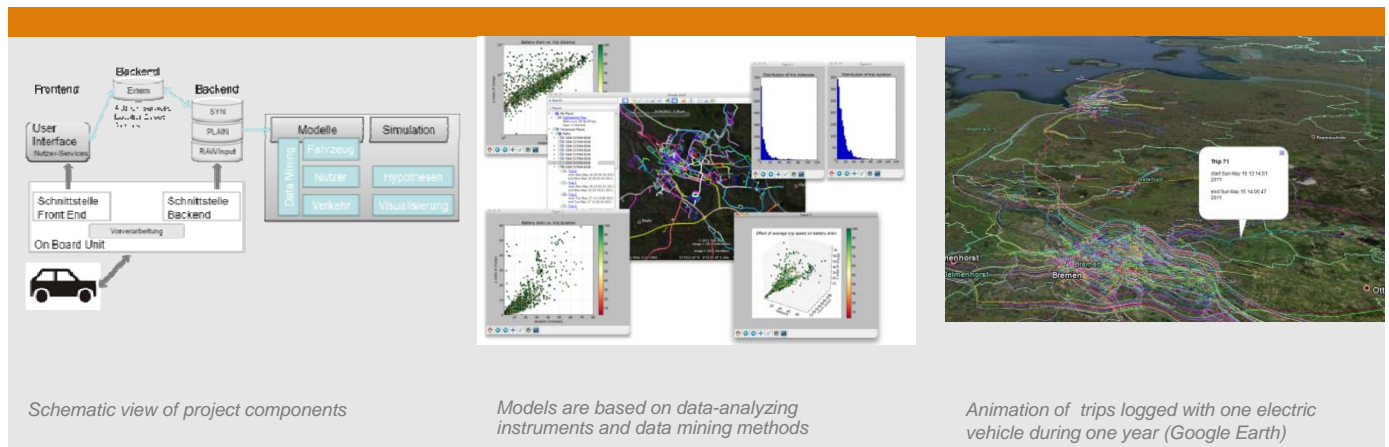


User Services and Instruments

New Mobility in Rural Areas – Sub-Project ICT



Sub-Project ICT – User Services and Instruments

The task of DFKI within this project is to develop and demonstrate an ICT service framework that offers tools and methods to support applications of electric mobility, as well as to educate users about the potential of this new form of mobility.

An extensive database of empirical data related to electric mobility serves as the foundation for the ICT service framework. Pre-processed data are used as input for a number of tools and instruments. The work of DFKI is focused on three closely related components of the framework:

Modeling and Simulation

A primary objective is to develop a mobility-model that represents the three components “vehicle”, “user”, and “traffic”. Simulations based on this model allow the prediction of future scenarios of electric mobility. Hypotheses can be tested by changing socio-economic and technological boundary conditions.

Intelligent On-Board-Unit

A new data acquisition device (on-board-unit - OBU) has to be developed to ensure a reliable and comprehensive real-time acquisition of vehicle- and user data during the extensive fleet trials conducted in the pilot region. The data acquisition hardware will be adaptable to the specific requirements of the project. The aim is to optimize the performance of the OBU in order to maximize the quality and quantity of the recorded data and the efficiency of their transmission to the backend.

Backend

To store, manage, and pre-process the incoming data, a reliable, efficient and scalable system for data acquisition and retention has been implemented. Dedicated database servers are used to increase the performance, capacity, and security of the data acquisition infrastructure.

Duration: 01/10/2011 – 31/03/2014

Partners:

AGT Group (Germany) GmbH
T-Systems International GmbH

Sponsors:



„New Mobility in Rural Areas“ is an on-going project within the *Pilot-Region for Electromobility Bremen/Oldenburg*. Coordinator of this cooperative project is the Fraunhofer-Institute for Manufacturing Technology and Advanced Materials IFAM in Bremen. Grant no. 03ME0400G.

Contact:

DFKI Bremen & University of Bremen
Robotics Innovation Center

Director: Prof. Dr. Frank Kirchner
Phone: +49 - 421 - 17845 - 4100
E-mail: robotics@dfki.de
Website: www.dfki.de/robotics