Press release
Two-wheeler & Powersports
Bosch compact

For a safer and more efficient future on two wheels: Bosch innovations at EICMA 2024 in Milan
Hardware and software solutions for two-wheelers

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- Six new Bosch radar-based assistance systems ensure more safety and comfort in the saddle.
- With the ABSi, ABS with integrated integrated measurement unit, Bosch has taken a step to promote the proliferation of MSC motorcycle stability control.
- A new 2kW drive control unit also supports smaller electric two-wheelers.

Milan, Italy – Conquering winding roads, dynamically commuting through dense traffic, or eating up thousands of kilometers over tough terrain are just some of the many use cases that define a motorcycle. Offering innovative solutions for safety, convenience, and sustainability calls for an understanding of these use cases and their particular requirements. That's why at Bosch, development work is done by riders for riders. At EICMA 2024, Bosch is presenting tailored solutions for all kinds of motorcycles: components for combustion engines and electric powertrains, as well as smart assistance systems and innovative connectivity solutions. Bosch will be showcasing its innovations in hall 18, booth E66.

Safety: Bringing safety innovations to all levels of two-wheelers
Having introduced **MSC motorcycle stability control** for smaller bikes in 2023, Bosch's next step to promote the uptake of MSC in more bikes across different segments is to reveal **ABSi** at EICMA 2024. This new Bosch system is an ABS with integrated inertial measurement unit. Combining these two products reduces complexity. The advantages include the elimination of an external measurement unit and a reduction in necessary wire harness.

With the potential to prevent one in six accidents on German roads alone, **advanced rider assistance systems** (ARAS) play a major role in realizing the vision of accident-free riding. Overall, Bosch offers six new functions, including five world-firsts. Four are new functions for the front: **adaptive cruise control –**

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stop and go (ACC S&G), **group ride assist** (GRA), **riding distance assist** (RDA), and **emergency brake assist** (EBA). Two are for the rear: **rear distance warning** (RDW) and **rear collision warning** (RCW). Through these functions, Bosch can further enhance riding pleasure and help increase safety and convenience where needed. The front functions will be launched together with KTM in its new 1390 Super Adventure S Evo, which will be on display at the Bosch booth.

Presenting innovations in all segments, the Bosch booth also will be showcasing **race eCBS**, launched with Ducati in the new Panigale V4 S 7G in July 2024. This function stands as a new milestone for the race segment of the motorcycle market. It is based on the eCBS electronic combined braking system, which is part of the Bosch ABS for premium motorcycles. The feature enables a combination of front and rear braking, even if only one of the two brakes is actively applied. In practice, this means that pulling the front brake automatically increases the pressure of the rear brake. While eCBS is currently intended for everyday use, race eCBS is for the racetrack.

Toward efficiency: Bosch counts on the latest powertrain technology

Making riding more efficient is one of the goals Bosch pursues in its ongoing development work. Significant effort is going into electrifying the two-wheeler powertrain. To adapt to the growing trend of **electrified mobility**, the company has introduced various solutions for different vehicle segments. Its **vehicle control unit** and the **integrated electric drive** address the goal of realizing electric mobility of 6kW and beyond. Further In-hub drive solutions and associated controller solutions dominate the smaller vehicle segments, especially in the markets of India and Southeast Asia. The new Bosch **2 kW drive control unit** helps customers bring electrification to smaller segments. The drive control unit combines the inverter, engine management system, and vehicle control in one compact component. In conjunction with the wheel hub motor, the drive control unit can be used to implement comfort functions such as a smoother starting mode (**smooth riding**) or cruise control to maintain speed. Controlled by the electric motor, the electric traction control prevents the rear wheel from slipping when starting off and increases riding safety. **One-throttle ride**, meanwhile, is an additional function that increases powertrain efficiency by allowing the motorcycle to recuperate braking energy when the rider rolls off on the throttle. This helps extend the battery-electric range by up to 8 percent. With high vibration profiles and ingress protection levels up to IP67, the 2kW unit can handle any weather and road conditions.

At the same time, Bosch is continuing to work on making current combustion technology even more efficient. Here, Bosch is providing specific **engine management systems** and **components** for two-wheelers and powersports vehicles to help manufacturers meet future emissions regulations, such as Euro 5 and India's BS 6 (Bharat Stage 6), including full Onboard Diagnostics II (OBD), Step 1 and 2. Together with the latest sensor technology, the engine management systems can achieve considerable efficiency gains compared with the conventional carburetor still in widespread use in emerging markets. Bosch engine components, such as injectors or sensors and controllers, are also already capable of supporting gasoline blend ratios up to E100 and CNG/LPG, even in the two-wheeler sector. Additional functions such as various driving modes or quickshift solutions can also be implemented quickly and easily via the engine control unit, even in smaller vehicle classes.

Digital: Functions on demand and updates over the air

Increasingly standard in cars, **updates over the air** and **functions on demand** are also gaining ground in two-wheelers. Here, Bosch continues to build on its core competencies: developing solutions that combine technological progress and riding enjoyment. Bosch software solutions mean that motorcyclists can install new functions even after purchasing their vehicle. Special or advanced riding modes for the racetrack or off-highway use, as well as convenience functions for the next long trip, can thus be added on demand. This is done easily via the rider's own smartphone: the new functions or updates are downloaded from the vehicle manufacturer's app and then applied to the motorcycle.

To create a smooth integration of connected features and user experience, it is vital that the human-machine interface be well set up and easy to understand. Bosch's longstanding experience in cluster development is evident here: our existing TFT display generations, ranging from our **5" connected cluster** up to our **10.25" integrated connectivity cluster**, have impressive readability even in direct sunlight thanks to our optical bonding process, which is applied across the full range of our display products.

Press photos and infocharts are available on 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.