Press Release
MAN Truck & Bus

Operating autonomously through the terminal: The digitalization of combined transport is now underway

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- **A joint project for the future is being launched by MAN, Deutsche Bahn, the Hochschule Fresenius University of Applied Sciences and Götting KG.**
- **Fully automated truck to be developed and tested for a more flexible container handling in terminal.**

In order to automate transshipment between different modes of transport the project “Autonomous Innovation in Terminal Operations” (ANITA) has been launched on July 1st, 2020. Therefore, a fully automated truck is to be developed and tested in actual logistics operations at the DUSS Terminal in Ulm. Combined transport – the intermodal combination of road, rail and/or water transport – is one of the fastest-growing markets in the entire field of freight transport. The project ANITA is another important building block on the road to automating the entire transport process. It makes it possible to deploy vehicles and drivers more flexibly.

The project partners are MAN Truck & Bus SE, Deutsche Bahn AG, Götting KG and the Hochschule Fresenius University of Applied Sciences. The project is being funded with approx. 5.5 million euros by the German Federal Ministry for Economic Affairs and Energy’s “New Vehicle and System Technologies” program and is scheduled to run for 39 months.

The fully automated truck is to be used at the Ulm Dornstadt site. It will move automatically within the DB Intermodal Services container depot and the DUSS terminal. A MAN ‘safety driver’ will always be on board during tests. The digital infrastructure and all necessary interfaces will first be set up on site. Experienced crane operators will handle the containers to ensure that operations can be tested under real conditions.

Dr. Sigrid Nikutta, DB Management Board Member for Freight Transport: “Combined transport is key to successfully decarbonizing transport. The customer accesses rail transport via transshipment terminals, so it is important

that we offer efficient and innovative processes here. Containers must be handled faster and more flexibly. We are using digitalization for this purpose, as in the ANITA project: self-driving trucks in the terminal are a first, important step towards 'Terminal 4.0'."

MAN Truck & Bus SE is developing the vehicle for the project: "Together with our partners, we will gain valuable experience with autonomous vehicles for container handling at a terminal. Following our already very successful platooning project with DB Schenker AG and the Fresenius University, ANITA marks the next important step on the road to automated driving in hub-to-hub application – yet another milestone on our MAN automation roadmap," says Dr. Frederik Zohm, Executive Board Member for Research and Development at MAN Truck & Bus.

Götting KG will develop algorithms for determining the vehicle's location and detecting obstacles. Hans-Heinrich Götting is in charge of Götting KG: "The ANITA project should improve our ability of our environment detection to a whole new level as we strive to achieve full automation. Collaborating with key partners within a real environment is extremely important for Götting KG."

To ensure successful communication between the truck and the terminal/container depot, the behavior of people and machines on the terminal site will first be analyzed so that it can be translated into digital processes and rules. This will be the job of the Fresenius University of Applied Sciences: "We have a tradition of analyzing processes in complex systems," says Prof. Dr. Christian T. Haas, Director of the Institute for Complex Systems Research at Fresenius University. "The particular challenge posed by the current project is that we not only need to understand the system's behavior, but also have to translate this into a digital concept that machines can work with. Safety has highest priority – but performance aspects are also important for the rollout process."

Caption:

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