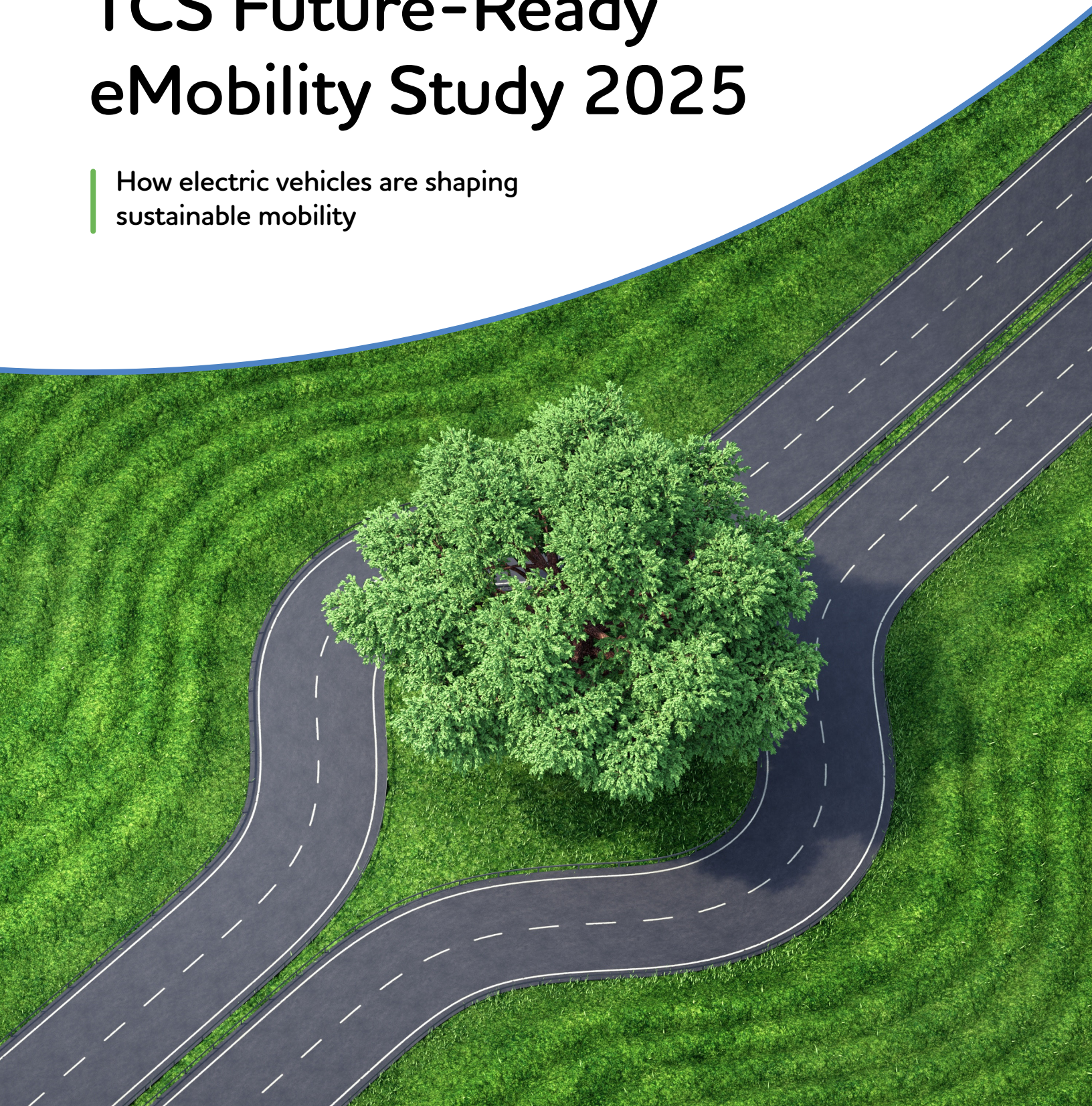


TCS Future-Ready eMobility Study 2025

How electric vehicles are shaping
sustainable mobility



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“The TCS Future-Ready eMobility Study 2025 offers invaluable insights into the electrification journey, emphasizing the need for innovation, resilience, and collaboration to accelerate sustainable transformation. At JLR, our Reimagine strategy is at the core of this shift, redefining modern luxury through cutting-edge technology and sustainability. The study’s findings reinforce our mission to lead the charge in creating a cleaner, electrified future for mobility.”

– Thomas Mueller, Executive Director, Product Engineering, JLR



Electrifying the future of mobility

Anupam Singhal

President - Manufacturing
Tata Consultancy Services

Observing a transformative shift unfold in real time is both inspiring and unnerving. Nowhere is this more evident than in the global transition to electric mobility. This transition is not just a technological evolution but an imperative for many, with far-reaching social and economic implications.

Whether you embrace it, or resist it, the rise of electric vehicles is inevitable, and it will redefine the future of mobility, industry and sustainability.

But as we've seen in the past few years, the shift to electric mobility is far from simple. Each step forward – and each misstep – generates its own momentum, amplifying optimism or reinforcing skepticism and resistance. EV stakeholders face multifaceted challenges that require them to reimagine traditional approaches and perpetually adapt to obstacles and opportunities alike.

To help guide meaningful progress, we surveyed more than 1,300 global EV stakeholders from across the five segments most essential to the EV transition, including manufacturers, charging infrastructure builders, commercial fleet adopters, influencers, and consumer adopters. This key findings report reveals their perspectives and uncovers fresh insights on their strategic shifts in innovation and investment.

Nearly two-thirds of consumers say they are now open to choosing electric vehicles for their next purchase, reflecting a significant shift in mindset and market dynamics. We also discovered how manufacturers and charging infrastructure builders are addressing key industry challenges by focusing on integrating advanced technologies and fostering partnerships across the mobility value chain.

Ultimately, the insights we uncovered reinforce our own perspective at TCS that this is a defining moment to shape the future of electric mobility. We hope you find these findings valuable as you define your journey ahead.

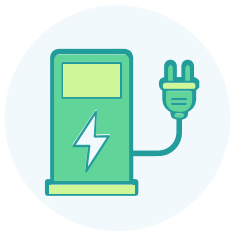


Executive summary

The electric vehicle (EV) transition has been among the most significant transformations in mobility, reshaping vehicle engineering, energy consumption, infrastructure, and environmental impact.

However, the initial wave of activity and anticipation linked to EV adoption has faced recurring delays and challenges in recent years. Manufacturing facilities designated for EVs shifted back to internal combustion engines (ICEs), leaving suppliers with uncertain investments. Once promising charging startups flailed, and consumer and commercial buyers wavered.

The rapidly shifting winds leave a baffling picture – where, exactly is the EV industry? And what are the next steps for EV stakeholders?



To find out, TCS conducted a global survey between August - September 2024 to gauge the pulse of the EV industry within its primary stakeholders. The study found that, with the notable exception of the manufacturing segment, the outlook for the EV industry is more positive than negative overall. Consumer interest is strong, and there is a growing belief among commercial fleet adopters in the business value of EVs through long-term cost savings.

This optimism is nevertheless tempered by the realities of a more difficult transition than expected. EV influencers, the stakeholder group most optimistic about the future EV outlook acknowledge that the transition will take many years. Like EV manufacturers, chargers are juggling fledgling partnerships and infrastructure scalability issues that impact their forward direction. Pressure around cost control remains intense, shaping both immediate decisions and long-term strategies. And as awareness around the environmental implications of EVs grows, so too has the need to address the full life cycle of the batteries that power them.

“The future of mobility is electric, connected, and sustainable—a transformation that will redefine industries and communities alike. The TCS Future-Ready eMobility Study 2025 provides a powerful lens into the challenges and opportunities shaping this journey, emphasizing the critical roles of resilience, innovation, and collaboration. At Cummins, in line with our Destination Zero™ strategy, we are dedicated to advancing industry-wide decarbonization with a diverse range of power solutions. Our ability to deliver technologies today, while innovating zero carbon solutions, and building partnerships will ensure a sustainable and enduring future of mobility.”

– Earl Newsome, Global Chief Information Officer, Cummins

Despite these limitations, the EV stakeholders we surveyed are continuing to make progress where they can, advancing and retreating as conditions dictate. An increasing majority favor hybrid EVs (HEVs) as a practical middle road to the uncertainties of battery electric vehicles (BEVs). By and large, however, the long-term view remains firmly set toward EV transformation.

“ This TCS study offers rich insights about the recent trends in the eMobility ecosystem for all stakeholders. It covers both the demand and supply side perspectives very well, making it a well-rounded set of insights. ”

– *M.S. Krishnan, Professor and Faculty Director, Stephen M. Ross School of Business, University of Michigan*



Study overview

The **1,300+** global respondents surveyed across 18 countries and 12 industries represent the EV stakeholder segments that are most crucial for a successful transition. These include:



EV manufacturers (the “Makers”)

From established automakers to innovative startups, component suppliers to battery manufacturers, the Makers are revolutionizing transportation with cutting-edge electric vehicle technology and sustainable solutions.



Charging infrastructure builders (the “Chargers”)

Encompassing both charge point operators and utilities, the Chargers are building the backbone of electrified transportation, powering the EV revolution one station at a time.



EV fleet adopters (the “Dispatchers”)

From logistics giants to local delivery services, the Dispatchers are electrifying commercial fleets, driving sustainable mobility into the heart of business operations.



EV influencers (the “Influencers”)

Policymakers and researchers, urban planners and advocacy groups, the Influencers are shaping public opinion, policy, and industry direction in the electric vehicle ecosystem.



EV consumers (the “Shoppers”)

Balancing environmental aspirations with practical considerations, the Shoppers are driving demand for electric vehicles.

Key terminology



ICE: Internal Combustion Engines run on gas or diesel fuel.



EVs: Electric vehicles run on batteries and electric power.

- **HEVs: Hybrid EVs** have both an ICE and an electric battery.
- **BEVs: Battery electric vehicles** run on rechargeable batteries entirely and produce no emissions.

EV Shoppers: Adapting to change



While green mandates have helped propel EV adoption, the future of electric mobility will hinge on the experiences that define the transition for the consumer. Therefore, their preferences will drive the future of EV design, development, and deployment.

The majority of consumer adopters – nearly two-thirds – say they are likely or very likely to consider purchasing EVs as their next vehicle (see Figure 1). Increased interest could signal a shift beyond early adopters as EVs become a more practical choice for everyday consumers.

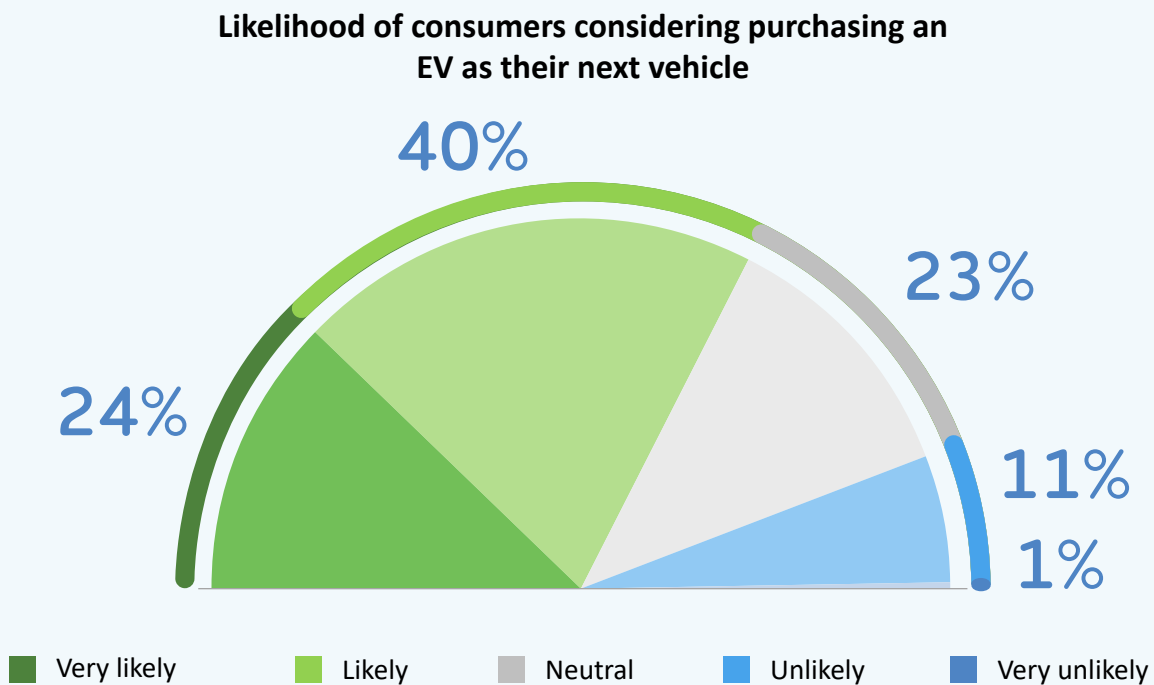
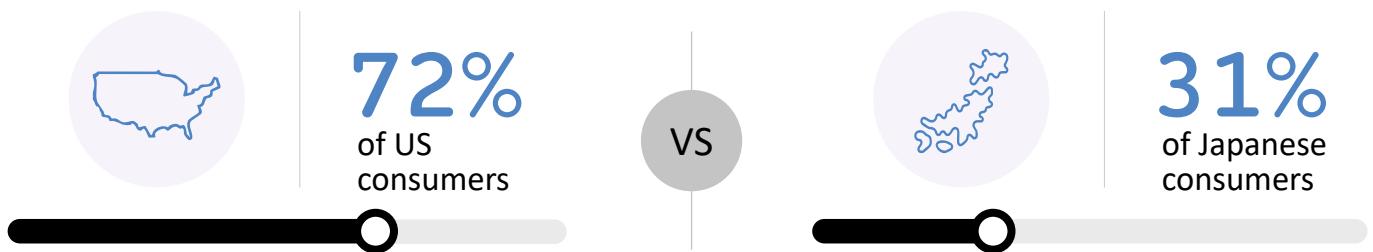


Figure 1. How likely are you to consider purchasing an electric vehicle as your next vehicle? (EV consumer adopter segment)

However, this interest does not indicate a clear shift in preference to EVs globally. Consumers in the US, for example, are much more inclined to purchase EVs than their counterparts in Japan.



say they are likely or very likely to consider an EV as their next vehicle purchase

With less-developed public transportation, US consumers may be more eager to purchase EVs, particularly as range limitations become less of a concern. In fact, more than a quarter of Japanese consumers (26%) reported they will rely on public transport or rideshares instead of purchasing a new vehicle, compared to just 4% for US consumers.

Similar variance in preferences can be seen across age groups with younger demographics having the highest likelihood of making the transition (see Figure 2).

Consumers under 35 are the most likely to consider buying EVs

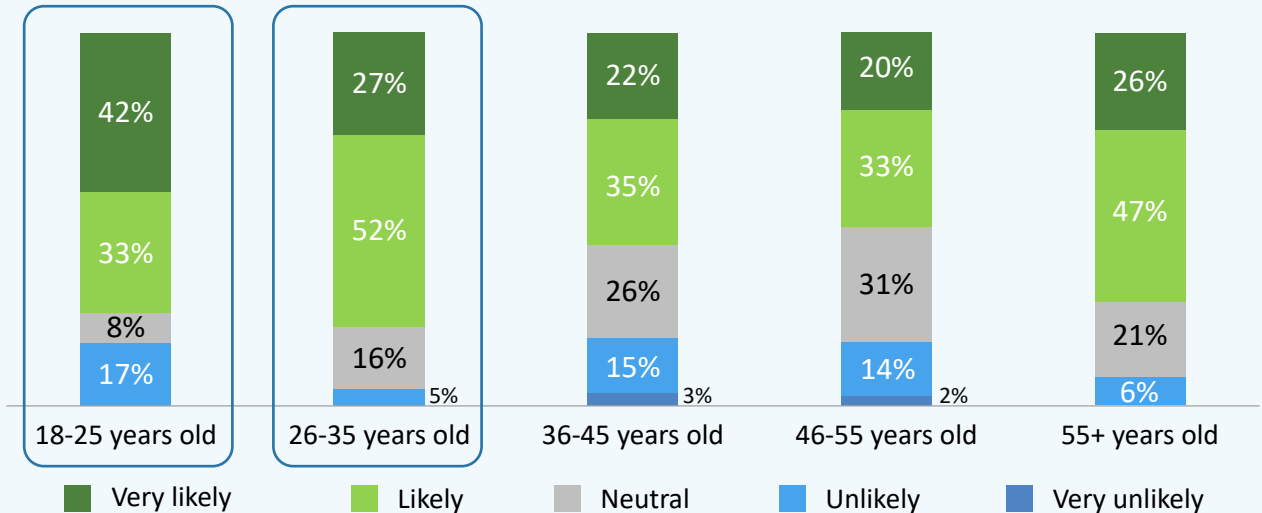


Figure 2. How likely are you to consider purchasing an electric vehicle as your next vehicle? (EV consumer adopter segment)

Younger demographics also express greater satisfaction with the EV choices available in the market (see Figure 3).

Most 18-to-35-year-olds like the current choice of EVs for sale

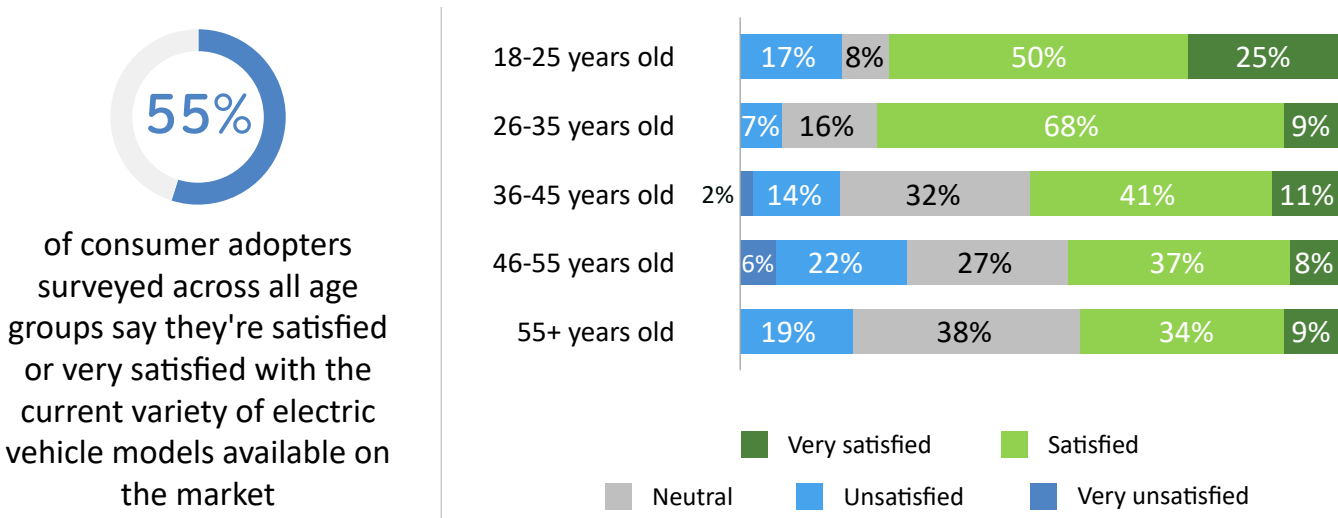


Figure 3. How satisfied are you with the current variety of electric vehicle models available on the market? (EV consumer adopter segment)

While appealing to a younger market is a positive sign for the future, the industry needs to overcome key challenges for acquisition, including cost and charging, and range issues (see Figure 4).

Costs and charging times remain consumers’ biggest purchase factors

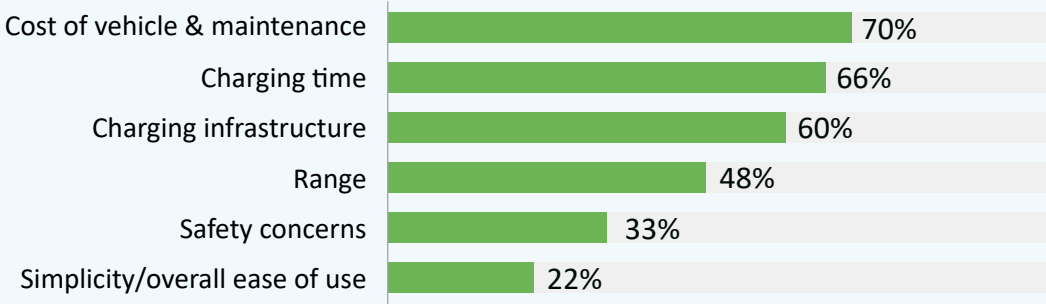


Figure 4. Which of the following factors is most important to you when considering purchasing an electric vehicle? (EV consumer adopter segment)

Foremost among these challenges, the cost of ownership is a critical factor when considering EV purchases. The older the consumer, the more important the cost of vehicle purchase and maintenance becomes, with 81% of over-55s citing this as a critical factor (see Figure 5).

Vehicle and maintenance costs are especially important for older consumers

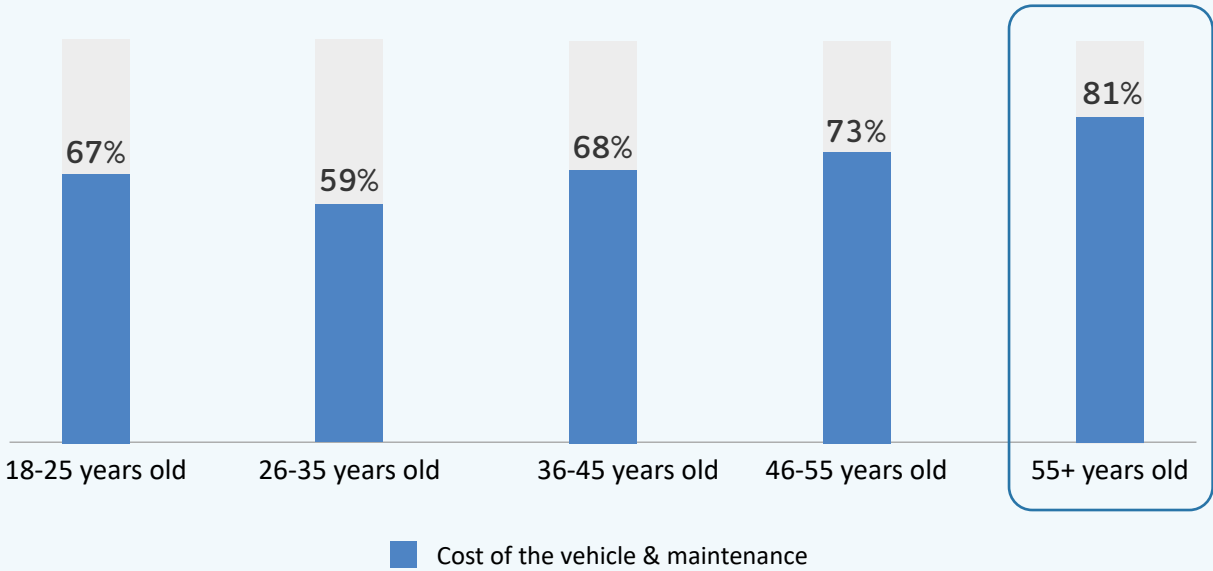


Figure 5. Which of the following factors is most important to you when considering purchasing an electric vehicle? (EV consumer adopter segment)

With cost top of mind for consumers, how much are they ultimately willing to spend on an EV? Most state they are only willing to pay up to \$40k, just slightly above the [average global price of a new vehicle](#) (see Figure 6).

A majority of consumers will pay up to \$40K for an EV

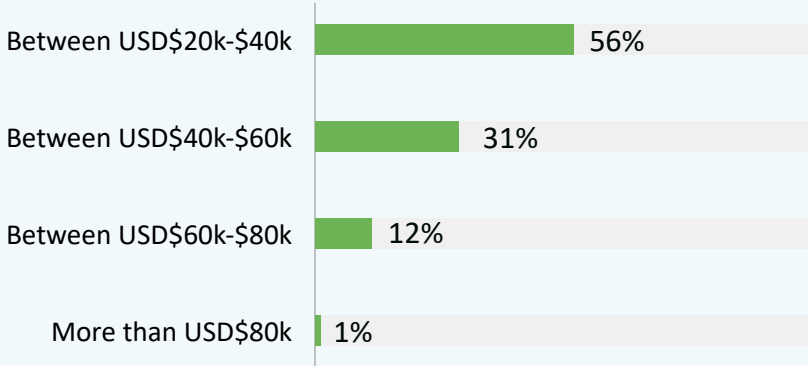


Figure 6. What is the maximum amount you would be willing to pay for an electric vehicle, considering your budget and financial constraints?

The maximum amount consumers are willing to pay for an EV could reflect a hard limit based on their budget and desired features.

When it comes to premiums, few consumers say they would be willing to pay one for an EV over its ICE counterpart (see Figure 7).

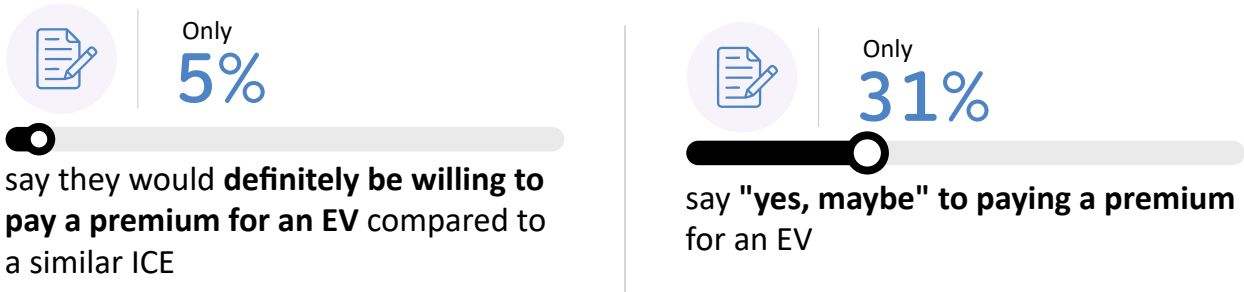


Figure 7. Would you be willing to pay a premium for an electric vehicle compared to a similar combustion engine vehicle?

This reluctance to pay higher premium prices suggests that consumers have not fully accepted the belief that EVs offer long-term cost savings over the vehicle lifecycle, particularly as unpredictable costs and access to charging systems make it more challenging to validate lower cost of ownership. Easy and equitable access to affordable charging systems could be a vital factor in consumers' willingness to pay a premium for EVs over similar ICEs.

Another significant alignment concerns the role of governments in continuing to incentivize EV adoption until it has reached critical mass. Most consumer adopters surveyed say financial perks impact their purchasing decisions, more so than other incentives (see Figure 8).

Financial considerations top the list of consumer adopter incentives to switch to an EV

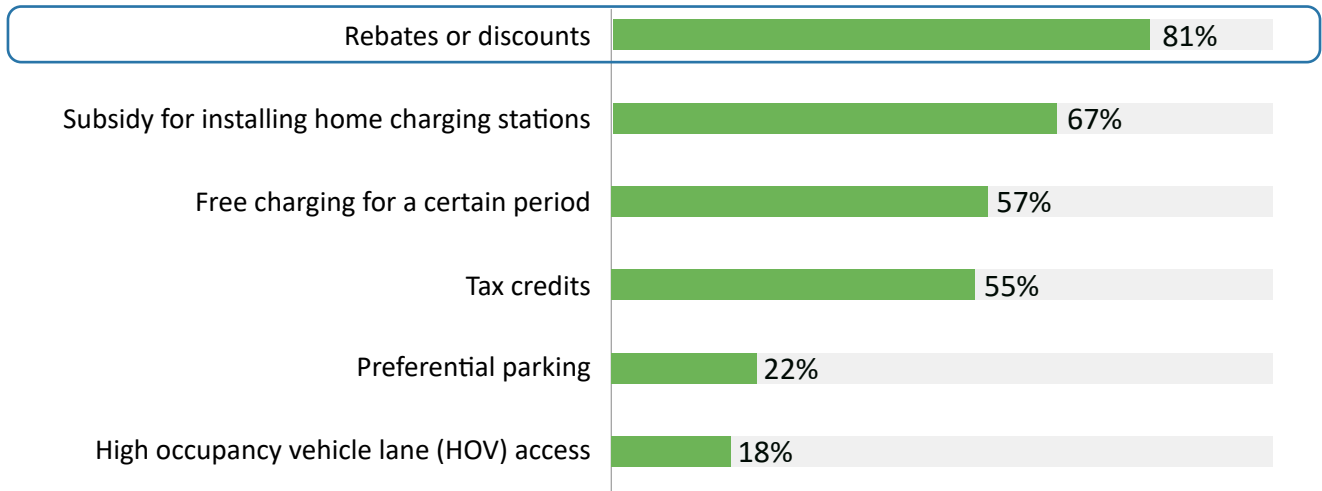


Figure 8. Which type of incentive would be most likely to persuade you to switch to an electric vehicle? (EV consumer adopter segment)



EV automotive manufacturers: Tempering expectations



With the tide shifting in the EV market, many automotive manufacturers have been rethinking the transition to EVs. EV-linked investments have been substantial – increasing almost six-fold between 2021 and 2023 and reaching €150 billion globally in 2023 alone, according to recent analysis conducted by the European Federation for Transport & Environment. Original equipment manufacturer (OEM) losses coupled with apprehensions of further slowdowns have led to the industry revising its transition targets.

Our survey found that more than half of automotive manufacturers see demand for EVs cooling, with over a quarter expecting this trend to extend over two years (see Figure 9).

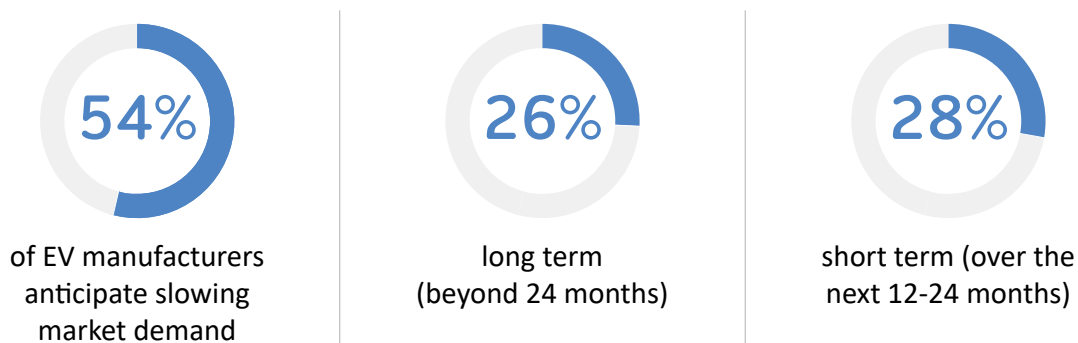


Figure 9. How do you see the EV market demand changing the most in the next 12-24 months? (EV manufacturer segment)

A significant majority of OEMs attribute charging infrastructure as the key factor impeding EV market growth (see Figure 10).

EV manufacturers say charging infrastructure, high costs, and battery technology are the top obstacles to market growth

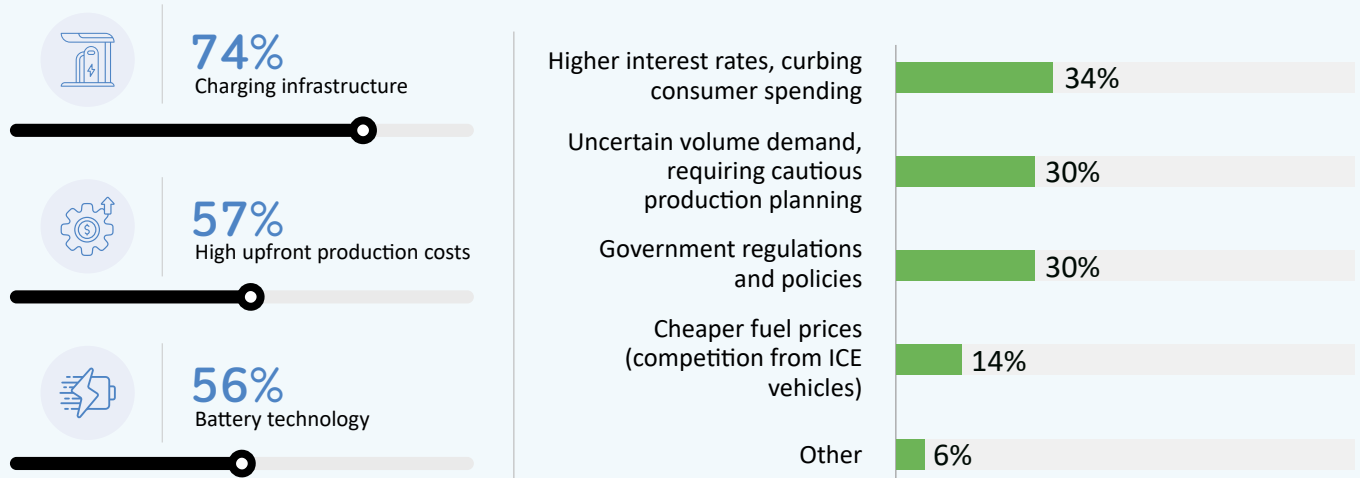


Figure 10. What factors are most likely to limit the overall market demand for EVs and industry growth? (EV manufacturer segment)

Consequently, improving infrastructure compatibility and enhancing battery range are high up their list of priorities (see Figure 11).

More than two-thirds of EV manufacturers have made charging infrastructure compatibility their top priority

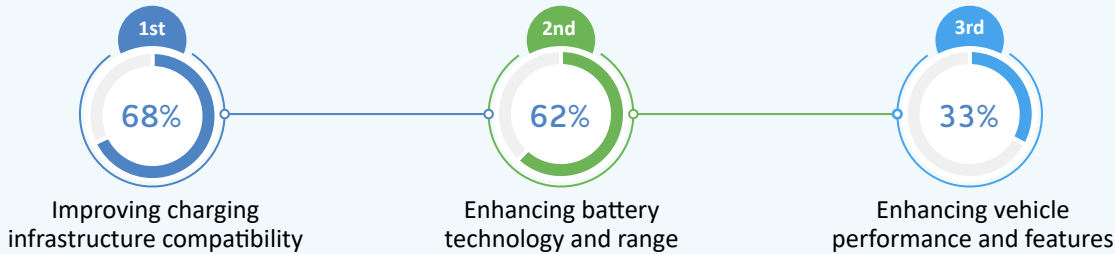


Figure 11. What are your key priorities when it comes to EV production and development? (EV manufacturer segment)

Manufacturers have also clearly realized the importance of affordability in accelerating EV adoption, given the investments they are funneling toward cost reduction (see Figure 12).

Reducing costs, the weight of materials, and inefficiencies top manufacturers' budget priorities

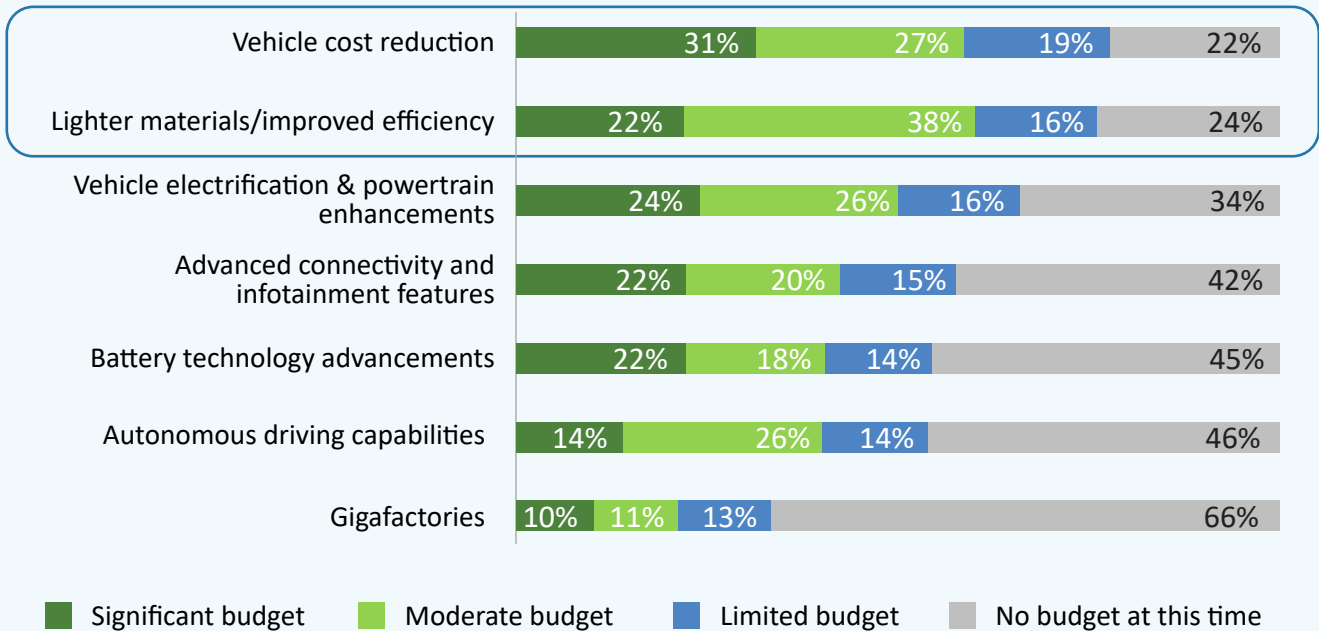


Figure 12. How is your organization allocating investments for research and development (R&D) efforts for EVs? (EV manufacturer segment)

The upside for the industry is that manufacturers are unanimous in their resolution to stay the course, with only a third contemplating any reduction in investments.

100%

of EV manufacturers surveyed say they are planning to continue EV production

and

2/3

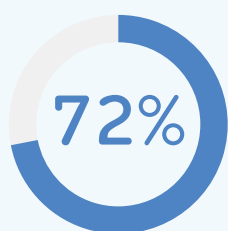
say they are maintaining or even accelerating their current EV investments in the next 1-2 years

Q. How are you adjusting your investments based on perceived EV market demand in the next 12-24 months?
(EV manufacturer segment)

EV ecosystem interaction: Bridging challenges

There is a clear consensus that EV adoption is incumbent on concurrent expansion of EV charging infrastructure. Numerous charging-related companies have sprung up, eager to capitalize on incentives and the potential of this emerging industry. However, intense competition and high capital requirements threaten the companies' stability.

Our survey indicates that a significant proportion of these players expect significant consolidation in their space, driven by financial viability and scaling challenges.



of charging infrastructure builders surveyed think significant consolidation (M&A, buyouts etc.) among EV charging infrastructure companies is likely or very likely

Top 3 drivers for consolidation



Economic viability



Ability to scale



Greater profitability/ROI

Q. How likely is significant consolidation (M&A, buyouts etc.) among EV charging infrastructure companies?
Q. What do you think will drive consolidation among EV charging infrastructure companies?
(EV charging infrastructure builder segment)

While consolidation is highly likely, partnerships between manufacturers, energy, retail and commercial property owners and government entities will be crucial in scaling infrastructure efficiently. Charging infrastructure builders are actively seeking these partnerships (see Figure 13).

Charging infrastructure builders seek partnerships with retail commercial property owners, among others

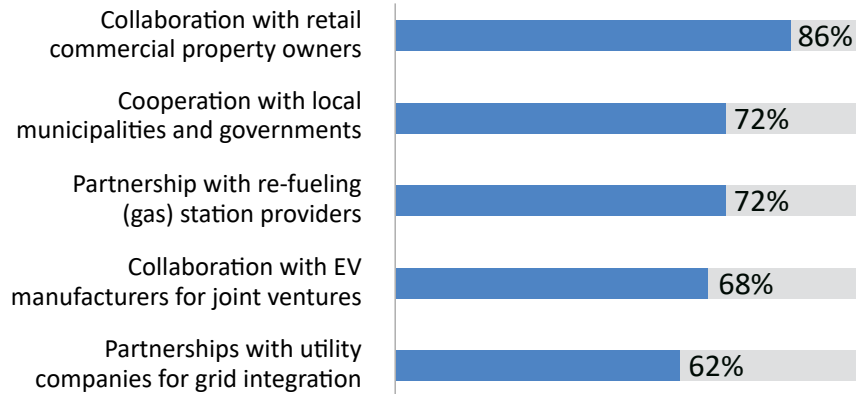
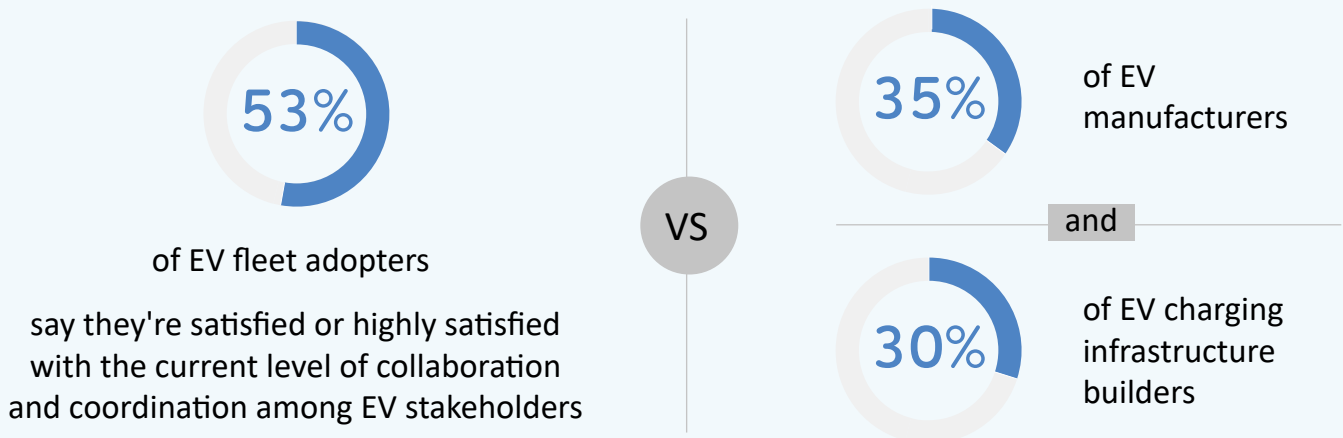


Figure 13. What collaborations or partnerships do you seek to accelerate the expansion of EV charging infrastructure? (Charging infrastructure segment)

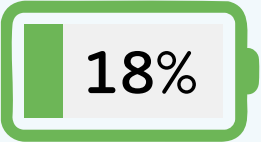
Beyond the charging infrastructure segment, collaboration among all stakeholders is essential for the EV industry to reach its full potential. How and where they integrate and interact with one another is equally critical at enabling the broader picture of the EV transition to come into focus. Some segments have long been interconnected; other segments are coming together for the first time, connected by a shared purpose and little else.

We found that the level of satisfaction with the current level of collaboration varies widely across stakeholders in the EV ecosystem. For example, while more than half of fleet organizations are satisfied with collaboration efforts, EV manufacturers and charging infrastructure builders take a less favorable view.



Q. How satisfied are you with the current level of collaboration and coordination among stakeholders in the EV infrastructure ecosystem?

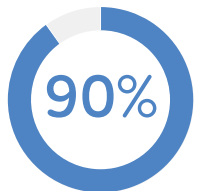
Stakeholders must significantly adjust their ecosystem partnerships to realign their fragmented efforts. Yet EV manufacturers, who particularly struggle with stakeholder collaboration, show little urgency to make these changes, as only a minority of them consider expanding ecosystem partnerships a top priority. This disconnect suggests that stakeholders' dissatisfaction and reluctance to collaborate reinforce each other.



Few EV manufacturers surveyed say that expanding partnerships within the EV ecosystem is a top priority

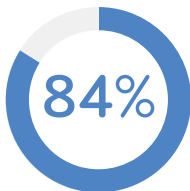
Technology innovation: Realigning focus

While charging infrastructure concerns abound, mobility consumers and the industry conclude that improvements in the EV battery, and consequently in vehicle range, would have a greater impact on EVs than any other technological advancement.



90%
of EV
manufacturers

and



84%
of EV
Influencers

say battery technology improvements to optimize range & charging speed will have more impact on the design and performance of EVs in the near term than any other technological advancement



#1

EV consumer shoppers

rank battery range as the feature they'd most like to see improved in EVs

Q. Which technological advancements do you expect to have the greatest impact on the design and performance of EVs in the near-term? Q. Which of the following features would you most like to see improved in electric vehicles?

Nearly half of consumer survey respondents say the sweet spot for an acceptable EV range on a single charge is 200-300 miles (see Figure 14), which is easily accommodated by newer EV models.

Acceptable EV range on a single charge

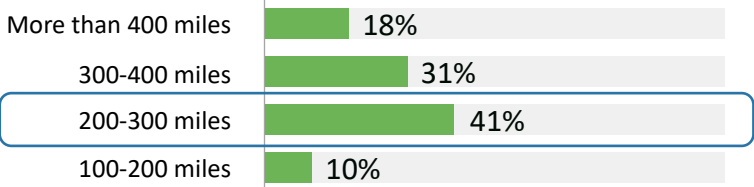


Figure 14. What would you consider an acceptable range for an electric vehicle to meet your regular needs on a single charge? (EV consumer adopter segment)

However, that still leaves nearly an equal proportion of consumers who say they do not yet have EV options with sufficient range (300 miles or more on a single charge). This places range anxiety as a significant contributor to delayed EV adoption.

Despite its anticipated impact, consumers and other EV stakeholders may have to wait longer for battery advancements. Nearly three-fourths (70%) of EV manufacturers say it will take two years or more to achieve significant breakthroughs in battery technology (see Figure 15).

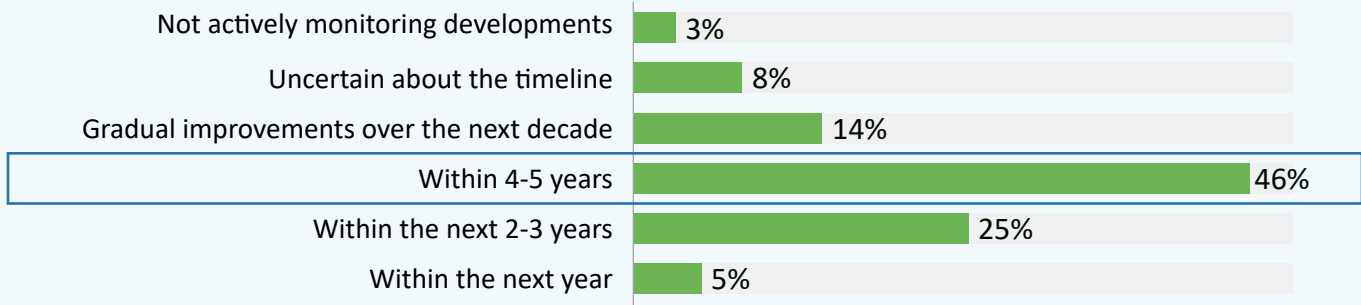


Figure 15. What are your expectations for achieving significant breakthroughs in EV battery technology?
EV manufacturer segment

This trend seems to be reflected in their investments, which are focused more heavily on near-term affordability than battery advancement. Nevertheless, more than half (55%) of the EV manufacturers surveyed have some type of R&D investments for battery technology (see Figure 16).

Battery technology ranks lower among EV manufacturers' research priorities

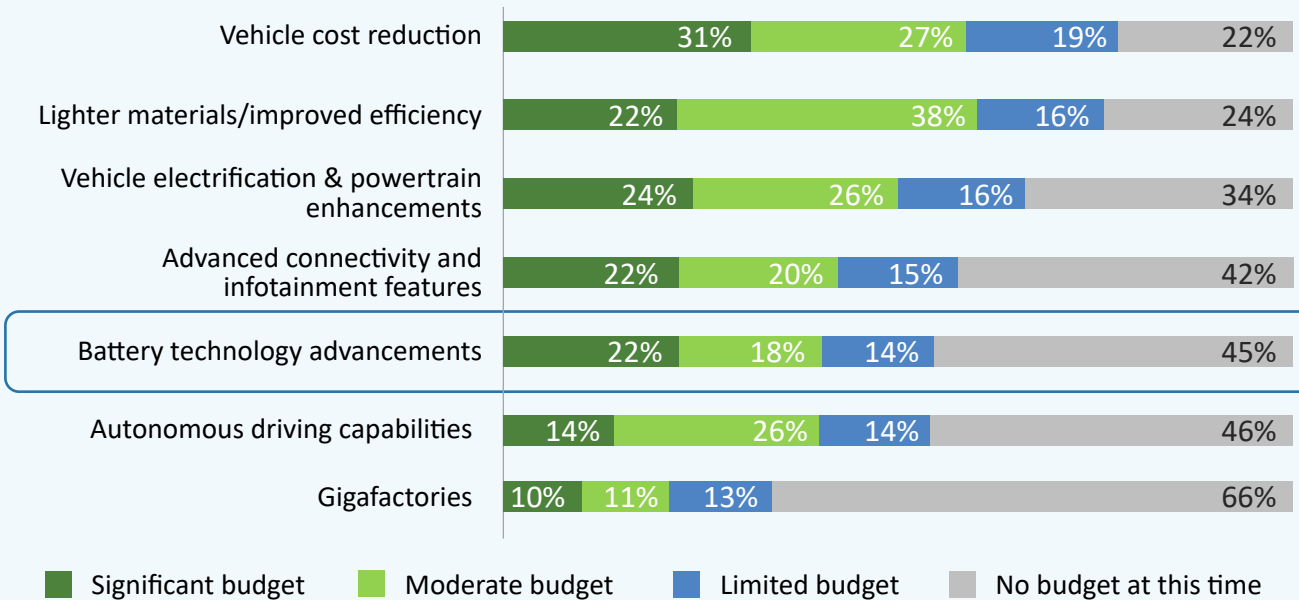
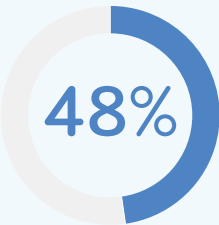


Figure 16. How is your organization allocating investments for research and development (R&D) efforts for EVs?
(EV manufacturer segment)

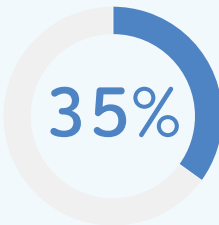
Transition models: Accelerating adoption

What once began for many early believers as an optimistic sprint toward rapid electrification has become more about ensuring a steady pace of growth. Even EV influencers – the stakeholders with the most optimistic industry outlook – indicate the global transition to EVs has been tougher than expected so far.

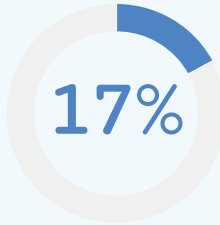
EV influencers – the most optimistic of the EV stakeholders surveyed – say the global transition to EVs has been tougher than expected



Slower/more difficult than expected



Neutral/as expected



Faster/less difficult than expected

How would you describe the global transition to EVs so far?
(EV influencer segment)



Further, EV influencers do not expect the transition to end anytime soon. Nearly two-thirds anticipate it will take more than five years for the majority of new vehicle sales globally to be EVs. Still, that leaves more than a third (37%) who expect EVs to represent the majority of sales globally within five years. EV influencers are even more enthusiastic when it comes to their own countries: within five years, 58% expect the majority of new vehicles in their country will be EVs (see Figure 17).

EV influencers say it will be several years at least before the majority of new vehicle sales in their own country will be EVs and will take even longer globally

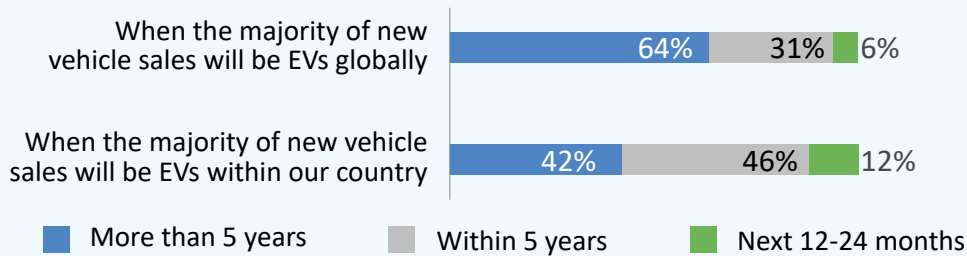


Figure 17. When do you expect EVs to compose the majority of new vehicle sales in your country?
When do you expect EVs to compose the majority of new vehicle sales globally?

Despite the challenges, mobility is on a definite course to electrification. This transition has required significant realignment from stakeholders. For example, rather than a straight path to pure BEVs, the industry has already pivoted to a transition strategy that includes hybrid EVs (HEVs).

This pivot resonates with consumers. With the potential for lower emissions and fewer fossil fuels without requiring a full commitment to the uncertainty of the existing BEV infrastructure, many consumer respondents see hybrids as an attractive gateway option. When asked about the specific type of vehicle they are likely to select for their next purchase, consumers across all age groups said they were likely to choose a hybrid over a pure BEV (see Figure 18).

Consumers older than 55 are the most likely to shop for hybrid vehicles

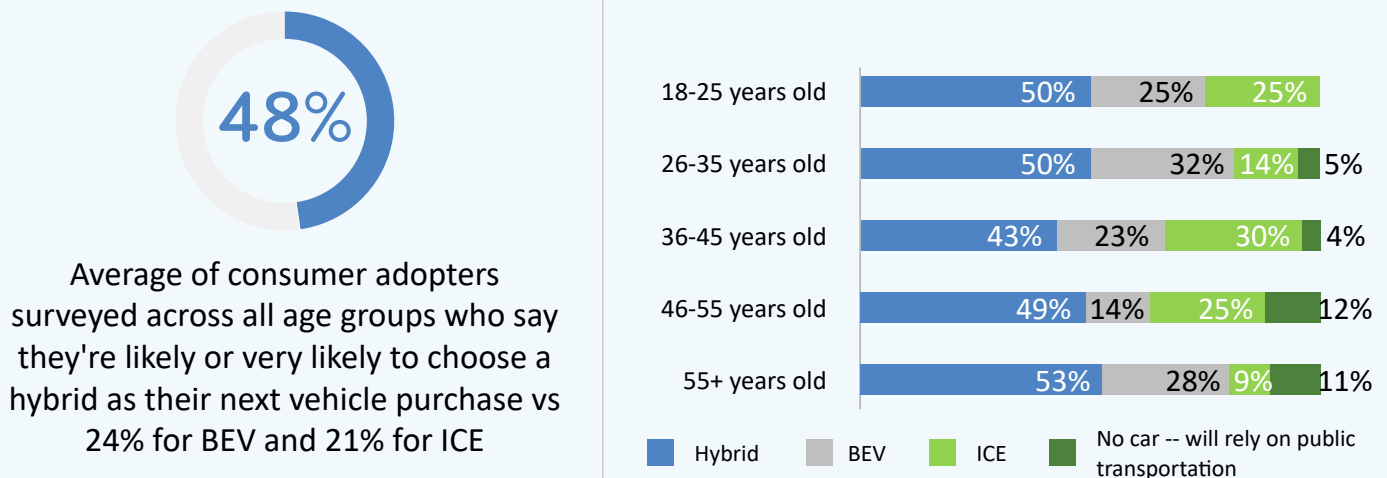
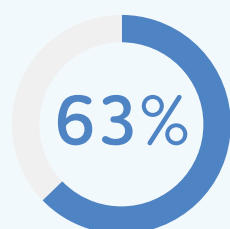


Figure 18. Which type of vehicle are you most likely to choose for your next purchase? (EV consumer adopter segment)

Though they may slow BEV sales in the short term, hybrids may be the stepping-stone to mobility electrification.

Broader EV adoption has also taken the form of pragmatic approaches like financial incentives that can complement motivations based on sustainability and environmental responsibility. For example, almost two-thirds (63%) of EV influencers say their primary motivation for EV adoption is to achieve net-zero goals/environmental sustainability and reduced carbon footprint.



of EV influencers say their primary motivation for EV adoption is to achieve net-zero goals/environmental sustainability and reduced carbon footprint

Yet they see financial incentives as the most influential factor to nudge EV adoption, with less than half saying the same of sustainability (see Figure 19).

EV influencers recognize that consumers need financial incentives and an infrastructure to adopt EVs

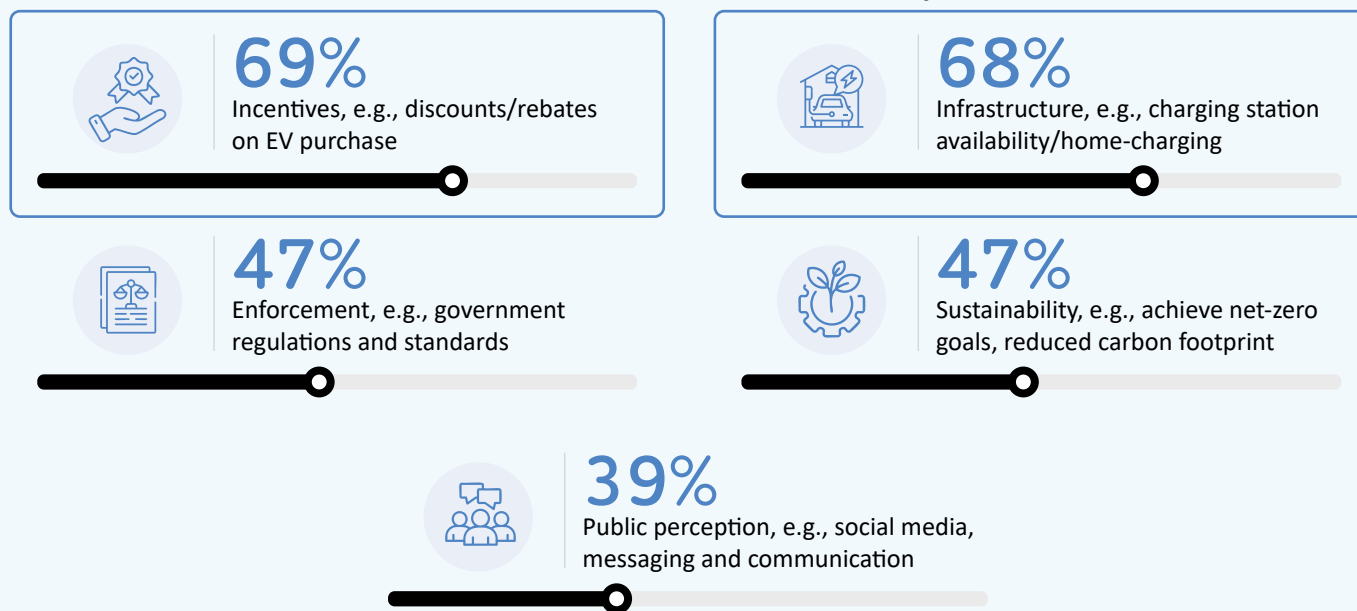


Figure 19. What factors do you consider most influential to EV adoption? (EV influencer segment)

Like EV influencers, fleet adopters also say they are primarily motivated by net-zero goals and environmental sustainability for EV adoption (see Figure 20).

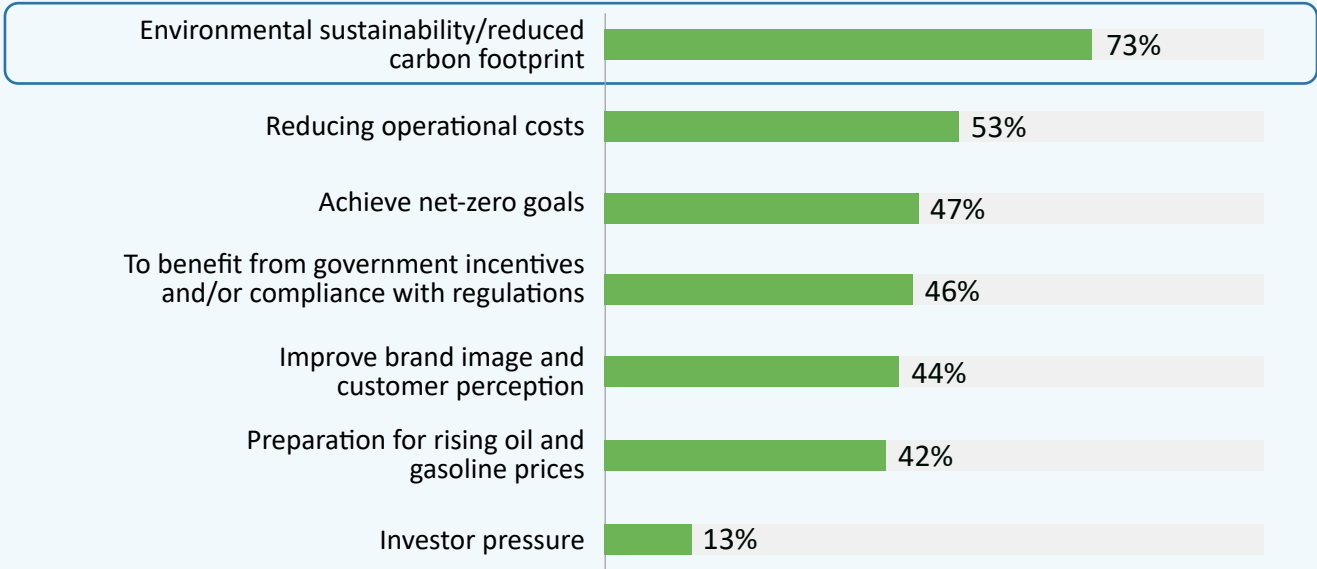
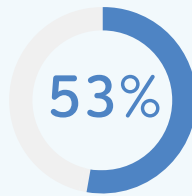


Figure 20. What is your primary motivation for adopting electric vehicle fleets? (EV fleet adopter segment)

Fleet adopters also pointed to reducing operational costs as a primary motivation, perhaps reflecting a growing belief in the long-term cost savings of EVs.



53% of EV fleet adopters say their primary motivation for adopting EV fleets is to reduce operational costs.

A higher percentage of fleet adopters we surveyed were willing to pay a premium for EVs compared to ICE, further evidence that fleet adopters may be more open to the benefits of operational cost reductions (see Figure 21).

38% of fleet adopters say they would be likely or very likely to pay a premium for an EV compared to a similar ICE

34% say they would be unlikely or very unlikely to pay a premium

Maximum premium amount fleet respondents are willing to pay

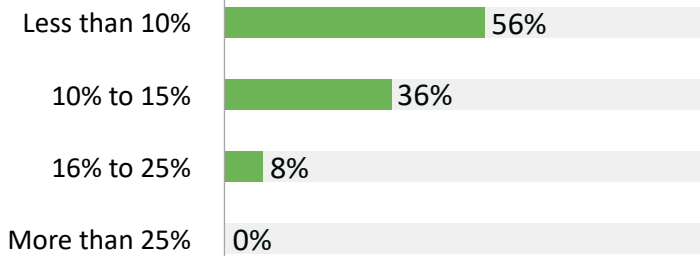


Figure 21. Would your business consider paying premium costs for electric vehicles compared to similar ICE vehicles to meet sustainability goals? How much of a premium would you be willing to pay?

While EV influencers have a clear environmental sustainability motivation for EV adoption, interestingly the environmental benefits do not match the expectations of many EV influencers. Nearly half of EV influencers think EVs increase overall carbon output as much as they reduce it; a tenth even say EV adoption is negatively impacting the environment (see Figure 22).

Whether EVs ultimately have a positive impact on the environment is still very much up for debate among industry influencers

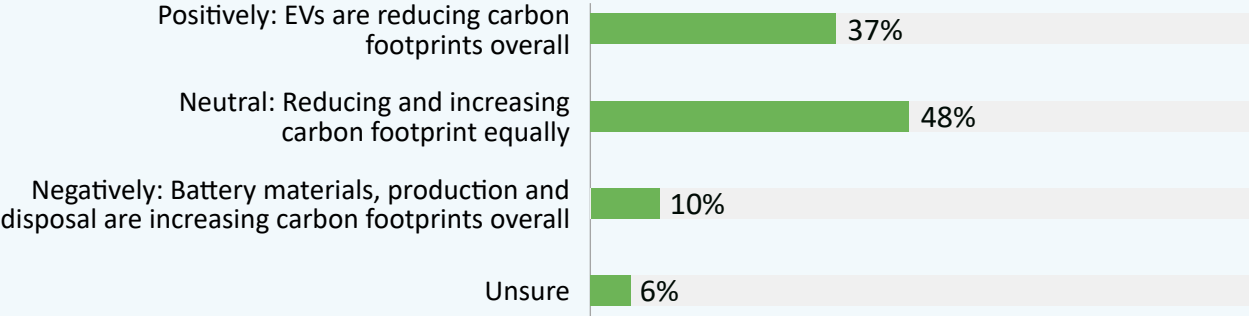


Figure 22. What is your perception of how EVs are meeting sustainable transportation needs? (EV influencer segment)

One issue is the lack of a clear framework for measuring and reporting how EVs make a positive environmental impact.



While valuable for all stakeholders, EV sustainability benefits that are consistently assessed, measured, and communicated are essential for corporate fleet adopters.



However, our findings show that very few fleet adopters are making headway aligning their EV strategies with sustainability reporting. Of the 31% of fleet organizations who already have EV adoption strategies underway, half have made progress (see Figure 23).

Only half of fleet adopters treat EV adoption as a strategic or reported goal

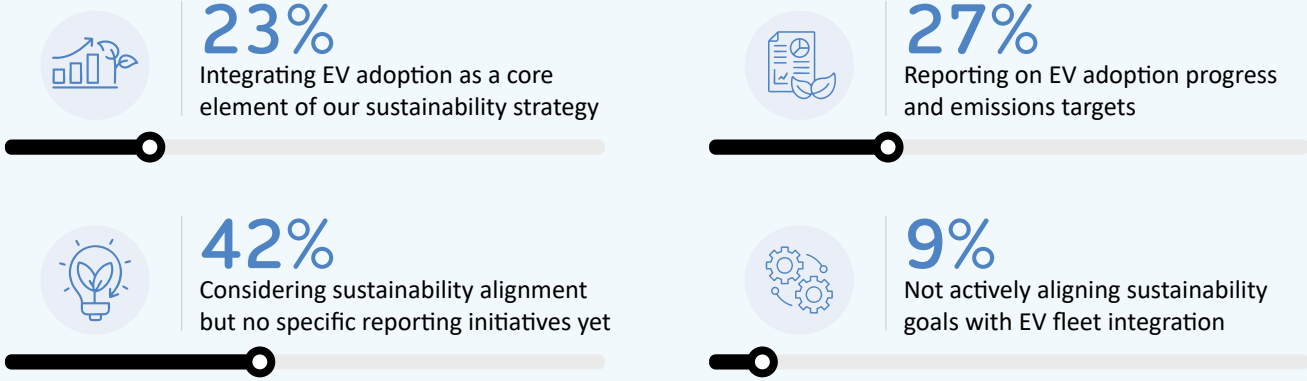


Figure 23. How are you aligning your sustainability goals and reporting with the integration of EVs into your fleet? (EV fleet adopter segment)



Next steps: Strategic focus areas for EV stakeholders

Our analysis of the survey results found a complex mix of optimism encumbered by challenges that require systemic changes. There is steady advancement in technology and the formation of partnerships, but the gradual pace of progress remains frustrating to many stakeholders.

The slower pace is not necessarily a sign of failure, however, but the reflection of an industry still working through the complexities of large-scale transformation. Coordinated actions and strategic choices can set a course for future growth.

We see five imperatives that could significantly influence EV transformation over the next few years. Concerted effort in these areas will be critical for a successful transition that balances sustainability goals with consumer and fleet adopter requirements.



Optimize performance through the potential of software-defined mobility

When a car's functionality and features are primarily controlled by software, rather than built-in as hardware, continuous updates and customizations can be made "over-the-air," much like smartphones which can introduce new features and efficiencies with each operating system release.

Software-defined mobility brings substantial benefits to the EV transition. A zonal architecture (where the vehicle's electrical and electronic systems are organized into distinct zones or regions) offers efficient power management while also reducing the weight and complexity of wiring harnesses. However, this interconnectedness underscores the need for adopting existing cybersecurity frameworks and measures to safeguard critical components, ensure passenger safety, and maintain data integrity. Integrating AI in software-defined vehicles (SDVs) can enable dynamic performance optimization by monitoring the vehicle in real-time, and adjusting the power consumption based on driving conditions or user behavior. SDVs also have an enhanced ability to generate insights that combine data from different domains to improve system performance and battery life, while ensuring secure operations.



Drive product demand and profitability through 'design to target cost'

As the study shows, consumers are willing to pay only a small premium for EVs over ICE vehicles. However, the cost of assembling an EV remains proportionally higher. Analytical and visual models can highlight cost gaps with respect to customers' willingness to pay, enabling the comparison of different models along with competitive data. Already streamlined in ICE vehicles today, detailed value analysis and value engineering models can reduce cost, driving both EV adoption and EV sellers' profitability.



Enhance battery performance through AI and quantum technologies

AI paired with quantum intelligence (QI) is revolutionizing battery development by uncovering insights into atomic processes that boost performance. QI can significantly shorten development cycles and help reduce manufacturing costs, leading to faster innovation and cost-effective production. Large datasets from quantum simulations can be analyzed to optimize materials for conductivity, stability, and energy density.



Enable charging ecosystems through collaborative business models

Rapid adoption of EVs is incumbent on concurrent expansion of EV charging infrastructure. The expansion in turn demands broader cross-industry collaboration to address challenges like standardization, grid integration, and customer experience. While consolidation is highly likely, partnerships between automotive, energy, retail and commercial property owners, government bodies, etc. will be crucial in scaling infrastructure efficiently. Equally critical is the need for robust cybersecurity measures to fortify the interconnected EV ecosystem, ensuring resilience against physical and cyber threats that could undermine adoption at scale. There is a pressing need for frameworks and business models that can enable mutually beneficial partnership between these parties.



Design for sustainability through principles of circular economy

A circular economy is based on the idea that products, materials, and resources should be designed for disassembly, remanufacturing, reuse, and recycling. Containing various components and materials that can be recycled and reintroduced into the production cycle, EVs pose a unique challenge with respect to precious metals and opportunities over their lifecycle to reduce the carbon footprint. By analyzing the various components of the EV including the battery pack for regulatory needs, the industry can promote sustainability while also driving down lifecycle costs.



“ The TCS Future-Ready eMobility Study 2025 sheds light on the challenges and opportunities shaping the electrification journey, underscoring the need for resilience, innovation, and collaboration. At Rivian, we are very much aligned with these insights, and are poised to leverage our innovation-driven culture to address similar challenges in our quest for excellence. By focusing on holistic solutions, such as integrating sustainable practices, fostering cross-sector collaborations, and investing in cutting-edge battery and charging technologies, Rivian aims to redefine the EV landscape. These strategies not only align with the study’s recommendations but also demonstrate Rivian's commitment to leading the industry in resilience, sustainability, and forward-thinking mobility solutions. ”

– Ameya Kamerkar, Director, PLM and Product Development Systems, Rivian



Study Demographics

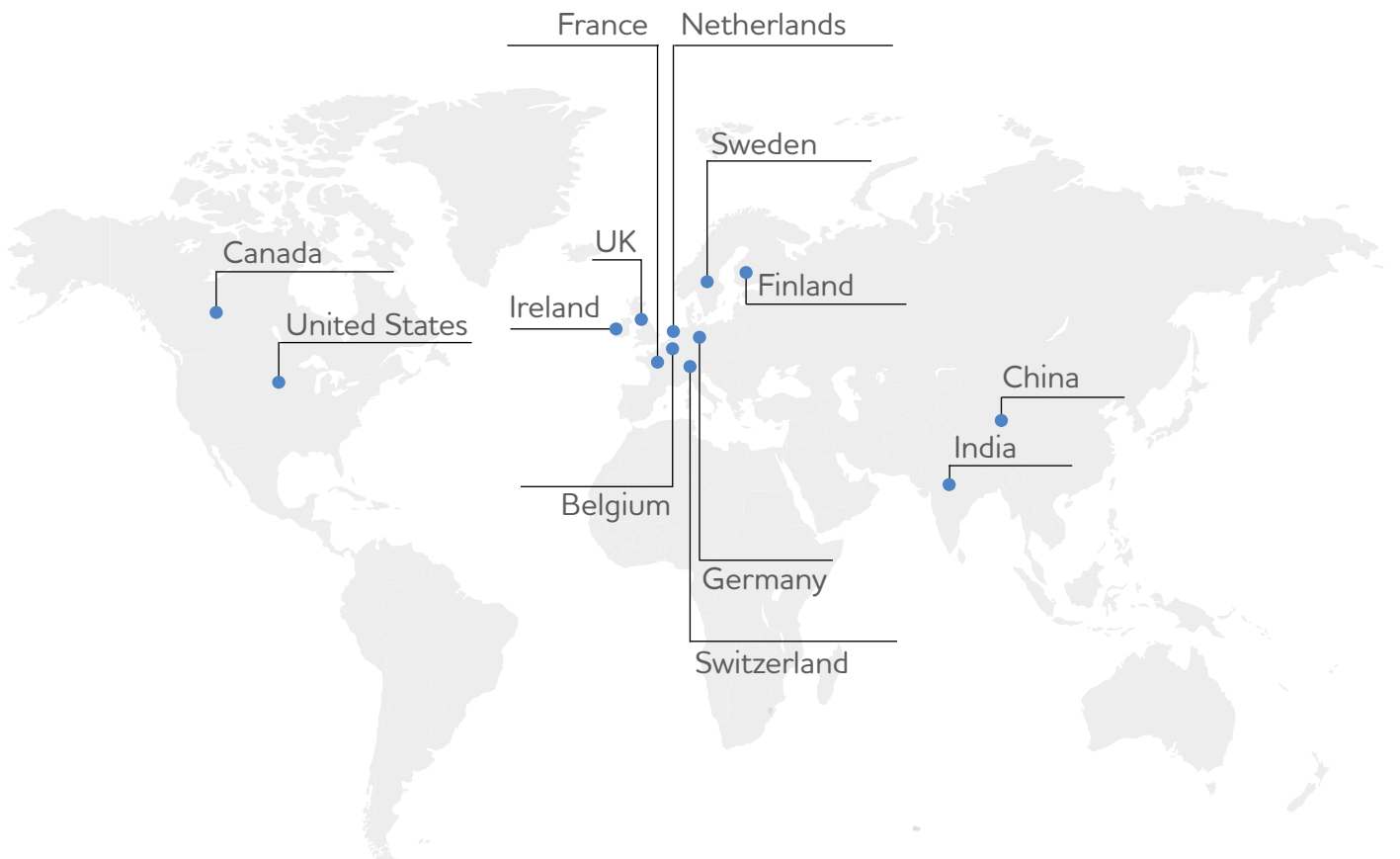


EV Manufacturers

Manufacturers "the Makers"
(n=125)

- Automotive OEMs & Tier 1 suppliers
- EV component suppliers
- Trucks & buses
- Tire manufacturers
- Offroad vehicles & farm equipment
- BEV, HEV & non-ICE alternate fuel vehicle manufacturers
- Connectivity components manufacturers
- Two-wheeler manufacturers

Country representation



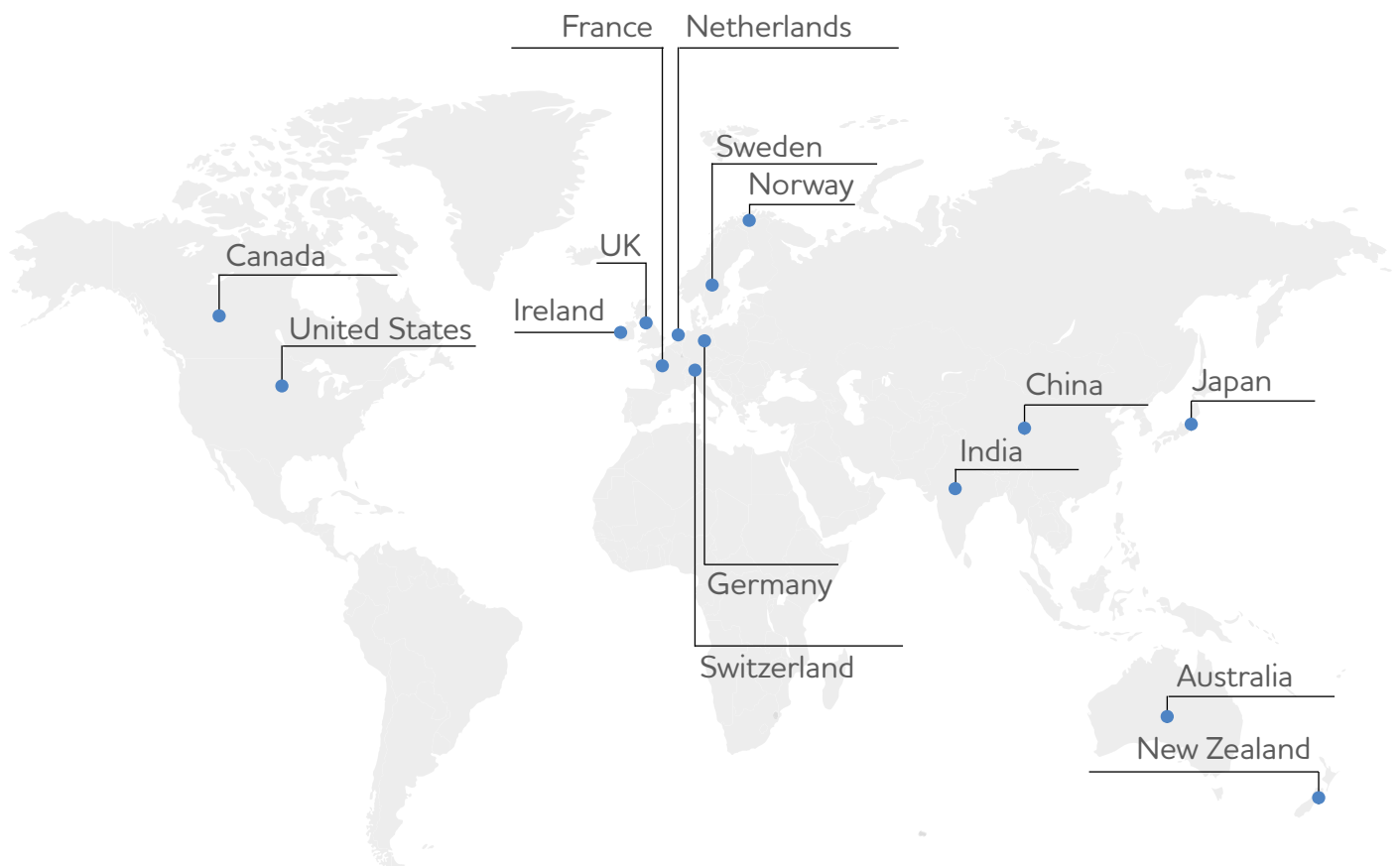


EV Charging Infrastructure Builders

Charging Infrastructure Builders "the Chargers" (n=50)

- Charge point operators (CPOs)
- Fuel stations
- Cities and municipalities

Country representation





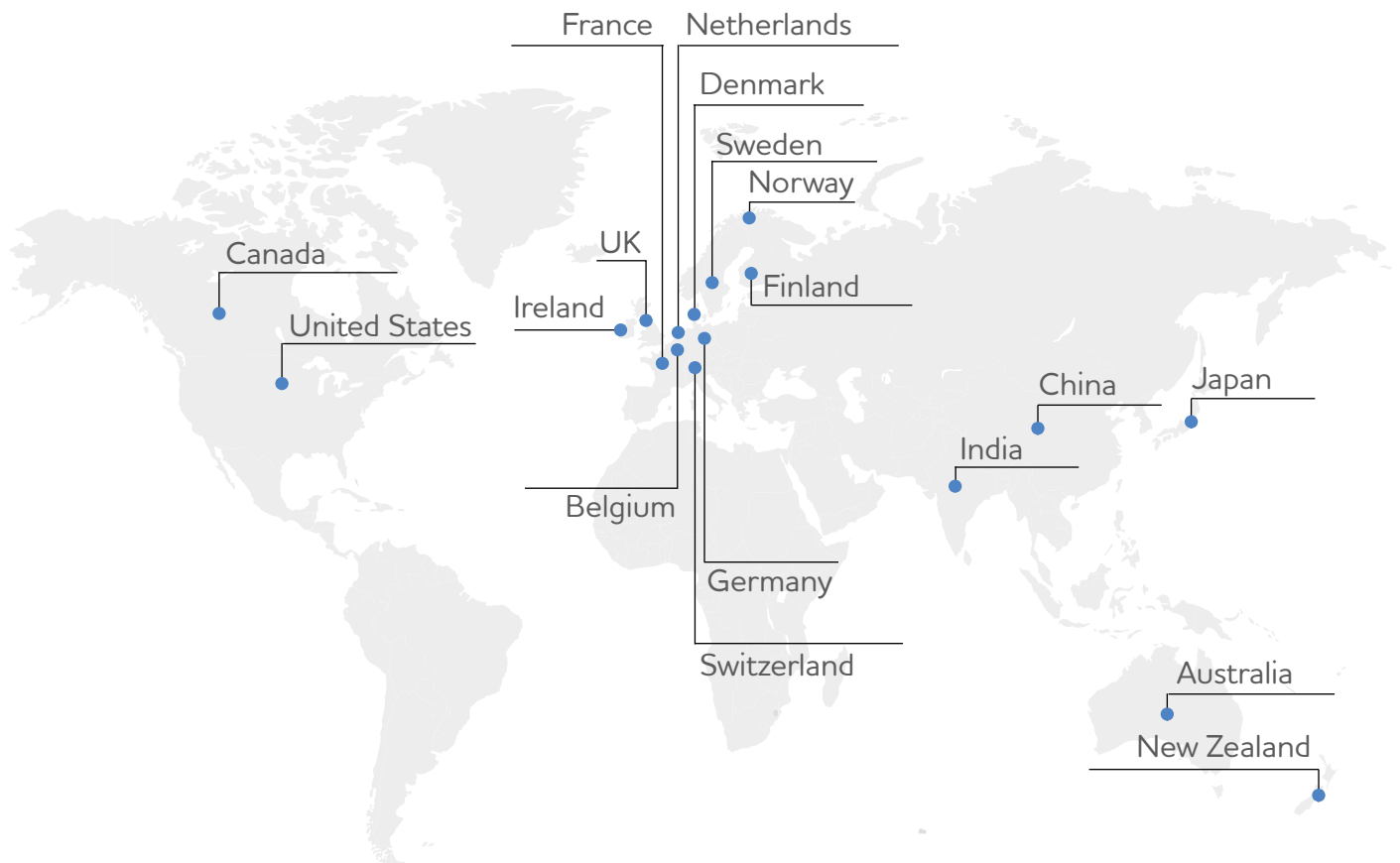
EV Fleet Adopters

Fleet Adopters

"the Dispatchers" (n=700)

- Retail companies
- B2C travel companies (such as airlines and airports)
- B2B transportation & logistics firms
- Accommodations & hospitality companies
- CPG brands
- Energy firms
- Manufacturers
- Industrial engineering
- Life sciences enterprises
- Fleet rental companies
- Utilities
- Mobility-as-a-service companies

Country representation





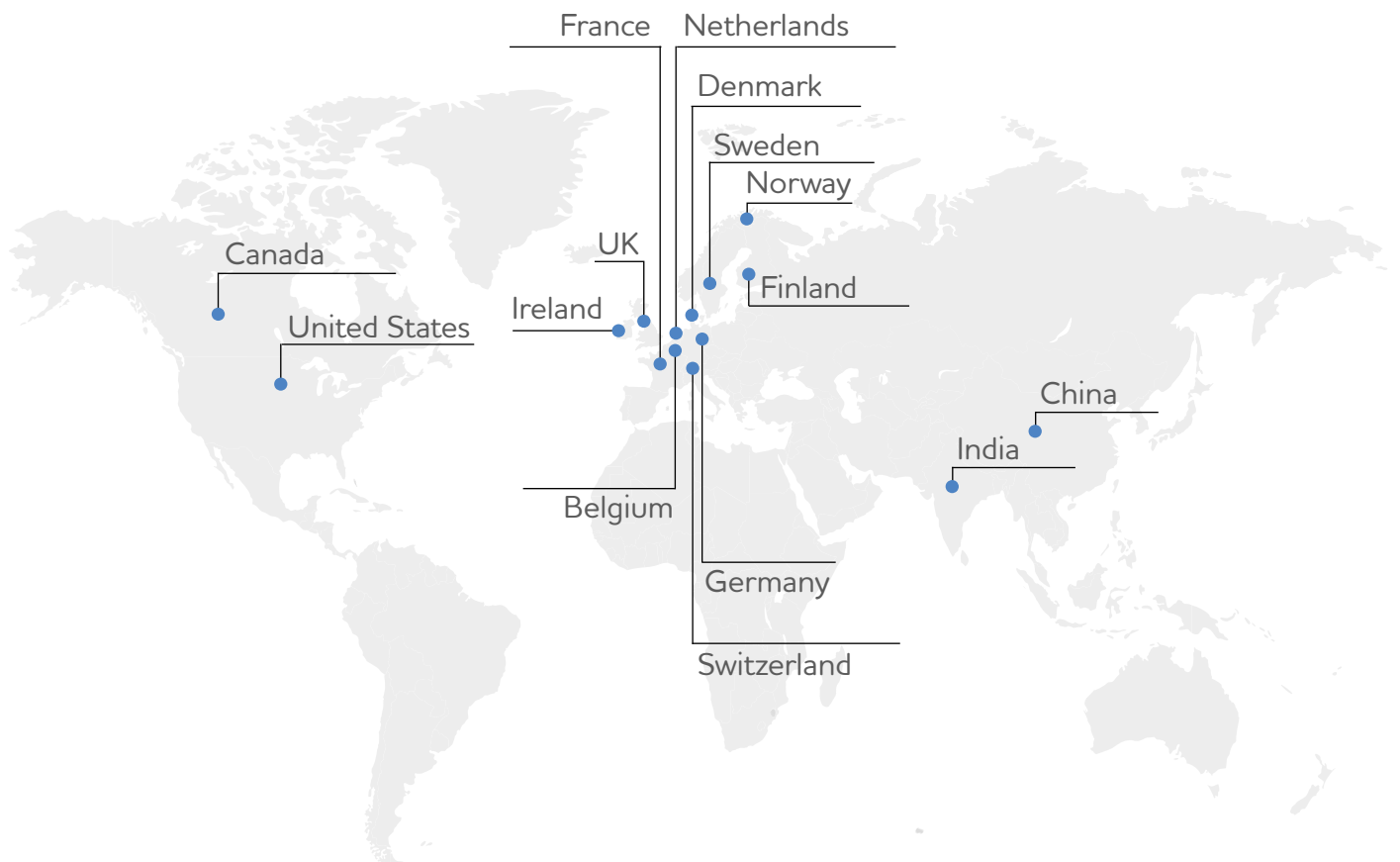
EV Influencers

EV Influencers

"the Influencers" (n=200)

- Financial services providers (including car insurance firms)
- Academic & research institutes
- Urban planners
- City authorities & elected officials
- Telcos (including network operations)
- Public health & advocacy groups
- NGOs focused on sustainability
- Alternate energy providers

Country representation



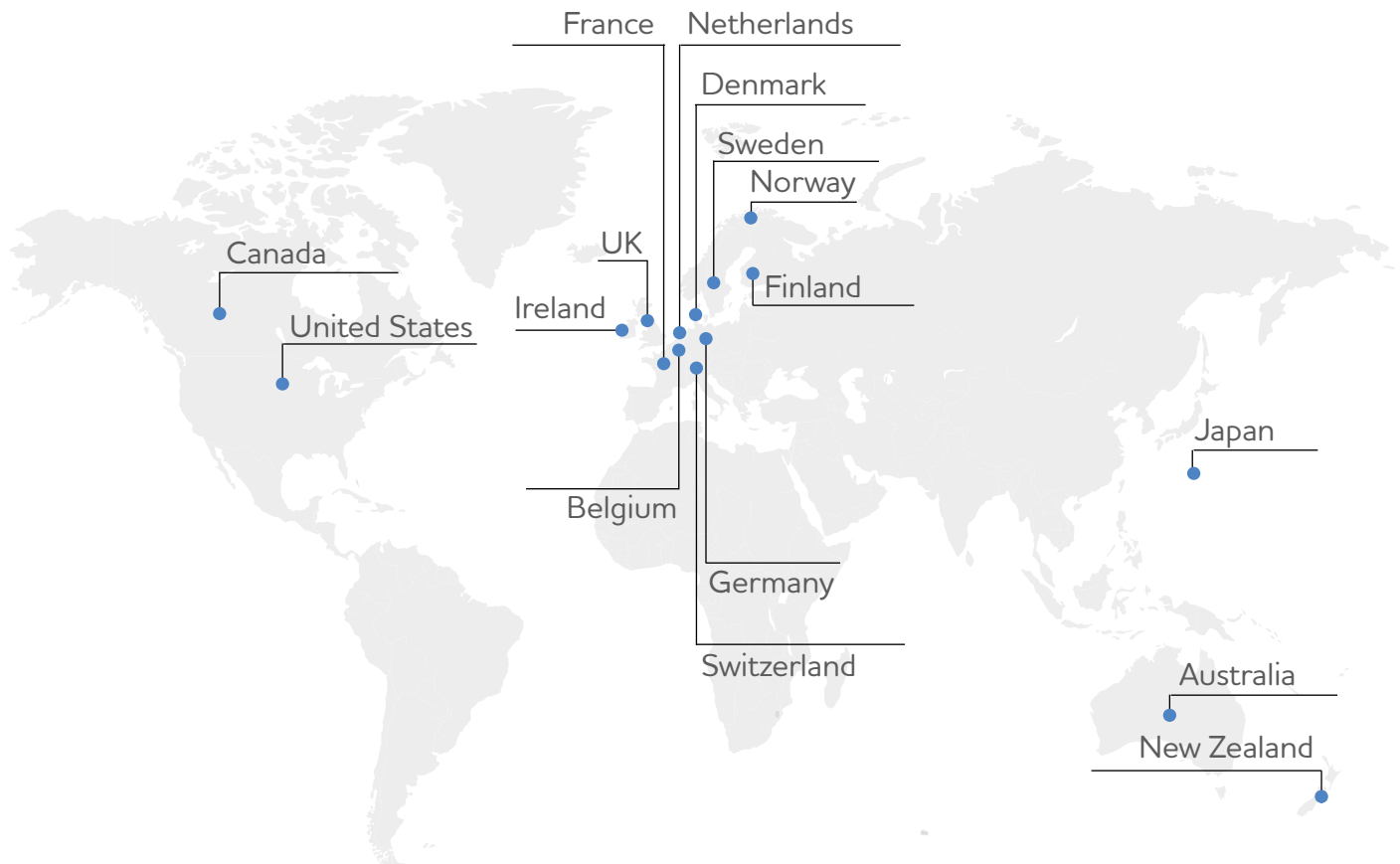


EV Consumer Adopters

Consumer Adopters
"the Shoppers" (n=233)

The general consumer population (at least 18 years old) who choose to purchase or use electric vehicles

Country representation



Executive champions

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About the study

Driven by TCS Manufacturing, the TCS Future-Ready eMobility Study 2025 explores how essential stakeholder segments in the EV ecosystem are navigating the electric mobility transition. Between August - September 2024, the TCS Thought Leadership Institute conducted a multi-segment 60-question survey of 1,308 respondents representing EV manufacturers, charging infrastructure builders, commercial EV fleet adopters, consumer EV shoppers, and EV influencers from across 18 countries and 12 industries.

Some data presented will not add up to one hundred percent due to rounding, and not every answer is included in the findings reported.

Since 2009, the [TCS Thought Leadership Institute](#) has initiated conversations by and for executives to advance the purpose-driven enterprise. Led by Serge Perignon, the Thought Leadership Institute conducts primary research to deliver forward-looking and practical insights around key business issues to help organizations achieve long-term, sustainable growth. For more information, visit tcs.com/insights/global-studies

TCS Future-Ready Mobility

As the world accelerates toward electric mobility, TCS is committed to enabling manufacturers and other EV stakeholders to navigate the evolving landscape and thrive in this defining era. Our future-ready mobility vision is rooted in technological innovation, strategic collaboration, and deep domain expertise.

TCS drives transformative change across the mobility value chain, spanning vehicle design and development, gigafactory planning and execution, digital platform enablement, deployment of generative AI solutions, and hyper-personalized customer experiences. With a focus on driving sustainable mobility and delivering measurable value, TCS partners with customers to shape a bold and sustainable future. For more information, visit: tcs.com/what-we-do/industries/manufacturing

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Tata Consultancy Services is an IT services, consulting and business solutions organization that has been partnering with many of the world's largest businesses in their transformation journeys for over 56 years. Its consulting-led, cognitive powered, portfolio of business, technology and engineering services and solutions is delivered through its unique Location Independent Agile™ delivery model, recognized as a benchmark of excellence in software development.

A part of the Tata group, India's largest multinational business group, TCS has over 601,000 of the world's best-trained consultants in 55 countries. The company generated consolidated revenues of US \$29 billion in the fiscal year ended March 31, 2024, and is listed on the BSE and the NSE in India. TCS' proactive stance on climate change and award winning work with communities across the world have earned it a place in leading sustainability indices such as the MSCI Global Sustainability Index and the FTSE4Good Emerging Index. For more information, visit www.tcs.com