Karlsruhe to Pioneer Autonomous Driving

Consortium Wins Bid for “Test Center for Connected and Automated Driving” / Vehicle Systems Will Be Tested in Real-Life Traffic and Developed via the Test Center

The Federal Ministry of Transport has decided today that the test center for connected and automated driving will be set up in Karlsruhe involving the Karlsruhe Institute of Technology (KIT) – with connections to Bruchsal and Heilbronn. At this test center, companies and research institutions can test future-oriented technologies and services related to connected and automated driving in real-life traffic.

“Connecting mobility and digitization gives us an opportunity to get from one place to another safer and faster, leading to completely new mobility concepts,” says Professor Holger Hanselka, President of KIT. “We are therefore delighted that Karlsruhe was chosen to be the pioneering region for autonomous driving. In the test center we bring together research and application, as well as the automotive and ICT industries. Both mobility and IT are strategic topics of KIT. That's also why the test center for autonomous driving is such a good fit for Karlsruhe.”
Dr. Frank Mentrup, mayor of Karlsruhe, says: “We are very excited about the Karlsruhe region being chosen for the test center. This is both an accolade and an assignment because by setting up and operating the test center we can make a significant contribution to future mobility. Urban mobility requires intelligent, environmentally friendly and social solutions, and the Karlsruhe region provides the perfect basis for their development.”

“That's great news for the Karlsruhe region and everyone involved. We will now soon tackle the process with all partners from research, science and industry so that we can start the first test run in twelve months' time,” says Professor J. Marius Zöllner, Chairman of the FZI Research Center for Information Technology at the Karlsruhe Institute of Technology. “We are convinced that by setting up the test center we will provide a broad and comprehensive basis for implementing future urban mobility. The strong regional integration and the scientific backing through key experts from the worlds of mobility, automated vehicles and ICT will turn this into a success.”

“Together with the test center, a real-world lab for concepts, methods and business models of autonomous and connected driving will be set up,” Professor Frank Gauterin, Head of the Institute of Vehicle System Technology at KIT and coordinator of KIT’s contributions to the test center, explains. “We can help bring research on social and technical challenges in mobility even closer to the application side.”

Bruchsal and Heilbronn are also happy about the state government’s decision. Both municipalities are involved in the Karlsruhe project through the Bruchsal research campus and the test centers for automated logistics and commercial vehicles in Bruchsal and Heilbronn.

Heilbronn will make available and equip a road section of about 7.5 km for autonomous driving. In addition, the city and University of Heilbronn are hoping for synergies with the “automated logistics in urban areas” pilot project, which will also be part of the 2019 National Garden Show in Heilbronn.

Under the direction of the FZI Research Center for Information Technology at the Karlsruhe Institute of Technology, a consortium consisting of the city of Karlsruhe, the Karlsruhe Institute of Technology, the Karlsruhe University of Applied Sciences, the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB), the city of Bruchsal, as well as other associated partners applied for funding provided by the state of Baden-Württemberg for “setting up a test center for connected and automated driving”. The consortium will start setting up the test center this year; in twelve months' time the first test
run is planned, and in 17 months' time Karlsruhe wants to switch over to regular operation so that users can test autonomous systems from then on. The test center is then to remain in operation for at least five years. The Karlsruhe transport association will act as the test center operating company.

Today, the state government accepted the recommendation of a specialist jury, which means that the Federal Ministry of Transport will provide the Karlsruhe consortium with 2.5 million euros for designing, planning and developing the test center. The consortium itself and the associated partners and industry partners will contribute their own funds of around 4.2 million euros to the project.

At the Karlsruhe test center, companies and research institutions can test future-oriented technologies and services related to connected and automated driving in real-life traffic. These include the automated driving of cars, buses and commercial vehicles such as road cleaning and delivery services vehicles. In addition, the regulatory and legal requirements can be developed further. The consortium would also like to transfer the findings from the test center to other regions in Baden-Württemberg.

The test center sections comprise all relevant road types and traffic conditions, ranging from mixed vehicle, bicycle and pedestrian traffic to car parks, residential areas, country roads and highway sections to Stuttgart and Heilbronn.

With this unique project, the joint technological development of regional and national partners from the worlds of information technology and mobility can be stabilized and strengthened. The test center also reinforces the scientific work carried out as part of the Karlsruhe Priority Region for Mobility Systems, in which partners from industry and research are developing efficient, intelligent and integrated solutions for tomorrow's mobility.
Project partners:

About FZI Research Center for Information Technology

The FZI Research Center for Information Technology at the Karlsruhe Institute of Technology is a charitable institution for applied IT research and technology transfer. It brings the latest scientific IT findings to companies and public institutions, and trains young people for academic and economic careers or for self-employment. Led by professors from various faculties, the research groups at FZI develop concepts, software, hardware and system solutions across all disciplines, and implement prototypes of these solutions. For more information go to www.fzi.de/mobilitaet.

About the city of Karlsruhe

Karlsruhe is the hub of one of the leading economic and scientific regions in Europe. Located in the immediate vicinity of the Black Forest, the Rhine, Palatinate and Alsace, the former royal seat and capital of Baden is an attractive place to work and live with excellent transport links, a good infrastructure and a variety of cultural and leisure activities. More than 300,000 people live in the second largest city of Baden-Württemberg which was founded by Margrave Karl Wilhelm of Baden-Durlach in 1715. Karlsruhe owes the name “seat of justice” to the highest German legal authorities that are based there: the Federal Constitutional Court, the Federal Court of Justice and the Federal Prosecutor General. www.karlsruhe.de

About the Karlsruhe University of Applied Sciences

With approximately 8,650 students it is not only one of the largest, but also one of the most research-oriented universities for applied sciences in Baden-Württemberg. “Energy efficiency and mobility” is one of three central research areas that is covered across faculties and courses, as well as in various research institutions such as the Institute for Transport Studies and Infrastructure Management, and the Institute of Energy-efficient Mobility at Bruchsal research campus.
About the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB)

With approximately 350 scientists and engineers, the Fraunhofer IOSB is the largest European institute for image and video evaluation, pattern detection and situation recognition. Automation of complex processes is another important R&D topic; IOSB has designed, developed and delivered pioneering contributions including measurement and regulation technology, embedded systems, and guidance and manufacturing systems. These systems are always used when information needs to be processed faster and more accurately than humans could achieve.

More about the KIT Mobility Systems Center: [http://www.mobilitaetssysteme.kit.edu](http://www.mobilitaetssysteme.kit.edu)

Karlsruhe Institute of Technology (KIT) pools its three core tasks of research, higher education, and innovation in a mission. With about 9,300 employees and 25,000 students, KIT is one of the big institutions of research and higher education in natural sciences and engineering in Europe.

KIT: The Research University in the Helmholtz Association

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