

Embotech and CARIAD Demonstrate Autonomous Vehicle Marshalling

Seamless, precise, and safe autonomous driving in production-relevant scenarios

ZURICH, SWITZERLAND, December 16, 2025 /EINPresswire.com/ -- Embotech and CARIAD, Volkswagen Group's software company, have successfully completed a proof of concept (POC) demonstrating the adaptability and precision of Embotech's Automated Vehicle Marshalling (AVM) solution in conjunction with CARIAD's software. Tested on a Volkswagen ID.3 vehicle, this POC highlights how production-grade autonomous driving and parking can safely and efficiently operate in complex logistics scenarios.



Volkswagen ID.3 on Embotech Technology Center Test Site

Precision, Interoperability, and Dynamic Control

“

...we demonstrated that our AVM system can handle the entire multi-brand vehicle portfolio CARIAD serves with its software,... one of the world's largest and most diverse passenger vehicle line-ups”

*Dr. Alexander Domahidi,
Embotech's CTO & Founder*

The AVM system was tested across multiple production-relevant scenarios, showcasing:

- Precise execution of complex maneuvers such as reverse driving and tight-space parking
- Real-time route adjustments and dynamic re-planning
- Operation in mixed traffic with obstacle detection and avoidance
- Consistent vehicle control with safety as the guiding principle
- Seamless, human-like driving across different vehicle platforms

The proof of concept demonstrates that [Embotech's AVM solution](#), deployed in collaboration with CARIAD, delivers reliable autonomous driving performance under diverse conditions,

supporting automotive production and logistics operations.

Collaborative Impact

“Collaborating with CARIAD, we demonstrated that our AVM system can handle the entire multi-brand vehicle portfolio CARIAD serves with its software, proving its capability and readiness for high-volume factory operations across one of the world’s largest and most diverse passenger vehicle line-ups”, says Embotech’s CTO and Founder Dr. Alexander Domahidi.



Testing Vehicle for obstacle detection and avoidance

Björn Oliver Meyer, CARIAD Head of ADAS/AD Customer Functions adds: "This joint proof of concept with Embotech demonstrates the potential of autonomous vehicle operations in production environments. Together, we validated that our technologies perform robustly and adaptably across different platforms."

About the AVM Solution

Embotech’s AVM solution enables autonomous vehicle movement in automotive factories and vehicle logistics centers. Designed for indoor and outdoor driving in mixed traffic, it plans trajectories in real time rather than following pre-defined routes. It is the only certified AVM solution worldwide and obtained TÜV Süd’s attestation of conformity in June 2024. The software integrates with factory backend systems to assign missions, optimize logistics throughput, and ensure safe, reliable operation without fixed routes or manual intervention. AVM has been validated in multiple large-scale industrial environments and is expanding globally.

About Cariad

CARIAD is the automotive software company of the Volkswagen Group. Building automotive software platforms and digital customer functions for iconic brands like Audi, Volkswagen and Porsche, CARIAD supports the Volkswagen Group in becoming the global automotive tech driver. In software centers in Germany, the USA, China, Estonia and India, around 5,000 experts work on making the automotive experience safer, more sustainable and more comfortable for everyone. The company’s products include advanced driver assistance systems, a unified infotainment platform, software functions for charging and driving performance, as well as data, backend and cloud solutions, and digital services in and around the vehicle. Well-known cars like the Volkswagen ID. Buzz and ID.7, the Audi Q6 e-tron and the Porsche Macan 4 Electric are already

equipped with the latest CARIAD technology.
For more information, visit cariad.technology

About Embotech

Embotech is a Swiss deep-tech company delivering production-ready, safety-certified autonomous driving solutions for industrial logistics. Founded in 2013 as a spin-off from ETH Zurich, the company has developed Level-4 autonomous driving solutions designed for complex and demanding logistics environments.

Its Automated Vehicle Marshalling (AVM) and Autonomous Tractor Solution (ATS) are de-ployed in automotive factories, vehicle distribution centers, ports, and logistics yards. The two solutions run on a shared, AI-powered autonomy platform that delivers high-precision and reliable performance in mixed-traffic operations.

Embotech is the first company worldwide with a certified Level-4 autonomous solution in commercial operation. Its systems move more than 2,500 vehicles autonomously each day, improving safety, productivity, resilience, and sustainability across logistics operations.

For more information, visit embotech.com

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