

ATLAS-L4 Press Release

ATLAS-L4 funding project: self-driving from hub to hub

MAN Truck & Bus, Knorr-Bremse, Leoni and Bosch are joining forces for greater safety, flexibility and efficiency in logistics. Together with automated logistics provider Fernride and test tool manufacturer BTC Embedded Systems, they aim to have autonomously driving trucks on the highway for the first time by the middle of this decade in the ATLAS-L4 project. The Fraunhofer-Gesellschaft, the Technical University of Munich (TUM) and the Technische Universität Braunschweig are providing scientific support for the project, while TÜV SÜD and Autobahn GmbH are contributing their expertise with regard to practical feasibility and the approval process.

Worldwide, trucks are indispensable for transporting goods, but in Germany alone, traffic jams cause billions of euros in economic damage every year, around 90 percent of accidents on the roads are the result of human error, and a lack of drivers is slowing down growth at many companies.

The ATLAS-L4 (Automated Transport between Logistics centres on highways, Level 4) research and development project focuses on the operation of autonomous trucks on public motorways and highways, contributing towards lessening congestion and accidents, reducing fuel consumption and CO₂ emissions, increasing the flexibility of vehicle use and demonstrating concepts to counter the driver shortage. At the heart of the holistic approach to the project, with partners from the automotive industry, software development, scientific research and administration, is the development of an autonomous truck that meets the requirements for future driverless operation between logistics nodes, on defined public highways and expressways, in terms of operational safety, remote monitoring and data transmission.

The project, funded by the Federal Ministry for Economic Affairs and Climate Action, is already specifically targeting the opportunities opened up by the legislation on autonomous driving passed in 2021, in which Germany is set to hold a worldwide pioneering position. ATLAS-L4 therefore contributes towards the shaping the future of road freight transport, but also strengthens Germany as a business location. By the middle of the decade, the project should have produced a concept for the operation of automated trucks on the motorways ready to enter production.

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Comments from the project partners



MAN Truck & Bus SE

“For MAN, ATLAS-L4 is an important step on the path towards hub-to-hub automation, with which we are already looking towards future series applications for Logistics 4.0. Having the extensive competence of the partners in the ATLAS-L4 project on board is an invaluable advantage with regard to the high demands on safety and operational suitability placed on a future self-driving-truck,” says Dr. Frederik Zohm, MAN Truck & Bus executive board member responsible for research and development.

Knorr-Bremse Commercial Vehicle Systems



KNORR-BREMSE

“We are very much looking forward to working with our project partners to develop highly-automated trucks by the middle of this decade with the aim of meeting market demands. As part of this project, Knorr-Bremse is in charge of all aspects surrounding the redundant braking system architecture – including a safety concept. This enables the safe and economical operation of Level-4-commercial-vehicles and provides consistently safe braking and control in any situation,” says Dr. Jürgen Steinberger, Member of the Management Board at Knorr-Bremse Commercial Vehicle Systems.

Leoni AG

LEONI

“We are tremendously pleased to be embarking on this ground-breaking project with our partners. The results will provide essential insights into the safe implementation of highly automated driving and will help us to develop safe systems for new types of mobility,” explains Walter Glück, CTO of Leoni’s Wiring Systems Division.

Robert Bosch Automotive Steering GmbH



BOSCH
Invented for life

“Coupled with the skill of our project partners, the ATLAS-L4 project offers us the opportunity to develop steering systems for fully self-driving commercial vehicles. This has enabled us to tackle challenges such as durability and safety at an early stage of our steering system product development. Together, we are defining the standards for self-driving commercial vehicles,” explains Jennifer Endres, Head of Development, Robert Bosch Automotive Steering.

Fernride

“We are very pleased to be working with such well-known partners to bring automated trucks to our streets. Fernride’s platform technology makes it possible to remotely control a truck during trials or provide operator assistance to an automated vehicle at any time. Fernride guarantees constant availability and safe operation of autonomous trucks in all driving situations and can also meet the legal requirements concerning ‘technical supervision’. Together, we will drive logistic’s automation forward with ATLAS-L4,” believes Hendrik Kramer, co-founder and CEO of Fernride.



BTC Embedded Systems

“As a manufacturer of premium tools for software development and testing in the automotive sector, BTC Embedded Systems sees ATLAS-L4 as a tremendous opportunity to work closely with MAN and other partners to establish simulative, scenario-based testing in cloud-based environments as an efficient and effective solution for the overall vehicle verification and safety validation of self-driving vehicles,” says Dr. Udo Brockmeyer, board chairman of BTC Embedded Systems.



Fraunhofer Institute for Applied and Integrated Security AISEC

“To bring fully automated trucks safely to the motorway, they must be comprehensively protected against cyber-attacks such as unauthorised remote access. With ATLAS-L4, we want to ensure that security is an integral part of any autonomous truck and is taken into consideration throughout the entire product lifecycle,” says Prof. Dr. Claudia Eckert, Director of the Fraunhofer AISEC.



Technical University of Munich, Institute of Automotive Technology

“The ATLAS-L4 project enables us to translate our research findings in the fields of automated and teleoperated driving into near-series reality. Together with our partners from scientific research and industry, we are making a major contribution towards resource-efficient and cost-effective mobility for the future with ATLAS-L4,” says Prof. Dr. Markus Lienkamp, Technical University of Munich.



TU Braunschweig, Institute of Control Engineering

“The ATLAS-L4 project represents the opportunity for the Institute of Control Engineering at TU Braunschweig to research the development and authorisation of automated vehicle prototypes and investigate questions for future series applications – especially focusing on the inherent risks and safety of these systems. Close cooperation between partners with different fields of expertise, including those from the automotive industry, software development and scientific research, will enable the ATLAS-L4 project to make a significant contribution to the development of safe, automated vehicles,” says Prof. Dr.-Ing. Markus Maurer, TU Braunschweig.



TÜV SÜD

“For TÜV SÜD, the ATLAS-L4 project is a great opportunity to share our international experience in the field of highly automated vehicles and to ensure safe operation of an autonomous truck that conforms to regulations and standards,” says Patrick Fruth, CEO of the Mobility Division at TÜV SÜD.



Autobahn GmbH des Bundes

“Road safety, free-flowing traffic and the resulting reduction in congestion are the central aims that we pursue tirelessly. We want to develop the German motorways into a fully digital, networked and automated traffic system,” says Stephan Krenz, board chairman at Autobahn GmbH.



Further information on the ATLAS-L4 project, the project partners and press contacts for the partners can be found at: <https://www.atlas-l4.com/en/>