

Volkswagen Group Introduces First Self-Developed Chip

- Volkswagen Group China will develop its very own System-on-Chip (SoC) — securing control of a core technology for advanced driver assistance systems (ADAS) and future autonomous driving (AD).
- The in-house chip development marks the next step in implementing Volkswagen's "In China, for China" strategy, further embedding the Group in the local ecosystem for innovative technologies.
- Designed for high efficiency: the chip aims to enable the Group to further optimize its advanced driver assistance systems, improving safety and scalability.
- First Volkswagen-chips are ready to power vehicles with Level 3 and above automated driving, further completing Volkswagen's full-stack intelligent driving competence in China.
- Oliver Blume, Chairman of the Board of Management of Volkswagen AG: "As a global tech driver, Volkswagen Group consistently strengthens its capabilities in key future technologies. Our activities in China play a central role in this development. By designing and developing the System-on-Chip here in China, we are taking control of a key technology that will define the future of intelligent driving. This marks the next logical step in our strategy for outstanding long-term innovation capabilities."
- Ralf Brandstätter, Member of the Board of Management of Volkswagen AG for China, Chairman and CEO of Volkswagen Group China: "We are accelerating and deepening the implementation of our 'In China, for China' strategy — moving beyond localized production to mastering the core technologies that shape tomorrow's mobility. The Volkswagen Chip will be developed with our Chinese customers at heart. It is designed to make every journey smarter, safer and more seamless, delivering an experience that fits naturally into their everyday lives."

[Shanghai, November 5, 2025] On the opening day of the 8th China International Import Expo (CIIE), Volkswagen Group China announced the development of its first self-designed System-on-Chip (SoC) in China. The chip will be developed locally through

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CARIZON, a joint venture between CARIAD and Chinese technology company Horizon Robotics.

Developed specifically for the next generation of smart, connected cars in China, this new chip will power Volkswagen's advanced driver assistance and automated driving functions. It's what enables the car to "think" — processing data from cameras and sensors to make driving safer, smoother, and more intelligent. With this technology, Volkswagen is leveraging the innovative power of China's ecosystem, so future cars can better understand local roads, traffic, and driving behaviors.

Following the successful start of production of CARIZON's first ADAS solution in 2025 and market availability in first Volkswagen vehicles in 2026, the new SoC represents the kick-off of the Group's local intelligent driving strategy Phase Two — deepening its full-stack research and development capabilities in China, for China, and providing a larger scale of local customers with smarter, safer and more valuable solutions.

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Ralf Brandstätter, Member of the Board of Management of Volkswagen AG for China, Chairman and CEO of Volkswagen Group China: "We are accelerating and deepening the implementation of our 'In China, for China' strategy — moving beyond localized production to mastering the core technologies that shape tomorrow's mobility. The Volkswagen Chip will be developed with our Chinese customers at heart. It is designed to make every journey smarter, safer and more seamless, delivering an experience that fits naturally into their everyday lives."

Peter Bosch, CEO of CARIAD SE: "For the first time, CARIZON is developing not only the software for automated driving, but also a high-performance and efficient AI chip. This is a major step. With this SoC, we are building a key technology that will be crucial for our future success. The chip boosts the performance of advanced driver assistance systems, meeting the high expectations of customers in China. At the same time, it provides Volkswagen Group with a structural cost advantage as a global automotive tech driver. "

Dr. Yu Kai, Founder and CEO of Horizon Robotics: "This further strengthens the collaboration between Horizon Robotics and Volkswagen Group. It also demonstrates Volkswagen Group's long-term commitment to China. Horizon Robotics is proud to support this vision as we share the same values — bringing safer, smarter and more accessible intelligent driving solutions to Chinese and global customers. Therefore, we will continue working closely with the Group and its brands to accelerate the large-scale deployment of intelligent driving technologies."

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Mastering Core Capabilities to Empower the Future

Through joint development at CARIZON, Volkswagen Group will combine its German engineering excellence with Horizon Robotics' leading hardware and software expertise and mass-production capabilities to deliver a high-performance, safe, and reliable integrated solution.

Designed for China's complex road environments and diverse driving scenarios, the SoC will significantly enhance real-time decision-making, computing performance, and system efficiency, offering enhanced safety redundancy and urban intelligent driving performance to Chinese customers.

The SoC is expected to be delivered within the next three to five years, with a single-chip computing power of around 500 to 700 tera operations per second (TOPS), providing robust computing capacity for the Group's next-generation intelligent connected vehicles, enabling more human-centric advanced driver assistance and autonomous driving features.

This technological milestone underscores Volkswagen Group's determination to deepen local innovation in China. By securing ownership of core technologies, the Group will further enhance development efficiency and make high-performance intelligent-driving capabilities accessible across a wider range of powertrain models and price segments, achieving strong scalability across the Group's new ICV platforms.

Accelerating the Next Phase of Intelligent Mobility in China

Building on this strong technological foundation, Volkswagen Group is further advancing its "In China, for China" strategy and forming a fully localized R&D ecosystem that spans chips, software, systems, and vehicles — laying the groundwork for the next stage of intelligent transformation in China. Starting in 2026, the first vehicles equipped with CARIZON's ADAS solution based on the CEA will be delivered to Chinese customers. By 2027, Volkswagen Group plans to introduce more than 20 electrified models in China, and around 30 all-electric models by 2030. The development of the self-designed SoC will further accelerate the Group's journey toward the era of intelligent connected vehicles.

This first local ADAS/AD SoC marks more than a technological breakthrough — it embodies Volkswagen Group's evolution from a leading automaker into a technology-driven mobility innovator, rooted in China, and driven by the shared goal of creating safer, smarter, and more engaging mobility experiences for Chinese consumers.

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About the Volkswagen Group

The Volkswagen Group is one of the world's leading car makers, headquartered in Wolfsburg, Germany. It operates globally, with 115 production facilities in 17 European countries and 10 countries in the Americas, Asia and Africa. With around 680,000 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 2024, the total number of vehicles delivered to customers by the Group globally was 9.0 million (2023: 9.2 million). Group sales revenue in 2024 totalled EUR 324.6 billion (2023: EUR 322.3 billion). The operating result before special items in 2024 amounted to EUR 19.1 billion (2023: EUR 22.5 billion).

Volkswagen Group in China

The Volkswagen Group is one of the first and most successful international car manufacturers in China's automobile industry and has made individual mobility possible together with its Chinese Partners. For over 40 years, the Volkswagen Group and its brands have always been pioneers of mobility in China.

The company's success story in China began in 1978, when Chinese partners first made contact with the Volkswagen Group. In 1984, SAIC Volkswagen Corporation Ltd., Volkswagen Group's first joint venture in China, was founded in Shanghai, followed by FAW-Volkswagen Corporation Ltd. in 1991. In 2017, in addition to the two existing joint ventures in China, Volkswagen (Anhui) Automotive Company Limited was established to produce new energy vehicles. Then, in 2021, the Audi FAW NEV Company was incorporated, focusing on premium electric vehicles.

The Volkswagen Group is consistently following its "In China for China" approach to enhance local development expertise. In 2023, Volkswagen Group China Technology Company (VCTC) - the Group's biggest R&D center outside Germany - was established, focusing exclusively on the development of intelligent connected vehicles (ICVs). VCTC enables the Group to fully integrate itself into China's industrial ecosystem and to customize products even faster to meet the needs of Chinese customers.

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The business scope of Volkswagen Group in China includes the production, sales and services of complete vehicles and parts, such as engines and transmissions. The Group’s brands — including Volkswagen, Audi, ŠKODA, JETTA, Porsche, Bentley, Lamborghini, Ducati, MAN, SCANIA — have a business presence in China through Volkswagen Group China and its subsidiaries.

In 2024, Volkswagen Group China delivered around 2.93 million vehicles to customers in the Chinese mainland and Hong Kong, together with its Chinese joint venture partners. To date, around 50 million customers in China drive cars from the Group’s brands - a number unparalleled by any other automaker in the country. Following its clear “Target Picture 2030”, Volkswagen Group China aims to remain the largest international OEM in China and play a leading role in the ICV era.

Volkswagen Group Website: <http://www.volkswagenag.com>

Volkswagen Group China Website: <http://www.volkswagengroupchina.com.cn/en>

Volkswagen Group China Media Service Website:
<https://mediacenter.volkswagengroupchina.com.cn>
