

Strong partnerships are essential within the vast sector of autonomous driving. Renault is a brand with over 120 years of experience innovating and developing mobility solutions. IAV is one of the leading experts in highly automated/autonomous driving. We work with partners to achieve ambitious goals. Together we are discovering new development paths and methods for automated and autonomous cars. We have a joint vision of autonomous driving and strive to revolutionise mobility opportunities for people.

#### **IAV IN SYMBIOZ DEMO CAR**

IAV and Renault jointly developed the system and architecture capable of supporting Level 4 autonomous driving on approved roads. IAV's system engineering expertise applied on Autonomous Driving enabled to develop and design specific scenarios like valet parking, toll-gate drive through and provide solutions to potential problems like sensor failure or a driver's inability to regain control of the car and also ensures the highest level of system reliability and resilience, though technologies that are plausible for further series applications.

The system senses the environment with the sensors and filters relevant data of each sensor independently for the driving activities. After that the information regarding objects, infrastructure and lanes will be fused and based on that a trajectory for lateral and longitudinal behavior will be generated and followed by the control mechanism of the vehicle. Event based activities, like the tollgate approach will be triggered via GPS and map information. In parallel the environmental understanding of the vehicle will be transmitted to the screens as direct feedback for the users.

#### **ABOUT US**

IAV offers more than 30 years of experience and a range of skills second to none. With our expertise in the entire vehicle, and the passion to match, we provide technically perfected solutions that balance both rational and emotional aspects. As one of the world's leading automotive engineering providers for major OEMs, with key know-how in highly automated / autonomous driving, IAV is proud to work together with Renault as a perfect partner with great history in developing mobility solutions on our joint vision of autonomous driving to revolutionize the possibilities of human mobility.