

PRESS RELEASE

Embotech, Arnold NextG, and Terberg Special Vehicles form alliance for the development of autonomous logistics systems - the first project, an autonomous yard tractor, is already in conversion

Based on the fully autonomous vehicle (AV) kit provided by Embotech, the multi redundant central control unit by Arnold NextG, and the yard tractors by Terberg Special Vehicles, this alliance offers the opportunity to drive autonomously on private grounds as of today.

Zurich, Switzerland – 06/07/2023 – Embotech, the solution provider for autonomous driving systems, Arnold NextG, the technology provider for multi-redundant drive-by-wire systems, and Terberg Special Vehicles, Germany's leading special vehicle supplier have formed an alliance to develop autonomous vehicles designed for logistic yards, ports and other gated area operations with mixed traffic environments.

The first joint autonomous vehicle is based on the Terberg YT193 yard tractor and is currently in production. The YT193, a benchmark in terminal operations, will be retrofitted with a multi-redundant drive-by-wire system and a fully AV-Kit. This technology will significantly enhance its operational capabilities and provide autonomous applications in mixed traffic environments.

Terberg's state-of-the-art yard tractor YT193 is robust, durable as well as easy to handle and to maintain. The YT series has been designed as a multi-functional platform to provide various propulsion methods: from diesel to electric and right up to hydrogen engines. This model range is Terberg's contribution to a clean future, reduced fuel consumption based on high-tech engine technology and more sustainable transportation.

"Terberg Special Vehicles, with its extensive industry experience, will oversee the integration process of the AV-Kit. Our team is handling the wiring and installation of the AV-Kit to ensure that all components operate in harmony", says Terberg's General Manager Arno Ortlieb.

Arnold NextG's central control unit provides a vehicle-independent system solution for the fail-safe control of all primary and secondary functions, as well as secure interfaces for all autonomous driving (AD) systems. As an independent advance developer, incubator, and system supplier, Arnold NextG takes care of the development and implementation - from vision to road approval.

"Through our employees' decades of experience in drive-by-wire technology, Arnold NextG possesses unique competence in developing and deploying retrofit solutions for all drive-by-wire applications. With our technology, we surpass current safety standards, laying the foundation for driving fully automated on the road according to ISO 26262 (ASIL D) in the future," says Kevin Arnold, CEO of Arnold NextG.

Embotech, the project's system architect, will provide the AV-Kit and its advanced L4 virtual driver, PRODRIVER. The AV-Kit offers redundancy for localization and perception, ensuring the highest performance under a wide range of weather conditions. PRODRIVER, Embotech's state-of-the-art solution to autonomous navigation, path planning, tracking, and control for autonomous or highly automated vehicles, allows for flexible human-like driving and ultra-precise maneuvering with a trailer. These features are vital for the complex mixed traffic environments typical of ports.

"This collaboration signals a major advancement in autonomous vehicle technology," says Andreas Kyrtatos, CEO of Embotech. "By retrofitting the YTI93 with our high-tech PRO-DRIVER system, we can demonstrate the performance and capabilities of our technology under real-world conditions, including mixed traffic and challenging weather scenarios. Later on, we plan to integrate the AV-Kit ex factory at Terberg."

The fully autonomous vehicle will begin its first test deployments right after the summer and demonstrate its performance in customer operations by the end of 2023.

Through the joint development of autonomous logistics applications, Embotech, Arnold NextG, and Terberg Special Vehicles actively contribute to shaping the future of the logistics industry. The three companies are setting an example for their joint endeavor to develop innovative autonomous vehicle solutions to significantly enhance efficiency, productivity, and safety on private grounds such as company yards and industrial sites.

About Embotech

Embotech is a leading solution provider of AI software for autonomous driving systems for private grounds and smart factories. With its virtual driver software PRODRIVER, Embotech provides an L4 system capable of planning and executing highly complex and dynamic maneuvers, which makes it ideal for driving around dynamic obstacles, in tight spaces and mixed traffic. The company's automation solutions bring significant improvements in safety, productivity, and energy efficiency to logistics yards, ports, mines, and smart factories. Applications include automated driving for passenger cars and commercial vehicles, energy management solutions as well as industrial robotic automation. www.embotech.com

About Arnold NextG

Arnold NextG realizes the Safety by Wire®-Technology of tomorrow with pioneers of the drive-by-wire industry. We offer the globally unique and multi-redundant central control unit NX NextMotion, which complies with the latest regulations and enables fail-safe and individual implementation in all application areas. As an independent advance developer, incubator and system supplier, Arnold NextG takes care of planning and implementation - from vision to road approval. www.arnoldnextg.com

About Terberg Special Vehicles

Terberg Special Vehicles Inc., headquartered in Hamburg, is a subsidiary of the Dutch family-owned company Terberg. The company was founded in 1869 in Benschop, the Netherlands, and remains fully family-owned to this day. The Royal Terberg Group now encompasses a range of operating companies serving various elements of the vehicle market. These robust vehicles are used ports, distribution centres, heavy industry, tunneling sites, railway shunting yards, and airports in over 130 countries. Terberg Special Vehicles handles the distribution of vehicles manufactured in the Netherlands for the DACH region (Germany, Austria, and Switzerland). The portfolio includes spare parts and accessories as well as broad services in vehicle repair, rental, and the sale of used vehicles. www.terbergspezialfahrzeuge.de

Media Contacts

Embotech

Dr. Janine van Stiphout, Marketing & Communications
comms@embotech.com
+41 44 5522622

Arnold NextG

Jochen Knecht, Head of Communications
jochen.knecht@arnoldnextg.de
+49 151 1881 7762

Terberg Special Vehicles

Ann-Kathrin Kampmeyer, Marketing & Communications
a.kampmeyer@terberg-de.de
+49 40 430 9114 554