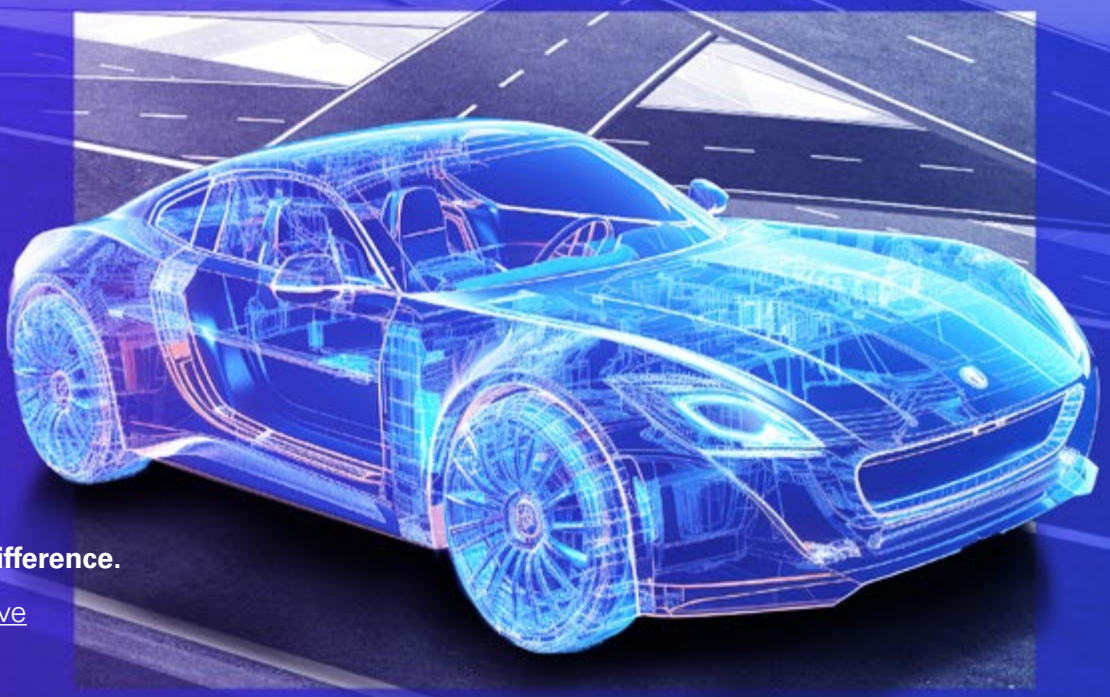
KPMG

24th Annual Global Automotive Executive Survey

Automakers getting real about the future of mobility

A European perspective



KPMG. Make the Difference.

kpmg.com/automotive

Foreword

Our 24th annual KPMG Global Automotive Executive Survey comes at a pivotal moment for automakers and suppliers. Completed by more than 1,000 executives in 30 countries, the survey results show that the industry is becoming more sober about future market prospects.

Especially in Europe, the survey results indicate that there is a growing pessimism on profitable growth over the next 5 years. This is despite a lowering concern on interest rates, energy prices and inflation, stabilization of commodity prices in the short-term as well as easing of regulatory pressures from the policymakers.

At the same time, though we anticipate that supply chain issues will have a lower negative impact in 2024, medium-term supply chain disruption of key commodities like Battery materials, Oil (and Gas), Rare earths and Semiconductors continues to bother European automakers, given the ongoing geopolitical tensions.

Global automotive executives anticipate new battery electric vehicle (BEV) sales to be 30 percent of all vehicle sales in Europe by 2030 and latest market projections show Europe slowly closing the gap with China in terms of new BEV sales by 2030. With easing of "Euro 7" norms and the continuity of fossil-fuel powered vehicles running on e-fuels beyond 2035, we believe that growth of Hybrid EVs will also pick up pace in Europe. However, with the IRA (Inflation Reduction Act) regulation in the US, and the Chinese influx of cheaper EVs in Europe, European OEMs are already facing the heat when it comes to EVs.

When it comes to EV charging, consumers across regions are getting more comfortable with the behaviors required for ultra-rapid charging, including those in Europe. "Charging Network Operators" and "Electric Utilities" are best positioned to own and operate these EV charging stations, especially in North America and Europe. While both slow and fast charging networks are expanding rapidly, Europe has a tall target to achieve by 2030 in terms of EV public charging infrastructure (6.8 million publicly available EV charging points and $70 billion in investments). Globally as well as in Europe and the US, the most anticipated EV charging location for consumers remains their own family home or garage.

"Brand image", "Infotainment", and "Self-driving" are no longer the top considerations for buying vehicles in Europe – instead, "Driving performance", "Seamless experience", "Electric mobility" and "Vehicle connectivity" are top vehicle purchasing criteria, among European consumers. At the same time, while the European executives are much less confident about majority of vehicle purchases completed online by 2030, the vehicle retail & distribution model will increasingly shift towards Direct-to-Consumer sales by automakers, the agency model, and pure-play digital e-commerce players.

Automotive companies across regions also seem to be less prepared and ready for advanced manufacturing technologies, including GenAI (Generative AI). Artificial Intelligence (AI) and Autonomous Vehicle (AV) software engineering skills seem to be the most important to automakers compared to advanced manufacturing,

Interact with the data

Readers can go to our website to interact with the data and view graphical results by country, company type and job title. Explore now

Foreword

and electronic hardware skills. We believe even as automakers are less prepared right now when it comes to GenAI, the future of GenAI holds great potential as many of them have already invested in such capabilities or on the way to do so. GenAI will likely supplement traditional AI systems in automotive organizations, with higher predictive, optimization and creative power.

Given the advent of software-defined vehicles, big tech companies and tech startups will likely shake up the future of mobility, and increase their share coming from new revenue streams, especially within infotainment systems, cybersecurity, motor insurance, EVs and autonomous vehicles. Apple and Google feature on top as the ones most likely to enter the automotive market with their own branded vehicles while also being best positioned to capture the revenue streams from software-defined vehicles, second only to existing OEMs. Tesla is also seen as a clear leader, among other emerging companies, in autonomous vehicles by the European automotive executives.

As automakers grapple with these disruptive forces, they also need to free up capital to invest in emerging growth areas. Corporate restructuring will likely pickup pace as many automakers and suppliers divest their non-strategic assets especially those which are dependent on fossil fuel powered vehicles. But even after freeing up funds for the next generation of capital and R&D investments, automakers should continue to cooperate and collaborate with big tech companies and tech start-ups as it will lead to not just gaining expertise but hedging risky bets in emerging, unproven areas.

Our 24th annual survey examines the above insights in great detail and shows how executive sentiment has changed and how concerns and challenges have made global and European automotive leaders more cautious. To help ensure companies end up as winners, not losers, executives should rethink their strategies and ask themselves some important strategic questions. Finding the right answers to these strategic questions will help determine how automotive companies succeed in the coming years. We believe that a dazzling future for the automotive business—with amazing products, more delighted consumers, and a positive impact on the planet—is still in view. But getting there will require overcoming near-term challenges.

Goran Mazar
EMA & German Head of Automotive and ESG

Executive summary

The regulatory and supply chain effect

- Among European executives surveyed, only a fourth (25%) are optimistic about profitable growth in the next five years.
  - European automakers will likely witness a decline in their operating margins in 2024 and 2025 (vs. 2023), compared to American, Japanese, and Chinese automakers.
- Future growth outlook remains flat with European automotive sales not witnessing pre-covid figures of 20.7 million units (2019) until 2031, despite easing of energy prices and inflation rates.
- Softening of "Euro 7" emission norms and gradual phasing-in of ESG-related regulations indicate that regulatory pressures on automakers are wearing off.
  - Only 12 percent of European automotive executives believe that cost and complexity of tariffs, trade rules and regulations will significantly increase in the next 5 years.
  - However, some regulations like the new "Batteries Regulation", and "UN155 cybersecurity regulation" will add a certain cost, compliance, and resource burden on the automotive companies across the value chain in Europe.
- Though the impact of geopolitical conflicts lingers on, commodity prices – especially that of battery raw materials and rare earths - have declined and stabilized in 2023 giving some relief to automakers and suppliers alike.
  - A high percentage of European executives (49% to 52%) seem to be very or extremely concerned about the medium-term (next 5 years) continuity of key commodities/components such as Battery raw materials (Lithium, Cobalt, Nickel, etc.), Fossil fuels (Oil, Natural Gas), Rare Earths (Neodymium), and Semiconductors.
  - There will be likely be a lower negative impact on the European automotive sector stemming from supply chain issues as European OEMs and suppliers adjust their supply chain strategies to focus more on "Direct sourcing of raw materials" and "Re-sourcing or Dual-sourcing".

Future of Electric Vehicles (EVs)

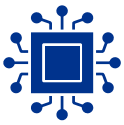
- Global executives expect European new Battery Electric Vehicle (BEV) sales to be around 30 percent by 2030.
- Despite a recent compromise on Euro 7 standards and permitting the sale of ICE vehicles after 2035 provided they run on carbon-neutral fuels (e-fuels or synthetic fuels), European automakers seems to be unhappy and uncertain about a profitable future.
  - A lower percentage of executives (58%) in Europe (compared to those in other regions) believe in BEVs reaching cost/affordability parity with ICE (Internal Combustion Engine) vehicles without any subsidies by 2030. This pessimism may stem from the rollback of EV subsidies in many European countries.
- Hybrid EVs might also see an uptick in growth equivalent to BEVs as almost 50 percent of European automotive companies in our survey will likely increase their capital expenditure and R&D investments into hybrids.
- We will likely witness more capital and R&D expenditure pouring into new battery chemistries.
  - 71 percent of European automotive executives foresee an increase in capex and R&D investments in battery electric vehicles with them allocating a higher proportion of any additional R&D funding to "Advanced batteries" rather than "Li-ion batteries".
- Threat of foreign entrants looms large in the minds of European automotive OEMs.
  - Chinese OEMs gained a market share of 7.5 percent in the European passenger and commercial EV market in 2023 from 2.5 percent in 2018.
  - Apart from the Chinese OEMs, the threat also looms large from American automakers like Tesla which is ranked as the future BEV market leader in 2030 by European automotive executives, ahead of BMW and Audi.
  - Many automakers, including those from Europe, have announced big EV projects to take advantage of subsidies under the $400 billion US IRA (Inflation Reduction Act) plan which will enable them to build competitive scale, reduce the prices of their EV models, and import cheaper EV components/models into Europe.

Future of EV charging

- Fast charging public networks to expand at a rapider pace than slow EV charging infrastructure.
  - Consumers are getting more dependent on access and availability of ultra-rapid charging – a greater percentage (32%) of European automotive executives believe that EV owners will be willing to wait for 20 minutes for 80 percent or greater EV recharge (vs. 17% in 2022).
  - "The Alternative Fuels Infrastructure Regulation" or AFIR has led to increased interest and funding in developing new fast and ultra-fast EV charging stations within Europe.
- European automotive executives foresee "Electric Utilities" and "Charging Network Operators" as best positioned for owning and operating EV charging points, closely followed by the "Tesla Supercharging Network".
- The EV charging ecosystem remains fragmented and is ripe for consolidation as many companies belonging to varied adjacent sectors (and not just Automotive) eye smaller competitors or seek an entry into this space through acquisitions.
- However, the medium-term concern among these many competitors is the availability of prime locations to build and operate profitable EV charging points.
  - Public or private charging stations are the second-most anticipated charging location preference for EV owners globally, only preceded by single family homes or garages.
- Challenges to rapid expansion of EV charging infrastructure remain as EU-27 countries need to have 6.8 million publicly available charging points by 2030.
  - Varied permitting regulations in different EU countries - from federal to municipal levels – are delaying the development and operationalization of EV charging stations.
  - There are payment or billing related issues faced by EV owners at public or private charging stations.
  - Service integration between electric vehicles, charging infrastructure (different apps), household electricity systems, and other mobility solutions, and electricity grid congestion are the other key challenges.

New business models and revenue streams

- Vehicle purchasing witnessing a massive shift as consumer preferences undergo a change.
  - European consumers will be willing to splurge on OEMs whose vehicles demonstrate great driving performance, enable seamless or hassle-free experience, and embed zero emission or sustainable mobility as well as excellent vehicle connectivity features.
  - "Brand image", "Infotainment" and "Self-driving" no longer feature as the top purchasing criteria for European consumers.
- Many European consumers will be willing to pay for monthly subscription services like software services, maintenance, charging, Advanced Driver Assistance Systems (ADAS).
- Vehicle insurance might just prove to be a lucrative new revenue stream for European automakers, and in this area, they are more than willing and confident to compete with incumbent motor insurance companies.
- While a lower percentage of European automotive executives (52% vs. 73% in 2022) believe that majority of vehicle purchases will be completed online by 2030, the share of non-traditional channels in selling vehicles will substantially go up (to two-thirds).
  - Direct-to-Consumer sales by automakers, agency model, and pure-play e-commerce portals will increasingly compete with traditional dealerships.
  - Though the agency model has picked up quite a traction among European automakers, switching to this new retail & distribution model is not without its challenges.



Future of Gen AI in Automotive

- Automotive companies seem less prepared for advanced technologies like GenAI but consider GenAI skills to be the most important.
  - Only 32 percent of European automotive executives think their company is very or extremely prepared for these advanced technologies – compared to 59 percent in 2022.
  - Companies may feel less prepared to implement new technology this year because of the proliferation of new AI systems, especially GenAI.
  - Automotive companies place the highest importance on AI/AV software engineering skills for ensuring their future business success.
- Use cases abound for GenAI in Automotive and will act as a supplement to traditional AI systems.
  - Application of GenAI in the automotive sector can range from vehicle design/R&D and production to supply chain and consumer experience, which further improve optimizing and predictive abilities of traditional AI systems.
  - The application of GenAI within the EV ecosystem can open new innovation-related opportunities. Besides usage of GenAI to optimize EV design taking into consideration the engineering, safety and raw materials constraints, GenAI can reduce time-to-market of incorporating new EV components and novel battery chemistries.
  - With the application of GenAI, autonomous vehicles can be commercialized in a quicker timeframe. Testing autonomous vehicles in exceptional driving scenarios created by GenAI can make them more capable of navigating complex driving conditions.

Tech companies vs. Automotive incumbents

- Big tech companies are more likely to compete with traditional automakers in vehicle production, especially in EVs.
  - Most European executives believe more tech companies will enter the industry with their own branded vehicles (preferably EVs). Apple remains the number one choice, but it is now followed very closely by Google.
  - Among Chinese big tech companies, Huawei and Xiaomi feature on top compared to other Chinese tech companies.
  - 73 percent of global executives surveyed believe that these new automakers will likely succeed in pursuing asset-light strategies using third parties to manufacture their vehicles.
- Apart from launching their own branded vehicles and competing to capture new revenue streams in software-defined vehicles, the emerging area of autonomous vehicles will likely be another flashpoint between big tech companies and automakers.
  - When it comes to autonomous vehicles, 61 percent of European executives believe that Tesla will be the market leader, same as the previous year, likely reflecting the company's success in winning approval for its autonomous driving technology in many countries. However, many new automakers might continue to face hurdles with regards to regulations, safety and consumer perception while trying to test and launch their own autonomous vehicles and robotaxi services.
- A majority of European executives (58%) will consider investments, acquisitions or partnerships with tech startups only on an opportunistic basis.
  - An overwhelming majority of these European executives (72%) believe that only a few tech startups will find success in the industry and will either be bought out by established automakers or continue to operate in niche segments.
- EV transition and the beginning of a decline in sales of ICE vehicles will involve corporate restructuring.
  - Close to half of European executives (48%) are very or extremely likely to divest non-strategic parts of their businesses in the next several years, little changed from the year before (51%).

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 audit, tax, 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. For example, KPMG is a recognized leader in supply chain strategy.

ALM LAW.COM COMPASS
PACESETTER RESEARCH
PACESETTER
SUPPLY CHAIN 2023-2024

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

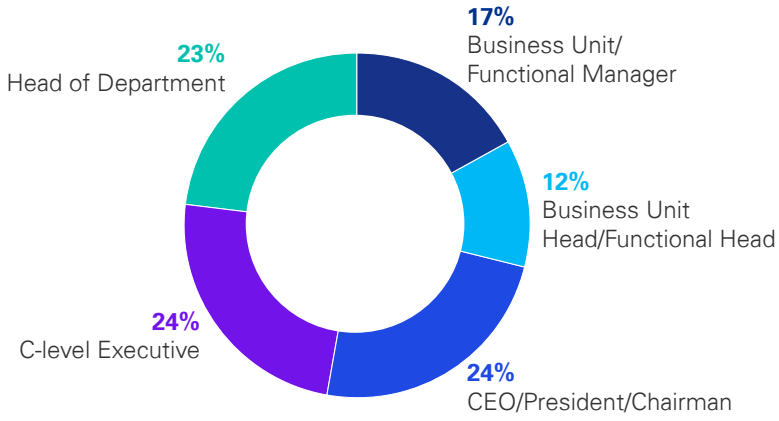
Source: KPMG International, KPMG recognized as a Supply Chain Pacesetter" (March 2023)

Respondent profile

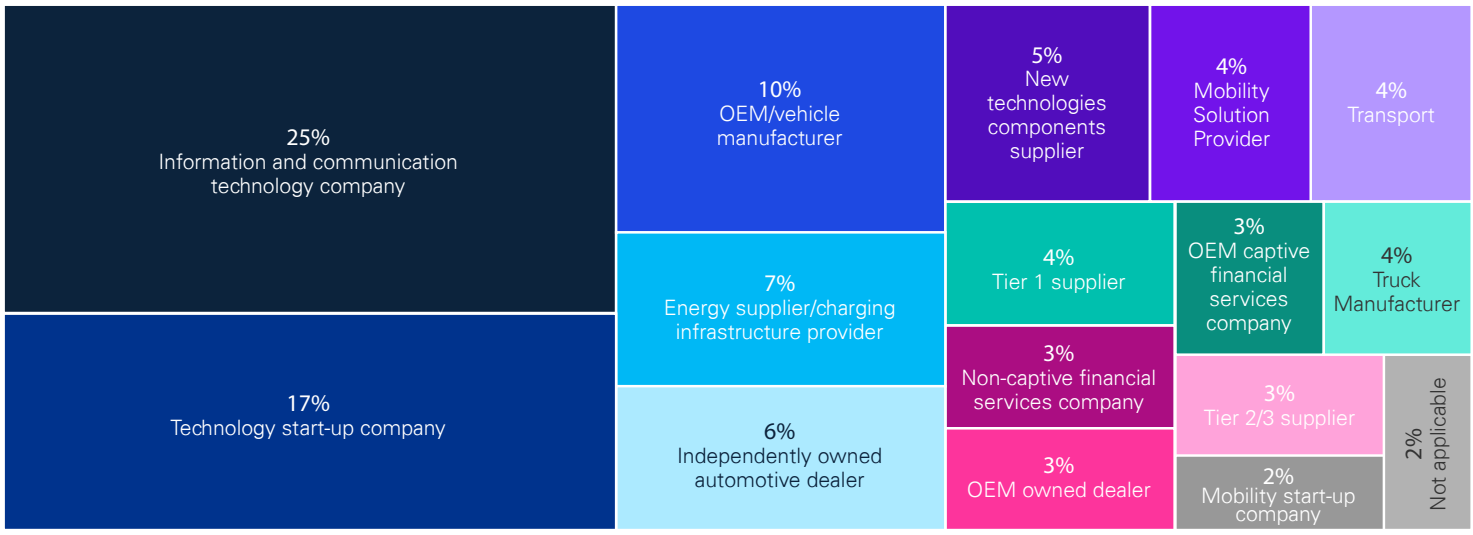
KPMG conducted a survey of 1,041 executives across the automotive and adjacent industries in October 2023. Almost a quarter were CEOs and another quarter were C-level executives. The remainder were heads of department and business units or functional managers. Ten percent worked in OEMs, 7 percent in 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 three largest pools of respondents were in Europe (330), the US (277) and China (154).

Which of the following best describes your job title?



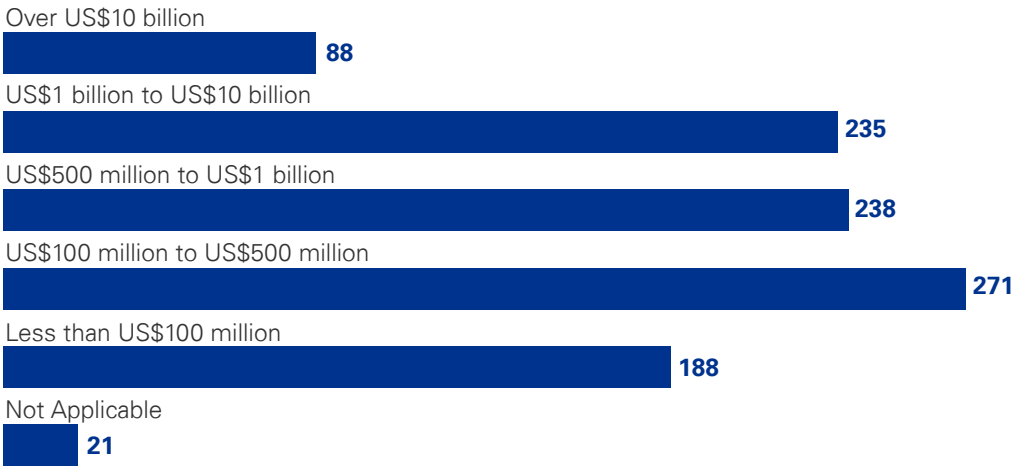
Which of the following best describes your company?



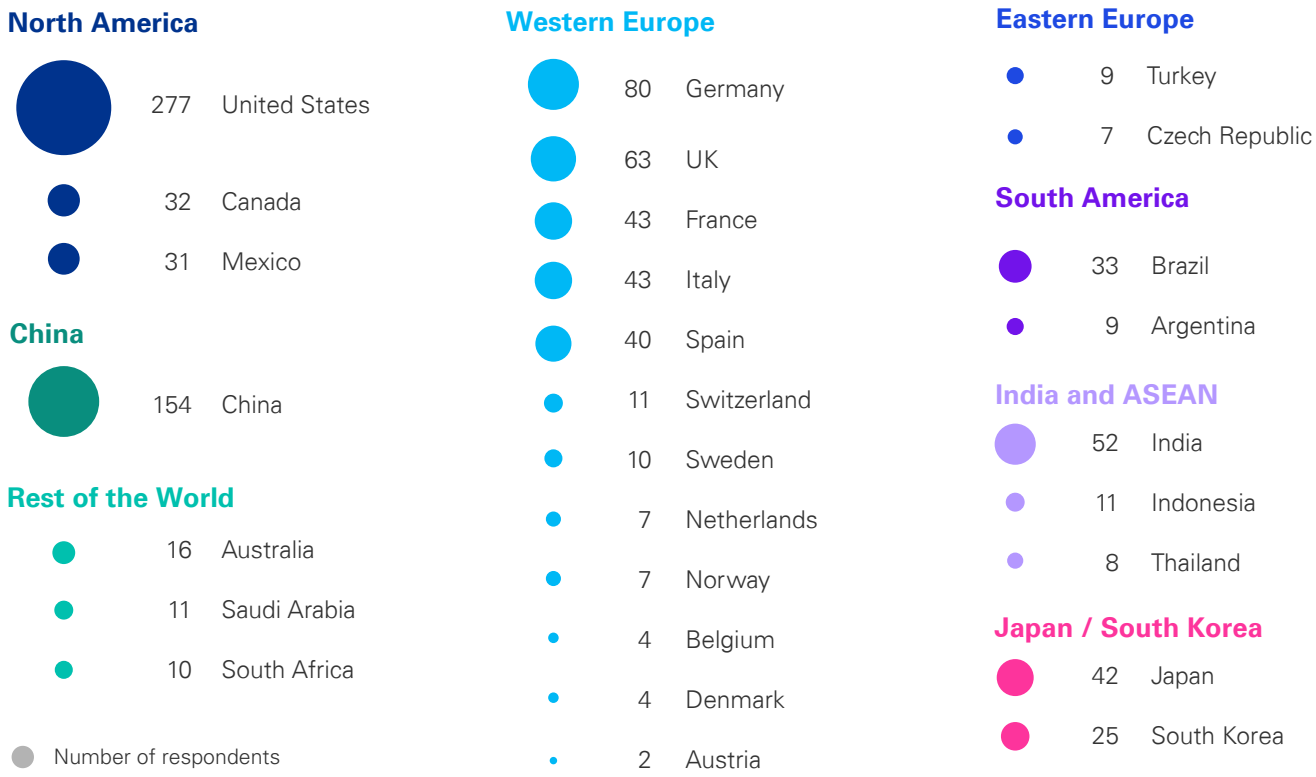
Note: Percentages do not total to 100 due to rounding

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

Number of responses



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



Authors

Gary Silberg
Global Head of Automotive
KPMG International
+1 312 665 1916
gsilberg@kpmg.com

Goran Mazar
Partner, EMA & German Head of ESG and Automotive
KPMG in Germany
+49 172 6908101
gmazar@kpmg.com

Daniel Szirányi
Partner, Head of Management Consulting in Automotive
KPMG in Sweden, Latvia and Lithuania
+46 736 990547
daniel.sziranyi@kpmg.se

Benjamin Blume
Partner, Head of Deal Advisory in Automotive
KPMG in Germany
+49 160 3679577
bblume@kpmg.com

Keywan Ghane
Partner, Decarbonization expert
KPMG in Germany
+49 151 11577481
kghane@kpmg.com

Stijn De Groen
Director, Head of Automotive
KPMG in the Netherlands
+31 612 444427
degroen.stijn@kpmg.nl

Yuan Zhang
Associate Director, EV strategy expert
KPMG in the UK
+44 7769 672228
yuan.zhang@kpmg.co.uk

Tom Lurtz
Partner, Consulting - Value Chain Transformation
KPMG in Germany
+49 221 20735396
tlurtz@kpmg.com

Christian Willmes
Partner, Consulting - SAP & Finance Transformation
KPMG in Germany
+49 899 2824257
cwillmes@kpmg.com

Michael Niederée
Partner, Consulting - Value Chain Transformation
KPMG in Germany
+49 899 2824906
mniederee@kpmg.com

Ashley Peck
Global Automotive Sector Executive
KPMG International
+1 770 710 7262
apeck@kpmg.com

Sandeepan Mondal
EMA Automotive Sector Executive
KPMG International
+91 7799514000
sandeepanmondal@kpmg.com

Contacts

Global

Gary Silberg
Global Head of Automotive
KPMG International
+1 312 665 1916
gsilberg@kpmg.com

Ashley Peck
Global Automotive
Sector Executive
KPMG International
+1 770 710 7262
apeck@kpmg.com

Europe, Middle East, Africa

Goran Mazar
Partner, EMA & German
Head of ESG and Automotive
KPMG in Germany
+49 172 6908101
gmazar@kpmg.com

Angelika Huber-Straßer
Managing Partner
KPMG in Germany
+49 173 5764021
ahuberstrasser@kpmg.com

Dr. Andreas Ries
Global Lead Partner,
Consulting
KPMG in Germany
+49 69 9587 2055
andreasries@kpmg.com

Richard Peberdy
Partner, Head of Automotive
KPMG in the UK
+44 207 6944722
richard.peberdy@kpmg.co.uk

Laurent Des Places
Partner, Head of Automotive
KPMG in France
+33155686877
ldesplaces@kpmg.fr

Marc Duchevet
Partner, Advisory
KPMG in France
+33155687152
mduchevet@kpmg.fr

Pablo Bernad
Partner, Head of Clients &
Markets
KPMG in Spain
+34 914 563871
pablobernad@kpmg.es

Fabrizio Ricci
Partner, Advisory
KPMG in Italy
+3902676431
fabrizioricci@kpmg.it

Christoffer Sellberg
Partner, Head of Automotive
KPMG in Sweden
+46 70 5974797
christoffer.sellberg@kpmg.se

Stijn De Groen
Director, Head of Automotive
KPMG in the Netherlands
+31 612 444427
degroen.stijn@kpmg.nl

Dex Machida
Associate Director,
Head of Automotive
KPMG in South Africa
+27 609 977053
dex.machida@kpmg.co.za

Przemyslaw Szywacz
Partner, Head of Automotive
KPMG in Poland
+48 225 281100
pszywacz@kpmg.pl

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

kpmg.com

Designed and updated by MADE | MDE200323 (March 2024)