

Murata Manufacturing Co., Ltd.

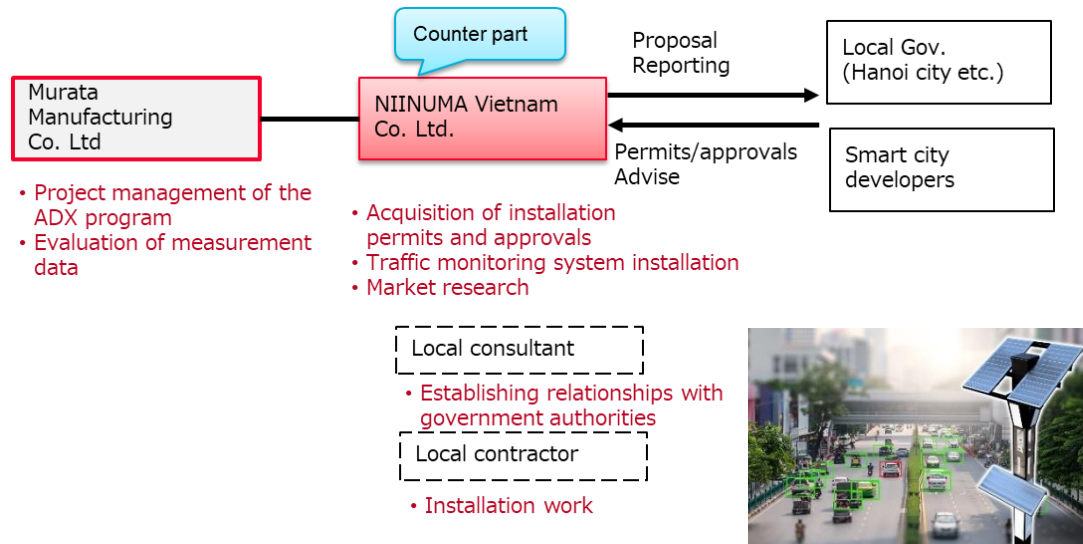
POC project on IoT platform implementation for real-time traffic monitoring in Vietnam



Objective of the project

In Vietnam, accurate transportation data is lacking in promoting the digital transformation (DX) in the mobility and logistics field. To tackle this challenge, our plan includes observing traffic data at fixed points using a system that has already been introduced in Jakarta and identifying issues toward verification and promotion of highly accurate real-time traffic data. We also aim to develop a system that can acquire accurate traffic data for various vehicles in Vietnam and verify its effectiveness.

Cooperation with local companies/governments



Targeted economic/social issues

Murata conducted a market survey in 2021 to identify challenges before the ADX project.

- In major cities such as Hanoi and Ho Chi Minh City, rapid development has led to air pollution and economic losses due to traffic congestion.
- Its motorcycle ownership rate is one of the highest in Southeast Asia, accounting for approximately 70% of the population.
- The Vietnam Transportation Development Strategy Institute (TDSI) estimates that traffic congestion in Hanoi alone causes annual economic losses of US\$1 to 1.2 billion.

In such a situation, DX in the mobility and logistics sector is a priority area for the country. However, there is a challenge of not being able to collect accurate traffic data, which serves as the foundation for DX.



Traffic congestion is significant in major cities.

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Demonstration Period

September 2022 – January 2024

Details of demonstration

- (1) Confirmed the presence of relevant policies and organizations that would help develop a favorable business environment and support our IoT data business by making the survey on the current status of DX related to traffic information in Vietnam.
- (2) Carried out a proof-of-concept experiment for the Traffic Count data business (a business that leverages valuable data obtained from data collection systems/infrastructures, rather than the systems/infrastructures themselves) to assess its technical feasibility and commercial viability.
- (3) Examined the configuration of commercial infrastructures, considering the security and traceability of future IoT data businesses.
- (4) Developed strategies and plans for our business penetration in Vietnam.



Project outcome / Future Plans

Through this project, we identified technological challenges and gathered market/customer information for commercialization in Vietnam.

- For transportation DX promotion organizations within local governments, approaching the Intelligent Operation Center (IOC) and Traffic Control Center was found valuable.
- Proofs-of-concept were conducted at three locations to identify technical and operational challenges on the edge side, including sensor equipment.
- A commercial infrastructure configuration was defined considering future market trends and security/traceability in IoT data business.
- Sales plans and commercialization steps were organized that focus on government agencies but also include private companies.

Our goal is to create businesses improving road planning, enhancing traffic administration quality, and generating social benefits based on social data and scientific knowledge.

- We will carry out sales activities aligned with our business strategy, exploring overseas data sales through our developing global supply chain.
- Acquiring/expanding technologies linked to the business strategy will be prioritized for technology/system operation.