

Future vehicle technologies in the Open Region Lab – ZuFOR

Project management: Vice President for Research, Prof. Dr. Gert Bikker

Summary: Ostfalia, with its project "Future vehicle technologies in the Open Region Lab – ZuFOR", is working towards two strategic objectives: on the one hand, the major research fields of "intelligent systems for energy and mobility" and "vehicle manufacturing, plastics and material sciences" are to be further strengthened through three technical research topics from the "future vehicle technologies" field. The second objective is the development of a sustainable and strategic structure that is laboratory-based in character: the Open Region Lab (ORL). As a knowledge hub, the ORL will pick up on both regional and socially relevant momenta, as well as technical ones. Current research questions surrounding vehicle technology in the fields of lightweight construction, vehicle digitization and integral safety systems are to be investigated in an application-oriented manner in three technical sub-projects. In addition, an integrative cross-sectional project will look at the implementation of open network structures in regional innovation systems. Four professors from the faculties of Mechanical Engineering, Automotive Engineering and Transport-Sports-Tourism-Media are undertaking research with companies, organisations and regional players in the following sub-projects:

Integrative cross-sectional project, Prof. Dr. A. Jain:
Implementation of open network structures in regional innovation systems

Technical sub-project, Prof. Dr. X. Liu-Henke: Intelligent range extender for electric vehicles through digitization and vehicle 4.0.

Technical sub-project, Prof. Dr. H. Bachem:
Development of integrated, switchable safety systems

Technical sub-project, Prof. Dr. A. Schmiemann:
Lightweight plastic structures in the automotive industry

Dealing with current research questions from the vehicle technology sector can contribute to resolving urgent social challenges in the area of mobility. In addition, the continuation of the Open Region Lab beyond the duration of the project will provide the chance to tackle other questions that are relevant for the future. The ORL is also a key project for the Centre for Social Innovation at Ostfalia (German abbreviation: ZeGI), which is in the process of being established. Ostfalia's Centre for Knowledge and Technology Transfer, under the leadership of the Vice President for Research, Development and Technology Transfer is actively engaged in structuring the ORL, so that an effective transfer between science, industry and regional actors over the project period is secured.

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