ASEAN AUSTRALIA SMART CITIES TRUST FUND
Asian Development Bank

Australian Government
Department of Foreign Affairs and Trade

ADB

EXECUTIVE SUMMARY

Smart City Visioning and Smart City Platform Assessment for Chonburi

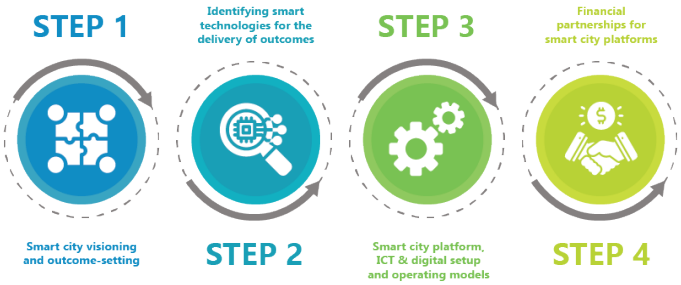
PROJECT CONTEXT

The Government of Thailand is advancing towards Thailand 4.0, an initiative aimed at creating a digital and sustainable economy. This initiative addresses various public issues, such as the middle-income trap, inequality exacerbated by the COVID-19 pandemic, and environmental degradation due to a narrow focus on economic growth. The goal of this initiative is to transform Thailand into a more livable, digitally smarter, equitable, and sustainable economy.

The Eastern Economic Corridor (EEC) plays a crucial role in this transformation. The EEC's development strategy centers around the eastern regions of Chonburi, Rayong, and Chachoengsao, concentrating on three key areas: infrastructure integration, targeted industry investment, and development of smart cities. The EEC aims to create a New Livable Smart City near Chonburi by 2037, which will serve as a model for developing smart cities across Thailand. With a goal of being among the top ten smart cities worldwide, the EEC must leverage innovative technologies and robust ICT and digital frameworks.

The THA: Smart City Visioning and Smart City Platform Assessment Report presents an organized approach, considerations, and recommendations to assist the Eastern Economic Corridor Office (EECO) in developing and delivering its bold vision for the New Livable Smart City, along with its Information Communication Technology (ICT) and digital setup.

The report is structured in line with the general steps that the EECO is advised to take in the delivery of the smart city vision and platform:



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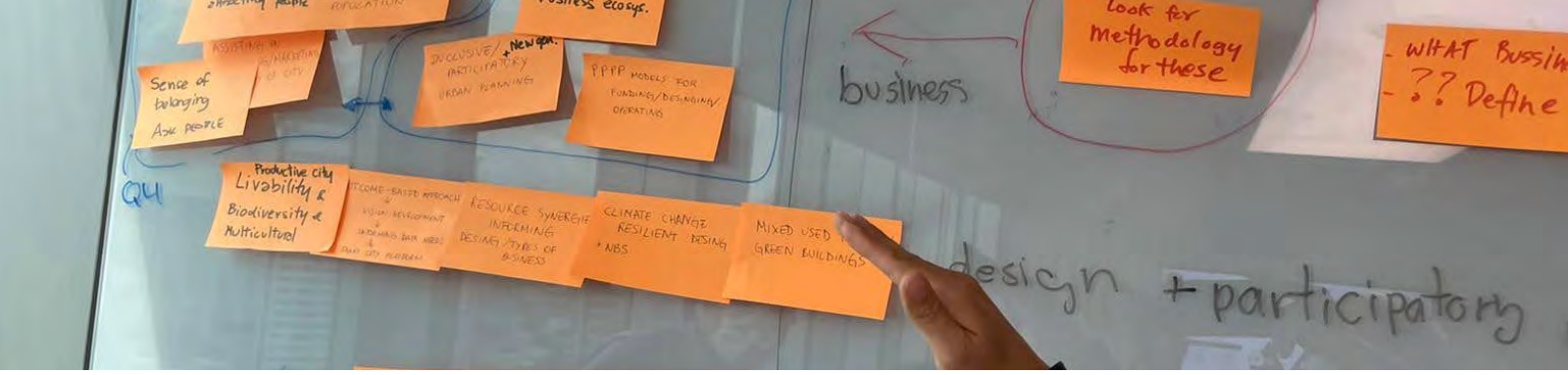


SMART CITY VISIONING AND OUTCOME-SETTING

Having a well-defined vision and outcomes is an important backbone in smart city planning. A robust planning approach is vital for successfully coordinating and addressing the complexities of delivering a smart city. It is vital that the needs and perspectives of citizens and businesses are well understood before exploring the use of smart technologies to deliver the smart city's vision. A participatory and inclusive approach to smart city planning can provide local governments with a cost-effective way of delivering innovative solutions to challenges faced by their residents. It also allows for the identification of possible solutions and attained mutual support, learning, and commitment for implementation from stakeholders.

The baselining process is crucial for decision-makers, as it allows them to gain a deep understanding of people and place, as well as the constraints and challenges, which can then inform the development of their smart city vision. Setting strategic outcomes and monitoring metrics are also vital for the successful delivery of the vision.

In a nutshell: To help ensure the success of the smart city visioning and outcome-setting process, the following recommendations have been identified for the EECO:

01 Commission a baseline study to understand existing and future place.

02 Conduct public consultation to ask the public about their vision for the city's future.

03 Host a workshop with internal stakeholders to conduct a strengths, weaknesses, opportunities, and threats (SWOT) analysis.

04 Revisit existing vision, outcomes and key performance indicators (KPIs).

IDENTIFYING SMART TECHNOLOGIES FOR THE DELIVERY OF OUTCOMES

While the visioning activities in the previous step are performed during the initial planning stages, the next step requires the EECO to be prepared to navigate a complex portfolio of programs, each with diverse objectives and desired benefits. Thus, bridging the vision for the New Livable Smart City with the acquisition of the appropriate ICT and digital infrastructure will require the adoption of a Benefits Management Strategy and the application of a scaled Benefits Realization Management (BRM) framework will help to define the level of uncertainty and complexity of EEC programs. Further, concrete management products are provided to adopt and utilize to continuously define, track, and realize benefits throughout the phases of the program lifecycles.

In a nutshell: To help ensure that the benefits are aligned with their overall smart city vision, the following recommendations have been identified for EECO:

05 Adopt benefit-oriented practices and mindset.

06 Identify benefit categories and define measurable benefits.

07 Develop a benefits realization management strategy.

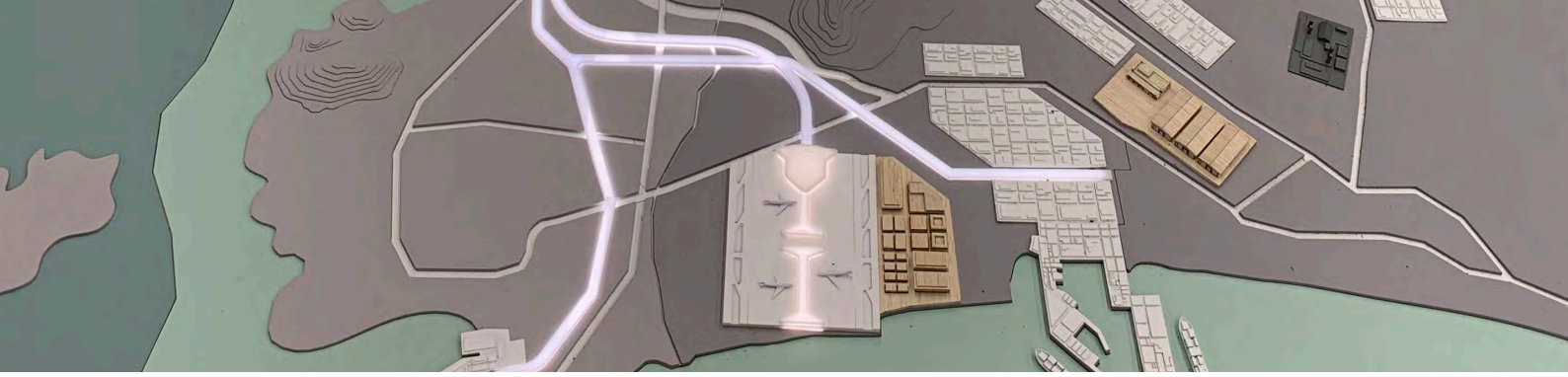
08 Map benefits, livability outcomes, and dependencies in collaboration with stakeholders.

09 Adapt and adjust the benefit realization plan continuously as the program progresses.

SMART CITY PLATFORM, INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND DIGITAL SETUP, AND OPERATING MODELS

To enable the smart aspects of the New Livable Smart City, the EEC must build and manage a complex ICT and digital infrastructure and a smart city platform, consisting of Internet of Things (IoT) systems, connectivity, data, platforms, and applications. It is therefore crucial that such infrastructure is continuously developed and operated to achieve and maintain operational efficiency. It is important not to adopt "smart" technologies for the sake of being "smart". In many instances, low-tech IoT devices can be used in connected systems to create truly smart solutions.

The ICT and digital infrastructure will comprise multiple vendors, each operating a proportion of the complete ICT and digital ecosystem. Hence, the EECO must ensure a modular and scalable structure in which current and future technological products and offerings that arise can be continuously deployed. In this regard, EECO must become a service integrator and service-level agreement owner.



In a nutshell: In considering the New Livable Smart City's ICTand digital infrastructure and smart city platform, the following is recommended for EECO:

10 Think in solutions and buy outcomes rather than technical components.

11 Balance vendor lock-in, alternative and attractive cashflow and funding models.

12 Get an information technology (IT) enterprise or system architect onboard, and focus on ensuring interoperability.

13 Create a modular operating model and manage operations through a SIAM© framework

14 Insist on vendors mapping technical ICT and digital features to the customer's architectural model.

FINANCIAL PARTNERSHIPS FOR SMART CITY PLATFORMS

The key questions for implementing the relevant smart city platform solutions for the New Livable Smart City will be centered on how to finance the proposed investment. Given that such a platform is a collection of both software and infrastructure, among others, the financing will also involve many different stakeholders and sources of funding.

As the smart city platform will continue to evolve as the New Livable Smart City plan moves from planning to implementation, it will not be possible to decide on the optimal financial structure upfront. Rather, there will be a need to enter into partnerships with many stakeholders to ensure that the right financing will be available for the various parts of the platform.

In a nutshell: In exploring the financial planning and potential sources of funding for the smart city platform, the following is recommended for EECO. These recommendations should be anchored by strong leadership and a systematic approach and methodology by the EECO due to the complex nature of the project:

15 Start with the end in mind.

16 Inventory your available assets.

17 Understand the business model.

18 Appoint a champion with clear decision-making authority.

19 Build local support.

20 Develop a business case that clearly lays out the value to potential partners.

21 Create a third-party entity.

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ABOUT THE ASEAN AUSTRALIA SMART CITIES TRUST FUND

The ASEAN Australia Smart Cities Trust Fund (AASCTF) assists ASEAN cities in enhancing their planning systems, service delivery, and financial management by developing and testing appropriate digital urban solutions and systems. By working with cities, AASCTF facilitates their transformation to become more livable, resilient, and inclusive, while in the process identifying scalable best and next practices to be replicated across cities in Asia and the Pacific. The Trust Fund is supported by the Australian Government through the Department of Foreign Affairs and Trade, managed by the Asian Development Bank, and implemented by Ramboll.

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