VOLKSWAGEN GROUP

Media Information

NO. 107/2024

Learning from Data: Volkswagen Group increases traffic safety for all

- **Volkswagen Group brands aim to optimize driver assistance systems with sensor and image data from customer vehicles and real traffic situations**
- **Customers can benefit from the improvements through software updates in the vehicle**
- **Customer consent is required**

Wolfsburg, September 26, 2024 – The Volkswagen Group aims to further increase traffic safety for all road users. The Group brands plan to use sensor and, more recently, image data from customer vehicles in road traffic to continuously optimize driver assistance systems and automated driving functions. Customers will benefit from the improvements through software updates in the vehicle. The continuously improved driving functions enhance driving comfort and contribute positively to overall traffic safety. High-quality data from real traffic situations are central to this continuous optimization of powerful assistance systems. The basic prerequisite for their processing is customer consent, and all data protection regulations are observed. The Volkswagen Group aims to start this initiative in Germany from the fourth quarter of 2024, initially with models from the Volkswagen Passenger Cars and Audi brands. Other Group brands plan to gradually join the initiative and prepare their product portfolios accordingly.

The large fleet of vehicles from the Volkswagen Group already contributes to increasing overall traffic safety today. Among other things, the vehicles generate high-resolution maps using anonymized swarm data. This “wisdom of the crowd” helps vehicles with lane guidance in areas without road markings. Precise driving instructions and hazard information, which can be narrowed down by local weather, are also possible.

Developers now aim to continuously optimize driver assistance systems with high-quality data from customer vehicles in real traffic situations. Such data are more everyday-relevant compared to tests with development vehicles or computer simulations. The goal is to make driver assistance systems as precise and smooth as possible. Users should perceive them as comfortable and useful and ideally always keep them activated. Active assistance systems offer increased safety for all: both the vehicles with activated systems and the road users in the immediate vicinity benefit from them.

Specific data transfer in defined scenarios

For their work, developers focus on specific situations where driver assistance systems are particularly useful. Data transfer from the vehicle is triggered only in narrowly defined scenarios. Such triggers can include the use of the emergency brake assistant, manual full braking, and sudden evasive maneuvers. Continuous data transfer for this purpose does not occur.

Certain sensor, function, and image data are particularly relevant for development work. These include camera images of the vehicle's surroundings and detection results from the environment sensors, as well as the direction of travel, speed, and steering angle. Information on weather, visibility, and lighting conditions also plays an important role.

CARIAD provides technical backbone for data transfer

CARIAD's cloud platform connects to the vehicle's onboard computers via a specially developed data interface and enables secure data transfer to a protected area. Initially, models from the Volkswagen Passenger Cars and Audi brands equipped with the E3 1.1 and E3 1.2 architectures have been technically enabled for image data transfer. This includes the all-electric ID. model family from Volkswagen, as well as new models from Audi: Q6 e-tron, A6 e-tron, A5, and Q5. Both brands plan to start the project later in 2024. Other Group brands plan to gradually join the initiative and prepare their product portfolios accordingly.

Customer consent is the fundamental prerequisite for the transfer and processing of data. This consent can be given in various ways and will be individually designed by the brands, for example, as an option in the customer's own profile. Consent can be revoked at any time.

Data transfer may also affect pedestrians and cyclists

Data collection and transfer may also affect other vehicles or road users such as pedestrians and cyclists in the immediate vicinity. This is particularly important as camera-based systems need to visually classify objects clearly even under adverse conditions and correctly assess complex traffic situations. Examples include busy supermarket parking lots or turn lanes with crossing bike paths.

VOLKSWAGEN GROUP

All data protection regulations are, of course, observed. Individual information about people in the traffic environment is not relevant.

Interested parties can view the recording conditions and data protection declarations online and request further information. The first brands in the group to provide this information are Volkswagen Passenger Cars and Audi . Other group brands will follow with their information at the start of their respective projects.

Jonas Kulawik
Corporate Communications
Spokesperson Product & Technology, Digitalization
+49 (0) 152 2945 2616
jonas.alexander.kulawik@volkswagen.de | www.volkswagen-group.com

About the Volkswagen Group:

The Volkswagen Group is one of the world's leading car makers, headquartered in Wolfsburg, Germany. It operates globally, with 114 production facilities in 17 European countries and 10 countries in the Americas, Asia and Africa. With around 684,000 employees worldwide. The Group's vehicles are sold in over 150 countries.

With an unrivalled portfolio of strong global brands, leading technologies at scale, innovative ideas to tap into future profit pools and an entrepreneurial leadership team, the Volkswagen Group is committed to shaping the future of mobility through investments in electric and autonomous driving vehicles, digitalization and sustainability.

In 2023, the total number of vehicles delivered to customers by the Group globally was 9.2 million (2022: 8.3 million). Group sales revenue in 2023 totaled EUR 322.3 billion (2022: EUR 279.1 billion). The operating result before special items in 2023 amounted to EUR 22.6 billion (2022: EUR 22.5 billion).