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Dynamic Map Platform Co., Ltd.

BIPROGY Inc.

NEXT Logistics Japan, Ltd.

Yamato Transport Co., Ltd.

Launch of On-the-Road Self-Driving Truck Trials in a Section of the Shin-Tomei Expressway Developing a system for safe and efficient logistics through self-driving and joint transportation

Dynamic Map Platform Co., Ltd. (Headquarters: Shibuya-ku, Tokyo; CEO & President: Shuichi Yoshimura), BIPROGY Inc. (Headquarters: Koto-ku, Tokyo; President & CEO: Noboru Saito), NEXT Logistics Japan, Ltd. (Headquarters: Shinjuku-ku, Tokyo; Representative Director and President: Yukio Umemura), and Yamato Transport Co., Ltd. (Headquarters: Chuo-ku, Tokyo; Representative Director and President: Yutaka Nagao) have developed a data coordination system ("the system") for supporting self-driving under the Digital Infrastructure Development Project for Digital Transformation of Industries/R&D for Infrastructure for Advance Implementation of Digital Lifelines project, for which the New Energy and Industrial Technology Development Organization (NEDO) publicly solicited applications. The system will help to bring about optimized logistics through safe self-driving trucks and smooth joint transportation.

Now, the four companies will conduct an on-the-road trial of self-driving trucks on the section of the Shin-Tomei Expressway between the Surugawan Numazu Service Area and Hamamatsu Service Area from February 25 to 27, 2025. This trial will verify the system's feasibility in terms of self-driving truck safety and streamlining joint transportation.



Self-driving truck: Illustration

■ Overview of the Trial

Period: February 25 to 27, 2025

Area: Surugawan Numazu Service Area to Hamamatsu Service Area on the Shin-Tomei Expressway

Trial Details:

- Optimal route planning for joint transportation
- Safe driving support for self-driving vehicles
- Route plan adaptation to driving environment changes
- Support for emergency response

* Self-driving trucks will be provided by Advanced Smart Mobility Co., Ltd. under the RoAD to the L4 initiative.

* A driver will be present in the vehicle during the on-the-road trial, making the experiment equivalent to Level 2 self-driving.

■ Overview of Data Coordination System for Self-Driving Support

- Self-driving support system with dynamic map information distribution

Dynamic Map Platform

Dynamic Map Platform has developed a data coordination system that can send vehicles highly accurate weather information and road condition data, such as traffic congestion, according to road geometry. This allows for recognition of information several kilometers away that the vehicle cannot detect on its own. In addition, by providing accurate location information of vehicles to logistics operators, the system can be used for operation management and in situations where evacuation decisions are required in an emergency.

- System for sharing simulated near miss scenarios

BIPROGY

Thanks to BIPROGY's work to build a simulation environment using near miss data acquired from vehicles and external systems, it is now possible to provide a variety of scenarios that contribute to safety testing during self-driving vehicle development.

- Support system for streamlining joint transportation with self-driving trucks

NEXT Logistics Japan, Yamato Transport

These two companies have developed a system that matches cargo and available truck space by inputting data necessary for joint transportation, such as cargo information and truck availability, as well as an API that allows for collaboration between shippers and logistics operators. This will enable logistics operators to improve truck loading and utilization rates.

In addition, the companies have created an environment that allows this system to work with self-driving remote monitoring systems, as well as the self-driving support system developed by Dynamic Map Platform. In conjunction with this, traceability management for joint transportation operation has been built in through the development of a system to deter unauthorized trailer coupling during joint transportation and fraudulent cargo receipt by persons impersonating

consignees.

Reference

■ Background and Objectives of Project Selection

Under the leadership of Japan's Ministry of Economy, Trade and Industry, the Digital Lifeline Development Plan was studied and established in June 2024, with the aim of solving social issues and developing industries through digital technology. In particular, the development of Self-Driving Service Support Roads is positioned as an Early Harvest Project, an advance initiative. In logistics, there is a need to build the collaborative infrastructure required for measures such as joint transportation and the use of self-driving trucks.

In this project, a data coordination system will be developed to support self-driving and provide the necessary data sets for functions common to the operations of each business, thereby creating a digital infrastructure to cluster data coordination platforms to help multiple companies and industries integrate their respective data. The infrastructure to be developed will be widely used not only in the field of logistics, but also in various mobility areas.

■ Related Press Releases

- Digital Lifeline Development Plan, Ministry of Economy, Trade and Industry

https://www.meti.go.jp/policy/mono_info_service/digital_architecture/lifeline_portal/index.html

- Selected as an organization to implement a NEDO project, the "Digital Infrastructure Development Project for Digital Transformation of Industries/R&D for Infrastructure for Advance Implementation of Digital Lifelines" -Field testing using level 4 autonomous driving trucks to be carried out in FY2024- (July 24, 2024).

https://www.yamato-hd.co.jp/english/news/2024/pdf/newsrelease_20240724_en01.pdf

Contact

Corporate Communications, Yamato Transport Co., Ltd.

TEL: +81-3-3541-3411