

## Toyota Mobility Foundation, Bangkok Metropolitan Administration, UN-Habitat, Asian Institute of Technology and Toyota Motor Thailand Sign a Letter of Intent (LOI) to Launch the TRUST Project for Road Safety in Thailand

April 28, 2025 - The Toyota Mobility Foundation (TMF), in collaboration with the Bangkok Metropolitan Administration (BMA) and key partners, UN-Habitat (UNH), Asian Institute of Technology (AIT) and Toyota Motor Thailand (TMT) have officially launched the **TRUST (Thailand Road Users Safety through Technology) Project**. This initiative aims to establish the methodology of leveraging systematic data and analytics to reduce traffic accidents in Thailand.

The launch formalizes the collaboration between BMA, UNH, AIT, TMT and TMF as key stakeholders in advancing road safety initiatives. The event was attended by Bangkok Governor, Dr. Chadchart Sittipunt; Chief of UN-Habitat Multi-Country Office, Mr. Srinivasa Popuri; Vice President of Asian Institute of Technology, Professor Manukid Parnichkun; Executive Vice President of Toyota Motor Thailand Co., Ltd., Mr. Surapoom Udomwong; and Director of Toyota Mobility Foundation, Mr. Susumu Matsuda. This partnership symbolizes a significant step forward in utilizing technology and data-driven solutions to analyze road accidents and driving behavior to enhance road safety in Thailand.

The TRUST project is rooted in Toyota's global commitment to road safety and is part of a practical initiative that originated from the Tateshina Meeting\*1 organized by Toyota in Japan. At this annual meeting, Toyota and leaders from various industries discuss safety initiatives and joint activities to achieve **zero road casualties worldwide**.



\*1 Link: https://global.toyota/en/newsroom/corporate/39544702.html



Figure.1: (left) Tateshina Meeting in Japan among TMF and (right) List Tateshina Sub-Committee Participants

Given the per capita accident ratio, and Toyota's commitment to being Best in Town in Thailand, TMF initiated a multi-phased project to address road safety challenges through collaborative activities with multiple stakeholders. This project employs data-driven analysis to identify the root causes of accidents and enhance road safety based on a threeelement approach: people, vehicles, and road infrastructure.

## **Key Initiative**

**Pilot Phase 1: (Term April '24 – June '25)** The initial phase of the project was conducted in Chachoengsao Province by TMF in partnership with the AIT. This phase utilized **probe data** from Toyota vehicles to identify high-risk accident zones and unsafe driving behaviors. Five locations in Phanom Sarakham and Mueang Districts were analyzed. The findings indicated that vehicle probe data can identify high-risk locations from sudden braking points and analyze driving behaviors such as sudden acceleration and sharp steering. However, as the initial analysis primarily covered four-wheeled vehicles, and a significant portion of Thailand's accidents involve motorcycles, TMF would like to extend the data set in Phase 2 for a more comprehensive analysis.

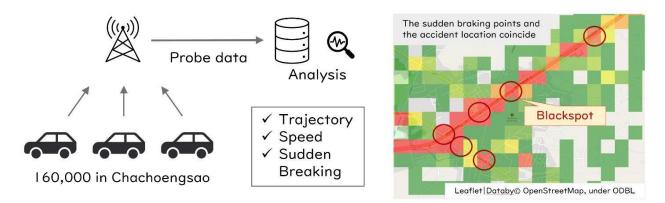


Fig 2: Vehicle Probe data Analysis Example

**Phase 2: (May '25 – Apr '27)** Phase 2 is set to expand the usage its data sources and collaboration network to be more comprehensive and test more advanced data analytics. The initiative will focus on the **Chatuchak District in Bangkok**, a higher accident-risk area with heavy traffic, but with comprehensive CCTV coverage. Road Accident Victims Protection Co. Ltd. (RVP) will support by providing accident data to increase the efficiency of analysis for further development of road safety management.



Figure 3 : Image of trial area of phase2 – Chatuchak road network

**Key Collaboration Partners and Contributions** The success of the TRUST Project relies on contributions from multiple stakeholders. The partners and their roles are as follows:

- Bangkok Metropolitan Administration Data access, CCTV footage, and implementation of safety measures. Championing the entire project.
- **UN-Habitat** Capacity building, global networking, and insights from international safety initiatives.
- Asian Institute of Technology Project management and technical contribution, accident and risk behavior analytics, and oversight.
- **Toyota Motor Thailand Co. Ltd.** Provision of probe data and expertise from the White Road Project on Road Safety
- **Toyota Mobility Foundation** Project funding and technological support, including introduction of AI-driven analysis of probe data, near-miss and incident data.

Support from data partners:

• Road Accident Victims Protection Co. Ltd. – Support historical road accidents data.

**Project Timeline and Future Expansion** The TRUST Project will be implemented from **May 2025 to April 2027** (2.0 years). The project aims to develop a scalable model for accident prevention, which can be expanded across Bangkok and other provinces. The insights and successes from TRUST will also be shared at international forums to contribute to global road safety advancements.

## Remarks

**Director of Toyota Mobility Foundation, Mr. Susumu Matsuda**: "We are excited to announce the launch of the TRUST project, which aims to reduce traffic accidents in Thailand. By utilizing vehicle probe data and advanced analytics, we strive to create a safer and more comfortable road environment in Bangkok. Our vision is eventually to expand this model to other regions in Thailand. Our ultimate goal is to achieve zero traffic accident

casualties through collaboration and innovative solutions."

**Bangkok Governor, Dr.Chadchart Sittipunt**: "Road safety is a crucial issue for Bangkok, and we must take decisive action to reduce accidents and save lives. Lowering speed limits, promoting helmet use among motorcyclists, and improving road conditions are key steps in making our roads safe. These measures align with global standards and reflect our commitment to protecting all road users."

"Beyond policies, we are also enhancing infrastructure, improving pedestrian crossings, and leveraging technology for better traffic enforcement. Creating a culture of road safety requires cooperation from all parties, including government authorities, drivers, and

pedestrians. Together, we can make Bangkok a safer and more livable city for all."

Chief, UN-Habitat Multi Country Program Office, Regional Office of Asia and The Pacific, UN-Habitat Mr. Srinivasa Popuri: "Cities need to urgently accelerate their efforts on road safety. At UN-Habitat, we believe that leveraging data-driven solutions and collaborative partnerships is key to making cities safer and more inclusive."

**Director of Thailand Accident Research Center of AIT, Professor Kunnawee Kanitpong**: "From the first phase of operations in the Chachoengsao area, probe data from vehicles and AI technology were used to collect and analyze accident causes in addition to the

usual methods used by Traffic Accident (RC - EXPAND). We found some advantages that helped our work to be more accurate, such as the amount of data covering a longer period, while human data collection might only be for a certain period and reduce bias from human analysis. It provided traffic information, including speed, vehicle volume, vehicle types, and traffic conflicts. However, there are still challenges in collecting this data, such as costs, knowledge of data users, and in this phase, we still lack data on motorcycle drivers

For more information about the TRUST Project and its progress, please contact:

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## **About Toyota Mobility Foundation**

The Toyota Mobility Foundation was established in August 2014 by the Toyota Motor Corporation (Toyota) to support the development of a more mobile society in which everyone can move freely. The Foundation underscores Toyota's ongoing commitment to continuous improvement and respect for people. It utilizes Toyota's expertise and technologies to support strong mobility systems while eliminating disparities in mobility. TMF works in partnership with universities, governments, non-profits, research institutions and other organizations, creating programs that are aligned with the UN Sustainable Development Goals (SDGs) to address mobility issues around the world.

Chair Akio Toyoda commented "TMF aims to create a truly mobile society that will help people live better lives no matter where they are."

In the past, TMF has led a range of projects and challenges, including the **Sathorn** and **RAMA IV** Decongestion projects in Thailand, <u>CATCH</u> in Malaysia,**STAMP Challenge** in India, Sustainable Cities Challenge globally and <u>Mobility Unlimited Challenge</u> globally. You can find out more about TMF and how it is governed at toyotamobilityfoundation.org.

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