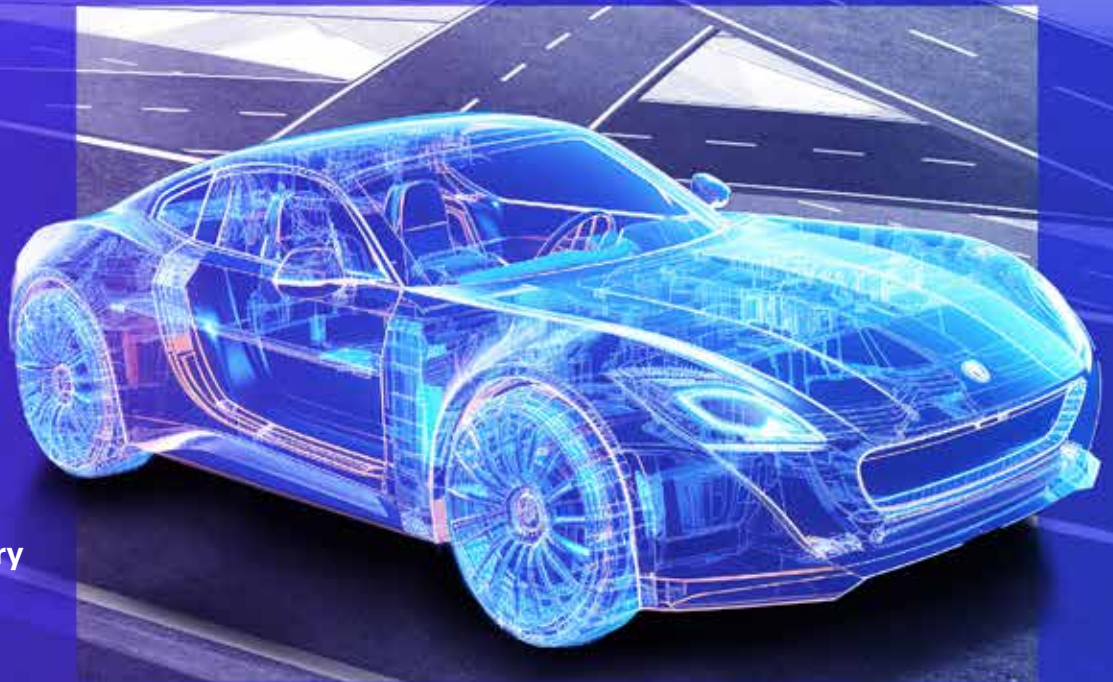




**24th Annual Global Automotive
Executive Survey**

Getting real about the EV transition

It's still an exciting — and rewarding — journey, but it may take longer and the ride won't be smooth.



Executive summary

Main findings



The global outlook

Less confidence in profitable growth

Slower growth, higher costs. Around the world, auto executives are less confident that the industry will achieve more profitable growth over the next five years due largely to concerns over the global economy and rising costs. The share of Japanese executives surveyed who are extremely confident dropped from 32 percent to 10 percent. In Western Europe, extremely confident respondents dropped from 31 percent to 24 percent and fell from 48 percent to 43 percent in the US. Only in China did extreme confidence rise, moving from 28 percent

to 36 percent. Extreme confidence among suppliers fell from 56 percent to 23 percent.

Automakers think they can raise prices in 2024. Can they? More than two thirds of OEMs anticipate a 5 to 10 percent price increase in 2024. Independent dealers are even more likely to anticipate such price increases. However, given recent price declines and the high number of new models, we believe these price increases might be more difficult to achieve than anticipated.



Powertrains

Executives have a more mature view of the EV transition

Getting real about market development. Three years ago, when we asked how much share of annual sales EVs might capture in 2030, the answers ranged from 20 percent to 80 percent. Even among analysts, there was a 1.6X difference between the lowest and highest estimates.¹ Now the range of estimates has narrowed, a sign of greater realism.

Even so, the mean estimates for penetration rose in this year's survey. In Western Europe, for example, respondents last year estimated that battery-electric vehicles would account for 24 percent of sales in 2030; this year the consensus estimate was 30 percent. In the US, the estimate went from 29 percent to 33 percent and in China the estimate jumped from 24 percent to 36 percent.

Tesla on top. Despite the flurry of new models by established brands, our survey respondents

still expect Tesla to remain on top. The opening of the Tesla Gigafactory near Berlin in March 2022 is helping Tesla gain share and heightening awareness about the global competition among European executives. In our survey, more European executives predicted that Tesla would stay on top through 2030 and fewer predicted that BMW and Audi would dominate.

Parity still far off. Executives are less optimistic this year than last about how soon EVs can reach cost parity with conventional cars (not counting subsidies). In the previous year's survey, 70 percent of executives said they expected parity by 2030; in the latest survey, 66 percent said that was likely. However, 87 percent of Chinese OEM executives expect parity by 2030. That compares with 71 percent last year.

¹ KPMG International, "[Place your billion-dollar bets wisely: Powertrain strategies for the post-ICE automotive industry](#)" (July 2021)



Digital consumers

Customer experience is a key differentiator

Seamless and hassle-free. While performance remains the most important selling point, a seamless and hassle-free customer experience has moved up to second place. The emphasis on a smooth customer experience extends from buying the car to having seamless operating software in it, but the latter is a challenge for manufacturers. The car's hardware is usually reliable, the software less so.

In-car experience: this stuff has to work. The software-defined vehicle provides an opportunity to supply all sorts of driver applications. But consumers

are not likely to sign up for software subscriptions if the products aren't compelling. In this year's survey, OEM executives in particular are less confident than in previous years that they can generate subscription revenue.

How good is cybersecurity? Widely publicized breaches have raised concerns about automotive cybersecurity. In our survey, executives are still confident that auto makers provide adequate cybersecurity and customer data protection, but they may be over-confident.



Supply chains

Just in case is overtaking just in time

Ongoing supply concerns. After the disruptions of the past few years the new norm in supply chain management is becoming "just in case," rather than "just in time." Companies are pursuing a wide range of strategies to build resilience and things are far better than two years ago. Still, there is a high level of concern about the continuity of supply for many commodities and components over the next five years.

But not in China. As we saw across the survey, in many important areas, China is different. This was particularly true in supply chain. Chinese executives are considerably less worried about continuity of supply, because the country has been setting much of the supply of key commodities, particularly raw materials for EV batteries and EV components.



Technology

The technology challenges grow more complex

Less confidence in keeping up. This year, automakers indicated that they feel less prepared than the previous year for advanced technologies, such as artificial intelligence, digital twins, and advanced robotics. Only 12 percent of auto executives said they felt extremely well prepared, down from 22 percent the year before.

The change is likely associated with the rapid advances in artificial intelligence, particularly generative AI, which is expected to bring automation to white-collar jobs. Automakers are going to have to train more workers to take advantage of AI in all its forms. Indeed, automakers will be competing with each other and with companies across industries for talent with AI skills. As noted in the recent KPMG report, "[Future of work](#)," companies that master

AI quickest will likely have a significant competitive advantage.²

Hedging powertrain bets. When it comes to powertrain technology, this year more companies seem to be hedging their bets. Hybrid technologies have jumped from fourth to second place overall in technology investments.

Partners—and "frenemies"? Choosing the right technology partners to accelerate development and share risks remains fundamental to automotive strategy. At the same time, automakers expect tech giants to jump into the auto market. Apple is the number one potential competitor, but the list is long, including Google, Samsung, Baidu, and others.

² KPMG International, "Future of work" (2023)

What to do now

There is more excitement in the automotive industry today than at any time since the early years of the industry. New powertrains, new ways of building cars, and new customer expectations are driving a far-reaching transformation. Consumers have a growing array of buying options, while manufacturers press ahead with diverse R&D efforts, not just in EVs, but also in hybrid technologies, hydrogen fuel cells, and alternative fuels. At the same time, convergence with the technology industry will only accelerate. It is a time of rapid innovation, big bets, and big risks. There will be winners and there will be losers as the automotive business transforms.

Faced with so many challenges and opportunities, executives should recalibrate strategies—and act. These are four priorities for top leaders to better position them in the altered automotive business.

Hedge your bets—and commit to a future vision

There are so many variables in the car market right now that CEOs could be forgiven for throwing up their hands in exasperation. But they have to act. Manufacturers should hedge their bets about the trajectory of both the internal combustion engine and all the alternatives. However, if they spread themselves too thin they risk losing to competitors that more successfully predict the future and focus more narrowly. The answer, then, is to entertain heretical theories, employ a diverse array of talent with different perspectives, and make your best bets.

Do CEOs have teams that are up to the task?

Get ready to embed AI everywhere

The power and range of artificial intelligence is exploding. Generative AI has captured the imagination of business leaders across industries and is vastly expanding access to AI. We believe AI technology will likely touch virtually every aspect of the automotive business, from the way autos are designed and manufactured to how they are sold and driven.

The critical question for auto executives, then: Is your AI strategy sufficiently comprehensive and forward-looking?

Find the collaborators you need

Car manufacturers have tended to go it alone when it comes to developing automotive technologies, often with unspectacular results. Given the array of business opportunities and the limited pool of skills, auto companies have little choice but to look outside for the ideas and know-how they need to supercharge their R&D operation. Nobody can do it all on their own.

How effective is your ability to work the ecosystem and find alliances and business partnerships?

Face up to global challenges

The EV transition highlights important differences in national auto markets. Demand for electric vehicles is soaring in parts of Europe, the US, and China. In other big markets, such as India, Latin America, and Africa, the growth of electric cars will be slower, hampered by low incomes and poor infrastructure. Global automakers cannot afford to ignore these regions because of their growing populations and diverse needs. At the same time, automotive companies must continue to build resilience to ongoing geopolitical turmoil and changes in the global economy that affect supply chains and markets.

Does your company have a global strategy that can help you profit from the differences among markets, not just their similarities? Are you resilient to global disruptions?

All these trends make life exceedingly complicated for auto executives. They must navigate a maze of choices to come out on the winning side.



How KPMG can help

KPMG firms provide tax, audit, and advisory services to automotive companies around the world. KPMG firms are leaders in delineating critical trends in the automotive sector — mobility, autonomy, electrification, and turning them into actionable strategies. Our global automotive practice helps top companies in the industry plan and execute strategies to make the most of these trends.

Our data-driven approach allows us to quantify the impact of trends such as mobility for automakers, dealers and other players so they can identify and prioritize emerging opportunities. KPMG professionals then assist clients in defining technology investment and development roadmaps to pursue these opportunities.

In addition, KPMG firms support clients with operating-model and business transformations to prepare their organizations for building new types of products and doing business in new ways.

Automotive/mobility clients

Our audit, tax, and advisory teams serve:

- Major OEMs
- Tier 1 suppliers
- Aftermarket players
- Mobility providers
- EV/AV start-ups
- Institutional investors

Examples of recent projects

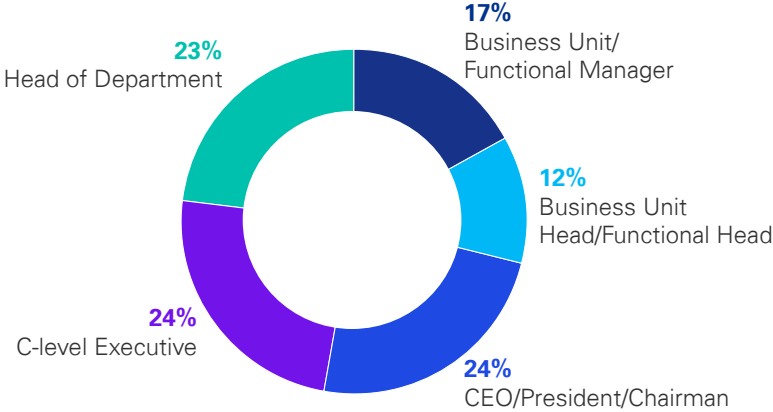
- Market sizing and entry options development for EV and mobility as a service (MaaS)
- Tax strategies re-imagined for the new mobility market
- Scenario development for regulatory changes based on AV/EV adoption
- Analysis of industry supply chain shifts and future options
- Development of vehicle subscription operating models based on ROI simulation
- Retail innovation and customer experience transformation

Respondent profile

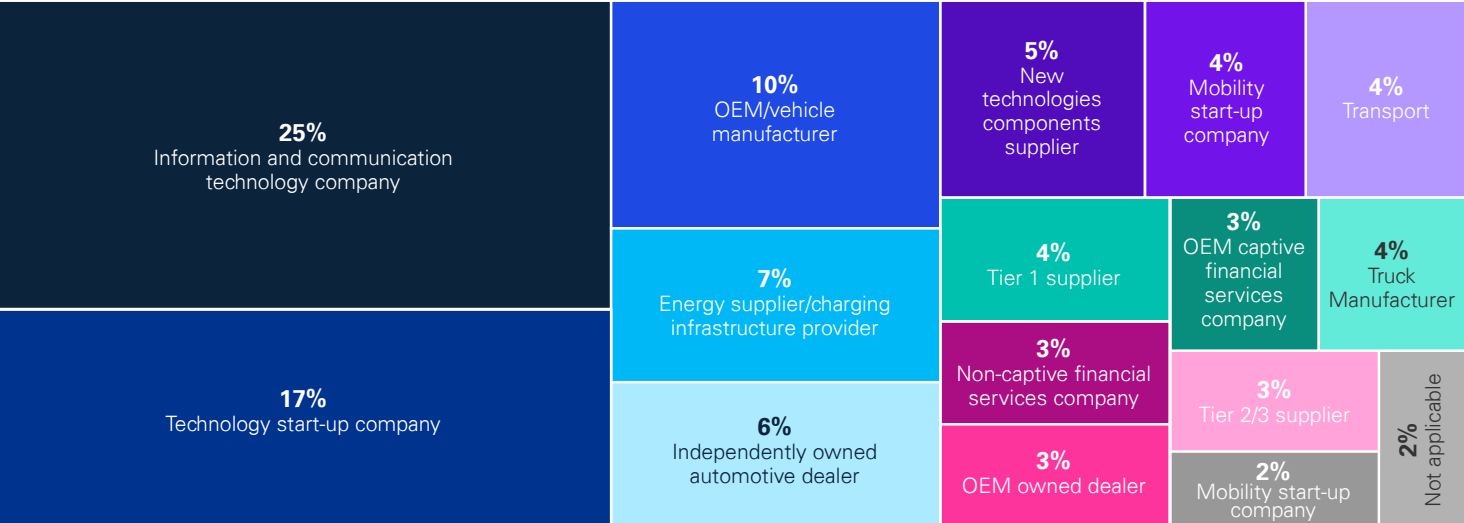
KPMG conducted a survey of 1,041 executives across the automotive and adjacent industries in October 2023. Almost a quarter were CEOs and another quarter were C-level executives. The remainder were heads of department and business units or functional managers. Ten percent worked in OEMs, 7 percent in suppliers and 9 percent in dealerships. The rest worked in car-related financial services, in automotive technologies, and in the provision of charging infrastructure.

In terms of corporate size, 323 worked at companies with at least US\$1 billion in annual sales, 238 were in companies with US\$500 million to US\$1 billion in revenue, and 459 were at firms with under US\$500 million. A total of 30 countries and territories were represented from Africa, Asia, Europe, Latin America, Middle East, and North America. The two largest pools of respondents were in the US (277) and in China (154).

Which of the following best describes your job title?



Which of the following best describes your company?



Note: Percentages do not total to 100 due to rounding

Which of the following best describes your company's annual global revenue in 2022?

Number of responses

Over US\$10 billion



US\$1 billion to US\$10 billion



US\$500 million to US\$1 billion



US\$100 million to US\$500 million



Less than US\$100 million



Not Applicable

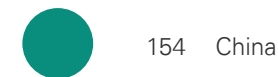


In what country, territory, or jurisdiction do you live?

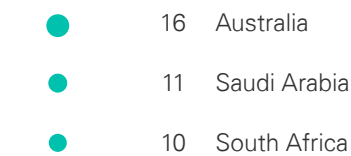
North America



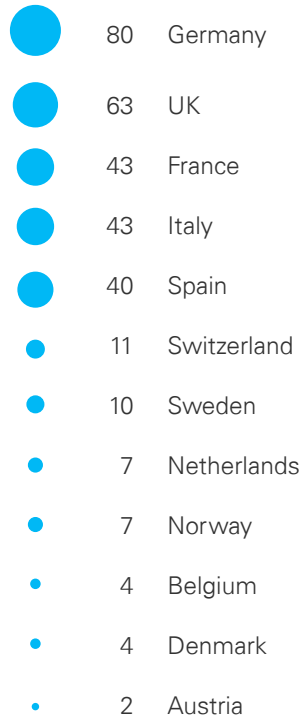
China



Rest of the World



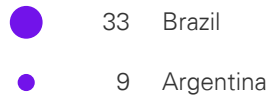
Western Europe



Eastern Europe



South America



India and ASEAN



Japan / South Korea



● Number of respondents

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Designed by DAS Design Center. DASD-2023-14137

Publication name: 24th Annual Global Automotive Executive Survey: Getting real about the EV transition — Executive summary

Publication date: January 2024