Joint Press Release

KIBA artificial intelligence project underway: AI to optimize loading in combined transport

Berlin/ Hamburg, November 25, 2022. A new digitalization project in the combined transport space aims to speed up the allocation of intermodal transport units to rail freight wagons. Using suitable computation processes in conjunction with methods borrowed from artificial intelligence (AI), the objective is to optimize the loading of transport units on rail freight wagons. KIBA – the project's full name is "Artificial Intelligence and Discrete Loading Optimization Models to Increase Capacity Utilization in Combined Transport" – was launched in early September 2022.

At the Federal Ministry for Digital and Transport in Berlin, Federal Minister Volker Wissing today presented the team with the official project certificate and wished them a successful start. The IT project is scheduled to run for three years, and Wissing's ministry is sponsoring it to the tune of 2.34 million euros as part of the Artificial Intelligence in Mobility innovation initiative. Alongside Kombiverkehr Deutsche Gesellschaft für kombinierten Güterverkehr mbH & Co. KG, the company coordinating the project, the other project partners are the Technical University of Darmstadt, Deutsche Umschlaggesellschaft Schiene-Strasse (DUSS) mbH, Goethe University Frankfurt/Main, VTG Rail Europe GmbH, INFORM GmbH and KombiConsult GmbH.

As things stand, combined transport across Europe uses a wide variety of transport unit types and rail freight wagons. The major challenge is therefore to optimize the allocation of transport units to rail freight wagons on a generally valid basis and as a function of different target sizes. The fixed technical characteristics of all kinds of semitrailers, containers, swap bodies and rail freight wagons naturally play an important part in this process. But so too do variable parameters such as the actual weight and nature of payloads, as well as freight timetables. The aim of the project is for every inquiry about the loading of a transport unit to be met as quickly as possible by a proposal that optimizes the positioning of the transport unit on the set of wagons deployed – and that at a time even before all information is available about what other transport units are yet to arrive at the shipping terminal for the same departure/destination constellation. In other words, AI-assisted loading optimization should facilitate advances in capacity management across intermodal operators and their extensive networks.

About VTG:

Headquartered in Hamburg, VTG Aktiengesellschaft is a global asset owner and logistics company with a strong focus on rail. Besides hiring out rail freight wagons and tank containers, it also provides multimodal logistical services and integrated digital solutions. The company's fleet includes around 88,500 rail freight wagons – mostly tank wagons, intermodal wagons, standard freight wagons and sliding-wall wagons – as well as about 5,000 tank containers.

This diversified service portfolio gives VTG's customers a robust platform for international freight transportation, based on which the company develops made-to-measure logistical solutions for any and every industry. Over many years, VTG has accumulated granular expertise across the entire transport chain – expertise that is now flanked by smart technology. The Group likewise combines a wealth of experience with a specialized knowledge of the

transportation of liquid and sensitive goods in particular. Its customers include a plethora of leading companies representing the chemicals, petroleum, automotive and paper industries, agriculture and virtually every other sector besides.

VTG posted revenue of EUR 1,221 million and an operating profit (EBITDA) of EUR 472 million in the 2021 financial year. The Hamburg-based company's subsidiaries and affiliates give it a sizable footprint in Europe, North America and Eurasia. Effective December 31, 2021, VTG employed around 2,150 people worldwide.

More information at www.vtg.com.

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Gefördert durch:

Bundesministerium
für Digitales
und Verkehr

aufgrund eines Beschlusses
des Deutschen Bundestages