2 Automated driving and charging

Forschungscampus Mobility 2 Grid EUREF


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The work package “Automated Driving and Charging” addresses future key issues in of urban mobility and logistics: How can automated driving and charging be integrated into existing mobility and logistics concepts in an efficient, reliable, and climate-friendly manner? The WP especially focuses on the opportunities and challenges linked to increasing automation and electrification of car-sharing, bus and truck fleets. The aim is to develop efficient operating strategies and to optimize infrastructure usage. To this end, electrification strategies for specific applications such as in the logistics depots of BLG Logistics are being developed and tested. Further, the WP focuses on research on the potential of heavy electric commercial vehicles as mobile energy storage devices for emergency power supply to critical infrastructures. In a real-world application scenario at the Max Planck Institute for Human Development in Berlin, researchers are investigating how large electricity consumers, such as MRI machines, can be powered directly from a vehicle's battery.

Goals

Carsharing fleets
- More efficient utilization of public charging infrastructure through automated (re-)parking and charging

Bus and commercial transport
- Identification of suitable concepts for the automated charging of heavy-duty vehicles in depots to enable fast charging and convenient handling

Urban logistics
- Parallelisation of transshipment processes and High-power charging (> 1 MW) in heavy goods traffic
- Optimised operating processes in depots through autonomous transport

Emergency power supply for critical infrastructure
- Use of electric commercial vehicles as mobile energy storage units for the emergency power supply of critical infrastructure through bidirectional charging

The Mobility2Grid research campus is coordinated by the Mobility2Grid e.V. association.
Further information: **www.mobility2grid.de | info@mobility2grid.de**

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