

**APPLICATION FORM for Smart City Project Formulation Study**

1. Project digest

(1) Project Title: **AUTOMATED CITYWIDE TRAFFIC CONTROL SYSTEMS –  
UPDATE FOR IMPROVED MOBILITY**

(2) Name of the city: **LGU – DAVAO CITY**

(3) Category of the study: **C, D, E**

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

A) Masterplan (M/P) study

To formulate a masterplan for an entire smart city or a partial area of the target city, including the direction, comprehensive plan, and individual projects.

B) Pre-feasibility study

To determine priority among several alternatives on a particular field or part of an entire smart city project.

C) Feasibility study

To examine the feasibility or concrete details of an individual project composing the smart city project.

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:

**In 2004, the City Government of Davao realized the need for traffic strategies to reduce the traffic congestion and improve mobility of the city by installing a smart traffic system with extensive automated traffic signal with surveillance system. This ultimately paved to a series of Smart City Projects for Davao City. Studies were immediately conducted wherein a City-wide Traffic Signal Warrant Analysis was done and the project was systematically implemented by phase.**

**It did not take long for the City to be credited as Phase 1 of the state-of-the-art traffic signalization system won a Consulting Engineers and Land Surveyors of California (CELSOC) Merit Award for Engineering Excellence which is now known as American Council of Engineering Companies (ACEC).**

**The smart traffic with a surveillance monitoring system were fully operational in 2010 wherein the "No Contact Apprehension" (NCA) was implemented to sanction traffic violators. Initially, the system proved to be efficient, however, with the fast development of technology and the ever-increasing traffic volume, the full utilization of the said capabilities was never sustained.**

**Since 2004 traffic signals were installed in at least sixty (60) intersections across Davao City. Unfortunately, and as mentioned, its operations, maintenance and upgrade were not sustained. Only basic upkeep (e.g., replacement of traffic lights/bulbs, electrical wiring repairs, replacement of sensors, and the like) were made. No necessary upgrades and major installations were made to address the increasing traffic volume and demands for better traffic management in the city.**

**Currently, an efficient, systematic and synchronized operations for all traffic signals is not present. One of the difficulties encountered for Davao City is in identifying the essential repairs, updates, and upgrades to its current traffic signals. Davao City would like to proceed with developing its traffic signalization project with the end view of having a vendor-neutral and open-sourced system to afford the said project better flexibility and sustainability through the years. The said project also aims to be properly aligned with and connected to its intention to boost up public security monitoring capabilities.**

**More importantly, with the advent of Davao City implementing its landmark project to improve and modernized its public transport through the High Priority Bus System (HPBS), now, more than ever, there is a need to ensure that traffic management technology (i.e., traffic signalization system) in the city must seamlessly complement and supplement the technologies used in the HPBS Project.**

**It is also important to stress that in identifying the investment directions and the latest technologies that may be identified as solutions in addressing these needs in Davao City, its technical personnel must also be properly equipped, and the latter's skills and capabilities are enhanced, to prepare for the future. The possibility of experimental installations of the technologies that may be identified must also be considered to serve as concrete proof/s of the efficacy of the solutions identified.**

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

- Outline of the Study:

**This project entails the identification of the direction of how the city must improve and/or upgrade its existing traffic signalization system. It seeks to ensure future installations of equipment and infrastructure for the operation of an intelligent traffic control system that are both flexible and sustainable. Due to growing challenges on the traffic management in Davao City, the City of Government of Davao is looking to further enhance traffic management capabilities by leveraging on latest technological innovations available to regulate traffic and improve mobility conditions. Giving equal weight to safety and security, the City Government aims for the inclusivity of traffic and transportation solution into security mechanisms.**

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

\*A path to improving urban services through digital solutions like robotics, IoT, AI or big data, is expected.

**A Smart Traffic Signalization Upgrade with considerations on Cost of Investment, Cost of Maintenance, Scalability, Integration and Sustainability among the different systems to be implemented and/or Compatibility with the existing traffic signalization system.**



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

\*The applicant may choose from two layers of the goal of the Study including a) an entire urban development goal with a nexus of concrete construction, transport and infrastructure projects with ICT solutions, or b) a specific goal with a certain solution or technology in a particular field such as public health, disaster risk reduction, urban safety and security, mobility service (e.g. MaaS), energy solution, circular economy, advanced administrative services like public facility management or tourism promotion, as well as other fields like education, agriculture or supply chain management.

**Davao City's development focus areas are Personal Safety and Security and Mobility, with the inclusive vision of keeping the citizenry safe, secured, and improve the service mobility of all.**

- Other relevant projects, if any.

### **Converged Command and Control Centre**

**Davao City previously lead local government units in the Philippines in formulating and implementing a Public Safety and Security Command Center (PSSCC) specifically tasked to orchestrate all undertakings relative to safety and security. PSSCC acts as a center for all coordination efforts to ensure maximum efficiency of all resources involved in the safety and security operations within the City. Most importantly, whenever there are events and incidents beyond the usual capacity of a single agency, PSSCC takes lead in the multi-agency mechanism approach to further enhance efficiency of all safety and security efforts. The PSSCC is specifically tasked to orchestrate all undertakings related to safety and security within the City, and to lead multi-agency mechanisms for incidents beyond the capacity of a single agency.**

**Davao City plans to upgrade the capability of the Public Safety and Security Command Centre facility, by improving its traffic management capabilities through sustainable modern technologies. It envisions to have a converged command & control solution that will help PSSCC to easily link to other agencies and acquire near, if not real-time information that is critical in the planning and implementing towards a particular transportation safety and security concern.**