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Press Release

Autonomous Driving

September 2, 2025

TÜV SÜD: We are ready to perform homologation of autonomous vehicles

Munich. The consortium of project partners from industry, science, software development, and infrastructure behind the ATLAS-L4 research and development project (the name is an acronym from the German for “automated transport between logistics centers on level 4 highways”) has now presented a safety concept for autonomous trucks in road traffic based on the results of the study. The experts from TÜV SÜD were part of the project in the capacity of a testing body. Testing, inspection, and certification company TÜV SÜD is the connecting link between industry and research on the one hand, and the official authorities that will ultimately grant approval for autonomous trucks for road use on the other. The TÜV SÜD experts’ tasks include validation of the simulation that forms the basis for the safety premise of the concept; this validation involves performing tests in a real vehicle on the test ground. TÜV SÜD’s role as a global leader in autonomous driving is highlighted by its participation in the ATLAS-L4 project, the only independent and impartial testing company to do so. The project was launched three years ago and was funded by the Federal Ministry for Economic Affairs and Climate Protection.

“We are delighted to have been part of this important project from the outset. Using our testing infrastructure, we have developed systems and a safety concept that will form the basis for standards governing the development of hub-to-hub autonomous commercial vehicles in the future,” says Emmeram Klotz, Head of Testing, Global Homologation Service at TÜV SÜD Mobility Division, and adds: “We are ready to put the first autonomous trucks on the road!”

TÜV SÜD is ready

TÜV SÜD’s expertise in this area spans type approval, functional safety, Safety of the Intended Function (SOTIF), cybersecurity, and road and track testing. A new aspect in the case of autonomous driving is that the applicable regulations offer far wider opportunities for using simulations in type approval than has previously been possible. Here, too, the processes, infrastructure, and management systems used must be verified to ensure they meet the requirements. As Emmeram Klotz points out, the consideration of all requirements and legal

specifications that will apply to later approval is a vital aspect in autonomous truck development. “For example, supposedly minor operational details may have an enormous impact on requirements: cobblestones, toll barriers, tunnels, and so on. All these are factors that need to be included in development from the outset. Otherwise, the truck will simply stop dead at the tunnel entrance,” warns Klotz.

Although these points may seem trivial, they are all part of the extensive bank of experience amassed by the TÜV SÜD experts over years of testing highly automated vehicles around the world. TÜV SÜD has played a significant role in understanding and identifying the relevance of hazardous factors in order to draw conclusions about the systems as a whole, and thus be able to determine and validate the tests necessary for type approval. Klotz says, “We have in-depth familiarity with all aspects necessary for approval and are ready to support manufacturers throughout their work from the earliest development phase. Infrastructure, testing, approval—we’re in the starting blocks and ready to go!” The TÜV SÜD experts can utilize a section of the A9 highway in Bavaria designated for testing and the German motoring association ADAC’s Mobility Test Center in Penzing as test tracks that meet the specific requirements of heavy haulage traffic.

What is ATLAS-L4?

The project has brought together representatives of research and industry and official authorities to lay the foundations for the rapid development of SAE Level 4 autonomous trucks. After three years of collaborative development, the twelve project partners from industry, science, software development, and infrastructure have reached the first goal of the project and established basic prerequisites for autonomous trucks in road traffic. The project represents the joint efforts of around 150 engineers from renowned companies, including MAN Truck & Bus, Knorr-Bremse, Bosch, Fraunhofer AISEC, Technical University of Munich, Technical University of Braunschweig, TÜV SÜD, Autobahn GmbH, and Würzburg Institute of Transport Sciences (WIVW GmbH).

ATLAS-L4 was funded by the Federal Ministry for Economic Affairs and Climate Protection and has a total budget of EUR 59.1 million.

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