

PROJECT

KOLA

Cooperative laser lights

Kooperativer Laserscheinwerfer

Funding: National (Germany)

Duration: Nov 2016 - Oct 2019

Status: Complete



Background & policy context:

Mobility is a key factor in our daily lives. Therefore, new systems of the human-technology interaction should be developed which contribute to more safety, comfort and reliability in this area. Many traffic accidents could be avoided if everyone can communicate their intentions in time and properly assess the behaviour of others.

Objectives:

The aim of the project is to improve the communication in road transport through the development of light-based "communication assistance systems". Innovative light projections representing relevant notes for the traffic situation would improve cooperation and communication by road users and thus sustainably increase the safety on the road.

Methodology:

Commonly used characters, like e.g. zebra stripes are projected on the road. To do this, an own symbolic language is developed and will be the basis for a subsequent standardization. A new projection module can deflect light multiple laser diodes using a micro scanner so that any colour image content on the sidewalk or the street can be represented. This communicative light projections will be tested if possible also in the driving. It will ensure that the eyes of other traffic participants cannot be injured by the projections. Moreover, the most important factors for a cooperative action in road transport are tested in a field study.

Parent Programmes:

[Bringing Technology to the People](#)

Institute type: Public institution

Institute name: Ministry for Science and Education (BMBF)

Funding type: Public (national/regional/local)

Other programmes: Call MTI for intelligent mobility: reliable technology for mobile people

Other funding sources: Federal Ministry of Education and Research BMBF

Partners:

- Volkswagen AG, Wolfsburg
- Technical University Carolo-Wilhelmina, Braunschweig
- Fraunhofer- institute for Silicium technology, Itzehoe
- University of Siegen

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STRIA Roadmaps:

Cooperative, connected and automated transport, Network and traffic management systems

Transport policies: Safety/Security, Digitalisation

Geo-spatial type: Urban