The Big Read Automobiles

Can Germany survive the 'iPhone moment' for cars?

The country's profitable carmakers are being hit quicker than expected by the adoption of electric vehicles and diesel bans

Patrick McGee in Frankfurt 11 HOURS AGO

The significance of the iPhone when it was launched in 2007 was not that it was a better phone, a superior camera or an improved MP3 player. Nor was it the touch screen, wide display or range of apps. It was all of these things in one device — "a converged technology," as author Mario Herger puts it.

The "iPhone moment" for cars has not happened yet, but it is easy to imagine what it will look like: an electric, self driving "living room on wheels", securely connected to the web and more often shared among users rather than bought.

It might not be clear yet who will build it, but if the market is certain about one thing, it will not be the Germans.

Even as the three big German carmakers continue to post record sales for an eighth consecutive year, valuations of BMW, Daimler and Volkswagen are at their lowest levels since the financial crisis. Scepticism that current profits can be maintained is rife, and there is even some question whether *Das Auto* will survive such an industry transformation.

"Big carmakers are valued like they will soon be bankrupt," says Max Warburton, analyst at Bernstein. "The stocks are telling us a mighty recession is coming — but only in the auto industry. Not in the wider economy."

Former Audi chief executive Rupert Stadler was arrested for his alleged role in the emissions scandal in June © Bloomberg

At the most significant time for cars since the invention of the internal combustion engine, each week is bringing negative developments for the industry. Vehicle registrations in the EU plummeted last month when new emission standards took effect, while diesel bans are threatened from London to Prague. Protectionist sentiment and Brexit are bringing new uncertainties to a sector heavily reliant on global supply chains for their "just in time" manufacturing.

The developments come on top of myriad challenges facing the carmakers as they invest big sums into battery technology and autonomous software, all the while trying to maintain the value of their brands as consumers think more about dashboard apps and less about horsepower.

"The auto sector is really facing death by a thousand cuts," says Linda Kong Ting, director of public fixed income at Sun Life Investment Management. "In isolation, no individual factor looks like it will sink the market, but you pile it all up and at some point it will be a problem — we just don't know when."

In numerous cases it is German carmakers that are faring the worst.

When car registrations across the EU fell 23.5 per cent last month, owing to delivery backlogs caused by new emission standards, the drop was led by a 31 per cent fall in Germany. Audi, Volkswagen's most profitable unit, saw a 56 per cent downturn — adding further pain to a company suffering a leadership crisis since longtime chief executive Rupert Stadler was arrested for his alleged role in the diesel scandal in June. VW dismissed him this month.

Tesla's market value per car produced is well ahead of the German companies

Source: Bernstein
© FT

In most global cities, diesel bans are little more than a point for discussion. In Germany, however, a federal court initiated a domino effect in February when it sided with environmental groups and said the bans were an effective way to clean the air in the 70 German cities that are in breach of EU pollution laws. Driving restrictions have already been enacted in Hamburg; next year more comprehensive bans are scheduled in Berlin, Stuttgart and Frankfurt.

And in the escalating trade war between the US and China, BMW and Daimler are, ironically, most at risk because instead of building their expensive sport utility vehicles in Germany — where wages are high and labour unions strong — they invested heavily in Trump country: South Carolina and Alabama. BMW exports more than 70 per cent of its US-made vehicles, with more than 100,000 of them exported to China last year. Now they are subject to 40 per cent tariffs, threatening the $11.6bn automotive trade surplus the US enjoys with China, according to Fitch. Moreover, Brussels recently launched a formal investigation into alleged collusion between the German carmakers, over a slow rollout of emissions technology.

Herbert Diess: 'I see [Germany's] chances of keeping the lead position at 50:50' © Bloomberg

The threats facing the German car industry could be existential, according to Herbert Diess, chief executive of Volkswagen. He told German newspaper Süddeutsche Zeitung that politicians were spending too much effort legislating the automotive industry and creating unreasonable emissions standards, while turning a blind eye to the possibility that it could result in 100,000 job losses at VW.

"Such an industry can crash faster than many people realise," he said. "Just look at the auto industries in Italy or the UK: practically non-existent. In Detroit there used to be a booming industry that ensured a high standard of living. The USA and China now see a chance to take over . . . I see our chances of keeping the lead position at 50:50."

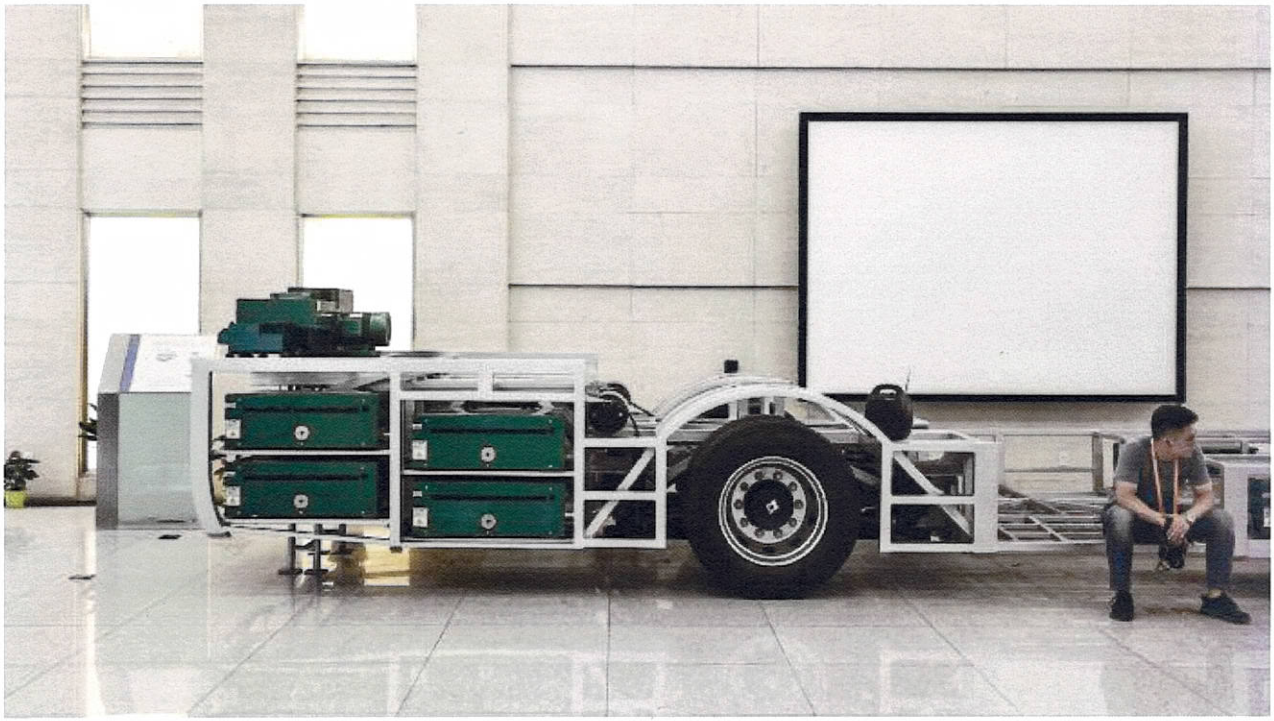
For the moment, the headline figures suggest that the German car industry is robust and healthy.

Germany Trade and Invest, a development body, says 5.5m cars rolled off the country's production lines last year, with 78 per cent of them made for export. Around the world, the country's brands are likely to produce a record 16m cars this year — about one-fifth of global sales and two-thirds of all higher-margin premium cars, where innovation is central. A third of global automotive research and development takes place in Germany, home to more than 800 suppliers.

GTAI has good reason to call this an "internationally peerless automotive environment". But it is based on a product, combustion engine cars, that could cease to exist within a single generation. The engineering skills that have set German cars apart from the pack are likely to lose importance relative to software and imported batteries. And its strengths, from engine knowhow to world-class factories, could turn into a weakness as the industry undergoes a radical shift.

"The big data players — the Tencents, Alibabas, and Googles — are building a new universe," says Stefan Bratzel, director of the Centre of Automotive Management in Bergisch Gladbach. "For 100

years the automotive universe had established the rules of the game. Just a few people controlled the industry, especially the Germans. Now, the role of the German automotive industry is at risk."



German carmakers have been slow to respond to the move towards electric; China controls more than two-thirds of the battery market in Asia © Bloomberg

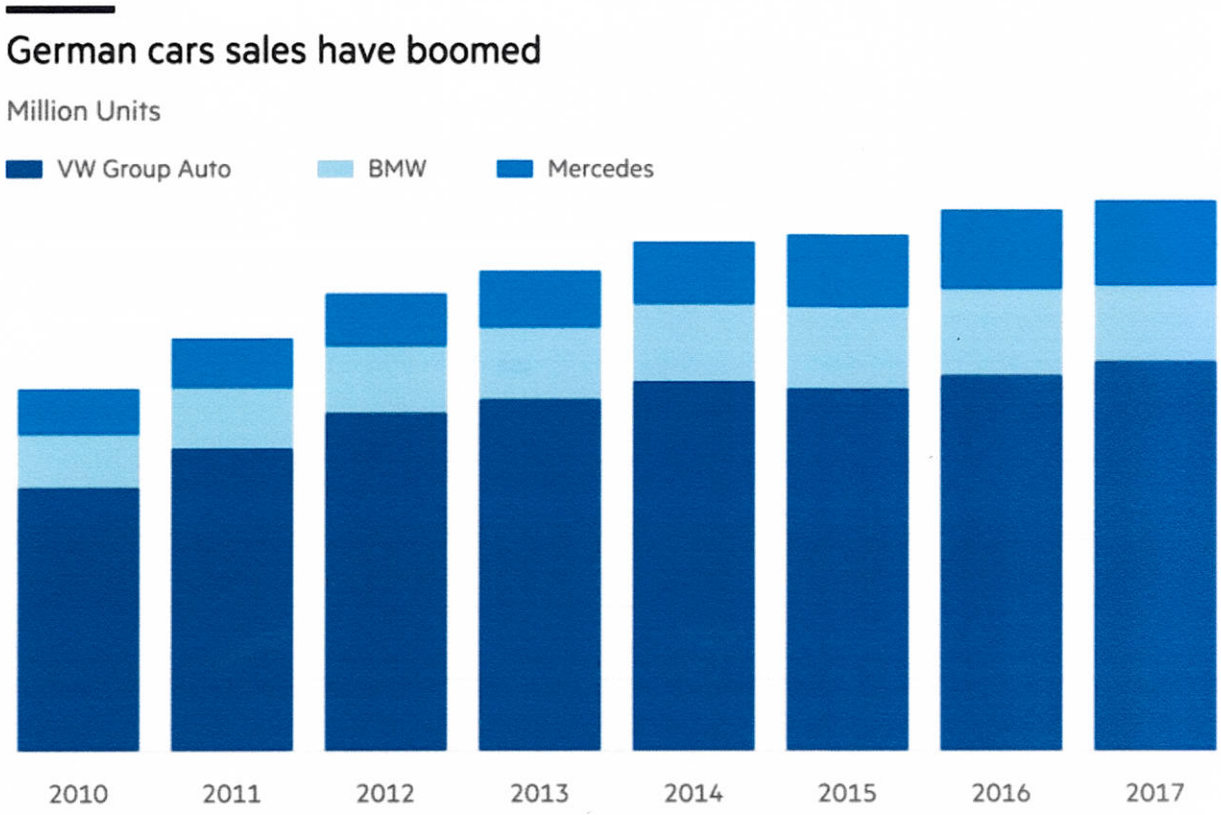
If the shift to electric happens quickly, production assets in Germany could turn into expensive liabilities. The lights could go out at numerous suppliers who play a critical role providing about three-quarters of the content inside any given vehicle.

"The whole frame of the car is different when you move from gasoline to electric," says Sven Dharmani, global auto supply chain leader at EY. "Entire plants are going to become obsolete. The companies that make pistons and crankshafts are not going to provide the battery. It's a different supply chain."

So far this new supply chain has been outsourced to Asia, where China controls more than two-thirds of the battery market. Europe's global share of existing and planned battery production capacity is a mere 4 per cent, according to Bloomberg data. And while European politicians and car executives both see the threat of losing a foothold in battery technology, they are at loggerheads over what to do.

"The remarkable thing is, the Europeans are setting the most aggressive CO_2 rules globally," says Harald Hendrikse, an analyst at Morgan Stanley. "But the policy of the industrial base hasn't responded at all."

One reason for Germany's slow response has been the returns. Electric cars are currently unprofitable, whereas selling combustion engine cars to a booming China and elsewhere has been very lucrative. From 2013 to 2017, operating profits at the big three German carmakers rose 50 per cent from €7.73bn to €11.63bn, according to Barclays. Nearly a quarter of mass-market cars sold last year came with a German badge; for premium cars the figure was 71 per cent, according to



If the shift to battery cars is counted in decades, not years, as many analysts expect, then the Germans still have time to change focus having had a chance to observe what works and what does not. Today the big three hold a whopping €60bn in net cash, triple the amount they held the last time the market turned down in 2008, says Kristina Church at Barclays.

Such figures have allowed German companies to dismiss the likes of Tesla as merely a niche producer rather than an emerging rival. For the first time, however, there are signs this argument is beginning to fall apart.

Last quarter the US electric pioneer ramped up deliveries to 83,500 cars — more than doubling a company record set just three months earlier. In the US, Tesla outsold Mercedes and BMW in the passenger car category. Globally, Tesla deliveries including cars and SUVs were lower than both, but they were double that of Jaguar and almost 20,000 higher than Porsche, according to AID research.

"It gives you a glimpse of the future — of what it will mean when Tesla can serve the German market," says Mr Herger, author of *Das Silicon Valley Mindset*, a manual for traditional industries to innovate like start-ups. "And this was the quarter when all you heard about at Tesla was their production problems."

Tesla chief executive Elon Musk is partially driven by an ambition to reduce greenhouse gas emissions © Reuters

German carmakers have responded with ambitious plans to make certain factories able to churn out electric cars en masse over the coming decade. Volkswagen alone says it will build 150,000 electric cars in 2020 while the multi-brand group including Porsche and Audi will spend €72bn by 2030 on EV technology, according to Barclays. But as of yet, there is little to rival the Tesla models.

Bernhard Mattes, president of the German Association of the Automotive Industry, says the sector is doing more than it is given credit for. He points out that German manufacturers already have 30 electric and hybrid models on sale, which account for half of all such sales in Europe and seven of the top 10 models in Germany.

"We are not late. If we [were], we wouldn't be market leaders on EVs in Europe today," he says. "Nobody can say we are sleeping like a bear." In August, seven of the top ten EVs in Europe were German, but only two made the list in September.

Others, however, see a much more defensive approach. Whereas Elon Musk, the Tesla chief executive, is driven by grand ambitions to wean the world off a fossil fuel based economy, the Germans are unveiling EVs to avoid breaking EU rules. Fleet averages must come under 95g of CO_2 per km by 2021, then improve by certain percentages over the next decade.

"We all know that what EU regulators will want in 2025 or 2030 is impossible to reach with current combustion engines," says Martin Daum, a Daimler board member. "So if we want solutions for 2025, we have to think about alternatives."

Viktor Irle, analyst at EV-Volumes, says the German strategy is to produce as many electrified and hybrid plug-in vehicles as are required by law— rather than desired. "It's 'compliance hell' rather than 'production hell'," he says. "They don't want to sell them; they have to sell them."

In China and the US, where German carmakers have less need for "compliance vehicles," their sales of electrified models are lagging. Globally, not a single German EV model makes it on to the top 10 list dominated by Tesla, Nissan, and Chinese producer BYD.

Inga Fechner, economist at ING-DiBa, says there is little question that the Germans can build great EVs — they just choose not to, citing high battery costs and poor infrastructure. "They are making the changes, but I think they could be way faster," she adds. "I don't know what's holding them back."

For many experts, this delay points to a central problem: a traditional mindset in Germany focused on ticking boxes, limiting risk and prioritising profits.

If the market is betting on someone building the iPhone on wheels, it is Tesla. VW has a market value of €6,500 for every car it sells; for Tesla the figure is €235,000, according to Bernstein.

But even if it is questionable that German executives have the right skills for building self-driving robotaxis, they could still find a way to adapt. With their vast funding and dealer networks, they have the option to partner and investigate new technologies. Volkswagen is teaming up with Microsoft and Gett, BMW with Intel and Mobileye, and Daimler with Bosch and Uber.

As one banker puts it, Tesla is on track to be a premium carmaker that could dent sales of BMW and Mercedes — but it is unlikely to kill them. "Tesla is doing a great job," he says. "[But] it's not