IAA Mobility 2021: Brose software connects all features inside the car



Coburg (24. August 2021)
Whether more comfortable boarding with doors that open automatically or flexible interiors that adapt to changing driving situations: new mobility experiences are only possible through the intelligent interaction of many components in cars. At the IAA Mobility in Munich, Brose is presenting software that connects and controls all vehicle functions. The solution increases user comfort and opens up doors to new business models.

"Automated driving, electrification, connectivity and shared mobility are changing the way we move ourselves from point A to point B - and even what we do in the meantime," explains Ulrich Schrickel, CEO of the Brose Group, and adds: "Future mobility experiences will be characterized especially by much greater individualization and comfort, even beyond the actual driving." For instance when transporting bulky objects: the user's smartphone calculates the dimensions of the load in advance. A radar-based interior sensor scans the vehicle interior. Intelligent software from Brose reads the sensor signals and determines whether there is enough space in the car. Back at the vehicle the seats and consoles have already adjusted themselves to create the optimal loading area. The user is able to load the objects directly. Then the user decides how they want to enjoy the ride. If automated driving is available, options include work and relax mode – or the user can drive themselves: the flexible interior adjusts accordingly. Scenarios like this are possible thanks to the seamless and sophisticated interaction of adjustment systems, sensors and electronic systems in the vehicle. Everything is controlled by Brose's self-developed software: "BRAIN - Brose Access and Interior Network". "We are complementing our many decades of experience in mechatronics with sensor technology and software. The result are intelligent and networked

systems. Our comprehensive understanding of the vehicle as a whole makes new mobility experiences possible," says Schrickel.

New functions and business models

The modular software can be integrated into the electronics architectures of a wide variety of vehicles and OEM systems. The Brose products can even control third-party components such as lighting or air conditioning via standardized interfaces. A configuration tool lets the user decide how the vehicle comfort features should behave in different situations. BRAIN translates these requests into control signals and coordinates the movement of the respective components. New functions can be added quickly and easily. A cloud link makes it possible to automatically transfer custom settings to new vehicles, for example in car sharing scenarios. This opens up new business models in which users can purchase additional features as permanent add-ons or use them for a limited period as pay-per-use services such as an invigorating back massage.

Exhibit lets visitors experience future driving situations

After introducing a prototype in 2019, Brose is now demonstrating the capabilities of BRAIN in a near-series vehicle at the IAA Mobility 2021. The software is integrated in a central processing unit from JOYNEXT. The cooperation partner is also contributing its expertise in the fields of infotainment and navigation to the joint presentation. Car show visitors can see the advantages of the system for themselves in everyday and future driving situations. For example, when a user who is relaxing needs to take control of a semi-autonomous vehicle again. If the navigation indicates that there is an upcoming motorway exit, the system will inform the driver of this using optical signals and seat vibrations. The seat quickly adjusts for driving mode and the steering wheel and center console move back to their original position. The airflow from the AC system adjusts to the new situation. BRAIN will be ready for series use as early as 2025.

Brose at the IAA

Brose will be presenting its software for feature connectivity and other solutions that make mobility an experience at the IAA Mobility in Munich from 7 to 12 September in Hall B1, Booth B60. Interested visitors can try out an e-bike equipped with the Brose drive on a test track in the Hofgarten at Odeonsplatz at Booth HG500. The company is providing additional information here: https://www.brose.com/de-en/iaa-2021/.