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Press Release

From Edge AI to smart mobility, Artificial Intelligence is driving growth in the electronics Industry

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- **AI is boosting demand for high-performance semiconductors**
- **AI-powered quality control and industrial automation help make production processes more stable**
- **AI functions are being integrated directly into devices, sensors, and systems**

From November 10 to 13, 2026, the international electronics industry will gather at electronica. This year, the world's leading trade fair for electronics will focus, among other topics, on Artificial Intelligence. From Edge AI to AIoT and machine learning—in Munich, a spirit of innovation, key technologies, and industry expertise will come together in one place to showcase, discuss, and further develop the technologies of tomorrow.

Today, Artificial Intelligence (AI) ranges from Edge and Cloud AI to AI-powered quality control in manufacturing and robotics to smart mobility. AI has long become a strategic competitive factor, helping companies make their processes faster, more precise, and more cost-effective. At the same time, however, the demands on data quality, IT security, and integration into processes and products are increasing. The electronics industry is systematically driving the transformation through AI and strengthening its international competitiveness as a result. "This transformation is visible at electronica, which brings together top decision-makers and developers from around the world, and showcases the entire electronics value chain," explains Caroline Pannier, Exhibition Director of electronica.

Semiconductor industry benefits from AI boom

Recent studies confirm the trend that AI is emerging as the key driver of growth

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and innovation in the industry. The Capgemini study [The Semiconductor Industry in the AI Era](#), for example, shows that the widespread adoption of AI and generative AI is driving up demand for semiconductors. At the same time, downstream industries expect chip demand to rise by 29 percent by the end of 2026. A study by [McKinsey](#) also shows that semiconductor segments that produced components for AI applications grew by 21 percent annually from 2019 to 2023, while the industry as a whole achieved growth of just 6 percent.

Edge AI and AIoT are becoming key factors in the electronics industry

The trending topics of Edge AI and AIoT, in other words, the use of Artificial Intelligence directly on devices and in connected systems, are currently particularly relevant for the electronics industry. Both approaches enable data to be processed in real time where it is generated, such as in sensors, controllers, or embedded systems. That reduces latency, takes the load off the cloud, and improves data privacy, energy efficiency, and reliability.

At the same time, AI and robotics are becoming increasingly important in industrial automation, above all in the field of AI-based quality control. Automatic detection of the smallest deviations and defects on components, printed circuit boards, or in production processes helps reduce scrap, speeds up inspection processes, and ensures more stable operation of production lines. Another focus is on AI on microcontrollers: Advances in TinyML and optimized embedded AI models make it possible to provide intelligent AI functions even on hardware with limited resources.

Bringing hardware and software closer together through AI

At electronica 2026, Infineon, STMicroelectronics, and NXP Semiconductors rank among the particularly relevant exhibitors in the AI sector. Infineon is primarily driving the development of Edge AI and IoT solutions for smart, energy-efficient devices. STMicroelectronics combines embedded processing, Edge AI, and mobility-related applications. NXP Semiconductors demonstrates how solutions for automotive, industrial & IoT, and communications infrastructure can be integrated into embedded systems, microcontrollers, and microprocessors. In

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the automotive sector in particular, the focus is shifting toward the AI-Defined Vehicle (AIDV): a vehicle in which AI not only optimizes individual functions but also increasingly shapes perception, assistance, interaction, and driving behavior. Together, these companies demonstrate that AI is increasingly being integrated directly into sensors, embedded systems, and industrial applications.

This semiconductor environment is complemented by traditional embedded systems providers such as Advantech and Kontron, which are driving the practical application of AI. Advantech explicitly describes its portfolio as the foundation for AIoT solutions—from sensor nodes to embedded PCs, gateways, and IoT cloud platforms. With its expanded portfolio of IoT, and industrial control and communication solutions, Kontron covers the entire spectrum from modules to complete systems, including software. Both companies are thus creating infrastructural conditions needed to operate AI-based solutions in industrial environments in a reliable, connected, and scalable manner.

A platform that brings together embedded computing, edge technologies, and IoT—as well as developers, decision-makers, and system architects—is edge lab LIVE, which is making its debut at electronica this year. It combines the latest embedded technologies with practical applications and allows visitors to interactively experience edge environments.

Knowledge transfer and networking

At electronica 2026, about 3,500 exhibitors from around 60 countries will showcase their cutting-edge applications and solutions that are paving the way to the All Electric Society. Visitors can learn firsthand about all aspects of Edge AI, AIoT, and related topics across 18 halls at the Munich Trade Fair Center. In addition, a top-class supporting program, featuring an Executive Event with CEO roundtable, expert lectures, or networking events, will contribute to knowledge transfer. The numerous forums, such as the IIoT Forum and the Circular Economy Forum, will also encourage open discussion. SEMICON Europe, taking place in parallel across two and a half halls, will offer insights into the entire semiconductor industry value chain.

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About electronica

electronica is the most important international meeting place for the electronics industry. As the world's leading trade fair, it presents the entire spectrum of technologies, products and solutions in electronics and brings together experts and users from all over the world. The extensive supporting program with top-class conferences and practice-oriented forums provides deep insights into the latest trends from research to application and addresses current social issues. The next electronica will take place from November 10 to 13, 2026 at the Messe München Exhibition Center.

electronica worldwide

In addition to electronica, Messe München organizes electronica China, electronica South China, electronica India North and South, the SmartCards Expo and electronicAsia. The network of electronics trade fairs also includes productronica in Munich, productronica China, productronica South China, productronica India North and South, and LOPEC.

Messe München

As one of the leading trade fair organizers, Messe München presents the world of tomorrow at around 90 trade fairs worldwide. The portfolio comprises trade fairs for capital and consumer goods, as well as for new technologies. This includes 14 world-leading trade fairs such as bauma, BAU, IFAT, and electronica, cooperation events such as IAA MOBILITY, and numerous guest events. With an international network of affiliated companies and foreign representatives, Messe München is active worldwide. Together with its 1,200 employees in the group, it organizes trade fairs in China, India, Brazil, South Africa, Turkey, Singapore, Vietnam, Hong Kong, Thailand, the USA, and Saudi Arabia. Around 150 events per year attract over 50,000 exhibitors and around three million visitors in Germany and abroad. This makes Messe München an important economic engine that generates billions in purchasing power.