

## **fka leads LiDAR specification and testing framework consortium**

- **The consortium is working together to develop a specification and test framework for LiDAR sensors in vehicles.**
- **A group of OEMs, suppliers and sensor manufacturers forms the consortium.**
- **The aim is to jointly develop a generally accepted framework of specification and testing conditions for automotive LiDAR sensors.**
- **The consortium wants to enable a clear segmentation of LiDAR sensors.**

Aachen, May 2022: LiDAR technology (Light Detection and Ranging) offers high potential for machine perception in automated driving and currently available comfort- and safety features due to its precise distance sensing and three-dimensional point cloud image generation. In the past years, growing number of new and established sensor manufacturers has been working on LiDAR sensors for automotive applications. This broad field of providers and the maturing of different technological approaches, lead to a wide variety of available sensor types and models based on the LiDAR principle. All of these sensors are referred to as "LiDAR". However, the differences in the measurement principles, technology and components make the comparison of the specifications and performance difficult.

Naturally, each sensor manufacturer promise high quality solutions and sensor output, mostly based on their own testing procedures and their resulting specifications. Currently, there is no commonly accepted test framework for these sensors to determine the performance of automotive LiDAR sensors under different conditions and for dedicated applications. A defined specification and testing procedure for LiDAR sensors is urgently needed to further advance perception capabilities of automated and safety enhancing driving functions.

Based on these market needs, the innovative Aachen-based engineering service provider fka has turned to a wide range of dedicated partners to form a consortium with the goal to define how to commonly describe and test LiDAR sensors in a way, which reflects the relevance of the LiDAR for Automotive applications.

With the framework, fka and its partners will provide common sensor characterization guidelines as well as a common and application-relevant evaluation/testing framework.

## **What will the framework do?**

The consortium aims to define a framework for the specification and testing of automotive LiDAR sensors.

This will provide a trusted basis for OEMs to create “Request for Quotation” (RfQ) and bring the right products to the market, as well as a clear market overview and segmentation of LiDAR sensors.

Furthermore, the framework will make LiDAR sensors comparable with other technologies and create a better - as well as objective - understanding of automotive LiDAR sensors for consumer groups and other stakeholders.

Finally, fka and its partners have motivated Deutsche Institut für Normung e.V. (DIN) and the Society of Automotive Engineers (SAE) to adopt the developed definitions and tests into a DIN SAE Spec, which will be published at the end of the activities.

## **The partners of the LiDAR Sensor Specification- and Test-Framework**

fka GmbH, ADAS Management Consulting, Daimler Truck, Ford, MicroVision, Innoviz, Luminar and the European project Hi-Drive (<https://www.hi-drive.eu>).

## **About the fka**

For 40 years, fka has been internationally known as an innovative engineering service for the mobility industry. Driving the world by developing ideas and creating innovations is the mission statement that fka's 160-strong team is committed to.

The team is inspired by a passion for efficient, safe and fascinating mobility. As one of the first companies on the Aachen campus, the spin-off of the Institute for Automotive Engineering of the RWTH Aachen University demonstrated entrepreneurial foresight.

Interdisciplinary expertise in all aspects of mobility and technological visions, combined with the advantages of the inspiringly creative location, are fka's fuel. Ideas, innovations and unique methodological expertise are shaped into well-founded and secured solutions that give fka's customers the necessary edge in a wide range of issues.

A complete spectrum of services, ranging from consulting and conception to simulation and design, prototype construction and experimental testing, forms the basis for this.

With the credo "creating ideas & driving innovations", the team constantly has the mobility of the future in mind.

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