

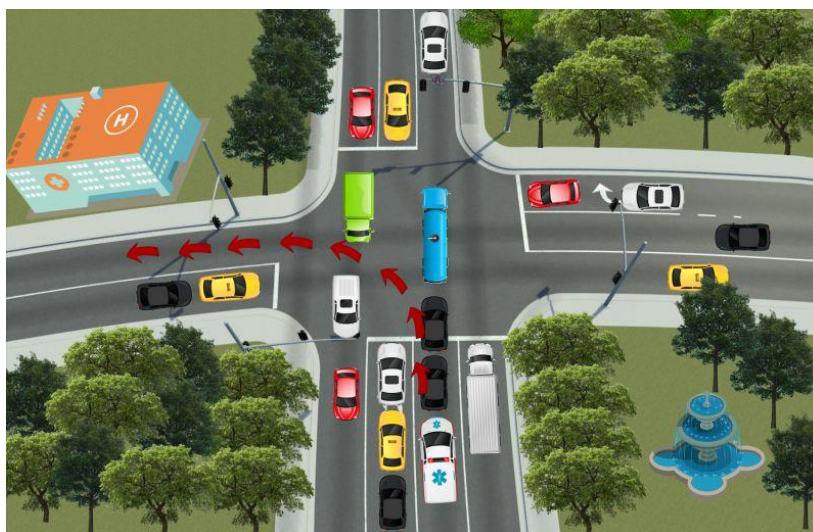
## Saving lives through artificial intelligence – Automated rescue lanes for emergency vehicles

**Brussels, May 20, 2021.** Saving lives in emergency situations - every second and every centimeter counts. AKKA has been involved in the AORTA project since the beginning of the year. As a leading provider in the field of engineering consulting and R&D services for the mobility industry, AKKA is researching together with partners on an automated rescue lane for emergency vehicles in road traffic. To ensure the practicability of the research project, a pilot vehicle equipped with autonomous functions will also be tested on the "Nordtangente" in Kaiserslautern in three years' time. The Federal Ministry of Transport and Digital Infrastructure is funding the project with around 4.5 million euros.

**Every second counts:** In emergency situations such as road accidents and disasters, every second counts, and a fast and correctly formed emergency lane can bring life-saving time advantages. Emergency services and associations estimate that four minutes earlier arrival of emergency services increases the chances of survival by up to 40% in the case of serious injuries and acute health problems such as heart attacks and strokes. A correctly and timely formed emergency lane is difficult to implement without the foresighted and prudent actions of all road users. By automating the response of cars to an emergency vehicle request, the AORTA project shortens the arrival time of emergency services at the scene.

**Every centimeter counts:** Forming an emergency lane often leads to a stressful situation for road users. Thanks to the bird's eye view of the AORTA system, this situation can take place more safely and with less stress, as recommendations are sent to the drivers involved. AKKA contributes its excellent expert competency in the development of autonomous driving functions. A cutting-edge sensor solution, being new in the automotive sector creates the possibility to detect the immediate vehicle surroundings with an accuracy of up to one centimeter, maneuvering drivers through the rescue lane with high precision. Accelerating innovation, AKKA has already tested the first autonomous driving vehicles on open roads in 2012.

Derrick Zechmair, CEO of AKKA Deutschland, comments on the project: *"As innovation drivers, our experts are working on solutions for the future with a focus on digital, electric and autonomous transformation. I am convinced that we can make our traffic safer through outstanding engineering solutions. Saving lives through artificial intelligence - I fully support this goal of the AORTA project. We look forward to working with the project partners."*



AORTA intersection simulation (Source: TU Kaiserslautern, AORTA-project material)

In January, the research and development project AORTA (Automated Formation of Emergency Lanes in Complex Scenarios through Intelligent Networking) was launched. A consortium of eleven research institutions, public institutions, and industry partners lead by Technical University of Kaiserslautern is studying and testing the automated formation of an emergency lane in AORTA.

The project goal is achieved by integrating infrastructure, sensor technology, communication, vehicle technology and display functions, which enable coordinated decision-making levels of various degrees of abstraction from the operations control center to the automated driving maneuver on a small or large scale. A decentralized data platform is being developed, integrating an artificial intelligence who takes the decisions for cooperative driving tasks and communicates them to the vehicles. This requires static and dynamic information from connected vehicles, digital road infrastructure and sensors along the route of emergency vehicles. The solution is designed as a compatible extension to existing and future automation solutions of vehicle manufacturers and is based on current standards, so that no modification on the vehicle side is necessary to integrate participating vehicles.

Fedor Schreiber, Automation Tech Line Leader at AKKA Research, is supervising the project: *"On the part of AKKA Research, we are contributing our many years of R&D expertise with autonomous driving, such as in the Link&Go or AUTOPILOT project. We are responsible for the high-performance embedded system, which, in combination with the novel sensor solution and the multidimensional algorithm, should enable precise maneuvering of the vehicle. Furthermore, we are responsible for the integration into an autonomous pilot vehicle as well as the implementation of a suitable demonstration to validate the overall concept."*

## Project partners at a glance

- Technische Universität Kaiserslautern – Lehrstuhl Mechatronik in Maschinenbau und Fahrzeugtechnik (MEC) – Konsortialführer
- 3D Mapping Solutions GmbH, Holzkirchen
- AKKA Industry Consulting GmbH, München
- Altran Deutschland S.A.S. & Co KG, München
- Arbeiter-Samariter-Bund Landesverband Rheinland-Pfalz e.V., Kaiserslautern
- Bundesanstalt für Straßenwesen, Bergisch Gladbach
- DC Vision Systems GmbH, Nürnberg
- Dresden Elektronik Ingenieurtechnik GmbH, Dresden
- embeteco GmbH & Co. KG, Oldenburg
- Stadt Kaiserslautern
- SysGen GmbH, Bremen



## ABOUT AKKA

AKKA is a European leader in engineering consulting and R&D services. Our comprehensive portfolio of digital solutions combined with our expertise in engineering, uniquely positions us to support our clients by leveraging the power of connected data to accelerate innovation and drive the future of smart industry. AKKA accompanies leading industry players across a wide range of sectors throughout the life cycle of their products with cutting edge digital technologies (AI, ADAS, IoT, Big Data, robotics, embedded computing, machine learning, etc.) to help them rethink their products and business processes. Founded in 1984, AKKA has a strong entrepreneurial culture and a wide global footprint. Our 21,000 employees around the world are all passionate about technology and share the AKKA values of respect, courage and ambition. The Group recorded revenues of €1.5 billion in 2020. AKKA Technologies (AKA) is listed on Euronext Paris and Brussels – segment B – ISIN code: FR0004180537.

For more information, please visit [www.akka-technologies.com](http://www.akka-technologies.com)

## AKKA Contact

### Media Relations AKKA Germany

Jürgen Ströbele  
Director Marketing & Communications  
Tel.: +49 (0)151 746 1236  
[juergen.stroebele@akka.eu](mailto:juergen.stroebele@akka.eu)

Anne Friedrich  
Deputy Director Marketing & Communications  
Tel.: +49 (0)151 746 3470  
[anne-k.friedrich@akka.eu](mailto:anne-k.friedrich@akka.eu)

Did you know? AKKA is currently involved in 9 funded research projects in Germany and is a strongly innovation-driven company.

Learn more here: <https://www.akka-technologies.com/innovation/?lang=de>

Always stay up to date via the associated project website:

<https://www.bmvi.de/SharedDocs/DE/Artikel/DG/AVF-projekte/aorta.html>