





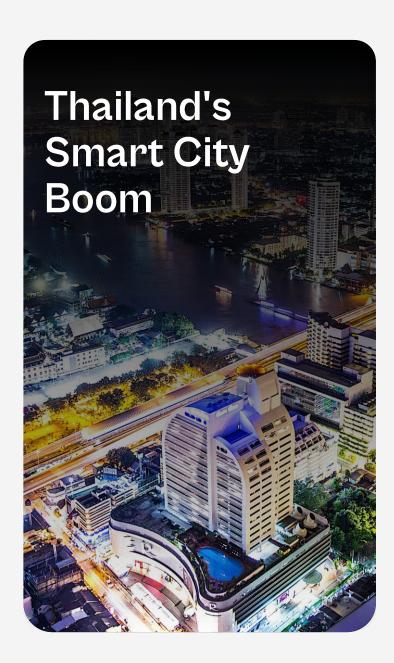
Eyeing <u>carbon neutrality by 2060</u>, Indonesia is pushing its Smart City initiatives.

Their National Long-Term Development Plan prioritises economic growth and improved quality of life through digital infrastructure and innovative public services.

The goal is 100 smart cities that integrate green technology and sustainable infrastructure, reflecting their climate commitment.

Leaving behind congested Jakarta, Indonesia is building Nusantara, the world's first "smart forest city." Spanning 250,000 hectares, Nusantara will boast high-capacity infrastructure, high-speed internet, and cutting-edge technology to support the archipelago's activities.





Thailand's national agenda goes big on smart cities.

They aim for <u>105 smart cities by 2027</u>, with a focus on transportation, environment, and safety.

KEY PROJECTS INCLUDE:

- USD 37 billion smart city in Huai Yai with business centres and housing for 350,000.
- A 5G-powered smart city in Ban Chang for enhanced environmental and traffic management.
- USD \$40 billion investment to create a smart regional financial centre across Chonburi, Rayong, and Chachoengsao.





By 2050, <u>population in cities is expected to soar</u> to nearly 102 million - twice the current figure.

A glimmer of optimism emerges with the rise of smart city solutions championed by local governments (LGUs).

Rapid urbanisation burdens the Philippines with escalating waste. By 2025, <u>daily waste production</u> could reach a staggering 28,000 tonnes. Smart waste management solutions are being implemented to optimise collection and reduce fuel consumption.

<u>Smart city developer Iveda</u> is injecting innovation. Their ambitious USD 5 million project brings Alpowered technology to cities like Cebu, Bacolod, Iloilo, and Davao. The focus: leverage technology to modernise airports, roads, and sidewalks, paving the way for a more sustainable and efficient urban future.

