

## Virtual Testing of Car2X functions with CarMaker

The simulation expert IPG Automotive participates in the funded project “IMAGinE”

Virtual test driving is part of the research project “IMAGinE”, which was initiated on September 1. The project is funded by the German Federal Ministry for Economic Affairs and Energy. Over the next years, twelve project partners will develop standards for cooperative driving functions intended to make networked vehicles safer and more comfortable. To this end, IPG Automotive provides the open integration and test platform CarMaker for the virtual development and validation of the specific functions.

Karlsruhe, September 27, 2016 – In the joint project IMAGinE (Intelligent maneuver automation – cooperative hazard avoidance in real time) new and innovative assistance systems are being developed which will support the cooperative driving of the future. Cooperative driving means that vehicles as well as traffic infrastructure are capable of interacting intelligently with each other via automated information sharing. Thus planned traffic maneuvers can be realized more easily. Critical situations in traffic can be reduced and driving becomes safer.

To make this vision come true IMAGinE will take on the technological challenge to develop new standards for automated information exchange between vehicles and traffic infrastructure as well as the alignment and the decision-making processes between intelligent systems and human beings. IMAGinE combines a consortium of twelve renowned companies and research institutions in Germany, which will work together closely to realize the research and development tasks. The project is funded by the German Federal Ministry for Economic Affairs and Energy with EUR 17.9 million over the next four years.



Image: The interaction between several vehicles can be simulated in CarMaker

## Virtual Development and Validation of Car2X Functions

In the future, the interaction of networked vehicles will also be simulated within the framework of virtual test driving. For the function development in the research project IMAGinE, IPG Automotive is developing methods for the simulation of several vehicles when testing cooperative driving functions. In addition to the computer simulation, a test system will be constructed for the development of Car2X functions. Furthermore, interfaces to other tools will be provided in order to include the simulation of traffic flow. The project IMAGinE takes account of the current challenges in the effort involved in development and testing. Virtual test driving is extended to include not only the reaction of the main vehicle but also the equal interaction between the different road users involved.

### About IPG Automotive GmbH

As an innovation driver for virtual test driving, the company is a leading global provider of software and hardware products for the automotive and supplier industry. With the areas Simulation Software, Real-time Hardware, Test Systems and Engineering Services, IPG Automotive supports its customers in creating innovations and shaping their development process efficiently.

The innovative solutions CarMaker, TruckMaker, and MotorcycleMaker, as open integration and test platforms, facilitate great savings in time and cost for customers, in a continuous development process of Model-, Software- and Hardware-in-the-Loop, all the way to the Vehicle-in-the-Loop method. The application ranges from the vehicle dynamics simulation, developing and testing of chassis control systems, to interconnected systems such as chassis, powertrain and steering.

One of the biggest strengths of IPG Automotive is the integration and testing of all kinds of advanced driver assistance systems within IPG's future-oriented solutions.

### Your press contact

Katharina Brömel

Phone: +49 (721) 98520-39

Fax: +49 (721) 98520-99

E-mail: [katharina.broemel@ipg.de](mailto:katharina.broemel@ipg.de)

IPG Automotive GmbH

Bannwaldallee 60

76185 Karlsruhe

Press area: [www.ipg.de/en/news/press](http://www.ipg.de/en/news/press)