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18. abstract

The automotive industry is facing several paradigm shifts: on the one hand, the increasing electrification of powertrains, which is driving the transition from combustion engines to e-mobility; and on the other hand, the growing digitalization and connectivity of vehicle systems, enabling a wide range of highly automated, fully automated, and autonomous driving functions. This transformation is happening at very high speed and involves all of the aforementioned aspects simultaneously.

All participating companies and institutions—especially those developing, testing, validating, and verifying technical functions of the new mobility—are compelled to adapt their business models, processes, and services to this change. The Real Driving Validation (RDV) project, funded by the Federal Ministry for Economic Affairs and Energy, aims to demonstrate ways in which the (automotive) industry can be supported during its transformation and in managing the digital shift.

Through intelligent and connected testing methods, the project seeks to make an active contribution to more efficient development and validation of new (driving) functions. This is intended not only to enhance the competitiveness of companies in Germany, but also to support save resource and climate protection.

LiangDao's task in the subproject "Industrial Cloud Data Management and Analysis Services (Backend)" was to develop a central, cloud-based solution capable of receiving, analyzing, storing, and providing vehicle data relevant for the RDV approach in near real-time - both as raw datasets and in visually processed form. This report summarizes the results of the project.

19. keywords

Datenmanagement, Analyse-Services, LiDAR, automatisiertes Fahren, Objekterkennung, Fahrzeug-Datenanalyse, Cloud-Plattform, Umgebungswahrnehmung, Echtzeitdatenverarbeitung, vernetzte Testverfahren, Testverfahren, RDV, Real Driving Validation

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