Project Digest

(1) **Project Title :** <u>Blockchain – Pre-Feasibility Study, Capacity Building Programme and Experimental Implementation</u>

(2) **Name of City:** <u>Kuching, Sarawak, Malaysia</u>.

(3) **Category of Study:**
- B) Pre-Feasibility Study
- D) Capacity Building Programme
- E) Experimental Implementation

(4) **Justification of the Project**

4.1. Present Condition of the Smart City project in Kuching

4.1.1. Developing Smart Cities in Sarawak has been one of the main strategies of the Sarawak Government in growing and sustaining the Sarawak Digital Economy (**SDE**);

4.1.2. Smart city related initiatives have already been on-going since the year 2017;

4.1.3. The initiative to develop the Kuching Smart City Master Plan (**KSCMP**) was completed end of 2020;

4.1.4. 15 (fifteen) initiatives under the Smart City project have been identified in the KSCMP;

4.1.5. Regarding smart traffic, the Sarawak Government has upgraded 42 junctions in Kuching and Samarahan with the smart traffic light system to smoothen the traffic flow;

4.1.6. Currently, regarding Fintech, one is able to conveniently go out without bringing physical cash. "SarawakPay", the Government-owned digital wallet platform is now widely accepted and used by 489,892 customers and more than 60,000 merchants in Sarawak as at 7 February 2021. In Kuching alone, more than 10,000 merchants are using it for accepting payments.

4.1.7. With regard to building trust in digital transactions among the Sarawak Government and the public (i.e. citizens, businesses, communities and other organisations), the key stakeholders deem this trust is very important and vital in moving forward to grow and and sustain the SDE ecosystem;

4.1.8. Currently, due to privacy and security reasons, it is a challenge to cultivate or build a complete trust in digital transactions among the Government and the public (citizens, businesses, communities, etc);

4.1.9. Blockchain concept is known to a certain extent among the technical people in the Kuching city or Sarawak, but there has not been any blockchain platform being developed and implemented for transactions in businesses in the various economic sectors or the Government organisations in the city of Kuching.

4.1.10. There is a need to do a study on the feasibility and capacity of developing, implementing and maintaining blockchain(s) in Kuching or Sarawak.

4.2. Sectorial Development Policy on Smart City Project

Sarawak Multimedia Authority (SMA) is a regulatory body established by the Sarawak Government pursuant to Section 3 of Sarawak Multimedia Authority Ordinance 2017 with the primary objective to spearhead, oversee and facilitate the development and implementation of the communication, multimedia and the State's Digital Economy Initiatives that include Smart City. Further reference: https://www.sma.gov.my/#about-us.

As such, all Sarawak Government agencies including local government / municipality are governed and guided by the policies, master plan, regulations and decisions of the SMA. The scope of SDE policies and initiatives comprises of 8 Digital Economy sectors and 7 enabler sectors. They are listed as follows:

Digital Economy Sectors			
Agriculture	Tourism	Manufacturing – Industry 4.0	Smart City
Digital Health	e-Commerce	Digital Government	Social
Enabler Sectors			
Digital Infrastructure	Digital and Data	Digital Skill and Talent Management	Research and Development
Cyber Security	Digital Inclusivity	Innovation and Entrepreneurship	

The objectives and strategic actions of each sector and enabler are identified in the Sarawak Digital Economy Strategy 2018-2022 document. Further reference: https://www.sma.gov.my/upload/file_folder/download/DEBooklet.pdf.

The Chief Smart City Officer (CSCO) position of Kuching City under the ASEAN Smart City Network is also held by an officer of the SMA.

Kuching Smart City development policy are encapsulated in the Kuching Smart City Master Plan. The sectors for Kuching Smart City are shown in the following diagram:

Figure 2: Kuching Smart City Conceptual Framework

4.3. Outline of the Study

4.3.1. To identify areas of application of Blockchain. The areas of application may include (but not limited to):

4.3.1.1. Land records;
4.3.1.2. Housing records; and/or
4.3.1.3. Agriculture records.

4.3.2. To examine how feasible it is to develop, implement and maintain blockchain in Kuching city;

4.3.3. To study and formulate required Capability/Capacity for the development, implementation and maintenance of blockchain in Kuching

4.3.4. To study the readiness of the respective entities / organisations in accepting and using blockchain in transactions, in operating as a blockchain node, and in meeting other blockchain implementation requirements.

4.4. Purpose (short-term objective) of the Study

4.4.1. To study and examine in order to find out or understand the information including (but not limited to) the following:

4.4.1.1. how feasible it is to implement blockchain in Kuching city, starting with **land** transaction records, **housing** transaction records and **agriculture** transaction records;

4.4.1.2. what benefits the implementation of blockchain would be for Kuching city;

4.4.1.3. what percentage of citizens in Sarawak understand what a blockchain is and its benefits;

4.4.1.4. what percentage of citizens will support the use of blockchain after they are being explained and understand the benefits of it;

4.4.1.5. what legal requirements and/or amendments need to be effected;

4.4.1.6. what capacity building programme(s) are to be in place before or for the implementation of blockchain; and

4.4.1.7. what digital infrastructure or platforms are required for the implementation of blockchain.

4.4.1.8. how fast and easy it would be for online transactions for the public and the unnecessary intermediary fees or costs that could be eliminated for the public;

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

4.5.1. To develop a mechanism to build effective level of trust on digital transactions among the Sarawak Government and the Public (citizens, businesses, communities, and other organisations);

4.5.2. To establish a strong selling point for foreign investors to trust and invest in Sarawak by implementing blockchain(s) for transactions in/across various industrial or economic sectors (https://www.sma.gov.my/#digital-economy-sectors)

4.5.3. To make the lives of the public easier, convenient and less stressful with:

4.5.3.1. fast and cost-saving peer-to-peer digital transactions; and

4.5.3.2. transparency of digital transactions with proper access control;

4.6. Other relevant projects, if any

4.6.1. Sarawak Integrated Operation Centre (SIOC) project;

4.6.2. Sarawak Digital Identity (Single-sign-on platform) known as "SarawakID".

APPENDIX 1. - GLOSARRY

#	Term	Definition
1.	SDE Sarawak Digital Economy	Sarawak Digital Economy is the on-going economy that the Sarawak Government has worked, planned and strategized to grow and sustain, after a series of workshops (labs) and the development of the SDE Strategy 2018-2022 which contains the directions and strategic actions in the respective economic sectors. https://www.sma.gov.my/#digital-economy-sectors
2.	Public	Public in this document includes Citizens, Businesses, Communities and other organisations.