Press release
Two-Wheeler and Powersports

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A look into the past, a ride into the future: Bosch celebrates three decades of Motorcycle ABS safety
Innovative portfolio for two-wheelers at EICMA 2025

- Bosch has been at the forefront of motorcycle ABS for three decades.
- The Kawasaki GPZ1100 on show at EICMA was the first production motorcycle to be equipped with Bosch ABS.
- Bosch enhances safety, efficiency, and connectivity through smart systems, advanced battery management, and innovative powertrains.

Milan, Italy – Thirty years ago, Bosch launched its first production-ready motorcycle ABS system on the market, marking a major milestone in the evolution of rider safety. Since then, Bosch has continuously advanced two-wheeler safety, evolving from foundational ABS units to sophisticated systems such as Motorcycle Stability Control (MSC) and cutting-edge rider assistance technologies. “At Bosch, our mission over the past 30 years has been clear: to make riding safer through innovation, precision, and intelligent technology,” said Geoff Liersch, head of Two-Wheeler & Powersports at Bosch, at EICMA 2025. At the trade fair, Bosch presents its latest advancements in two-wheeler and powersports technology, celebrating three decades of continuous innovation while offering a glimpse into the connected and intelligent riding experience of the future.

Bosch’s work on motorcycle ABS began in 1986, building on passenger-car technology that was launched in 1978, and culminated in the first production motorcycle equipped with Bosch ABS in 1995, the Kawasaki GPZ1100 ABS. The company’s sustained commitment led to the establishment of a center of competence for two-wheeler safety technology in Japan in 2007, forming the foundation of a global development hub and a specialized engineering pool. Subsequent milestones include the launch of motorcycle ABS 9 in 2009, the arrival of the compact and lightweight ABS 10 light and base designed for emerging markets in 2016, and the ABS 10 enhanced package tailored to high-performance bikes in 2018. The development of inertial-measurement-based MSC in 2013 marked the start of Bosch’s expansion into advanced active safety systems for motorcycles.

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Enhancing motorcycle safety beyond ABS

Bosch's Motorcycle Stability Control system, or MSC, provides critical protection in situations where motorcyclists are particularly vulnerable, such as when leaning into bends and during dynamic maneuvers. Combining wheel-speed sensors and a high-frequency inertial measurement unit (IMU), MSC evaluates vehicle dynamics up to 100 times per second to manage braking and acceleration control, even when a motorcycle is pitched and rolled on a corner. Beyond cornering functions, Bosch continues to develop value-added features enabled by MSC, including rear-wheel lift-up control, vehicle hold control for use on slopes, and rear-wheel slide control for performance on the racetrack. A Bosch Accident Research study indicates that, if every motorcycle were equipped with MSC, ABS combined with MSC could prevent or mitigate more than 30 percent of motorcycle accidents involving personal injury in Germany alone. Making these benefits accessible to a broader global audience, Bosch introduced MSC for smaller vehicles in 2023 and is ready to supply MSC solutions to markets where smaller-displacement bikes predominate, including India, China, and ASEAN countries.

Since introducing its first production-ready motorcycle ABS system three decades ago, Bosch has continuously advanced two-wheeler safety. Today, ABS is not just a standard; it is a cornerstone of modern motorcycle safety systems. This evolution is reflected in global regulations: the European Union mandated ABS for motorcycles over 125 cc in 2016, followed by India in 2018. Singapore will take this commitment a step further, becoming the first country worldwide to require ABS on all new motorcycles, including those under 125 cc, starting April 1, 2027. This progressive move highlights the growing global focus on rider protection and sets a benchmark for other countries. Bosch continues to lead in this space, providing advanced solutions and integrating connectivity features to enhance both safety and the riding experience across all motorcycle segments.

A ride into the future: Bosch innovations at EICMA 2025

At EICMA 2025, Bosch is also showcasing its innovations of today in hall 18, booth E66. In anticipation of the new EU regulation mandating a digital passport for every battery starting February 2027, Bosch is at the forefront of supporting motorcycle manufacturers with robust solutions. The **Digital Battery Passport** is designed to meet the EU requirements, providing full transparency on a battery's condition throughout its lifecycle via static and dynamic data. Bosch offers comprehensive digital services that enable OEMs to fulfill these new documentation requirements and manage crucial battery data securely. This solution seamlessly integrates data from multiple sources, offering clear and

user-friendly access for OEMs, workshops, dealers, and riders. It also streamlines compliance and enhances battery management.

To complement the Digital Battery Passport, Bosch is introducing **Battery in the Cloud**, a service designed to help motorcycle manufacturers continuously monitor, predict, and improve battery health. This innovative system creates a digital battery twin in the Cloud, which accurately reflects the real battery's condition using sophisticated data analysis and AI-based models. As a result, it's possible to detect stress factors and anomalies early on, significantly reducing failures and extending battery life. Battery in the Cloud provides precise insights and forecasts on battery performance and reliability, which supplies manufacturers and owners with critical information. Furthermore, the usage certificate generated by the system confirms the battery's condition in a tamper-proof manner, providing crucial support for residual value estimation when reselling the vehicle.

Further elevating the connected riding experience, Bosch is presenting the **Connectivity Cluster 4.2" Round**, the latest addition to its expanding Connectivity Cluster series. Addressing the common need for a second display for navigation, which often requires separate holders, this innovative cluster seamlessly integrates connectivity functions. Simply by connecting their smartphone to the Connectivity Cluster, riders gain access to essential features such as navigation, music, and telephony, all while the cluster displays crucial riding information such as warning messages and current speed.

Bosch powers two-wheel mobility with advanced drive systems

To address the increasing shift toward electrified mobility, Bosch has developed a range of solutions tailored to different two-wheeler segments. Its **vehicle control unit** and **integrated electric drive** are designed to enable electric mobility with 6 kW. For smaller vehicle classes, which are particularly popular in markets such as India and southeast Asia, Bosch offers additional in-hub drive systems and corresponding controller solutions. The new Bosch **3 kW drive control unit** supports manufacturers in bringing electrification to compact vehicle segments. This unit combines the inverter, engine management, and vehicle control functions within a single compact component. When paired with a wheel hub motor, it enables comfort features such as smoother acceleration and cruise control for maintaining speed. The system's electric traction control manages motor torque to prevent rear-wheel slip during acceleration, enhancing riding safety. **One-throttle ride** improves powertrain efficiency by enabling regenerative braking when the rider releases the throttle, extending the electric range by up to 8 percent. Built to withstand harsh conditions, the 2 kW drive

control unit features a robust design with high vibration tolerance and IP67 protection, ensuring reliable performance in any weather and on any terrain.

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. It generated sales of 55.8 billion euros in 2024, and thus contributed around 62 percent of total 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 and fleets. 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 418,000 associates worldwide (as of December 31, 2024). The company generated sales of 90.3 billion euros in 2024. 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 490 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 87,000 associates in research and development.

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