



## P R E S S R E L E A S E

June 23, 2021

### **A safer society with automated driving support and mapping technology: Mitsubishi Fuso starts joint research project with Woven Alpha**

- **The project will combine MFTBC's automated driving support system and Woven Alpha's Automated Mapping Platform (AMP) to improve the safety of commercial vehicles**
- **Mitsubishi Fuso and Woven Alpha will hold verification tests of "Entering Curve Speed Warning" (ECSW) technology, which uses map information generated by AMP**
- **This marks the first AMP verification test for heavy-duty commercial vehicles**

**Kawasaki, Japan** - Mitsubishi Fuso Truck and Bus Corporation (MFTBC; Headquarters: Kawasaki City, Kanagawa Prefecture; President and CEO: Hartmut Schick) has started a collaborative research project with Woven Alpha, Inc. (Woven Alpha), a group company of Woven Planet Holdings, Inc. (Headquarters: Chuo-ku, Tokyo; CEO: James Kuffner). By combining MFTBC's automated driving support technology and Woven Alpha's mapping technology of Automated Mapping Platform (AMP), the two companies are aiming to enhance the safety of commercial vehicles. While exploring the possible introduction of new truck features, MFTBC and Woven Alpha also aim to study the adequate balance between technological sophistication and cost.

While the two companies have already listed more than 10 potential areas of collaboration, joint research will start this year with a verification of the "ECSW" technology, which will utilize MFTBC's heavy-duty Super Great truck. This is the first verification test to implement AMP for heavy-duty commercial vehicles.

#### **●About the joint research project**

MFTBC, a manufacturer of trucks that keep economies moving, and Woven Alpha, which explores new areas for business expansion and incubates new innovative projects, will conduct joint research on equal footing to explore new technological and commercial possibilities for automated mapping. The two companies have listed more than 10 potential target areas of collaboration; after the ECSW verifications, the scope of these collaborative efforts is expected to expand.

As cost optimization is an important point of consideration for commercial vehicle owners everywhere, the balance between technological sophistication and cost is vital to the successful introduction of any advanced feature in trucks and buses. Through this joint research, the two companies aim not only to realize desired functions, but also to identify the optimum balance between the required map accuracy and the cost of introduction.

"We at MFTBC approach automated driving assistance technology, and the autonomous driving technology beyond that, as a strategic point of focus in producing safer commercial vehicles. We are doing the utmost to develop these technologies, because we believe that they will soon be indispensable in our world. Woven Alpha's AMP has the

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potential to be an important part of this future, and we are therefore convinced that the joint research will prove to be mutually beneficial. We hope to participate in active knowledge-sharing with our partners to the maximum extent possible, for the ultimate goal of safer roads everywhere."

(Hironobu Ando, Senior Vice President, Head of Product Engineering, Mitsubishi Fuso Truck and Bus Corporation)

"I am delighted to collaborate with Mitsubishi Fuso Truck and Bus Corporation, one of the leading truck and bus makers in Japan, perfectly suited to push the envelope on the safety of commercial vehicles. Our work is not only about getting people and goods from A to B, it is about saving people's lives and reducing the burden on the driver. Over the last few years, we have been working on developing highly accurate semantic HD maps updated automatically frequently, and inexpensively. We are building the platform to be highly scalable and open to future collaboration with global manufacturers of all sizes. This is the first step in our commitment to helping maximize safety for commercial vehicles."

(Mandali Khalesi, Vice President of Automated Driving Strategy and Mapping, Woven Planet Holdings)

#### ● MFTBC's advanced driving support technology for safer roads everywhere

MFTBC delivers safety to everyone around our vehicles, including drivers and pedestrians. As one of the efforts, we are taking an advanced approach to the development of automated driving support technology in collaboration with the global Daimler Trucks network.

In 2019, MFTBC launched the heavy-duty Super Great truck equipped with the automated driving support function "Active Drive Assist" (equivalent to SAE Level 2) for the first time in Japan as a commercial vehicle manufacturer.

Additionally, MFTBC has realized more advanced automated driving support functions in the new model announced in June 2021, with the "Emergency Stop Assist" feature, another first for commercial vehicles in Japan.

In the future, MFTBC aims to improve these automated driving support technologies by developing SAE Level 4-equivalent features.

#### ● What is the AMP?

The Automated Mapping Platform (AMP) is a connected crowdsourced software platform that supports the creation, development and distribution of high definition ("HD") maps - a key enabler for smart and safe automated mobility. AMP provides HD maps by utilizing vehicle fleet data and advanced satellite imagery technology. AMP HD map includes several layers of data rich information of road objects such as lanes, road signs, traffic lights, and other objects, as well as that of road curves and topography creating an accurate representation of the road while keeping it updated. The Woven Alpha team plans to develop AMP to become the most globally comprehensive road and lane network HD map platform enabling high-precision localization support to automated driving vehicles.

#### ● What is ECSW?

The Entering Curve Speed Warning (ECSW) is a system that aims to give drivers sufficient warning in advance before they enter a sharp curve. With this system, drivers may be able to slow down to safe speeds before difficult sections of roads, and thereby drive with greater confidence. The ECSW takes into account the condition of a truck being driven, in addition to its speed and the curvature of the road ahead, and uses this information to issue warnings to the driver at appropriate times. This system is expected to help prevent vehicles from tipping over on a sharp turn or running into other lanes.

In order for ECSW to function, both mapping technology and data on vehicle conditions are equally important. Through their joint research project, MFTBC and Woven Alpha will verify this AMP-based system on MFTBC's heavy-duty Super Great.

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MFTBC's heavy-duty Super Great truck to be utilized in the verification

### About Woven Planet

Woven Planet Group (Woven Planet) represents a carefully curated blend of expertise and resources dedicated to bringing the vision of “Mobility to Love, Safety to Live” to life. Through innovations and investments in automated driving, robotics, smart cities, and more, we are transforming how humankind lives, works, and moves. We exist to design, build, and deliver secure, connected, and sustainable mobility solutions that benefit all people worldwide. Founded in 2018 as Toyota Research Institute - Advanced Development (TRI-AD), Woven Planet is comprised of four complementary companies: Woven Planet Holdings, Woven Core, Woven Alpha, and Woven Capital. For more information, please visit: <https://www.woven-planet.global/>

### MFTBC at a Glance

Based in Kawasaki, Japan, Mitsubishi Fuso Truck and Bus Corporation (MFTBC) is one of Asia's leading commercial vehicle manufacturers, with 89.29% of its shares owned by Daimler Truck AG and 10.71% by various Mitsubishi group companies. An icon in the Japanese commercial vehicle industry with a longstanding history of more than 85 years with its Fuso brand, MFTBC manufactures a range of commercial vehicles including light, medium, and heavy-duty trucks and buses, and industrial engines for over 170 markets worldwide. In 2017, MFTBC introduced the eCanter, the first all-electric light-duty truck in series-production and in 2019, the Super Great – Japan's first heavy-duty truck fitted with Level 2 Automated Driving Support Technology, a benchmark in the Japanese commercial vehicle market. MFTBC operates under the umbrella of Daimler Trucks Asia, together with its partner organization Daimler India Commercial Vehicles (DICV) in India. This strategic unit allows the entities to collaborate on areas such as product development, parts sourcing and production to provide the best value to customers.

### Daimler Trucks Asia at a Glance

Daimler Trucks Asia (DTA), under Daimler Truck AG, is an organizational unit that jointly operates Mitsubishi Fuso Truck and Bus Corporation (MFTBC) – an icon in the Japanese commercial vehicle industry with more than 85 years of history with its Fuso brand – and Daimler India Commercial Vehicles (DICV), an up and rising challenger in the Indian market. DTA adopts a strategic business model that allows its group entities to collaborate on product development, production, exports, sourcing and research activity to provide innovative, cutting-edge and best value products to customers. DTA's vision is “to develop mobility solutions to embrace a better life for people and the planet”, and is aligned with Daimler Truck's purpose “For all who keep the world moving.”

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