

Automotive Insight 2025



A year of change, technological progress, and significant challenges

While electromobility and digitalization press forward, the automotive industry is faced with new challenges: geopolitical displacements, increasing global competition, and room for improvement in Germany as an industrial hub. In this report, we summarize the most important developments of 2025.

Foreword

Dear readers,

The conditions surrounding our industry are changing more swiftly and fundamentally than they have in many years. 2025 was a year of intensification, and this trend is continuing into 2026. Global competition is becoming tougher, geopolitical tensions and isolation are shaping markets and supply chains, and economic growth in Germany and Europe continues to fall short of expectations. The crisis facing the region is not only a set reality, but is continuing to worsen. The causes behind Germany's and Europe's lack of international competitiveness are clear.

This all affects an environment in which public expenditures at a faster rate than economic output. As a result, the durability of our economic model is in question. These developments are increasing the pressure to act, set clearer policy priorities, and refocus on growth. Only when growth and climate protection are positively interlinked can wealth, jobs, and societal acceptance be secured.

The challenges especially affect the industrial small and medium-sized enterprises, the backbone of our wealth creation. High energy costs, expanding bureaucracy, growing expenditures, difficult financial conditions, and regulatory uncertainty put strain on investments and innovations. Many companies have long since ceased to focus on competitiveness in a global comparison, and have instead shifted their attention to whether investments will be made in the future, and where. In 2026, the main challenge thus lies in improving the location's actual structure through reliable conditions, targeted relief, and a clear industrial policy orientation that creates planning predictability and makes investments attractive once more.

At the European level, too, it is evident that the necessary change of course in location policy is so far only recognizable in its beginnings. The European Commission repeatedly emphasized in 2025 that climate protection, innovation, and industrial competitiveness must be seen as parts of the same whole.



Initial steps have been taken, from the strategy dialogue about the Automotive Action Plan to the Automotive Package, but there has been no significant transition or necessary adjustments. It is now crucial that these approaches be consistently translated into effective measures, and that regulatory burdens be noticeably reduced.

Europe must now take decisive action. Pace, investment conditions, and openness to technology are becoming increasingly important in global competition as they decide where wealth creation will take hold, and thus on wealth and growth in general. At the same time, it comes down to securing the industrial heart in Europe and building new wealth creation, in particular in strategically important future technology.

In an increasingly fragmented global economy, open markets and reliable partnerships can no longer be taken for granted. This is of key importance to the export-oriented automotive industry: Around 70 percent of jobs are directly or indirectly linked to exports. This strength, which must be maintained, keeps jobs in many parts of Germany secure. In times of growing seclusion, a firm stance in support of open markets is more important than ever.

This also applies to the relationship with China. The market continues to offer considerable opportunities, especially in the field of new technologies and growing demand. At the same time, the risks are multiplying: Geopolitical tensions, regulatory interventions, and increasingly tougher competition have shaped the playing field. Companies must further diversify their strategies, mitigate risks, and advance their global position.

Trans-Atlantic relations also faced new challenges in 2025. The USA remains a key partner both economically and politically, although protectionist tendencies and industrial policy measures are leading to new tensions in trade. It is all the more important now to deepen trans-Atlantic cooperation and ensure fair conditions for competition. Close coordination with regard to key future technologies and industry standards will become increasingly important.

The industry's transformation is visible in all areas: car manufacturers, suppliers, the commercial vehicle segment, trailers, structures, and buses. While manufacturers fundamentally reorganize their product portfolios, suppliers in particular are tasked with comprehensively adjusting the structures of their business models. There are additional challenges in the commercial car segment due to logistics, infrastructure, and operating costs. These various starting positions illustrate that the transformation is not a uniform process, but rather requires different solutions and targeted political support for all portions of the value chain.

At the same time, all areas are working hard toward solutions. Companies are investing in new technology, optimizing processes, and tapping new areas of business. VDA and its member companies are actively accompanying this transformation process, both in dialogue with the new federal government in Germany as well as at the European level. The goal is to successfully realize the transformation on the path toward climate-neutral and digital mobility while ensuring industrial strength and

employment. The figures underline the scope of this development:

From 2019 to 2025, automobile suppliers in Germany had to cut approximately 74,000 jobs, or about 24 percent of all workers in this sector. Overall, industry employment in 2025 fell by 2 percent compared to 2024, down to 5.43 million. Over 110,000 jobs have been cut this year alone. This development shows the profound impact the structural shift has had, and how important it is to actively shape it.

Companies are investing in the future to an unprecedented degree: Approximately 320 billion euros are being directed toward research and development from 2025 to 2029. This is supplemented by about 220 billion euros in material investments, in particular new factories and the renovation and modernization of existing facilities. These investments are a clear affirmation of the transformation and industrial future, but they do require the proper political conditions for their full potential to be realized. One central political framework for this transformation is the CO₂ fleet regulation for passenger cars and light commercial vehicles. The Automotive Package introduced in December, 2025 has not yet met expectations. Now the goal is to set the proper course: Flexibilization for meeting the targets by 2030, amending the 2035 target to minus 90 percent, and stronger focus on renewable fuels are required. Adjustments to PHEVs and EREVs must also be made during the political process, in particular a suspension of the tightening of the utility factor. The review of the fleet regulation for heavy commercial vehicles should be prioritized to offer planning predictability and facilitate investments.

The run-up to electromobility is still progressing: 40 percent of the vehicles produced in Germany in 2025 were electric. At the same time, it is clear that the success of the transformation hinges on the right parameters, from infrastructure and energy prices to regulatory reliability. Only when supply and demand are equally strengthened can the transformation succeed in the long term.

In spite of all these changes, one thing remains constant: the central role of the automotive industry for wealth creation, employment, and societal prosperity. Hundreds of thousands of jobs, entire regions, and numerous industrial networks are closely connected to it. The automotive industry keeps the country, its logistics, and its people mobile.

Germany and Europe are at a crossroads. The decisions made today determine their position among the international competition for the coming decades. It is crucial that we take a stronger, more proactive approach with confidence, clear priorities, and a common understanding of economic strength. The German automotive industry is ready to take this journey. It is investing, it is transforming, and it is taking responsibility.

This annual report provides comprehensive insight into the key developments in the year 2025, and looks forward to 2026. It sheds light on challenges and opportunities, and makes clear the contribution that the industry makes to shaping the future, prosperity, and sustainable mobility.

I wish you an interesting and insightful read.

Sincerely,



Hildegard Müller



Contents

1. Topics that shaped 2025	9
Location crisis continues – State expenditures grow much faster than the economy	10
SMEs need relief: Domestic weakness remains greatest challenge	19
Europe’s Location Agenda 2025: Necessary change in course yet to take place	22
Importance of free trade and partnerships in times of geopolitical uncertainty	25
China: market opportunities, risks, and global competitive dynamics	31
Trans-Atlantic cooperation and challenges	34
Technology neutrality for the success of climate-neutral mobility	37
Electromobility 2025: Lead-up becomes more dynamic – Infrastructure, charging prices, and reliable funding conditions are deciding factors	41
Innovation through open collaboration: Open-source software as a key element for speed, efficiency, and success	47
Digitalization in the automotive industry: focus on security, data, and innovation	49
Importance of commercial vehicles, trailers, and structures for freight transport and logistics	51
Transport prognosis 2040: Increasing importance of freight transport (commercial vehicles) and urban mobility concepts	57
2. Economic performance and markets	61
The automotive year 2025	62
Germany	63
Asia	67
Europe	71
Americas	74
Electromobility in an international comparison	79
Development of overseas production and exports in the German automotive industry	80
Labor costs in the international automotive industry	87
3. Research and innovation	89
Research projects for the digital and climate-neutral mobility of the future	90
Standardization and regulations in the automotive industry in 2025	93

4. VDA events 2025: exchange, ideas, and dialogue	95
Dialogue formats in 2025: MINS, Logistics Congress, SME Day, party conventions, Summer Reception	96
Innovation and start-up program: Future Tech Day	103
5. Success in Munich: IAA MOBILITY 2025	105
6. Quality management	111



Topics that shaped 2025

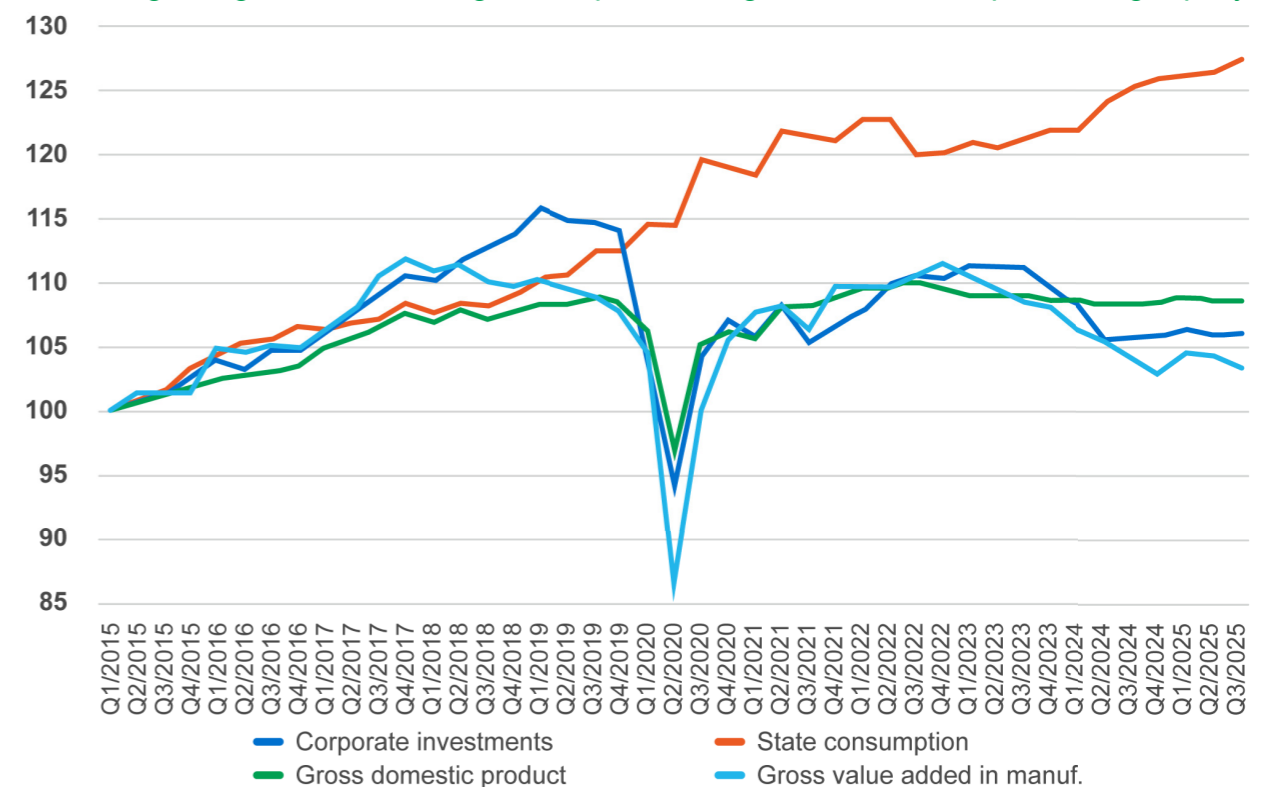
Chapter 1

Location crisis continues – state expenditures grow much faster than the economy

Germany as an economic hub has been under increasing pressure for years. High energy prices, expanding bureaucracy, and rising expenditures are having a considerable, negative impact on the country's status as an industrial center. As a result, conditions are more difficult for companies, many of which have to invest more abroad while domestic investments and employment are put under increasing strain. The German gross domestic product (GDP) experience barely noticeable growth of 0.2 percent in 2025. By the end of the year, it was at the same level as Q₃ 2019. The economy stagnated during this period. The manufacturing sector has a negative effect on GDP growth.

Between Q₄ 2017 and Q₃ 2025, the gross value added (GVA) of the manufacturing sector sank by about 8 percent. The service sector, which relies heavily on direct contact with the local clientele and is thus less exposed to international location competition, grew by 8 percent in that same period. Company investments also paint a clear picture: After the sharp drop as a result of the coronavirus pandemic, there was only a brief recovery that was in turn followed by years of stagnation. Government consumption, on the other hand, showed highly dynamic growth—especially in the areas of social security, administration, education, and healthcare—and is now 17 percent above the level from Q₄ 2017.

GDP stagnating – Manufacturing sector plummeting – State consumption rising rapidly

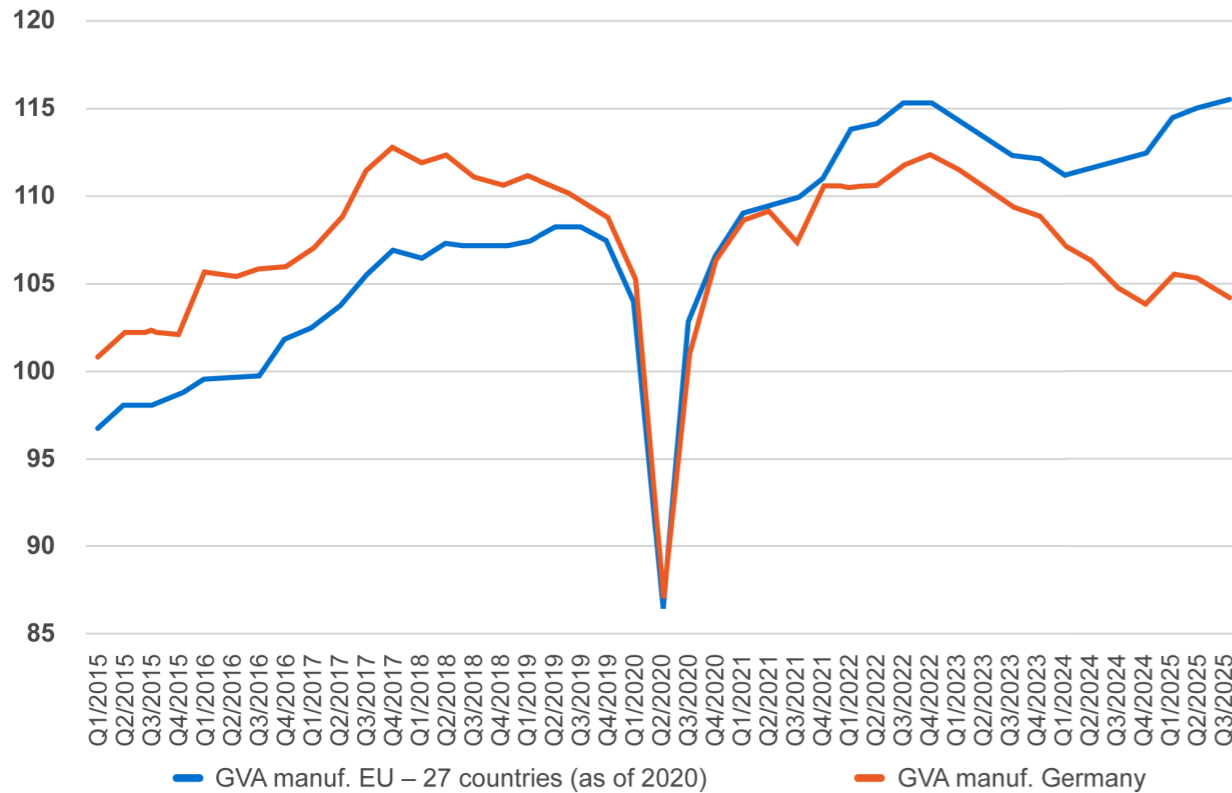


Source: Statistisches Bundesamt, IfW Kiel

For the year 2026, the German Council of Economic Experts expects GDP growth of 0.9 percent. One third of this, or 0.3 percent, is purely attributed to the calendar effect, by which 2026 has two more workdays than 2025. According to the Council, another 0.3 percent is due to the additional public expenditures from the Special Fund for Infrastructure and Climate Neutrality, as well as from the special exemption for defense expenditures. Disregarding these particular effects leaves GDP growth of only 0.3 percent, reflecting the underlying economic momentum.

Compared to the EU average, the German manufacturing industry is experiencing an ongoing decrease in gross value added. Because Germany makes up over 24 percent of the total EU figures, its weak growth has a strong impact on the EU average. As a result, the growth of the remaining member states appears less positive than it actually is. The crisis facing the German industry manifests in various ways, including an ongoing loss of export market shares. A continuous decrease has been apparent since 2017 and has markedly accelerated since 2021.

Gross value added of manufacturing sector continues to fall compared to EU average



Source: Eurostat

German industry continues to fall compared to EU average

However, the ongoing, location-based crisis is neither an EU-wide nor a global phenomenon, but primarily a German one. As the German Council of Economic Experts has determined, "Industrial production is expanding strongly elsewhere, especially in emerging countries."

According to an analysis by the Deutsche Bundesbank (July, 2025), about 80 percent of this loss stems from competitors catching up in terms of technology and unfavorable cost trends in Germany by international standards.

Of particular relevance is the increasing competitive pressure applied by China, whose export dynamics are increasingly challenging companies in established industrial nations. Nevertheless, Germany's loss in competitiveness is not limited to this sole actor.

According to the regular survey of German industrial companies by the ifo Institute, the number of companies who report that they have become less competitive compared to other countries outside and within the EU has tendentially continuously increased since 2017. As per the survey from January, 2026, 31.2 percent of companies report that they became less competitive compared to countries outside of the EU over the preceding three months. This figure was 17.2 percent when asked about competitors in other EU countries. With regard to the worsening of the general competitive position, the Bundesbank states in its analysis that numerous major competitive parameters have changed considerably in recent years, to the detriment of Germany and to the benefit of other countries. In particular, it highlights the unit labor costs, energy prices, and regulatory strain placed on companies. These findings correspond to the results of international location rankings:

- In the World Competitiveness Ranking by the International Institute for Management Development (IMD), Germany has fallen from 15th (2022) to 19th place (2025) compared to 66 other national economies.
- In the ZEW Country Index, Germany fell from 15th to 17th place in 2024 (since 2018) compared to the 20 other most important industrial nations¹.
- The Business Destination Germany analysis from KPMG evaluates Germany's location quality relative to the EU as a whole on a scale of -10 index points (at the bottom in the EU comparison) to +10 index points (at the top in the EU comparison). Since the first analysis in 2017, Germany has fallen from +3.1 to +1.2 index points (2023). It has thus fallen further in the middle rankings and is just barely above the EU average.

- In the DIHK Location Analysis from 2023, based on a survey of companies from the "Netzwerk Industrie," the average grade across all location factors was a 4.0 (sufficient). An even better average grade of 3.2 had been achieved in 2014.
- Over 70 percent of the German experts who took part in the Economic Experts Survey of location quality by the ifo Institute in October, 2023 stated that the location has, in their opinion, worsened within the last 10 years. Germany's appeal for domestic companies received only 60 to 70 out of 100 possible points, and only 40 to 50 points for international companies.

The assessments paint a consistent picture of Germany's weaknesses as a location: At the forefront are bureaucracy and regulation, high tax burdens, labor costs, and a workforce shortage.

Energy and resource issues, as well as lags in digitalization, are also highlighted. The labor unit costs in the German manufacturing sector are 15 percent higher than the average level in all other EU countries, according to an evaluation by IW Köln (2024). Taking into consideration other important industrial nations such as Japan, the USA, the UK, and Canada, labor unit costs of the German manufacturing sector are 22 percent higher than the average of all these countries (Eurozone without Germany plus the other most important industrial countries, excluding China).

Automotive SMEs surveyed semi-annually by VDA on their economic position also believe that bureaucracy, taxes, and costs of electricity are the main issues facing Germany as a location. In the survey from January, 2026, 84 percent (bureaucracy), 64 percent (taxes and expenditures), and nearly 48 percent (electricity costs) of the companies reported that these factors impose an economic burden.

¹ The selection of the most important industrial nations is: USA, Japan, China, France, United Kingdom, Italy, Spain, Netherlands, Switzerland, Sweden, South Korea, Canada, Australia, Mexico, Brazil, India, Poland, Czechia, Hungary, and Türkiye.

Extent of job loss is alarming

The structural and economic burdens on the manufacturing sector are now also causing a marked decrease in employment. Employment fell 2 percent in 2025 compared to the previous year, to 5.43 million workers. Over 110,000 jobs were lost in 2025. There have been similar periods, such as during the coronavirus pandemic in 2020, when production was almost suspended for many weeks, or during the global economic and financial crisis in 2009/2010. However, these were temporary special effects that affected the entire world, and employment picked back up the following year. The current decrease is a warning signal as it indicates an ongoing and worsening location crisis in Germany itself. Over 244,000 jobs have been lost in the manufacturing sector since 2019.

In terms of percent, the automotive industry is facing an even more dire situation than the manufacturing sector. The number of workers in the automotive industry sank by over 6 percent in 2025 from the previous year to 725 thousand workers. This figure has fallen by over 13 percent since the peak employment year of 2018, with 834 thousand workers.

The reason for this is the double strain on the automotive industry imposed by the ongoing poor domestic conditions and, relative to other industries, the particularly far-reaching requirements of the ecological transformation. Another structural driver of job loss is the transition to electromobility. Electric engines (about 200 parts) are much less complex than combustion engines (up to 1400 parts), which reduces the workload for the drivetrain by about one-third and thus leads to a long-term reduction in employment in the automotive industry. The study „Employment Perspectives in the Automotive Industry“ by PROGNOSE AG from October, 2024, commissioned by VDA, predicts that employment will fall to about 643 thousand by 2035.

Bureaucratic strain at record high due to federal requirements

In a special analysis in 2025, the Federal Statistical Office of Germany assessed the bureaucratic costs facing companies solely due to federal regulations at 65 billion euros per year—an unprecedented figure. The direct costs are those incurred from adherence to legal requirements, such as obligations to report, notify, and document.

The Council of Economic Experts indicates that further direct bureaucratic costs are incurred from EU regulations that are not implemented into national law through another legal act, and from domestic and municipal legislation. In each of these cases, says the Council, there could be additional expenses of about 65 billion euros, foreseeably resulting in total expenses of 193 billion euros—in addition to the indirect bureaucratic expenses. These result from distorted investment and business decisions, meaning those that are not economically optimal for prosperity. Distortions arise when companies refrain from planned value-creating activities in order to avoid the bureaucratic expenses that these activities require. For example, investments are made abroad instead of in Germany, or somebody abstains from founding a company. However, these indirect expenses are difficult to quantify.

But unnecessarily high bureaucratic expenses do not only directly reduce value added, growth, and wealth, but they are also a problem with regard to competition policy. In the Report on the Future of European Competitiveness (the „Draghi Report“), it is stated that the EU passed four times as many legislative acts from 2019 to 2024 than the USA. Policymakers have recognized the issue of excessive bureaucracy and declared concrete targets for dismantling it: In its Competitiveness Compass in early 2025, the EU Commission set the goal of reducing the reporting burden for companies by 25 percent, and 35 percent for SMEs, by the end of the current mandate.

In its Coalition Agreement for the 21st legislative period, the governing coalition committed to reducing the bureaucratic costs (stemming from federal legislation) for the economy by 25 percent, or 16 billion euros.

However, there have already been efforts to reduce bureaucratic expenses in the past. The Bureaucracy Relief Acts I to IV from 2015 to 2024, as well as the introduction of digital and practice checks, were fundamentally reasonable, but have so far only provided sporadic and overall very minor relief. They merely addressed a small portion of bureaucratic costs and reached only few companies. In spite of these measures, bureaucratic costs from federal regulations increased in 2025 to a record level, underlining the limited effectiveness of past attempts at relief.

One important component of dismantling bureaucracy would be the consistent obligation of the federal government to the „once only“ and „digital only“ principle. The former ensures that a company only has to submit its documents and applications one time, and all authorities involved can then access these on their own via a central registry; the latter allows a company to consolidate its documents and submit them together via a digital platform.

This requires the establishment of an e-government portal, digitalization of administration, and comprehensive modernization of registries with the assignment of a federally uniform business identification number for each company (there are currently about 350 different official registries and company databases in Germany, and often they have no interfaces for exchanging

data between them). It is thus fortunate that the governing coalition, in its Coalition Agreement from 2025, has committed to implementing these two principles. This should be done as swiftly as possible. Policymakers years ago tasked themselves with the digitalization of administration and the establishment of a central registry for companies' master data, but both processes are taking far too long.

Furthermore, the „once only“ and „digital only“ principles can only ensure that companies submit their existing reports and documentation to the administrative authorities more quickly and efficiently. A comprehensive dismantling of bureaucracy also requires that policymakers take every opportunity to reduce the scope of the reporting and documentation obligations themselves.

Multiple omnibus initiatives were presented at the EU level in 2025, including on „Simplification of Reporting Obligations,“ „Sustainability,“ and „Environment.“ Unfortunately, all these initiatives fall far short of the requirements for dismantling bureaucracy.

In order to achieve the 25-percent target for reducing bureaucratic expenses, the coalition states in its agreement that it is planning an increase in threshold values, the expansion of discretionary powers, lump sum consolidations, key date regulations, tacit approvals, preclusion regulations, de minimis clauses, and continuation of the practice checks. In addition, a reduction in red tape should be implemented, according to the agreement. It remains to be seen whether these measures will suffice for the desired relief.





Lowering energy costs to a competitive level

Manufacturers and suppliers in the automotive industry pay much higher energy prices in Germany than their international competitors do. The domestic cost of electricity in particular is three times higher than in the USA or China, which is a significant detriment to competition. However, the new federal government in Germany has taken important steps to reduce the costs of electricity. In late 2025, the Bundestag took the following actions:

- The reduction of the electricity tax for the production sector to the EU minimum, in place since 2024 and originally only planned for 2024 and 2025, will be made permanent. Unfortunately, the regulation continues to leave out private consumers. This also leaves out the necessary push for the run-up to electromobility, as charging electricity is still too expensive. The coalition must swiftly amend this and present a binding roadmap for reducing the electricity tax for all consumers.
- Furthermore, grid fees in particular continue to make up a significant and growing portion of electricity costs. Most recently, the charges for the transmission grid almost doubled. Now the transmission grid operators are receiving a €6.5 billion allowance from the Climate and Transformation Fund for 2026. This allowance will also be paid out in the coming years to mitigate the grid fees for industry and consumers.

Plans also include the introduction of an industrial electricity price and the expansion of electricity price compensation to include more sectors (including battery cell production) than those currently covered.

However, these measures only provide temporary relief. For more affordable energy, a fundamental structural reform is needed: To ensure the supply of baseload energy, the planned tenders for new gas-fired power plants must now be initiated without delay.

Too much time was lost in this area during the last legislative period. Furthermore, an expansion of the energy supply is needed, including through international energy partnerships. To buffer the volatility of the supply of renewable energies, the conditions must also be created to better synchronize electricity supply and demand. This includes financial incentives for electricity feed-in and consumption by decentralized actors, such as electric vehicle owners within the framework of bidirectional charging. In addition to all this, the electricity grid, with regard to the routes of transmission lines, must be adapted to the requirements of the energy transition.

Policymakers must use all available measures to exploit cost-efficiency potentials and thus curb the noticeable increase in grid fees. In addition, the EU internal electricity market must also be completed in order to limit the cost burden on the electricity system through increased competition and cross-border efficiency gains.

Germany is the land of high taxes — Relief measures by the new federal government are correct, but too timid

In an international comparison of corporate tax burdens, Germany is at the very top. The average nominal tax rate for corporations, at about 30 percent, is well above the EU average of about 21 percent. Including taxation at the shareholder level, Germany often reaches a total burden on business activities of about 50 percent.

This high tax burden is a competitive detriment in international competition with other locations, and contributes to the outsourcing of production to more appealing locations abroad.

The automotive industry has been undergoing a profound digital and ecological transformation for years, and this will continue into the future. Investments are thus more important than ever, because the industry is constantly subjected to major structural adjustments. These long-term changes continuously require high investments that span multiple years and are unprecedented in their magnitude. The tax system should be oriented toward incentivizing and supporting investments in the long term.



The fiscal instant investment program passed in mid-2025 can provide an initial push. Firstly, the declining-balance depreciation allowance was reintroduced and increased to up to 30 percent per year for investments in equipment (or movable fixed assets) made by December 31, 2027 („investment booster“). Secondly, the corporate tax rate is to be reduced in five steps starting in 2028 (i.e., following the expiration of the investment booster), each by one percentage point.

These steps are to be welcomed, although a faster pace and more comprehensive measures are required. The improved depreciation conditions contribute to improving the investment and innovation climate in Germany. The „investment booster“ is therefore a helpful instrument that can provide investment incentives, particularly for medium-sized businesses, and offer companies liquidity advantages. However, companies operating at a loss cannot benefit from this. They need more extensive structural reforms, such as an expansion of the restrictively designed loss carry-forward.

The reduction of the corporate tax rate in five steps starting in 2028 represents a long-overdue first step towards corporate tax reform. However, given international competitive pressure, the relief comes too late, and the small amount of relief—just one percentage point per year—falls short of what is needed. The current design thus does not adequately address the urgent and very substantial need for tax relief. Therefore, bringing forward the corporate tax reduction, significantly reducing bureaucracy, and implementing further structural reforms in corporate taxation are urgently required to substantially strengthen Germany's tax competitiveness and thus its opportunities for economic growth. Under no circumstances should there be tax increases or new tax burdens. If, according to the ruling of the Federal Constitutional Court, inheritance tax law needs to be amended, it must be ensured in particular that the continuation of businesses and the preservation of investments and jobs are not jeopardized.

Secure supply of raw materials and intermediate products is essential for Germany

The reliable supply of critical raw materials remains a critical factor for Germany's future as an industrial hub. Europe's national economies, and the German automotive industry in particular, have felt this very clearly due to the tense supply situation regarding permanent magnets—a situation made more difficult by Chinese export restrictions on rare earths and magnet materials. Companies in Germany are pursuing anticipatory strategies for securing raw materials and are taking a wide range of measures to mitigate risk, but they are increasingly reaching their limits. Complex global supply chains and an intensifying geopolitical situation make the challenge harder to overcome. While China is expanding its market position in the long term, the USA and Japan are utilizing governmental initiatives to gain early access to new raw material deposits and projects.

The German Raw Materials Fund, the unrestricted financial credit guarantees (UFC guarantees), and the National Raw Materials Strategy are important steps toward strengthening the resilience of Germany's raw materials supply. However, these state funding instruments should be only the beginning. In order to withstand geopolitical

competition, other strategic approaches are required, in particular those that specifically support medium-sized enterprises. In light of increasing political and economic risks, a joint approach by policymakers and the industry is necessary to develop a sustainable model for securing the supply chains of raw materials.

Critical steps were made at the European level in 2025. With the implementation of the [Critical Raw Materials Act \(CRMA\)](#), the first strategic projects were recognized, new raw materials partnerships were formed, and the Raw Material Mechanism was created to facilitate the common purchasing of raw materials via a European platform. Yet the CRMA is only one initial step toward a supply of raw materials. The European Commission's RESourceEU Action Plan takes action here and announces additional financing opportunities for projects along the entire value chain. Further measures, however, in particular a governmental determination of the level of diversification of corporate supply chains, appear problematic in terms of regulatory policy as they likely would not improve competitiveness and would instead create more bureaucratic strain.



Counteracting the workforce shortage

The automotive industry is suffering from a workforce shortage, although within the next ten years it will experience a massive decrease in jobs due to the transformation within the sector. Though it sounds contradictory, it is not, because the demand for workers is not decreasing equally across all occupation groups.

Electrification of the drivetrain will make some occupations more significant and relevant than others. At the same time, the supply of workers in one group is falling at a faster rate than in other groups. How these trends will develop by 2035 can be estimated from the age structure of occupation groups currently employed in the automotive industry. The PROGNOS study „Employment Perspectives in the Automotive Industry“ analyzed the supply and demand: In the coming years, those occupation groups who will become more relevant

for the automotive industry, and in which the supply of workers will sharply decrease due to age-related fluctuation, will be especially affected by a shortage of workers. These include „machine engineering and operating technology,“ „technical drawing, construction, and model building,“ „IT network technology, coordination, administration, and organization,“ and others.

Because of this, all steps must be taken to mitigate the workforce shortage in these groups. This includes utilizing the still untapped domestic labor potential, increasing qualified migration, and funding internal training for companies. Targeted training measures give employees whose previous positions are affected by the transformation the opportunity to acquire the qualifications required for new positions at their employers.

SMEs need relief: Domestic weakness remains greatest challenge

VDA surveys of automotive SMEs show the effects of domestic weakness

Suppliers in the automotive industry—from the conventional supplier industry and developers to service providers along the value chain—are an integral part of the German economy. They represent efficiency, innovation, and high specialization, and are responsible for up to 75 percent of the added value for a vehicle. Alongside large, global suppliers, small and medium-sized specialty companies play a crucial role in the global competitiveness of the German automotive industry.

The core insight from the VDA surveys among suppliers, developers, and manufacturers of trailers and structures in 2025 is: Automotive SMEs are in the midst of a profound reorientation. Securing added value, employment, and innovation requires reliable economic conditions, durable financing structures, and consistent adherence to efficiency, sustainability, and digitalization.

The regular surveys conducted by VDA show how strongly economic weakness, structural domestic issues, transformation pressure, and geopolitical risks merge into a compound crisis that especially impacts automotive SMEs undergoing the transformation. Withheld investments, poor business predictions, an increasing shortage of orders, and high regulatory strain have soured the atmosphere, and Germany is no longer seen as an internationally competitive industrial hub. Four out of five companies plan to relocate or cut investments that were originally intended for Germany. This is particularly drastic when it comes to labor-intensive development services that, due to cost pressure and uncompetitive domestic labor costs, providers and suppliers increasingly have to render abroad. At the same time, the order shortage is reaching a peak level while the business situation continues to deteriorate. Bureaucracy remains the greatest burden. Additional uncertainties as a result of geopolitical tensions and trade policy risks, in particular with regard to US tariff policy, are affecting exports and foreign trade.

The decrease in employment in Germany is continuing. From 2019 to 2025, automotive suppliers had to cut 74,000 jobs in Germany, or 24 percent of all jobs in the supplier industry.

Overall, it is clear that the supplier industry is ready for the transformation and is advancing it with manufacturers and development service providers. However, suppliers are increasingly faced with limited economic room for action.

Under these circumstances, it remains to be seen how the prospects for value creation in the automotive sector can be redefined amidst prevailing conditions of structural change, market weakness, and geopolitical uncertainty.

The focus is on strengthening competitiveness and sustainability for the future through improved efficiency, innovation, digitalization, and resilience. One central challenge for medium-sized automotive suppliers is financing the transformation due to increasingly restrictive access to capital. Investments in climate-neutral technology, IT infrastructures, artificial intelligence, and new production structures have to be secured even under difficult circumstances.



At the same time, the strategic linking of productivity and CO₂ reduction is very important. Sustainability and efficiency are increasingly being seen as complementary goals associated with more efficient use of resources, new production methods, and digitally supported processes.

Suppliers are also focusing more on strategies for improving business resilience. Supply chain stability, market differentiation, and handling protectionist tendencies are becoming more strategically relevant. Digitalization, innovation, and cooperation are key levers for securing competitiveness. Technological developments—in particular in the areas of automation, data-driven process optimization, and artificial intelligence—open up new potential for efficiency and value creation. „New Lean: A New Production Paradigm for Productivity and Sustainability in Germany“ was thus a key topic at the 25th VDA SME Day. Inter-company partnerships between industrial companies, development service providers, and technology-oriented partners are also becoming more relevant. The VDA SME Day addressed this as well. The event showcased how start-ups, suppliers, and manufacturers can use shared development services to competitively bring technological innovations to the global market.

Tapping new business areas — Opportunities in the defense industry as a future market

With the guiding theme „Defense Industry as a Future Market — Opportunities for Automotive Suppliers:

Market Access, Regulation, and Investment Conditions,“ VDA has established information and dialogue formats for its members that facilitate practical insight into companies with experience in the defense sector and shed light on the differences from structures, processes, and regulatory conditions in the automotive industry. Building on this, market potential, demand trends, and requirements for successful market entry were elaborated upon. The primary focus was on market access, regulatory requirements, and investment conditions. It was also made clear that the financing of investments is a key challenge in the defense industry as well. Insight into procurement processes and institutional conditions provided transparency of procedures, requirements, and opportunities for cooperation. For some automotive SMEs, the defense industry can be a strategically relevant complementary field, provided regulatory clarity, planning predictability, and suitable investment conditions are available.

No transformation without financing

One challenge facing automotive supplier SMEs in particular is financing a major transformation in the automotive industry, and this challenge is intensifying. The transition to electromobility, the digitalization of processes, and the switch to the most climate-neutral production possible require considerable investments in new technology, products, facilities, and skills. At the same time, the conditions in the market are pushing many companies to finance transitional phases over a longer period of time, during which profits are still being generated in old business while future business is being established. This concurrency increases the need for capital. This is exacerbated by high location costs and sinking margins, all leading to a poorer industry evaluation and tightened loan requirements. Banks are demanding higher collateral, stricter contract terms, and shorter maturities. For industrial SMEs, access to financing is thus becoming increasingly difficult. According to a VDA survey from January, 2026, 48 percent of companies surveyed who had conducted loan negotiations with banks in the previous three months considered the granting of loans by banks to be restrictive, and another 16 percent considered it to be refusal outright. Only 18 percent view it as neutral. The pressure and costs from additional auditing processes are increasing as well: One in five companies has already prepared a restructuring report or expects to do so in the short term.

VDA promotes dialogue between policymakers and business in its regions and in Brussels

Through its regular „VDA State Dialogues“—engaging with policymakers and industry clusters from Germany’s federal states—and its „VDA on Site“ format, VDA further strengthened the exchange between industry, government, and regional networks in 2025. These contribute to aligning state-specific regulations, economic policy frameworks, and funding instruments with practical realities. They foster dialogue among VDA members, state ministries, and automotive clusters; facilitate the exchange of best practices; and support the coordination of joint initiatives aimed at safeguarding competitiveness and transformational capacity. These dialogue platforms also provide an opportunity to specifically highlight regional distinctiveness and site-specific challenges.

Direct dialogue on site makes it possible to address companies’ concerns where value creation happens—from energy and infrastructure policy and securing workers to approval and administrative procedures. This creates a deeper understanding between business, policymakers, unions, and science. Overall, the formats play an important role in developing practical solutions and networking stakeholders along the automotive value chain.

As part of a delegation to Brussels, representatives of automotive supplier SMEs met with decision-makers from European institutions to discuss key industrial policy issues. At the center of these were energy costs, charging and fueling infrastructure, cutting red tape, deregulation, and openness to technology with regard to climate protection. The direct dialogue between entrepreneurs and political decision-makers was once again proven to be essential to creating understanding for the concrete challenges facing industrial SMEs and promoting durable political solutions.

Improving visibility — The social media series „Meet Our SMEs“

With the content series [Meet our SMEs](#), VDA shed light on small and medium-sized enterprises via the VDA website and on LinkedIn. Technological skills, innovative products, and key political concerns were showcased. The posts highlighted the importance of SMEs for innovation and employment, and also illustrated the need for reliable, competitive conditions. Energy prices, bureaucratic strain, and planning and approval processes were frequently listed as concerns.



Europe’s Location Agenda 2025: Necessary change in course yet to take place

In 2025, issues concerning competitiveness, industrial resilience, and the safeguarding of Europe as an economic hub moved increasingly to the forefront of the European Union’s political agenda. Amidst an environment characterized by intensifying global competition, geopolitical tensions, and significant demands for transformation, the question of Europe’s standing as an industrial location became a central focal point of European policy. For the automotive industry—a key sector featuring deeply integrated European value chains—this development was of particular relevance, given the immediate interplay between industrial policy frameworks, regulatory requirements, trade relations, and technological sovereignty.

Throughout 2025, the European Commission repeatedly emphasized that climate protection, innovation, and industrial competitiveness must be considered in tandem. At the same time, developments over the course of the year revealed that while many key initiatives had indeed been launched, their concrete design and implementation remained either insufficient or still in progress. Consequently, the agenda for strengthening Europe as an industrial location remains a critical area for political action, looking ahead to 2026.

Strategic Dialogue and Automotive Action Plan: Can only be the beginning of a comprehensive policy shift

A significant start to the year was the Strategic Dialogue on the Future of the Automotive Industry, initiated by Commission President Ursula von der Leyen. In several high-level rounds of talks involving the Commission President and relevant Commissioners, the industry’s challenges—particularly the themes of decarbonization, industrial value creation, digitalization, and technological development—were discussed.

The results from the Strategic Dialogue were initial steps in the right direction. For one, the Commission responded to the imminent challenge of looming penalty

payments by implementing a targeted amendment to the CO₂ fleet regulations for passenger cars and light commercial vehicles. This provided relief to manufacturers during this critical transformation phase. Secondly, on March 5, 2025, the Commission published the [Automotive Action Plan](#), building upon the Strategic Dialogue. This document outlines the Commission’s key initiatives in the automotive sector for the current legislative term. These include, among other things, measures to support the transformation, strengthen the industrial base, further develop infrastructure, and foster innovation in the field of automated and autonomous driving. While the plan establishes initial policy directions for the industry, it falls short of delivering a comprehensive strategic realignment. Undoubtedly—and based on these impulses—further measures, adjustments, and improvements to the general regulatory framework are now urgently required. Throughout the remainder of the year, the implementation of the measures announced in the Action Plan remained a subject of ongoing discussion.

A third high-level round of talks with President von der Leyen took place on September 12, 2025; however, no additional concrete results or new implementation decisions were reached during this meeting. Consequently, several elements of the Action Plan remain under further development and will be carried forward into 2026.

Review of CO₂ fleet targets and conditions concerning commercial vehicles: Open to technology only on paper

Also of central importance to the agenda for industrial competitiveness and transformation in 2025 was the further development of CO₂ fleet regulations for passenger cars and light commercial vehicles. As part of the Automotive Action Plan, Commission President von der Leyen pledged to accelerate the review—originally scheduled for 2026—while upholding the „principle of complete technological neutrality.“ A proposal for revision was presented in December 2025. From the industry’s perspective, this draft fell short of the expectations

associated with the announced „reality check“ and potential flexibilities. The subsequent political handling of this matter within the European Parliament and the EU Council in 2026 remains of significant importance for both the automotive industry and European industrial policy as a whole. With regard to heavy-duty vehicles, the Commission did indeed submit a targeted amendment proposal to the fleet regulations in December in order to avoid penalty payments. However, the Commission has so far shown no interest in bringing forward the review of these regulations, which is currently scheduled for 2027.

In 2025, the Weights and Dimensions Directive remained highly relevant for the ramp-up of zero-emission heavy-duty vehicles. While the Council's General Approach—reached in December—marked a significant step in the legislative process, the text, from the automotive industry's perspective, fell far short of the Commission's original level of ambition. In particular, insufficient adjustments were made regarding weight allowances for battery-electric vehicles; consequently, 4x2 zero-emission tractor units, in particular, remain at a structural disadvantage in cross-border long-haul transport. Overall, the issues of payload disadvantages and cost burdens have not been effectively addressed. On a positive note, the commencement of trilogue negotiations in December 2025 finally brought momentum to the dossier. It is now crucial that these trilogue negotiations are concluded swiftly in 2026 and that the ambitious CO₂ targets are considered in conjunction with the necessary enabling conditions.

Trade policy: few highs, many lows

Beyond its climate policy dimension, 2025 was also an eventful year in terms of trade policy. As a globally integrated export sector, the automotive industry relies to a particular degree on open markets and stable trade relations. Within the trans-Atlantic relationship, discussions regarding tariffs and trade restrictions between the EU and the USA took center stage—particularly after the US administration announced in March that it would impose additional tariffs of 25 percent on passenger cars and light commercial vehicles not manufactured in the United States. However, the agreement on tariff rates reached between the EU and the USA in August had not yet been finalized by the EU by the end of the year and remains a relevant issue heading into early 2026.

Relations with the Mercosur states also held significance in 2025. An agreement in principle regarding the trade pact was reached. These developments in trade policy underscore the growing importance of strategic partnerships for Europe as an industrial hub.

Moreover, 2025 once again saw the emergence of challenges regarding the supply of critical raw materials, particularly in the field of rare earth elements. Supply bottlenecks and export restrictions—including those involving China—highlighted the critical importance of resilient supply chains and a diversified raw materials strategy for Europe's industrial transformation.

Reducing regulatory burdens: Buses make slow progress

In 2025, another key focus of the Commission was the initiative to simplify and accelerate European regulation. Under the guiding principle of „simpler, lighter, and faster,“ the Commission announced several omnibus packages designed to reduce regulatory requirements and alleviate administrative burdens. For the automotive industry—and particularly for the SME-dominated supplier sector—the growing number of reporting and documentation obligations has for years been a significant factor affecting competitiveness. It is therefore welcome that the Commission intends to counteract this trend through its omnibus initiative to simplify reporting requirements, taking initial steps to relieve companies of unnecessary bureaucratic burdens. Nevertheless, it remains true that this can represent only a first step toward comprehensive bureaucratic reduction on the part of the Commission.



However, it is regrettable that it took until 2025 to form an [Omnibus Initiative](#). Of particular relevance were the omnibus proposals concerning sustainability and the environment. Among other things, the Commission presented simplifications within the framework of the EU Supply Chain Act, the Sustainability Reporting Directive, and the Deforestation Regulation. At the same time, the specific design of individual elements—such as those related to digital product passports—remains a subject of further discussion. An „Automotive Omnibus“ had already been announced in the Automotive Action Plan and was subsequently presented as part of the Automotive Package.

Interconnected and automated driving, software-defined vehicles, and questionable innovation policy: major projects but no concrete results yet

In the context of technological competitiveness, the Automotive Action Plan also announced the European Connected and Autonomous Vehicle Alliance (ECAVA). ECAVA is designed as an industry discussion and advisory forum intended to bring together stakeholders along the automotive value chain, including vehicle manufacturers, suppliers, technology providers, as well as innovative companies and startups. Thematically, the Alliance addresses key future-oriented fields such as software-defined vehicles, the

development of AI models, automotive hardware, and automated and autonomous driving. The objective is to accelerate the development of solutions ready for mass production in Europe and to strengthen technological sovereignty. In 2025, ECAVA was predominantly in its preparatory and ramp-up phase. Concrete operational structures, milestone plans, and accompanying support measures are expected for the work to be conducted in 2026. In parallel, industry-driven initiatives for collaboration in the software sector were further developed, including the [Memorandum of Understanding](#) on Software-defined Vehicles, which aims for shared standards and more efficient development of non-differentiating software.

Compounding the situation is the fact that the European Commission's withdrawal of the draft regulation on standard-essential patents entails significant negative repercussions—both for the German automotive industry and for technological progress across Europe as a whole. Standard-essential patents play a pivotal role in the development and implementation of technological standards. In the absence of such a regulation, companies lack access to essential technologies—technologies that are particularly indispensable for connected and automated driving. The Commission's decision is incomprehensible and results in a situation where neither fair global competition nor Europe's technological sovereignty can be guaranteed.

Outlook for 2026

Overall, the year 2025 has demonstrated that the European agenda for industrial competitiveness has gained significant political momentum, and that several key processes have been initiated or intensified. Fundamentally, however, the European Commission, the member states, and the European Parliament still lack the necessary sense of urgency and concrete proposals. Essential measures—such as the completion of the EU Single Market, the reduction of regulatory and bureaucratic burdens, the lowering of electricity costs, and the firm embedding of technology neutrality—must be advanced with vigor and seriousness. In this context, it is also noteworthy that while the Commission had pledged to establish more flexible, realistic, and technology-neutral framework conditions for achieving fleet-wide CO₂ targets—based on a fact-based review—it failed to achieve this objective with its Automotive Package. Formally, technology neutrality is acknowledged; in practice, however, it is undermined by various requirements, conditions, and compensation mechanisms. The year 2026 will also be decisive in the heavy-duty vehicle sector, determining whether ambitious CO₂ targets are finally underpinned by practical regulatory and infrastructural framework conditions. Given the intensifying international competition and the profound transformation currently sweeping through the industry, the critical task now is to set clear priorities and establish reliable framework conditions.

Importance of free trade and partnerships in times of geopolitical uncertainty

The year 2025 was characterized by turbulence in the external economic environment. With an export ratio exceeding 75 percent, German manufacturers and suppliers rely heavily on their foreign markets. Any deterioration in market access conditions or any rise in political risks has a negative impact on export opportunities. Alongside geopolitical crises and challenges, military conflicts, and tensions, the disruptive trade policy of the USA, in particular, has caused global dislocations.

The USA has abandoned the rules-based trading system founded on the WTO. In 2025, President Trump announced and imposed tariffs, thereby throwing the global trading system into disarray. Ongoing trade conflicts between the USA and China have posed significant challenges to Europe's industry, with its global supply and value networks.

The German automotive industry has been able to benefit for many decades from market developments in China and, following the country's accession to the WTO in 2001, from the opening of its market.



Upon joining the WTO, China committed to lowering tariffs and discontinuing the application of minimum requirements regarding local value creation. As a result of this market opening, both the industry and the market are evolving rapidly.

Currently, however, protectionist tendencies are on the rise worldwide; the WTO is weakened, and uncertainty is growing as the framework conditions for international trade and investment are constantly shifting. Added to this are supply crises—some stemming from political conflicts, others from the COVID-19 pandemic. Global value chains are no longer functioning as they did previously, and objectives regarding resilience, security, and diversification are becoming increasingly important.

These changes are incorporated into VDA's work. The diversification of companies' economic activities is actively supported—for example, through market access information regarding new markets or through participation in international trade fairs at German joint stands, initiated by VDA. In its political work, VDA supports the efforts of the federal government and the EU to improve international market access.

Further emphasizing the benefits of globalization and free trade

For many years, German and European industry have benefited from the globalization of economic relations, a process underpinned by a rules-based framework. In this context, it was not only exports that grew, but also the foreign production operations of German manufacturers and their suppliers. Exports and local production mutually reinforced one another, and all participating economic partners were able to benefit from this dynamic.

For instance: 25 years ago, in 2000, German manufacturers produced a total of 8.8 million passenger cars; of these, 5.1 million were produced in Germany, while a significantly smaller number (3.7 million) were produced abroad.

Ten years later, foreign production (6.1 million passenger cars) surpassed domestic German production (5.1 million) for the first time; in total, 11.6 million passenger cars were produced. Success abroad continued to grow, and in 2019, a record 16 million passenger cars were produced—though 71 percent of these were manufactured abroad.

The pandemic led to a decline in production that continued throughout the following years, especially in Germany. In 2025, German manufacturers produced 13.3 million passenger cars, 69 percent of which were manufactured abroad.

High tariffs and local content requirements in foreign markets continue to challenge domestic production sites; consequently, exports are lost, or value creation is relocated to the target markets. It is therefore all the more crucial for policymakers to establish favorable framework conditions within the EU to ensure that production, investment, jobs, and prosperity can be retained. Exports have always been essential to the growth of the German automotive industry. Approaches, particularly those originating from EU member states with protectionist tendencies, that push for the replacement of imports with local production pose risks to Europe's hitherto highly successful export model. This model has, in fact, gained in competitiveness and generated wealth partly because of the importation of intermediate goods and finished products. Such approaches must therefore be weighed with the utmost care.

VDA continues to support rules-based, fair, and (to the greatest possible extent) Free trade

Distortions of competition—arising, for instance, from non-compliant subsidies or dumping—should be investigated and avoided in consultation with the business sector. The EU's existing trade defense instruments are well-suited for this purpose.

Particular attention must be paid to raw material supply; here, too, international cooperation (for instance, through raw material partnerships) should take center stage. Protectionist policies, such as the introduction of specific requirements regarding local value creation (local content requirements), entail numerous risks and must be carefully weighed.

The benefits of international trade and globalization are self-evident and must not be squandered. The following overview illustrates the extent to which the German automotive industry has benefited from globalization and the growth of foreign production over the past 25 years.

Pass. car prod. Germany / abroad (German OEMs)

Year	Prod. total	In DE	Abroad	Ex EU
2000	8.8 mil	5.1 mil	3.7 mil	1.5 mil
2010	11.6 mil	5.5 mil	6.1 mil	3.9 mil
2019	16.0 mil	4.7 mil	11.4 mil	7.9 mil
2025	13.3 mil	4.2 mil	9.2 mil	6.3 mil

EU's rules-based trade is at risk

Fortunately, the increase in overseas production in the German automotive industry has not led to a decline in the export rate. Both exports and on-site production abroad have been able to secure employment and prosperity in Germany and Europe.

However, disruptions in foreign trade and the EU's poor competitiveness put this model for success at risk. Production capacities lost by manufacturers and suppliers are unlikely to be rebuilt within the EU. Furthermore, the transformation toward climate-neutral mobility requires entirely new production processes that entail less local value creation, especially with regard to electromobility.

Due to the often poor availability of raw materials and important components, it is also becoming increasingly difficult in the EU to achieve the local value creation required to utilize a free trade agreement. For example, this is affecting trade with the United Kingdom, where stricter rules of origin for electromobility are planned to enter into effect in 2027.

The European Commission is thus asked to heavily align its trade policy with the needs of the export-oriented economy and thus improve the competitiveness of European industry.

Previous TOP sales markets facing challenges

In 2024, the USA was still the most important sales market for German-produced passenger cars; 448,000 vehicles were exported. The announcement of high additional tariffs following the re-election of Donald Trump did lead to a short-term pull-forward effect, although exports sharply declined after the tariffs entered into effect. As a result, only 409,000 passenger cars were exported in 2025, a decrease of 9 percent.

Challenges in the TOP sales markets USA and China are placing strain on Germany and Europe. These compound the internal issues that have impaired competitiveness, such as high energy costs and expenditures as well as bureaucracy. It is thus all the more urgent that the EU intensify its partnership with other trade partners and do its homework.

The EU's trade agenda has primarily focused on issues like the environment, human rights, and sustainability, especially in recent legislatures. Although these topics are immensely important, their consideration in trade agreements has led to complications and even resistance in partner countries. VDA believes that these

issues should not be combined with matters of trade to the extent possible.

As a result, the agreement with the Mercosur states remains incomplete even after over 25 years of negotiations, most recently due to resistance within the EU and European Parliament. VDA supports the formation of this important agreement and is successfully working toward preliminary application thereof. Otherwise, the risk are high that the trade partners will lose faith in the EU as a reliable trade partner and turn toward other regions.

The strengthening of other trade and cooperation blocs, such as BRICS (federation of large emergent countries: Brazil, Russia, India, China, South Africa), RCEP (with 15 countries, the Regional Comprehensive Economic Partnership is the world's largest free trade agreement), and the CPTPP (the Comprehensive and Progressive Agreement for Trans-Pacific Partnership is a free trade agreement among 11 countries in the Pacific) should push the EU to pragmatically form and benefit from its agreements. The following overview presents the agreements that the German automotive industry finds particularly important.

Important free trade agreements for VDA

Slow progress in improving market access – KOM currently negotiating approximately 45 agreements

FTA with:	Beginning	Current status
1. Mercosur	1999	EU members approved the agreement in January, 2026. The EP requests evaluation by the ECJ (Resolution from January 21). Business sees preliminary application as necessary
2. India	2007	After difficult negotiations, signed on 1/27/2026. Legal scrapping, ratifications, entering into effect presumably 2028
3. Update Mexico	2016	Text finalized, not yet signed (poss. February, 2026) or ratified
4. ASEAN	2007	EU-ASEAN Agreement would be priority for auto industry, so far only Working Group established
5. Indonesia	2016	9/23/2025: Negotiations complete. Legal scrapping, signing, ratification
6. Thailand	2013	Relaunch 2023. 8th round in February, 2026
7. Philippines	2015	2024 resumption. 5th round in March, 2026
8. Australia	2018	Formation failed dramatically in 10/2023. New approach in 2026

In light of the geopolitical risks, the economy must focus on issues like resilience, diversification, and economic security. However, the advantages of international trade and global value chains cannot be neglected—on the contrary, we need new partners as our partnerships with important regions become more challenging, and we cannot fail to seek and intensify cooperation with all our partners.

VDA thus maintains many contacts with international partners worldwide. With joint events, mutual trade fair visits, and comprehensive association partnerships, VDA has a broad network of partners around the world. We particularly value our work with partners in Ukraine and Israel, both countries with a burgeoning industry and innovative start-ups. VDA maintains close ties with numerous partner associations and organizations worldwide and contributes to intensifying cooperation through on-site events, such as the VDA Supplier Roundtable in Mexico.

Cooperation with India

India is an important partner and future market, especially with regard to diversification, bilateral trade, and cooperation in the areas of electromobility and digitalization. German manufacturers and suppliers are already present in India with over 1,400 locations and production sites. Since 2006, VDA has supported the partnership with India via the Indo-German Working Group on Automotive between the German and Indian governments, as well as close cooperation with the Indian partner associations ACMA (suppliers) and SIAM (OEMs).

In 2025, the partnership made a significant impact—primarily through its intensive support of the negotiations surrounding the EU-India Trade Agreement. Furthermore, VDA demonstrated its commitment by hosting a VDA exhibition stand at the Bharat Mobility Show, assisting VDA member companies with market access, and participating in various conferences. VDA is also represented on the jury of the prestigious ACMA Awards, thereby contributing to enhancing the competitiveness of automotive supplier companies.

During the inaugural VDA-India Roundtable—held in New Delhi in January 2026 and attended by VDA President Hildegard Müller—current business conditions in India and the potential for cooperation were discussed in depth with VDA members on site and political guests.

A particularly important step for future cooperation with India is the conclusion of negotiations for the EU-India Trade Agreement—announced in January 2026—which was preceded by an intensification of political efforts on the part of the EU Commission in 2025, a move long called for by the business community. The immediate and complete elimination of tariffs on most automotive parts, and on sensitive parts within 10 years at the latest, is a welcome development. For passenger cars, current tariffs which reach as high as 110 percent will be gradually reduced to 10 percent for an initial quota of 250,000 vehicles. Concessions were also agreed upon for commercial vehicles, though not regarding non-tariff trade barriers in the automotive sector. Nevertheless, the agreement represents an important step toward deepening cooperation. It fosters reliability and underscores the collaborative partnership between the two regions. Swift ratification remains essential.





Future markets in Africa / cooperation with AAAM

Africa remains an important partner and growing market for VDA and its members. Since November, 2024, VDA has been conducting a follow-up project for the partnership between VDA and the African Association of Automotive Manufacturers (AAAM) funded by the Federal Ministry for Economic Cooperation and Development (BMZ). As part of a VDA-AAAM-South Africa roundtable in June, 2025, in which VDA President Hildegard Müller also took part, VDA members gained insight into five years of successful cooperation between VDA and AAAM and defined priorities for the future of the partnership.

In 2025, the cooperation focused on supporting new laws for easing trade and production in various African countries (such as Egypt, Ghana, and Tanzania), diversification of value chains, and processing of critical and strategic raw materials on the continent. One major step was the ratification of the rules of origin for the automotive industry within the pan-African free trade region AfCFTA.

At the IAA-Africa Day during IAA Mobility, VDA members were able to learn about the topic areas “Market Potential in North Africa” as well as raw materials acquisition and processing.

Africa is also becoming more relevant as a location for production: According to predictions by our partner association AAAM, the number of produced vehicles (currently approximately 1.1 million vehicles) will rise to about 3.3 million new vehicles in 2035, thereby further enhancing local value creation and employment.

Rules of origin in trade with UK must consider the realities

Six years after Brexit, the rules of origin for electric vehicles and batteries defined in the EU-UK Agreement (TCA) continue to pose a significant challenge. With the tightening of the rules of origin as of January 1, 2027, import tariffs of 10 percent loom over trade in BEVs and PHEVs.

This would have significant competitive disadvantages for the German and European automotive industry. VDA has thus repeatedly implored that the rules of origin must consider the realities and difficulties in (battery) supply chains, as otherwise there could be negative impact both for achieving the climate protection goals and for value creation in Europe.

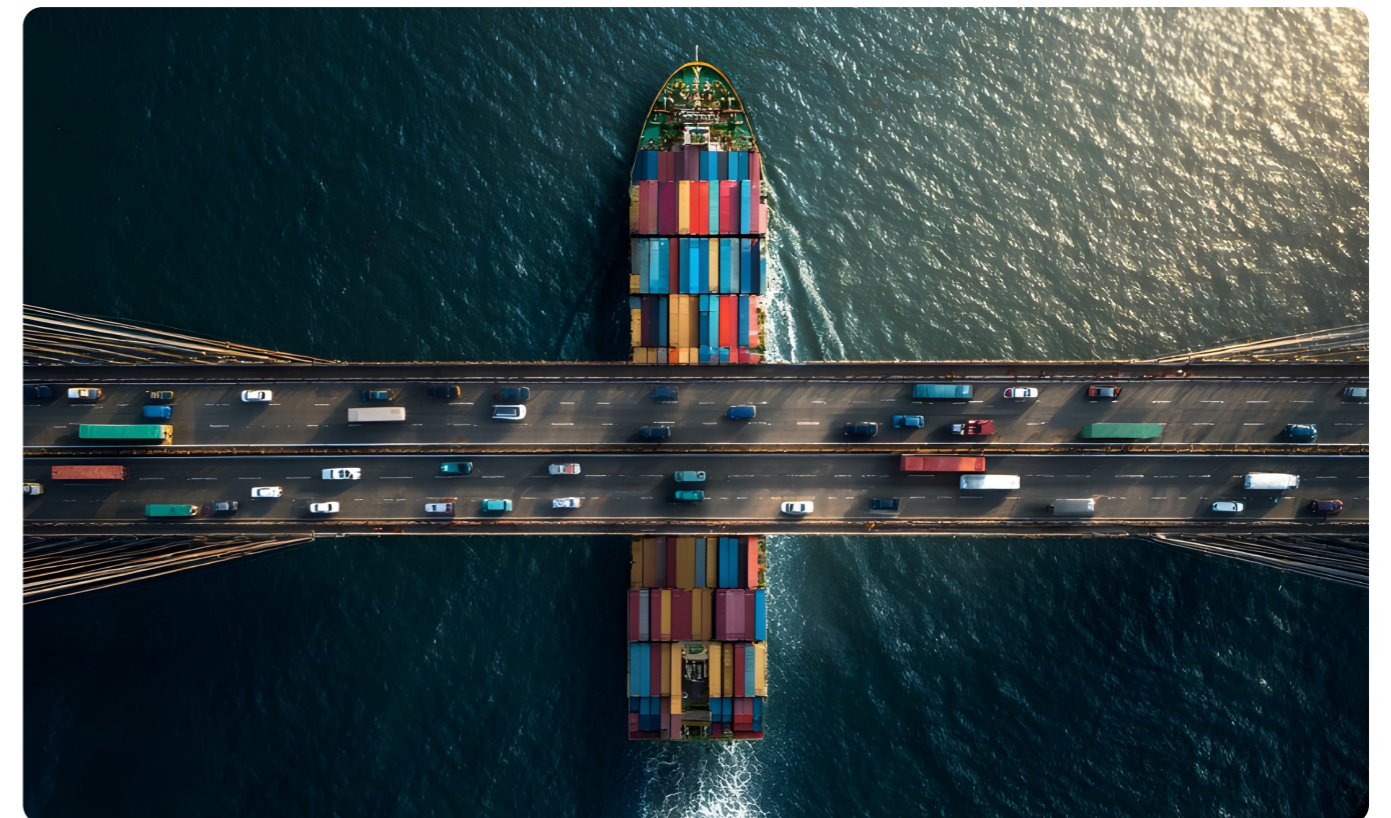
In 2025, VDA was able to secure considerable improvements in the discussion at the EU-level concerning the definition of active cathode material. However, further relief in the TCA rules of origin are urgently needed in order to sustainably ensure that our members remain competitive in the important UK market.

High dynamics and numerous challenges in export control

Export control has also been significantly affected by the increasing trade-related and geopolitical tensions between the USA and China. In particular, export restrictions for rare earths and permanent magnets imposed by the Chinese Ministry of Commerce have led to considerable supply risks in the automotive industry. A tightening of the restrictive measures was

postponed by one year through negotiations between the USA and China, but the risks and uncertainties remain high. The imposition of sanctions against Russia is still a core task of export control. The German automotive industry condemns Russia’s war against Ukraine, which is in violation of human rights, and explicitly supports the EU’s declared sanctions against Russia. Companies are working hard and investing considerable resources to implement the sanctions in order to ensure comprehensive compliance. With the 19 EU sanction packages, which came into effect by late 2025, restrictive measures have reached an unprecedented breadth, level of detail, and complexity. In this extraordinarily challenging environment of high legal and political dynamics, VDA informs its members of current developments and offers a platform for exchanging experiences regarding practical application issues through its Export Control Working Group.

With the announcement of tariffs following Donald Trump’s second election, the USMCA Agreement was also shaken to its foundations. An assessment is planned for 2026 and VDA is working to ensure that as many obstacles as possible are (once again) dismantled and that the partnership up to this point in this economic area can continue.

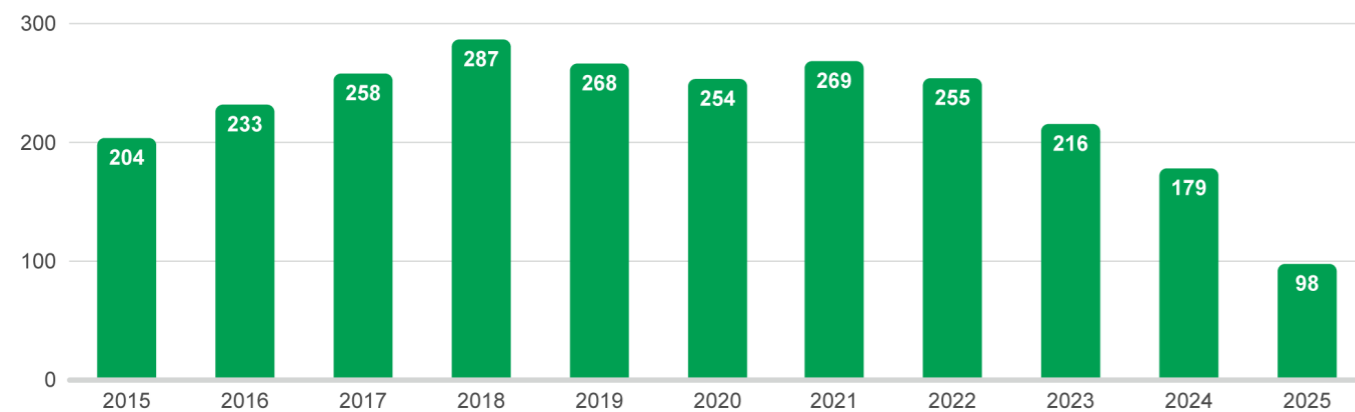


China: market opportunities, risks, and global competitive dynamics

In light of global uncertainty and increasing trade policy tension between the European Union and China, VDA is pushing for a special, constructive, and aligned further development of bilateral cooperation. The ongoing partnership is also a basic prerequisite for successful implementation of the federal government's China strategy. In this regard, VDA welcomes Federal Minister of Foreign Affairs taking his previously cancelled inaugural trip to China in December, 2025. VDA President Hildegard Müller was able to represent the interests of the German automotive industry as part of the business delegation.

The visit by Chancellor Friedrich Merz in February, 2026 also sends an important signal for German-Chinese cooperation and to German companies in the country. For the German automotive industry, China is not only an important sales and source market, but also an increasingly significant hub of innovation. VDA is present there with its office in Beijing and regularly conducts roundtable events, particularly for suppliers. German companies are represented at the major trade fairs Auto Shanghai and Auto China in Beijing through German joint stands initiated by VDA.

Passenger car exports from Germany to China (in thousands)

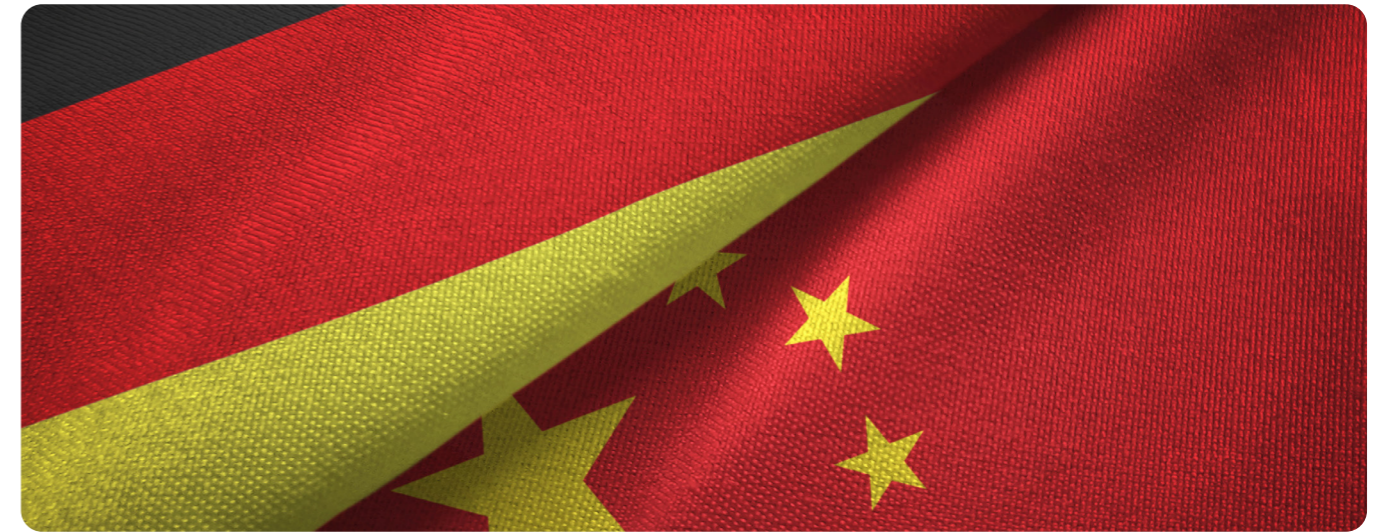


Source: VDA

Export restrictions for permanent magnets: VDA warns of supply risks

The new export regulations imposed by the Chinese Ministry of Commerce placed tangible strain on the supply for European industries in 2025. Early on, VDA addressed the supply risks stemming from export restrictions for rare earths and permanent magnets imposed in April, 2025, and implored European policymakers to discuss this matter with the Chinese government.

In October of 2025, the Chinese Ministry of Commerce announced further, far-reaching export restrictions that would have affected the battery and semiconductor industries in particular, and thus central value creation stages for the automotive industry. These restrictions were postponed by one year following negotiations between representatives from the USA and China. VDA is calling for an early, pragmatic, and negotiated solution that gives the companies planning predictability.



EU tariffs on electric passenger cars from China: VDA welcomes new dynamics and calls for swift, broad repeal of the tariffs

VDA has critically monitored the EU Commission's anti-subsidy investigation into electric passenger cars imported from China into the EU, as well as the eventual imposition of countervailing duties on Chinese-produced electric cars. The association believes that tariffs are not the right instrument for effectively combating existing challenges. Thus, VDA is all the more supportive of the EU Commission and Chinese government having made initial progress in their negotiations. In spring of 2026, the publishing of uniform criteria for evaluating price commitment offers increases transparency and signals a willingness by the EU and China to negotiate. The first-ever acceptance of a price undertaking offer demonstrates that the EU Commission takes the criticism regarding countervailing duties seriously. It is now important that the progress that has been made swiftly transfer to the actual, broad dismantling of tariffs.

German-Chinese cooperation in automated and interconnected driving as well as in international data transfer

Several meetings were organized over the past year based on the declaration of intent on dialogue and cooperation regarding standardization and regulation for automated and connected driving—renewed between Germany and China in 2024.

Among other things, the work focused on the introduction of a new Chinese regulation concerning assisted driving at SAE Level 2. Together with the representatives from our member companies and with support from the German ministries involved, VDA was able to secure amendments to the regulation and the time of its entering into effect. Furthermore, questions regarding data storage and provision in connection with automated and assisted driving functions were discussed. The bilateral cooperation aims to comprehensively align Chinese demands with the UNECE regulations and ISO standards. The agreement thus contributes significantly to the continuation of dialogue with Chinese partners in the interest of the German automotive industry with regard to regulations.

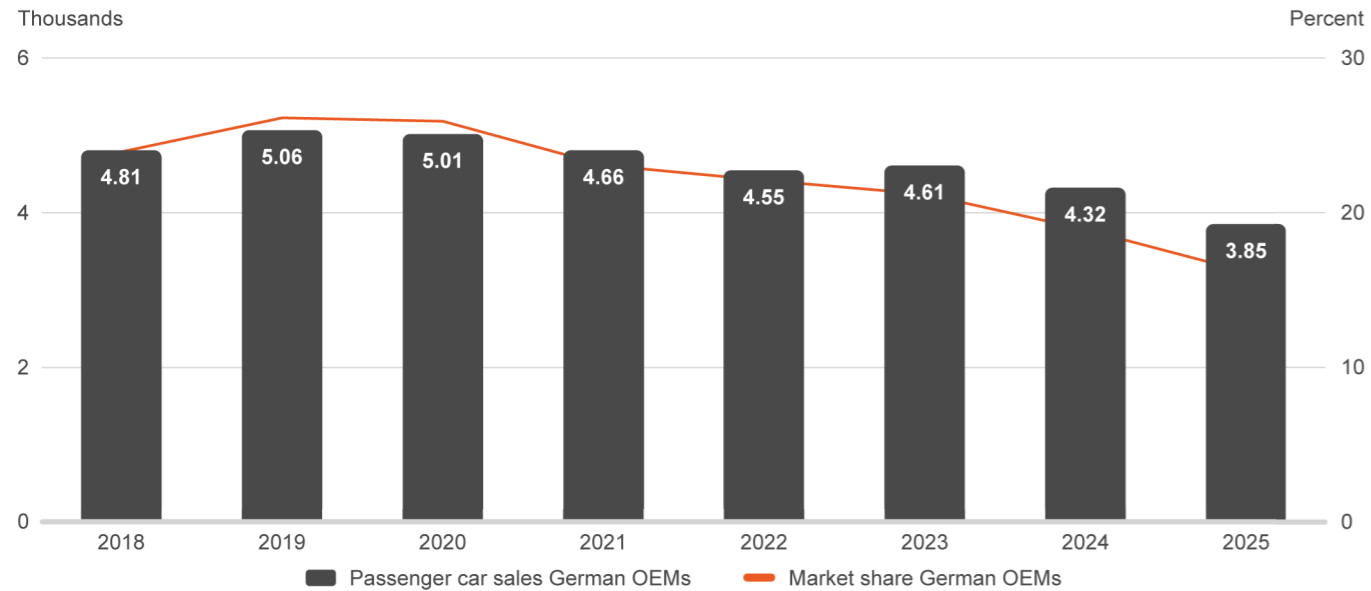
Following the change of government in Germany, there has been little progress regarding the declaration of intent signed for cross-border data traffic between Germany and China. The automotive industry remains willing to support this important dialogue in order to facilitate the mutually important process of fair and secure data exchange based on the liberalizations enacted in March, 2024 by the Cyberspace Administration of China (CAC). This is particularly relevant to automotive manufacturers and suppliers active in China who regularly transfer large quantities of data between Germany and China.

Increasing global competition: EU and federal government must strengthen Europe's industrial competitiveness

In light of increasing competitive pressure from Chinese providers, the industrial competitiveness of Germany and Europe must take priority. The conclusion of EU negotiations concerning free trade agreements with Indonesia, Mercosur, and India play a key role in creating the urgently needed conditions for diversifying German industry. Further agreements and partnerships must follow. Internationally competitive local conditions remain the best guarantee for growth, value creation, and

employment, foster resilience, and ensure the global possibilities for influence and shaping not only for Germany, but for Europe as a whole. The discussion of China is important, but cannot distract from the key tasks on site. The federal government must work with Brussels to lower energy prices, create a competitive taxation and expenditure system, slash red tape, accelerate planning and approval processes, and consistently advance digitalization.

Passenger car sales by German OEMs in China



Source: CPCA, S&P Global Mobility



Trans-Atlantic cooperation and challenges

2025 came with unprecedented challenges for trans-Atlantic cooperation. President Trump challenged many traditional formats not only in matters of security. In trade policy, too, the US President is setting new standards, challenging established certainties, and launched his second presidency with massive tariff increases worldwide, including on the European automotive industry.

entirely reduces its industrial tariffs to 0 percent. The corresponding KOM [proposal](#) from August 8, 2025 must still be approved by the European Parliament. The European Parliament postponed its decision in light of the conflict relating to Greenland. The integration of safeguards, suspension clauses, and evaluations are also being discussed.

US president sees security jeopardized by car imports

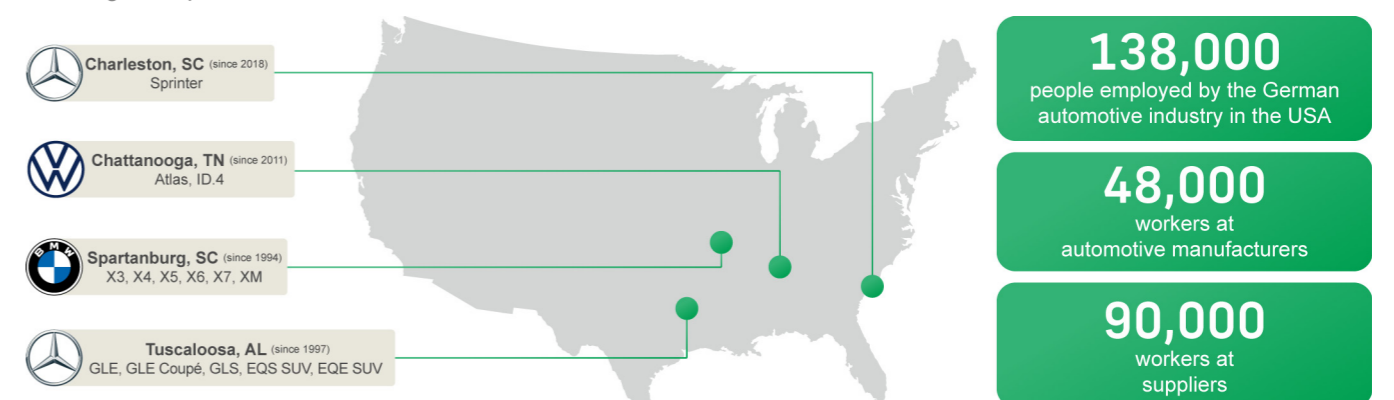
Effective April 3, 2025, motor vehicles imported into the United States are subject to additional ad valorem tariffs of 25 percent; vehicle parts have been subject to additional tariffs since May 3, 2025. President Donald Trump ordered these measures on March 26, 2025, citing Section 232 of the Trade Expansion Act. The imposition of these new additional tariffs is justified by the alleged threat to US national security posed by imports of certain motor vehicles and automotive parts.

The high additional US tariffs on passenger cars and parts of 25 percent imposed by President Trump could be capped in the long term at 15 percent by the [framework agreement](#) between the USA and the EU from August 21, 2025. A prerequisite for this is that the EU

The European Parliament resumed its work on implementation after President Trump rescinded his threats of tariffs in relation to Greenland. It is now expected that the European Parliament will approve the legislative proposal by the European Union in spring of 2026 under certain conditions. VDA advocates for a swift conclusion of the deliberations and the adoption of the legislative proposal in the trilogue, in order to ensure reliable framework conditions in a timely manner. Furthermore, constructive implementation of additional elements of the framework agreement, such as the regulatory partnership, is required in order to sustainably support the economic cooperation. The deep integration of the German automotive industry into trans-Atlantic value chains means that it would be burdened both by US tariffs on imports and by potential EU countermeasures on vehicles and parts from the USA. The figures show that the German automotive industry is an integral part of the US industry; European manufacturers also export from the USA into third markets.

The German automotive industry in the USA

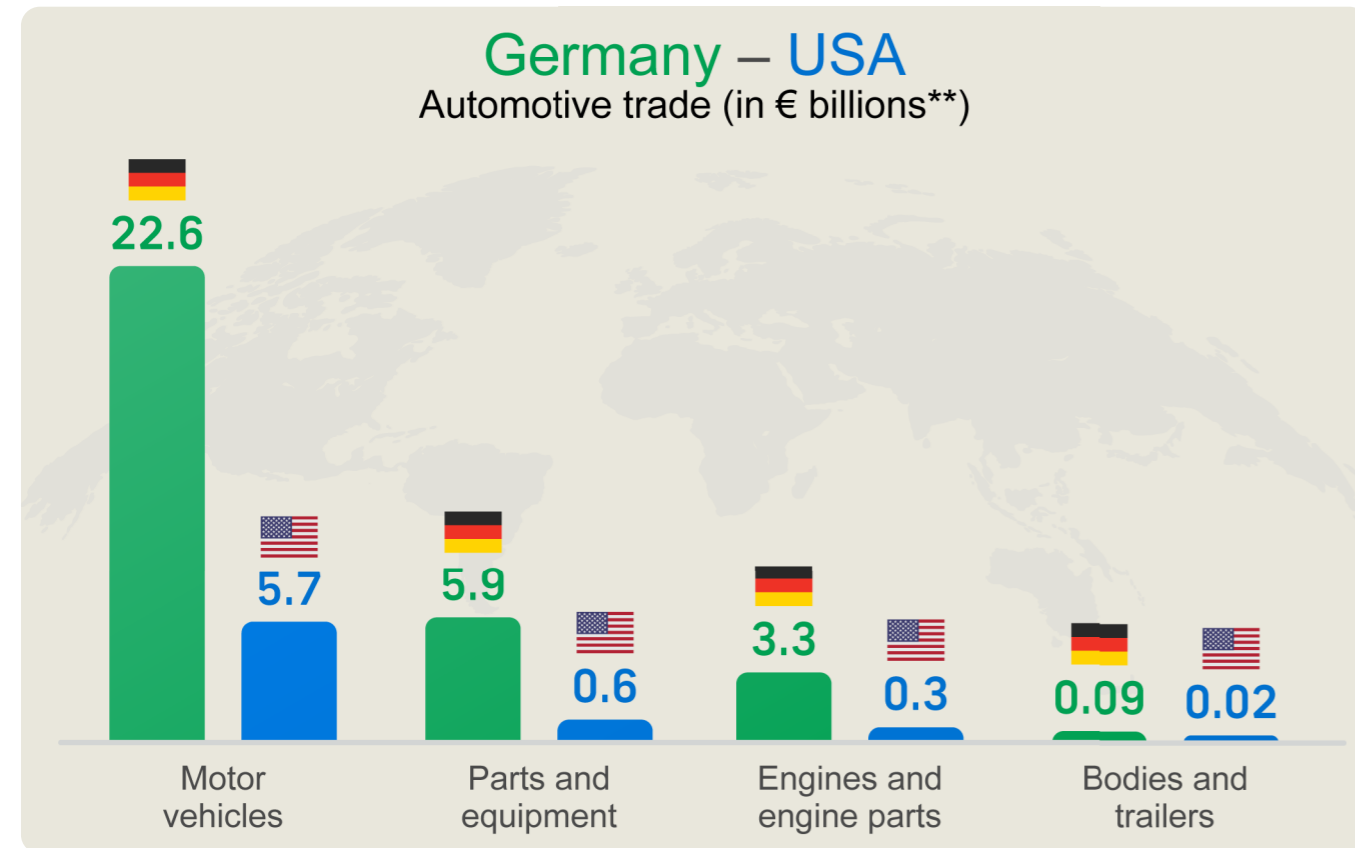
Passenger car plants of German OEMs



- 138,000** people employed by the German automotive industry in the USA
- 48,000** workers at automotive manufacturers
- 90,000** workers at suppliers

German manufacturers produced approximately 805,000 passenger cars in the USA in 2025. They are responsible for over two-thirds of passenger car exports from the USA into the EU. With many production facilities, both manufacturers and suppliers are invested in the US states.

Germany's automotive trade* in 2025



- USA has once again been Germany's most important export market by value since 2022
- China has closed the gap with the USA over the years and briefly overtook it during the pandemic
- Passenger car exports (unit): USA in 1st place ahead of the UK

Top 5 destinations for German exports

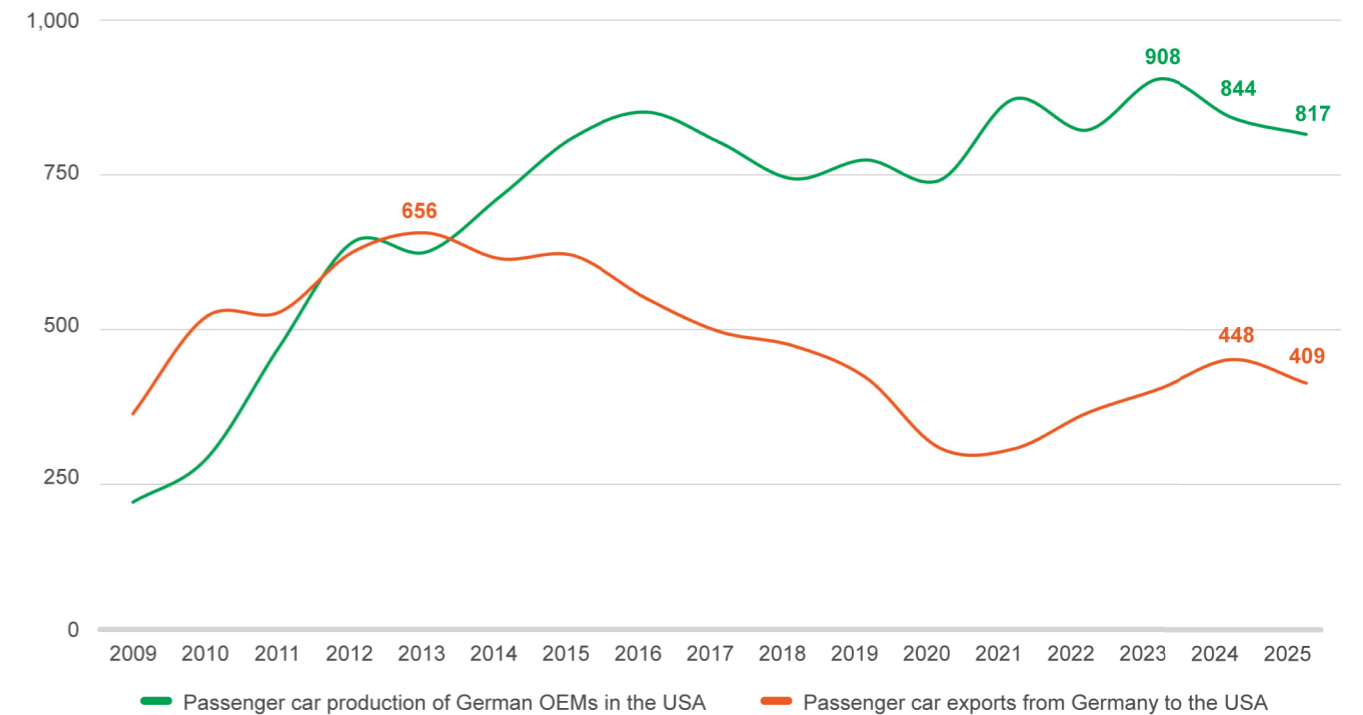


Source: Statistisches Bundesamt, VDA

* Includes motor vehicles (passenger cars, commercial vehicles), chassis with engines, engines and engine parts, bodies and trailers, as well as automotive parts and accessories.
 ** Discrepancy between the sum of individual values and the total sum due to rounding.

On-site production replaces exports (in thousands)

Exports from Germany into the USA and US production



- Production did not experience sustained decline during the pandemic
- Of the passenger cars exported into the USA in 2025, 409,200 came from Germany, 382,700 from other countries
- Deliveries by German OEMs into the USA (2025): 792,000 vehicles

Overall, VDA continues to pursue a positive agenda with the USA. Proposals for regulatory cooperation in the automotive sector, with which mutual trade and industrial cooperation can be advanced, contribute to this goal. The automotive industry requires reliable, fair partnership and cooperation.

However, the prerequisites are high demands of local value creation, adherence to a minimum wage, and the use of certain minimum quantities of US steel in the respective products.

These rules have led to the creation of value on site, and exports from the EU have become less competitive.

USMCA as successor to NAFTA requires local engagement

During his first term in office, President Trump ratified the reform of NAFTA with Canada and Mexico. The new agreement, USMCA (US-Mexico-Canada Agreement) facilitates free trade between the three nations.

With the announcement of tariffs following Donald Trump's second election, the USMCA Agreement was shaken to its foundations. An assessment is planned for 2026 and VDA is working to ensure that as many obstacles as possible are removed (again) and that the cooperation in this economic region can resume.

Technology neutrality for the success of climate-neutral mobility

Technology-neutral climate protection in road transport

The German automotive industry clearly commits itself to the Paris climate goals and is actively driving forward the objective of climate-neutral road transport by no later than 2050. To implement this transformation decisively, German suppliers and manufacturers are investing substantial resources worldwide: From 2025 to 2029, approximately 320 billion euros will flow into research and development. In addition, around 220 billion euros in capital expenditure will be added during the same period—particularly for the construction of new factories as well as the conversion and modernization of existing plants.

At the heart of this strategic realignment lies electromobility, which is projected to capture the largest market share in the long term. The political and regulatory frameworks are consistently aligned with this specific drivetrain path. Germany plays a pivotal role in this context: As the world's second-largest production hub for electric passenger cars, the country set a new production record for electric vehicles in 2025. 40 percent of the passenger cars manufactured domestically were electric. This year, that share is expected to rise even higher. Thanks to a product offensive by manufacturers, a rapidly expanding range of German-made electric vehicles is facilitating the transition: Consumers and freight operators worldwide can now choose from 160 electric passenger car models and countless electric commercial vehicle series offered by German corporate brands. Technologically, these vehicles have reached a high level of maturity and lead the field in terms of charging performance, range, efficiency, and durability. In the future, electric cars—acting as mobile energy storage units—will even help to smooth out short-term fluctuations in the power grid and facilitate the integration of more renewable energy sources. Bidirectional charging is currently on the verge of market launch. Concurrently, production capacities have been established to support a significantly accelerated ramp-up.

The German automotive industry is and remains competitive in international markets with its products. The supply of electric vehicles now covers all customer needs and vehicle categories, including light and heavy-duty commercial vehicles. In recent years, commercial vehicle manufacturers have introduced electric drivetrain variants in all major model series. Consequently, goods can now be transported in a CO₂-neutral manner in applications ranging from urban distribution to long-distance haulage. The same applies to passenger transport, specifically through the use of electric city buses. However, the markets in which these electric vehicles are sold and the locations where they are manufactured depend on the respective general framework conditions and local site conditions.

Germany has ground to make up in two key areas in particular: First, the success of electromobility hinges on the expansion of charging infrastructure. People need the assurance that they can charge their vehicles easily, anywhere, and at any time. Yet, according to an Allensbach survey commissioned by VDA, there is still significant work to be done in precisely this area: Charging infrastructure remains the single greatest barrier to purchase, deterring both private consumers and freight companies from making the switch to an electric vehicle. Furthermore, competitive charging rates are essential.

Plug-in hybrids as an essential component of a broad electrification strategy

The German and European automotive industry is faced with the challenge of securing the ramp-up to electromobility while reliably achieving value, jobs, and the climate goals. Plug-in hybrids (PHEVs) are an integral component of a broad electrification strategy.

They combine locally emission-free everyday driving with the necessary flexibility in range, while—from an industrial policy perspective—bundling the entire European chain of expertise: from batteries, power electronics, and electric motors to combustion technology, transmissions, and software. In doing so, they safeguard substantial investments across all stages of the value chain and, in particular, strengthen the industrial SME sector. Any premature regulatory weakening would devalue ongoing multi-billion-euro projects (which have amortization periods of eight to twelve years) and shift both expertise and production to other regions of the world.

With regard to climate policy, modern PHEVs are also making a measurable contribution. High electric ranges allow a majority of everyday mobility (especially commutes and short distances) to be purely electricity-driven, and for locally emission-free travel in urban spaces. At the same time, they accelerate the market ramp-up of electromobility, support adherence to the CO₂ fleet targets, and contribute to the European climate goals. Leading international markets like China and the USA are thus pursuing a multi-technology strategy with long-term perspectives for PHEVs and EREVs. Clear regulatory recognition of their climate contribution is thus essential for ensuring investments in Europe, stabilizing locations, and increasing social acceptance of the transformation.

Of central importance in this context is the suspension of the second tightening of the utility factor, which defines the share of electric driving in PHEVs. From a calculatory standpoint, further reduction of this factor would worsen the CO₂ balance of PHEVs and diminish their actual contribution to climate protection. This comes at a time when electric ranges, charging capacities, and intelligent operating strategies are undergoing

highly dynamic technological advancement. A regulatory downgrading would thus counteract innovation progress and undermine investment security. Instead, the focus should be on consistently increasing the actual share of electric driving. This entails measures such as mandatory charging requirements linked to specific mileage targets, a comprehensive and reliable charging network, and competitive public charging rates. Analyses of electric driving shares in individual EU member states reveal a clear correlation between electric usage on the one hand, and charging infrastructure and charging prices on the other. If the right framework conditions are established, PHEVs can unlock their full potential, make a substantial contribution to CO₂ reduction, and reinforce technological openness within the transformation process.

Range extenders advance technology-neutral electromobility

Furthermore, vehicles equipped with range extenders (EREVs) are gaining importance within the framework of a technology-neutral electrification strategy. Unlike conventional plug-in hybrids, propulsion in these vehicles is entirely electric; a compact internal combustion engine serves exclusively as a generator, producing electricity to extend the driving range whenever needed. This approach combines a high share of electric driving with additional flexibility in terms of range. Particularly in regions where charging infrastructure is still under development, range-extender concepts can fulfill a vital bridging function, thereby supporting the market ramp-up of electromobility. At the same time, they safeguard industrial expertise across the entire value chain—ranging from battery and electrical technologies to highly efficient combustion components.



Using the potential of renewable fuels

Renewable fuels are already contributing to climate protection today, whether as HVO in the commercial vehicle sector or as a blend component in fossil fuels such as E10 or B₇. The European fuel mix is no longer 100 percent fossil-based. This reality must be reflected in the fleet regulation, as renewable fuels are required across various sectors. A realistic accounting of their CO₂ reduction impact strengthens investment security and creates incentives for the further expansion of sustainable, long-term production capacities. Only when regulations and the actual energy mix are aligned in a coherent manner can market potentials be fully realized.

The greatest leverage lies in the defossilization of the existing vehicle fleet. Vehicles powered by internal combustion engines will continue to be on German and European roads for many years to come. Rising blending mandates, as well as the systematic replacement of fossil fuels, help to reduce the CO₂ emissions of this fleet. At the same time, it must be questioned whether the mandatory provision of E₅ fuel remains appropriate, as this ties up additional logistics and infrastructure capacities that could be utilized more efficiently for higher blending ratios—and thus for greater climate protection. Consequently, the rapid standardization and approval of E20 fuel is crucial. A swift introduction of E20 would immediately enable additional CO₂ reductions within the existing fleet and tangibly accelerate the market ramp-up of renewable fuels. This requires a regulatory framework that does not limit increasing blending ratios, but actively enables them, and that safeguards investments across the entire value chain.

The ramp-up of hydrogen mobility represents another key lever—encompassing both vehicles powered by hydrogen fuel cells and those with hydrogen combustion engines. In the CO₂ fleet regulations for heavy-duty vehicles, for instance, hydrogen-powered variants are defined as zero-emission vehicles. Furthermore, EU-level mandates are in place for the establishment of a hydrogen refueling network by 2030. For Germany, this would entail approximately 110 hydrogen refueling stations, each with a capacity of at least one ton per day. The critical task now is to establish reliable framework conditions for investment to support the ramp-up of both infrastructure and vehicles.

Only in this way can hydrogen fulfill its role as a key pillar of climate-neutral mobility. A future lever for the deployment of renewable fuels lies in Recital 11 of the 2023 CO₂ fleet regulation for passenger cars and light commercial vehicles. This provision stipulates that the EU Commission is to put forward a proposal regarding vehicles powered exclusively by renewable fuels. This proposal was notably absent from the Automotive Package presented at the end of 2025; consequently, it must be submitted as a matter of utmost urgency. VDA advocates that passenger cars powered exclusively by renewable fuels be recognized as zero-gram vehicles under the fleet regulation—analogueous to battery-electric vehicles (BEVs)—at the earliest possible date. Downstream taxes and levies should also be adjusted accordingly. This approach reinforces technological openness, creates planning certainty for manufacturers and fuel producers, and contributes substantially to the achievement of climate targets.

Circular economy is in the automotive industry's DNA

The foundations for a circular economy are already in place within the automotive industry. Products from the German automotive sector are regarded as the benchmark for the circular economy. This is closely tied to the nature of the vehicle as a product. Unlike other goods, a vehicle is an exceptionally valuable durable asset that remains in use for over 20 years and frequently changes ownership. Consequently, consumer expectations are correspondingly high: excellent product quality, a long service life, and repairability throughout the entire period of use. For anyone, purchasing a car without warranty coverage, without the prospect of repairability and spare parts availability—even long after production has ceased—and without access to a corresponding network of workshops is simply inconceivable. Furthermore, the environmentally sound disposal of a vehicle at the end of its life is guaranteed at no cost to the final owner. Indeed, a very high recycling rate of 85 percent is already being achieved for vehicles in Europe.

The „Design for Recycling“ frequently described in the circular economy discourse is firmly integrated in the design process of the automotive industry. For a vehicle to be approved, the manufacturer must verify that a vehicle has a recyclability rate of 85 percent with the currently recognized recycling technology.



Without this verification, there can be no type approval and a vehicle model cannot be placed on the market. Already, up to one-third of a vehicle on average consists of secondary materials.

The automotive industry is going even beyond the „Design for Recycling“ approach. Vehicle manufacturers and their suppliers consider all stages of the value chain—and their environmental impacts, such as their carbon footprint—ranging from raw materials and production to concepts for repair, reuse, and remanufacturing, and only then to recycling. We refer to this holistic perspective as „Design for Sustainability.“ It addresses the strategic building blocks described at the outset far more effectively than the pure „Design for Recycling“ approach. However, product design alone does not create a successful circular economy; the supply of spare parts, a network of workshops, and the availability of repair manuals require extensive organization and investment.

To address the end-of-life phase of vehicles, automotive manufacturers and their business partners have established a high-quality, certified take-back and recycling network for end-of-life vehicles throughout Europe and Germany. For the purpose of recycling, automotive manufacturers make all necessary information available via the IDIS (International Dismantling Information System) portal. The platform currently encompasses information on 1,877 different vehicle models from 69 vehicle manufacturers across Europe, Japan, Malaysia, Korea, and the USA.

Integrating circularity and economic efficiency

The conditions for a circular economy in the automotive sector are thus more than favorable. At the same time, driven by extremely fierce international competition, the automotive industry is constantly seeking opportunities for improvement. The national debate surrounding circular economy strategy, along with the revision of the End-of-Life Vehicles Directive at the European level, presents significant opportunities in this regard. These initiatives can contribute to the further development of the existing (and already self-sustaining, innovative, and open) circular economy. However, to further enhance the automotive circular economy, circularity and economic viability must be considered in closer conjunction.

The concept of incentivization is still given insufficient attention in political discourse. By relying exclusively on the instrument of quotas, policymakers strip the circular economy of the competitive dynamics it requires. To be clear: the fulfillment of quotas within companies is overseen by compliance officers, not driven by competitive analysis. What is needed instead is a system that provides companies with a direct incentive to ensure long product lifespans, further close material loops, and utilize larger quantities of secondary materials. Linking these issues to the revision of fleet regulations presents a significant opportunity to achieve this. Such a move would restore to companies a sufficiently broad scope for entrepreneurial action within the circular economy.

Electromobility 2025: Lead-up becomes more dynamic — Infrastructure, charging prices, and reliable funding conditions are deciding factors

The transition toward electromobility is entering into a critical phase. Ever more electric models are entering the market, production capacities are being expanded, and demand is growing. Companies have invested considerably in the transformation—in converting production, in new capacities, and in qualifying their workforce. Investments of approximately 320 billion euros for research and development are planned from 2025 to 2029 alone. In addition, there are about 220 billion euros in material investments, in particular in the production facilities. The production capacities for a massive ramp-up of electromobility have been established. In 2025, about 40 percent of the cars produced in Germany were electric.

The German automotive industry holds a leading position in the market for electric cars. Currently, the German automotive industry offers over 130 electric models worldwide and enjoys a strong presence in the domestic market: 7 out of 10 electric car buyers in Germany opt for a model from a German manufacturer. Increasing model variety that covers all vehicle segments is expected in the coming years.

Ramp-up of electric passenger cars in 2025 strong even without purchasing incentives

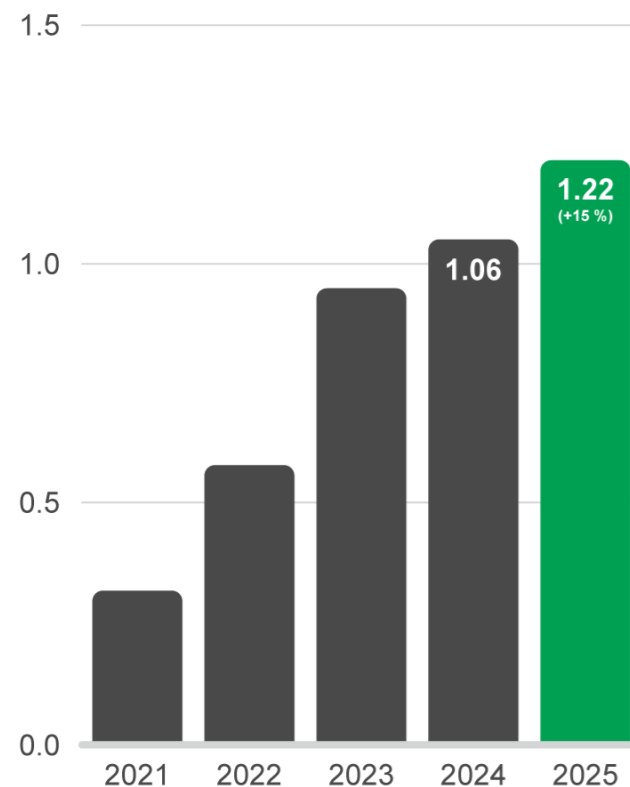
New registrations of purely electric passenger cars (BEVs) rose 43 percent in 2025 compared to 2024, up to 545,100, slightly above the record level from 2022. Registrations of plug-in hybrids (PHEVs) grew even more strongly by 62 percent to 311,000 vehicles.

In 2025, the share of BEVs in new registrations reached a record level at 19.1 percent. However, at 30.0 percent, the share of electric vehicles (BEV + PHEV) remains slightly below the record level of 31.4 percent in 2022 when BEVs and PHEVs were still subsidized.

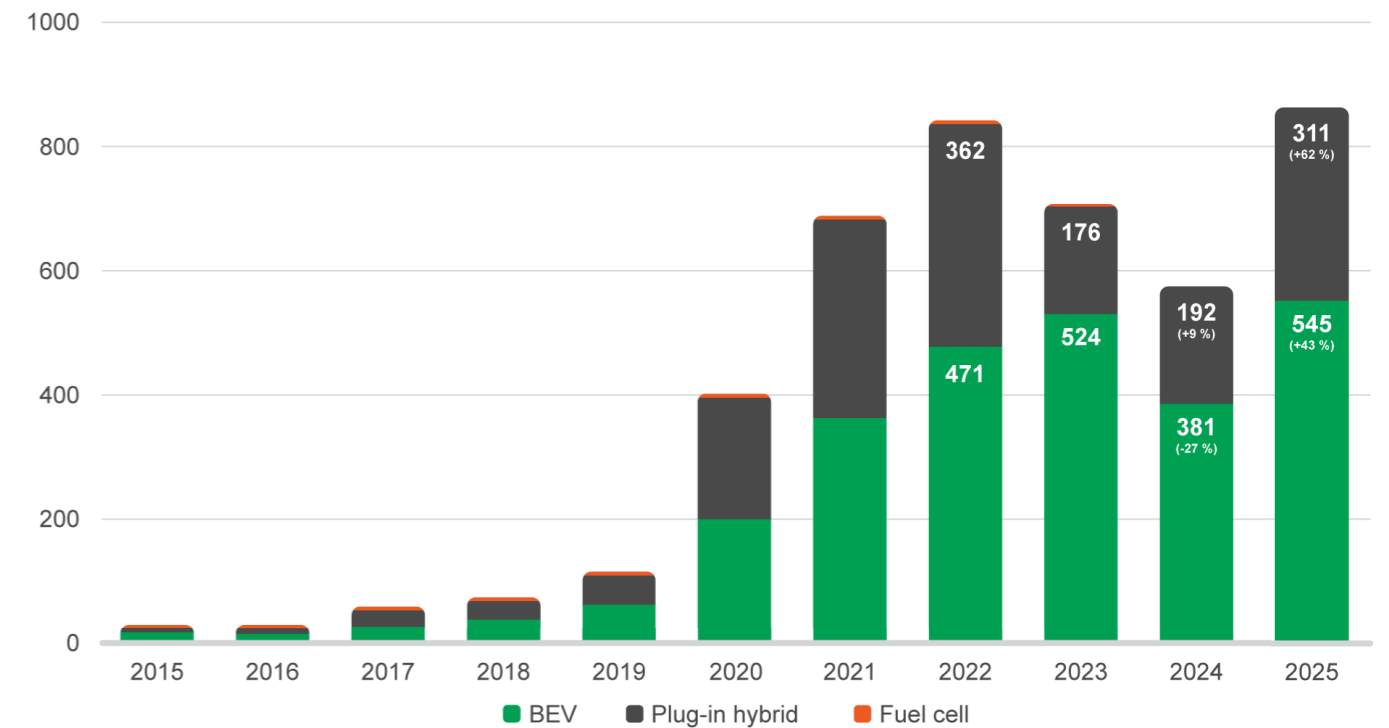
The market share of German OEMs grows in 2025 to 70 percent (2024: 68 percent)

On January 1, 2026, it is estimated that 3.22 million vehicles, or 6.5 percent of all passenger cars in Germany, are powered by electricity. 2.06 million or 4.2 percent of these are pure BEVs.

BEV production in Germany (in thousands)



New registrations of electric passenger cars in Germany



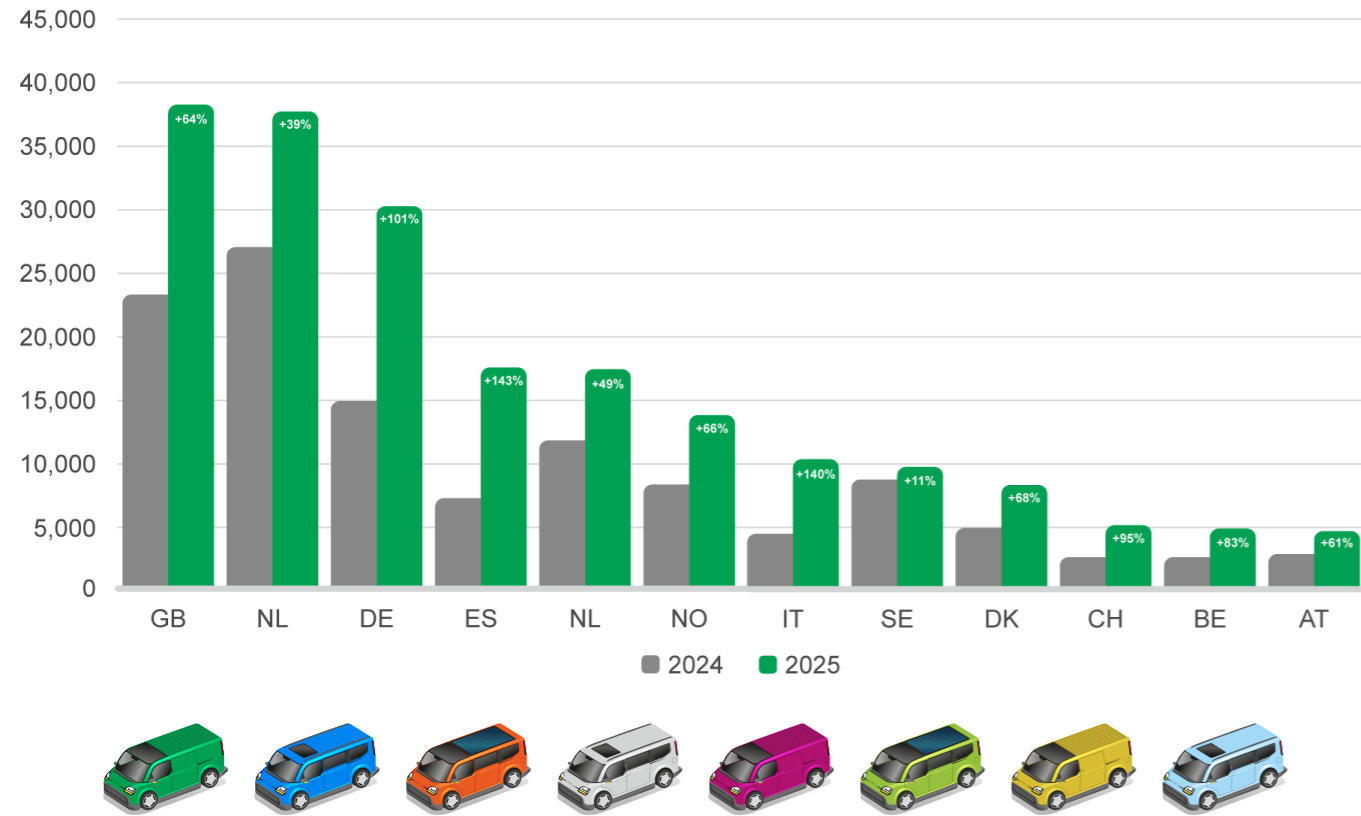
New registrations of light electric commercial vehicles double in Germany in 2025

With 30,302 new registrations of electric commercial vehicles up to 3.5 tons (+101 percent), a new record has been set in Germany; and for the first time, a significant number of PHEVs in the light commercial vehicle segment have also been newly registered (2025: 6,277; 2024: 310). The market share of German manufacturers rose from 60 percent (2024) to 63 percent. Europe-wide,

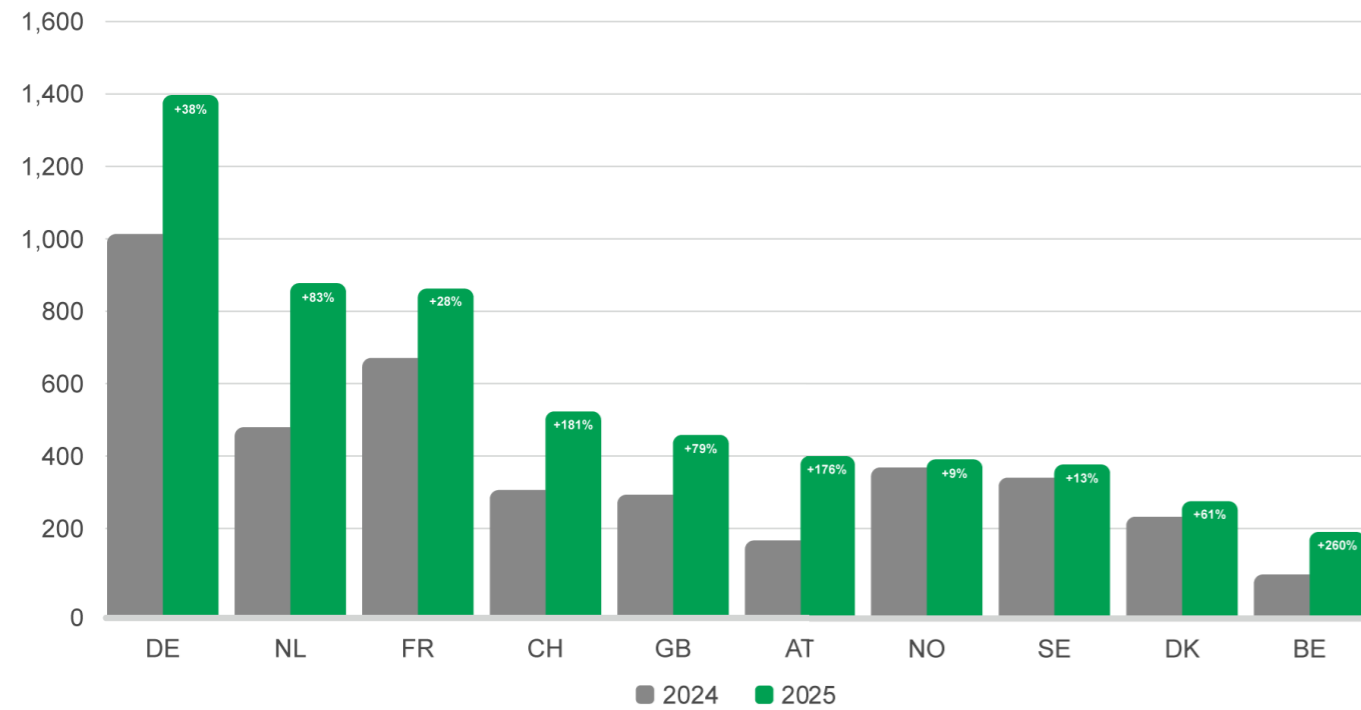
49 percent of new registrations come from the markets France, UK, and Germany. For heavy-duty commercial vehicles, 49 percent of new registrations also come from the three largest European markets: Germany, the Netherlands, and France. Although the German market only recorded an increase of 38 percent, it remains by far the largest market for electric trucks in Europe.



Development of electric commercial vehicles < 3.5 t



Development of electric commercial vehicles > 16 t



Announcement of the purchasing subsidy for electric passenger cars

The electric vehicle subsidy approved by the Coalition Committee on October 8 represents a fundamentally positive step in the right direction, yet it can serve as merely one building block in supporting the market ramp-up. The ready availability of charging infrastructure, affordable charging electricity, additional user benefits, and favorable business conditions for companies remain crucial to the sustainable expansion of electromobility.

On January 19, 2026, Federal Minister for the Environment Schneider presented initial details regarding the purchasing subsidy. Depending on income, household size, and vehicle type, funding between 1,500 and 6,000 euros is available.

Depending on income and family size, the subsidy program also supports vehicle leasing with grants of up to 6,000 euros. In the view of VDA, the fact that the vehicle registration date—rather than the purchase date—serves as the decisive cut-off date for eligibility constitutes a flaw. Consumers should have certainty regarding whether they will receive the subsidy at the very moment they purchase the car. Furthermore, VDA considers the exclusion of used cars from the purchase subsidy to be an area requiring improvement ahead of the program’s scheduled evaluation in 2027.

Charging point density stagnates

The gap between supply and demand in the public charging infrastructure for electric passenger cars in Germany has slightly decreased, as shown by the [VDA E-Charging Grid Ranking](#): On July 1, 2025, an average of 17 electric passenger cars came to one publicly accessible charging point. Consequently, the ratio remains largely unchanged compared to the previous ranking (data as of July 1, 2024). The figure improved only marginally, moving from 17.3 to 16.7 electric passenger cars per charging point. While there are indeed significantly more public charging points in Germany on a year-on-year basis, the pace of expansion has slowed. This flattening of the expansion rate is also evident, albeit somewhat less pronouncedly, when examining the addition of fast-charging points, which are capable of charging significantly more electric passenger cars in the same amount of time than standard charging points.

When examining the average charging capacity available per electric passenger car in Germany—a metric used to track the expansion of publicly accessible charging infrastructure—the VDA analysis reveals a significant improvement. Specifically, the calculated available charging capacity per electric car rose from 1.46 kW on January 1, 2023, to 2.49 kW on November 1, 2025. This means that, on average, significantly more public charging capacity is available to individual electric vehicles today than was the case just two years ago—a development attributable to the expansion of higher-capacity charging points, particularly within the fast-charging sector. Since August, 2025, however, this ratio has largely stabilized, suggesting that the recent growth in charging capacity has roughly kept pace with the total number of electric cars in operation. In other words: currently, the expansion of charging infrastructure—measured in terms of capacity—is proceeding at roughly the same pace as the ramp-up in new electric vehicle registrations. The expansion of charging infrastructure should ideally outpace the growth in the vehicle fleet.

Need for charging infrastructure expansion in Germany remains great

As of December 1, 2025, a total of 188,340 public charging points were registered with the Federal Network Agency (BNetzA) in Germany. Of these, 46,681 were fast-charging points with an output of over 22 kW—including 33,741 high-performance charging (HPC) points with more than 149 kW. While the number of HPC points, in particular, increased significantly over the past 12 months (+39 percent), the expansion of the charging infrastructure is nevertheless becoming increasingly concentrated within specific power classes. The expansion of the normal charging points decelerated further and, with growth of only 12 percent, was far below the previous year’s level. The share of HPCs at all charging points rose to 17.9 percent (2024: 15.1 percent), although this structural shift cannot compensate for the growing demand. Despite continued expansion, the supply situation remains strained. With around 3.125 million registered electric passenger cars, charging point density continued to stagnate as of December 1 at approximately 60 charging points per 1,000 electric vehicles. The 12-month rolling average of 702 new charging

points per week, despite a temporary increase in November to 871 points per week, is insufficient to keep pace with the growth of the vehicle fleet. At the current rate of expansion, there would be about 375,000 charging points available by 2030. This falls far short of the calculations by the Nationale Leitstelle Ladeinfrastruktur (NLL), which assumes a demand of between 380,000 and 680,000 charging points by 2030 in its study [“Charging Infrastructure after 2025/2030: Scenarios for the Market Ramp-up.”](#) The expansion monitoring service “AusbauMONITORING” from the NLL compares the public charging grid expansion in all 400 administrative districts (population, area, stock, and output) with the demand in 2025, 2030, and 2035.

Comprehensive, publicly accessible charging for commercial vehicles, coaches and buses

Charging infrastructure that meets their specific requirements is essential to the market ramp-up of electric trucks and buses. Manufacturers already have the corresponding models in production; now, the necessary framework conditions must be implemented. However, there remains a lack of comprehensive, publicly accessible charging infrastructure for commercial vehicles, particularly in long-haul transport.

The Truck Charging Infrastructure Monitoring report by the NLL identifies 248 charging points across 64 locations (as of August 31, 2025). In a European comparison, Germany ranks third behind Sweden and the Netherlands in charging infrastructure for heavy-duty commercial vehicles, according to the European Alternative Fuels Observatory (EAFO) (with 257 charging points, 54 of which are exclusively for heavy-duty commercial vehicles; as of December 2025). Across Europe, the coming years will require approximately 35,000 publicly accessible charging points with a capacity of > 800 kW for commercial vehicles and buses, a significant portion of which should be located in the vicinity of highways. Of these, approximately 15,000 charging points with a minimum capacity of 350 kW should be designed primarily for trucks and situated in industrial areas and logistics centers, while around 14,400 charging points with a capacity of < 350 kW should be tailored to intercity buses and coaches, located at tourist attractions and in city centers. EU legislation and national initiatives do not sufficiently focus on developing this infrastructure.

Bidirectional charging: key technology for attractive electromobility and an efficient energy system

Bidirectional charging—the charging and discharging of electric vehicles—is a pivotal technology for the future. It enhances the appeal of e-mobility by lowering charging costs and unlocking additional revenue potential within electricity markets. For the energy system, bidirectional charging facilitates the better integration of renewable energies; it boosts grid stability and, in doing so, reduces the need for grid expansion. According to a study by Agora Energiewende, cost savings are estimated to reach 5 billion euros by 2035 if the flexibility offered by electric vehicles, heat pumps, and energy storage systems is utilized more effectively.

To pave the way for the market launch of bidirectional charging, the automotive industry has taken the initiative, making substantial investments in the development and testing of bidirectional electric vehicles as well as the necessary software architectures. In Germany today, more than sixty available battery-electric vehicle models already feature initial bidirectional charging capabilities, and over twenty models are approved for vehicle-to-home or vehicle-to-grid applications—a trend that is continuing to rise. It is therefore all the more crucial that policymakers implement further measures to facilitate the technology’s entry into the mass market.

Charging Infrastructure Master Plan 2030

The Charging Infrastructure Master Plan that the federal government enacted in November, 2025 contains a range of proper measures that can help make electromobility more attractive to consumers, thereby supporting the market ramp-up of electric vehicles. It will be crucial that these measures are now implemented rapidly and consistently. These positive measures include, in particular, greater transparency regarding charging prices and the acceleration of approval procedures—steps that can collectively increase the pace at which charging infrastructure is expanded.

Targeted support measures for the charging infrastructure for multi-party buildings and further expansion of the charging grid for e-trucks along the highway at serviced and unserved rest areas.

Robust charging infrastructure is central to climate-friendly commercial vehicles. The commitment within the Charging Infrastructure Master Plan 2030 to the continued expansion of the charging network for electric trucks—specifically along highways at both serviced and unserved rest areas—is therefore expressly welcomed. To ensure competitive charging rates for trucks, the existing pass-through model should be retained. Furthermore, project developers at the relevant locations should be empowered to independently install a greater number of charging points than currently stipulated by the NLL demand planning. The planned long-term concept for highway charging infrastructure can serve as a guide for stakeholders in this regard and should therefore be developed without delay.

Furthermore, improvements are needed within the growing segment of light electric commercial vehicles: The ramp-up of light commercial vehicles requires a dedicated package of measures that specifically targets delivery zones, commercial districts, and SME depots. Conversely, it is to be welcomed that the Master Plan provides for improved framework conditions for bidirectional charging technology which the Bundestag further strengthened and made more attractive to consumers at the end of 2025 through amendments to the Energy Industry Act and the Electricity Tax Act. Particularly in urban areas and certain rural regions, the expansion

of charging infrastructure must continue to be driven forward with great urgency. For it is precisely in these places that the insufficient availability of charging points still constitutes a significant barrier to purchase. Against this backdrop, the rapid and practical implementation of the EU Energy Performance of Buildings Directive (EPBD) assumes central importance, as it aims to mandatorily advance the expansion of charging infrastructure in both residential and non-residential buildings. Only if households in multi-apartment buildings—as well as employees at their workplaces—gain access to charging infrastructure within their private environments will electromobility become attractive, accessible, and affordable for all segments of society. In the sector of heavy-duty commercial vehicles and coaches, the challenges regarding grid connections are particularly substantial. Here, accelerated planning and approval procedures are essential. In particular, the immediate priority is to future-proof electricity grids and capacities to ensure that the requisite power outputs can actually be delivered. Regarding the expansion of charging infrastructure in Germany, all relevant stakeholders must fulfill their respective roles. These stakeholders include filling station operators, the housing sector, parking facility operators, the retail sector, charging point operators, the energy industry, and, of course, the automotive industry.

Companies in the automotive industry are actively involved in numerous projects expanding the charging infrastructure. Among other things, through initiatives such as Ionity and Milence, they are helping to drive forward the development of charging infrastructure for both passenger cars and commercial vehicles.



Innovation through open collaboration: Open-source software as a key element for speed, efficiency, and success

The automotive industry is facing a profound transformation: Vehicles are increasingly software-operated, innovation cycles are growing shorter, and complexity is increasing. No company can overcome this shift toward software-defined vehicles (SDVs) alone.

In light of these circumstances, VDA initiated a [Memorandum of Understanding \(MoU\)](#) in 2025. Initially, [eleven OEMs and suppliers](#) agreed on a pre-competition partnership in the development of non-differentiating software on an open-source basis. The MoU was signed at the 29th International Automobil-Elektronik Kongress (AEK). By early 2026, the initiative was expanded [to include 32 global companies](#), including companies from Asia and the Americas, as well as stakeholders from the commercial vehicle segment.

With the growing importance and increasing complexity of vehicle software, it will be critical to the industry's success that the speed of development and efficiency be increased and that the highest standards of quality, security, and reliability are met.

A considerable portion of the vehicle software cannot be directly experienced by the end user and does not provide a differentiating market advantage. These non-differentiating software components are thus particularly suited for joint development in an open and collaborative ecosystem.

As part of the project "S-CORE" by the Eclipse SDV Working Group, the involved companies are developing these software components in a transparent and manufacturer-independent environment of the Eclipse Foundation in advance of any competition. Instead of conventional, detailed specifications, the initiative makes use of executable open-source code as a basis for standardization.



This code-first approach promotes interoperability, reduces the labor of development by preventing double work, and accelerates the transition of innovations into the series.

In order to ensure the functional security required for automotive serial applications, a pioneering open-source development process was devised that is specifically targeted toward the preparation for certification according to relevant standards. The resulting software ecosystem is open both in regard to the connection with pertinent industry standards and for contributions and involvement by other European and international companies.

The schedule for the initiative plans the availability of a software scope for serial development of a platform for autonomous driving as early as 2026. The modular software toolkit can be individually adapted or expanded, and provided to the industry as a tailored distribution for serial development. This allows manufacturers and suppliers to focus on differentiating functions while fundamental software components are jointly developed and maintained.

The activities constitute a major building block for the EU's strategic action plan for a sovereign and interoperable SDV architecture.



"Together, we are building a sustainable and effective software ecosystem that is open, transparent, and secure," says VDA Managing Director Marcus Bollig.

Globally harmonized legal framework for automated and autonomous driving

Through close cooperation by VDA and its members, the global legal framework for automated and autonomous driving was finalized in 2025. It is planned to enter into effect in the EU early 2027. The goal is to create internationally uniform requirements for the approval and use of automated driving functions, thereby improving the innovation security and competitiveness of the automotive industry.

Two central regulatory texts were drafted in parallel for this: The first is a Global Technical Regulation (GTR) for markets like the USA, Canada, and China. The corresponding draft of a GTR on automated driving systems (ADS) was developed as part of the UNECE Working Group GRVA and forms the basis for a globally harmonized technical regulation: [Global Technical Regulation on Automated Driving System \(ADS\)](#). Secondly, a United Nations Regulation (UN-R) for regions like the EU, Japan, and the United Kingdom was devised. This supplements the existing UNECE type approval system; one central example is UN Regulation No. 157 ([Automated Lane Keeping Systems – ALKS](#)), which defines binding requirements for automated driving functions.

At the center of this work was the international harmonization of technical requirements and testing methods for automated systems to facilitate their global use. High-level international and multilateral agreements are taking place for this purpose, with which approval processes, security requirements, and technical standards for automated systems will be coordinated with each other.

This legal framework thus marks the preliminary high point of years of international cooperation and forms a central basis for the automated mobility of the future. Parallel to this regulatory progress, a concrete milestone was reached in 2025 with the international approval of a driver assistance system in accordance with UN Regulation No. 171 (DCAS): The BMW Group is the first company in Germany to receive approval for a "hands-off" assistance system that can be used in many countries in the future.

Standardized regulation allows international scaling and market introduction

The harmonization of technical regulations at the global and European level thus forms the basis for economic scalability. It allows the member companies in VDA to develop, homologate, and internationally distribute their products under the same regulatory framework conditions. This is a critical factor for innovation, security, and competitiveness. Under the same regulatory framework conditions.

Digitalization in the automotive industry: focus on security, data, and innovation

Digital vehicles require clear cybersecurity regulations

The reform of computer criminal law is being further delayed. A draft bill submitted by the Federal Ministry of Justice in November 2024 which, following the stakeholder consultation, incorporated key concerns of VDA, was not introduced into the parliamentary process due to the premature change of government. The 2025 Coalition Agreement does include the reform, but concrete steps for implementing it have not yet been taken. Nevertheless, the issue is no less urgent. Vehicles are becoming increasingly digital, interconnected, and automated. Electronics, software, and current data are key requirements for modern vehicle functions and driving comfort. As a result, cybersecurity is becoming more important as vehicles have to be protected against a range of potential attacks ranging from theft of entire vehicles or components to access to sensitive vehicle data and manipulation of vehicle functions.

Cybersecurity in the automotive industry is a significant component of individual and societal security. Companies are continuously advancing their precautionary measures accordingly, as seen in the growing number of regulatory stipulations and legal requirements for automotive cybersecurity along the entire value chain.



At the same time, the outstanding amendment to computer criminal law is leading to legal uncertainty for independent security researchers. This makes it unnecessarily difficult for actors in the automotive industry to effectively implement the existing and increasing requirements in the area of cybersecurity. Security researchers must have the option to uncover cybersecurity vulnerabilities without the risk of a penalty, provided this is done with the intention of preventing harm and the results are addressed responsibly. However, the impression that the measures taken in 2024 have already sufficiently regulated this issue is inaccurate. VDA is thus pressing further for an urgently needed amendment to computer criminal law.

EU Data Act: new obligations, proven concepts, and growing challenges in data transfer

The extensive regulations in the EU Data Act have been binding in Germany since September 12, 2025. These obligate automotive manufacturers to provide their customers with a wide range of vehicle data, provided they wish to use these data themselves or for third-party services.

VDA supports this approach with the [ADAXO concept](#) (Automotive Data Access, Ex-tended and Open) published in December, 2021. ADAXO creates a framework for trustworthy and transparent data transmission along the entire automotive value chain. Manufacturers, suppliers, service providers, and end users can thus benefit from more efficient use of data while data protection and data security remain ensured. One core element of ADAXO is that direct access to vehicle data for third parties is not mandatory; instead, the manufacturer provides the data outside of the vehicle itself.

Beyond the EU level, international transfer of data is also becoming increasingly important. For global automotive manufacturers, data from research and development locations abroad are just as relevant as field data from vehicle fleets that are used internationally. However, current geopolitical developments and growing protectionism are posting new challenges to international data transfer. VDA is observing these developments with concern.

Under these circumstances, close cooperation between industry, regulatory bodies, and further stakeholders are required in order to tap the potential of digitalization and data usage within reliable, legal parameters.



NIS-2 implementation: more responsibility and new obligations for the automotive industry

The framework for cybersecurity in Germany was greatly expanded by the national implementation of the European [NIS-2 Directive](#) through the amendment of the act by the Federal Office for Information Security (BSIG). The law entered into effect in December, 2025 and since then covers a significantly larger number of important and particularly important facilities.

For the automotive industry, the BSIG amendment entails a broad expansion of the regulatory requirements along the entire value chain. In addition to fleet manufacturers, many suppliers, software providers, and mobility service providers can also be included in its purview of application. Binding measures for risk management, reporting obligations in the event of major security incidents, and greater responsibility by

corporate leadership for cybersecurity, among other things, are included in the amendment. VDA closely followed the national implementation of [NIS-2 in the BSIG](#) and contributed the perspectives of the automotive industry in the political dialogue. The goal is a practical application that considers the existing, industry-specific regulations, avoids double regulations, and simultaneously ensures a high level of cybersecurity.

Digital mobility: Setting the regulatory course for interconnected and automated transport

Digitalization of road transport poses high demands of law, administration, and industry. Interconnected and automated vehicles require reliable data, clear responsibilities, and practicable regulations. In the year of reporting, VDA was thus heavily involved in [central legislation processes](#) in order to equally strengthen transport security, capacity for innovation, and international competitiveness.

In the context of the amendment to the Road Traffic Act, VDA particularly welcomed the increased use of digital data for accident research. At the same time, it emphasized that new investigation and reporting obligations must be designed in a proportionate manner. A focus on security-relevant incidents, the use of existing official data flows, and abstaining from double structures are essential for limiting bureaucracy and using resources efficiently.

VDA also constructively supported the revision of the Intelligent Transport Systems Act. Clear responsibilities, interoperable data structures, and a gradual implementation of new data obligations create planning predictability for manufacturers. At the same time, the protection of proprietary and security-relevant data remains a core requirement for investments in interconnected and automated mobility solutions.

Overall, VDA worked to further develop the regulatory conditions such that security, data availability, and technological innovation become sustainably interconnected.

Importance of commercial vehicles, trailers, and structures for freight transport and logistics

Commercial vehicles play a key role in business and passenger transport, and cover a heterogeneous group of light and heavy-duty vehicles. These include transporters, vans, trucks, tractor trailers, trailers, and buses. Commercial vehicles are distinct for their high annual output through daily use. Because of this, there are special technical and regulatory requirements that set them apart from passenger vehicles in many ways.

Freight and passenger transport could not be maintained in Europe without commercial vehicles. They ensure the daily transport of goods and people over short and long distances, making them essential to a functioning economy and society. Road freight transport performs about 75 percent of all freight transport in Europe, and it is predicted that their output will increase. Given that there are strict structural limits to any significant shift of road transport to other modes of transport, policymakers are called upon to shape the framework conditions in such a way that road freight and passenger transport can be consistently developed to become more environmentally friendly, efficient, and sustainable. Because of their high output and use, commercial vehicles contribute significantly to CO₂ emissions in road transport. About one-third of direct greenhouse gas emissions in road transport is attributed to commercial vehicles.

Here lies a key point for climate protection in the transport sector. Sustainable reduction of CO₂ emissions requires a broad application of climate-friendly drive concepts in the commercial vehicle segment, in particular trucks and buses. This requires further development of the

vehicles as well as swift expansion of the necessary infrastructure for electrical charging and hydrogen fueling. The European commercial vehicle industry stands for highly innovative technology, hundreds of thousands of jobs, and specialized industrial value creation. Targeted political impetuses are required for the segment to secure its global leadership position in technology and to make an effective contribution to achieving the climate goals. This necessitates realistic and plannable CO₂ reduction projects flanked by suitable conditions for avoiding competitive disadvantages in the global environment.

Targeted measures for successful transformation of the commercial vehicle sector

Battery-electric city buses, vans, transporters, trucks, and tractor trailers that aid in reducing CO₂ emissions have increasingly been sold in Europe for several years. Commercial vehicle manufacturers have invested in new production facilities and technology to this end. At the same time, the conditions for acquiring and operating zero-emission vehicles are still insufficient. The public charging infrastructure for heavy-duty commercial vehicles is still being established, while depots face high investment costs for grid connections. There are also high costs for public charging and high vehicle acquisition expenses that are further compounded by residual values that are difficult to forecast. Regulatory factors have an inhibiting effect, including the postponed introduction of the CO₂ Emissions Trading in the Transport Sector (ETS 2) until 2028, and CO₂ components in tolls that have, to date, only been implemented in a few member states.



Coupled with the precarious macroeconomic situation, these factors have so far kept the new registrations of zero-emission vehicles in freight transport at a low level. The market run-up to emission-free commercial vehicles requires economically durable energy prices. The keys to achieving this are a Europe-wide toll exemption for emission-free commercial vehicles and a reduction of the electricity tax, including for operators of commercial vehicle fleets. Furthermore, the energy tax should be configured such that charging power, hydrogen—regardless of drive technology—and renewable fuels benefit from long-term tax relief.

The CO₂ fleet regulation for heavy-duty commercial vehicles must be evaluated as soon as possible, and well before the current legal deadline of late 2027.

Progress to date must be assessed and the past results must be entirely evaluated when establishing the charging and hydrogen fueling infrastructure this entails.

The CO₂ regulation for commercial vehicles is currently designed in a manner that is too rigid and one-sided, to the detriment of manufacturers. A flexible, fair, and appropriate configuration of the sanction system, under consideration of all affected vehicle segments, is necessary in order to not jeopardize the transformation.

SMEs in the transport sector especially need additional incentives to be able to operate emission-free commercial vehicles economically and establish the necessary charging and hydrogen fueling infrastructure in the depots.

Charging and fueling infrastructure as a key for the electrification of commercial vehicles

The electrification of commercial vehicle fleets requires a durable charging infrastructure at the operators' locations, in freight distribution centers, depots, terminals, operating yards, parking areas, and truck stops along the main transport routes. The planning and initial establishment of public charging infrastructure for commercial vehicles on German highways are one of the first major steps toward supporting the transformation.

Against the backdrop of high charging output for heavy-duty commercial vehicles and the associated demands of the infrastructure, the swift expansion of grid connections—including construction subsidies—and targeted funding of charging points must take priority in the coming years. This applies accordingly to the establishment of a durable hydrogen fueling infrastructure. The necessary approval processes must be considerably streamlined.

Consistent alignment with the practical needs of transport and logistics companies is critical. This includes the option for shared use of the charging and fueling infrastructure within the transport association. Grid operators and municipalities should be obligated to provide the necessary connections in a timely manner, which requires targeted support from the state.

Hydrogen and renewable fuels as key options for climate-neutral commercial vehicles

Commercial vehicle manufacturers and suppliers see hydrogen as a medium- to long-term opportunity, especially for making long-distance transport CO₂-neutral. Hydrogen can be produced from renewable energy sources and can be transported and stored in large quantities. Its use in fuel cells or hydrogen engines in trucks and buses allows high flexibility and exhibits performance characteristics comparable with conventional engines. Hydrogen-powered commercial vehicles can also be fueled quickly and cause only marginally longer idle times as diesel-powered vehicles. The use of hydrogen in heavy-duty commercial vehicles has been tested in practice. However, the limited availability of green fuel and the still low number of fueling opportuni-

ties for trucks and buses are inhibiting broader market introduction. As a result, a core network of hydrogen fueling points must be established quickly. These must serve all vehicle classes, offer both liquid and gaseous hydrogen, and be both scalable and economically usable. A reform of the Energy Taxation Directive, an accelerated review of the legal acts governing the production of Renewable Fuels of Non-Biological Origin (RFNBOs), and a Molecules Import Act are necessary, among other things, to support this.

To address existing gaps in hazardous goods regulations, a key regulatory component has been added. With the inclusion of hydrogen propulsion in the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) in 2025, a fundamental prerequisite for the decarbonization of freight transport has been established. This amendment to the ADR simultaneously necessitates the introduction of a new UN regulation for vehicles and systems utilizing liquid hydrogen. With the participation of VDA and its members, this step was finalized in December 2025 within the UN Working Party on Passive Safety (GRSP). The new regulation is now proceeding through the administrative bodies and is scheduled to enter into force in early 2027.



In addition to electrification, renewable fuels—including hydrogen, RFNBOs, and biofuels—should be more strongly considered in select regulations. In particular, the crediting of CO₂-neutral fuels within the CO₂ fleet regulation for heavy-duty vehicles should take into account the increasing use of such fuels in the transport sector. Such an approach must encompass all CO₂-neutral fuels in accordance with the Renewable Energy Directive (RED).

Disproportionate CO₂ regulations burden the European trailer market

The trailer market in Europe is diverse and has become highly specialized in various ways over the past decades. This is reflected in the high number of special solutions and multifunctional applications of trailers in the market. The VECTO simulations conducted by manufacturers so far and the results of these show that the set CO₂ reduction targets of 10 percent for DA- and 7.5 percent for DB- and DC-type trailers are not in line with the needs of the customers. Examples of discrepancies between VECTO simulations and actual transport requirements can be found in the context of suitability for combined road-rail transport, beverage logistics, multi-zone temperature-controlled transport, the transport of coils and bulk goods, as well as highly flexible consolidated freight transport involving a wide variety of product classes. If, for example, a tail lift alone increases a trailer's CO₂ emissions by up to 1 percent due to its additional weight, this increase can no longer be offset by other measures. Therefore, at this juncture, the conclusion must be drawn that "VECTO Trailer"—and the inclusion of trailers in CO₂ fleet emission limits—generates false market incentives in many applications and potentially has an adverse impact on the trailer market in Europe.

It would be more sensible, in contrast to the current exclusive focus on energy efficiency, to aim for an assessment of transport efficiency for trailers that places greater emphasis on the trailer's structural design in relation to its intended use and the specific transport task. This assessment of a trailer must remove itself from the standard load cases calculated in VECTO and more specifically consider the actual use of the trailer. However, this should be possible for companies without red tape or additional certification procedures.

The legal penalty of 4,250 euros per g CO₂ and vehicle for non-adherence to the CO₂ targets is entirely disproportionate in the trailer market relative to the income generated in the entire industry, and ignores the circumstances of the EU trailer market. With net margins often under 5 percent, many trailer manufacturers see this legislation as an existential threat. This could lead to considerable job losses in Europe and a relocation of production to low-wage countries, and would have profound effects on the European Union and the existing value chain.



Framework conditions for weights, dimensions, and long-truck concepts

Another critical condition for a successful ramping-up of zero-emission vehicles is the comprehensive amendment of the 96/53/EC Directive on Weights and Dimensions. VDA explicitly supported the original proposal from the European Commission from 2023. It earmarked an increase of the total permissible weight by up to 4 tons, including an additional ton on the drive axle for zero-emission vehicles. Given the high battery weights, this would send an important signal in support of the transformation.

However, the member states submitted a clear veto in the Council and opposed this proposal. From the perspective of the commercial vehicle manufacturers, this puts battery-electric drives at a considerable disadvantage in favor of diesel-operated vehicles.

The VDA-initiated project EcoDuo in combined transport between Germany and Spain

The regular test operation of a combination of two coupled standard semi-trailers in Germany between the Megahub Lehrte and the Volkswagen plant in Wolfsburg demonstrated the considerable potential CO₂ savings with simultaneously low road strain, as there is no second semi-trailer.



The use of EcoDuo vehicle combinations can further enhance the appeal of pre- and post-haulage in combined road-rail transport. The transport of 44.8-foot standard semi-trailers on pocket wagons is already common practice in European rail freight transport. EcoDuo concepts must now be carried over into regular operation. This requires an amendment to the existing regulation concerning exemptions from road traffic regulations for vehicles and vehicle combinations of excessive length. The goal is to introduce a newly defined vehicle type "Type 6" for combinations with a length of up to 105 feet. These are to be used on a separately designated positive network, which specifically serves combined transport terminals.

Public bus transport: significance, financing, and drive technology

People in Germany use buses over 5 billion times every year, making it the second most important mode of passenger transport after passenger cars. In public transport, about half of all trips are taken by bus, making it the largest mode in this type of transport. Buses form the backbone of public personal transport not only in Germany, but worldwide.

Public road passenger transport is generally financed through public funds and is subject to strict budgetary requirements of the cities, municipalities, and countries in Europe. There is also a large private market in which buses are used, especially for travel, tourism, and domestic and international scheduled transport.

Electric and hydrogen-powered buses are a visible advertisement for new drive technology, both in urban and long-distance transport as well as travel. While city buses are already pioneers in the introduction of CO₂-free drives and many municipalities are increasingly electrifying their buses or transitioning to hydrogen-powered drives, there is a conflict of objectives in the coach market. Aligning the CO₂ targets of coaches with those of trucks, with a simultaneous lack of specific infrastructure targets for coaches under the AFIR, inhibits the transformation process.

To support the market ramp-up of climate-neutral buses, greater priority must be accorded within federal, state, and municipal budgets to the development of charging and hydrogen refueling infrastructure at operating yards, bus depots, stops, and tourist hotspots, as well as to a newly established purchase incentive scheme. The public sector should serve as a role model in this regard. In the awarding of public transport contracts and in procurement, the deployment of climate-neutral buses should become the standard. A prerequisite for this is long-term and adequate funding for municipalities.



Creating fair competitive conditions for light commercial vehicles

The segment of light (N₁) and heavy-duty (N₂) transporters is in the midst of the transformation, and numerous electric variants are increasingly reaching the market. In addition to applications in the skilled trades, field services, service delivery, and urban logistics, these vehicles are also of significance for commercial freight transport. When transitioning from vehicles with internal combustion engines to electric transporters, neither the payload nor the intended purpose may change.

Because of the heavy weight of the drive battery, however, the total permissible weight of electric transporters is increasing up to 4.25 tons with an unchanging usage load. They thus often exceed the current limit for

N₁ vehicles (3.5 tons) and are categorized as N₂ vehicles. In this class, they are required to be equipped with tachographs and speed limiters, among other things, although—with the exception of drive type—there is no change to their intended use. This significantly worsens their competitive position relative to N₁ transporters with internal combustion engines.

In order not to put the market ramp-up of electric transporters at risk, legal framework conditions are required that facilitate comparable competitive conditions for these vehicles as are afforded to conventional transporters with internal combustion engines. To this end, the European Commission presented initial proposals in 2025 that provide corresponding exemptions for electric transporters up to 4.25 tons. These proposals must now be swiftly implemented.



Transport Prognosis 2040: Increasing importance of freight transport (commercial vehicles) and urban mobility concepts



Roads remain the most important mode of transport

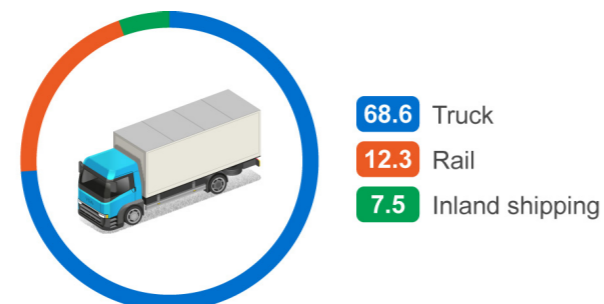
The Transport Prognosis 2040 from the Federal Ministry of Transport and Digital Infrastructure clearly shows in its base scenario that roads will remain the most important mode of transport going forward. According to the prognosis, trucks will make up a share of 73.9 percent in all freight transport output in 2040. It also forecasts that passenger cars will perform 68,6 percent of all passenger-kilometers. Public passenger road transport will provide 7.5 percent.

The road as a partner for other modes of transport

However, it is likewise clear that all modes of transport will be needed for the transport of passengers and freight. For example, the individual modes of freight transport have their own systemic advantages and disadvantages, making them particularly suitable for certain transport tasks. Trucks are largely so important for their flexibility and ability to form networks. This also makes it invaluable to other modes of transport,

such as railways, such as to take on pre- and post-haulage in combined transport. Railways and inland waterway shipping, on the other hand, are competitive for transporting high volumes or weights across long distances. One good example of this is the transport of factory-new passenger cars. The German automotive industry largely uses railways for this task. The modes of transport thus complement each other and jointly ensure the movement of goods.

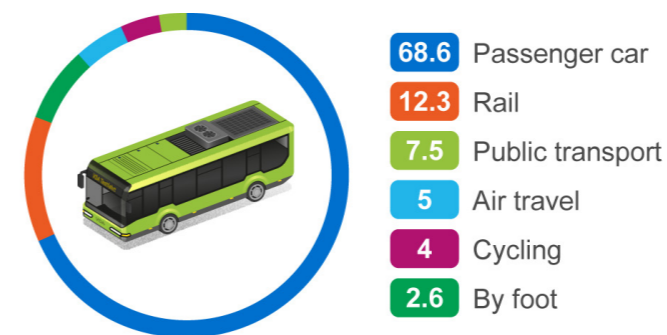
Shares in freight transport by mode in 2040



Passenger transport also relies on the various modes available. For example, the mobility environment in recent years has become more diverse, especially in urban agglomerations. Many people no longer rely on just one mode of transport, but rather decide between them as needed. As a result, the transport system is becoming increasingly shaped by a multimodal range of mobility services. Modes of shared mobility like car-sharing or ride-pooling can provide everyday alternatives to a personal car. This can also close the gap in availability between public transport and a personal car. The automotive industry is thus helping to drive the shift toward sustainable mobility. It is contributing with innovative

technology and services like special ride-pooling services. In the future, autonomous transport systems will also supplement existing public transport technology as a mobility solution. However, it is essential that people be given the freedom to determine their own form of mobility. They know best which mode of transport is optimal for a specific route. This can also often be a combination in intermodal transport chains. For this, the modes of transport must be well interconnected. This applies both to physical connections, such as through sufficient parking and rest areas, as well as to mobility hubs. Yet it also applies to virtual connections through corresponding interfaces and accessible information, booking, and payment systems.

Shares in passenger transport by mode in 2040



Transport requires infrastructure

For transport systems to function smoothly, all modes of transport require a functioning infrastructure. Too little has been invested in this area in Germany for a long time, and the need to catch up is immense. The study by BDI and BCG, “Transformation Pathways for the Industrial Nation of Germany,” estimates the need for additional investments for maintaining and expanding domestic transport routes by 2030 at over 100 billion euros. 4,000 bridges in the long-distance road network are in urgent need of renovation. Jams and slow traffic led to preventable excess fuel consumption and additional emissions. Damaged roads also pose risks to road safety.

Infrastructure policy should also consider the key role of road transport. Entirely abstaining from expansion and new construction in the road network entirely would thus not be beneficial. Investments will be necessary in the future, such as for removing bottlenecks in the road network. One central task remains the expansion of truck parking spots along highways. The need for space is increasing, not lastly as a result of the necessary expansion of the charging infrastructure for trucks.

The new Special Fund for Infrastructure and Climate Neutrality can make a significant contribution to breaking down the backlog of investments in traffic routes. However, this can only work if the financing supplements investments from the core budget instead of replacing them. Adjustments are needed here, because to date, only one in every three billion from the special fund actually translates into additional investments in transport infrastructure.

Structural reforms in roadway infrastructure financing, which the government has rightly undertaken, are also important. This is necessary for closing the road financing loop once more. To this end, toll revenues should be directly allocated to the Autobahn GmbH as its own revenue—much in the same way that track access charge revenues are currently handled within the rail network. A service and financing agreement with Autobahn GmbH could secure the funds for maintenance investments over a span of years, as is already the case with the railways. Infrastructure funds could also serve as a model for securing long-term roadway investments.

For this, it is important that each mode of transport be assigned a separate fund in order to consider the respective, specific conditions and prevent competition for allocation between them.

Optimizing the CO₂ toll

The CO₂ toll sets important incentives for investing in emission-free and low-emission trucks. The toll exemption for zero-emission trucks has now been rightly extended to 2031. In order to provide additional support to the transformation in roadway freight traffic, income from the CO₂ allowance should also be provided in the truck toll for defossilization measures in truck transport, such as for the charging and hydrogen infrastructure. Inclusion of trailers in the CO₂ toll would also provide the necessary incentives for investments in climate-friendly technology in this segment.

Avoiding driving bans

In order to meet the new EU immission caps for air pollutants, which come into effect in 2030, policy should focus on innovations. The electrification of vehicle fleets, just like the fleet replacement with Euro 7 vehicles, makes important headway for further improving air quality. Opportunities for digitalization for optimized transport management should also be utilized. Driving bans, which constitute a major infringement in people’s mobility and in goods transport, are not effective. Where appropriate, the option to extend deadlines for meeting limit values could be utilized for critical areas.

Considering rural spaces

Discussions of traffic policy often focus on urban agglomerations. This overlooks the fact that rural areas, and places on the border between rural and urban locations, are subject to different conditions than inner cities. In many cases, cars will remain essential in rural areas and trucks will remain the core mode of freight transport.



Buses as pillars of public transport

Public transport is an important component of a sustainable mobility system, with buses playing a key role. Over 40 percent of public transport trips are made by bus. The great strength of this mode of transport lies in that it can be operated economically even on routes with low traffic or passenger volume.

It is thus often the only relevant mode of public transport in rural areas. In cities, too, it generally provides the densest service network. Long-distance buses have represented an affordable mobility alternative for many people, including in Germany, since their introduction.



Economic performance and markets

Chapter 2

The automotive year 2025

2025 did not bring any long-term improvement in the conditions for the automotive industry. In addition to a general economic torpor in Germany and Europe, trade conflicts had a major impact on the situation. Wars in the Middle East and Ukraine continue to pose considerable risks. For example, trade routes in the Red Sea are only usable to a very limited degree. The pressure on Germany has intensified significantly. Investments in Germany are increasingly being postponed, slashed, or relocated elsewhere. Nothing has fundamentally changed in this regard under the new federal government, either. As a result, the gross domestic product grew by a meager 0.2 percent in 2025. In light of two preceding years of recession, this minuscule growth offers no reason to celebrate.

Looking at the automotive markets themselves, the largest sales region recorded different degrees of growth in 2025. In Europe and the USA, the business for new cars increased in the low one-digit range. Sales of passenger cars in China performed more strongly before dropping at the end of the year. Overall, the stronger development of Asian markets compared to the EU and USA continued in 2025.

The ramping-up of electromobility also made progress in 2025. New registrations in Europe (EU, EFTA, UK) were shaped by the CO₂ fleet regulation, which demanded a considerably increase in new registrations of electric vehicles. In the USA, the market for electric light vehicles was largely halted by a change to the funding program at the end of the year. China remained the leading market for electric cars. Unlike in previous years, however, the focus in the Chinese market shifted more toward BEV sales. Passenger car production in Germany rose by 2 percent in 2025. Production of electric passenger cars in particular grew strongly.

The share of electric passenger cars in overall production rose to 40 percent. Only in China was the share of electromobility in production higher than in Germany. In the global production ranking, calculated by units, Germany retained 5th place behind China, the USA, Japan, and India. The transformation of the industry continued, with domestic production of electric passenger cars rising by 23 percent in 2025. Production of PHEVs was stronger (+54 percent) than BEVs (+15 percent).

The most important export destination for passenger cars produced in Germany was the United Kingdom, followed by the USA, which had topped the export rankings the previous year. Italy and France were ranked 3rd and 4th, respectively. China, which ranked 5th in 2024, dropped down to 9th.

The major international markets for heavy-duty commercial vehicles developed quite heterogeneously in 2025. Market volumes noticeably decreased in Europe and the USA, while the Chinese market for this segment grew significantly. A range of different macroeconomic challenges had an immediate impact on commercial vehicle sales.



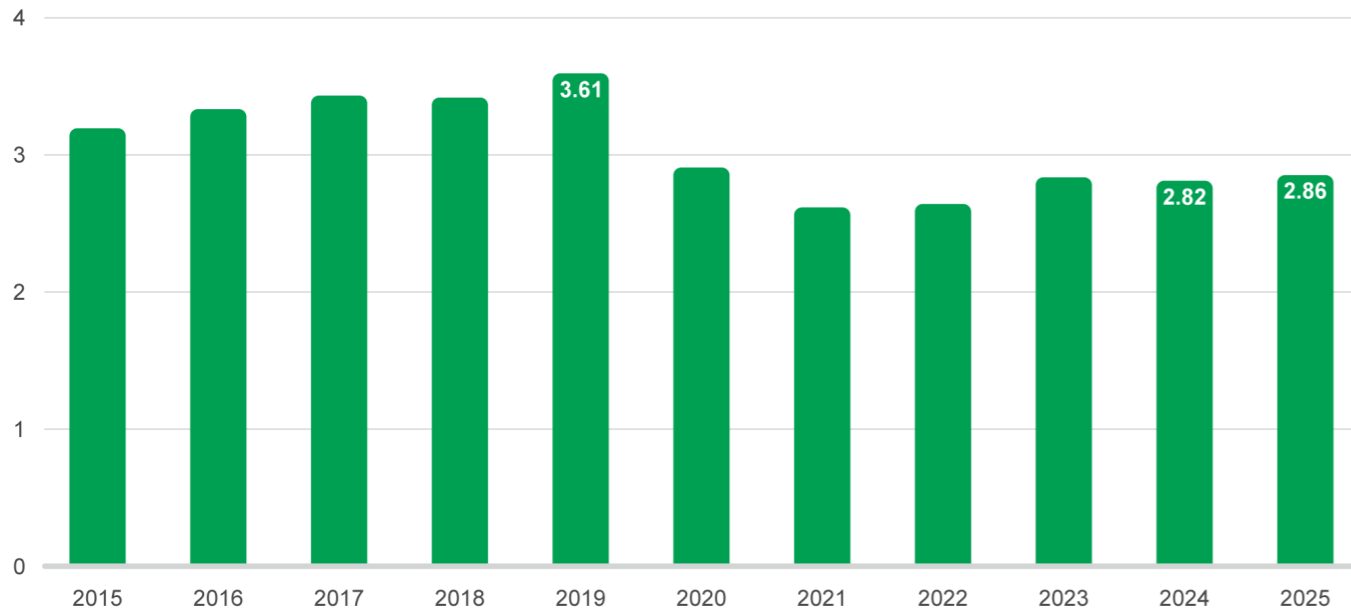
Germany

The German passenger car market grew by 1 percent in 2025 and achieved a market volume of nearly 2.9 million new registrations. In spite of the growth, the market is still 21 percent below the level from 2019, when 3.6 million new passenger cars were registered in Germany. Market dynamics in 2025 were shaped by a number of factors, among them the effect of the CO₂ fleet regulation. To summarize this briefly, it requires a 15-percent decrease in emissions by manufacturers compared to 2021. Over the course of 2025, the European Union approved a measure providing relief to OEMs through the averaging of results from the years 2025 to 2027. Adherence to this regulation requires greater shares of electric vehicles in the manufacturers' registrations. The BEV share among all new passenger car registrations thus rose to 19.1 percent in 2025 (2024: 13.5 percent). Plug-in hybrids also gained in importance, with their share rising from 6.8 percent in

Owner groups

2024 to 10.9 percent in 2025. There were shifts among individual owner groups in 2025 with regard to new registrations: Private owners reported 5 percent more new vehicles than in 2024. However, new registrations of by private owners were at a historically low level for the two previous years. New registrations by commercial owners were at zero for the second year in a row (±0 percent). Various developments occurred among the sub-groups of commercial owners. While 3 percent fewer passenger cars were newly registered via motor vehicle retail, new registrations by renters increased by 2 percent. The sub-groups of company cars developed in very different ways: Automotive manufacturing reached a 23-percent higher volume of new registrations over 2024, while the category of "other business" declined by 5 percent.

New passenger car registrations in Germany (in mil)



Source: KBA

Drive type

The transformation of the automotive industry becomes especially clear when looking at drivetrains. New registrations of electric cars (BEVs and PHEVs) in 2025 increased by 50 percent. 856,000 newly registered electric passenger cars marked a new record. However, this only exceeded the previous record year of 2022 by nearly 3 percent. Most new registrations were for passenger cars with an Otto engine (incl. mild hybrids), which fell by 10 percent and ended the year with a volume of 1.3 million vehicles. Diesel passenger cars (incl. mild hybrids) lost far more ground and fell by 16 percent. At 561,200 passenger cars, 1997 was the last year that so few diesel vehicles were newly registered. Growth in 2025 was largely driven by the CO₂ fleet regulation, which requires new vehicle fleets to emit 15 percent less CO₂ than in 2021 per year on average from 2025 to 2027.

Manufacturer countries

Vehicles from German corporate brands remain highly popular among consumers. In 2025, their market share was at 69.8 percent and thus slightly higher than in 2024 (68.4 percent). In all, about 2 million new vehicles with a "German logo" were registered. At 243,400 newly registered vehicles, sales by French manufacturers were below the level from 2024 (-3 percent). Their market share sank from 8.9 to 8.5 percent. Japanese manufacturers were one of the groups that lost the most ground in 2025 with 218,100 new vehicles. Their sales fell by 10 percent and their market share thus declined to 7.5 percent (2024: 8.4 percent). Korean manufacturers achieved a market volume of 157,200 new vehicles in 2025 (-6 percent) and reached a market share of 5.5 percent after having reached 5.9 percent in 2024. Sales by Italian manufacturers fell by 3 percent to 64,800 passenger cars, and their market share fell from 2.4 to 2.3 percent. Chinese manufacturers achieved a sales volume of about 61,000 passenger cars and a market share of 2.1 percent.

Vehicle segments

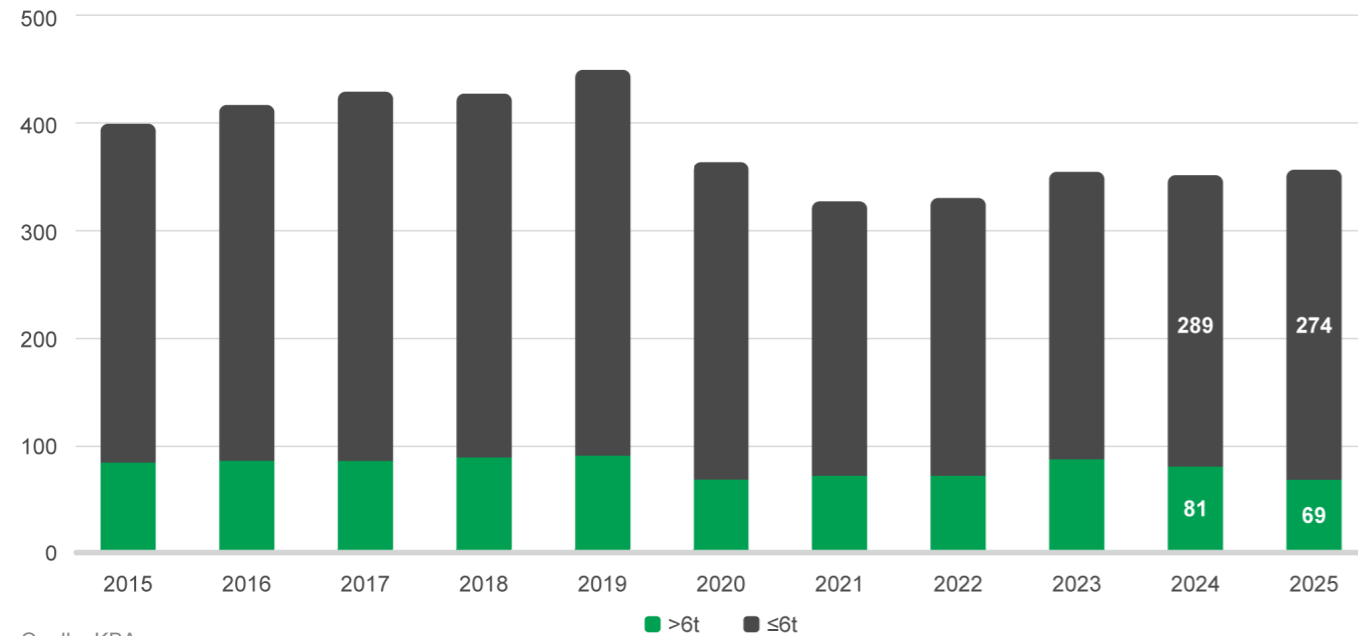
New registrations by vehicle segments were very heterogeneous in 2025. The market volume of the upper mid-size class grew most strongly (+37 percent), followed by utility vehicles (+15 percent) and all-terrain vehicles and SUVs (+8 percent). The greatest declines in new registrations were recorded in large vehicles (-23 percent), sports cars (-22 percent), and microcars (-17 percent). Measured by total volume, all-terrain vehicles and SUVs once again formed the largest category of vehicles in 2025. This diverse segment, which includes vehicles of a wide range of sizes, reached 1.3 million passenger cars and made up 44.2 percent of all new registrations (2024: 41.5 percent).

Heavy-duty commercial vehicles

A total of 69,000 heavy-duty commercial vehicles weighing over 6 tons were newly registered in Germany in 2025, marking a decrease of about 14 percent from 2024. This further widens the gap in the market from the pre-coronavirus level in 2019 (91,400 new registrations, the highest sales volume since 2008). The gap between 2025 and 2008 is now at 25 percent.

New registrations rose in the second half of the year and recorded growth of 7 percent, although this was not sufficient to compensate for the poor first half of the year in which sales fell by about 29 percent. February marked the low point of the year with 4,700 heavy-duty commercial vehicles (-34 percent). This marked the worst February performance since 2010. This decrease is partially due to the relatively high reference values from the preceding years and the poor economic situation. However, the market rebounded starting in August, 2025, although this is linked with the poor second half of 2024. The market recorded the highest percent increase in December with +27 percent, reaching 5,600 units. June, at 7,000 units, was the month with the highest level of registrations in 2025, although at a minus of 45 percent. This minus can be explained by the reference value from 2024, when June was by far the strongest month since June, 2019.

Nfz-Neuzulassungen in Deutschland (in Tausend)



Quelle: KBA

However, this growth was primarily attributed to registrations in relation to the introduction of the General Safety Regulation, which has been binding since June 7, 2024.

The segment over 16 tons also recorded a decrease of 12 percent among new registrations. This segment thus achieved a level of nearly 53,100 units in 2025, 7,100 units below the level of 2024 and once again under the value of 2019. The share of commercial vehicles over 16 tons among all new registrations of heavy-duty commercial vehicles over 6 tons in Germany was 77 percent, and thus higher than the level from 2024. The marked decline in new truck registrations in Germany in the first half of 2025 is primarily due to weak economic growth and the resulting withholding of investments among transport and logistics companies, which have postponed new acquisitions.

Electric commercial vehicles are becoming increasingly important; heavy-duty electric commercial vehicles over 16 tons made up about 3 percent of all new registrations in 2024. With regard to unit numbers, the German market is the largest electric market in Europe at 1,400 units newly registered in 2025.

This is also the only market in the EU, EFTA, and UK to exceed the mark of 1,000 units. Transporters had to reach a little less deep into their pockets than in 2024 when at the pumps in Germany. On an annual average, one liter of diesel cost 1.61 euros and was thus 4 cents or nearly 2 percent cheaper than in the previous year. According to ADAC, 2025 was the third year in a row with falling gas prices. Diesel cost the most in January and February of 2025, at 1.68 and 1.69 euros, respectively. It was at its cheapest in May with a price of 1.56 euros.

Light commercial vehicles

In 2025, the German market for light commercial vehicles (up to 6 tons) recorded its first decline since 2022. New registrations in 2025 fell by 5 percent to 274,300 units, a decrease of 14,500 vehicles. The market is thus on par with 2020, when 274,400 units were newly registered. The market is still 37,700 units shy of the pre-coronavirus year 2019 (-12 percent of the market volume from that year). The German market for light commercial vehicles first surpassed the mark of 300,000 units in 2019.

This was followed by a three-year period of declining market volumes (2020: -12 percent; 2021: -1 percent; 2022: -13 percent), especially as a result of the economic impacts of the coronavirus pandemic. The tide turned in 2023 and 2024, although the rebound did not carry over into 2025. Similar to heavy-duty commercial vehicles, there was a double-digit decline of -15 percent in the first six months of the year, while the positive second half of the year only slightly improved the overall picture with a moderate increase of 5 percent. September, 2025 was the month with the strongest growth (+23 percent and a volume of 23,800 units). The positive trend continued in November with an increase of 1 percent to 24,700 units, making it the month with the highest number of registrations in 2025.

The market for electric light commercial vehicles expanded considerably in 2025: With an increase of 102 percent to a volume of 30,300 units, the German market for electric light commercial vehicles is the third largest market in the EU, EFTA, and UK. Vehicles in this segment weighing up to 3.5 tons made up 11 percent of all registrations.

German bus market

New registrations of buses weighing over 8 tons increased by 42 percent in Germany in 2025, reaching 6,196 units—a level not reached since the years following German reunification. One reason for this dynamic growth was the purchases that had been postponed due to the discontinuation of subsidies in 2023 (following the Constitutional Court ruling on the Climate and Transformation Fund). Currently, electric buses are once again being subsidized by the state, covering up to 80 percent of the additional costs compared to diesel buses.

The coronavirus more or less brought long-distance bus transport to a standstill. In Q₃ 2025, the passenger-kilometers in scheduled long-distance transport rose by 3.4 percent to 1.045 billion.



The Clean Vehicle Directive regulates the acquisition of city buses by public contracting authorities in the European Union. It sets increasing minimum quotas for alternative drives (especially including e-buses) during fleet modernization. This has had a positive effect on the share of alternative drive technology among new bus registrations in recent years. New registrations in 2025 show that the funding has borne fruit, and electric buses are becoming increasingly significant. The share of electric buses in the overall market rose to 26 percent (2024: 16 percent). Buses that run on alternative fuel sources made up 42 percent of all new registrations in total, while diesel buses made up 58 percent.

German trailer market

The German trailer market experienced another decline in 2025. New registrations of trailers sank to 256,200 units, a decrease of 9,800 vehicles or 4 percent compared to 2024. This marks the fourth successive year of decline for the market. 2013 was the last year when fewer trailers were newly registered (247,900 units). The overall economic climate continued to have a dampening effect on market dynamics.

The sub-segment of multi-axle trailers, which was still stable in 2024, was especially impacted. However, last year, it recorded a 9-percent decrease to 21,500 new registrations. The semi-trailer sub-segment, which in 2014 had reached the same level as 2013, also declined by 7 percent to 25,500 units.

Asia

Chinese passenger car market

The Chinese passenger car market grew by 4 percent in 2025 to 23.9 million vehicles. As a result, the market volume reached a new record level. This made China a key pillar in the global market. 23 percent more passenger cars were sold than before the coronavirus pandemic. China's global market share was 30 percent in 2025.

After three quarters, each with positive growth, the dynamics shifted downward at the end of the year (Q₁: +5 percent; Q₂: +16 percent; Q₃: +5 percent; Q₄: -5 percent). The high automotive demand was contrary to the generally reserved consumption among Chinese buyers, although it was also shaped by strong purchasing incentives. For example, an exchange premium could be used to obtain an allowance of up to 20,000 yuan (approx. \$2,900) when buying a new energy vehicle (NEV). The requirement for this was that the exchanged passenger car must have been registered before April 30, 2018 and had the maximum emission standard China 3. Additional purchasing programs among the individual provinces drove demand further. By the end of the year, there were also accommodation purchases of NEVs. These purchases were exempt from sales tax until the end of 2025. In 2026 and 2027, this tax incentive for NEVs will be partially phased out, resulting in a tax rate of 5 percent, while a rate of 10 percent will continue to apply to internal combustion vehicles.

German manufacturers achieved a share of 16.2 percent in the overall market, 2.7 percent points below 2024. This continued the negative trend of German OEMs' market share in China. One reason for this is that their market share was only in the low one-digit range in the dynamically growing field of electromobility. Just under 2 percent of new electric passenger cars in China bore the logo of a German maker this past year. Overall, electromobility took another leap forward in 2025.

Sales of new energy vehicles (BEVs, PHEVs, FCs) increased by 16 percent to 12.5 million vehicles. The proportion of electromobility in the entire Chinese market thus rose to 52.4 percent. After PHEVs performed more strongly than BEVs in recent years, the tables turned in 2025: Sales of BEVs rose by 25 percent compared to the previous year to 7.9 million units, while PHEVs rose only by 2 percent to 4.5 million units. In the statistics, PHEVs include both "traditional" PHEVs as well as battery-electric passenger cars with range extenders.

In 2025, China remained the largest location with the greatest automotive production worldwide. In total, 29.9 million passenger cars were produced in the People's Republic, 10 percent more than in 2024 and marking a new record. 3.7 million passenger cars (-9 percent) rolled off the assembly lines of German manufacturers' facilities. Production by German OEMs in China fell for the third year in a row. The increasing production in Chinese facilities is also shaped by the growing importance of export business. In 2025, passenger car exports from China grew by 22 percent to 6.0 million units, making China the largest car exporter worldwide this past year.

Japanese passenger car market

The development of the Japanese passenger car market experienced two very different halves of 2025. While the first six months were shaped by high growth rates following irregularities in crash tests among domestic brands in spring 2024, the dynamics in the second half of the year sank due to the higher reference values from the previous year. When totaling all twelve months, the bottom line was moderate growth in new passenger car registrations. The low-volume second half of the year, which did not benefit from the aforementioned special effect, did once again prove that Japan continues to find itself in an extremely challenging economic environment.

While the persistently weak yen makes Japanese products more attractive to foreign markets, it simultaneously leads to elevated—and recently resurgent—imported inflation, thereby exerting downward pressure on real wages. The Bank of Japan has maintained a highly cautious stance, raising its key interest rate only very gradually over the past year to a current level of 0.75 percent. The target inflation rate of 2 percent was significantly missed (with inflation standing at 3.0 percent and core inflation at 2.8 percent). A broader trend of rising global protectionism is placing additional pressure on the Japanese economy, primarily due to its export-oriented nature. This factor, combined with rather sluggish domestic private consumption, is unlikely to provide any significant positive impetus for economic growth in the short term.

About 3.8 million passenger cars were sold in Japan in 2025, 3 percent over the previous year. In 2024, the market was still in a marked decline as a result of consumer uncertainty following the crash test issues. However, the previous year's growth was not sufficient to return to the sales volume from 2023. The trend was still quite positive in the first half of 2025, and after the first six months, the Japanese passenger car market was still 11 percent above the same period from the previous year. The second half of the year was considerably weaker at -4 percent, and the result for the entire year was moderately positive as a result. The rather meager market growth could only slightly close the sales gap from the pre-crisis level. In the past year, nearly 465,000 fewer passenger cars were registered than in 2019, a difference of 11 percent. Passenger car sales in 2019 were well above the 4-million mark at 4.3 million units. This level has not been achieved since the start of the pandemic. German passenger car manufacturers were able to slightly increase their market share by 4.3 percent in 2024, and in 2025 4.5 percent of all newly registered vehicles in Japan bore a logo from a German maker. In the very exclusive Japanese market, German OEMs are by far the largest group of foreign manufacturers. The market is largely served by Japanese brands. Most recently, the market share of

domestic manufacturers was nearly 94 percent. Japan still has to catch up with regard to electromobility (BEVs, PHEVs, FCEVs). Only 81,500 electric passenger cars were newly registered in 2025, nearly 5 percent more than the previous year. The percent increase of new registrations in the electric segment was only slightly stronger than that of the overall market in spite of its minor base. The share of electric vehicles was 2 percent in 2025. However, it must be noted that Japanese manufacturers and consumers mainly prefer full hybrid vehicles (FHEVs). These currently make up about 30 percent of the overall market in Japan. This vehicle category does not fall under the local definition of electric vehicles; consequently, such vehicles are recorded in domestic

South Korean passenger car market

The South Korean passenger car market experienced strong growth in 2025 and is now very close to the pre-coronavirus level from 2019. The market enjoyed largely positive growth throughout the year without any significant fluctuations, unlike 2024 when a weak first half of the year was followed by a marked upward trend in the last six months. Far more vehicles were newly registered in the first half of 2025 than in the same period during the previous year (+6 percent). Growth was slightly less dynamic in the second half of the year, but the market remained strong in Q₃ and Q₄ (+4 percent). The South Korean passenger car market recorded a total sales volume of about 1.5 million passenger cars in 2025, approximately 5 percent more than the previous year. The sales of vehicles bearing a logo of a German maker also grew strongly (+4 percent), but somewhat slower than the overall market. The market share of German manufacturers experienced a marginal decline and was at 12 percent in 2025 (2024: 12.1 percent). The market for electric passenger cars most recently experienced strong growth. Overall, nearly 207,700 electric passenger cars (BEVs, PHEVs, FCEVs) were sold, about 56 percent more than the previous year.

Thanks to growing product variety, electromobility in South Korea recently experienced an upswing and achieved a new record volume. The share of electric vehicles in the overall market most recently reached 14 percent (2024: 9 percent). Furthermore, FHEVs enjoy great popularity in South Korea as in Japan. Their market share was at about 28 percent in 2025.

Taking the entire economy into perspective, 2025 was a rather turbulent and uncertain year for South Korea. The political atmosphere stabilized somewhat following the presidential election in mid-2025. The domestic crisis following the brief imposition of martial law had created a political vacuum starting in December, 2024, causing insecurity among consumers and a bleak business climate. Tariff policies of the United States led to further uncertainty due to South Korea's strong economic reliance on foreign trade. The noticeable domestic stabilization and weak national currency, the won, resulted in export-induced economic growth of about 1 percent. This year, it is expected that the economy will continue its ascent due to a strong position in relevant AI sectors and the semiconductor industry.

Indian passenger car market

The Indian passenger car market retained its position as the third largest single market worldwide in 2025. With 4.5 million passenger cars, the market volume was 5 percent above that of the previous year. Sales in India are thus continuously achieving record levels, and they grew particularly strongly in the 4th quarter (+21 percent). VAT reform also had a positive impact on sales volume. The reform, which came into effect on September 22, 2025, reduced the tax rate from 28 percent to 18 percent when buying a small car, and set the tax rate for large and luxury cars at 40 percent (previously 28 percent in addition to a luxury tax of 22 percent). As a result, sales—particularly during the months of August and September—were characterized by a noticeable wait-and-see attitude and a decline in automobile sales (Aug.: -4 percent; Sep.: -1 percent). There were high growth rates in Q₄ (Oct.: +16 percent; Nov.: +19 percent; Dec.: +29 percent).

Parallel to this, automotive production in India also increased, reaching a new record this past year at 5.4 million new vehicles produced (+8 percent). The country's economic ascent is also reflected in its mobility needs, which, to date, have been met by passenger cars only to an extent below average. The passenger car density was at 34.3 vehicles per 1,000 inhabitants, far below the global average (177.9 passenger cars per 1,000 inhabitants).

ASEAN passenger car market

Southeast Asia is one of the most dynamic regions in the world in various regards. The individual countries represent prosperous economic development, with growth rates exceeding 5 percent. The vast majority of the relevant markets also hold potential for further growth. This region is rich in critical raw materials like nickel, cobalt, and lithium. Furthermore, the ASEAN states offer attractive local conditions for mass production and high-tech manufacturing.

The major automotive markets in Southeast Asia were a mixed bag in 2025, however. Not all vehicle markets shared in the generally positive growth. This was especially the case in Indonesia and the Philippines, where passenger car sales fell short of the previous year's results. In Indonesia, 2025 was the third successive year with a declining automotive market. The markets in Thailand and Singapore benefited particularly strongly from the overall economic dynamics. Malaysia was able to balance out its disappointing start to the year with a strong second half, and new registrations increased slightly. Vietnam started the year out strong before losing some of its speed in the second half. Electromobility is still in its infancy in this region, but Thailand was able to achieve a significant proportion of electric vehicles in its overall market.

Malaysia was able to claim its spot as the largest single passenger car market in the ASEAN region in 2025. Moderate market growth of nearly 2 percent led to a sales volume of about 759,100 units, widening the gap from the second largest market Indonesia. The Indonesian passenger car market experienced a sharp decrease in sales this past year.

In total, 613,000 passenger cars were sold in 2025, nearly 9 percent below the previous year. After Indonesia had lost its leading position in new passenger car registrations in Southeast Asia to Malaysia in 2024, 2025 was another disappointing year. However, the Thai passenger car market experienced strong growth. Sales of nearly 418,700 units resulted in significant growth of 18 percent, with the second half of the year being especially dynamic (H₂: +32 percent). Sales of electric cars were most recently rising strongly. In total, 118,900 vehicles with electric engines were newly registered (+69 percent), resulting in a high proportion of electric vehicles in the overall market in an international context (30.3 percent; 2024: 19.7 percent).

The other passenger car markets in Southeast Asia also developed unequally. Sales in Singapore and Vietnam picked up compared to the previous year, especially in Singapore, where nearly 52,700 more passenger cars were sold than in the previous year (an increase of 22 percent). Vietnam achieved minor growth of 1 percent to 233,200 vehicles. In the Philippines, however, passenger car sales fell by 23 percent to a level of 92,900 units. Regardless, the much weightier sales of light commercial vehicles rose sharply in the Philippines, which balances out the weak performance of new passenger car registrations somewhat.

Since 1969, the countries in the Association of Southeast Asian Nations (ASEAN) have been committed to jointly improving economic, political, and social cooperation. They also formed a common free trade zone in 2009. ASEAN includes 10 countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam (in alphabetical order). Over 690 million people live in these nations.

Chinese commercial vehicle market

The Chinese market for heavy-duty commercial vehicles recorded two-digit growth in 2025 and further established itself as the largest truck market in the world by far.

After achieving only moderate growth of 1 percent in the previous year, the Chinese market recorded a volume increase of 23 percent to over 1.3 million units in 2025. However, the market was still not able to achieve its former record level from 2020 (1.8 million). The heavy truck segment, with growth of 27 percent and a volume of 1.1 million units, was the main driver for the overall market's double-digit growth. The medium duty segment, on the other hand, fell by 2 percent to a volume of 125,100 units.



One major driver for the market increase was the replacement of older vehicles, especially as a result of strict emission regulations and the phase-out of old standards. The share of new energy vehicles (BEVs, PHEVs, FCEVs) among heavy-duty commercial vehicles in China was 17 percent in 2025, while it was only 8 percent in 2024.

Indian commercial vehicle market

Since the decline in new registrations following the coronavirus crisis in 2020, the Indian market for heavy-duty commercial vehicles has been able to record nearly continuous growth in spite of the traditionally high volatility of sales. Although 2024 marked the first decline since 2020, the market for heavy-duty commercial vehicles stabilized in 2025 and experienced an increase of 8 percent to a volume of 375,400 units. Every quarter recorded positive growth, and the only quarter with double-digit growth (20 percent) was Q₄/2025.

Europa

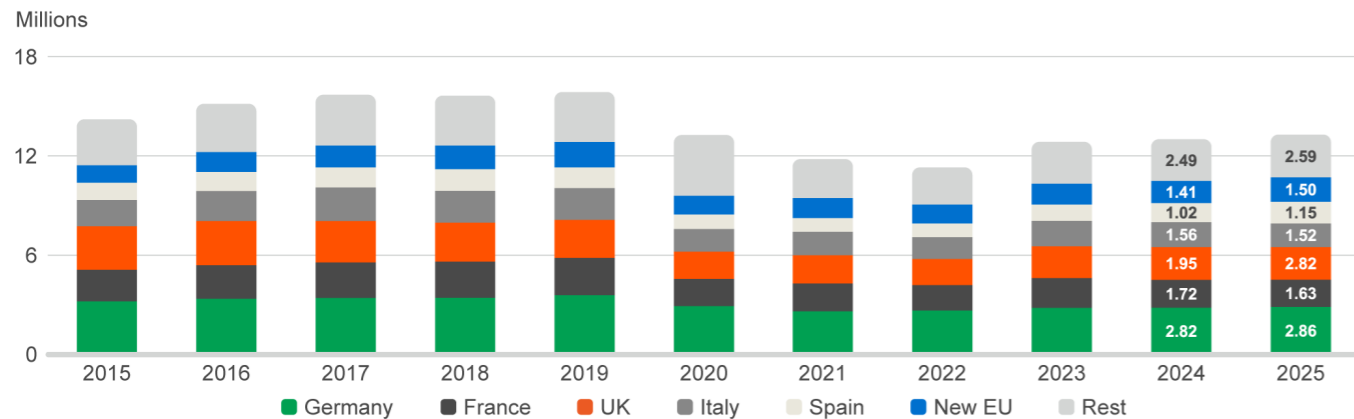
Passenger car market EU, EFTA, and UK

New registrations in the European passenger car market (EU, EFTA, UK) increased in 2025 compared to the previous year. However, in relation to the years before the pandemic, they are still at a low level and only slightly recovered last year. The majority of markets remained well below the pre-crisis level from 2019. External shocks and internal challenges limited both industrial production and economic demand. External factors, like the trade conflict with the USA, which led to global protectionism among other things; Russia's ongoing war against Ukraine; and a precarious situation in the Middle East, which especially restricts logistics and trade routes between Asia and Europe, played a key role. The breadth of these global challenges put strain on European economies that rely on foreign trade. Secondly, Europe continues to suffer from significant and largely self-induced problems. Very high energy prices relative to other continents, excessive red tape, and an uncompetitive tax and expenditure system for companies and budgets have not yet been sufficiently addressed. The gap between Europe and its greatest competitors, the USA and China, is widening. However, with the removal of tariff and non-tariff trade barriers with trading partners in MERCOSUR and India now within tangible reach, there have recently also been positive signals pointing toward a medium-term improvement in international trade in goods. Swift implementation of these negotiated free trade agreements and the

endeavor toward bi- and multilateral partnerships are very important for the automotive industry.

Last year, all these factors led to the European passenger car market growing more strongly than in the previous year, but performing below average in relation to the rest of the world. 2025 was especially shaped by a stronger second half of the year, which balanced out the weak start of the year and slightly overcompensated for it. The flexibilization of the CO₂ fleet regulation in the European Economic Area (EEA), which originally demanded a 15-percent reduction in emissions in 2025 compared to 2021, provided assistance in this regard, among other things. Extending the targets by considering the years 2025 through 2027 collectively provides the automotive industry, on the one hand, with somewhat greater short-term leeway, and offers other responsible societal stakeholders the opportunity to structurally improve the prerequisites for the sustainable success of electromobility. Nearly 13.3 million vehicles were newly registered in the European passenger car market in 2025, about 2 percent more than the previous year. The recovery in relation to the pre-coronavirus level remains sluggish: The European passenger car market is currently about 16 percent or approximately 2.5 million units below the level of new registrations in 2019. The five largest European single markets developed in varying ways: As in the previous

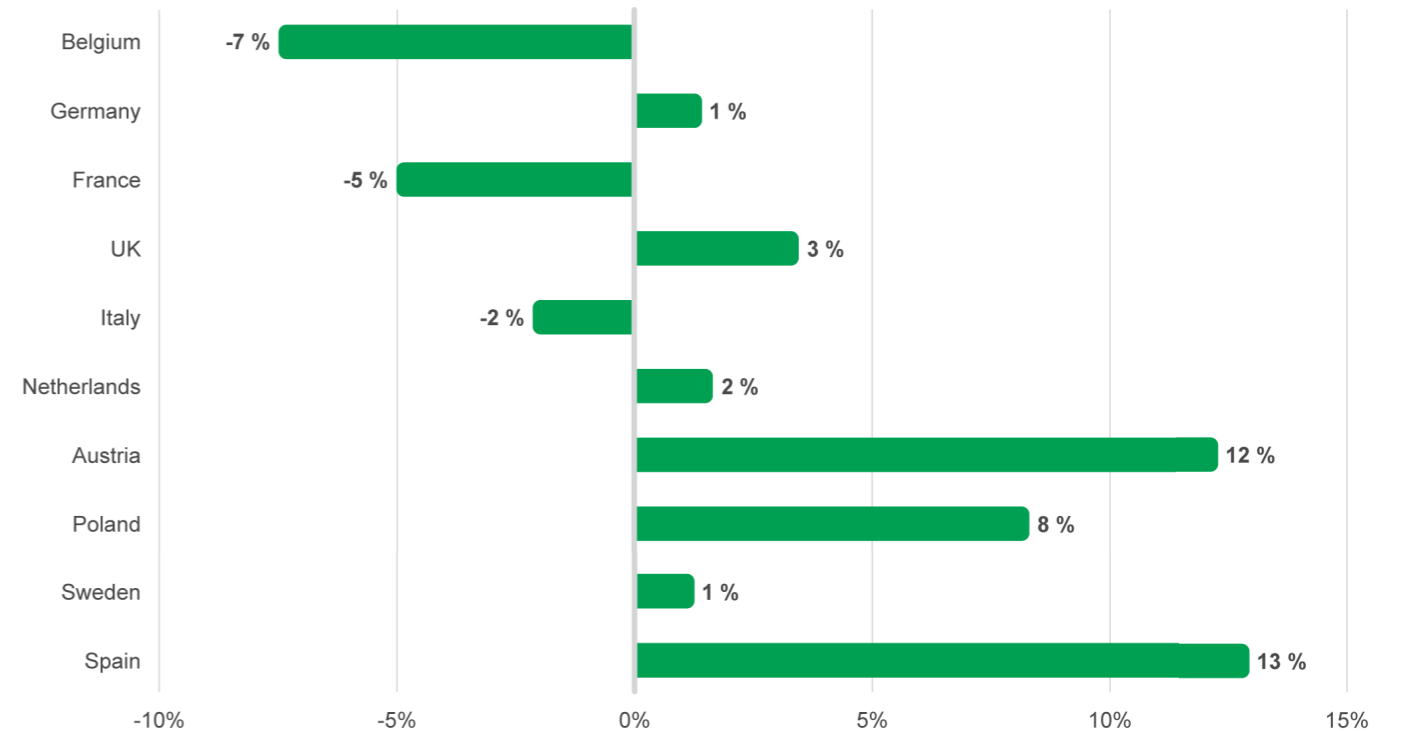
New passenger car registrations in Europe (EU, EFTA, and UK)



Quelle: KBA und ACEA

New passenger car registrations in select European countries

Change in 2025 from previous



Source: KBA und ACEA

year, strong growth was recorded in the Spanish passenger car market. With a sales increase of 13 percent, registrations on the Iberian Peninsula are rising at a double-digit rate. Moderate growth in new passenger car registrations was also recorded in the UK (+3 percent) and Germany (+1 percent). In the remaining markets Italy (-2 percent) and France (-5 percent), few new vehicles were sold in 2025 despite an already weak 2024. Eastern Europe developed at a rate above average relative to Europe as a whole (+7 percent). In 2025, Poland remained the largest single market in Eastern Europe by far and also recorded strong growth (+8 percent). Following Poland were Czechia (+7 percent) and Romania (+4 percent).

The Estonian passenger car market was the only single Eastern European market that recorded a significant decline in new passenger car registrations (-49 percent).

The reason for this plummet was a special effect: The Estonian government implemented a new vehicle tax and a registration fee that came into effect on January 1, 2025. The increased costs and pre-purchasing effect from late 2024 to circumvent the registration fee had a strong effect on the volume of new registrations in 2025. There is not yet any foreseeable recovery for the market.

The market share of German vehicle manufacturers slightly increased in 2025. While 45.4 percent of all newly registered passenger cars in Europe bore a German logo in 2024, this increased to 46.0 percent in 2025. Their market share was even slightly higher in the electric segment at 50.7 percent (2024: 46.6 percent). Overall, the electromobility market (BEVs, PHEVs, and FCEVs) developed encouragingly in 2025, and significantly more strongly than the overall market. (BEV, PHEV und FCEV).

A total of nearly 3.9 million electric cars were newly registered in Europe as a whole. This was 32 percent or nearly 930,500 units more than the previous year. The electric share in the overall market increased accordingly to 29.2 percent, up from 22.7 percent in 2024. The growth of electromobility was especially stimulated by the significant tightening of the CO₂ fleet regulation. This was given additional flexibility throughout the year, but requires a continuous and sustainable ramping-up in order to achieve the ambitious targets.

Plug-in hybrids experienced even more dynamic growth in 2025 than did the purely battery-electric cars. In the second half of the year in particular, demand for PHEVs grew strongly, especially in the largest single market Germany. In the overall annual result, this led to PHEVs in Europe rising by about 35 percent to nearly 1.3 million registered units, while new registrations of BEVs increased by 30 percent to nearly 2.6 million vehicles. The market share of electric vehicles in Germany rose to 30.0 percent (2024: 20.3 percent). The British passenger car market also recorded strong growth in the electric segment. This followed an already strong 2024 for the UK, and about 27 percent more electric cars were sold than in the previous year. The share of electric vehicles in the market increased in the UK to 34.7 percent (2024: 28.2 percent). France experienced only a slight increase. While 25.5 percent of the registered passenger cars in France in 2024 were electric, the increase in 2025 was minor (26.8 percent). The strongest proportions of electric vehicles among all new registrations were, as in previous years, in the Nordic countries Norway (97.4 percent), Denmark (71.7 percent), Sweden (63.0 percent), Iceland (60.3 percent), and Finland (57.4 percent). In the Netherlands (59.1 percent) and Belgium (44.6 percent) there was an above-average focus on electric vehicles.

As in the previous year, Portugal was by far the Southern European country with the highest proportion of electric vehicles. In 2025, this small country on the Iberian Peninsula recorded a 38.4-percent share of electric vehicles among all new registrations. Spain achieved only a smaller share of 20.3 percent, and Italy lagged further behind at only 12.7 percent. In the Eastern European nations, the transition toward electromobility remains sluggish. However, the market shares increased considerably in 2025. Of the five largest single Eastern European markets, three achieved an electric share in new registrations over 10 percent. In 2024, this was only the case in Hungary. Electromobility was not the core focus in Poland (13.1 percent), Czechia (9.7 percent), Romania (12.2 percent), Hungary (14.1 percent), or Slovakia (9.1 percent), but it did become more significant than it was in 2024.

Due to the macroeconomic and structural weakness of numerous regions across the continent, particularly in Germany and France, dynamic market development exceeding pre-crisis levels remains unlikely. Following the moderate flexibilization of the CO₂ fleet regulation and as a result of the extensive, innovative engagement by German vehicle manufacturers and suppliers, among others, the share of electric vehicles in the overall market will continue to rise. In Germany, the newly implemented funding for electric vehicles could provide a push. A simple, transparent, and generally consumer-friendly implementation is crucial for the effectiveness of this funding, however. The introduction of new models and designs is in sight and will continuously expand the range of products, especially in the electric segment. Nevertheless, in 2026, the overall European passenger car market will in all likelihood remain far below the pre-crisis level of 2019.



Americas

USA

2025 was a turbulent year for the US light vehicles market. By the end of the year, it recorded a market volume of 16.2 million units, a 2-percent increase over the previous year. Sales in 2025 were 4 percent below the level from 2019. The reason for this growth was fundamentally robust macroeconomic development. Erratic tariff policies did lead to great uncertainty in foreign trade, but this only became visible from the market side later in the year. Sales in the first three quarters were thus shaped by solid growth (Q₁: +5 percent; Q₂: +3 percent; Q₃: +6 percent). Q₄ marked the point of decline, with the year ending weakly (Q₄: -4 percent).

Looking at the development of sales by production country of the vehicle, US-produced light vehicles developed the most positively at +5 percent. These were followed by vehicles from Germany, also with 5-percent growth. Sales of vehicles produced in Mexico grew by 4 percent.

Sales of vehicles produced in Canada sharply decreased (-15 percent). In 2025, about 3 percent of all light vehicles purchased in the US market were thus produced in Germany. The majority of vehicles sold were produced in the USA (55 percent), followed by light vehicles from Mexico (17 percent), South Korea (9 percent), and Japan (8 percent).



As in previous years, the trend toward larger vehicles continued unabated in 2025. While sales of basic cars fell by 8 percent to 2.8 million vehicles, light trucks increased by 5 percent to 13.5 million units. The share of light trucks in the overall market thus rose to 83 percent, marking a new record. The largest single segment within the light trucks category were CUVs (cross-utility vehicles / crossovers), a segment that we generally group with SUVs in Germany. CUV sales rose in 2025 by 1 percent to about 7.9 million units. However, their market share fell from 49.5 percent in 2024 to 49 percent. SUVs, with larger outer dimensions and off-road characteristics in relation to CUVs, reached a market share of 10.2 percent. Their sales rose to 1.6 million units (+13 percent). Sales of pickup trucks reached a volume of 3.1 million vehicles (+9 percent) and a market share of 19.1 percent. Furthermore, sales in the van segment also increased by 10 percent to 0.8 million vehicles (market share: 4.8 percent). Decreases were recorded in the sub-segments of basic cars. Small cars fell by 2 percent to 1.2 million vehicles and a market share of 7.3 percent. Mid-range cars reached a market volume of 0.9 million units (-12 percent; market share: 5.8 percent). Sales of large cars plummeted, and 2,700 vehicles from this segment were sold (-93 percent; market share: 0.0001 percent (2,700/16,200,000)). Luxury car sales fell to 637,000 vehicles (-5 percent; market share: 3.9 percent).

Sales of electric vehicles, too, clearly priced in the negative trend in the US light-vehicle market toward the end of the year. With its One Big Beautiful Bill Act during the summer, the Trump Administration eliminated the federal tax credits for electric vehicles, which, under the Inflation Reduction Act of 2022, provided for a subsidy of up to US \$7,500. This came into effect on September 30, 2025, with no replacement for the credits. As a result, there was a pull-forward effect in August and September (Aug.: +41 percent; Sep.: +29 percent), followed by a significant drop in sales of electric cars in the fourth quarter (Q₄: -34 percent). Das Gesamtjahr schloss mit einem Rückgang um 3 Prozent bzw. 1,5 Mio. E-Light-Vehicles.

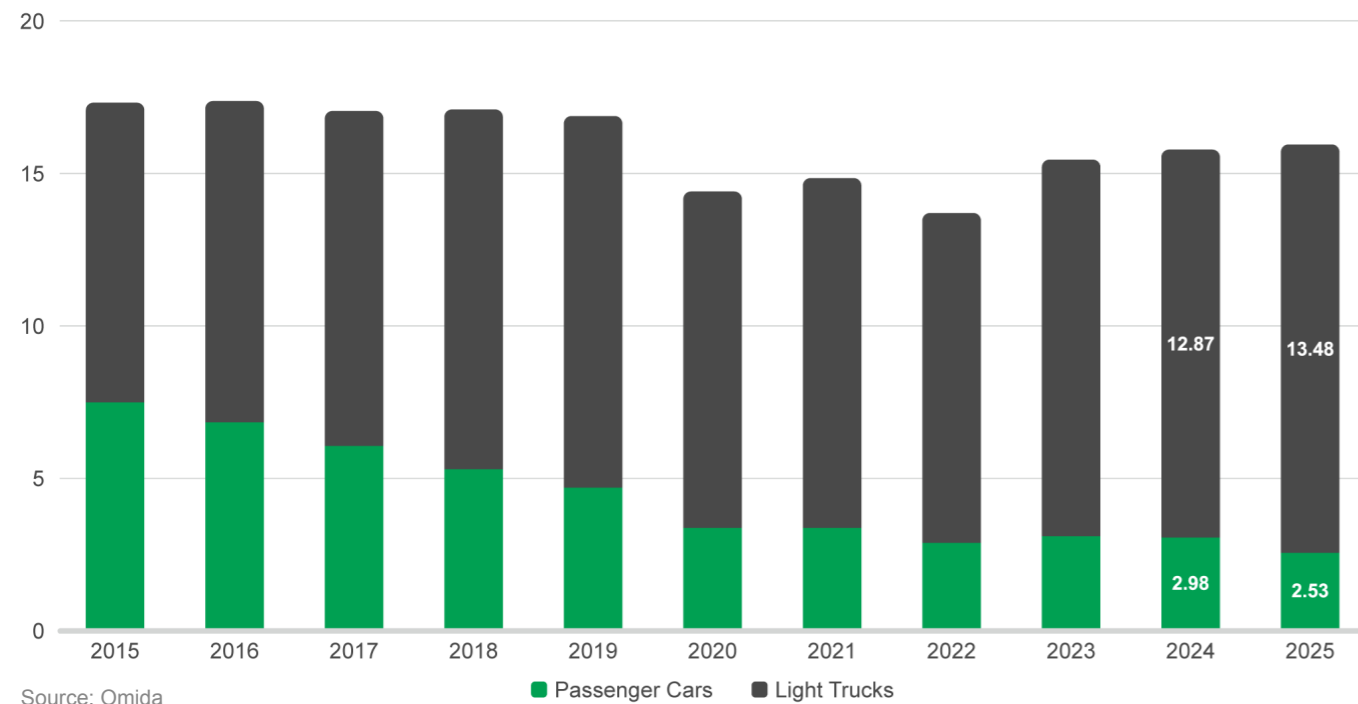
The year ended with a decrease of 3 percent, or 1.5 million electric light vehicles. Market shares of German manufacturers in the USA decreased in 2025, selling about 1.3 million light vehicles (-7 percent) in total. Their sales of basic cars and light trucks also decreased (-9 percent to 378,000 basic cars; -6 percent to 932,000 light trucks). The market share of German corporations in the overall light vehicle market in 2025 fell to 8.1 percent (2024: 8.8 percent).

Mexico

The Mexican light vehicle market (passenger cars and light duty) grew in 2025, as in previous years. Approximately 1.6 million units sold equated to volume growth of 4 percent over 2024. It is remarkable that the entire year was noticeably positive, especially in light of the pressure applied by US trade policy. The additional tariffs imposed by the US government on numerous industrial goods especially affect the import of goods produced in Mexico. This caused considerable political and societal uncertainty, but Mexican automotive sales remained stable.

Both the smaller basic car segment and the larger light-duty vehicle segment benefited from the market growth, but not to an identical degree. The light duty segment grew far more dynamically and demonstrated its increasing relevance. Nearly 961,800 newly registered units in this category equaled a 6-percent increase over the previous year. The basic car segment grew by 1 percent to 638,500 vehicles. 60.1 percent of all sales fell to the light duty segment, and this upward trend is continuing (previous year: 58.8 percent). Unfortunately, German manufacturers were unable to benefit from the positive growth. New registrations of vehicles from German brands fell after two years of very strong growth (-3 percent to a volume of 201,600 units). Due to a performance below the overall market average, the market share of German manufacturers declined to 12.6 percent (previous year: 13.5 percent). The fifth successive year of growth led to the Mexican light vehicle market reaching its highest sales level since 2016, falling marginally short of the record level from that same year when an additional 1,600 light vehicles were sold. This record is within grasp in the near future.

Light vehicle sales in the USA (in mil.)



Canada

The Canadian light vehicle market grew by 8 percent in 2025 to 1.9 million vehicles. This left the market volume at 4 percent below the level from 2017, when the Canadian market achieved its highest ever sales of light vehicles (2.0 million sold). Sales of basic cars fell by 2 percent to 250,500 vehicles; light trucks grew by 3 percent to 1.7 million units. The share of light trucks in the overall new registrations of light vehicles thus increased once more and hit a new record level at 87 percent. Market volume grew at a mid-single-digit rate in the first and third quarters (Q₁: +4 percent; Q₃: +5 percent), and by 10 percent in the second quarter. At the year's end, however, sales in the Canadian light vehicle market fell sharply (-11 percent) compared to the same quarter in the previous year.

Sales of electric light vehicles (BEVs and PHEVs) in Canada experienced a sharp decline in 2025. At 181,900 electric light vehicles, 92,100 fewer vehicles were sold in 2025 than in the previous year, equal to a 34-percent decrease. About two-thirds of electric light vehicles were equipped with a purely battery-powered electric drivetrain. The proportion of electric cars in the overall market fell from 14.4 percent in 2024 to 9.5 percent in 2025, a result of the previous year's downturn. For 2026, the Canadian government had envisioned a 20-percent market share of ZEVs (zero-emission vehicles). Light vehicle production in Canada fell to 1.2 million vehicles in 2025 (-7 percent). The production volume thus fell under the already low level from the previous year. Production of light trucks declined more sharply (-10 percent) than basic cars (-7 percent).

Mercosur

Sales of light vehicles (passenger cars and light duty) in the South American economic zone Mercosur recorded strong growth of 8 percent compared to the previous year. Sales developed positively in all observed individual markets and the pre-crisis level was reached for the first time since the end of the pandemic. The volume of the last year before the crisis was exceeded by about



128,600 units, and the sales level from 2019 was surpassed by about 4 percent. The Argentinian light vehicles market was particularly dynamic. Extensive liberalizations, deregulations, and dismantling of bureaucracy allowed the Argentinian economy to catch its footing and the predictions continue to point toward growth. The light vehicles market benefited this past year. Vehicle sales in the other observed markets, Brazil and Uruguay, also climbed above their respective levels from the previous year. The Brazilian light vehicles market reached a volume of nearly 2.6 million vehicles this past year, and sales were moderate at nearly 3 percent above the level from 2024. With a share of about 80 percent in Mercosur's sales, Brazil remains the leading market in the region, although this share is declining as its partners countries have experienced more dynamic growth (Brazil's share was about 84 percent in the year prior. However, these figures are still far removed from the record levels from the early 2010s in particular. German manufacturers were also able to benefit from the positive market developments and increased their light vehicle sales—relative to the overall market—at a rate considerably above average (+9 percent over the previous year). As a result, they were able to noticeably raise their market share by 1 percent to 18.7 percent in 2025 (2024: 17.7 percent). Brazil still needs to catch up with regard to electromobility, but its sales developed positively in the previous year. The share of electric vehicles in the overall market rose to 6.9 percent last year (previous year: 4.8 percent.)

The Brazilian economy grew by about 2 percent this past year, although it could be less dynamic in the near future. The value of the Brazilian real had recently stabilized, but base rates set by the central bank are noticeably hampering investment activity. In an effort to curb the ongoing excessive inflation, these currently stand at 15 percent (as of December 2025), marking a 20-year high. Furthermore, presidential and parliamentary elections are scheduled for 2026. A new government will have to focus primarily on curbing rapidly rising public debt. During this election year, fiscal policy risks could trigger uncertainty in the financial market and lead to correspondingly high volatility.

In Argentina, sales of light vehicles increased sharply due to the improving overall economic situation. 586,600 newly registered units reflected strong growth of 43 percent compared to 2024. After a period of difficulty shaped by ruinous crises, the economic situation is now on the ascent, although there is still uncertainty regarding the transformation. The extensive economic reforms by President Javier Milei are proving effective. Argentina has left its long-term recession and signs point to growth in the near future. Relevant economic parameters like the inflation rate, poverty, and unemployment are decreasing. In order to continue this trend, necessary structural reforms must continue to be advanced. The poverty rate in combination with high price increase rates, from an international perspective, must continue to be addressed. The outlook for the light vehicle market last year thus appeared positive. In

particular, the first half of 2025 was very strong due to weak figures from the prior year (H₁: +85 percent). The positive trends in the automotive market continued into the second half of the year, but were less dynamic due to higher reference values in the previous year (H₂: +15 percent). Should the positive trend continue, more vehicles could be sold throughout this year. Looking at the record levels from the early and mid-2010s, however, it is clear that there remains considerable potential for growth in the vehicle market. For example, nearly 37 percent fewer new registrations were registered in Argentina in 2025 than in the record year 2013.

The third largest market in Mercosur, Uruguay, also recorded significant growth in 2025. 68,500 newly registered light vehicles marked a 9-percent increase over the previous year while setting a new sales record for the small South American country. Established in 1991, Mercosur is a regional alliance on the South American continent. Its members have the common goal of promoting regional integration through political, social, and economic cooperation. The current full members of the shared market are Argentina, Bolivia, Brazil, Paraguay, and Uruguay. Approximately 280 million people live within the Mercosur countries. The EU-Mercosur Trade Agreement formed over two decades ago was expected to be ratified in 2025 following extensive negotiations. However, a vote in the European Parliament in January, 2026 postponed this even further and presented it to the ECJ for further review.



From the perspective of the German automotive industry, this decision is highly unfortunate and efforts must be made to definitely implement the agreement soon. It is to be advocated that trans-Atlantic cooperation, and the accompanying potential to mutually foster prosperity and growth, be elevated to a new and higher level.

US commercial vehicle market

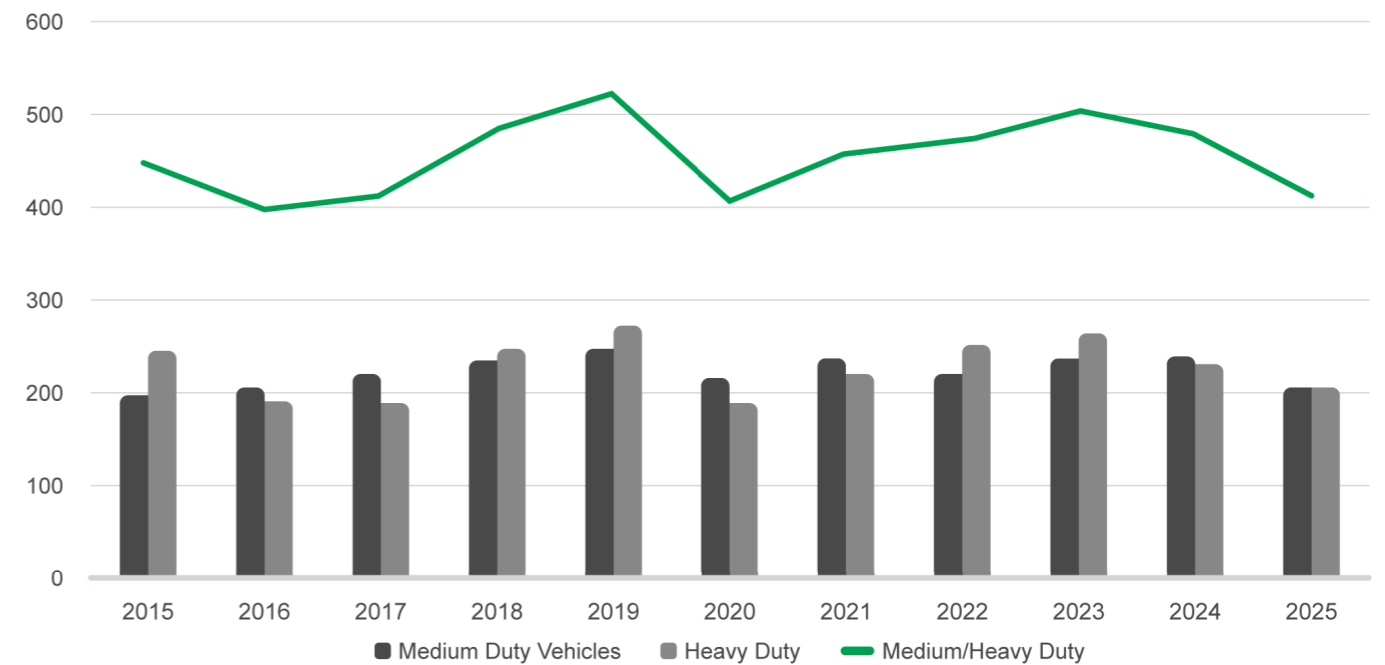
er the US market for heavy-duty commercial vehicles recorded a decrease in the previous year, the downward trend continued in 2025 and led to two-digit negative growth, marking the lowest volume in the last five years. Two-digit decreases especially occurred in the second half of the year, which largely affected the overall result (-21 percent compared to H₂ 2024). At -5 percent compared to H₁/2024, the first half of the year experienced

a more moderate decline, although this was largely due to the weak reference values from the previous year. Overall, the US commercial vehicle market recorded -14 percent growth in 2025, equating to a total sales volume of 416,200 units. The heavy-duty segment (class 8 / > 15 tons) and the medium-duty segment (weight classes 4-7 / 6.13-15 tons) experienced double-digit negative growth. The former recorded -13 percent growth compared to the previous year, while the latter recorded -14 percent growth for the first time since recovering after 2022.

The figures from 2025 are thus moving further away from the level in 2019, which, with nearly 527,100 trucks sold, was the highest-volume year since 2006 (544,600 units); the figures are now getting closer to the results from 2020 (409,700 units), the lowest-volume year since 2016.

Medium- and heavy-duty commercial vehicles in the USA (in thousands)

Sales of medium and heavy trucks



Source: Omidia

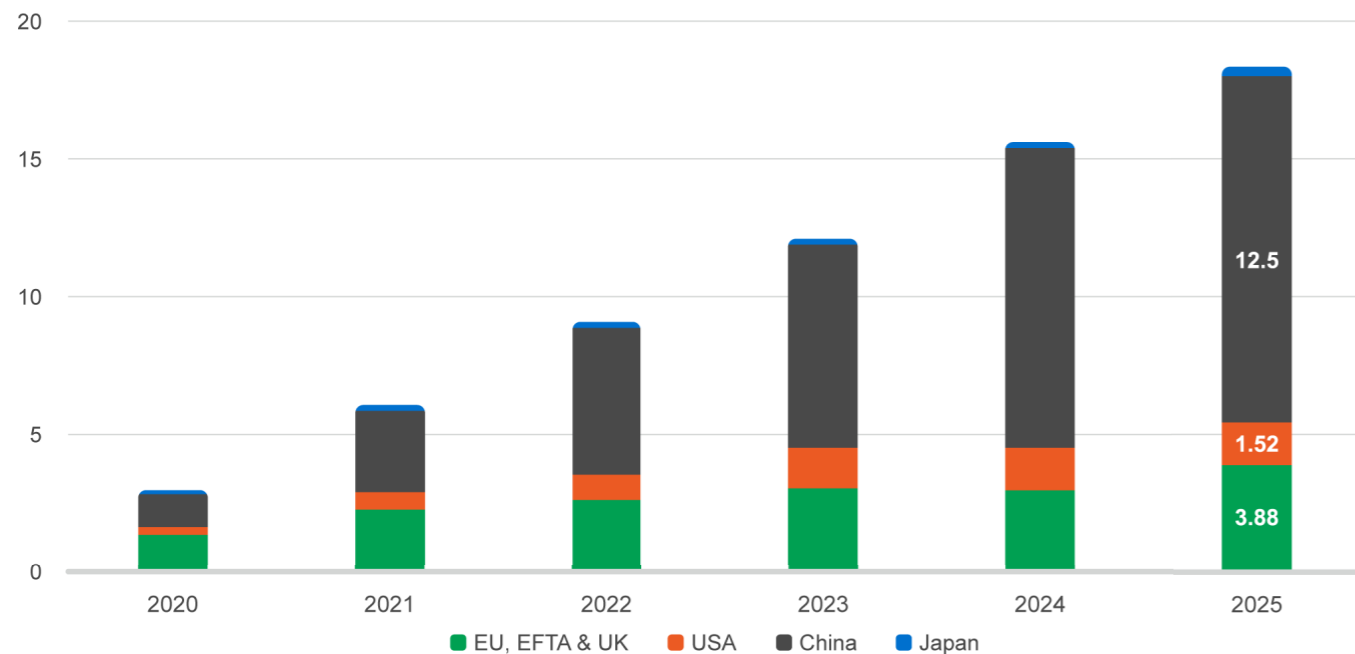
Electromobility in an international comparison

In 2025, the growth of electromobility among new registrations of passenger cars continued. At around 19.1 million newly registered passenger cars with an electric engine worldwide (BEV, PHEV, or FCEV), the previous year's record of 16.3 million units was far exceeded. Sales of electric cars increased by about 17 percent, but not as strongly as the previous year when new registrations rose by nearly 30 percent. This is entirely normal due to the significant unit numbers that have now been reached in the run-up to a new drivetrain technology. Meanwhile, almost one out of every four passenger cars purchased worldwide is electric. 12.7 million of these, or 66 percent (previous year: 63 percent) are purely electric BEVs. The growing proportion of BEVs corresponded with a sinking share of PHEVs, and stems from the fact

that the focus in China has increasingly shifted toward BEVs, as well as spiking sales figures in Europe, where BEVs also make up a large portion of new electric car registrations. Global sales of passenger cars with fuel cells (FCEVs) increased for the first time in three years. However, with a market volume of about 7 thousand units, this engine type did not play a major role. The shift from combustion engines to electric engines, which is necessary in light of the ambitious UN climate target, is thus in full swing in the automotive industry. It must be noted that developments in the various markets are quite heterogeneous, and overall, it can be said that there is a more or less distinct connection between wealth and market penetration by electric cars. Furthermore, incentives and legal mandates, such as those concerning CO₂ caps, play an important role.

Electric passenger car sales in select countries (in mil.)

Sales of BEVs, PHEVs, and FCEVs



Source: KBA, Omdia und S&P Global Mobility

Development of overseas production and exports in the German automotive industry

Domestic production of passenger cars

After the 1-percent stagnation of domestic production in 2024, domestic production could be increased by 2 percent in 2025 to 4.15 million passenger cars, marking the highest level since 2019. However, this still falls short of the 2019 figures by over 500 thousand units or 11 percent. One critical factor here was the transformation to electric drivetrains. For one, many consumers are unconvinced by a public charging infrastructure with high charging power prices that are difficult to compare, and prefer to drive their old combustion engine cars as long as possible. This causes the transformation to take longer than originally planned. Secondly, looking at the other European automotive nations, German production would be much lower if German manufacturers were not at the forefront of the transformation. The proportion of electric cars in domestic production was 40 percent in 2025, far more than the share among new registrations in Europe, which was at 29 percent last year. German manufacturers are clearly in the lead in this regard.

With a total of 1.67 million (+23 percent), Germany achieved a record number of electric passenger cars rolling off its assembly lines, making it the world's second largest hub for electric cars after China and ahead of the USA. 73 percent of 1.22 million (+15 percent) of all electric cars produced in Germany were BEVs. The production of plug-in hybrids was even stronger with an increase of 54 percent to 0.45 million units. Many consumers require long-range capabilities, which PHEVs are the most likely among electric vehicles to achieve. Pure combustion-engine vehicles were not spared by the trend toward e-mobility last year. While diesel vehicles lost a good 2.5 percentage points of market share—falling to 15.3 percent, their lowest share since 1991—gasoline vehicles lost an even larger 4.5 percentage points, ending 2025 at 44.5 percent, the lowest value overall. It is evident that Germany is leading the

transformation in Europe, although combustion engines remain an important pillar for somewhat cushioning the drastic consequences of the abrupt shift toward CO₂-free mobility for the workforce, in particular suppliers. The most important segments last year were SUVs (+8 percent, 1.62 million units), compact (-1 percent, 0.9 million units), upper mid-size (+12 percent, 0.53 million units), mid-size (-13 percent, 0.41 million units), and all-terrain vehicles (+8 percent, 0.33 million units). The trend toward higher-value vehicles is clear because the high labor and energy costs are making the production of volume models in Germany increasingly unattractive. Small car models have not been manufactured in Germany for several years now, and the production of compact cars is set to be phased out in 2027. In the global country rankings based on production volume, Germany successfully defended its fifth-place position last year, ranking behind China, the USA, Japan, and India, but ahead of South Korea and Mexico. However, it should be noted that the share of premium vehicles produced at German sites is disproportionately high. Within Europe, Germany remains the most important manufacturing nation by a wide margin.

Overseas production of passenger cars

As in the previous year, passenger car production by German manufacturers in international facilities decreased in 2025. At 9.15 million passenger cars, the prior year's level was undercut by 4 percent. The production level is thus somewhat below that of 2014, and about one-fifth (2.2 million units) shy of the record year 2019. The transformation toward climate-neutral engines, which German OEMs are pushing for more domestically than internationally, was especially a problem in China, where about half of newly registered vehicles are electric. This prevented a recovery in production. In 2025, 17 percent of all new cars bore the logo of a German brand.

Observation of the different continents shows that there have been frequently moderate decreases almost everywhere. As in the previous year, the Americas performed the most strongly, where 2.04 million passenger cars rolled off the assembly lines (±0 percent). Brazil was responsible for this stable development, with growth of 17 percent to 539 thousand passenger cars and where production well exceeded the pre-crisis level (but still far short of the record high in 2012). Both Mexico (-6 percent, 638 thousand units) and the USA (-3 percent, 817 thousand units) experienced negative growth.

Overseas production by German manufacturers in Europe experienced its second successive year of negative growth. Renewal of the vehicle fleet is progressing only sluggishly; the average age of the stock is growing from year to year, and the EU average is 12.7 years. Overall, German manufacturers produced 2.95 million passenger cars in other European countries in 2025, 2 percent fewer than the previous year. This is over one million units, or one quarter, shy of the pre-crisis level in 2019. In addition to the high market saturation and weak or absent economic growth in many countries, Europe is barely competitive—particularly in the production of volume models—due to rising energy prices and the relatively high costs of labor in many countries. The most important production country was Czechia, where production could be increased by 5 percent to the new record of 946 thousand units. Next was Spain, where production sank by 7 percent to 777 thousand units. Ranking third in Europe was SUV production hub Slovakia, with 338 thousand passenger cars, equaling a decrease of 1 percent. Following Slovakia were Hungary (-5 percent, 308 thousand units) and Portugal (+2 percent, 240 thousand units). After the severe drop in production in the previous year, the United Kingdom experienced a slight rebound of 9 percent to 140 thousand passenger cars from German brands. In Belgium, production by German manufacturers ceased entirely. As in the previous year, Asia was the continent with the greatest decrease in production of German brands (-8 percent, 3.87 million passenger cars). The primary contributor to this was China, with a 9-percent decrease to 3.71 million units. With 50 percent of the share in electric vehicles on the Chinese market, German manufacturers are in an increasingly difficult position.

India experienced a 22-percent rebound to 159 thousand vehicles produced. The transition from combustion to electric engines is also reflected in German manufacturers' international work. Last year, with 0.94 million units, over one in every 10 passenger cars produced abroad was electric. 57 percent of these were purely battery-powered, and the rest were plug-in hybrids.

Production outside of Germany has risen by 88 percent since 2009, and it surpassed domestic production in 2010. Nearly seven out of every 10 passenger cars from German OEMs are now produced abroad. One important success factor was the focus on premium models. While only 20 percent of the cars produced abroad were premium models in 2006, the figure is now 43 percent. The global position of German OEMs is also reflected in the fact that they now produce 60 percent of their premium passenger cars abroad (3.93 million vehicles).

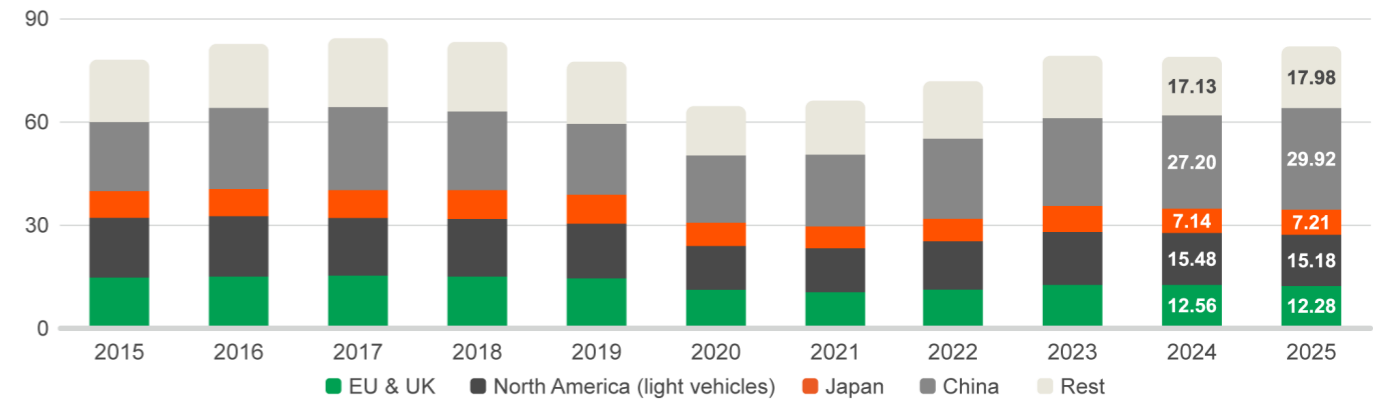
Comparison: international passenger car production

The development of global automotive production in 2025 was shaped by a number of factors. Firstly, with regard to demand, it increasingly became apparent that the shift toward electric engines is proceeding quite heterogeneously from region to region, depending on political mandates. This comes with a particular degree of caution among consumers, especially in Europe, some of whom continue driving their old vehicles for a long time because they are still hesitant about switching to an electric engine. In this situation, it is important that manufacturers offer the largest possible portfolio so that every consumer can find the new car that suits them. This would accelerate the renewal of stock, which has stalled in recent years.

Secondly, fuel prices spiked shortly after Russia began its war against Ukraine, and have remained close to this level since. This negated a lot of buying power in Europe in particular that was no longer available to purchase new cars. Material bottlenecks, which restricted production in past years, no longer place such strain on production in 2025.

Passenger car production worldwide (in mil.)

by region



Source: KBVDA, Omdia, CAAM, Fourin, JAMA und weitere nationale Institute

The production of electric cars ramping up in Europe and China especially, but also in the USA into the first half of the year, benefited from the at times favorable governmental conditions; strict, politically mandated CO₂ caps for bringing about the transformation toward climate-neutral electric engines were effective. However, this also suggests that one cannot proceed without taking customers into account. Overall, indications are emerging in both Europe and the Americas that the ramp-up of electric mobility will proceed more slowly than originally targeted. In China, on the other hand, nearly half of all cars produced in 2025 were electric (incl. PHEVs). It is thus all the more notable that, in spite of these difficult conditions, global production in 2025 exceeded the previous year's level by 3 percent with 82.6 million passenger cars. This marked the highest output since 2018. Global production capacity, however, is still higher: Production in 2017 was about 2.7 million units higher, at 85.3 million. Before this, passenger car production grew 5 percent per year on average from the financial crisis year of 2009 until 2017.

Production is not consistent across individual countries. The strongest growth in the major automotive countries, as in the previous year, was recorded in the dynamic Asian nations of China and India, which were able to increase passenger car production by 10 and

8 percent, respectively. With 29.9 million units, China once again achieved a record number of passenger cars rolling off its assembly lines. While prior to the coronavirus pandemic nearly the entire domestic output was sold within China, production in China is now also being driven by increasing exports. 6 million passenger cars (+22 percent) were exported from China in 2025 alone. India was the third most important production country in Asia (5.38 million passenger cars) behind Japan, where production rose by 1 percent to 7.21 million passenger cars. Japan's domestic market grew even more strongly by 3 percent. South Korea, the fourth most important automotive nation in Asia, experienced stagnated production at 3.84 million passenger cars.

Production in Europe fell by 2 percent to 13.9 million passenger cars, falling short of the level from 2020 (4.5 million units or nearly one third shy of the pre-crisis level of 2019). This is not only due to Russia, whose production fell by nearly 0.8 million units. Overall, the European market is saturated and the existing fleet is only being slowly renewed during the transformation while the average age is rising. This also applies to Germany. Regardless, domestic production could be increased by 2 percent to 4.15 million units (no. 5 worldwide), leaving it about 0.5 million units below the level in 2019.

Electric cars (BEV and PHEV) were especially successful in Germany, making up 40 percent of production. Germany is the second largest electric vehicle hub in the world after China and ahead of the USA. This shows how seriously German manufacturers take the shift toward climate-neutral cars. In terms of overall passenger car production, Spain ranked 2nd in Europe with 1.81 million units (-6 percent), ahead of Czechia with 1.45 million (± 0 percent). This was followed by SUV hub Slovakia with 1.02 million (+3 percent), France (1.00 million, +10 percent), and Türkiye (0.87 million, -4 percent).

In the USA, Mexico, and Canada, production sank by 2 percent last year to 15.2 million light vehicles, amounting to 1 million fewer units than the pre-coronavirus level in 2019. Breaking this down into vehicle types, light trucks (especially SUVs) still perform better than passenger cars at -1 percent and -6 percent, respectively. Five out of every six light vehicles produced here are light trucks. The USA is the world's SUV production hub. Developments were negative in all three countries. While LV production fell by 2 percent in the USA, it fell by only 1 percent in Mexico and 7 percent in Canada. The Mercosur states achieved only relatively subdued growth last year with +3 percent and 2.99 million light vehicles.

Passenger car exports from Germany

In 2025, passenger car exports suffered a setback for the first time since 2021. Last year, 3.17 million passenger cars were exported from Germany, a -0.3 percent decrease. They are thus still 9 percent below the pre-crisis level in 2019. Compared to 2016, exports have even decreased by 28 percent. In addition to the shift toward electric drivetrains, which is taking longer than expected, Europe's economic weakness also plays a key role. These factors are making it difficult to renew the European fleet quickly, and have led to the European markets levelling off at around one-sixth below the pre-coronavirus conditions. At the same time, the German automotive industry is still highly dependent on exports, and last year nearly three out of every four

passenger cars produced in Germany were exported from Germany. This highlights the immense importance of export markets for the German automotive industry. The trend toward on-site production dipped further in 2025, and overseas production experienced negative growth for the second year in a row (-4 percent). This is to be seen in the context of the massively reduced domestic production after 2019, which has stabilized since 2023. Nevertheless, German exports amount to nearly 35 percent of overseas production. One important factor for the success of "Made in Germany" cars abroad is the high quality, which consumers pay the appropriate amounts for. The years-long trend toward premium models is somewhat less distinct in 2025. These currently make up 73 percent of all passenger car exports (prior year: 76 percent). This share is particularly high in overseas export markets. Passenger car exports to Asia are up to 92 percent premium, even up to 95 percent in the case of the Americas.

The shift from combustion to electric engines continued in 2025. At a share of 13.0 percent (prior year: 15.3 percent), diesel engines (incl. mild hybrids) are continuing their decline and have hit the lowest point since Germany's reunification. Gas engines (incl. mild hybrids) also sank last year, now making up a share of only 46.4 percent (prior year: 50.8 percent). Electric cars benefited from the decrease in combustion engines, reaching a record level of 40.6 percent (prior year: 33.8 percent). Exports of plug-in hybrids were especially dynamic, reaching 46 percent. However, BEVs continue to make up the lion's share of all exported electric cars at nearly three-quarters (74 percent).

The driving factors last year were passenger car exports from German manufacturers to Europe, which rose by 8 percent to 1.94 million units. However, this was still 10 percent below the pre-crisis level in 2019. The most important export partner worldwide by units was the United Kingdom, where 413 thousand passenger cars were exported (+6 percent). This was followed by Italy (+8 percent, 211 thousand units), France (-2 percent, 198 thousand units), and Spain (+4 percent, 181 thousand units).

Passenger car exports to the Americas fell by 6 percent in 2025 to 527 thousand vehicles. The most important export partner was the USA (-9 percent, 409 thousand units). However, this weak performance must be considered in light of tariff-related turbulence and the eventual agreement to increase tariffs on EU exports to the USA to 15 percent. Exports to the USA have fallen by 31 percent or 240,000 passenger cars in the last 10 years. This is because German OEMs are increasingly producing vehicles for the US market directly on site in the North America itself. At the same time, exports to Canada increased by 1 percent to 57 thousand units, and to Brazil by 6 percent (23 thousand units).

In 2025, exports from German manufacturers to Asia fell by 19 percent to 429 thousand units. This was the third decrease in a row. The main reason for this was China, where exports plummeted by 45 percent to 98 thousand units. This in particular must be viewed in the context of the transformation: About half of the Chinese new vehicle registrations have an electric engine,

but German manufacturers primarily see success in China with combustion engines. Exports to South Korea remained unchanged at 120 thousand units. Export destination country Japan recorded an increase of 8 percent, to 96 thousand passenger cars. At 51 thousand units (+12 percent), Africa still does not play a significant role as a destination for German passenger car exports in 2025. Used cars make up the majority of vehicles sold there due to economic circumstances. Australia and Oceania were not dynamic, with exports of new cars falling by 20 percent to 48 thousand units.

German exports of commercial vehicles and buses

Exports of commercial vehicles (trucks, semi-trailers, and special-use vehicles) amounted to 269,000 units, or 3 percent more than the previous year, according to the Statistisches Bundesamt. 3,600 buses were exported, 16 percent more than in 2024.

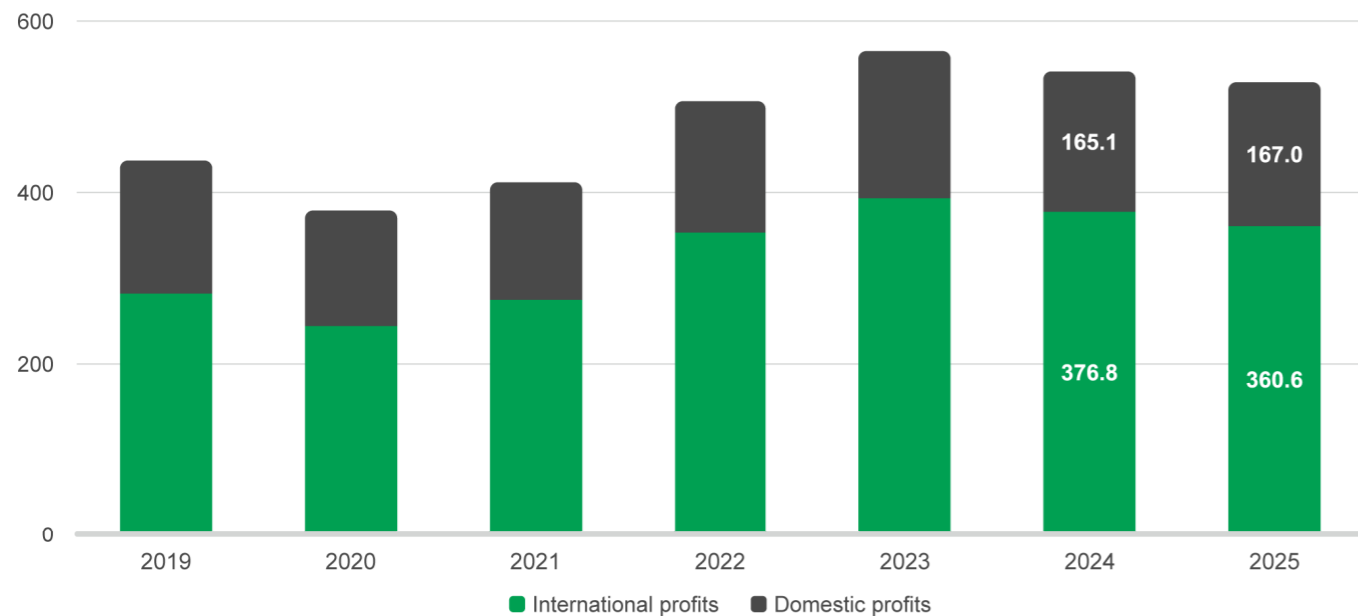


Profits of the German automotive industry

In 2025, profits of the German automotive industry sank for the second year in a row, totaling 527.6 billion euros—3 percent below the previous year. The comparison value from 2024 was the second highest profit level ever, by nominal calculation. However, the high profit levels of past years must be viewed in light of high inflation rates. International business fell by about 4 percent, and domestic business ended one percent above the prior year's level. About 68 percent of total profits were attributed to international business, and 29 percent of international business in turn was with countries within the Eurozone. The decrease in profits extended across all manufacturer groups.

For manufacturers of motor vehicles and engines experienced a 2 percent decrease in profits, down to 433.1 billion euros. Over 80 percent of all sales in the automotive industry came from OEM business. Furthermore, a defining characteristic of OEM revenues—unlike those of other manufacturer groups—is that the majority are generated through business with foreign customers. Manufacturers of automotive parts suffered the most significant revenue losses, with their sales declining by 4 percent to 81.6 billion euros. Manufacturers of vehicle bodies, structures, and trailers recorded a 1 percent year-on-year decline in revenue in 2025, generating a total of 12.9 billion euros in profit.

Profits of the automotive industry in Germany (in € billions)



Source: KBVDA, Omdia, CAAM, Fourin, JAMA und weitere nationale Institute



Employment in the German automotive industry

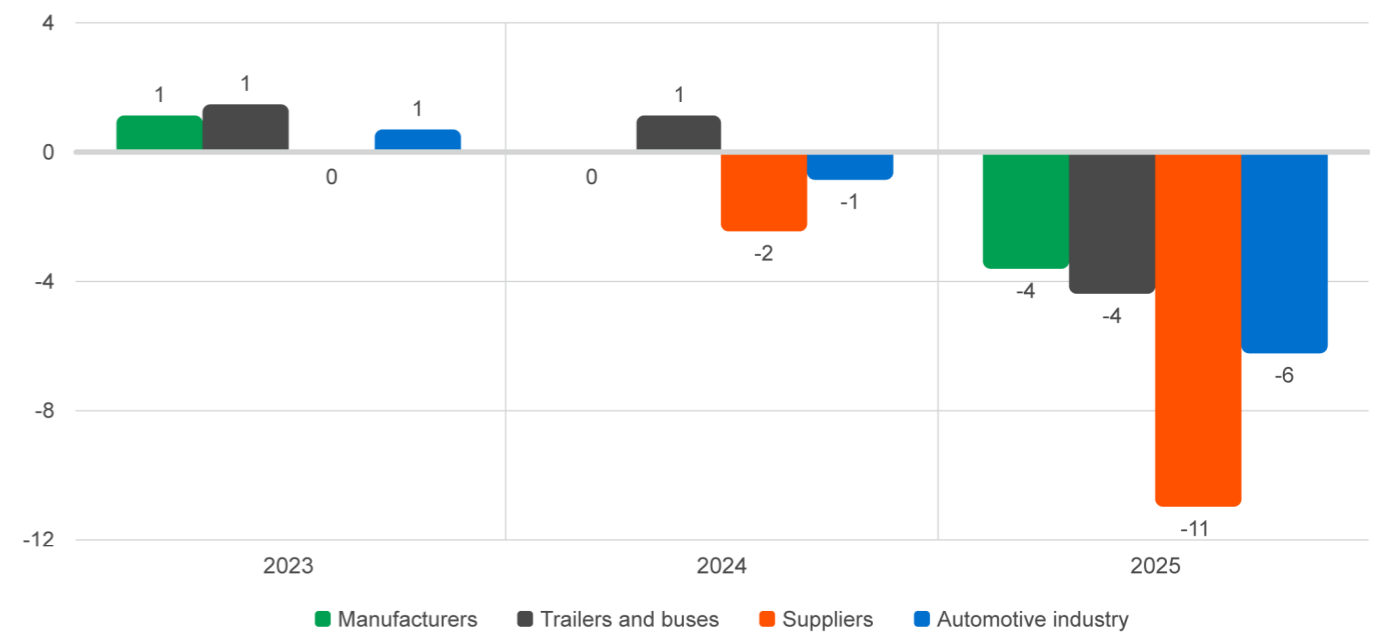
The number of employees in Germany's automotive industry declined noticeably in 2025. On an annual average, a total of 725,100 people were employed in the automotive sector—a decrease of 6 percent, or 47,900 individuals, compared to the previous year. Employment levels were last lower in 2011. Moreover, this marked the second consecutive year of declining employment; indeed, of the last six years, five ended with lower employment figures than the respective preceding year. As of 2025, employment in the automotive industry has contracted by just under 108,800 people since reaching its record high during the economic boom of 2018.

Manufacturers of vehicle bodies, structures, and trailers employed approximately 39,100 people last year, also a 4 percent decrease compared to 2024. The automotive supply industry accounts for roughly one-third of total employment within the automotive sector. Manufacturers of parts for motor vehicles and engines employed an average of 237,600 people throughout 2025. This represented an 11 percent decline compared to the previous year. The last time employment in the supply industry was this low was in 1994 (when the average stood at 234,900 employees). This trend highlights the fact that this specific group of manufacturers is particularly heavily impacted by the current challenges associated with the industry's transformation. Furthermore, a shift is currently taking place beneath the surface of these aggregated employment figures. Driven by the integration of new technologies into products, as well as new requirements placed upon automotive industry products, the occupational profiles of company workforces are also undergoing a transformation.

Employment fell in all three manufacturer groups. Among manufacturers of motor vehicles and engines, an annual average of 448,500 people were employed in 2025, approximately 4 percent below the previous year. Just over 60 percent of workers in the automotive industry are still employed at an OEM.

Employment by manufacturer group (in percent)

Change over previous year



Source: Statistisches Bundesamt

Labor costs in the international automotive industry

The high quality and growing complexity of modern passenger cars made in Germany due to sophisticated assistance systems and increasing digitalization and networking have their price. This is coupled with the structural shift toward electromobility, which is in full swing. To remain appealing for workers who are in high demand, automotive companies in Germany must offer an attractive wage. This past year, Europe experienced sharp increases in labor costs amidst high demanding tariff agreements in spite of rather normal inflation around the target value of 2 percent. At 65 euros per hour (+3 percent over the previous year), Germany had the highest labor costs in the automotive industry in 2025 when compared with other countries. It was followed by the Netherlands at 63 euros (+7 percent), where labor costs have increased by 82 percent since 2015. Austria ranked third, with an increase of four percent in 2025 to 52 euros.

Following Austria was Sweden, which recorded a 6 percent increase in labor costs, up to 51 euros. The rising labor costs in Germany over the past ten years have been relatively high, at 29 percent. This negates the competitiveness regained through the wage restraint in the wake of Agenda 2010. Germany's lack of appeal is also reflected in its domestic production, which fell by about 1.5 million passenger cars compared to 2017 (2025: 4.15 million, +2 percent over 2024), and is still under strain.

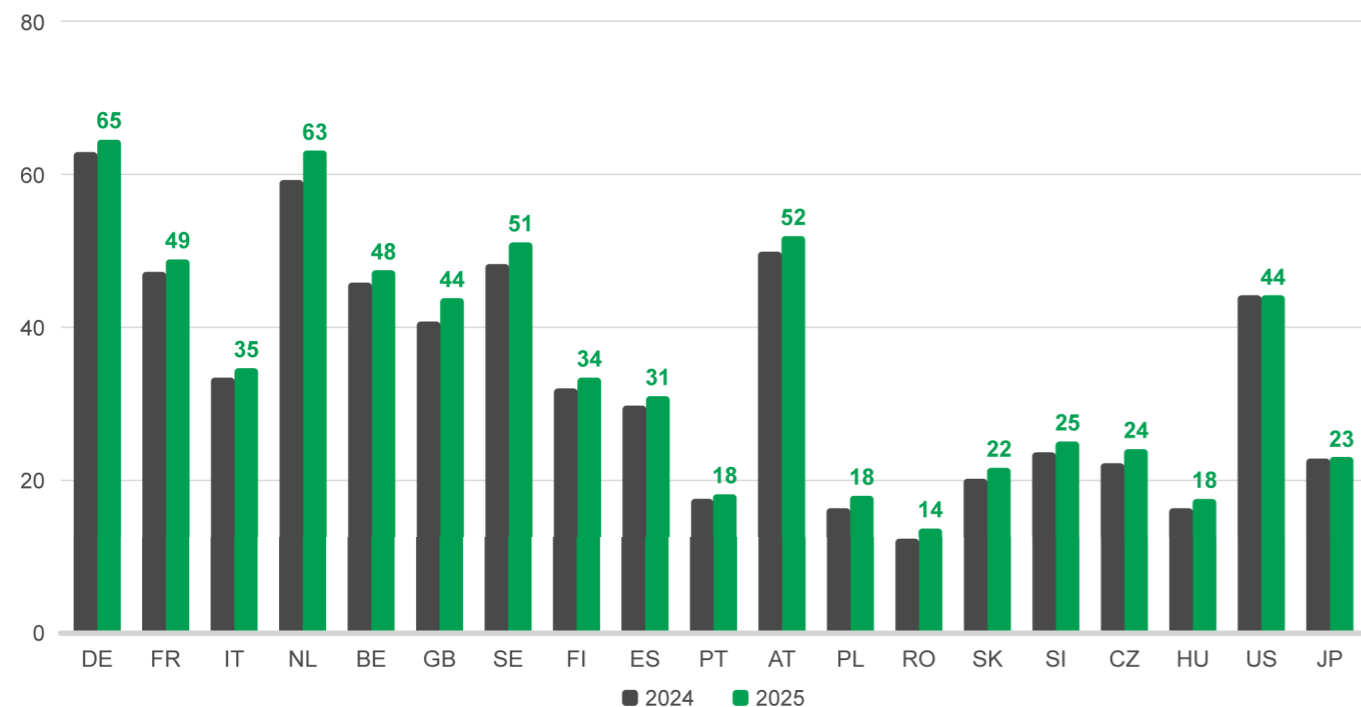
France ranks fifth at 49 euros (+3 percent), then Belgium with 48 euros (+4 percent). Next is the first non-European country in the list, the USA, with about 44 euros (±0 percent). This is followed by the United Kingdom at nearly 44 euros (+8 percent). Substantial wage settlements have contributed to this. Italian labor costs rose by 3 percent last year to 35 euros.

Next is Finland with 34 euros (+5 percent), where labor costs have only risen by 9 percent in the last decade, followed by Spain with about 31 euros (+4 percent) and Slovenia with 25 euros (+6 percent). Japan's labor costs, calculated in euros, rose by only 1 percent to 23 euros amidst the depreciation of the yen. This is 10 percent less than a decade ago. Eastern European countries rank on the lower end of the labor cost table,

with costs between 14 euros (Romania) and 22 euros (Slovakia). These emerging automotive nations have recorded considerable growth in the last 10 years, between 80 percent (Hungary) and 144 percent (Romania), such that their labor costs are gradually converging with those of other EU countries. In Portugal, labor costs rose by 4 percent in 2025 to 18 euros, and are at the same level as Poland (nearly 18 euros).

Labor costs in the automotive industry (€/hour)

by country



Source: Eurostat, nationale Ämter und eigene Berechnungen



Research and innovation

Chapter 3



Research projects for the digital and climate-neutral mobility of the future

Vehicle dynamics of automated driving 2.0

Automated vehicle functions are increasingly taking on challenging driving tasks, like passing other vehicles in constricted traffic. Both the technical mastering of the situation and passengers' subjective experience are crucial for the acceptance of these systems.

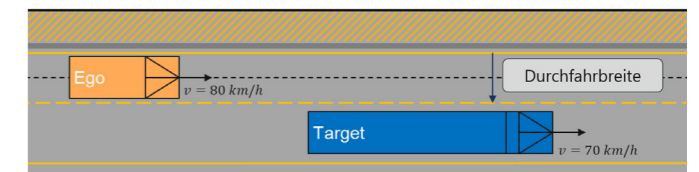
The research project „Vehicle dynamics of automated driving 2.0“ builds on a preceding FAT project in which a methodology for documenting trust and uncertainty was developed. The goal was to transfer this methodology to an especially practice-relevant scenario: automated passing in constricted lanes. Initiated and funded by the Forschungsvereinigung Automobiltechnik (FAT) e.V., the project was scientifically implemented by fka GmbH. As part of a user study in a static driving simulator, automated passing maneuvers of a truck at a highway construction site were examined. The central variable was the lateral clearance between the ego vehicle and the truck. It was also observed whether visual or auditory side tasks influence the experience of the driving situation.

A total of 42 participants took part in the study. Observable behavior responses were recorded alongside passenger assessments of safety, comfort, and reliability.

The results clearly show that the lateral clearance is the deciding factor for subjective experience. Close distances were seen much more critically and led to a lower sense of safety, reduced acceptance, and decreased trust in the automated system.

This perception was reflected both in the surveys and in the observed behavior. Any influence of the side tasks could not be identified.

The results demonstrate that automated driving systems should be more aligned with passengers' subjective sense of safety. In tight construction environments in particular, comfortable and anticipatory vehicle behavior is critical for building trust and increasing the acceptance of automated vehicle functions.



Schematic depiction of the test scenario passing/overtaking in a narrow lane



Implementation of the construction site in the simulation environment (left: entrance to the site; right: driving in the site)

Characterization and simulation of wheel airflow in the case of real tire deformation

Aerodynamics are a major factor in vehicle efficiency, and thus in the sustainability of modern vehicles. Wheels and wheel arches contribute significantly to total drag at about 25%. Computational fluid dynamics (CFD) plays a key role in aerodynamic vehicle development, but continues to face uncertainties regarding tires and rims as real tire deformations are often incorporated only in a simplified manner. Against this backdrop, FAT research group AK 6 conducted a project on the

realistic documentation and simulation of wheel airflow. The goal of the project was to improve the simulation quality of CFD around the wheels by documenting real tire deformations under strain and rotation, and systematically examining the aerodynamic effects of these.

The results should provide a sturdy foundation for optimized CFD workflows and early aerodynamic evaluations.

Force measurement



Surface pressures



Multi-hole probes



Particle image velocimetry

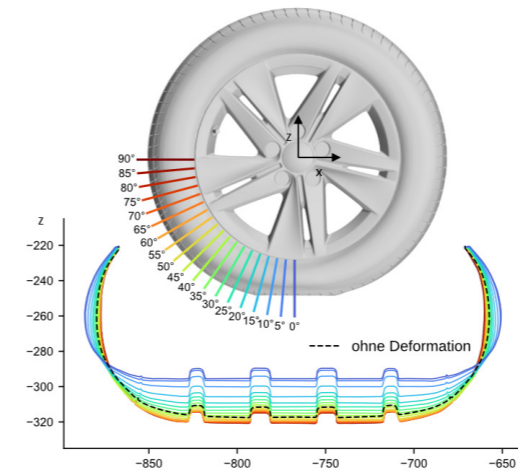


Validated tire CFD through combination of test bench, wind tunnel, and simulation

A method was developed for this that combines high-resolution 3D scans with dynamic deformation measurements of tires on a special test bench. The recorded data were translated into detailed CAD tire geometries

and prepared with a reproducible morphing process for CFD tests. Extensive wind tunnel measurements were also conducted, and the results were compared with simulations of various CFD solvers.

16" summer tires, 87 mph, 1102 lbs



Summary: Real tire deformations are a major factor in vehicle aerodynamics

The tests show a significant influence of real tire deformation on vehicle aerodynamics and drag. The manner and magnitude of these effects depend on tire type, wheel load, and vehicle configuration. Incorporating more detailed, deformed tire geometries greatly improves the meaningfulness of CFD simulations and facilitates more reliable aerodynamic optimization. At the same time, further need for research was identified as the variance in results still depends on the solver and the tire.



Standardization and regulations in the automotive industry in 2025

Standardization is a cross-cutting function that plays a vital role across all sectors of the economy as well as in society at large. To reflect this significance, VDA e.V.—in collaboration with DIN e.V. and pursuant to a contractual agreement—sponsors the Standards Committee for Automotive and Mobility (NA-Auto). This arrangement enables VDA to directly represent the interests of the automotive industry at the national, regional, and international levels. From among its numerous activities, several specific projects are presented in greater detail here.

Design recommendations for recycling-friendly plastic parts in vehicle assembly

DIN CEN/TS 18084 – Design Recommendations for Recyclability of Plastic Components defines design requirements and technical recommendations for polymer-based vehicle components to improve their recyclability during post-shredder processing.

Measures that facilitate the recovery of materials by type are specified. These include reducing complex material composites, utilizing single-grade thermoplastics, avoiding coatings or metallizations that pose recycling challenges, ensuring clear material identification, and implementing design solutions to enable the targeted separation of functional and reinforcing elements during the shredding process.

In this way, the central objectives of the European circular economy are supported, and requirements for „Design for Circularity“ in the automotive sector are established. Material recycling and the use of recyclates become feasible, thereby significantly reducing plastic waste. CEN/TS 18084 serves as a building block for circular-oriented product design in vehicle manufacturing and was developed on behalf of the EU Commission to fulfill Mandate M/584, „Recycling Plastics.“ In this context, further projects are being developed focusing on recyclability, quality assurance of recyclates, and function-based plastic design.

The Digital Product Passport (DPP) as an instrument for transparency and circular economy

A DPP is a repository for exchanging product-related information on the product's manufacturer, material, characteristics, repair, and disposal. It also enables clear identification and description of the product characteristics. This serves to fulfill the circular economy's transparency and sustainability requirements. The DPP can essentially be broken down into two parts: The DPP system, which describes the IT infrastructure, and the DPP data, which captures the substantive aspects of the product passport.

In the EU, the DPP is based on multiple regulations at the European level. Its primary foundation is the ESPR (Ecodesign Regulation). The digital battery passport, as the first DPP, is mandated under the EU Battery Regulation starting in February, 2027. For this case especially, however, there are still some legal and technological uncertainties. VDA has thus published a position paper that presents the risks for introducing the digital battery passport as well as other DPPs, and provides possible solutions at the political level.

VDA notes that the requirements regarding the DPP established by various regulations at the EU level are not aligned with one another. This results in gaps and contradictions, as well as unclearly defined roles and responsibilities.

Concerning the introduction of the digital battery passport, VDA believes that only data points that are sufficiently clear and precisely defined in regulations or standards can be included in the passport. Any other data points should not be part of the digital battery passport pursuant to the EU Battery Regulation starting in February, 2027. Furthermore, the passport should initially be limited to static data points that are required for the DPP to function.



The 48-volt on-board power supply: increased efficiency and key technology for future vehicle designs

In order to strengthen the innovation and competitiveness of the German automotive industry, VDA is pushing to establish the 48-volt on-board power supply as a global standard to replace the 12-volt main voltage level.

The higher voltage enables the use of thinner, lighter copper cables. This saves multiple grams of weight per vehicle, lowers costs, and paves the way for key technologies like automated driving, while the vehicle becomes more efficient overall—all in a low-voltage range.

The new international standard ISO 25769-2, „Electrical requirements and tests for electrical and electronic systems and components,“ creates the necessary conditions for the cost-efficient introduction of the 48-volt technology.

Standardized design of automated wiring harness production pursuant to DIN 72036

With DIN 72036, „Automation of wiring harness production,“ the automotive industry has a framework for automated manufacturing of wiring harnesses. The standard addresses key challenges regarding wiring harnesses, such as product variety, change dynamics, and global value chains.

At its core, DIN 72036 describes a structured systematics of design guidelines for interpreting the wiring harness concept, design, components, and production. It greatly simplifies cooperation between OEMs, suppliers, and unit manufacturers. The standard also includes high-voltage and high-frequency wiring harnesses and the methodology for assessing conformity to the standard. This aims to make it possible to systematically document and compare the degree to which the standard is being implemented at the product and process levels.

VDA events 2025: exchange, ideas, and dialogue

Chapter 4



Dialogue formats in 2025: MINS, Logistics Congress, SME Day, party conventions, Summer Reception

New Year's Reception 2025

On January 29, 2025, around 500 guests from the areas of policy, industry, business, and media came together for the traditional VDA New Year's Reception at Axica.

Chairman of the CDU/CSU faction in the Bundestag, Friedrich Merz, shared his perspectives on current political and economic matters.



Automotive Logistics Forum in Dresden

Dresden hosted the Automotive Logistics Forum (FAL) on February 18 and 19, 2025. The FAL is organized by the Bundesvereinigung Logistik (BVL) e.V. and VDA. It serves as an annual meeting point for logistics specialists and supply chain managers from the manufacturers (OEMs) and suppliers, as well as for automotive experts from logistics, IT, packaging, service, and con-

sulting firms, science, and research. With this platform, the organizers offer an ideal forum for exchanging expertise and ideas beyond the functional or company level, and for making personal contacts. As is tradition, the coveted VDA Logistics Award was given out, this year to Daimler Truck AG for its concept „Electrify Inbound Logistics.“



Mobility Innovation Summit celebrates successful premiere

Under the guiding theme „Transforming Mobility Together,“ VDA gathered more than 450 industry experts in Berlin on March 25 and 26, 2025. This established event took place for the first time under the new name „Mobility Innovation Summit.“ With this renaming, VDA underscores the strategic evolution of the format, as well as its increasing international and thematic focus on the mobility of tomorrow. The event centered on the pressing issues surrounding future mobility, ranging from technological breakthroughs to concrete, sustainable transformation strategies for the industry. High-ranking guests from the areas of politics and business

provided significant impetus, including Kerstin Jorna, Director-General at the European Commission; Karin Rådström, CEO of Daimler Truck Holding AG; and Dr. Markus Heyn, Member of the Board of Management at Robert Bosch GmbH. In the exhibition area, participants were able to experience innovations firsthand and gain an overview of current technological developments. The first day concluded successfully with a networking evening held at the Berlin event venue „deep.“ It was an ideal opportunity to deepen conversations, gain new perspectives, and forge valuable connections.



VDA Summer Reception 2025

The VDA Summer Reception provided an important platform for dialogue between policy, science, and business. Numerous representatives from different fields came together to discuss current issues in mobility and the automotive industry and meet with existing contacts in a summery ambience. The event was all about personal dialogue and cooperation. Policymakers, corporate managers, and science experts used the time to share ideas, link perspectives, and explore collaborative solutions to the challenges of the industry. The Summer Reception was a big success: The open atmosphere promoted deep discussions, new partnerships, and valuable networking. VDA thus once more underlined the importance of cross-industry dialogue for successfully and sustainably shaping the mobility of tomorrow.

25th VDA SME Day in Bonn: Perspectives of Automotive Value Creation

The 25th VDA SME Day was held on May 21 and 22, 2025. The theme: „Perspectives of Automotive Value Creation.“ Over 200 managers and executives of suppliers and manufacturers of trailers, structures, and buses, as well as automotive manufacturers, got together in Bonn for the event.

The annual, two-day conference offers an important platform for personal interaction and deep discussions of the most pressing issues in the industry while sharing experiences with one another. This event centered on questions of production increases and simultaneous reduction of the CO₂ footprint, the weak markets in Europe and Germany, financing hurdles, international trade conflicts, and the global spread of protectionism. The exhibition area gave attendees a comprehensive overview of SME-specific services and partnership opportunities. Automotive start-ups presented their innovations. Gitta Connemann, Parliamentary State Secretary in the Federal Ministry for Economic Affairs and Energy, and designated SME Officer of the federal government, used her keynote on the first day of the conference to highlight the great importance of small and medium-sized enterprises as the backbone of our economy and drivers of innovation and technology in the automotive industry. The panel on the topic „Successfully shaping transformation,“ discussed how German automotive companies can make themselves secure for the future and finance the processes underlying the transformation. In addition to the numerous keynotes and roundtable discussions, the event focused on dialogue among the participants themselves, who were able to contribute their own questions and experiences in four deep dive talks.



Here, the guests delved deeply into a specific current challenge facing automotive SMEs, as well as potential solutions. Among the high-ranking speakers were

Matthias Brueggemann, Vice President of Corporate Purchasing & Supplier Quality at Stellantis, and Michael Frick, CFO of the ZF Group.

VDA at party conventions

VDA has attended Bundestag party conventions with its own exhibition stand since 2022. In 2025, VDA was present at the conventions for the CDU, FDP, Greens,

CSU, and SPD. The organization and the parties primarily discussed charging infrastructure, circular economy, and Germany as an industrial hub.



Chairman of the CSU regional faction in the Bundestag Alexander Hoffmann, VDA President Hildegard Müller



Minister President of Saxony Michael Kretschmer, VDA Managing Director Jürgen Mindel



Chairman of the FDP Christian Dürr, VDA Managing Director Dr. Marcus Bollig



Minister President of Saarland Anke Rehlinger, VDA Managing Director Dr. Marcus Bollig



VDA Managing Director Andreas Rade, Minister President of Baden-Württemberg Cem Özdemir

Innovation and start-up program: Future Tech Day

Shaping the mobility of the future together: VDA connects start-ups, SMEs, and industry

How can start-ups, SMEs, industry, policymakers, and investors shape the future of the automotive industry together? This was the theme of various VDA event formats in 2025. With the Future Tech Day, SME Day, and the Mobility Innovation Summit, VDA is specifically promoting exchange, networking, and cooperation between established companies and the start-up scene.

VDA Future Tech Day 2025: shaping the future of mobility together

Future Tech Day was held on November 4, 2025. About 150 participants from the areas of policy, business, SMEs, and the start-up scene took part. Keynotes, panels, master classes, and networking events addressed the future of the industry. It became clear that the challenges of the transformation of the automotive industry can only be overcome when policy, industry, and start-ups work in tandem. VDA President Hildegard Müller emphasized the importance of innovation, new partnerships, and cooperation with start-ups to achieve climate-neutral, digital mobility.

Political messaging came from Berlin and Brussels: EU Commissioner Ekaterina Zaharieva stated the importance of the transformation of the automotive industry for Europe, and the inclusion of start-ups in this process. Thomas Jarzombek, Parliamentary State Secretary for Digital and State Modernization, emphasized that the digitalization of the industry requires structured cooperation with start-ups and established companies.

Future Tech Day prioritized venture clienting and the practical use of artificial intelligence. The keynote by Gregor Gimmy, founder of the venture clienting model, explained how established companies can strengthen their innovation by working with start-ups. In addition, Thuy-Ngan Trinh from A11 discussed how AI, when used properly, can create measurable economic added value, especially for small and medium-sized enterprises.

At the VC Speed Dating event, founders got to know investors in the mobility sector through brief conversations. In closing, select startups who had previously pitched their solutions for the mobility of tomorrow were given the Mobility Innovation Award.



VDA President Hildegard Müller, Parliamentary State Secretary for the Federal Ministry of Digital and State Modernization Thomas Jarzombek, VDA Managing Director Jürgen Mindel

VDA SME Day 2025: dialogue with start-ups and SMEs

VDA SME Day on May 21 and 22, 2025 focused on key issues like value creation potential, securing financing, geopolitical conflicts, and international competition. The Start-up Pitches, in which seven young companies took part, were another highlight.

The start-ups presented their business ideas and illustrated where concrete opportunities for partnerships with small and medium-sized suppliers exist. This industry's innovativeness comes from the interplay of new ideas and years of experience. In one panel, representatives from industry, consultancies, and start-ups discussed the potential of cooperation between established companies and start-ups. When experience, market knowledge, and technological approaches come together, innovative solutions for digital and climate-neutral mobility can be developed and successfully scaled.

Exhibitors who were start-ups and established companies also got SME Day was an important platform for discussion and networking along the automotive value chain.

Mobility Innovation Summit 2025: a forum for the innovations of tomorrow

On March 25 and 26, 2025, the VDA Mobility Innovation Summit addressed issues of the future like digitalization, software-defined vehicles, autonomous driving, cybersecurity, and climate-neutral drivetrains. Start-ups played an important role. Young companies were given their own stage, as well as exhibition spaces, to present their current projects, platforms, and technology for the mobility of tomorrow. They created new momentum and presented concrete starting points for potential cooperation with other industry representatives.

Here, too, the connection of new ideas from start-ups and established companies' years of experience was highlighted as a crucial success factor. Collaborations of this kind can help accelerate the implementation of future-oriented solutions and actively shape the transformation of the mobility sector.

Success in Munich: IAA MOBILITY 2025

Chapter 5



Strong start for the mobility of the future

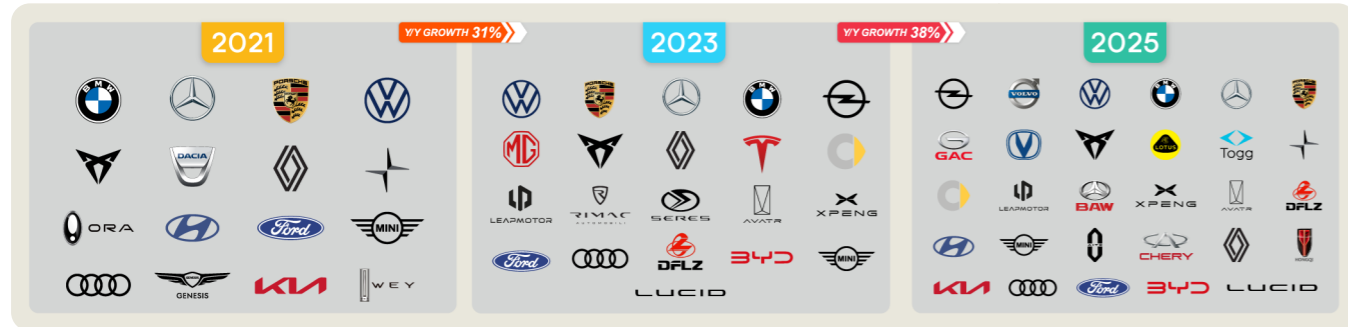
IAA MOBILITY in Munich impressively cements its position as the world's leading platform for the mobility of the future. With the slogan „It's All About Mobility,“ about 750 exhibitors from 37 countries ensured a strong start from September 9 to 14, 2025. The attendance record from the previous event in 2023 was exceeded with well over 500,000 visitors. The Press and Media Day on September 8 kicked the event off with about 3,700 journalists from 70 countries, as well as 2,344 media representatives, 1,483 of which were international. This marked a 7 percent increase compared to the last IAA MOBILITY. Media interest was also evident in the online reporting, which reached a new high with an increase of 10 percent over 2023.

The German automotive industry showcased its innovation, passion, and performance in Munich. VDA President Hildegard Müller emphasized the event's signaling effect: The great enthusiasm among attendees shows the enormous interest in climate-neutral and digital mobility. With concrete innovations and world premieres, the industry impressively showed that it is a global leader and is already developing and manufacturing products for the mobility of the future. Manufacturers and suppliers stand for quality, security, efficiency, and strong brands. IAA MOBILITY shows how closely tradition and modernity are connected in the German automotive industry, and that its success story also marks the success of Germany as an industrial hub.



Number of AUTOMOTIVE OEMs: 2021 vs. 2023 vs. 2025

Focus on new acquisition of leading international companies from the automotive segment



Global stage for world premieres

The high levels of innovation were evident in the presentations: Over 350 world premieres and innovations, an increase of 17 percent over 2023. Approximately 750 exhibitors, 57 percent of whom were international, attended in 2025. Companies from China, South Korea, Austria, Italy, and the USA were especially heavily represented. The global reach of IAA MOBILITY was also reflected in the attendees: About 24 percent of visitors came from abroad. The largest international visitor groups came from the UK, Austria, China, Italy, and France.



Record visitor count at the IAA Summit

The IAA Summit also recorded strong growth: The number of trade visitors rose by over 13 percent. This confirmed the long-term success of the concept that combines the Summit, as an international business and dialogue platform for the trade public, with the inner-city Open Space for visitors.

The IAA Summit continues to strengthen its position as a leading global industry platform. Over 69,000 trade visitors from 108 countries took part, marking a new record.

The exhibitors also reported high quality and quantity of business contacts. Furthermore, visitor satisfaction reached record highs:

- 90 percent reached their visitor goals of “good” to “outstanding”
- 88 percent said the Summit was positive overall
- 95 percent rated the exhibition areas as “good” to “outstanding”
- 71 percent of return visitors rated 2025 as the best IAA they have ever attended



IAA Conference wins over trade public

During the Summit, the IAA Conference drew over 21,000 participants. About 200 sessions with 550 speakers from over 300 companies were held across five stages. 91 percent of the visitors said the Conference was “good” to “outstanding,” and 97 percent praised the quality of the presenters in particular.

High-ranking political and economic dialogue

There were also 86 tours with high-ranking representatives from politics and business, including representatives from the German federal government, international delegations, EU institutions, and top representatives from business and associations.



Gouverneurin von Michigan (USA) Gretchen Whitmer, VDA-Geschäftsführer Jürgen Mindel



Largest IAA Open Space ever

The Open Space in downtown Munich once again drew large crowds. Despite the at times patchy weather, it remained a popular event.

With 27 percent more exhibition space compared to 2023, the Open Space was the largest inner-city presentation surface in the history of IAA. The premiere of the “Festival of Lights Munich” added more cultural flair and was very positively received by the attendees.

The levels of satisfaction speak for themselves:

- 94 percent rated the Open Space as good or very good
- 79 percent would recommend IAA MOBILITY
- 86 percent see it as the most important industry platform
- 92 percent see it as sustainable and future-oriented
- 96 percent describe their visit as multifaceted
- 58 percent of guests visited IAA for the first time, while 78 percent of return visitors say it is the best IAA yet





Record numbers of test drives and interactive formats

Dialogue, interaction, and experience were the key words in 2025. Over 12,000 test drives of passenger cars and motorcycles were taken, a 27 percent increase over the last IAA MOBILITY.

In addition:

- Over 450 Fahrten in the new format ADAS & Telematics
- Over 4,200 bicycle test rides
- Extensive tests on the Cycling & Micromobility Course

More than half of the attendees can imagine buying a self-driving car in the future. Over 94 percent of the visitors to the Open Space also said that they are already looking forward to the next IAA MOBILITY in 2027. According to VDA Managing Director Jürgen Mindel, people do not just want to see mobility innovations—they want to experience them. Exchange and dialogue are crucial for bringing together expectations from society, policy, and business. IAA MOBILITY is the central platform for this. The event's success is also reflected in the long-term selection of the venue, with the next three IAA MOBILITY events up to and including 2031 to be held in Munich. This was agreed by both VDA and Messe München.



Qualitätsmanagement

Kapitel 6

German automotive manufacturers and their suppliers have had their own Quality Management Center (QMC) since August 1, 1997. The QMC is coordinated by the Quality Management Commission (QM Commission), the highest quality management body at VDA.

The crises in the past three years have demonstrated how important it is that the quality of systems, processes, and products remain at the usual, high level. Quality is the core tenet during the entire creation process of products, affecting all stages from development and production to use by the consumer. At VDA, the QM Commission oversees matters of quality in the German automotive industry. The commission's members strive to continuously improve quality management methods and tools so that they always meet the needs of the industry. Upper leadership in the commission as well as experts in the project groups are bound to apply and advance the various quality methods at the highest level. They anticipate the mega-trends in the automotive industry and ensure high commitment to implementation within the value chain. In addition, the wide range of QM methods and tools are used internationally.

The VDA Quality Management Center (QMC) works with manufacturers and suppliers to develop new quality management methods and techniques. The highest quality management body at VDA, the QM Commission, sets and further develops the VDA quality standards. The commission consists of representatives from VDA, automotive manufacturers, and suppliers, and sees itself as a joint platform for creating and im-

plementing harmonized quality strategies and methods. As a branch office, the QMC implements the decisions of the QM Commission: Within the commission's project groups, experts from the member companies devise definitions, regulations, and requirements of quality management in the automotive industry. The results are published and marketed as standards in the "Red Books." The content continues to be didactically prepared for in-house training and professional development, as well as offered as VDA training courses. Employees of manufacturers and suppliers along the entire supply chain are thus able to receive training in applying the quality standards. In addition to these opportunities, select qualified, licensed partners offer VDA training nationwide and internationally.

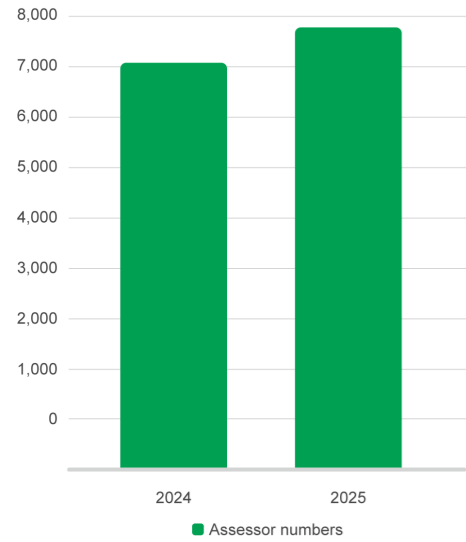
Furthermore, the VDA QM Commission is a contract partner and supervisory body of certification providers. These providers use special guidelines from the VDA QM Commission or the International Automotive Task Force (IATF), in which the QM Commission is a member, to audit the quality management systems of automotive companies worldwide. They also provide certification of implementation of quality standards. Adherence to the processes and standards of the QM Commission is generally a requirement for becoming a supplier in the international automotive supply chain.

VDA QMC

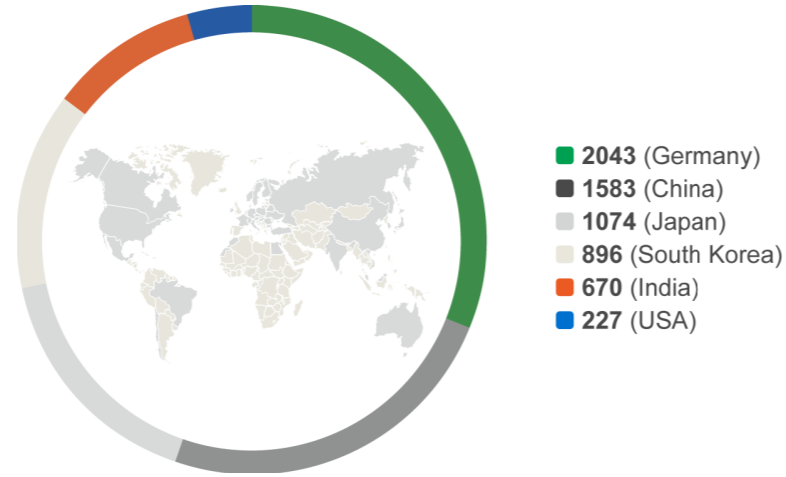
Verband der Automobilindustrie
Qualitäts-Management-Center

Development of Automotive SPICE® in 2025

Automotive SPICE®
Development of assessor numbers

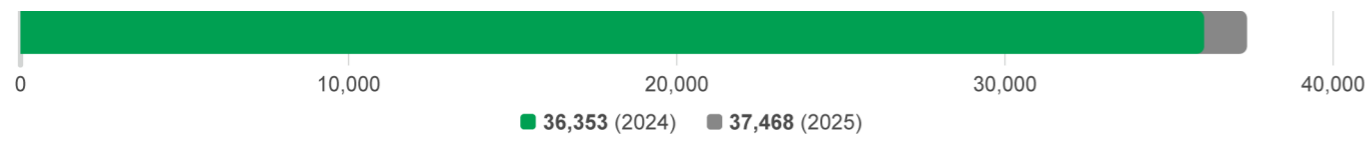


International
distribution

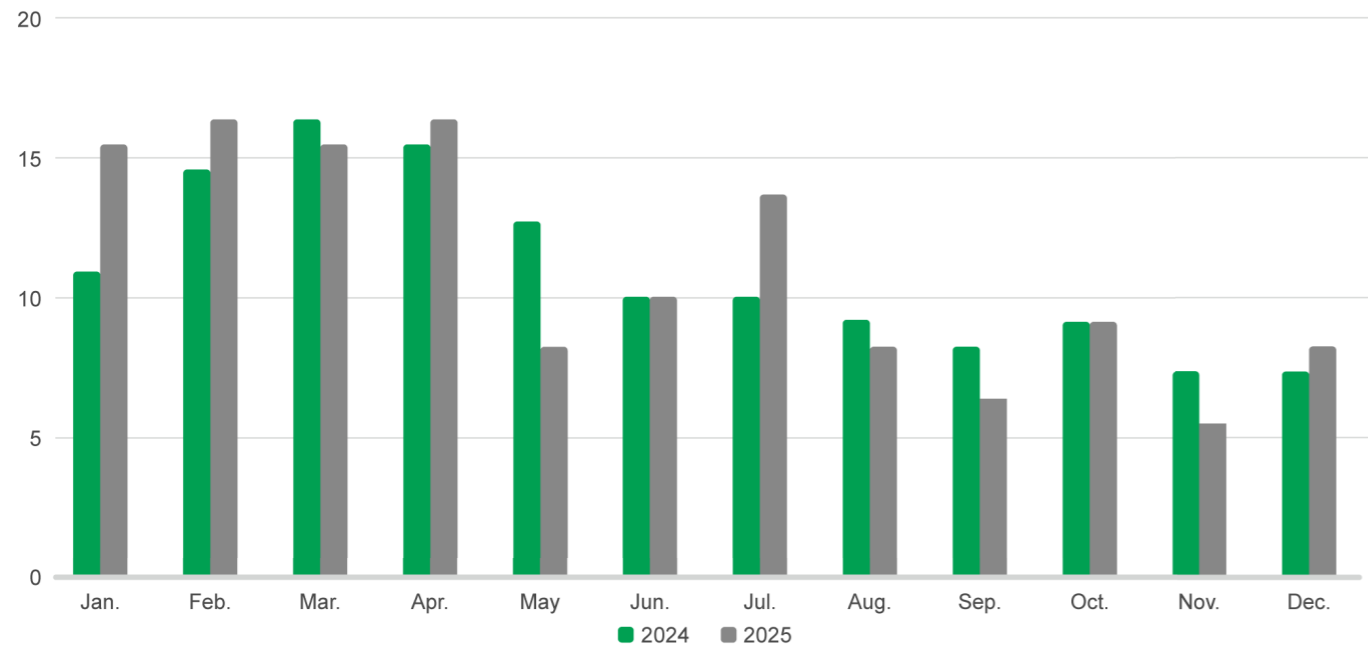


Developments of IATF certificates and witness audits in expert unit

Number of IATF certificates

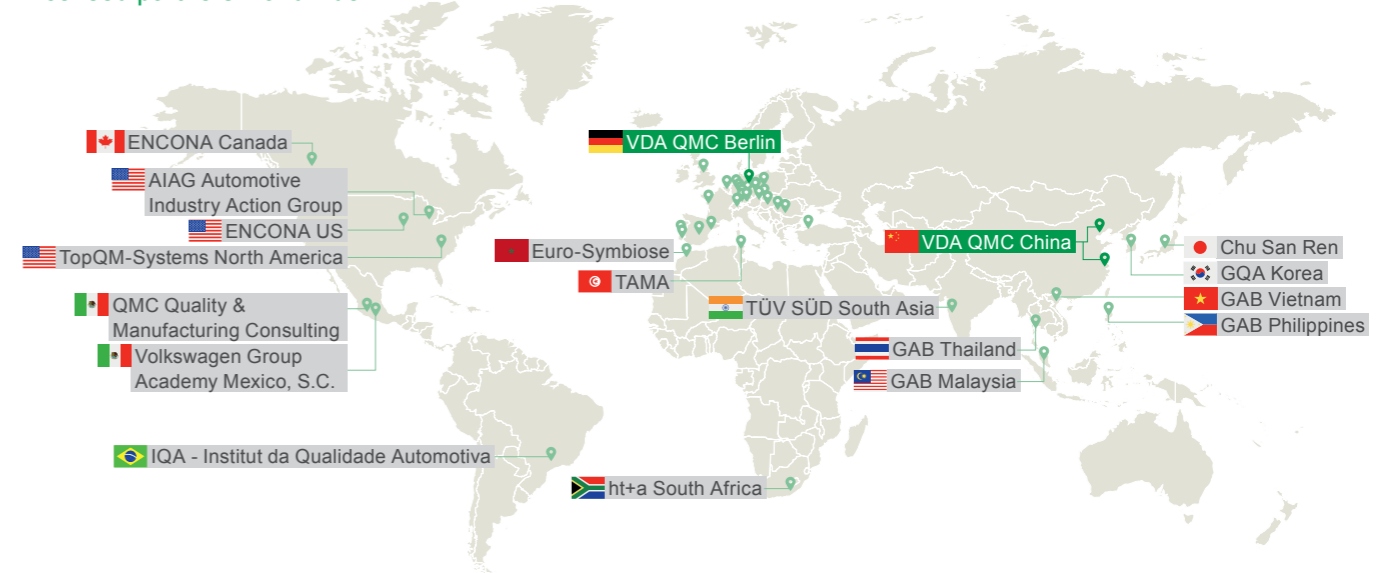


Number of witness audits
in IATF 16949

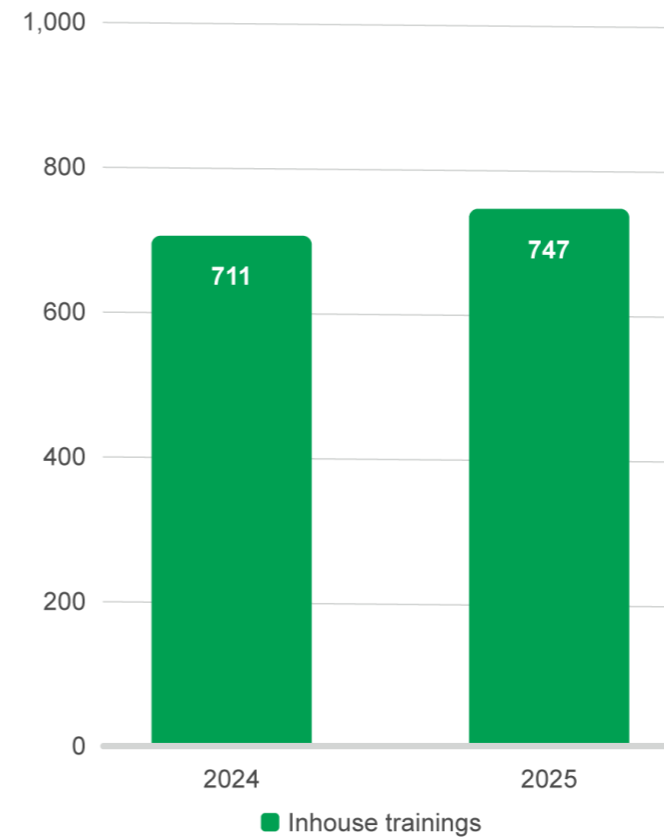


Training and education developments

Developments
Licensed partners worldwide



Development
In-house trainings

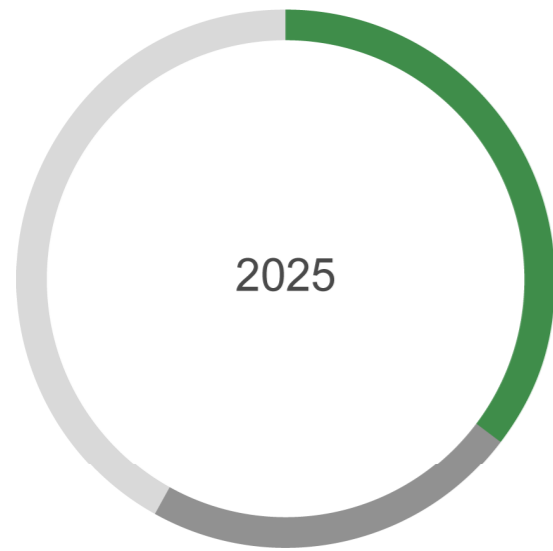
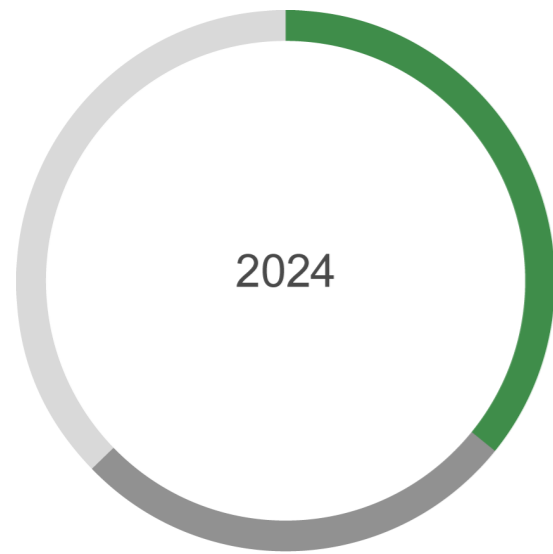


Global network in 44 countries with 45 licensed partners

All qualifications on-site, in-house, or digital, in regional language, and with VDA QMC-tested trainers and examiners.



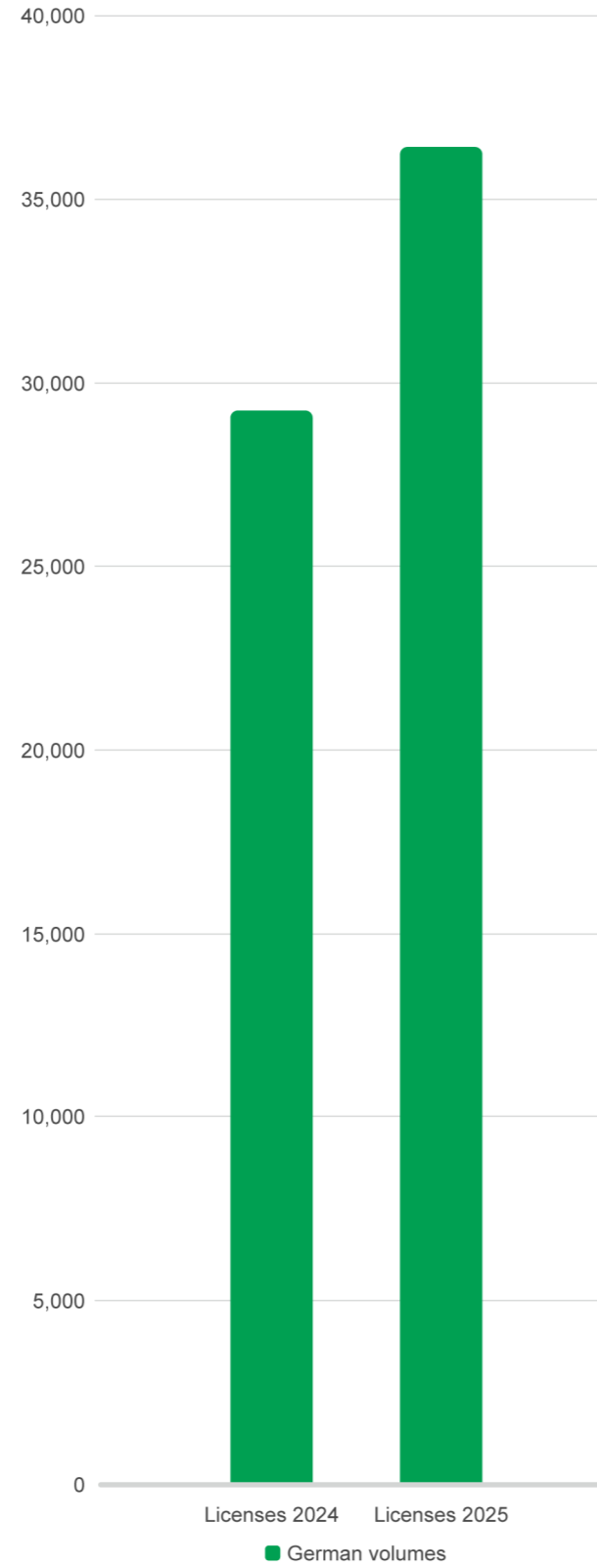
Development of VDA QMC publications



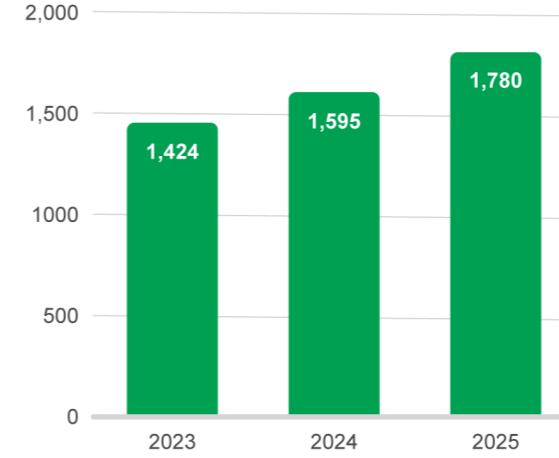
- International publications
- English volumes
- German volumes


572 Internet Portal

Development of VDA QMC software licenses




Development of participant count at QMC events







Online Quality Management Conference VDA QMC
3/19/2026 / 5/6/2026
online event



VDA Automotive SYS[®] Conference
June 23–25, 2026
in Berlin



21st Quality Summit of the Automotive Industry
November 3–4, 2026
in Berlin



VDA QMC Expert Forum at IAA TRANSPORTATION
September 14–20, 2026
in Hannover

Strong network – strong voice



The German Association of the Automotive Industry (VDA) consolidates around 620 manufacturers and suppliers under one roof. The members develop and produce cars and trucks, software, trailers, superstructures, buses, parts and accessories as well as new mobility offers.

We represent the interests of the automotive industry and stand for modern, future-oriented multimodal mobility on the way to climate neutrality. The VDA represents the interests of its members in politics, the media, and social groups. We work for electric mobility, climate-neutral drives, the implementation of climate targets, securing raw materials, digitization and networking as well as German engineering.

We are committed to a competitive business and innovation location. Our industry ensures prosperity in Germany: More than 730,000 people (2025) are directly employed in the German automotive industry.

The VDA is the organizer of the largest international mobility platform IAA MOBILITY and of IAA TRANSPORTATION, the world's most important platform for the future of the commercial vehicle industry.

If you notice any errors, omissions or ambiguities in these recommendations, please contact VDA without delay so that these errors can be rectified.

Publisher German Association of the Automotive Industry
Behrenstraße 35, 10117 Berlin
www.vda.de/en

German Bundestag Lobby Register No.: R001243 EU
Transparency Register No.: 9557 4664 768-90

Copyright German Association of the Automotive Industry

Reprint, also in extracts, is only permitted,
if the source is stated.

Version Juni 2026