

The Car: A Symbol of Freedom – and High Tech Made in Germany

The automotive industry is a central pillar of the German economy and is undergoing a profound transformation.

Hardly any other sector is as closely tied to Germany's reputation as a high-tech nation as the automotive industry. Ever since Carl Benz invented the automobile in 1886, Germany has been home to some of the world's most iconic car brands. Brands such as Mercedes-Benz, BMW, Volkswagen, Porsche and Audi stand for German engineering skill and innovation leadership. For many people around the globe, the car symbolises freedom and progress. German manufacturers know how to combine this emotion with **state-of-the-art technology** and appealing design.

Automotive Industry: A Pillar of the German Economy

The automotive industry is a central pillar of the German economy and also plays a leading role internationally. In 2023, total sales of over 564 billion euros were achieved by the sector. Around 171 billion euros were generated on the domestic market. Nearly 780,000 people are directly employed by the German automotive industry.

The German automotive industry's emphasis on exports is remarkable. In 2023, 3.1 million passenger cars were **shipped** abroad by German manufacturers, resulting in an export **rate** of nearly 76 percent. A total of 14.1 million cars were produced by German manufacturers worldwide, while 4.1 million were produced in Germany.

One major factor in the sector's success is the **supplier** industry. Companies such as ZF Friedrichshafen, Bosch, Continental and Schaeffler lead the field in numerous key technologies. Bosch is seen as a pioneer in the development of AI-based driver assistance systems. As a result, level 3 and 4 **driverless vehicles** are being developed and improved continuously.

Electric Mobility: Tough Competition

The German auto industry needs to accelerate its transition to electric mobility. Tough carbon-emission regulations are forcing the sector to adopt climate-friendly solutions. High-quality hybrid and fully electric vehicles have already been developed by German manufacturers.

However, **strong** competition is being faced from Chinese manufacturers, whose electric vehicles are sold at lower prices. Battery technology still needs to be improved, and charging infrastructure

is insufficiently developed in many parts of Europe. In addition, global sales could be affected by geopolitical and **trade** uncertainties.

Massive Investments and Future Prospects

According to the German Association of the Automotive Industry (VDA), the goal is to create the world's best digital and climate-neutral mobility products. In 2023 alone, 58.4 billion euros were invested in research and development. Between 2025 and 2029, a total of 320 billion euros is expected to be invested in innovation. A further 220 billion euros will be invested in modern production facilities.

The transformation of the industry is regarded as one of the greatest challenges facing the automotive sector today. Nevertheless, positive signs are observed. Sales of electric vehicles are expected to increase significantly, and domestic production is projected to **rise** in the coming years.

As a result, Germany's position as one of the world's leading producers of electric vehicles is expected to be **strengthened**.

Adaptado: <https://www.deutschland.de/en/topic/business/german-automotive-industry-economy-cars-germany>

Activity 1: Find instances of passive voice, analyse them and change them into active voice if possible.

Activity 2: Look for the meaning of the words highlighted in yellow. Add more words if necessary.