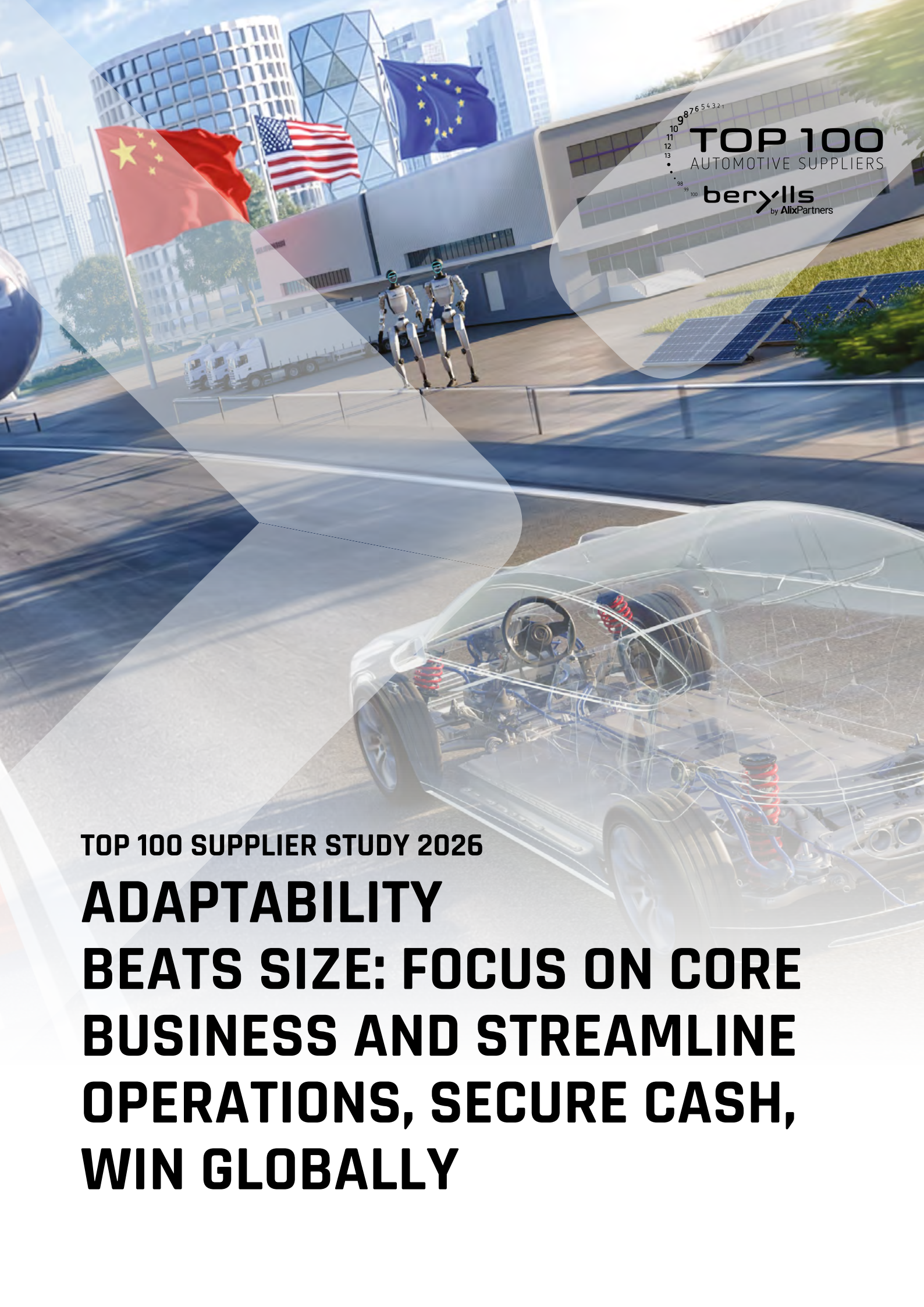




TOP 100
AUTOMOTIVE SUPPLIERS

berylls
by AlixPartners

TOP 100 SUPPLIER STUDY 2026

**ADAPTABILITY
BEATS SIZE: FOCUS ON CORE
BUSINESS AND STREAMLINE
OPERATIONS, SECURE CASH,
WIN GLOBALLY**

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1 | CRISIS AS A CATALYST



Dr. Alexander Timmer
Berylls by AlixPartners

Anyone seeking to describe the situation facing automotive suppliers this year could point to a broad number of factors, such as declining revenue despite rising production volumes, delayed platform launches, or growing pressure from Asia. And all of that is true, but still misses the point. The crux of the matter is financial in nature – and more alarming than most public discussions would suggest.

The industry's interest coverage ratio has been declining steadily since its post-COVID peak and is now at its lowest point since the onset of the electrification wave. After a brief recovery, the investment rate among the largest suppliers has fallen to its lowest level in at least eight years. Neither of these developments are a mere cyclical dip, but signalize a structural shift, the consequences of which are being underestimated. **The supplier industry is losing its financial strength at precisely the moment when it needs to finance the most expensive transformation in its history.**

Companies that allocate a growing share of their operating cash flow to interest payments have less leeway to make the required investment leap into the world of electric mobility and software-based vehicle systems. Enterprises that reduce their investment ratio year after year do not immediately lose market share – but they do lose the ability to defend that share three or four years down the line. That is the difference between a liquidity problem and a solvency problem. Some parts of the supplier industry have both.

A paradigm shift is now sweeping through this weakened system and changing the equation for good. European OEMs are increasingly expanding their procurement partnerships with Asian companies. With every new agreement of this kind, the Asian supplier network becomes more deeply integrated in European vehicle architectures. Competitive pressure is therefore no longer coming solely from new market entrants, but increasingly also from the procurement decisions of long-standing OEM customers, which fundamentally changes the underlying strategic logic.

Today, Asia is no longer merely a market for high-volume sales of mature technologies, but also serves as a benchmark for innovation and a price reference. Companies that fail to establish their own development presence there are developing for a market that will be faced with a fully scaled, lower-cost alternative in just a few years.

Here lies the real irony of the situation: the very suppliers who most urgently need to take this step – small and medium-sized specialists, companies without a footprint in Asia, and suppliers in product categories directly affected by technological advances – are the least well-positioned to do so due to the burden of interest payments and declining investment capacity. The technological expertise is in place, but the financial resources needed to make the necessary investment leap are increasingly lacking.

What does this imply? The answer lies not in waiting, but in actively refocusing our efforts on three areas. Consistently streamlining the balance sheet creates the financial flexibility needed to take the next steps. Those who view Asian manufacturers as potential new domestic customers as they expand into Europe – and offer them European certification expertise as genuine added value – are opening a strategic window of opportunity that will not remain open indefinitely. And companies that develop the growing aftermarket as a high-margin second revenue stream can gradually free themselves from direct OEM price pressure. Together, these three levers can achieve more than any one of them on its own.

The current situation is serious. But it is also a challenge that offers opportunities. Those who make the right decisions now can emerge stronger from this period of consolidation – as a provider to both ecosystems rather than a bystander to a transformation shaped by others.

I hope you enjoy reading it,
Yours

Dr. Alexander Timmer
Partner & Managing Director
Berylls by AlixPartners



The supplier industry is losing its financial strength at the very moment when it needs to finance the most expensive transformation in its history.



2 | TOP 100 SUPPLIERS RANKING

As of 15.05.2026																
Company	Country	Rank			Revenue				Profitability							Notes
		2025	2024	Δ	2025	2024	Δ absolute	Δ relative	Type	2025 in €	2025 in %	2024 in €	2024 in %	Δ		
Bosch	DE	1	1	0	55.845	55.795	50	0,1%	EBIT	983	1,8%	2.041	3,7%	-1,9%	B, 1, AU	
Denso	JP	2	2	0	42.802	42.522	280	0,7%	OI	2.865	6,7%	3.263	7,7%	-1,0%	B, 2, AU	
CATL	CN	3	7	4	38.987	32.493	6.494	20,0%	K.A.	-/-	-/-	-/-	-/-	-/-	B, 1, AU	
Hyundai Mobis	KR	4	5	1	37.893	38.794	-901	-2,3%	OI	2.082	5,5%	2.083	5,4%	0,1%	B, 1, GU	
Magna	CA	5	4	-1	37.177	39.575	-2.398	-6,1%	EBIT	1.342	3,6%	1.620	4,1%	-0,5%	B, 1, GU	
ZF Friedrichshafen	DE	6	6	0	35.573	38.097	-2.524	-6,6%	EBIT	-1.003	-2,8%	192	0,5%	-3,3%	B, 1, AU	
Aisin	JP	7	8	1	29.228	28.442	786	2,8%	OI	1.440	4,9%	1.011	3,6%	1,4%	B, 2, AU	
FORVIA	FR	8	10	2	26.154	26.974	-820	-3,0%	OI	1.457	5,6%	1.400	5,2%	0,4%	B, 1, GU	
Michelin	FR	9	9	0	25.992	27.193	-1.201	-4,4%	OI	2.366	9,1%	2.631	9,7%	-0,6%	B, 1, GU	
HASCO	CN	10	12	2	22.665	21.682	983	4,5%	OI	1.162	5,1%	1.055	4,9%	0,3%	B, 1, GU	
Valeo	FR	11	14	3	20.903	21.492	-589	-2,7%	OI	977	4,7%	919	4,3%	0,4%	B, 1, GU	
Bridgestone	JP	12	15	3	20.832	21.414	-582	-2,7%	OI	2.113	10,1%	2.076	9,7%	0,4%	B, 1, AU	
Cummins	US	13	11	-2	20.600	22.960	-2.360	-10,3%	EBIT	1.849	9,0%	2.285	10,0%	-1,0%	B, 1, AU	
Lear	US	14	13	-1	20.583	21.532	-948	-4,4%	EBIT	940	4,6%	1.013	4,7%	-0,1%	A, 1, GU	
Schaeffler	DE	15	16	1	19.671	19.651	21	0,1%	EBIT	116	0,6%	-/-	-/-	-/-	B, 1, AU	
Aumovio	DE	16	Neu	Neu	18.550	n.a.	n.a.	n.a.	OI	-/-	-/-	-/-	-/-	-/-	B, 1, AU	
Aptiv	IE	17	17	0	18.051	18.212	-161	-0,9%	OI	1.048	5,8%	1.702	9,3%	-3,5%	B, 1, GU	
Sumitomo Electric	JP	18	20	2	16.921	16.495	426	2,6%	OI	1.107	6,5%	1.001	6,1%	0,5%	B, 2, AU	
Goodyear	US	19	19	0	15.803	16.975	-1.173	-6,9%	OI	935	5,9%	1.218	7,2%	-1,3%	B, 1, AU	
Tenneco	US	20	18	-2	14.124	15.500	-1.376	-8,9%	K.A.	-/-	-/-	-/-	-/-	-/-	D, 1, GU	
Continental	DE	21	3	-18	13.798	39.719	-25.921	-65,3%	EBIT	1.776	12,9%	2.287	5,8%	7,1%	B, 1, AU	
Yazaki	JP	22	22	0	13.379	13.174	204	1,6%	K.A.	-/-	-/-	-/-	-/-	-/-	D, 3, AU	
Hankook & Company	KR	23	52	29	13.145	6.379	6.766	106,1%	OI	1.142	8,7%	1.194	18,7%	-10,0%	B, 1, GU	
Adient	IE	24	21	-3	12.995	13.417	-423	-3,2%	EBIT	99	0,8%	300	2,2%	-1,5%	B, 2, GU	
Astemo	JP	25	24	-1	12.721	12.746	-25	-0,2%	K.A.	-/-	-/-	-/-	-/-	-/-	D, 3, AU	
BorgWarner	US	26	23	-3	12.669	13.014	-345	-2,6%	OI	474	3,7%	504	3,9%	-0,1%	B, 1, GU	
HORSE Powertrain	GB	27	Neu	Neu	12.626	n.a.	n.a.	n.a.	OI	-/-	-/-	-/-	-/-	-/-	D, 1, GU	
Toyota Boshoku	JP	28	28	0	11.921	11.774	148	1,3%	OI	300	2,5%	329	2,8%	-0,3%	B, 2, GU	
Motherson Group	IN	29	26	-3	11.740	12.051	-311	-2,6%	K.A.	-/-	-/-	-/-	-/-	-/-	B, 1, AU	
Gestamp	ES	30	27	-3	11.349	12.001	-652	-5,4%	OI	546	4,8%	582	4,9%	0,0%	B, 1, GU	
Mahle	DE	31	29	-2	11.257	11.681	-424	-3,6%	EBIT	228	2,0%	423	3,6%	-1,6%	B, 1, GU	
Opmobility	FR	32	30	-2	10.216	10.484	-268	-2,6%	OI	490	4,8%	440	4,2%	0,6%	B, 1, GU	
Autoliv	SE	33	34	1	9.571	9.599	-28	-0,3%	OI	963	10,1%	904	9,4%	0,6%	B, 1, GU	
Clarios	US	34	37	3	8.912	9.303	-392	-4,2%	K.A.	-/-	-/-	-/-	-/-	-/-	E, 3, AU	
Marelli	IT	35	32	-3	8.910	10.488	-1.578	-15,0%	K.A.	-/-	-/-	-/-	-/-	-/-	D, 1, GU	
Dana	US	36	36	0	8.848	9.501	-653	-6,9%	EBIT	374	4,2%	209	2,2%	2,0%	B, 1, GU	
LG Energy Solution	KR	37	31	-6	8.627	11.030	-2.404	-21,8%	OI	-423	-4,9%	-563	-5,1%	0,2%	B, 1, AU	
BHAP	CN	38	38	0	8.623	8.989	-366	-4,1%	K.A.	-/-	-/-	-/-	-/-	-/-	E, 1, GU	
Weichai Power	CN	39	33	-6	8.542	8.273	269	3,3%	OI	-/-	-/-	-/-	-/-	-/-	B, 1, AU	
TE Connectivity	IE	40	39	-1	8.506	8.562	-56	-0,7%	OI	1.658	19,5%	1.677	19,6%	-0,1%	B, 2, AU	
Flex-N-Gate	US	41	41	0	8.230	8.222	8	0,1%	K.A.	-/-	-/-	-/-	-/-	-/-	D, 1, GU	
JTEKT	JP	42	43	1	7.996	7.566	430	5,7%	OI	276	3,5%	149	2,0%	1,5%	B, 2, AU	
Brose	DE	43	42	-1	7.900	7.700	200	2,6%	K.A.	-/-	-/-	-/-	-/-	-/-	E, 1, GU	
Joyson	CN	44	47	3	7.536	7.173	363	5,1%	OI	274	3,6%	257	3,6%	0,0%	B, 1, GU	
Luxshare-ICT	CN	45	Neu	Neu	7.516	1.767	5.750	325,5%	OI	-/-	-/-	-/-	-/-	-/-	D, 1, AU	
Infineon	DE	46	40	-6	7.304	8.257	-953	-11,5%	OI	1.569	21,5%	1.964	23,8%	-2,3%	B, 2, AU	
PAS (Mobitera)	JP	47	Neu	Neu	7.238	n.a.	n.a.	n.a.	K.A.	-/-	-/-	-/-	-/-	-/-	D, 1, GU	
Benteler	AT	48	44	-4	7.030	7.368	-338	-4,6%	EBIT	260	3,7%	251	3,4%	0,3%	B, 1, AU	
ThyssenKrupp Automotive	DE	49	45	-4	6.992	7.342	-350	-4,8%	EBIT	-30	-0,4%	182	2,5%	-2,9%	B, 2, AU	
LG Electronics	KR	50	46	-4	6.904	7.198	-294	-4,1%	OI	347	5,0%	78	1,1%	3,9%	B, 1, AU	
Pirelli	IT	51	49	-2	6.776	6.773	3	0,0%	EBIT	891	13,2%	903	13,3%	-0,2%	A, 1, GU	
Huawei	CN	52	97	45	6.531	3.384	3.147	93,0%	K.A.	-/-	-/-	-/-	-/-	-/-	D, 1, AU	
Toyoda Gosei	JP	53	53	0	6.302	6.303	-1	0,0%	K.A.	-/-	-/-	-/-	-/-	-/-	B, 2, AU	
NXP Semiconductors	NL	54	50	-4	6.297	6.607	-309	-4,7%	K.A.	-/-	-/-	-/-	-/-	-/-	B, 1, AU	
Sumitomo Rubber Ind.	JP	55	51	-4	6.179	6.386	-208	-3,3%	OI	472	7,6%	465	7,3%	0,4%	B, 1, AU	
CITIC Dicastal	CN	56	62	6	6.043	5.491	552	10,1%	K.A.	-/-	-/-	-/-	-/-	-/-	B, 1, GU	
HL Mando	KR	57	54	-3	5.862	5.997	-135	-2,3%	OI	221	3,8%	243	4,1%	-0,3%	B, 1, GU	
Fuyao	CN	58	68	10	5.640	5.040	600	11,9%	OI	1.310	23,2%	1.068	21,2%	2,0%	B, 1, GU	

3 | PRODUCTION VOLUMES RISING, REVENUE AND MARGINS FALLING – TOP 100 SUPPLIERS UNDER PRESSURE



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Following a decline in the previous year, global vehicle production rebounded strongly in 2025. With 92.9 million vehicles produced worldwide, around 4% more units rolled off the assembly lines than in 2024, although the figure is still about 1.3% down on pre-COVID levels. However, the 100 largest automotive suppliers were unable to benefit from this volume growth, as their combined revenue fell by 2.2% to 1,061 billion euros. Currency exchange rate effects also served to dampen the trend. Not counting the depreciation of most currencies against the euro, cumulative revenue would have grown by 0.8%. Measured in euros, 62% of the TOP 100 suppliers reported a decline in revenue. Although the figure was lower than in the previous year (2024: 69% of the TOP 100 suppliers), it nonetheless showed that rising automotive production is not a guarantee of growth for every supplier. A similar picture emerged among the ten largest OEMs, whose combined revenue fell by 2.7% to 1,529 billion euros. A major factor driving this trend was the shift in the vehicle mix toward more affordable small and medium-sized cars, particularly in China.

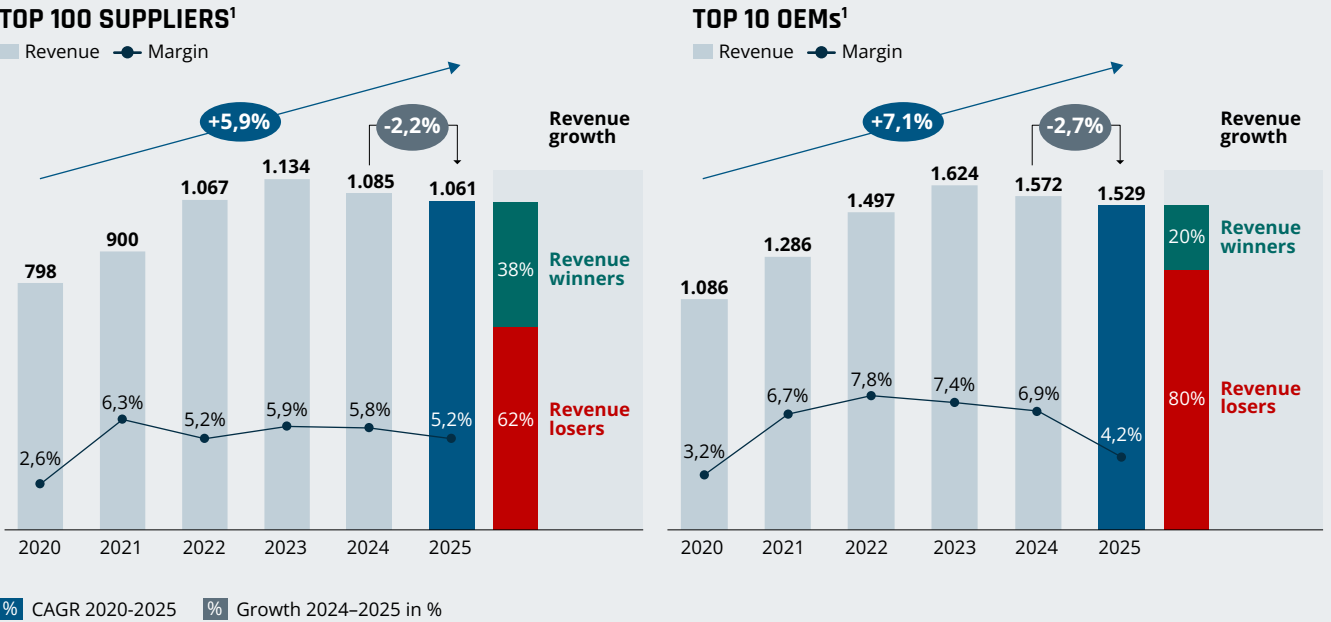
2025 was not an easy year for many OEMs and suppliers; even for established companies and former profit leaders such as Porsche, it became a year of crisis. The sales of electric cars are emblematic of this trend. The Chinese manufacturer BYD has clearly overtaken electric car pioneer Tesla as the world's largest supplier of battery-powered vehicles, thereby confirming what developments in recent years had already suggested: the industry's pace of growth is increasingly being determined by companies from China. Among OEMs, the cumulative

revenue of the TOP 10 fell by 2.7% from 1,572 to 1,529 billion euros, and the TOP 10's share of global vehicle production also declined by 2.6% to 50.6 million units (approximately 54% of global vehicle production). Profitability was hit even harder than revenue. The profit margin of the 10 largest OEMs plummeted from 6.9% to 4.2%. Stellantis is a prime example of the severity of the slump. After a meager 2.4% one year earlier, the group's margin slipped to -17.1% in 2025. Moreover, trade disputes had a highly negative impact on the OEMs' busi-

ness. Suppliers are also feeling this pressure. The revenue-weighted margin of the TOP 100 fell from 5.8% to 5.2%. Here, too, fluctuations in demand for electric vehicles impacted the entire supply chain and were at least partially responsible for the lower margins. One prime example is the South Korean battery manufacturer Samsung SDI,

whose margin slumped by 25.6 percentage points from 1.1% to -24.5%, marking the sharpest decline of all suppliers in the TOP 100. The underlying reasons for this include a drop in demand due to the weaker performance of key OEM programs and the use of alternative cell chemistries.

FIGURE 1: REVENUE AND MARGIN OF THE TOP 100 SUPPLIERS AND TOP 10 OEMS (In billions of EUR and % of revenue)



In summary, the automotive industry was impacted by a number of adverse factors simultaneously. First, the remaining production growth is taking place almost exclusively in China, with immediate consequences for the order books of Western suppliers, to whom the pressure from OEMs is being passed on. Second, fluctuations in demand for electric vehicles – partially driven by the phase-out of subsidies resulting from policy shifts such as those implemented under Donald Trump – have directly impacted profitability and led to delays in the launch of new electric vehicles as well as one-off write-downs across the entire value chain. Third,

the escalating trade conflict between the United States and the Western world has significantly reduced transatlantic supply flows and increasingly limited growth prospects outside domestic markets, with direct consequences for suppliers' regional investment decisions. In addition, unfavorable developments in the capital markets – which have led to a perceptible increase in financing costs for some suppliers – are making it more difficult to secure the necessary funding. One encouraging sign was the trend in producer prices, which, at least in some regions, fell year on year.

1 Revenue and revenue CAGR based on figures from the TOP 100 suppliers and TOP 10 OEMs for each respective year
Source: Berylls by AlixPartners

China advancing relentlessly

The structural realignment of the industry is most clearly evident in the composition of the ranking itself. For the first time, China ranks third in terms of the number of companies represented, with 15, thereby overtaking the United States and trailing only Japan (21) and Germany (17). In terms of revenue share within the TOP 100, the United States now lies just behind China. 13.0% of the TOP 100's revenue comes from China, and 12.9% from the United States. CATL is also the first Chinese supplier to take third place in the overall ranking, due to its revenue of 39 billion euros. This figure is particularly noteworthy given that the Chinese battery manufacturer posted significant year-on-year revenue growth of 20% in 2025, while South Korean competitors such as Samsung SDI and LG Energy Solution saw their revenue decline by 38% and 22% respectively, due to the weakness of the South Korean won and a downturn in the U.S. EV market. A look at the cumulative revenue per country for the suppliers in the TOP 100 shows that China is also closing the gap to other regions and countries in terms of revenue, which rose only in the United Kingdom and China compared with one year earlier. Chinese suppliers increased their revenue within the TOP 100 by 21%, from 113 billion to 137 billion euros. Some spectacular individual developments lie behind this figure, such as growth rates of up to 93% at Huawei or strategic acquisitions such as Luxshare's takeover of Leoni. Currency exchange rate effects also played a decisive role in this respect. Against the euro, all currencies apart from the Swiss franc and the Swedish krona lost value last year, which in some cases led to significant discrepancies between growth measured in euros and growth in local currency for individual companies. For instance, the South Korean battery manufacturer SK on saw its revenue grow by 11.4% in South Korean won, but in euros the growth was only 1.9% because the won was the currency that lost the most value among those represented in the TOP 100 (-8.5%). Taken as a whole, the impact of the changed exchange rates becomes clear:

without their influence, the combined revenue of the TOP 100 suppliers in 2025 would have been 3.1% higher at 1,094 billion euros, and thus 0.8% above the previous year's level (1,085 billion euros). The depreciation of nearly all currencies against the euro over the past year has thus significantly slowed the industry's growth.

However, the static nature of this snapshot obscures the underlying dynamics. The Chinese companies listed today have increased their revenue by an average of 16% per annum over the past five years, while their global competitors in the TOP 100 have grown by only 5.9%. If this trend continues, it is only a matter of time before China accounts for the largest share of revenue among all supplier countries and, at the same time, a Chinese company takes top spot in the rankings. There are also potential new players who do not yet appear on the list. Companies such as Pony.ai, Horizon Robotics, and Momenta are consistently positioning themselves in the field of autonomous driving and, due to their software-focused business models, have significant potential for growth. Following its dominance in the battery sector (CATL, CALB, Gotion High-Tech), it appears that China intends to gain an early foothold in the next technological leap as well. The country's current five-year plan explicitly identifies innovation leadership as a goal.

At national level, the same trend is evident in terms of production volume. China saw 10.4% growth year on year and now accounts for some 30% of global vehicle production. In contrast, Germany grew by just 0.8%, while South Korea and the United States each lost 0.6% and the rest of Europe (excluding Germany) lost 1.8%. At the same time, the industry's economic importance is on the decline. Across all of the TOP 100 countries, the automotive industry's share of GDP has fallen by 5% since 2024. Although the industry remains essential, it is no longer a driver of growth among traditional automotive nations.

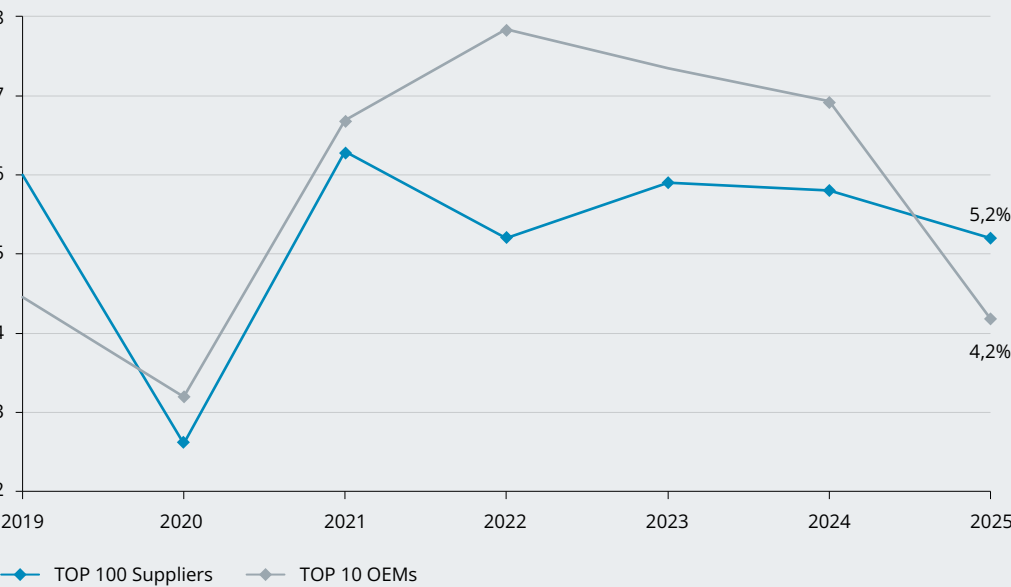
OEM pressure having strong impact on suppliers

Until 2019, the margins of the TOP 100 suppliers and the TOP 10 OEMs were virtually on a par, although historically the suppliers have always had a slight edge. The pandemic ended up hitting the supply chain harder than the manufacturers, and the gap widened in favor of the OEMs.

Since 2022, it has been closing again, but now in the opposite direction. Suppliers have stabilized their margins, while OEM profitability is declining sharply under pressure from a mixture of energy costs, sluggish EV adoption, high capital expenditure, and competitive pressure from China.

As a direct result, OEMs are once again focusing more consistently on reducing their largest cost factor: the cost of materials. This strategy has resulted in tougher price negotiations, more protracted claiming processes, and a more restrictive approach to providing financial support for suppliers in financial distress.

FIGURE 2: EBIT MARGINS OF THE TOP 100 SUPPLIERS AND TOP 10 OEMS¹
(In %, 2019-2025)



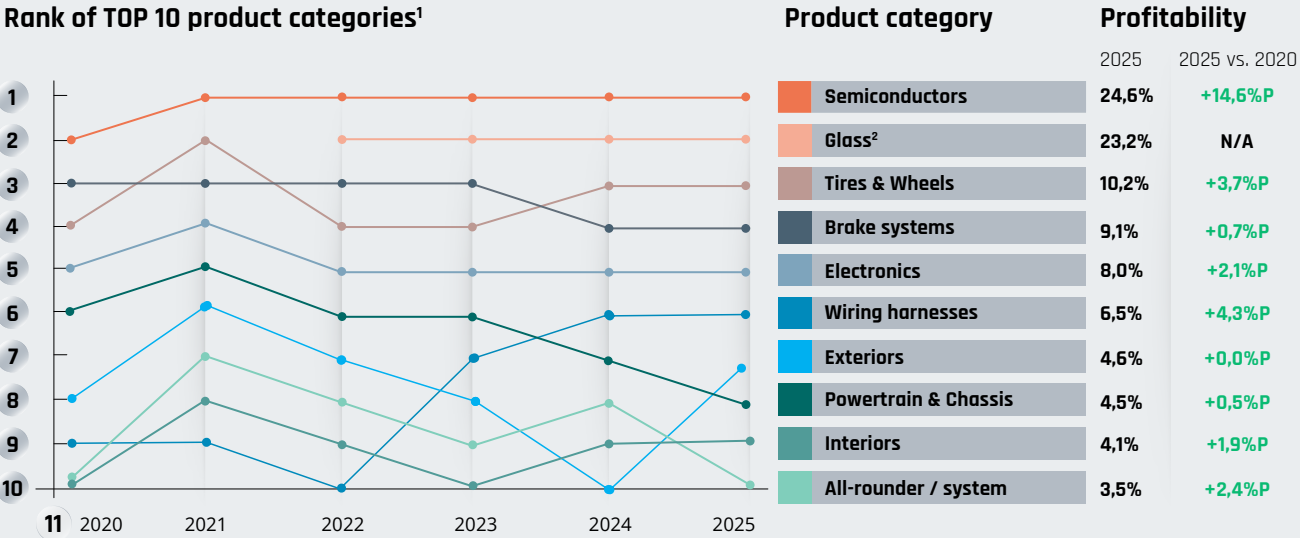
¹ Only automotive business included
Source: Berylls by AlixPartners analysis

High barriers to entry protect profitability

The margin profile of the various product categories shows how the pressure on profitability is distributed. Again in 2025, semiconductor manufacturers remained the industry's most profitable segment with a revenue-weighted margin of 24.6%, followed by glass (23.2%), and tires (10.2%) far behind in third place. The fact that the semiconductor manufacturers' pole position in the market is hardly under threat is illustrated by the still fragile supply situation, as exemplified by Nexperia. When the Dutch government took temporary control of the chip manufacturer and the Chinese Ministry of Commerce subsequently imposed an export ban, prices for the affected components immediately skyrocketed due to the looming supply shortage. One single geopolitical shock caused

a global price spike. In hardly any other segment do suppliers still have this much bargaining power over OEMs, and they are likely to maintain this level of profit margin in the foreseeable future as well.. At the other end of the spectrum, suppliers of exterior components were able to significantly boost their profitability year on year and, at 4.6%, have now outperformed the powertrain and chassis, interior, and all-rounder segments. The order confirms a pattern that has been taking shape for several years: strong margins are increasingly seen in product categories that have high barriers to entry. Technological depth (particularly in semiconductors), CAPEX, and brand positioning (particularly in the tire market) reduce the level of competition. Suppliers of interchangeable bulk goods face the greatest difficulty in escaping the margin pressure exerted by OEMs.

FIGURE 3: TOP 10 PRODUCT CATEGORIES 2020-2025



1 Listed in descending order by automotive revenue; the TOP 10 product categories from 2024 are provided for reference. Batteries in 11th place.
2 No data available for the Glass product category for 2020 and 2021
Source: Berylls by AlixPartners

Rising automobile production is not a guarantee of growth for every supplier.



Electric mobility increasingly fragmented at regional level

In 2025, the uptake of electric mobility not only slowed down, it also became increasingly uneven from region to region. Between August 2024 and September 2025, the SOP dates for electric vehicle platforms in key markets were postponed by an average of 118 days. However, the mean figure masks a huge spread: while OEMs in China postponed their SOPs by just 20 days, in Germany the figure was around 60 days, and in Japan about 99 days. U.S. OEMs were more severely affected with postponements of 171 days, as were South Korean OEMs with 243 days. The situation was exactly the opposite for ICE platforms. U.S., South Korean, Japanese, and German OEMs postponed their production deadlines by an average of 221 days. A standard tactic for maximizing capacity at existing facilities, securing short-term cash flow, and maintaining a visible presence in the market with a broad product range. The reaction was particularly strong in the Uni-

ted States. After the Trump administration largely eliminated subsidies for electric vehicles in 2025, U.S. OEMs postponed their production deadlines by an average of 565 days. Chinese OEMs took the opposite approach, bringing forward their EOP dates for ICEs by an average of six days – a clear commitment to their BEV strategy. Between September 2025 and January 2026 – a time span of just four months – the BEV programs were delayed again by an average of 42 days, representing a significant shift given the short interval between data collection periods. For suppliers with a high proportion of EV production and who have already invested in BEV-specific equipment, this exacerbates a familiar pattern: volumes are called off later, capacities remain underutilized for longer, and capital invested in tools and production lines is tied up for a longer period. In an environment where refinancing has already become more expensive, pressure on working capital and returns continues to mount.

Trade disputes and site costs permanently shifting competitive landscape

The trade dispute between Europe and the United States caused a sharp decline in transatlantic trade flows in 2025. European imports from the United States dropped by 16% in 2025, while exports to the U.S. fell by 17%. As the volume of goods exported from Europe to the United States is about five times greater than that imported, a similar percentage decline has hit the European industry far harder in absolute terms.

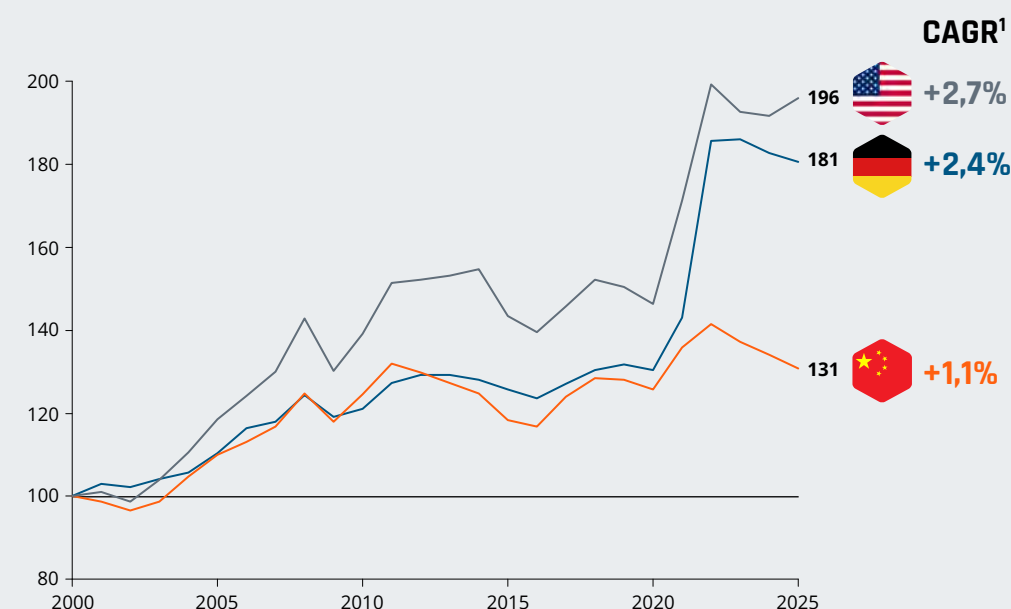
The Asian markets are benefiting from this disruption, though not in the sense of a symmetrical exchange. European exports to China slumped by 30% and those to India by 10%, while imports from China rose by 7% and those from India by 13%. India is therefore making particularly effective use of this geo-economic vacuum and positioning itself as an indispensable location in the global supply chain architecture.

Changes in producer prices are exacerbating this shift. In 2025, prices for key production in-

puts fell in Germany (-1.2%) and China (-2.6%), while they rose by 2.2% in the United States as a result of tariff policies. There is also a clear difference in energy costs: Germany -6.2%, China -7.8%, United States -2.0%. This short-term relief provided some support for the margins of the TOP 100 suppliers. However, it was not sufficient to offset the decline in revenue-weighted profitability in the ranking (-0.6%).

The structural situation is more crucial. Since 2000, producer prices have risen by an average of 1.1% annually in China, 2.4% in Germany, and 2.7% in the United States. Consequently, the figure in China stands at +31% compared to the year 2000, in Germany at +81%, and in the U.S. at +96% – particularly good for China, where the starting point was significantly lower. Today, that two-decade gap seems like a built-in cost advantage. When specifications are comparable, Chinese suppliers offer price advantages over their Western competitors, with cost differences sometimes reaching double digits. Even highly efficient plants in the West come under pressure when faced with these conditions.

FIGURE 4: TRENDS IN PRODUCER PRICES FOR INDUSTRIAL PRODUCTS SINCE 2000 (Indexed, 2000 = 100)



¹ CAGR = Compound Annual Growth Rate. Note: For producer price indices from the USA, the annual average was used.
Source: U.S. Bureau of Labor Statistics, German Federal Statistical Office, National Bureau of Statistics of China, Berylls by Alix Partners analysis

Stock market recovers, credit market remains tight

From the suppliers' perspective, 2025 was also marked by upheaval and the need for substantial investments in new facilities, development, and scaling initiatives to ensure their future viability. Global capital markets created additional hurdles for the supplier industry, particularly in Germany and Europe. Here, there is a sometimes significant difference between the assessment of the stock market, that is shareholders, and that of lenders, who focus on creditworthiness. Many publicly traded suppliers, after struggling in 2024, performed well throughout 2025. For example, the shares of a select group of publicly traded suppliers from the TOP 100 set rose by an average of 39%. The interest rate on debt required by the market, on the other hand, is partially based on a more mathematical approach that involves weighting various balance sheet and income statement ratios to estimate the risk of insolvency. According to the standard definition, this was classified as a medium-risk category among the same suppliers in 2025. While the stock market showed a rather "bullish" trend over the course of the year (+39%), the relative change in the calculated default risk was more modest at +7% and failed to bolster the positive sentiment among equity investors across all regions and product categories.

The supplier industry is thus facing a chicken-and-egg problem when it comes to financing: in times of shrinking margins and delayed cash flows, there is an urgent need for liquid capital to fund investments that ensure business survival and sustainable transformations. However, due to the above-mentioned shrinking margins and delayed cash flows, this very liquid capital is becoming increasingly expensive and difficult to access.

Germany closing down plants that are being established elsewhere

The combination of weaker demand, increased cost pressure from OEMs, and structural cost disadvantages is reflected with unusual clarity in the location decisions of the TOP 100. Germany announced 10 plant closures in 2025, including those seen at Continental and ZF, with no new ones being opened and only three expansions. But the job cuts extend far beyond these plants: ZF intends to cut 14,000 jobs in Germany, while Bosch has announced plans to shed up to 10,000 jobs. Across the board, the German automotive industry has recently axed more than 40,000 jobs – a level that can no longer be attributed to economic fluctuations.

India is emerging as a clear counterpoint with 16 new plants opening, 10 expansions, and no closures. The key factor is the qualitative shift. Investments are no longer focused solely on segments with low vertical integration, but increasingly on technologically sophisticated products as well. Valeo is expanding its plant for high-voltage components in Chakan; NXP Semiconductors has announced a semiconductor development center; Continental and Schaeffler are also expanding their operations, while at the same time slashing jobs in Germany. Government incentive programs in India have also played a major role in this respect, as they specifically encourage suppliers to relocate to India, while at the same time increasing the pressure on OEMs and the supply chain to localize production through requirements for local value creation.

China and the United States are showing signs of expansion, albeit driven by different factors. In China, 10 new openings and four expansions are offset by just one closure, driven by domestic players such as Huawei and HASCO as well as international Tier-1 suppliers like Valeo and Magna. In the United States, 16 new plants were opened, 11 were expanded, and 15 closed. Notably, Fuyao is the only Chinese company operating there, in stark contrast to the level of investment made by Chinese companies in their domestic market and Europe.

Outlook: adaptability becoming decisive currency

For many suppliers, 2025 will be remembered as a challenging year. The beginning of 2026 has seen those same challenges continue unabated and is once again putting the automotive industry to the test. Rising oil prices resulting from the conflict with Iran are driving up raw material costs and simultaneously curbing consumer confidence, while at the same time renewed tariffs on automotive imports into the U.S. are dampening sales forecasts. Moreover, the pressure between OEMs and suppliers is mounting. According to a recent report, Mercedes-Benz is demanding significant price cuts from its suppliers in order to drive forward internal cost-cutting measures. Due to the pandemic, the semiconductor crisis, and the war in Ukraine, the management teams at both OEMs and suppliers have weathered many crises and the tools for short-term stabilization are well known. The real question, however, is a different one: what structural decisions are suppliers taking now in order to remain viable in the new competitive landscape and under even more challenging conditions?

The suppliers who will succeed are those who view the current difficulties as opportunities and take decisive action. The starting point is the footprint. Trade conflicts and tariff policies have made “local for local” a necessity and mitigated the disadvantages of cross-regional locations. By consolidating overcapacity and expanding where customer proximity requires it, companies can lay the groundwork for the years ahead. The customer base is also shifting. By 2030, Chinese OEMs will have tripled their

overseas manufacturing capacity, bringing new customers right to the doorstep of established suppliers in Europe and North America. At the same time, demand is growing for innovative components such as steer-by-wire systems and ultra-fast charging architectures, which are already to be found in many models from numerous Chinese OEMs. Markets outside the traditional OEM business are becoming just as important. The significance of the aftermarket as a crucial source of profit will continue to grow, even though its impact on revenue remains secondary. In parallel, the non-automotive business is establishing itself as a second source of revenue. Its share of revenue among the TOP 100 rose by two percentage points last year to 37%, with further potential in areas such as defense. These strategic decisions can be underpinned by the use of AI, robotics, and automation. Generative AI speeds up engineering, procurement, and quality assurance processes, while robotics and automation help compensate for labor shortages and labor costs in high-wage regions. Suppliers that view these technologies as an integrated production system can achieve a leap in productivity that goes way beyond conventional optimization programs. However, the question of financial feasibility remains. The capital requirements associated with footprint adjustments, technology, and diversification are coming at a time when the industry is facing tight margins. Successful suppliers therefore consistently trim their balance sheets by reducing working capital, divesting non-strategic assets, and clearly streamlining their portfolios. Taken as a whole, these measures create the financial headroom needed to implement the above-mentioned levers.



The winners of the next decade will not be the largest suppliers, but the most adaptable ones.



4 | SUPPLIERS IN THE SPOTLIGHT



Prof. Dr. Peter Laier
CEO, Forvia Hella



Peter Laier, CEO of Forvia Hella, on the most important transformation issues, the crisis as the new normal, and the future of the lighting business and the European automotive supply industry.

The interview was conducted by Claus-Peter Köth and Jan Dannenberg.

Professor Laier, for a good three months now, you have been heading up Forvia Hella as CEO. Which issues have you particularly focused on during this initial phase?

Prof. Dr. Peter Laier: First of all, I am delighted to be part of the Forvia Hella team and working with the management staff to lead the company into the future. During the first phase, the main focus was on listening, getting to know people, and understanding the structures and challenges. Forvia Hella is generally very well positioned across its three business divisions, Lighting, Electronics, and Lifecycle Solutions. Our task now is to implement the various measures and successfully shape the future of the enterprise.

Geopolitics hasn't exactly been on your side in this regard. No sooner had you taken office, the Middle East conflict escalated dramatically.

Prof. Dr. Peter Laier: You're quite right about that. I've been working in the automotive industry for some 30 years, but since the COVID-19 pandemic, it feels like we've been

facing a new, unexpected challenge every year. As soon as the markets seem to have stabilized, another unexpected event happens. It's the same story this time, too. We do not do business in Iran and operate only



Unfortunately, we in Europe are often our own worst enemies.

in the aftermarket in the Middle East. When the conflict in the region escalated, our very first priority was to ensure the safety of our employees located there. Moreover, we have analyzed supply chains and raw materials where volatility is noticeable and taken steps to mitigate cost pressures.

When we look at the major transformation issues on the one hand – electrical/

electronic systems, software-defined vehicles – and daily crisis management on the other, isn't it becoming increasingly difficult to achieve strategic goals?

Prof. Dr. Peter Laier: We need to distinguish between geopolitical or macroeconomic fluctuations and general industry trends. We cannot influence geopolitics – we have to take things as they come and respond with agility. When it comes to technological trends, the industry has at times been overly optimistic about the timeline in the past. Take e-mobility or automated driving, for example. The industry had anticipated much faster adoption rates, which cost companies a great deal of money. Today, we have a much clearer, more realistic picture of how the various powertrain technologies are developing alongside one another. The software-defined vehicle won't arrive overnight either, but gradually become an integrated part of new platforms. That's why it makes perfect sense to continue setting strategic goals – they just need to be more flexible and modular today than they were in the past.

Forvia Hella is 82 percent owned by the French Forvia Group. Forvia is burdened by high debt; the sale of its Interiors division to a financial investor was recently announced. What does this development mean for Forvia Hella?

Prof. Dr. Peter Laier: First of all, in many respects, we share very similar interests with our majority shareholder, Forvia. We want to ensure strong economic performance for Forvia Hella, position it as well as possible for the future, and leverage synergies wherever it makes sense and is feasible. Secondly, Forvia Hella remains an independent company listed on the MDAX. We make our portfolio decisions – as well as all other stra-

tegic moves – in accordance with our own principles and in the best interests of Forvia Hella and all its shareholders. If Forvia decides to sell its Interiors division, we will respect that decision. However, that has no impact on our product strategy. We will continue to invest heavily in driver assistance systems, zonal control units, power and battery management, innovative lighting technology, and life cycle solutions.

Looking back at the past fiscal year, you are in a very solid position compared to many of your competitors, especially in the lighting and electronics sectors, where a great deal of restructuring is currently taking place. What makes Forvia Hella better than others?

Prof. Dr. Peter Laier: In the electronics sector, what sets us apart is that we are very selective about which areas we focus on and which we do not. For example, with the new E/E architectures, we made a conscious decision to steer clear of the high-performance computer market and focus clearly on the field of zonal modules. Here, we can make the most of our existing expertise in control units as well as in the fields of production and semiconductors. In the Lifecycle Solutions division, we have a business that is highly resilient and follows varying market cycles. In the lighting business, on the other hand, we saw a decline in revenue and are not yet satisfied with our level of profitability. We need to tap into our potential even more consistently here. We are currently pushing forward with a major transformation program in this area.

Do you foresee the lighting industry experiencing similar growth momentum in the medium term as it did in the past with LED and matrix lighting systems? Or is growth shifting entirely to the electronics sector?

Prof. Dr. Peter Laier: We went through a long period of rapid high-end innovation – from LED to matrix to OLED systems. We are now entering a phase in which the main focus is on “affordable innovations.” Lighting remains a key design and distinguishing feature for OEMs. These days, however, price is very often the deciding factor. If we want to grow again with lighting in the future, we need to focus more on the high-volume market. This, in turn, requires a clear focus on cost reduction and platform strategies.

At Forvia Hella, the idea came up to integrate sensors for automated driving into the headlights. Is that still a topic of discussion?

Prof. Dr. Peter Laier: As we provide both lighting and radar sensors from a single source, we are of course considering these integration options. However, integrating them into a headlight is not currently our main focus. What we are working on, however, are comprehensive front modules for electric vehicles that can integrate radar sensors and headlights, among other features. We call them Front Phygital Shields, and we’re already mass-producing them. Aside from that, at component level we are very well positioned in the market for driver assistance with our radar sensors.

You want to drive forward internationalization – particularly the expansion of the customer base. Where do you see the greatest potential?

Prof. Dr. Peter Laier: First of all, I would like to emphasize that our existing customer base will continue to be a key element of our business. Moreover, we intend to build on

additional strengths: first, growth in Asia, both with local Chinese manufacturers and with OEMs from Japan and Korea that operate globally. Second, we see further potential among North American manufacturers. Third, we are looking to grow in India, a market with stable growth rates. Our fourth focus is on entering the mass market for lighting.

To keep up in China, you have to operate with extreme cost advantages and “China speed.” Many suppliers are now basing their entire development operations there. Will Forvia Hella follow this path as well?

Prof. Dr. Peter Laier: Most definitely. Our strategy is based on empowerment and accountability. We are deliberately delegating responsibility for development and decision-making to the various regions. If you want to be successful in China, you must make decisions locally, develop products locally, manufacture locally, and use local supply chains. Otherwise, you won’t be able to keep up with “China speed.” The same applies to North America – there, too, we need to work closely with our customers.

On the other hand, however, this means there will be no further growth in Europe going forward and that at best, existing jobs can be safeguarded.

Prof. Dr. Peter Laier: The fact is that the European market has been stagnating or even shrinking in recent years. There is currently no growth coming from the market itself. Of course, we continue to provide our European customers with very close support worldwide, maintaining the highest standards. But yes, we have had to adapt our local structures and our production footprint to meet the changing market realities and continue to do so. We want to expand our business in markets outside Europe, but without neglecting our European customers.

Do synergies with Forvia also help you in terms of cost efficiency? The French have traditionally been very good at optimizing cost structures for price-sensitive customers.

Prof. Dr. Peter Laier: Absolutely. Within the Forvia Group, we have established a very well-thought-out production system known as the Forvia Excellence System, or FES for short. It incorporates French elements, so to speak, but also components of our own. We combine the best of both worlds and are already using FES extensively both here and at Forvia. We benefit greatly in terms of production costs, improved quality, and workplace safety. In addition, we have established a joint venture with Forvia for IT and procurement in order to consolidate our activities and leverage economies of scale. Both legally independent companies learn from and benefit extensively from each other.

In general, how do you view the future of the European automotive supply industry in the face of global competition?

Prof. Dr. Peter Laier: The industry in Europe has significant strengths, but is under enormous pressure driven by high energy costs, labor costs, taxes, and a great deal of bureaucracy and regulation. At the same time, fierce price competition is causing profit margins across the entire automotive indus-

try to decline. To solve this problem, we as suppliers need to start by cleaning up our own backyard. First, we need to shed some dead weight, become faster, and think much more “outside the box” and cost-focused. Second, we need political action: as a business location, Europe has great potential, a huge market, and an exceptional level of expertise. Unfortunately, we are often our own worst enemies and hold ourselves back with too much regulation. A year and a half ago, in his report on the future of European competitiveness, Mario Draghi summed up the situation quite accurately. But now we have to put it into action.

CV OF PROF. DR. PETER LAIER:

Prof. Dr. Peter Laier has been Chairman of the Management Board of Forvia Hella since February 16, 2026. A mechanical engineer with a Ph.D and an honorary professor at the Technical University of Munich, he began his career at Continental in 2000. Before joining Forvia Hella, he held executive positions at ZF, Knorr-Bremse, Benteler, and Osram.

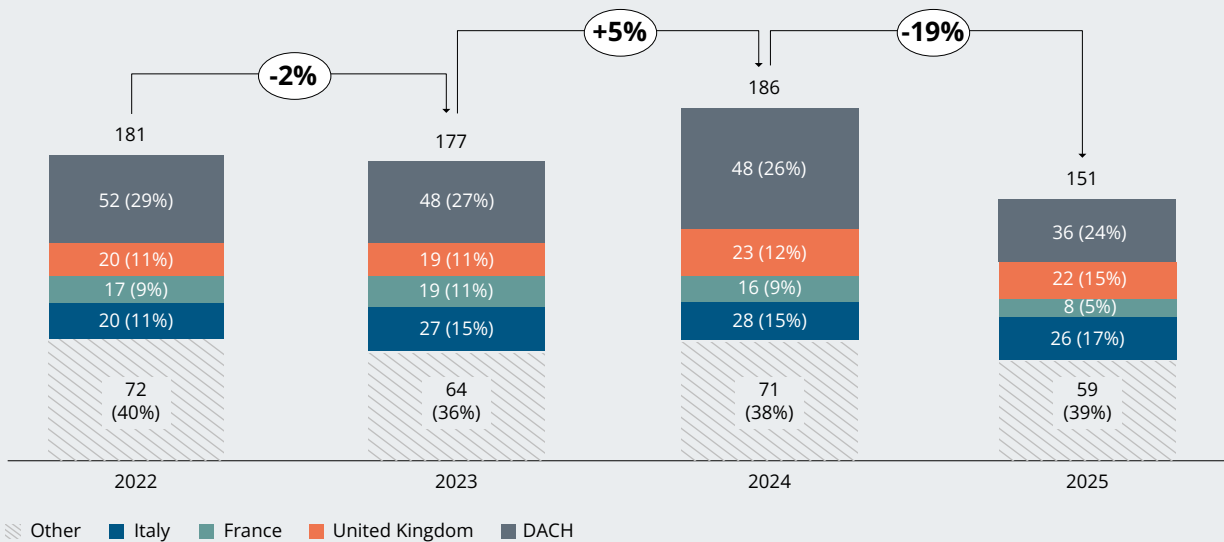


5 | CONSOLIDATION AND ACCESS TO TECHNOLOGY ARE DEFINING THE AUTOMOTIVE M&A MARKET IN EUROPE



The automotive supply industry in Europe is undergoing a period of accelerated market consolidation. The trend continued into 2025: **The M&A market slumped by almost 19%, or to be specific, the number of transactions fell from 186 in 2024 to 151 in 2025.** The picture varies from one region to the next. In the DACH region, the number of transactions fell from **48 in 2024 to 36 in 2025 (-25%)**, the sharpest decline in Europe. However, in absolute terms, it remains the leader in terms of M&A activity, followed by the United Kingdom, Italy, and France.

FIGURE 1: NUMBER OF COMPLETED M&A TRANSACTIONS IN THE AUTOMOTIVE SECTOR IN EUROPE AND THE DACH REGION FROM 2022-2025



Source: Gain.pro, Pitchbook

Uncertain economic prospects, high financing costs (if financing is even available), differing price expectations, and integration risks stemming from existing structures have slowed down the pace of acquisitions in the automotive sector. Many transactions fall through due to cautious valuations and difficulties in raising capital – a key reason for the decline in the number of transactions.

Market trends under structural pressure

In Germany in particular, where the automotive industry has traditionally been dominated by powerful manufacturers and suppliers, market consolidation is currently accelerating. Many suppliers are in the process of exploring opportunities to enter the defense industry in a bid to offset declining order volumes and repurpose their capacity. Schaeffler, for example, has publicly identified defense as a strategic area of diversification. Aumovio (a Continental spin-off) and ZF are also exploring their existing capabilities with regard to the integration of defense applications.

Consolidation and transformation pressure driven by new technologies

As innovation cycles continue to shorten, swift action is crucial. Acquisitions and investments enable companies to gain direct exposure to promising technologies and markets and to avoid or offset competitive disadvantages vis-à-vis new market participants.

The merger of Schaeffler and Vitesco (2024) is a prime example of the trend toward technology-driven consolidation. With combined revenue of approximately EUR 25 billion, a Tier-1 supplier with a focus on electric mobility was formed. Furthermore, the sale of ZF's ADAS business to HARMAN International for EUR 1.5 billion is certainly setting a precedent for the industry going forward.

The growing economic pressure in the supplier sector is leading to a growing number of **corporate insolvencies, with the figure in Germany rising significantly from 46 in 2023 to 57 (+24%) in 2024 and 80 (+40%) in 2025.** Strategic buyers and financial investors are seeing opportunities for acquisitions and restructuring, particularly where technological expertise can be sustainably leveraged in new fields of application (outside the automotive industry).



Whoever takes over today isn't just buying revenue - but access to the next generation of technology.



Outlook 2026/2027

In 2026/2027, M&A activity in the automotive sector is expected to continue being heavily influenced by crisis-related acquisitions and technology-driven transactions. The familiar challenges related to financing, valuation, and existing structures remain and have an impact on market dynamics.

Focus on crisis-related acquisitions

The ongoing high level of financial difficulties and bankruptcies among suppliers means that more and more companies are up for sale. In this environment, transactions involving restructuring and rapid completion are becoming increasingly important. For buyers, the focus is shifting to ways of stabilizing and strategically securing both capacities and technologies.

Technology acquisitions remain selective – and expensive

After a period of valuation pressure, prices for companies that possess key technologies are stabilizing again. Innovations related to electrification, digitalization, and automation – such as those in the fields of software, artificial intelligence, and battery technology – continue to be in high demand. While large amounts are being paid for cutting-edge technologies, the valuations of standard suppliers are coming under ever greater pressure.

Geopolitical factors are gaining in importance

Geopolitical tensions and regulatory requirements are having a greater impact on acquisitions than conventional financial indicators. The market is characterized by longer testing processes and stricter requirements, particularly with regard to local value creation and information security. Companies with low dependence on individual markets or supply chains are in particularly high demand. Strategic foresight is also more in demand than ever when it comes to M&A issues.

6 | ASSESSMENT OF GERMANY AS A LOCATION FOR AUTOMOTIVE SUPPLIERS



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Germany is gradually losing its competitive edge as an automotive manufacturing location: declining productivity, job cuts, and weak growth are being compounded by high energy and labor costs. Electric mobility is a stabilizing factor only in certain market segments. Whether it will result in further benefits depends largely on a reliable, transformation-friendly policy framework as well as a consistently leading role in terms of automation and the use of AI in production and administration.

The German automotive industry is currently facing profound structural challenges, which were already outlined in last year's TOP 100 study and have become even more pronounced since then. The somber mood in the sector is increasingly being reflected in hard facts. The overall picture is characterized by plant closures, production relocations, and significant job cuts. According to the most recent sector analyses, the German automotive industry cut around 49,000 jobs in 2025, representing almost 6.5% of its total workforce. Overall, the number of jobs in the sector is estimated to have dropped by 100,000 since 2019, fueling concerns that Germany is gradually losing its competitive edge in one of its most important core industrial sectors.

Macroeconomic context: Germany as the "sick man of Europe"

At the same time, the overall economic outlook has deteriorated markedly. The image of the "sick man of Europe" is returning in a modified form: structural problems such as high energy costs, demographic pressures, and weak investment growth are being compounded by an economy that has been sluggish for a number

of years. After two years of decline in 2023 and 2024, the German economy remained largely stagnant in 2025 or saw only very slight growth. Since 2019, this general trend has resulted in only very limited real expansion – significantly lower than in more dynamic economies such as the United States, where growth has totaled almost 14% during the same period. Germany is slipping to the bottom of the rankings in terms of growth and losing its appeal as a destination for future investment.

Key figures: manufacturing, export, and electric mobility

A brief look at other key performance indicators highlights the current status of the country as a business and automotive location. Although producer prices have fallen following the extreme spike during the energy crisis, they remain above the pre-crisis levels witnessed in many energy-intensive sectors. At the same time, vehicle production remains well below its previous peaks, as in 2025 around 4.15 million passenger cars were manufactured in Germany. As a result, domestic production was slightly higher than one year earlier, but still well below 2019 levels. It is worth noting, however, that a

new record was set in 2025 with approximately 1.67 million electric passenger cars manufactured, and that electric vehicles already account for some 40% of the passenger cars made in Germany.

Nonetheless, despite rapid growth in the electric vehicle market, overall production levels remain relatively flat. Similarly, there are no current signs of a return to previous strengths in terms of exports, which were projected to reach around 3.14 million passenger cars in 2025, but still below the figure reported in 2019. While the transformational shift toward electric mobility is stabilizing certain segments of Germany's automotive business, it has not yet offset the structural challenges posed by declining volumes, ongoing margin pressure, and increasing international competition. Germany, a nation renowned for its automotive capability, runs the risk of seeing parts of its value chain migrate to regions with stronger growth without new, sufficiently large industrial nuclei emerging.

Cost handicap: energy and labor costs hold down domestic growth

Structural cost disadvantages are adding to the pressure. Although they have returned to normal levels compared to the extreme figures recorded in 2022, industrial electricity prices in Germany remain high. For 2025, figures of up to 20 cents per kilowatt-hour were projected, depending on the customer group. By international standards, particularly compared to the United States, this represents a considerable competitive disadvantage of some eight cents per kilowatt-hour.

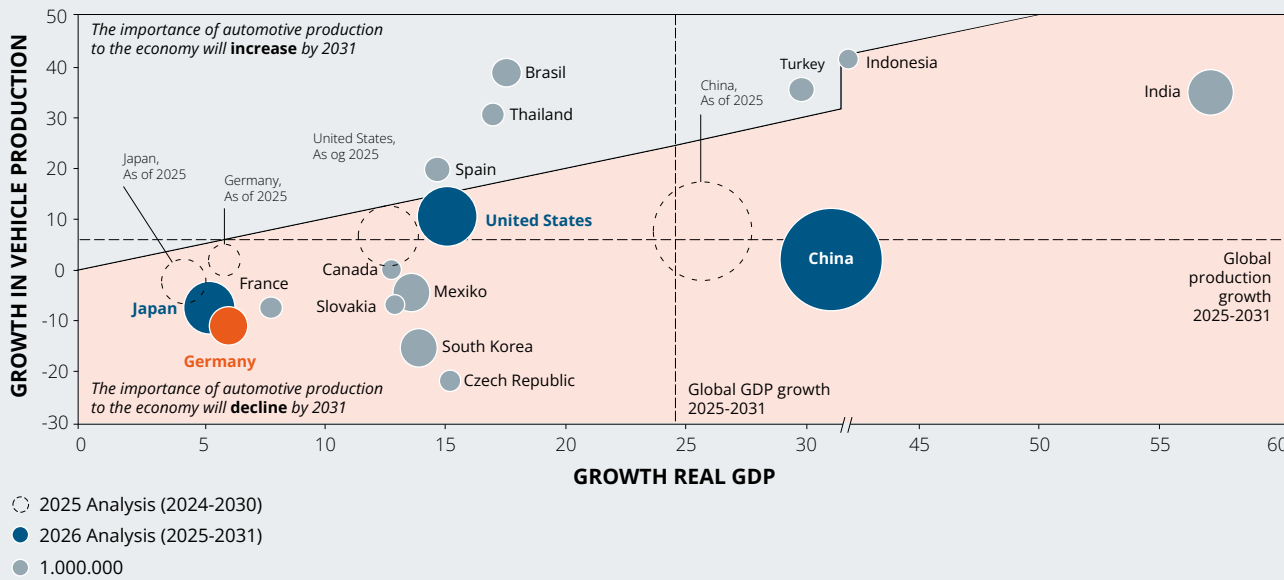
In addition, Germany remains one of the countries with the highest labor costs, which amount to over EUR 40 per hour (including social security contributions). The figure does not compare well with locations in Central and Eastern Europe, where rates are below EUR 20 per hour, the United States at around EUR 30 per hour, and China, where costs remain below EUR 10 per hour. For the German automotive industry, the labor cost disadvantage compared to lower-cost EU locations in Central and Eastern Europe is still estimated to be around 50%. Overall, key location indicators continue to deteriorate – with direct consequences for investment- and footprint-related decisions.

Against this backdrop, the question is increasingly being raised as to whether Germany is becoming a unique case in the global automotive landscape. A comparison with the United States, China, South Korea, or specific locations in Eastern Europe shows that while other countries have managed to at least stabilize their automotive production or expand it in specific forward-looking sectors, Germany remains stuck in a phase of weak overall economic momentum and limited growth in terms of new value creati-

on. A combination of persistently high energy costs, increasingly strict regulatory requirements, and relatively slow approval processes is additionally driving the incentive to shift investments to regions with lower costs and stronger growth. Germany is therefore in danger of shifting from being a leading player in the automotive sector to a market with diminishing industrial depth. This trend is particularly evident in the outlook for vehicle production and GDP in Germany compared to its main competitors.

FIGURE 1: COMPARISON OF VEHICLE PRODUCTION VOLUMES AND GROSS DOMESTIC PRODUCT

Development of Real Gross Domestic Product and Vehicle Production Volumes
(Forecasts for Real GDP and Vehicle Sales 2024-2031, in %)



Note: Countries with production volumes exceeding 1 million vehicles; excludes countries subject to multilateral sanctions or embargoes
Source: S&P Global Mobility (Light Vehicle Production Forecast, April 2026), IMF, Berylls by AlixPartners

Germany is in danger of shifting from being a leading hub of the automotive industry to a market with diminishing industrial depth.



Policy framework and technology are key to transformation

For an industry that needs to realign itself amid the trends of decarbonization, digitalization, and the shift toward new mobility solutions, the regulatory framework plays a vital role. From a corporate perspective, two key requirements stand out: reliable planning certainty and effective support for the transformation. In this context, planning certainty means not only clear long-term pathways for CO₂ targets, fleet regulation, and infrastructure, but also the ability to rely on decisions once they have been made. A government that frequently revises its core policies will have difficulty attracting investments that require advance planning of ten years or more.

Effective support for transformation goes far beyond the granting of temporary subsidies. What is needed is the accelerated expansion of a competitive energy and charging infrastructure, speedier planning and approval procedures, technology-neutral R&D programs, and a

robust framework for training and labor market policy. Moreover, maintaining a leading position in the automation of both direct and indirect production processes is a vital lever for addressing the location's structural cost disadvantages. According to industry estimates, the consistent use of robotics in manufacturing can yield optimization potential of around 20% in direct production costs; in indirect SG&A functions, the use of AI can enable savings of up to 40%. If Germany succeeds in establishing itself as a global leader in these fields, the cost disadvantages can be significantly mitigated and the threat of companies relocating can be averted, at least in part.

Whether the German automotive industry can successfully turn the current challenges into a robust competitive advantage therefore depends largely on whether, in the coming years, policy and regulation will shift from being a hindrance to becoming a catalyst for an industrial transformation that balances economic resilience, climate goals, and employment.

7 | AUTOMOTIVE SUPPLIERS IN TRANSITION: DIVERSIFICATION A STRATEGIC FACTOR



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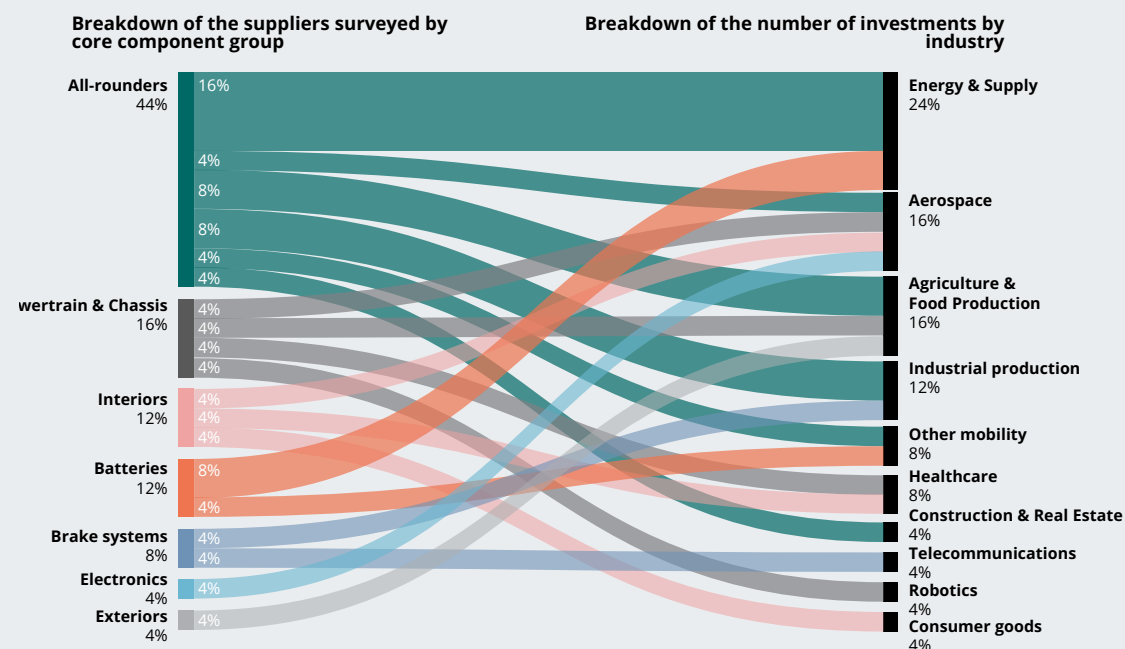
Lukas Kirchhefer
Berylls by AlixPartners

The business models of many automotive suppliers have been under considerable pressure for years. High transformation costs, sustained price pressure from OEMs, and structural overcapacities are impacting profitability. Against this background, many companies are focusing on the question of how existing expertise can be applied beyond the traditional automotive sector to other industries.

A look at margin trends, earnings stability, and capital market indicators suggests that TOP 100 suppliers with a substantial presence outside the sector are generally in a stronger position than those who specialize exclusively in automotive manufacturing. Expertise in fields such as electronics, drive-train technology, and braking systems can also be applied in industries that include energy, aviation, and agricultural engineering, where it can be leveraged to drive additional growth.

FIGURE 1: DIVERSIFICATION TRENDS AMONG SELECTED TOP 100 SUPPLIERS FROM 2015-2025

(as a percentage of the companies surveyed, n = 25)



Diversification goes hand in hand with higher margins

The average EBIT margins of the TOP 100 suppliers in 2025 reveal a clear correlation between the share of non-automotive revenue and profitability. Pure automotive suppliers are currently reporting figures in the mid-single-digit percentage range on average. A low non-automotive share of 1 to 20% does not necessarily improve the picture a great deal. This may indicate that early steps towards diversification initially create additional complexity without yet yielding sufficient economies of scale or operational synergies.

Figure 2: Degree of diversification and EBIT margin in 2025 for the TOP 100 suppliers

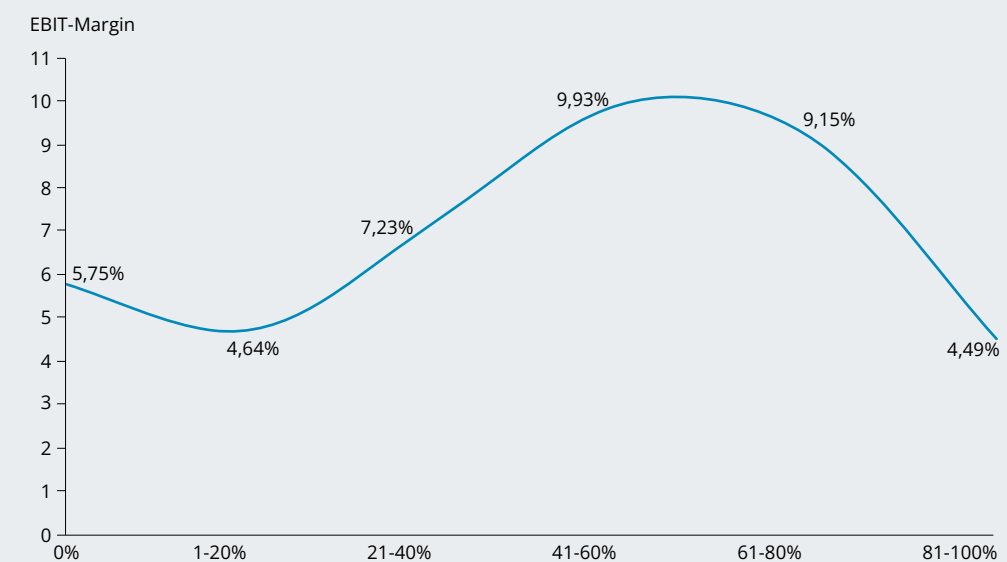
However, profitability improves significantly when the non-automotive share ranges from 20 to 40%. Even in the groups with 40 to 60% and 60 to 80% of non-automotive revenue respectively, EBIT margins are signifi-

cantly higher than those of companies focused solely on the automotive sector. The analysis thus suggests that it is not a complete exit from the automotive business that yields the greatest benefits, but rather a significant degree of diversification that taps into additional sources of revenue and reduces dependence on the cyclical core business.

Diversified companies show greater resilience

A closer look at the data over the past ten years also reveals a mixed picture. The EBIT margins of companies that are purely core automotive suppliers weakened overall between 2015 and 2025. While diversified companies are also affected by industry cycles and macroeconomic shocks, they tend to stabilize more quickly over time and at a higher level. The analysis suggests that diversification can not only create additional growth opportunities, but also help limit earnings volatility in an increasingly uncertain market environment.

FIGURE 2: DEGREE OF DIVERSIFICATION AND EBIT MARGIN IN 2025 FOR THE TOP 100 SUPPLIERS



More robust business models tend to be evaluated more highly

The picture is similar in the capital market. Diversified suppliers often record a more dynamic share price performance over the long term than companies focused exclusively on the automotive sector. At the same

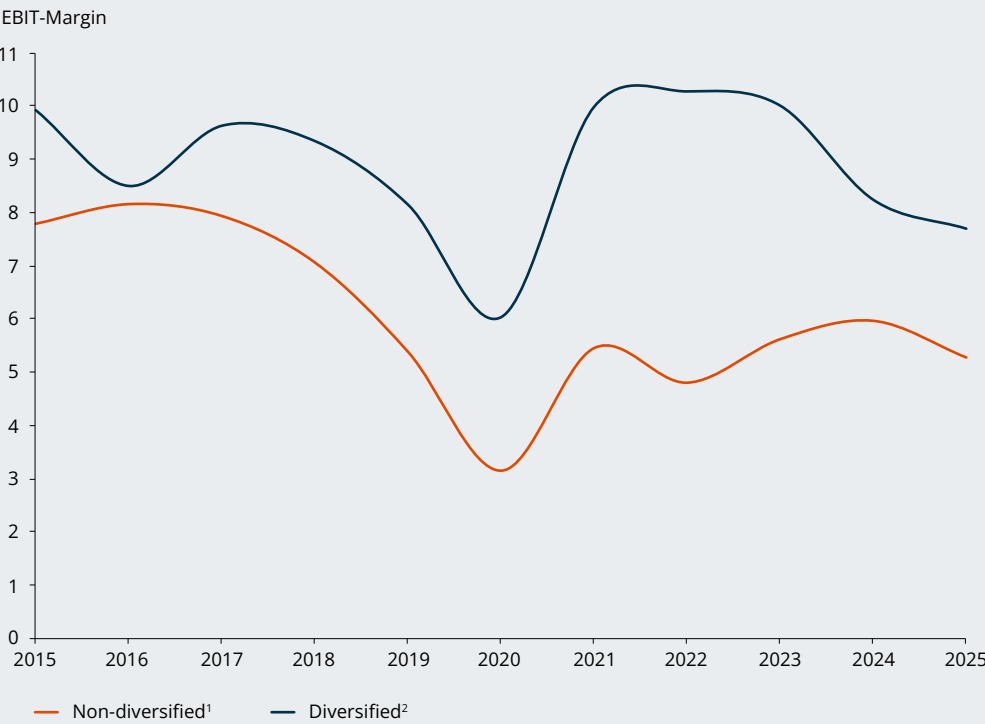
time, their price-to-earnings ratios exceed those of less diversified companies over a wide range of time periods. This fact suggests that investors tend to reward business models with more stable cash flows, broader exposure to end markets, and multiple growth paths with higher valuations.

Diversification must be actively managed and strategically implemented

For management teams, diversification is not a one-off decision, but a strategic program of transformation. Successful suppliers prioritize a select few promising target industries based on market attractiveness, capability fit, regulatory frameworks, and synergies with their core business. Timing is also crucial here, as diversification can be most effectively pursued when companies still have sufficient financial headroom to do so.

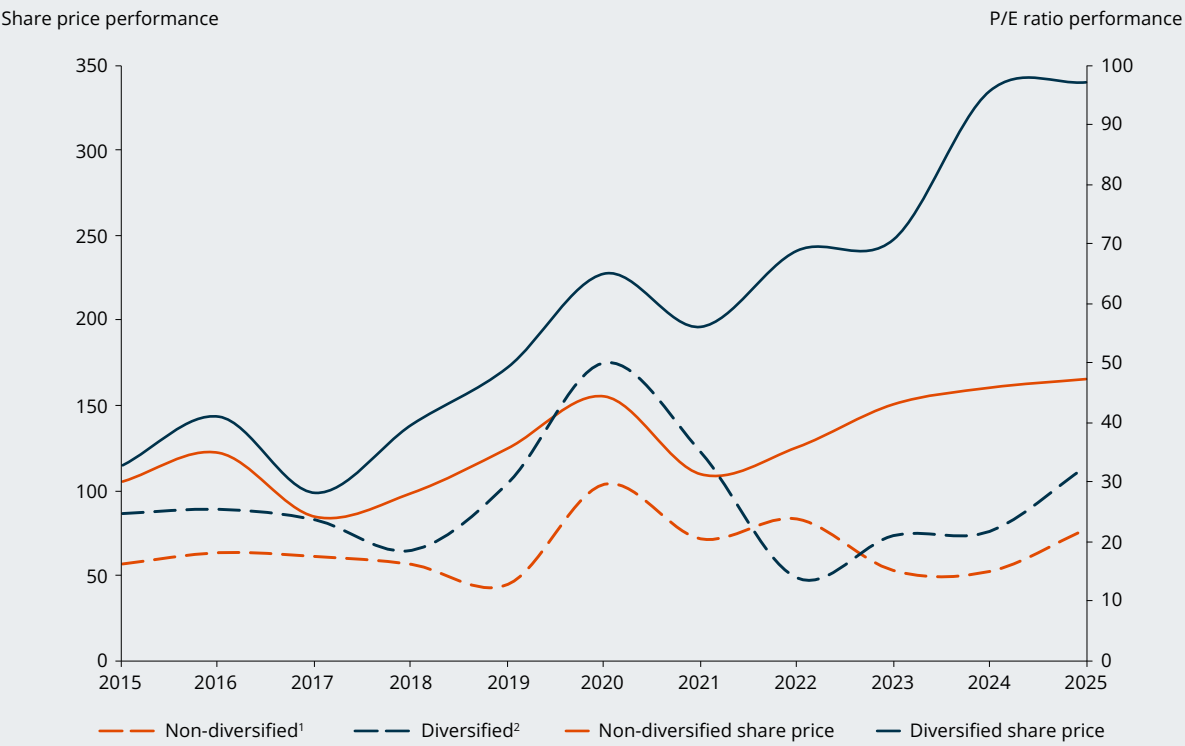
An analysis of the TOP 100 suppliers suggests that a substantial share of non-automotive revenue may be associated with higher profitability, greater earnings stability, and a tendency toward higher capital market valuations. Diversification therefore appears to be a potentially significant strategic factor for many automotive suppliers, enabling them to reduce dependencies and create additional value. However, what matters is not the breadth of the portfolio itself, but the ability to profitably and scalably develop adjacent markets based on existing expertise.

FIGURE 3: TREND IN EBIT MARGINS OF DIVERSIFIED AND NON-DIVERSIFIED TOP 100 SUPPLIERS, 2015-2025 (in %)



1 Automotive companies with more than 80% of their revenue coming from the automotive business.
2 Automotive companies with up to 80% of their revenue coming from the automotive business.

FIGURE 4: (NON-)AUTO P/E RATIO AND SHARE PRICE PERFORMANCE (2015-2025)



1 Automotive companies with more than 80% of their revenue coming from the automotive business.
2 Automotive companies with up to 80% of their revenue coming from the automotive business.

8 | IS CHINA A GOOD ROLE MODEL? A NEW ERA – CHANCES AND LIMITATIONS OF THE LEAD MARKET FOR EUROPEAN SUPPLIERS



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The term “lead market” has long been a reality for China and poses existential challenges for Europe’s Tier-1 and Tier-2 suppliers. It is no longer just about having a presence in China, but about adapting to an entirely new industry standard: “China speed.”

Current situation

While European suppliers dominated the market for decades due to their technological edge and economies of scale, Chinese competitors have long since leveled the playing field. On the OEM side, it is worth noting that European manufacturers have significantly expanded their presence in China. The Volkswagen Group is particularly remarkable in this regard, as with its dedicated “local for local” strategy, it has already introduced vehicles specifically tailored to the Chinese market that are not based on existing VW platforms. Examples include the AUDI E5 and the ID.UNYX 08, which are based on platforms from SAIC and XPeng respectively.

At the same time, Chinese suppliers have dramatically expanded their market share both in China and globally. Chinese companies have already established dominant positions in fields such as battery technology and autonomous driving. In 2025, CATL and BYD together held a market share of approximately 55% in the glo-

bal high-voltage EV battery market.

Apart from their technological advancements, Chinese suppliers also have considerable advantages in terms of cost and time-to-market. The cost advantage is approximately 25–30% and stems not only from lower labor costs, but also from lower material costs and a high degree of vertical integration. Even more critical is the time-to-market factor: Chinese competitors sometimes bring innovations to market within 6 to 12 months, whereas European development cycles take significantly longer.

In search of new customers – and to counter fierce price competition and overcapacity in their domestic market – Chinese suppliers are rapidly expanding into Europe. Battery manufacturers and providers of ADAS and smart cockpit solutions are particularly active, as are suppliers in traditional sectors. The strategy is two-pronged: on the one hand, they offer products that are not available in Europe in this form; on the other hand, they position themselves as a low-cost alternative to the existing supplier base.

Battery cell manufacturers such as CATL, EVE, and Sunwoda are currently expanding their production capacities in Europe – in some cases accompanied by their subcontractors. In the field of traditional components, for example, Nobo Automotive is building a plant in the Czech Republic. However, the most dynamic growth is evident in the ADAS segment, where numerous Chinese companies such as Momenta, Deeproute.ai, WeRide, Pony.ai, Horizon Robotics, and Zhuoyu Technology (DJI) are currently expanding their presence in Europe.

Germany is one of their preferred destinations. Whereas fewer than 10 sites operated by Chinese suppliers were opened in Europe up to the end of 2020 (excluding M&A activity), that

number has since risen to over 20. Moreover, European OEMs are actively seeking out Chinese suppliers for non-Chinese projects. At the same time, they are benefiting from the expansion of Chinese OEMs into Europe, which often bring their existing supply chains with them.

Consequences for suppliers

The direct result is intense pressure on competition and margins. While European suppliers in China are increasingly being displaced by local market leaders in high-margin, high-tech segments, they are also facing pressure in Europe from lower-cost Chinese suppliers.



**China is no longer
a market.
China is an
operating system.**



CHINA SPEED

› 6-12 months

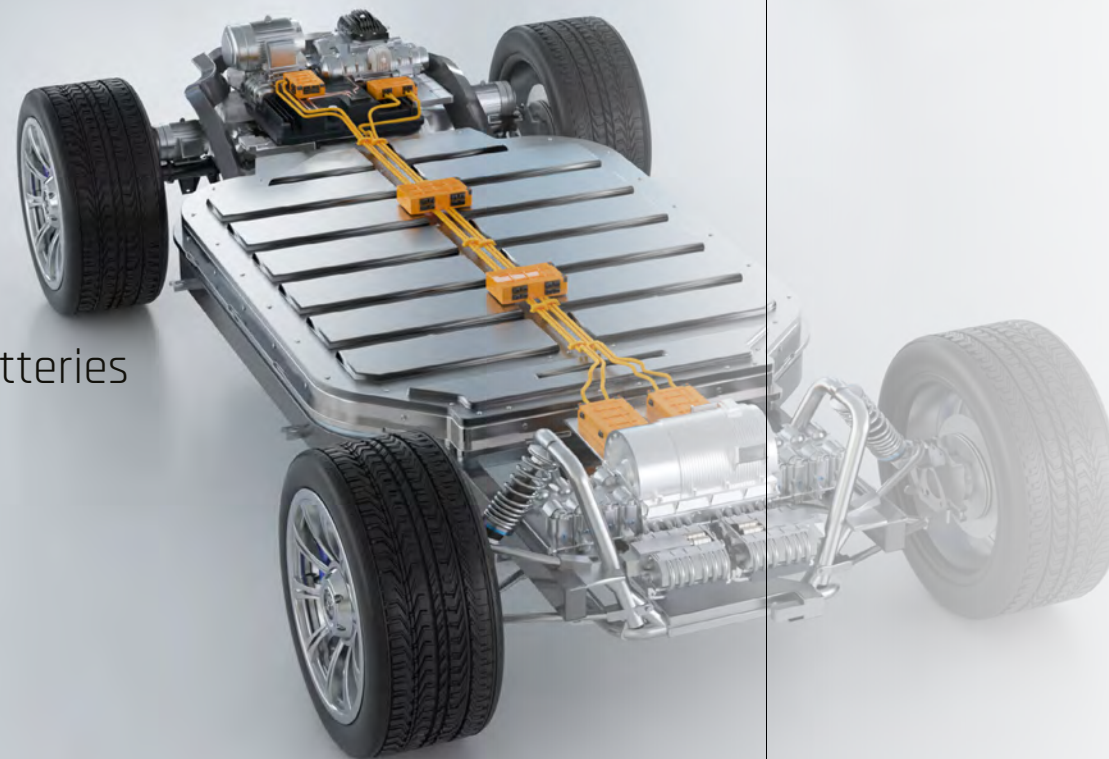
From Innovation to Market Launch

› 25-30%

Cost Advantage of Chinese Suppliers

› 55%

Market Share of CATL and BYD in High-Voltage EV Batteries



Outlook: decoupling

The outlook for the coming years is clear: the Chinese automotive sector will become increasingly decoupled from the global industry. A largely self-sufficient supplier landscape will emerge in China.

For European suppliers, this means their Chinese subsidiaries will be competing directly with local competitors and must therefore operate with significantly greater autonomy. This includes serving local customer needs, achieving the required speed, and, in some cases, developing products that are of little relevance outside of China. The management and operations of the organizations based in China will therefore need to differ significantly from those of the European headquarters.

Conclusion:

Is China a good role model? We would answer this question with a tentative “yes.” Chinese suppliers are no longer a local phenomenon; as they expand into Europe, European suppliers must face the same competition on their home turf, albeit under more favorable conditions for the time being, since OEMs in Europe do not yet operate under the same rules as in China.

Call to action: management agenda for automotive suppliers

It is crucial for the management of European suppliers to accept that China operates according to its own rules. This includes, in particular, the consistent implementation of an “in China for China” strategy.

In our view, European organizations based in China need to be able to operate independently – with full budgetary responsibility and local

decision-making authority. The European headquarters must no longer be a bottleneck in this process.

This also implies the need to clearly distinguish between processes and products “for China” and those “for the rest of the world.” While the Chinese market operates according to local dynamics, different conditions continue to apply in Europe – such as considerably longer development cycles.

At the same time, European suppliers need to adjust their cost structures in Europe in order to remain competitive with Chinese suppliers. Furthermore, they should take targeted steps to strengthen their position in China. This includes reviewing existing partnerships and actively seeking collaborations with local leaders – particularly in areas such as LiDAR, ADAS, and semiconductors.

Co-development approaches and joint ventures with Chinese partners should also be explored. These enable faster local adaptation, reduce financial risks, and provide access to expertise and customers. At the same time, the agility of partner companies can help make one's own organization more flexible.

Conclusion for decision-makers

China is an unavoidable role model when it comes to speed and cost management. Even in select fields of innovation, there is no getting around China.

As Chinese suppliers are strong in their home market and increasingly expanding into Europe, European companies have no choice but to adapt to Chinese market mechanisms.

9 | ELECTRIC MOBILITY REMAINS A MAJOR CHALLENGE, ESPECIALLY FOR SUPPLIERS



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Electric mobility hasn't failed, it has simply become a reality. For many suppliers, it has gone from being a promise of growth to a stress test. The market does not grow in a linear fashion, but in spurts, with delayed SOP dates, volatile vehicle call-offs, and tactical behavior on the part of OEMs. That is precisely what shifts risks to the supply chain. Investments in production lines, tools, personnel, and development are taking longer to pay off, and in some cases no longer yielding the expected returns. Volatility is therefore not a temporary phenomenon, but the new normal. In other words, it is not technology alone that is decisive, but rather the ability to manage volatility, costs, and capital investment. This is precisely where we see what is defining the current phase, as much of the capacity previously built up is no longer in line with the realistic pace of the market.

Overcapacity becoming a structural problem

Investments were made in many sectors related to electric mobility, with the rationale being a faster ramp-up. If volumes fail to materialize or programs are postponed, the result is downtime that is difficult to compensate for. Most of this overcapacity is not purely temporary and therefore does not automatically disappear after a certain period of time..

In some parts of the market, the question has long been whether technology, cost structure, and regional value creation are still compatible with future realistic volumes and competitive positioning (keyword: competition from Asia). Plant restructuring – as seen most recently among several suppliers in the electric motor sector – or, in extreme cases, plant closures are therefore no longer isolated incidents, but rather indicative of the industry as a whole.

Success depends on the right program and ongoing development

This makes one capability, which has long been underestimated, critical to success for suppliers: the right choice of product portfolio. What matters isn't winning just any electric mobility program, but being part of the right program with the right OEM. A nomination only realizes its full value when there is a stable platform in sight. When platforms are postponed or even discontinued, volumes are reduced, or strategies reprioritized, what was supposed to be a growth project can soon become a profitability issue. Moreover, due to the rapid pace of product innovation – particularly from China – suppliers must not only successfully secure a contract but also develop their components and systems on a much shorter cycle to avoid being left out when the OEM revamps the platform.

Cost pressure mounting in key component groups

In addition, there is growing cost pressure across many categories of electric mobility components. As standardization increases, prices for battery cells, inverters, and electric motors are falling. What initially appeared to be a market driven by technological differentiation is, in some areas, already evolving into fierce competition centered on cost reduction and industrialization. Margins come under pressure precisely where components become more comparable and OEMs place (even) greater emphasis on price. The result is profit margin erosion in the very sectors that many suppliers have built up as their future business.

The combustion engine stabilizes – and brakes at the same time

However, many suppliers continue to finance the transformation using revenue from their internal combustion engine business. According to Berylls by AlixPartners, 71% of the suppliers surveyed still generate three quarters of their revenue from ICE-related value creation. Although this strategy may provide short-term stability, it massively increases complexity, as many companies will have to manage two distinct business lines in parallel for years to come: on the one hand, the ICE business, which continues to generate cash, and on the other, the capital-intensive, often low-margin electric mobility business. However, this dual burden ties up capital, management attention, and flexibility.

The industry is becoming more realistic

The current mood reflects this reality. Only 48% of the companies surveyed by Berylls by AlixPartners now view electric mobility as a clear opportunity; in 2023 that figure was 77%. And only around half of those expect electric mobility to provide a real boost to revenue over the next five to ten years. This is not a rejection of the technology, but rather a recognition of the simple fact that growth alone is not sufficient if scaling, price

levels, and capital commitment are not aligned with one another.

What suppliers need to do now

The focus must clearly be on actively reducing excess capacity, consistently streamlining portfolios, and critically assessing technologies that are difficult to scale. At the same time, more flexible operating models and plant architectures are needed to cost-effectively accommodate shorter product life cycles and technological updates. Equally important is better market intelligence, because if you fail to identify OEM strategies, platform decisions, and program risks in a timely manner, you end up bearing the risk for too long at your own plant. To achieve this, development speed and cost reduction capabilities need to be improved, for example through partnerships, cluster initiatives, and design-to-cost approaches.

Conclusion

The real question for suppliers is no longer whether electric mobility will shape the industry – that question has been settled. The key to success lies in being part of the right program with the right OEM, adjusting your cost base quickly enough, and not carrying excess capacity for too long. For suppliers, electric mobility is therefore less of a pure growth area and more of a selection process. Those who actively manage their portfolio, production programs, and cost structure can reap the benefits. Those who fail to do so will not be carried along by the transformation, but left behind by it.

10 | THE LONG SHADOW OF THE INTERNAL COMBUSTION ENGINE (ICE)



Author: Philipp Stütz
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Strategic options for suppliers in the global endgame for ICEs, and the priorities this presents for suppliers in the DACH region.

ICEs are not disappearing at the same rate worldwide. While the global light vehicle market is expected to grow from around 93 million vehicles today to around 106 million by 2040, annual sales of new ICEs are forecast to decline from a good 54 million to around 16 million units during the same period.

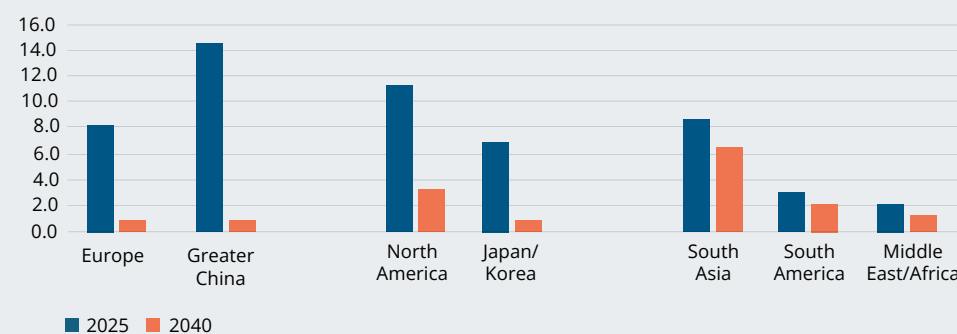
However, the ICE market isn't just shrinking – it's also shifting to the Global South. While ICEs are set to become a niche market in Europe and China by 2040, their number in South Asia is still expected to remain at around 6.5 million by 2040, down from about 8.6 million units today. This makes South Asia the largest remaining market for ICEs. By 2040, Latin America and the Middle East

& Africa will still have around 2.2 million and 1.2 million ICEs respectively.

This means that roughly two thirds of the remaining global market for ICEs will in future lie outside the traditional core markets of European suppliers, where the ICE will remain a locally adapted, cost-effective powertrain – particularly in the high-volume and entry-level segments. Chinese manufacturers such as Geely are additionally driving this trend by developing export-oriented multi-energy platforms, with the proportion of ICEs specifically tailored to markets in Africa, South America, and Southeast Asia.

FIGURE 1: INTERNAL COMBUSTION ENGINE VEHICLES

(in millions of units)



The key question, therefore, is which products will still be profitable for suppliers in the final stages of the ICE era. Currently, companies from the DACH region frequently hold significant market shares in vital engine components such as pistons, bearings, and flywheels, as well as in thermal management. It is precisely these components that make up the most durable bridge segments. They remain in demand in the aftermarket and can, in some cases, be adapted for use in hybrid and electric powertrain solutions. In contrast, highly complex components subject to regulation, such as those used in exhaust aftertreatment, will remain relevant only in a few markets and niche sectors.

The footprint also needs to be rethought. **OEMs are converting their European plants to BEV platforms, while much of the supplier capacity in high-wage countries remains tied to traditional ICEs.** European suppliers should address the situation by opening modular facilities in emerging automotive hubs – such as India, Mexico, and certain countries in northern and southern Africa – that can, on the one hand, supply the remaining volume of ICEs and, on the other hand, be converted to produce hybrid and electric components in the medium term.

However, the longest shadow cast by the ICE lies in the existing fleet. Even be-

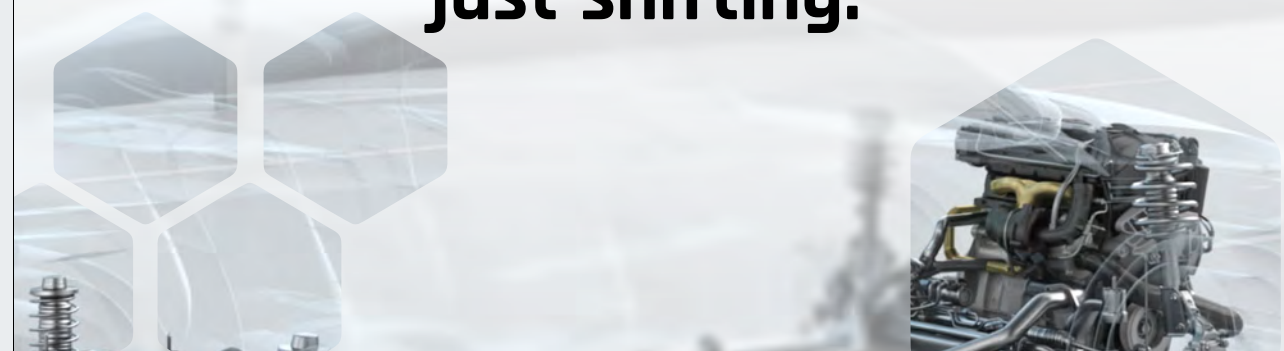
fore the pandemic, more than two million used vehicles were exported to Africa each year. Consequently, under typical current scenarios, Africa's fleet of ICEs is expected to grow from just over 30 million vehicles today to 60–70 million by 2040, while the fleet in Europe will decline sharply at a rapid rate. This trend will also shift the potential of the aftermarket. Above all, safety- and performance-critical components such as brakes, lights, batteries, starters, and filters will need to be replaced; damaged body, exhaust, and comfort parts are much more often repaired or simply ignored.

It is precisely in these aftermarket categories with high replacement rates that many DACH suppliers possess technological expertise and strong brands. This is the second strategic cornerstone of the ICE's final phase: not the extension of the old OE model, but the targeted development of IAM value pools in Africa and parts of Latin America.

For suppliers in the DACH region, the priorities are clear: selectively serve residual markets, monetize bridge technologies, adapt plants for flexibility, and systematically tap into aftermarket categories that have a high probability of replacement. This does not mean the abrupt end of the ICE – rather, it is about realigning regional priorities, portfolios, and business models.



Internal combustion engines aren't going away - they're just shifting.



11 | AUTONOMOUS DRIVING AND THE L4 ENDGAME – HYPE, REALITY, OR A NICHE OPPORTUNITY FOR SUPPLIERS?



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AI as a catalyst for AD and ADAS

Following the breakthrough in generative AI, leading tech companies have brought sophisticated AI models for autonomous driving (AD) and advanced driver assistance systems (ADAS) to market. This is a revolutionary move, as vision-language-action (VLA) models already integrate infotainment, user interfaces, and driving functions into a single approach, thereby consolidating previously separate functional silos into a unified software stack. This raises the question, particularly for automotive suppliers, of what opportunities and risks this entails.

Every “established player” in this sector is now on high alert! This is because three key factors play a major role here:

- (1) Zero-shot capabilities
- (2) massive investments in technology and
- (3) early entry into a long-term market trend.

Zero-shot capabilities

In the field of AI development, world models are currently being created that enable ADAS systems to perceive situations in a manner that is almost human. This significantly reduces the need for complex (and therefore expensive) corner-case training data and enables zero-shot deployment – that is, autonomous driving in cities for which the system has never been explicitly trained. Waymo, NVIDIA, NIO, and especially Wayve have already demonstrated L4 systems, showcasing test drives using a single AI model during a global roadshow in 500 cities.

Massive investments in technology

This momentum is made possible by large-scale investment in development. Waymo alone, having secured approximately USD 16 billion in new funding in February 2026, now has technology investment capital on a scale that exceeds the annual R&D budgets of



many global Tier-1 suppliers. This gives them a structural advantage over traditional automotive suppliers in terms of speed. And it fuels competition among tech companies for innovation leadership in the L4 endgame. To remain competitive, tech companies are consistently pushing forward with vertical integration and reducing their dependence on suppliers at critical control points, particularly in SoC development and sensor technology.

In contrast, traditional automotive suppliers have neither comparable resources nor the necessary appeal to investors – current return profiles and lower levels of innovation limit their ability to compete.

Why is this so crucial right now? Today, first movers are securing market opportunities in the ADAS sector, even if “only” in the L2++ range. The current sales success effectively secures an entry ticket to the long-term market – because scaling up to higher SAE levels and growing alongside the corresponding vehicle platforms of major automotive manufacturers ensures participation in the AD endgame, where tech companies will dominate the robotaxi market.

Long-term market trends

At the same time, the market penetration of ADAS is growing rapidly. In the core markets of the EU, the United States, and China, approximately 56% of new vehicles will already be equipped with L2/L2+/L2++ systems by 2026 – a figure that is expected to rise to just over 70% by 2030 and to more than 85% by 2040. The resulting effect is that as adoption becomes more widespread, so will the demands for scalability and the ability to update software stacks, as well as the pressure to reduce system costs per vehicle. AI-based software stacks thus become a tactical lever in short-term product decisions – and a strategic control point in medium- to long-term platform competition.

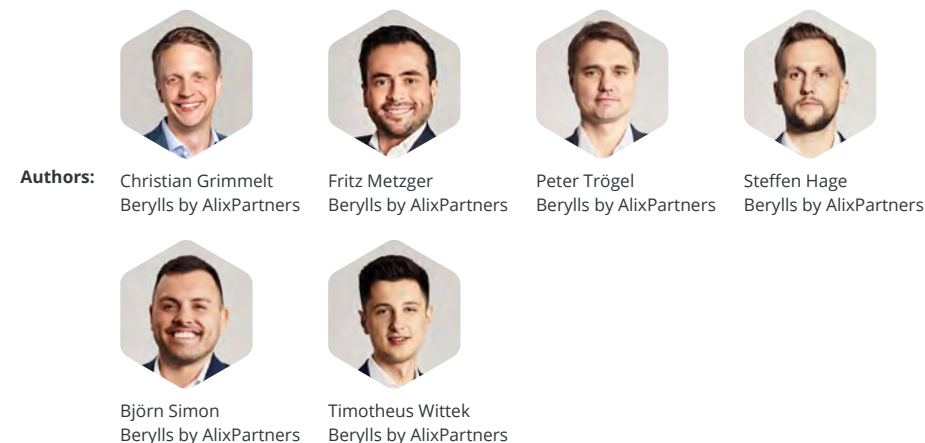
On the hardware side, AI enhances the ability to extract information from various sensor modalities – particularly vision. As a result, OEMs have begun to reduce their sensor sets – and the associated BOM costs per vehicle. LiDAR remains particularly attractive to premium OEMs, which can afford a higher BOM to improve driving performance, expand ODDs, and further enhance safety, while other OEMs use LiDAR primarily to meet redundancy requirements for certification. By shifting raw data processing directly to AI models running on high-performance computers within the vehicle, the need for preprocessing by “smart” sensors is decreasing – simpler versions and standalone sensor heads are increasingly sufficient. Leading OEMs are already defining their own functional designs, thereby bypassing conventional supplier structures.

Implications for suppliers

For software suppliers, competition with tech companies is becoming increasingly fierce – budget constraints, corporate culture, and speed are imposing significant limitations. At the same time, tech companies still lack in-depth knowledge of automotive integration, which is where automotive suppliers can play a key role by offering integration services, tool chains, homologation expertise, and global rollout capabilities.

In terms of hardware, automotive suppliers need to clearly define their “right to play” within a value chain that has been restructured by vertical integration. Global ADAS penetration across all SAE levels will continue to rise, leading to an overall increase in demand for related components. While differentiating components are gradually disappearing from OEMs’ scope of interest, this creates an opportunity for select suppliers to position themselves as strategic co-development partners with clear core technological expertise. However, due to market dynamics, the window of opportunity for this is likely to close quickly.

12 | PHYSICAL AI: THE NEW PRODUCTION REALITY FOR EUROPE'S SUPPLIERS



Europe's automotive supply industry is no longer grappling with a temporary economic downturn, but with a structural shift. While vehicle production in the EU remains well below pre-crisis levels and tens of thousands of jobs are being cut, the United States is pulling ahead in terms of private AI investment, and China is cementing its dominance in the world of industrial robotics. Traditional efficiency programs are no longer sufficient in this situation. European suppliers that want to remain competitive need to rethink their production processes, and physical AI is the key to achieving this aim.

The figures leave little room for interpretation. Vehicle production in the EU is some 20% below 2019 levels – a shortfall of 3.1 million units. In 2024 and 2025 alone, the industry shed 104,000 jobs, while only 7,000 new positions were created. One in four suppliers expects to report a loss for 2026 (CLEPA Pulse Check 2026).

At the same time, the technological focus is shifting: the U.S. is investing 109 billion dollars in private AI research – 14 times more than the EU, which is investing only eight billion dollars (Stanford HAI 2025). Over half

of all new industrial robots worldwide (54%) are installed in China, which, with over two million units, has the largest robot fleet of any country and 4.5 times more than in Japan. In terms of robot density, China, with 166 robots per 10,000 workers, still lags significantly behind Germany, which has 449 robots (IFR 2025, updated April 2026). On the one hand, this is due to the high proportion of employment outside industrial enterprises. On the other hand, it shows that the potential of conventional stationary automation – welding, joining, and painting – has largely been exhausted at OEMs and high-volume suppliers.

The conclusion is discomfiting, but absolutely clear. Those companies in Europe that continue to rely on incremental efficiency programs will lose not only their profit margins, but also their strategic flexibility.

Competitive pressure is shifting from individual factors to the question: what options do European suppliers have to simultaneously address costs, variability, and the shortage of skilled workers – specifically within existing brownfield sites, rather than on the drawing board of a greenfield factory? One possible answer is physical AI. The decisive factor will be how quickly plants and processes as a whole become capable of learning.

How physical AI is transforming processes: from rigid production to adaptive manufacturing

Physical AI combines AI models with physical robotics, which includes mobile robots, cobots, AI vision, predictive maintenance, and, in the medium term, humanoid robots. The break with traditional automation is systemic: instead of being rigid and designed for a single purpose, physical AI is adaptive, software-defined, and multifunctional. A cobot switches tasks via a software update, a mobile robot optimizes routes in real time, and a vision system detects defects that a human would not be able to reliably identify. Physical AI makes variation manageable. It is the flexibility that rigid automation could never provide as product diversity increases

and batch sizes decrease.

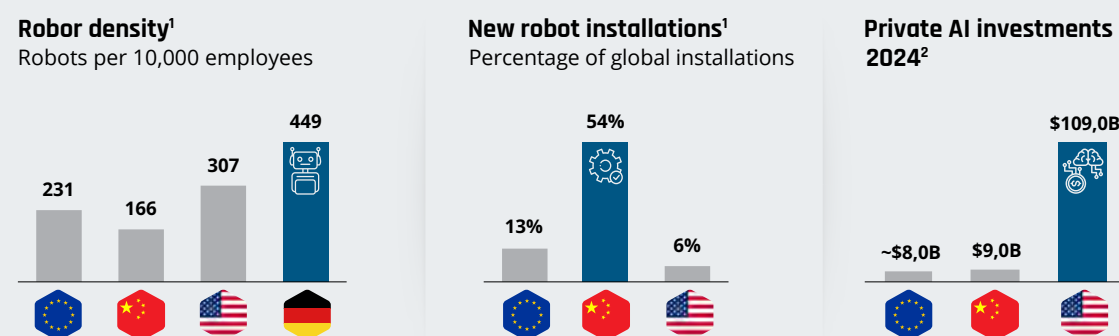
The important thing to remember is that this new world does not replace established industrial robots, it simply complements them. KUKA, FANUC, or ABB remain the backbone of the production process when it comes to welding, painting, and handling tasks with cycle times of less than a second and repeatability in the hundredths-of-a-millimeter range. Physical AI comes into play where conventional robotics reaches its limits – namely in terms of versatile grasping, context-sensitive assembly, and autonomous navigation in unstructured environments. To put it simply, the industrial robot follows a predetermined path, while physical AI makes decisions. The two worlds are, however, converging and it is precisely this combination that will drive the next leap in productivity.

Where the business case already holds up

Physical AI is no longer just a theoretical discussion. The benefits can already be quantified in four areas of application, and in all four, the payback periods are less than two years.

In the world of **intralogistics**, more than 18,000 mobile robots are already in operation at hundreds of automotive plants worldwide – ranging from AGVs with predefined routes to fully autonomous AMRs. In practice, a balanced approach tends to prevail, in which AGVs with limited autonomy are able to navigate around obstacles and reroute without requiring the complexity of a full AMR stack. For example, BMW relies almost exclusively on mobile robots to supply its plants in Spartanburg and Munich. At the Munich site, robots handle approximately 60% of all supply tasks, with a daily volume of 2.5 million parts. The company Idealworks, a BMW spin-off, provides the corresponding scalable mobile robot platform. The investment typically pays for itself within 12 to 18 months; in a three-shift operation it can even pay off in less than 12 months and downtime is reduced by up to 21%. (IFR 2025; Idealworks; BMW Group)

FIGURE 1: EUROPE'S INVESTMENT GAP IN AI AND ROBOTICS



¹ IFR World Robotics Report 2025 (incl. revised robot density, April 2026)
² US/CN/UK: Stanford HAI, 2025 | EU: the State of AI Report 2025, Air Street Capital

In **quality assurance**, AI-based paint inspections are becoming increasingly common, achieving detection rates of between 90% and 99.5%. In a plant producing 1,000 vehicles per hour, this can result in savings of 12 million to 36 million dollars per annum, with a payback period of 12 to 18 months (WEF Lighthouse Network 2026).

In the **assembly** process, **cobots** are increasingly taking on tasks that pose **ergonomic challenges**, such as door insulation, grinding, and gluing. The greater the variation in EV/ICE mixed production scenarios, the faster the cobot pays for itself compared to rigid automation. Real-world examples include Eclipse Automation's use of UR cobots for door insulation processes at BMW Spartanburg, as well as cobot-assisted body grinding at the Ford plant in Cologne.

In **predictive maintenance**, AI-based condition monitoring reduces unplanned downtime by 35 to 50% and cuts maintenance costs by 25 to 30% (WEF Lighthouse Network 2026). The prerequisite for this is unspectacular yet crucial: comprehensive sensor technology and a robust data infrastructure. This is precisely where the key weakness of many Tier-2 suppliers lies. Without a structured data lake, any predictive maintenance strategy is pointless. A reliable database is essential for a serious physical AI roadmap.



Physical AI is not just an option for the future. It is the only solution that addresses costs, variance, and the shortage of skilled workers all at once."

Steffen Hage, Associate Partner, Berylls by AlixPartners



What still stands in the way of scaling

As compelling as the business cases may be, physical AI is not simply a plug-and-play solution. Four obstacles prevent scaling, and none of them can be overcome through technology alone.

First, many suppliers lack the necessary database. Without structured machine data, any AI model is doomed to fail. Second, connected robotics increases the size of the OT attack surface, while many plants still operate without a segmented network architecture. Third, ISO 10218 and the EU Machinery Directive set clear boundaries for human-robot collaboration; the required documentation is time-consuming and must also be provided for expansions in brownfield environments. And fourth, there are currently no binding standards for humanoids in mass production settings. Those who scale up too soon risk regulatory setbacks.

None of these obstacles is insurmountable, but each one requires investments that go beyond technology alone.

Hardware is not the bottleneck

With physical AI, the role on the shop floor shifts from the operator to the robot supervisor. This shift is not merely a minor detail in workforce planning, but the actual bottleneck in the transformation. Today, 65% of manufacturing companies fail due to a lack of skilled people (NAM 2024). The World Economic Forum's Lighthouse factories, which systematically provide training to 88% of their workforce, have reduced employee turnover to 3.5% – compared to the industry average of 9.4% (WEF Lighthouse Network 2026). By 2028, about 20% of the operations workforce will need AI skills. It's not robots that are in short supply, but the people who orchestrate them.

Three waves of investment by 2030: the window of opportunity is closing

Companies that approach the transition in a structured manner can introduce physical AI in three phases, following a clear logic. The sequence is based on the underlying levels of maturity. At what pace do suppliers need to invest to avoid falling permanently behind?

FIGURE 2: THREE WAVES OF INVESTMENT BY 2030

FOUNDATION	ACCELERATION	INDUSTRIALIZATION
2026 IN PRODUCTION	2026-2028 SCALED NOW	2028-2030 EARLY USE
ROI <24 months Main use cases • Scale mobile robot fleets (AGV/AMR) Automate internal material flows • Predictive maintenance Use sensor and PLC data • AI vision inspection Identify paint and surface defects • Planning and sequencing Optimize scheduling, manage product mix	AI manages production processes Main use cases • Logistics orchestration Dynamic “mobile robot routing,” AI-supported warehouse management • Adaptive robotics and cobot cells Dynamic gripping, variant recognition, task switching • AI operator assistant Exception handling, guided corrective actions • Tuning process parameters AI-supported control of welding, bonding, curing, and painting	AI acts in the real world Main use cases • Mobile robot fleet intelligence Fleet-wide decision-making logic, predictive route adjustment • AI-supported cobot assembly Flexible automation with a diverse range of EV and ICE variants • Self-calibrating stations Test benches automatically adapt to variant specifications • Governance of the digital twin Combines planning, scheduling, and quality in a standardized AI layer
INTRODUCTION DRIVERS No major process changes Fastest COO sponsorship.	INTRODUCTION DRIVERS Requires real-time integration with PLCs. Requires security validation. Process changes become part of the scaling process.	INTRODUCTION DRIVERS Hardware and software must be integrated. Skill gaps and security certification as bottlenecks.

Phase 1 - Foundation
(2026)

In this initial wave, the goal is to scale mobile robot fleets, AI-driven quality assurance, and predictive maintenance across all plants. The technologies are available and the ROI is less than 24 months. Individual pilot projects are no longer sufficient. Companies that do not roll out their solutions across multiple plants during this phase are missing out on crucial economies of scale.

Phase 2 - Acceleration
(2026-2028)

Logistics orchestration, adaptive robotics and cobot cells, AI operator assistants, and process parameter tuning build upon this foundation and actively control production processes. The true test of maturity lies in operating them using a standardized control architecture, rather than as isolated solutions in individual production lines.

Phase 3 - Industrialization
(2028-2030)

In the third wave, the focus shifts to humanoids in brownfield pilot projects and the development of the software-defined factory. By then, Chinese OEMs and Tier-1 suppliers will have moved their humanoid pilots into mass production scenarios. The decisive factor is that humanoids do not exist in a parallel world. From a control perspective, they are part of the mobile robot system. Whether on tires, on a base, or on two legs, they all need the same virtual foreman to tell them what to do. A standardized AI control level (orchestration system) connects mobile robot fleet intelligence, AI-guided cobot assembly, self-calibrating stations, and humanoid platforms, thereby integrating planning, control, and quality.

By now at the latest, European suppliers need to have their own experience under their belts – not for the sake of prestige, but so they can have a say in the next architectural decisions.



The window of opportunity for strategic decisions is closing when it comes to data sovereignty, platform selection, and workforce restructuring. Physical AI is not just another automation trend, but the next productivity driver for European suppliers. Competition is not decided solely by hardware, but by data infrastructure, platform architecture, and workforce skills. Those who wait will lose their strategic capacity to act by 2028 and be forced to play by others' rules during the industrialization phase.

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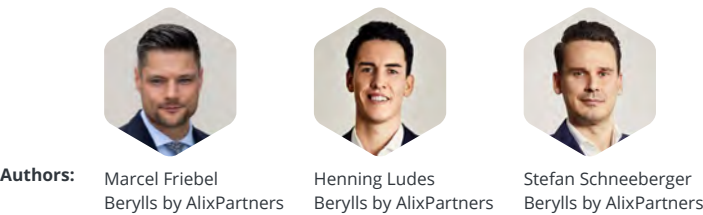
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13 | GEOPOLITICS AND FRAGMENTATION: WHEN POLITICS BECOMES A MATTER OF LOCATION AND PORTFOLIO



The automotive supply industry is facing a fundamental overhaul of its strategic approach. Geopolitical fragmentation, critical dependencies on raw materials, and the trend toward “local for local” are changing the rules of the game. Cost optimization alone is no longer sufficient, as geo-economic considerations are becoming an equally important guiding principle.

A little over a decade ago, in his bestseller “Prisoners of Geography,” Tim Marshall showed how rivers, mountains, access to the sea, and natural resources shape the political and economic activities of countries. What at times seemed like freely available commodities during the height of globalization are returning in the early 21st century as open competition for access to energy, deep-water ports, trade routes, and critical infrastructure. For suppliers, this means their supply chains must be designed to withstand geopolitical shocks and trade policy interventions – through robust regional structures, diversified transport routes, and secure access to critical raw materials. What used to be a peripheral issue for risk management functions is now taking center stage in strategic decision-making at management board level.

The three-bloc structure – a new global gravitational system

This logic is reflected in a clear three-bloc structure. China and the United States are asserting their claims to hegemony through different means: reciprocal tariffs and an “America first” industrial policy on the U.S.

side, and the Belt and Road Initiative and targeted control of strategic raw material and trade corridors on the Chinese side. Both blocs are rapidly establishing closed industrial-technological ecosystems and systematically securing their own share of the value chain by means of subsidy programs, local content requirements, and export controls. Europe is under considerable pressure to define a coherent strategic course that integrates the single market, key industrial capabilities, and security interests; otherwise, the continent risks being caught between these two major powers.

Critical raw materials are Europe’s geopolitical Achilles’ heel

Strategic raw materials are a particularly clear illustration of how vulnerable Europe is in the new geo-economic order. In several areas critical to technology and industrial policy, there is a high degree of dependence on a small number of production, processing, and control facilities located outside Europe.

China has made strategic investments in the battery raw materials value chain and now controls a significant share of mining and, in particular, refining capacity.

FIGURE 1

Material	Weight ¹		Mining			Refining		Recent Developments	Expected Impact on Prices
	NMC 811	LFP	Origin	Ownership	Risk	Origin/Ownership	Risk		
Lithium	7kg	8kg	AUS: 37% CHL: 21% CHN: 21%	USA: ~26% CHN: ~25% AUS: ~19%		CHN: ~60%		China is scaling back production through measures aimed at addressing overcapacity and price wars, a process referred to as “anti-involution.”	↗
Kobalt	7kg	0kg	DRC: 76%	CHN: ~41% (49% des DRC Anteils) SUI: ~20%		CHN: >80%		The ongoing shift toward LFP batteries is expected to reduce demand for cobalt.	→
Nickel	52kg	0kg	IND: >60%	CHN: ~35% FRA: ~20% IND: ~16%		IND + CHN: >60%		Indonesia has imposed export bans to strengthen its domestic value chain. The ongoing shift toward LFP batteries is expected to reduce demand.	↘
Mangan	7kg	0kg	ZAN: 37% GAB: 23% AUS: 14%	AUS: ~33% FRA: ~30% ZAN: ~13%		FRA: ~47% AUS: ~23% CHN: ~11%		South Africa is considering a ban on raw material exports to promote local processing. Gabon will ban ore exports starting in 2029 to mandate domestic processing.	→
Graphit	60kg	88kg	CHN: 79%	CHN: ~79%		CHN: 90%		China tightened its export controls in 2023 the U.S. imposed tariffs in 2025 and raised the rate on Chinese graphite to 160%.	↗

Low supply chain risk

Moderate supply chain risk

High Supply Chain Risk

Price Expected to Fall

Prices are expected to remain stable

Prices are expected to rise

Battery-related raw materials are a prime example, as the crucial bottleneck lies not so much in extraction as in processing. China controls around 60% of global lithium refining, more than 80% of cobalt processing, and around 90% of graphite refining, thereby determining availability, prices, and market access. Since 2023, this position has been increasingly safeguarded through export and licensing regimes as part of industrial policy.

At the same time, demand for materials is rising structurally, while Europe lags behind by about a decade in terms of refining and processing expertise. In-house capacity is virtually nonexistent; building it up requires significant capital and will not yield results in the short term. The example of batteries is representative of a broader trend. Where Europe does not control upstream stages of the value chain, systemic dependencies are bound to arise.

Whoever controls refining and export conditions dominates the scope of industrial activity. For the European automotive industry, access to strategic raw materials is therefore less a matter of procurement and more a matter of power – with direct implications for supply capability, margins, and strategic autonomy.

Note: Incomplete, only selected countries are displayed.
1 Weight of the respective material in an example 80-kWh battery.
Source: Desk research, Berylls by AlixPartners analysis

“Local for local” becomes a requirement for admission

In addition to dependence on raw materials, there is a second shift: when the global economy organizes itself into blocs, production also shifts to where sales take place. “Local for local” is the logical next step in the fragmentation on the sales side – and has gathered pace since 2023. Domestic passenger car production in Germany remains at a level of around 4.1 million vehicles, about 11% below the pre-crisis level of 2019 (4.66 million). At the same time, exports of around 3.14 million vehicles are well below the previous peak of 3.5 million units. China now accounts for over 30% of global production, while North America is stabilizing its manufacturing through incentive programs and local content requirements. What was initially seen as a cost-saving measure – supply chain security, reduced logistics costs, and just-in-sequence capability – is therefore becoming a fundamental structural requirement. Establishing a local production presence has become virtually unavoidable from a strategic standpoint.

Capital requirements and structural implications

The pressure to maintain a regional presence is compounded by a secondary pressure: that of transformation. Capital requirements are rising due to simultaneous investments in electrification, software, and battery technologies as well as the development of regionalized production networks, while the EBIT margins of many European suppliers, ranging from 4% to 7%, are well below pre-crisis levels. For small and medium-sized suppliers, this brings existential questions to the forefront: it is no longer the product portfolio that matters, but rather which regions can be served profitably in the long term and which need to be abandoned.

Intellectual property (IP) – the basis for geopolitical resilience

In addition to the effects on production and procurement described above, attention is increasingly turning to an upstream aspect whose strategic importance has long been underestimated: intellectual property. In a fragmented global economy, IP is increasingly becoming a determining factor not only for competitiveness, but also for market access, investment protection, and the ability to operate effectively across global value chains.

In this context, it is important to distinguish between two dimensions, which are subject to varying policy approaches and must therefore be managed differently: **the creation of intellectual property and the ownership of intellectual property.**

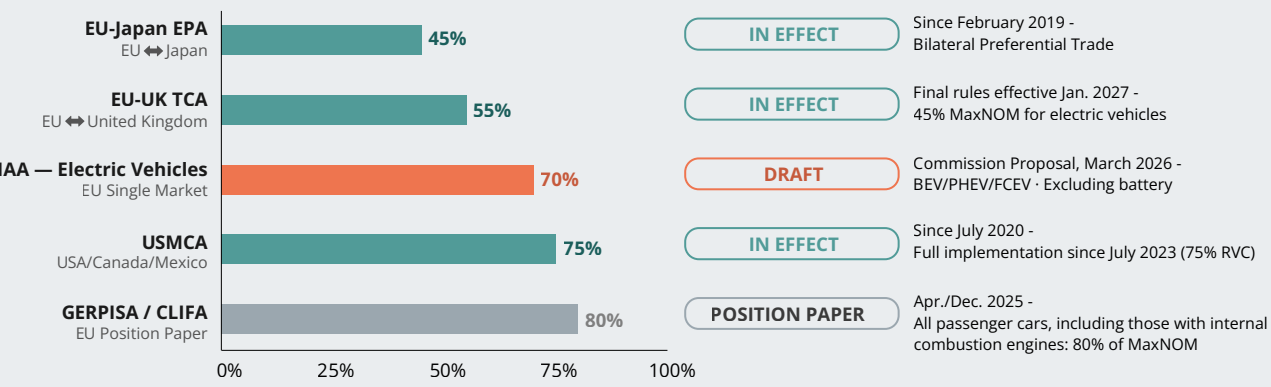
At the same time, “local for local” is also gaining importance in terms of procurement. Suppliers must assess which key components need to be secured locally and where dual or multi-sourcing across regions is necessary to actively reduce concentration risks. The crucial point is not only the choice of sources itself, but also whether the procurement organization is capable of consistently implementing appropriate strategies across regions, product families, and supplier generations. Against the backdrop of a cumulative loss of around 100,000 jobs since 2019 and wage cost disadvantages of up to 50% compared to locations in Central and Eastern Europe, there is also a growing risk that weakened European suppliers will be acquired by international investors seeking to gain access to key technologies via this method.

“
For the European automotive industry, access to strategic raw materials is less a matter of procurement than of power.”

Minimum percentage of local/regional value added required for tariff preferences, subsidies, or market access.

FIGURE 2: LOCAL CONTENT THRESHOLDS FOR VEHICLES BY REGION

(Current and Proposed Regulations in Major Markets, as of April 2026)



Source: European Commission (IAA Proposal, March 2026), USMCA Chapter 4, EU-UK TCA Annex ORIG-2, EU-Japan EPA Annex 3-B, GERPISA (2025), CLIFA (2025)
Berylls by AlixPartners

Europe's Achilles' heel

- » **60%**
global lithium refining in China
- » **>80%**
global cobalt processing in China
- » **90%**
graphite refining in China
- » **~10 years**
Europe's Lag in Refining and Process Know-How

The creation of intellectual property encompasses both the location where a product's actual value is created and the underlying development infrastructure, such as tools, data platforms, or data centers. Their strategic importance varies greatly depending on the technology; software-based systems and integrated circuits (ICs) are subject to increasingly strict export, access, and usage restrictions. For this reason, the most important lever is a modular product and development architecture that serves as the main safeguarding mechanism. It allows critical subsets to be developed using alternative setups, locations, or toolchains as needed, without endangering the overall scope of the product.

Intellectual property ownership refers to the legal attribution of IP, that is, the question of which company and under which jurisdiction holds the relevant rights of disposal, use, and decision-making. The management process is significantly more complex than that of IP creation, as the attribution of IP ownership is often ambiguous in practice. Particularly in the case of globally distributed development, licensing, and collaboration models, determining the legal ownership of intellectual property often requires interpretation and depends on functional, organizational, and legal distinctions. The most important lever is the strategic consolidation of core and platform IP in jurisdictions with robust regulatory frameworks, so that ownership, decision-making authority, and value creation are aligned. Clear guardrails and governance mechanisms transform IP ownership from a legal structural issue into an actively controllable management topic and ensure the long-term usability of core technological assets.

Geopolitical resilience stems from a holistic corporate strategy

In summary, it is clear that in geopolitically fragile times, robustness can only be achieved through an integrated approach encompassing procurement, production, IP creation, and IP ownership. These aspects must be embedded across all levers of corporate strategy (see image) based on a shared set of objectives. Only then does geopolitical uncertainty become not only manageable, but also a competitive advantage that can be actively shaped.

14 | THE AFTERMARKET AS A STABILIZING FORCE: CASH GENERATOR IN THE WAKE OF TRANSFORMATION



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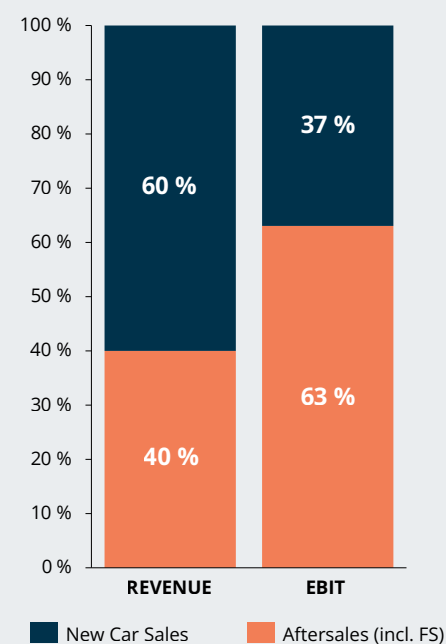
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The automotive industry is undergoing a period of profound change. While the original equipment market is increasingly characterized by margin pressure, large-scale investment in new technologies, and volatile demand, a long-overlooked sector is coming into sharper focus: the aftermarket. **It is emerging as a reliable cash generator during this period of transformation – and, for many suppliers, a decisive driver of earnings.**

FIGURE 1: PERCENTAGE OF PROFIT OF THE OEM GROUPS 2024



A key reason lies in the **fundamentally different profitability profiles** of the original equipment and aftermarket businesses. In the new car and original equipment markets, margins are not only structurally lower, but also far more dependent on economic conditions and technological developments. In contrast, OEMs and suppliers alike generate a disproportionately large share of their operating profit in the aftersales and aftermarket business – despite their significantly smaller share of total revenue. For suppliers, one thing is clear: **companies with a significant aftermarket presence achieve considerably higher EBIT and cash conversion rates** than competitors that rely solely on original equipment (OE).

A look at the **profitability of individual aftermarket product categories** illustrates just how broad the range actually is. While suppliers in complex, OE-related segments often achieve only low to mid-single-digit EBIT margins, best-in-class players in traditional aftermarket core categories generate margins in the high double digits. In some segments, EBIT margins range **from around 25% to just under 30%.**

This spread makes it clear that the aftermarket is not at all homogeneous. **Value creation does not result automatically from participation, but rather from the strategic prioritization of categories, clear positioning, and an IAM-enabled operating model.**

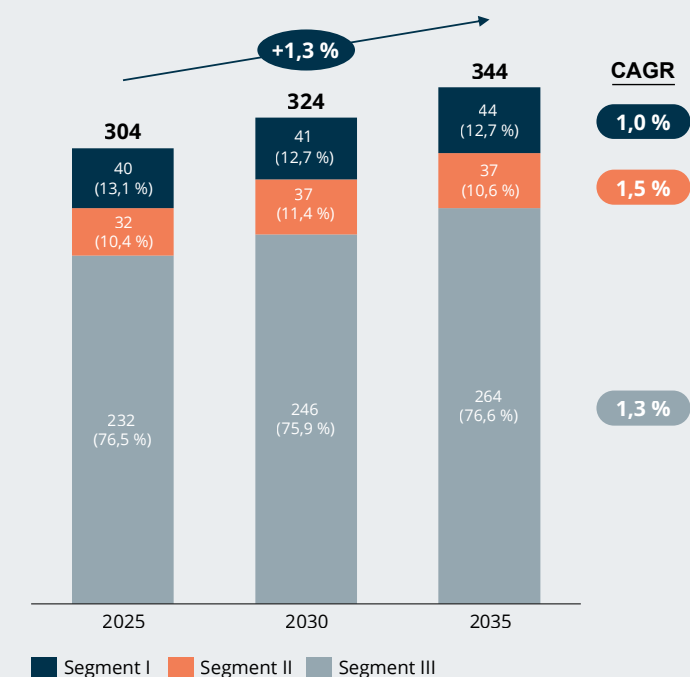
A second structural driver is the **aging of global vehicle fleets**. In Europe, the average age of vehicles is set to rise significantly by the mid-2030s; particularly vehicles over seven years old will continue to gain prominence. This segment has traditionally been the domain of the independent aftermarket. As vehicles age, customer loyalty to OEM repair shops declines, while independent repair

shops, fast-fit chains, and online platforms gain market share. Consequently, the IAM is growing faster than the OEM-related aftermarket and emerging as the dominant channel for parts and service revenue.

A similar pattern is evident **globally** as well – although with regional variations. In the United States an aging fleet of light trucks, high annual mileage, and rising repair costs are driving attractive aftermarket profit opportunities. In Asia, however, shorter holding periods and more fragmented markets are resulting in less stability, while at the same time, growth opportunities are emerging there through international expansion and new distribution models. For European suppliers, the ability to scale their aftermarket business beyond their home market is increasingly becoming a strategic priority.

FIGURE 2: TRENDS IN THE AGE CATEGORIES OF THE EU VEHICLE FLEET

[in millions of units]



Source: Berylls by AlixPartners, S&P Forecast

Note: Segment I (passenger cars 1–3 years old), Segment II (passenger cars 4–6 years old), Segment III (passenger cars older than 7 years)

Especially in light of electrification, software complexity, and volatile OEM call-offs, the aftermarket is taking on an additional key role, as **it helps to stabilize the risk profile of suppliers**. Demand for spare parts is primarily driven by a vehicle's age, usage, and wear and tear – and thus follows far more predictable patterns than the new car business. Even though electric vehicles have a reduced need for traditional maintenance, the complexity and cost of individual repairs are increasing due to factors such as high-voltage systems, power electronics, and sensor-driven accident repairs. The aftermarket therefore remains structurally significant – albeit with a different product mix.



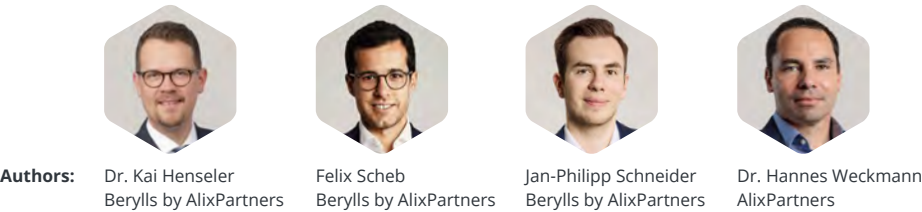
**The aftermarket
is the cash cow
in the shadow of
transformation.**

What does this mean for suppliers? In practice, **three archetypal developmental paths** are increasingly being observed. Suppliers with no significant aftermarket presence use the IAM primarily as a defensive measure to stabilize cash flow. Companies with a small aftermarket share focus on select, high-margin categories to offset fluctuating results in the OE business. Suppliers that already have a significant aftermarket presence are ultimately developing the IAM as a strategic earnings and cash driver – with a clear category structure, a differentiated brand architecture, and scalable sales and logistics models.

Growth in the aftermarket stems less from a one-size-fits-all approach than from **clearly defined areas of focus**: selecting the right channels, strategically leveraging multi-brand and white-label strategies, establishing proximity to repair shops and distribution networks, and achieving operational excellence in terms of product availability and portfolio depth.

The key finding is clear: **while large parts of the core business are undergoing change, the aftermarket remains a reliable stabilizing force – and a key lever for making transformation financially viable.**

15 | OVERHEADS OUT OF CONTROL - WHY SUPPLIERS NEED TO TAKE ACTION NOW



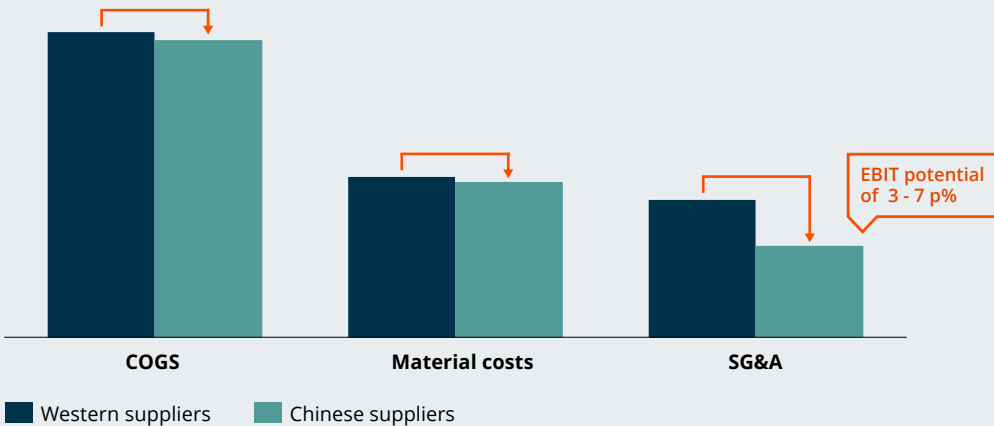
The conventional levers for cutting material and labor costs have largely been exhausted, which is why there is a growing focus on the structural cost base. Western suppliers start with a legacy disadvantage: higher overhead ratios, more complex structures, and slower decision-making processes. Conventional efficiency programs merely address the symptoms, but not the management model or the decision-making framework. Suppliers that streamline their structures and systematically transform their overhead functions can improve their EBIT by three to seven percentage points.

From cost-cutting to restructuring

Cost optimization has been a major focus of the supplier industry in recent years. Lean initiatives, automation, and offshoring to low-cost countries have significantly eroded the leeway on the cost of goods sold (COGS). At the same time, technology, product standards, and quality requirements have been largely brought into line, thereby eliminating traditional differentiating factors. As a result, Western suppliers are losing a great deal of

their competitive edge compared to their Chinese counterparts. In addition, OEMs are adjusting their procurement strategies: SG&A expenses and overhead structures are becoming a key focus of tender evaluations. Competition is shifting from direct product costs to the structural cost base of the business model.

FIGURE 1



Structural disadvantage of Western suppliers

In this context, structural differences are becoming more apparent than ever before. Western suppliers have SG&A ratios of up to 15%, while Chinese competitors typically range between 3% and 5%. This gap reflects the organizational complexity that has developed over time. Matrix organizations, additional regional levels, and fragmented responsibilities increase management overheads and have a direct effect on indirect costs. There are also higher indirect personnel costs, particularly in Europe and North America, as well as global operations with numerous interfaces. The result is a structural cost disadvantage that can only be offset to a limited extent via conventional efficiency programs.

Competition redefined: structure, not just costs

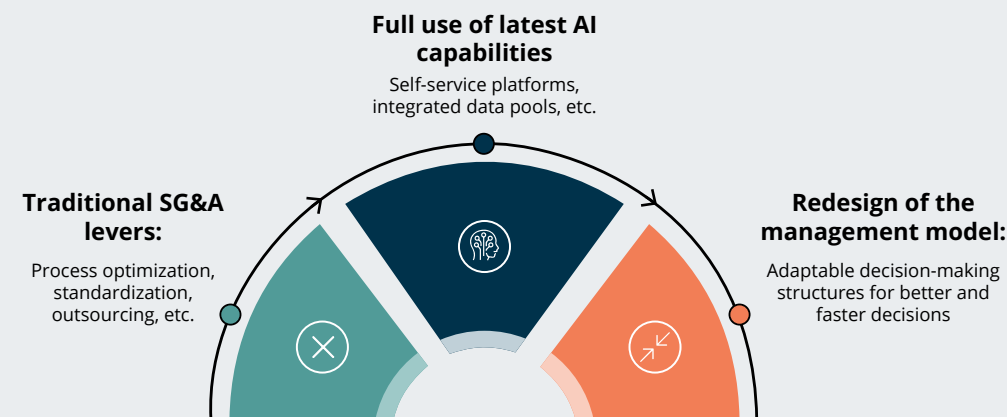
This changes our understanding of competitiveness. OEMs no longer focus solely on the level of overheads, but also on their efficiency, the quality and speed of decision-making, and organizational lean practices. SG&A expenses become an integral part of an expanded procurement strategy. Three factors become increasingly important in this context: decision-making speed, scalability

across regions and programs, and organizational efficiency, both structurally and operationally. In contrast, programs that focus solely on short-term savings and isolated process improvements fall short.

Why traditional SG&A optimization isn't sufficient

Established SG&A measures primarily focus on standardization, process optimization, and automation as well as outsourcing and shared services. While they do produce results, they remain within the framework of the existing management model. As long as decision-making frameworks and governance remain unchanged, complexity and costs will return. Unless the management model is adapted, the impact of AI, automation, and self-service structures will remain limited. SG&A expenses ultimately reflect the logic of the decision-making framework: complex governance creates additional layers, redundant roles, and unclear responsibilities, leading to slow decision-making and inefficient processes. Without a new management model, a radical reduction in SG&A expenses will neither realize the full cost-saving potential nor be sustainable; a new management model without a cost reset is difficult to justify.

FIGURE 2



The crux of the problem: suppliers are “bloated” and “sluggish”

In many organizations, two typical situations are evident: first, “bloated structures,” that is, overly complex organizations with numerous levels of management, units that have grown over time without being streamlined, and activities that do not clearly add value. There is often no mechanism in place to measure the performance of SG&A functions and limit their expansion.

The second example, “sluggishness due to lacking and delayed decisions,” points to shortcomings in the decision-making framework. Unclear lines of responsibility and the resulting lack of accountability lead to decisions being avoided rather than made in critical cost-related situations. A high number of decision-making levels means that management is far removed from day-to-day operations, yet still wants to exert a strong influence over them. The outcome is a perceived high level of activity, despite decisions that are actually made slowly or not at all, and a culture of reporting rather than active management.

The dual transformation lever and its impact on EBIT

Overcoming these structural weaknesses requires a two-pronged approach. On the SG&A side, the focus is on consistently reducing complexity: eliminating non-essential activities, streamlining structures while shifting operations to minimize factor costs, and systematically expanding automation and AI capabilities.

It is also necessary to redesign the management model. Clear end-to-end responsibilities, fewer management levels, strong operational units with a focus on results and a high degree of autonomy, and faster decision-making provide the framework for a sustainably lean SG&A structure.

Experience from transformation programs shows that SG&A transformations with a structural focus can unlock potential EBIT gains of around three to seven percentage points, significantly more than traditional efficiency programs. For suppliers, this means consistently reviewing their operating model, systematically reducing overhead costs, and viewing SG&A expenses as a strategic lever for long-term competitiveness.



Only when both levers are used in combination, does SG&A transform from being a static cost center to becoming an active competitive factor.



16 | EXPERT INTERVIEW



Dr. Alexander Timmer
Partner & Managing Director
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Dr. Jan Dannenberg
Partner & Managing Director
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Does the automotive supplier industry have more challenging months ahead? Jan Dannenberg and Alexander Timmer of Berylls by AlixPartners discuss the key findings of the study “Global TOP 100 Automotive Suppliers.”

Mr. Dannenberg, what key insights did you gain from the 2025 Top 100 Suppliers Study?

Dr. Dannenberg: Transformation and crisis again continued to shape the landscape of the supplier industry in 2025. Two thirds of suppliers have downsized compared to the previous year, profits are declining, and staff cutbacks are on the increase. Established players in particular suffered setbacks; however, this also enabled nine new companies to make it into the Top 100.

Mr. Timmer, which result surprised you most – at least in terms of its extent?

Dr. Timmer: The speed of China’s rise – even though we’ve been watching it for years. CATL has now made it into the top three global suppliers for the first time. The company first appeared in the ranking in 2018, when it came in at number 71. This is an unparalleled development. And CATL is not an isolated case. In 2012, Weichai Power was the only Chinese company in the ranking – today there are 15, up from 13 the previous year. Huawei and Fuyao are also demonstra-

ting how broadly diversified these rising companies have become. In 2024, Huawei more than quintupled its automotive revenue and took the business into the black for the first time. The key factors were AI-based



In 2025, the landscape of suppliers was once again shaped by crisis and transformation.

driver assistance systems and cockpit software, which were brought to market in partnership with domestic vehicle manufacturers. Fuyao is growing differently – organically, highly profitably, and with a clear focus on the premium segment. As the global market leader in automotive glass, Fuyao benefits from the fact that modern vehicles require significantly more sophisticated glass – from

windshields integrated with ADAS to sensor-compatible panoramic roofs. These features drive up earnings per vehicle, regardless of the overall market volume.

Which suppliers were particularly successful in 2025 – and why?

Dr. Dannenberg: As in previous years, semiconductor manufacturers (Infineon, Renesas, STMicro, etc.) were able to generate high, double-digit returns, but at the same time reported the sharpest declines in revenue. Tire manufacturers (Continental, Yokohama, Toyo, etc.) also recorded profitability of over 11%, twice as high as the rest of the industry, although the growth leaders in this segment were exclusively Chinese companies (Sailun, ZC Rubber). However, as is always the case, these profit margins are attributable solely to the aftermarket business. The market share gains made by Chinese OEMs have also led to substantial growth in revenue for local tire manufacturers and additionally to a jump in sales for battery manufacturers CALB and Gotion. Furthermore, there were two major corporate acquisitions: Hankook acquired the air conditioning manufacturer Hanon and moved up 29 spots. Luxshare-ICT even jumped 92 spots following its acquisition of cable manufacturer and assembler Leoni! Huawei saw organic growth of 93% with its automated driving systems.

Which suppliers and/or product categories were hit particularly hard?

Dr. Timmer: Battery manufacturers from South Korea and Japan have had their toughest year since being included in the ranking. Samsung SDI has plummeted to 100th place – down from 59th last year – and seen its revenue drop by almost 40%. The operating margin fell from 1.1% to –24.5%, marking the company’s sixth consecutive quarter of

losses. Panasonic recorded the sharpest percentage decline in revenue in the entire ranking, down by 62%, which highlights the downside of a dependence on one single customer that has developed over the years. The underlying problem is the same, whether you look at Samsung SDI, LG Energy Solution, or SK on: the market for NMC-based high-voltage batteries has collapsed in North America and none of these three companies has yet managed to establish a viable second line of business. Apart from battery manufacturers, semiconductor companies are also under pressure – STMicro is down by 28%, while Infineon and Renesas both saw figures slip by around 12%. Two factors are behind this trend: firstly, declining vehicle sales in Europe and North America, which directly reduces demand for chips, and secondly the increasing substitution of components from Western suppliers with products from domestic semiconductor manufacturers in Chinese vehicles. Nonetheless, despite these declines, semiconductors – with margins exceeding 20% – remain by far the most profitable product category in the entire ranking.

How do European suppliers stack up against their international counterparts – are consolidation and cost-cutting measures having an impact?

Dr. Dannenberg: One third of the world’s Top 100 companies are based in Europe. Apart from a few exceptions, they experienced a significant drop in revenue, averaging approximately 4.5%. The same applies to the return on sales (EBIT or operating profit), which fell by an average of 0.5 percentage points. The situation is similar among North American suppliers. Growth among Japanese and South Korean suppliers has stalled. The only players to post 18.5% growth are the 15 automotive suppliers based in China.

How have suppliers from China, South Korea, Japan, and the United States fared?

Dr. Timmer: China is the clear winner. With 15 companies now in the ranking, Chinese suppliers have overtaken the United States for the first time, and seven of the top ten revenue generators are from China – spanning the battery, electronics, and glass sectors right across the board. CATL, CALB, Gotion, Huawei, and Fuyao represent a rise that is no longer limited to individual market segments.

South Korea presents a mixed picture: Hyundai Mobis remains stable, but battery manufacturers are in deep trouble – a situation exacerbated by currency fluctuations – as the South Korean won has fallen by more than 8% against the euro and is facing the strongest headwinds of any country in the dataset.

With 21 companies, Japan remains the most broadly represented country, but the overall picture is one of stagnation. The tire manufacturers stand out in a positive way: Yokohama and Toyo Tire recorded margins of over 16% and Renesas has maintained a margin of over 30% despite a decline in revenue – a figure no other company in the ranking has achieved.

The United States is undergoing a period of rapid restructuring. Cummins, however, is an exception, growing by 6% while most others are shrinking. A key feature of the U.S. market is its portfolio-level activity: Dauch is acquiring Dowlais, and Dana is selling its off-highway business. This is an industry that is reinventing itself through consolidation rather than growth.

Major German suppliers are pinning their hopes on India as an automotive manufacturing base – but are they right to do so?

Dr. Dannenberg: India is well on its way to becoming the next major automotive market. Positioning yourself there today makes perfect sense. However, as a consumer market India will develop at a much slower pace than centrally planned China. Indian services (engineering and software, among others) are already considered a key mainstay for OEMs and suppliers. Having production sites in India is becoming increasingly important for many suppliers going forward.

To which extent is the EU-US conflict impacting the transatlantic trade in automotive parts?

Dr. Timmer: The numbers speak for themselves. European imports from the United States dropped by 16% in 2025, while exports to the United States fell by 17%. Although that might sound symmetrical, it isn't, because the volume of goods exported to the United States is about five times greater than that imported, which means a similar percentage decline has hit the European side much harder in absolute terms.

The Turnberry deal in August 2025 averted the worst-case scenario, which would have meant tariffs of up to 30%. A cap of 15% now applies to passenger cars and automotive parts, a significant reduction compared to the previous top rates of up to 27.5%. However, 15% is not the norm, but rather a constant additional burden, which is squeezing margins and necessitating a reassessment of supply chains.

The actual consequence is more structural in nature. The conflict is massively fueling the “local for local” approach: companies wishing to serve the U.S. market in the long term must increasingly manufacture their products there, tying up capital in an environment where financing has already become more expensive. At the same time, U.S. producer prices are rising as a result of tariff policies, whereas they are falling in Germany

and China – the cost advantage of European suppliers in the U.S. market continues to be eroded.

What is your forecast for the 2026 fiscal year? Has the Iran crisis managed to dash those faint hopes?

Dr. Dannenberg: Globally, the manufacturing industry got off to a good start in 2026, as did the automotive market. However, the war with Iran has turned all positive economic indicators on their head, resulting in rising inflation, consumer reluctance, delays in investment, increased government debt, and oil-related supply shortages of production materials. Let's hope the conflict is short-lived; otherwise 2026 will be just as bad as the previous few years.

The European Association of Automotive Suppliers (CLEPA) is calling for stronger protective measures and advocating for a tightening of the local content rules proposed by the European Commission. How do you assess this initiative – can it help to address the uneven playing field?

Dr. Timmer: It's an understandable demand. CLEPA estimates that around 350,000 jobs will be at risk by 2030, and 104,000 job cuts had already been announced for the period between 2024 and 2025. So the call for poli-

tical protection is a logical reaction. Specifically, CLEPA is calling for a threshold of 70% European value added for a vehicle to be considered “made in Europe” at all – and warns against watering down the requirements with rules that are too easy to circumvent. EcomentoElektroauto News

Whether that will be sufficient to close the competitive gap is another question. Local content rules may be able to protect market share, but cannot transform cost structures. The cost advantage of Chinese suppliers has grown over decades – via producer prices, energy costs, and government subsidies. These factors cannot be compensated with a mere percentage threshold.

What's more, OEMs are far more skeptical about this issue. The ACEA warns that overly strict local content protectionism would weaken rather than strengthen Europe's industrial base. The divide between suppliers and manufacturers is real and makes consistent implementation politically difficult. Elektroauto News

Local content can be a useful tool – but only as part of a broader package that includes investment incentives, energy cost relief, and accelerated technology transfer. On its own, it is not a solution to structural competitive disadvantages.

“Manager Magazin” recently reported that Mercedes’ new chief procurement officer is demanding massive price cuts from its suppliers. Do suppliers still have any leeway?

Dr. Dannenberg: That question requires a very nuanced response. Given the current structures, nothing more can be done; automotive suppliers based in Western Europe, Japan, and the U.S. are finished. All automotive suppliers need to relocate and/or establish production capacities in low-cost countries – where wages (including social benefits), the prices of raw materials and energy, as well as taxes, regulations, and levies are significantly lower than in the West. In Western economies, the productivity gains needed to compete with the best on price are no longer achievable. And in terms of cost, the best players are currently Chinese OEMs and suppliers. Mercedes and all automotive suppliers will also have to measure up to this standard. For this reason, price and cost cuts must be achieved. The consequences, however, are extremely serious. Over the past eight years, the German automotive industry has already lost 12% of its workforce. This trend will continue to gain momentum and is fueling the deindustrialization of Western countries.

In which areas of the automotive industry do you see good prospects for the development of the European supplier sector in the medium term – or would it be better for companies to focus on diversifying their operations?

Dr. Timmer: Within its core business, certain segments have a future, such as high-voltage components, ADAS systems, and steer-by-wire. These are areas in which European suppliers still have a real competitive edge. By contrast, suppliers of interchangeable, mass-produced components should have no illusions – in this sector, cost pressures are structural and cannot be eliminated through regulation.

When it comes to diversification, we see a clear trend in the data: the share of non-automotive business among the Top 100 suppliers has risen from 35% to 37% within a year. Defense is emerging as a significant second revenue stream, while the aftermarket is gaining importance as a profit buffer.

Diversification is not an admission of failure – for many suppliers it is a more sensible strategy than waiting for their core business to recover, which is unlikely to happen in its current form.





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