

## Sensor validation to Data-driven development for ADAS testing and validation scenarios

### Objective

"The sensor technology plays a crucial role in our efforts to enhance autonomous capabilities for our customers alongside the functionality of data-driven development. With the advent of ADAS algorithms and learning models, our teams have to successfully record the sensor data from different sources and ingest data into the Homologation cloud platform where the data labeling besides the learning model is trained and provides a continuous integrated development using AI functions.



### Result

Developing an integrated data pipeline to support the ongoing advancement of machine learning-based assignments and implementations, with a focus on the development of Advanced Driver Assistance Systems and autonomous driving functions. Establishing a comprehensive end-to-end tool ecosystem for data-driven development.

### Challenges

Guaranteeing an uninterrupted data flow throughout the data pipeline, free from bottlenecks at the interfaces, is a pivotal factor in attaining highly efficient development.

### Solution Highlights

Offering a comprehensive solution for flexible in-vehicle data recording, advanced data insight, and integrated data ingestion. Ensuring the utmost quality and automation in data annotation techniques. Efficient data management to handle and leverage petabytes of data is achievable through the capabilities of a cloud-native sensor management landscape. Employing raw data sourced from vehicle sensors and different datasets to craft simulation scenarios that faithfully mimic real-world conditions.