GTAI GERMANY TRADE & INVEST

FACT SHEET

The Semiconductor Market in Germany

Issue 2026

Semiconductor manufacturing has been dominated by Asia and the United States for decades. Today, Germany is positioning itself as a key pillar within a more resilient and strategically diversified European semiconductor ecosystem. Rather than competing across all segments, the country is focusing on strengthening high-value areas such as automotive chips, power electronics, sensors, and industrial applications.

Germany already forms the backbone of Europe's semiconductor landscape, with a dense network of leading companies across the entire value chain and a strong industrial customer base. Demand for semiconductors is being driven not only by electrification and renewable energy, but increasingly by artificial intelligence, data centers and advanced industrial automation. These trends significantly increase the need for high-performance and energy-efficient chips – particularly in power semiconductors and AI-enabled applications.

Germany and the EU have shifted their policy strategy from pure capacity expansion to a broader focus on technological sovereignty and supply chain resilience. The European Chips Act and its evolution towards "Chips Act 2.0" seeks to strengthen the entire ecosystem — from design and R&D to manufacturing and advanced packaging — while reducing strategic dependencies and aligning semiconductor development with emerging AI and digital infrastructure needs.

Recent developments reveal a differentiated growth path: Leading clusters such as "Silicon Saxony" continue to expand through targeted investments and strong industry–research collaboration. This underlines a structural shift towards ecosystem-driven growth rather than reliance on single flagship fabs. Germany is evolving into a globally relevant hub for application-driven semiconductor technologies embedded in automotive, energy, and AI-enabled industrial systems.

The Semiconductor Industry in Numbers

More than 1 in 3
chips of all European chips are produced in Germany

Around EUR 17 billion
revenue in the semiconductor industry in 2025

Up to EUR 40 billion
in private and public investment expected by 2030

Close to 10 %
expected annual growth rate until 2030

Some 60%
of employees in the domestic semiconductor industry have an academic degree

Sources: Statista 2026, BMWE 2026

→ **For more information, please visit our website:**
www.gtai.de/semiconductors

German Semiconductor Landscape

Germany's microelectronics sector forms a complete ecosystem representing the entire industry value chain network. This dynamic landscape is responsible for developing the smart, integrated systems required to meet industry's changing needs.

Internationally active companies, renowned research institutions, small and medium-sized enterprises, and start-ups are all at home in different industry clusters across the country.

Source: Silicon Saxony, GTAI Research 2026

German Semiconductor Networks to know about

Germany is already home to several strong semiconductor and microelectronics sites in the states of Saxony, Bavaria and Baden-Württemberg. Here, companies and research institutions – specialists in areas including sensor technology, interconnection technology and system integration – find the ideal conditions to develop systems and technologies for tomorrow's needs.

Silicon Saxony
Silicon Saxony is Europe's largest microelectronics cluster, combining industrial chip manufacturing, design, equipment suppliers and a dense network of research institutions. Global players such as GlobalFoundries, Infineon and Bosch are complemented by a broad ecosystem of SMEs, equipment suppliers and R&D actors spanning materials, wafer processing, design and system integration. The cluster is further gaining momentum with the EUR 10 billion-plus TSMC-led fab project in Dresden, which is attracting additional international suppliers and reinforcing the region as a full-stack semiconductor hub in Europe.

Microtec Südwest
The microTEC Südwest cluster in the southwestern state of Baden-Württemberg is a major European network for intelligent microsystems in manufacturing and health. With companies like Zeiss and its strategic partner ASML, the region remains at the core of global semiconductor equipment innovation, supplying the world's only EUV lithography optics and advancing next-generation High-NA EUV technology for future chip production. Public funding is helping expand EUV optics production, thereby consolidating Germany's critical semiconductor equipment status.

Bavarian Chips Alliance
Bavaria is home to leading semiconductor players such as Infineon and Siltronic as well as the Bavarian Chips Alliance which connects the ecosystem across design, manufacturing and applications. Munich has also emerged as a major European chip design hub, hosting Apple's largest R&D and silicon design center in Europe and attracting new investments such as a TSMC design center supporting advanced chip development for AI, automotive and industrial applications. The combination of global tech companies, strong universities and a growing design ecosystem positions Bavaria at the center of Europe's semiconductor innovation landscape.

Nothern Chip Network
The Northern Chip Network brings together companies, research institutions and universities across the region. It covers the full value chain and includes players such as Nexperia, NXP and X-FAB. The network seeks to strengthen collaboration, accelerate innovation and position northern Germany as a competitive semiconductor ecosystem.

Semiconductor Success Stories in Germany

TSMC/ESMC
TSMC, the world's largest contract chip manufacturer, is establishing its first European semiconductor fabrication plant in Dresden, Saxony. The facility, operated by the European Semiconductor Manufacturing Company (ESMC), is a joint venture between TSMC, Bosch, Infineon, and NXP and will manufacture chips for automotive, industrial, IoT, and communications applications. Dresden was selected as the project location in 2023, with construction beginning following the groundbreaking ceremony in August 2024.

With a total investment of more than EUR 10 billion, the project ranks among the largest semiconductor investments in Europe. The German government is supporting the investment with up to EUR 5 billion in public funding approved under EU state aid rules and the European Chips Act framework. Construction is progressing on schedule, with production expected to start in 2027. Once operational, the facility will strengthen Europe's semiconductor manufacturing base, improve supply chain resilience, and support key industries including automotive and industrial electronics.

World-Leading Research & Development

Fraunhofer Group for Microelectronics
A number of institutes within the Fraunhofer Group for Microelectronics and the Leibniz Association are also playing a decisive role in consolidating Germany's role as a major international semiconductor and electronics research location. The Fraunhofer Group for Microelectronics is a research and development service provider in the areas of microelectronics and smart systems integration. Part of the Fraunhofer-Gesellschaft, Europe's largest application-oriented research organization, the group seeks to bridge the gap between fundamental research and product development in the fields of microelectronics/nanoelectronics and microsystem & communication technology in order to strengthen German innovativeness.

Reasons to set up production in Germany

- Biggest semiconductor ecosystem in Europe
- European Chips Act and funding programs support large-scale investment
- Growing semiconductor turnover – with key customers and partners in chip design, 5G, and automotive with industry throughout Germany and the EU
- Germany Trade & Invest ensures support at all stages of the settlement process

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Our Support for Your Business in Germany

Germany Trade & Invest (GTAI) is the foreign trade and inward investment agency of the Federal Republic of Germany. We advise and support foreign companies planning to expand into the German market and assist German companies seeking to enter global markets.

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Imprint

Publisher: Germany Trade and Invest
Gesellschaft für Außenwirtschaft und Standortmarketing mbH
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Editor: William MacDougall, GTAI

Layout: Danielle Röbbenack, GTAI

Print: Kern GmbH, 66450 Bexbach, www.kerndruck.de

Picture Credits: ©GettyImages/Monty Rakusen; portraits: ©GTAI/Illing & Vossbeck Fotografie

Order Number: 21498

Supported by:

Federal Ministry for Economic Affairs and Energy

on the basis of a decision by the German Bundestag