

- Smart City supported by Japan ASEAN Mutual Partnership –

Smart JAMP

APPLICATION FORM for Smart City Project Formulation Study

1. Project Digest

(1) **Project Title:** Smart Bus Shelters

(2) **Name of the city:** Bandar Seri Begawan, Brunei Darussalam

(3) **Category of the study:** D and E

*Choose one (or more, if item D and/or E included) from below

D) Capacity building program To build the capacity of the stakeholders including government officials or municipal staff through training programs or seminars (may be done online).

E) Experimental implementation To confirm applicability of a particular solution or technology for the smart city project in cooperation with Japanese solution provider(s).

(4) Justification of the Project *Provide detailed information of the project regarding the items below.

- Present condition of the smart city project in the target city:

The economy of Brunei Darussalam has been dependent on oil and gas sector, as both its main export and income. With the Wawasan Brunei (Brunei Vision) 2035, it is important to ensure the economy is sustainable for our future generations.

Therefore, diversifying our economy is among the main agenda in the nation's economic development. This is in-line with Goal 3 of the vision, among others, to utilize knowledge and technology as the basis of development in realizing the country's economic potential. Hence, we are looking at improving the public bus transport system throughout the whole country and especially now with the new Sultan Haji Omar 'Ali Saifuddien Bridge, making Temburong District, affectionately called the "Green Jewel of Brunei" even more accessible.

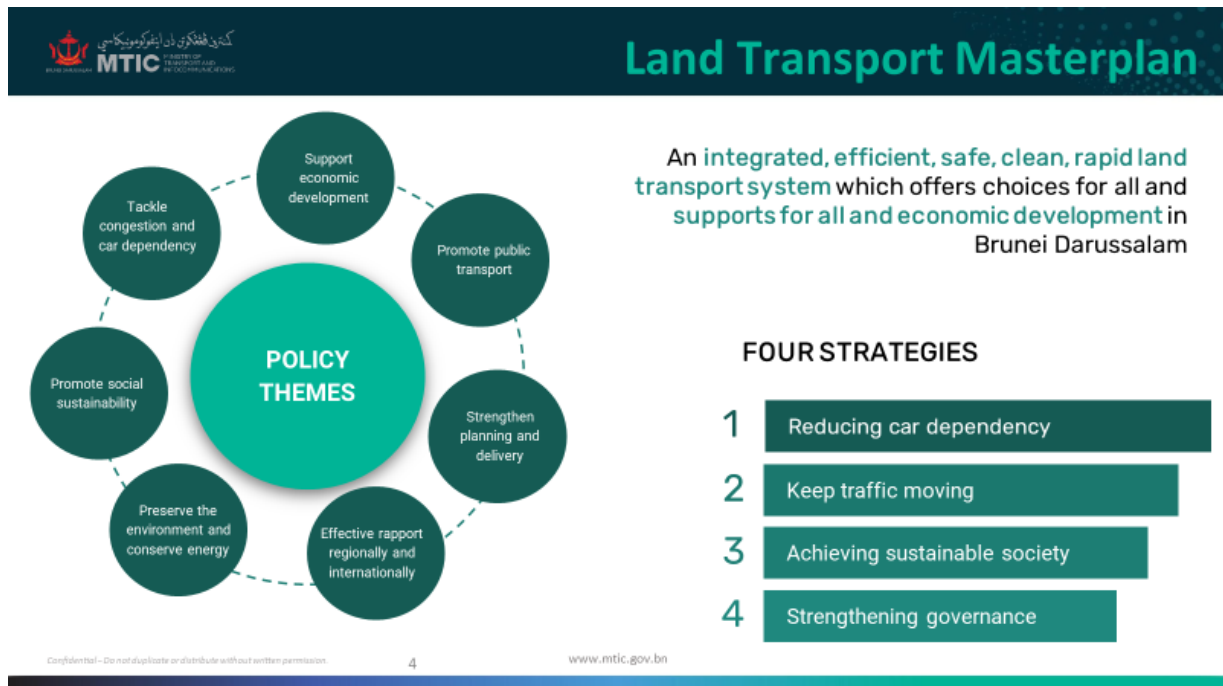
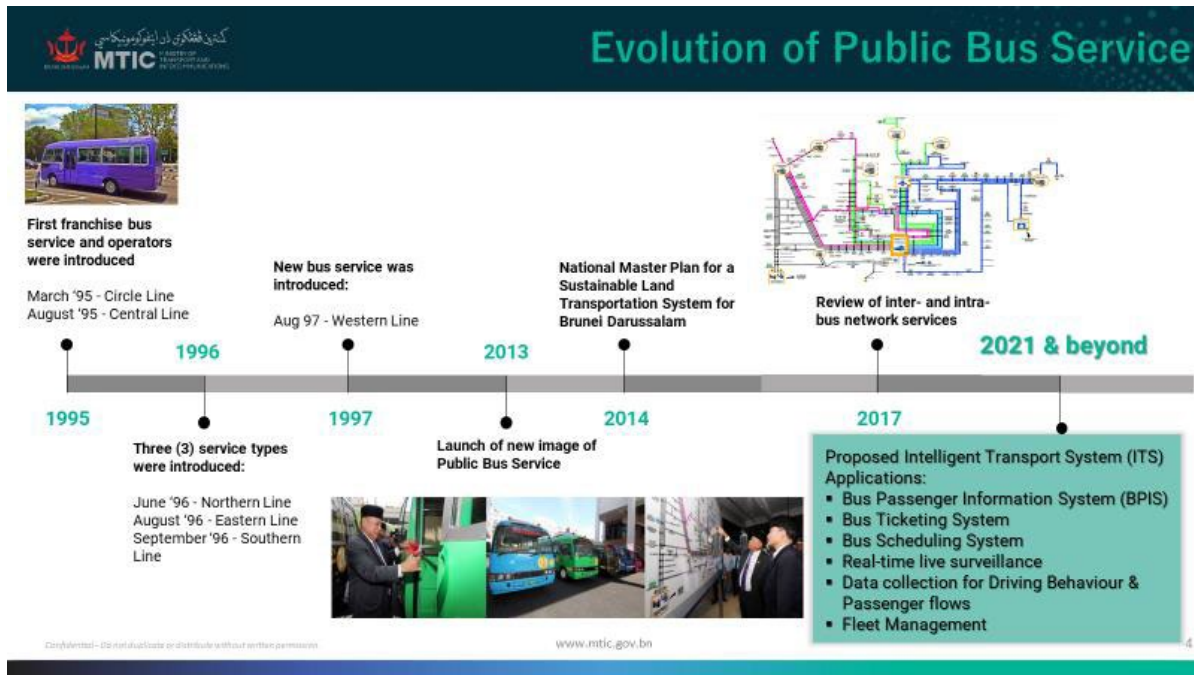
One of the ultimate goals is to offer diverse range of options for mobility, besides depending on private vehicles, which we hope to improve passenger's experience and comfort through "Smart Bus Ride" by using the advent technology of intelligent transport system.

At the same time with the mobile applications that provide accessible, accurate and reliable bus services and related information, we are also targeting the bus operators, policy and decision makers. These are critical for the purposes of well-informed policy and decision making, efficient transport management, effective regulatory control and enforcement which lead to spin-offs such as travel demand management and also enhancing road safety.

We see a modal shift to using the public bus transportation system will open up many opportunities and potentially maximise productivity, not even among the commuters by also for the nation. Thus with

readily accessible data and information coupled with digital innovation, is the head of an integrated and optimized public transport system. **Smart Bus Shelter** in this case will be one of the key components or supporting pillars towards realizing a fully integrated and intelligent public transport system.

- Sectoral development policy of the local government / municipality on the smart city project in the target city:



In order to embark and pursue an integrated Intelligent Public Transport Ecosystem, one of the essential components towards realizing it are buses information that are currently lacking or unavailable. Online or live information such as schedule timing, details of bus routes or current status and whereabouts of buses. With Smart Bus Shelter, these data can be easily captured or collected, not just buses but sensors can be also be in place onto Smart bus Shelter to capture, collect and provide the following:

- Pedestrian mobility
- Air Quality, humidity and CO2 level
- Surveillance to monitor and secure the Smart Bus Shelter
- Interactive board (advertisement, bus schedule, information and etc)
- Internet connectivity

- Outline of the Study:

The project experimental implementation will be able to further resolve current cross-cutting city challenges by utilizing solutions and emerging technologies such as BIG Data and AI. It will act as a critical key enabler towards digitalization and realizing Brunei as a Smart Nation.

The Smart bus shelter will further give comfort and shelter as it provides a safe and secure experience to utilize public transportation in the country. All relevant details and data are captured and collected to further enhance the municipal and nation business decision, planning and insightful trends.

- Purpose (short-term objective) of the Study:

- Improve public transportation information (Bus scheduling, routing, traffic and etc)
- Improve and enhance public or user experience in public transportation
- Safe and secure Smart Bus shelter
- Collection and analytical of raw data collected
- Increase people usage, confidence and convenience in utilizing public transportation
- Improving the people knowledge and technological advancement on the availability of emerging technologies and capabilities of BIG Data and Artificial Intelligence (AI).
- New revenue stream and collection from potential new applications and service offerings by both the public and private sectors

The implementation of the said initiatives will further assist the municipal to digitally transform the way it operates, conduct business and gain insightful data and information to supports its business decisions. Lessons could also be learnt from the data collected thus further improve any future business planning and provide a continuous evolving platform for opportunities.

- Goal (long-term objective) of the Study or entire project:

- Open data sharing within G2G and G2B (Industry)
- New innovative application and services
- Insightful data for better decision making and planning for city centers
- Sustainable Smart City with nationwide deployment of sensors creating new job opportunities, new market and innovative applications/services.
- Smart sustainable infrastructure and facilities for a better livelihood in Kampong Ayer, increasing quality of life and attracting both local and tourist with its rich cultural heritage and offerings.

- Other relevant projects, if any.

The Smart Bus Shelter will be capable of including other sensors measurement for a better and enhance experience for its users, municipal departments and its other stakeholders. Once proven successful, the experimental project will be further expanded to not just the capital city of Brunei Darussalam but for the whole nation as it increases citizens uptake of utilizing public transportation as well as providing access and ease of use to tourist.