Press release
Two-Wheeler and Powersports

New Bosch radar-based assistance system used for first time by KTM
Safety on two wheels developed by riders for riders

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- Six new Bosch radar-based convenience and safety features now available worldwide
- New generation of rider assistance functions with front radar used for the first time by KTM
- Bosch Accident Research estimates that assistance functions could prevent up to one in six motorcycle accidents on German roads alone

Stuttgart, Germany, and Yokohama, Japan – Thanks to Bosch, motorcyclists can now feel even safer in the saddle: the technology company has unveiled six new radar-based assistance systems, including five world-firsts. According to Bosch Accident Research, these could help prevent not just one in seven, like earlier systems, but as many as one in six accidents on German roads alone. Bosch already revolutionized the motorcycle market back in 2020 with its support functions for motorcyclists. Of the six new assistance functions, four will be unveiled in a new model from leading European motorbike manufacturer KTM in November 2024 and are set to enter production in 2025. “Bosch’s declared aim is to make motorcycling even safer and more comfortable by employing innovative new technologies – without diminishing riding enjoyment,” says Geoff Liersch, head of Two-Wheeler & Powersports at Bosch. “The new functions mark yet another step in this direction, and we’re delighted to have KTM as a customer.” The manufacturer will incorporate the four Bosch rider assistance functions that use front radar. This is not the first time Bosch and KTM have worked together: in 2013, the two companies collaborated on the successful launch of the MSC motorcycle stability control system. „We’re very satisfied with the longstanding collaborative relationship between our development teams, and we’re excited that KTM is the first to put these new functions to use,” says Stefan Haist, Lead KTM Chassis Control System – Street Development.

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Bosch assistance systems provide more support on two wheels

Adaptive cruise control – stop and go (ACC S&G)

For two-wheelers, traffic jams can be strenuous as well as dangerous. Riders have to constantly apply the clutch, use the brakes, and then start moving again. To make this task easier, Bosch launched ACC adaptive cruise control back in 2020. Once the desired speed has been set, this system constantly matches the vehicle's speed to the flow of traffic while maintaining the necessary safe distance from the vehicle in front. Bosch has now taken this technology to a new level to offer increased riding comfort with its new ACC S&G function, which can bring the motorcycle to a controlled standstill in order to support the motorcyclist. This works best with an automatic transmission such as the one used in KTM's new bike, which will be the first to incorporate this new function. If their motorcycle comes to a halt, there is no need for riders to use the clutch; they can set their bike in motion simply by pressing a button or briefly activating the throttle as soon as the vehicle in front starts moving.

Group ride assist (GRA)

Group riding in a staggered formation is popular among motorcyclists, though it can be challenging with ACC, because the function expects the motorcycles riding in front to be in the middle of the lane. GRA is a useful addition to ACC; using an algorithm, it detects when a group is riding in a staggered formation and regulates the speed to automatically maintain the same distance from the motorcycles in front. In this way, the function assists riders in achieving a natural group formation. When not riding in groups, the GRA system works the same as ACC.

Riding distance assist (RDA)

When traffic is flowing smoothly and RDA is activated, it helps maintain an appropriate distance from vehicles in front and thus prevent rear-end collisions. With ACC, a desired speed must be set; but when RDA is activated, the motorcycle can be controlled as normal via the throttle grip. While riding, the system automatically reduces the vehicle's acceleration or applies the brakes as and when required. Riders can set the desired distance from the vehicle in front beforehand. If they wish, they can also use a switch to deactivate the function or apply the throttle to override the deceleration generated by the RDA system. This enables the function to blend naturally and comfortably into the dynamic flow of riding.

Emergency brake assist (EBA)

Hazardous situations on the road require not only a rapid response but, in many cases, emergency braking. Every second counts when it comes to preventing collisions and avoiding potentially serious consequences. EBA is triggered when

the system detects a risk of collision and the rider doesn't brake hard enough. In this case, the function actively increases the wheel brake pressure further to reduce the bike's speed as quickly as possible.

Rear distance warning (RDW)
Even in a car, it can be hard to keep a constant eye on traffic approaching from behind; but on a motorcycle, it requires an extra level of concentration. RDW monitors the situation behind the rider and flashes a warning on the display if another vehicle gets too close. Based on this warning, the rider can take mitigating action to prevent a rear-end collision.

Rear collision warning (RCW)
RCW warns vehicles behind the motorcycle when a rear-end collision is imminent, for example by activating the hazard warning lights. In this way, the function protects motorcyclists from accidents caused by having to brake unexpectedly or by a vehicle failing to see them – whether waiting at traffic lights, sitting in a traffic jam, or riding in free-flowing traffic.

These new functions supplement Bosch's worldwide portfolio of radar-based assistance systems, thus expanding the "sensory world" of the motorcycle. In addition to basic safety features, increasing importance is also being given to convenience and experience features that focus on the motorcycle and take real-life riding situations into consideration – functions that ensure not only safety and convenience, but also unmatched riding enjoyment.

Press photos and infographics in the Bosch Media Service at www.bosch-press.com.

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Mobility is the largest Bosch Group business sector. In 2023, its sales came to 56.2 billion euros, or just under 60 percent of total Group sales. This makes the Bosch Group one of the leading mobility suppliers. Bosch Mobility pursues a vision of mobility that is safe, sustainable, and exciting. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are electrification, software and services, semiconductors and sensors, vehicle computers, advanced driver assistance systems, systems for vehicle dynamics control, repair-shop concepts, as well as technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 429,000 associates worldwide (as of December 31, 2023). The company generated sales of 91.6 billion euros in 2023. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its

business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 90,000 associates in research and development, of which nearly 48,000 are software engineers.

Additional information is available online at www.bosch-press.com, www.bosch-mobility.com, www.bosch.com.