

Automotive.

Thuringia – Automotive hub with countless assets.



Thuringia is proving to be a major magnet for the automotive industry: It holds the manufacturing operations of global giants such as Opel/Stellantis, Mercedes, BMW, Bosch, Magna, IHI, BorgWarner and CATL.

Thuringia is centrally located and extremely close to Germany's and Europe's carmakers. Roughly 700 companies in the automotive and auto parts industry maintain production operations in the state, employing around 66,000 people. Together, they generated approx. 9.3 billion euros in revenue in 2021. Alongside large corporations, many nimble mid-sized firms drive growth in this sector. One of the strengths of the Thuringian industry is its wide range of technological competencies.

BMW produced its first car in Thuringia back at the beginning of the 20th century. In 2022, the first mass-produced lithium-ion batteries in Germany will come from Thuringia.

i *The Thuringian automotive industry at a glance*

The "Virtual Car Thuringia" portal presents the skills of around 500 selected companies in the Thuringian automotive industry. The search function shows potential partners for production and research & development.

www.virtuelles-automobil-thueringen.de/en

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@ www.invest-in-thuringia.de/en/industries-technologies/automotive/





A fast-track network.

The Eisenach region is the physical nucleus of the industry: It lies at the geographical center of Germany.

In other words, businesses who invest in Thuringia benefit from close proximity to Germany's and Europe's major carmakers. Five interstate highways connect Thuringia to all major cities and production centers. The airports in Erfurt, Leipzig and Frankfurt are located nearby. All German OEM locations can be reached by truck within 5 hours.



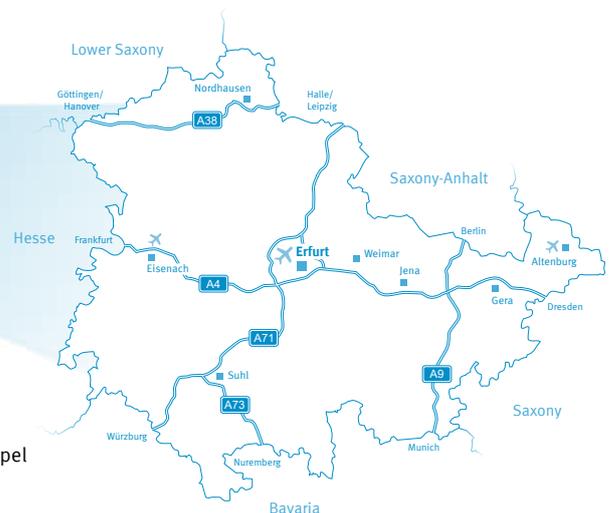
Your future specialists with great ideas.

Thuringia has been making cars for over a hundred years. It still draws enormous expertise from this well of tradition.

Local universities produce far more engineers than the national average. Ilmenau University of Technology, for example, offers a major directly related to the automotive industry: Automotive Engineering can be completed as a Bachelor or Master of Science degree.

Other specialized majors such as mechanical engineering, electrical engineering, information technology, material flow and logistics or mobility management are offered by:

- ▶ Ilmenau University of Technology
- ▶ University of Applied Sciences Jena
- ▶ Nordhausen University of Applied Sciences
- ▶ University of Applied Sciences Erfurt
- ▶ University of Applied Sciences Schmalkalden
- ▶ Eisenach/Gera University of Cooperative Education (DHGE)



New trends in the automotive industry.

Close ties between business and academia drive the shift to sustainable mobility.

The automotive industry is undergoing a profound worldwide transformation that aims to reduce CO2 emissions. The Thuringian Ministry for Economic Affairs provides incentives and institutional structures to help automotive suppliers quickly adapt to these fundamental changes. Thuringian companies also benefit greatly from the excellent research ecosystem, which explores innovative solutions in electromobility, hydrogen, lightweight construction or autonomous driving. The decision by CATL, the global market leader from China, to build a gigafab in Thuringia marked the start of a steadily growing battery cluster that spans upstream processes as well as downstream ones such as battery recycling.

As a branch of the **Fraunhofer IKTS, the Battery Innovation and Technology Center BITC** conducts research on solutions for the connected, digitally supported production and quality assurance of battery cells and modules as well as electrolyzers in the hydrogen economy. Special equipment for conducting tests as well as continuing education opportunities are available.

www.ikts.fraunhofer.de/en/bitc

The **Thuringian Innovation Center Mobility (ThIMO)** also supports the transition to sustainable mobility. It focuses on complex, lightweight, environmentally friendly, digital, connected and intelligent mobility systems. The center has teamed up with more than 200 partners from industry and academia who can draw on the latest experimental equipment and outstanding research expertise.

www.mobilitaet-thueringen.de/en

Selected research institutions, R&D service providers and technology agencies in Thuringia:

- › CiS – Research Institute for Microsensors, Erfurt
- › Center for Energy and Environmental Chemistry – CEEC, Jena
- › Institute for Microelectronic and Mechatronic Systems (IMMS), Ilmenau
- › Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Jena
- › Thuringian Institute for Textile and Plastics Research (TITK), Rudolstadt
- › GFE – Association for Production Engineering and Development, Schmalkalden
- › Günther Köhler Institute of Joining Technology and Materials Testing (ifw), Jena
- › IMG Electronic & Power Systems, Nordhausen
- › adapt engineering, Nordhausen
- › Thuringian Energy and GreenTech Agency (ThEGA), Erfurt

Study: “Cognitive Car”

The automotive industry and lateral entrants from the digital industry around the world are working on autonomous driving. However, to make the “Cognitive Car” and its new functions come to life, current components have to be improved upon, based largely on automation and connectivity trends. On behalf of LEG and automotive thüringen e.V., the study is investigating the potential and challenges Thuringian companies face and recommends steps in order to participate sustainably in the value creation of the “Cognitive Car.”



automotive thüringen

Companies such as BMW, Borbet, Lear, MDC Power (Daimler), SAMAG and EDAG are among the approximately 100 companies, universities and research outfits that make up the “automotive thüringen” industry association. The association is the point of contact for all supplier issues in the automotive industry in Thuringia and works actively to ensure Thuringia remains competitive and cutting-edge. It promotes cooperation networks among members, prepares market analyses, improves access to OEMs, and gives the Thuringian automotive industry international visibility.

www.automotive-thueringen.de/en





Selected companies

Top-selling automotive suppliers worldwide with sites in Thuringia:

- BASF Performance Polymers, Rudolstadt**
- Lear Corporation, Eisenach**
- Magna Int. Stanztechnik, Heiligenstadt**
- Robert Bosch Fahrzeugelektrik Eisenach, Eisenach**
- ZF Friedrichshafen, Gotha**

Further specialized suppliers/OEMs:

- Benteler Automobiltechnik Eisenach, Eisenach**
- BMW Fahrzeugtechnik, Krauthausen/Eisenach**
- BorgWarner Transmission Systems, Arnstadt**
- Faurecia Abgastechnik, Eisenach**
- FEUER powertrain, Nordhausen**
- Hako, Werk Multicar, Waltershausen**
- MAHLE Filtersysteme, Auengrund**
- Mubea Fahrwerksfedern, Weißensee**
- Meleghy Automotive, Gera**
- REBO Lighting & Electronics, Eisenach**
- TALLAG Rottenbach GmbH, Königsee**

Thuringia: where success is made.

Thuringia offers outstanding growth opportunities for carmakers and suppliers with various competencies.

CATL

Chinese battery manufacturer Contemporary Amperex Technology Ltd. (CATL), one of the global leaders in this sector, is building its first plant outside China on an area of up to 70 hectares in Arnstadt. The company is investing around EUR 2 billion in Germany's first battery factory and creating up to 2,000 jobs.

IHI Charging Systems International

IHI Charging Systems International GmbH produces high-efficiency turbochargers. Part of the Japanese IHI Group, one of the largest manufacturers of turbochargers and turbocharging systems for passenger cars and commercial vehicles, the company has its German headquarters in Ichttershausen and employs around 210 people. IHI is also active in electromobility and is currently researching components for fuel cell drives with partners.

BORBET

Borbet has been operating the largest production facility for aluminum wheels in Europe in Bad Langensalza, Thuringia, since 2004 and employs just over 900 people. The site was chosen for good reason: It has long been home to many qualified specialists for aluminum and magnesium casting.

Marquardt Lightronics GmbH

The family-owned company from Baden-Württemberg is a leading global manufacturer of electronic switching and operating systems and has been located in the "Erfurter Kreuz" industrial park in Ichttershausen since 2019. On a building area of over 30,000 square meters, 100 employees currently manufacture innovative mechatronic products such as lighting systems for the interiors of premium vehicles.

MDC Power

MDC Power GmbH, an engine manufacturer and subsidiary of Daimler AG, began operations in 2003. It has focused on delivering top quality from the start and has steadily expanded its product range. Today, MDC Power employees assemble their units in numerous variants: Engines from 95 to 360 hp are available with the "Made in Thuringia" seal of quality and are supplied to vehicle factories on five continents. They are used in almost all Mercedes-Benz car and van model series: from the A to the S class, from Mercedes AMG to the Sprinter.

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