A blue electric car is parked at a yellow charging station at dusk. The car is on the right side of the frame, and the charging station is on the left. The background shows a blurred landscape with mountains and a sky transitioning from blue to orange. The charging station has two yellow pillars and a charging cable plugged into the car.

# How to retake the momentum in the EV transition



Shape the future  
with confidence

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After several years accelerating down the transition highway, electric vehicle (EV) demand has recently hit a plateau in some major markets, including the US and much of Western Europe. The slowdown has several causes, including geopolitical and economic factors that original equipment manufacturers (OEMs) and dealers cannot control. But one significant aspect that is well within the industry's grasp is how to respond to evolving consumer attitudes toward EVs, attitudes that are fed by growing real-world experience of what is still for many potential car buyers a relatively new technology.

The excitement for EVs that initially drove sales in several markets has waned, hype turning to a degree of disillusionment as consumers confront practical issues like affordability, inadequate charging infrastructure and questions over battery longevity. And Western manufacturers in particular have been slow to recognize that the next phase of growth will be driven not by early adopters but by mainstream consumers, who in turn will require EVs that prioritize value as well as premium features.

What was previously a relatively well-synchronized global growth story has also become a much more nuanced regional picture. Government incentives that previously spurred EV sales have been reduced – or withdrawn altogether – in some markets, while inconsistent and uncertain policies such as changing internal combustion engine (ICE) phase-out target dates may have deterred buyers who might otherwise have been ready to make the EV switch.

Consequently, overall EV market growth (hybrid, plug-in hybrid (PHEV) and battery electric vehicle (BEV)) slowed from 37% year on year in 2022 to 29.7% in 2023, according to GlobalData. A further decline to approximately 22% is anticipated in 2024, before a modest rebound in 2025 up to approximately 23%. Focus on BEVs alone and the picture is even more striking – sales growth halved from 65% in 2022 to 32% in

2023. The figure for the first half of 2024 stands at 9.6% and growth is expected to recover somewhat to 15% in 2024 and 28% by the end of 2025.

Several factors are driving this consumer hesitancy for BEVs in particular, including a lack of affordable models, range anxiety, charging time, poor availability of charging infrastructure, fear of high maintenance costs and concerns over resale value. Of these factors, the slow rollout of charging infrastructure has emerged as one of the top causes of EV hesitancy among car buyers.

For OEMs, suppliers and dealers alike, this leads inevitably to the big questions of 2024 and beyond:

- ▶ Is this EV demand plateau a blip or a systemic slowdown?
- ▶ What are the root causes? Are they addressable?
- ▶ How can the industry get EV sales back on an upward trajectory?

The 2024 EY Mobility Consumer Index (MCI) survey offers valuable insights into the answers. Now in its fifth year, the MCI survey assesses the attitudes of 19,000 consumers in 28 countries, providing informed perspectives on their buying intentions, key concerns and levels of “EV mindedness,” as well as the evolving global EV landscape.







## Chapter 1

# Overall demand up, but EVs trail the field in key markets

EVs face a challenging race, with regional disparities and consumer concerns affecting their market pace.





Analysis of MCI data suggests that while the EV slowdown is real, it is a blip rather than a systemic change. Overall car-buying intentions are at a historic high of 51%, up 7% year on year, with 62% of those surveyed intending to buy a car within 12 months.

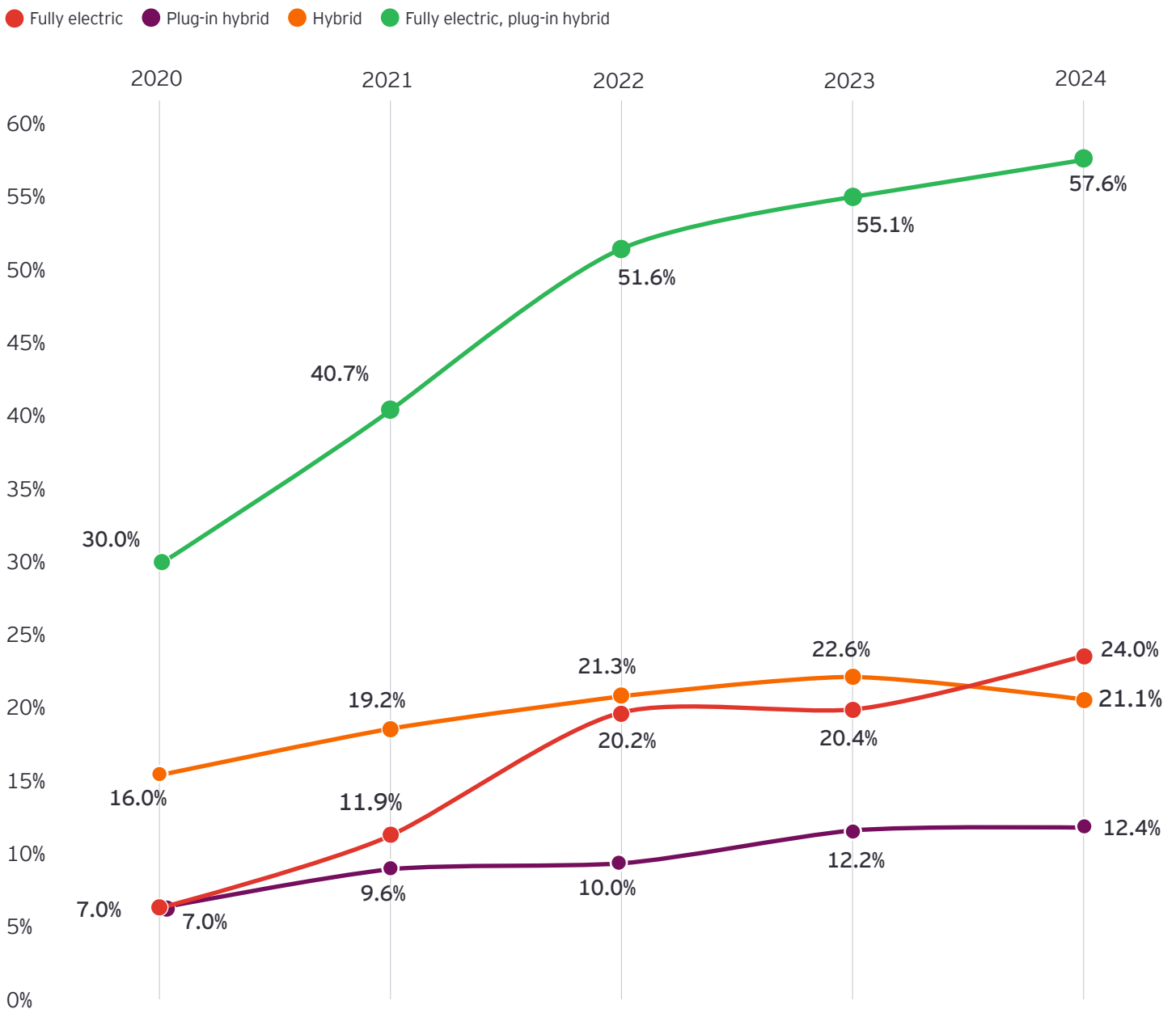
And globally, buyer interest in EVs also remains high – 58% of car buyers said they intend to buy a fully electric, plug-in

hybrid or hybrid vehicle rather than an ICE car, up from 55% last year. BEV sales continue to climb in absolute terms, albeit more slowly than before, from 7.4 million in 2022 to a projected 11.2 million in 2024, according to GlobalData.

However, these overall numbers disguise significant declines in key markets – the US, Canada and Japan in particular – as well as flatlining EV demand across much of Western Europe.

## How EV preferences have changes compared with previous surveys

Hover over the circles in the visual for details



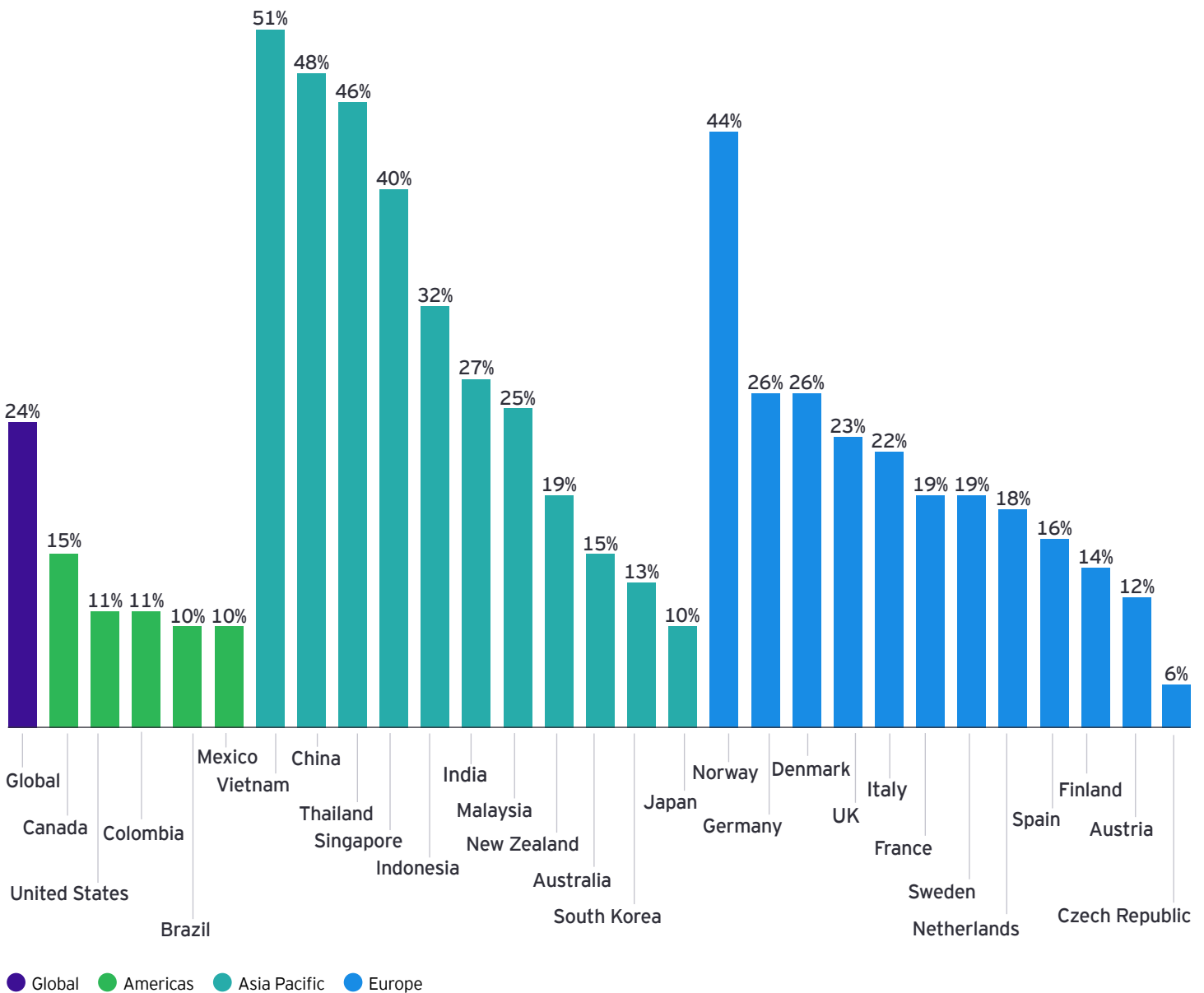
Note: Figures indicate percentage of potential car buyers considering an EV purchase.

## Big disparities in regional EV buying intent

Regional variations are stark, reflecting both differing levels of market maturity and differing national priorities and policies toward EVs. BEV purchase intent decreased by 10% or more in the US, South Korea and Austria compared with the last MCI survey, correlating with a drop in sales of 10.6%, 18% and 9.8%, respectively, between the second half of 2023 and the first half of 2024.

By contrast, purchase intent in China, Singapore and France increased by over 8%, perhaps influenced respectively by an ongoing EV price war in China, the accelerated deployment of public charging infrastructure in parts of Singapore and subsidies for EU-made EVs in France.

## Fully electric car (BEV) buying intent



% share of prospective car buyers intending to buy a fully electric car (BEV)

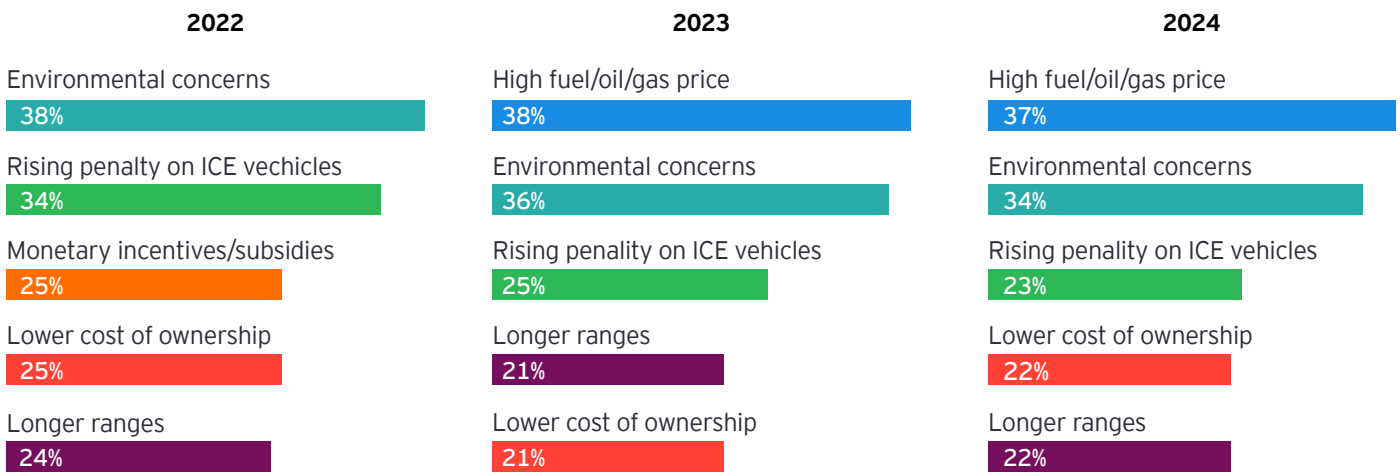


## Undercurrents of slowing demand

EVs are at a transition point in terms of buyers. Sales powered by well-heeled, early-adopter EV enthusiasts – for whom the technological novelty and green credentials were reason enough to pay a premium – have peaked. Sales to more mainstream consumers – who also want to help the environment but rate affordability and value more highly – have yet to take off.

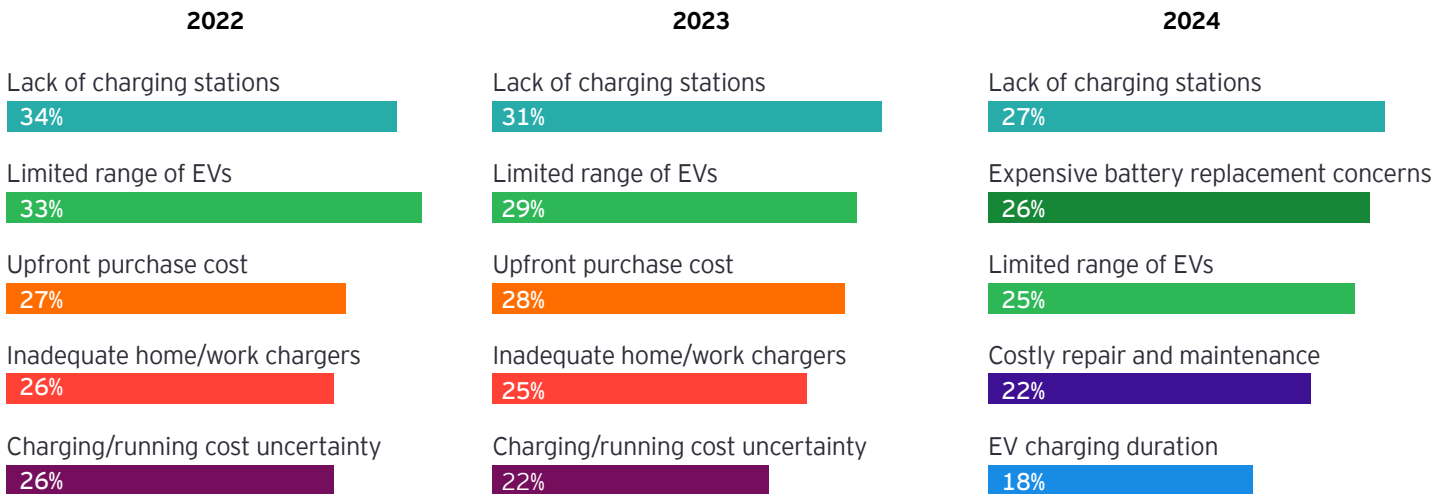
In the top three concerns of both EV owners and those considering an EV, persistent worries over range and unsatisfactory public charging infrastructure have been joined this year by fears over the potential cost of battery replacement. While few EVs have required total battery replacement to date, the potential for big bills down the line as EVs age is increasingly on buyers' minds, as is the impact on resale values and financing costs.

## Key motivators for EV purchase decision



**Note:** Figures indicate sum of the top three ranks of the share of responses per category.

## Key concerns about EV



**Note:** Figures indicate sum of the top three ranks of the share of responses per category.

## Charging experience falls very flat ...

Charging infrastructure, and the associated fear of being left stranded with an empty battery, is the most significant barrier to mainstream consumer adoption globally. As the MCI data shows, consumers increasingly want an ICE-type refueling experience for their EV – any time, anywhere and complete in under five minutes. What they currently get falls a long way short of that expectation: limited charging locations with interoperability issues, broken or blocked chargers, a lack of joined-up information about real-time availability and 40-minute-plus charge times.

When it comes to charging at home, consumers increasingly prioritize bundled packages, including vehicle-to-grid (V2G) technology, solar panel integration and subscription models, for their convenience and cost-effectiveness.

Consumer expectations of required range vs. actual usage remain disconnected, perhaps conditioned by ICE experience. The MCI data finds that 80% of global consumers prefer EVs with a 200-mile-plus range, despite 80% of them also driving daily commuting distances of less than 12 miles.

## Desired attributes in charging infrastructure

### Home charging

#### Speed of charging



#### Bundled home energy solutions



#### Electricity supply for home usage



#### Electricity back to the grid



#### Incentives or variable energy rates



### Public charging

#### Speed of charging



#### Affordable charging



#### Convenient charging location



#### Minimal waiting time



#### Security/safety-related aspects





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### ... and model availability doesn't stack up

The need to transition to more mainstream consumers also has consequences for the range and availability of EV models. Just as not everyone buys the latest smartphone iteration, the kind of car that attracts EV enthusiasts is unlikely to win over the mass-market buyer. For example, SUVs are the most popular vehicle choice in the US market, but there is a limited selection of EVs available in that body style.

### EV affordability needs to be addressed

Seventy percent of global BEV sales in 2023 were within the large and premium car segments, reflecting the fact that EVs

remain a premium purchase in the eyes of many consumers. Mainstream car buyers are constrained by their budget and highly value affordability and certainty over costs. They are put off by the high purchase price of EVs and by uncertainty over resale values, as well as the prospect of big-ticket maintenance bills such as battery replacement.

But as the MCI data reveals, they also desire the same premium experience that the initial wave of EV owners have enjoyed, particularly in terms of connected car features. So, while making EVs more affordable is key to escaping the sales plateau, that affordability cannot come at the cost of a first-rate experience for the buyer.



## The China challenge

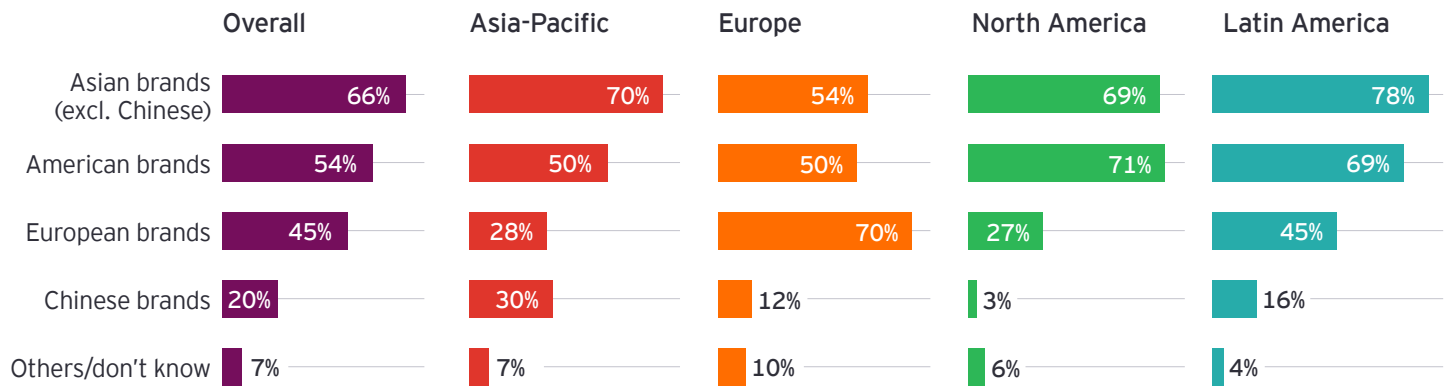
To date, the one group of OEMs that have seemingly cracked the code on offering a premium experience at an affordable price are those in China. Chinese automakers have a wider range of models and body styles at competitive prices relative to ICE vehicles and have begun making inroads in Western Europe as well as the emerging markets across Asia-Pacific and Latin America. Chinese brands accounted for 7.6% of BEV sales in the EU in 2023, up from 2% in 2020.\*

In response, some governments (notably in the EU and US) have been implementing trade policies designed to protect

local interests. US tariffs on imported Chinese EVs now stand at 100%, up from 25% previously, for example. And in the EU, provisional tariffs of from 9.0% to 36.3% are set to be added to the existing 10% duty on BEV imports from China.

Affordable, available and high spec they may be, but these newcomers do have headwinds of their own to overcome. Chinese EV brands are much less well known in Western markets and do not enjoy the same level of consumer trust as established brands around after-sales service and residual values in particular.

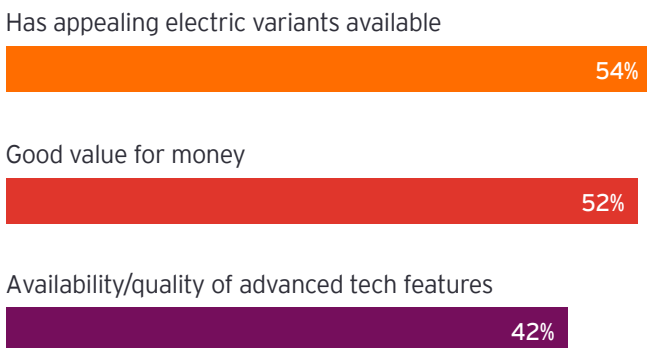
## EV brand preferences by brand region



% share of respondents having an EV brand belonging to a particular region in their top three preferences

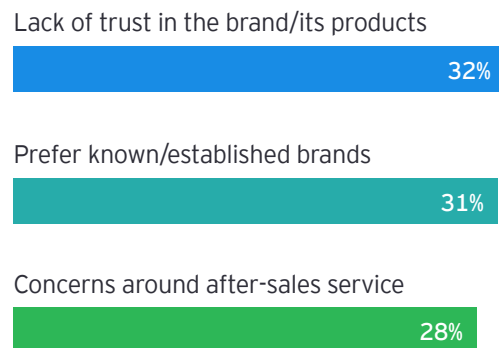
## Key factors influencing preference for Chinese EV brands

### Factors driving preference for Chinese brands



% share of respondents

### Factors inhibiting preference for Chinese brands



\*ACEA – Fact sheet: EU-China vehicle trade – ACEA – European Automobile Manufacturers' Association.





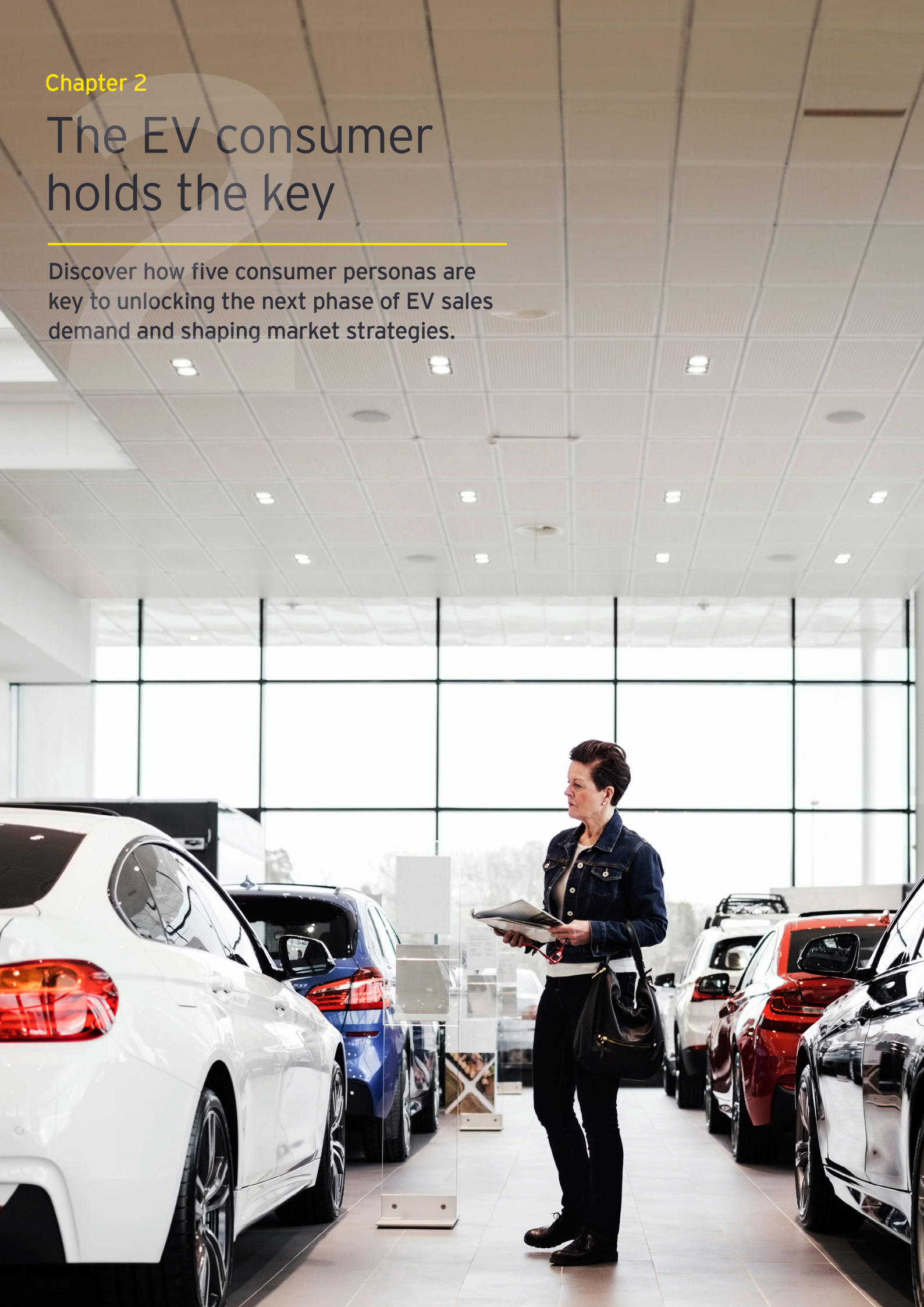


## Chapter 2

# The EV consumer holds the key

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Discover how five consumer personas are key to unlocking the next phase of EV sales demand and shaping market strategies.

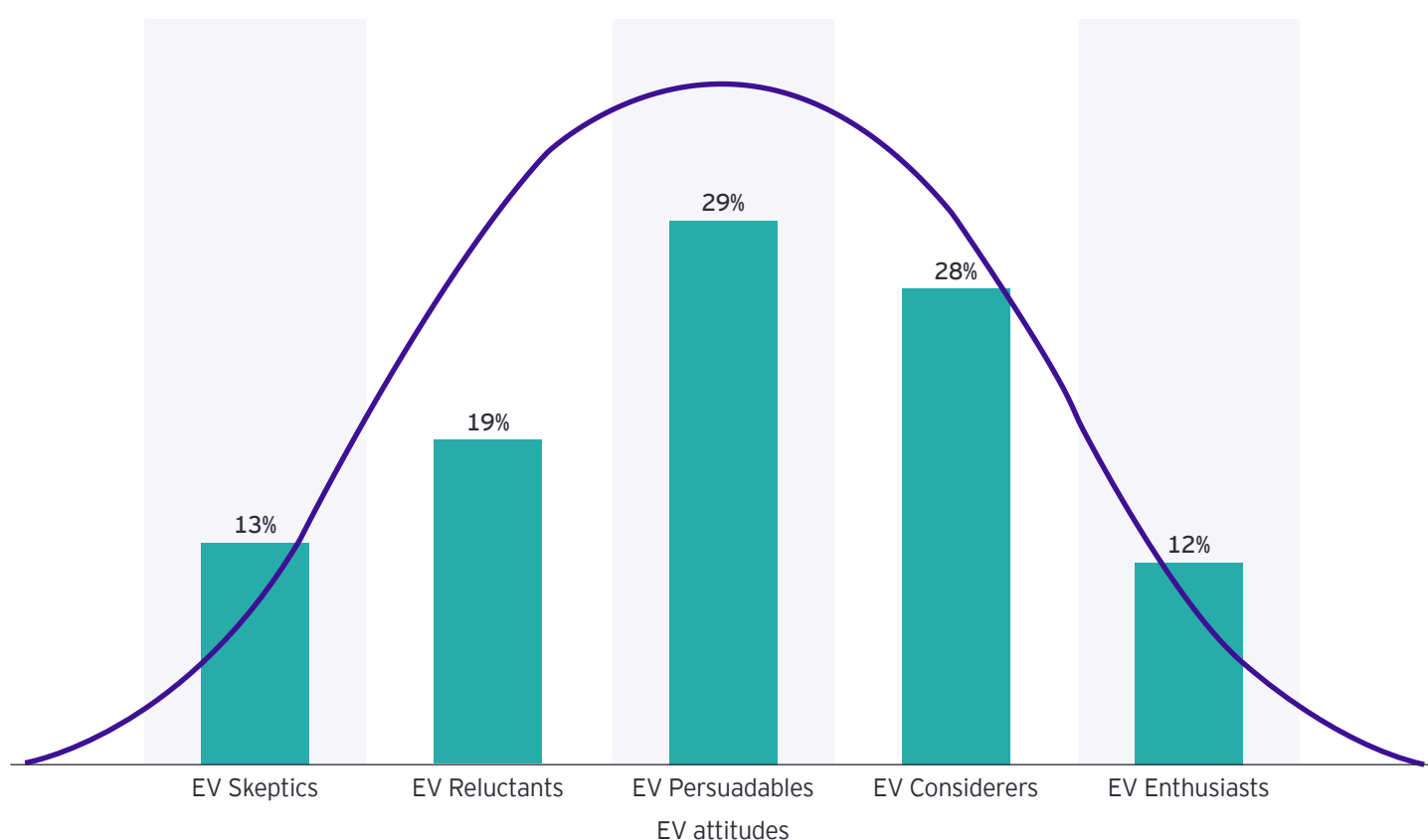


What can the industry players do to embrace evolving consumer attitudes and unlock the next phase of EV demand? To address this challenge, an EY team used MCI data to identify five global consumer personas. These five personas occupy a spectrum of EV attitudes from Skeptics at one end to Enthusiasts at the other. In between lie the Reluctants, Persuadables and Considerers. Each persona has its own level of tolerance and interest in EVs, and its own hot buttons as far as EV ownership is concerned.

This year's MCI data suggest that consumers are becoming more certain of their preferences as compared with 2023, the first year in which the persona analysis was conducted. Consequently, it's more likely that successful OEMs and dealers will be those who "win at the margins" – first by understanding the range of consumer attitudes across the EV spectrum, and then by addressing each of the five groups on their own terms.

## Consumer segments based on attitudes towards EVs

The normal distribution curve



% share of respondents

The first lesson that emerges from this analysis is that the middle ground holds the key. Sales for EV Enthusiasts (the most affluent and least risk-averse group) have crested; the challenge now is breaking through the EV resistance barrier for the other persona groups.

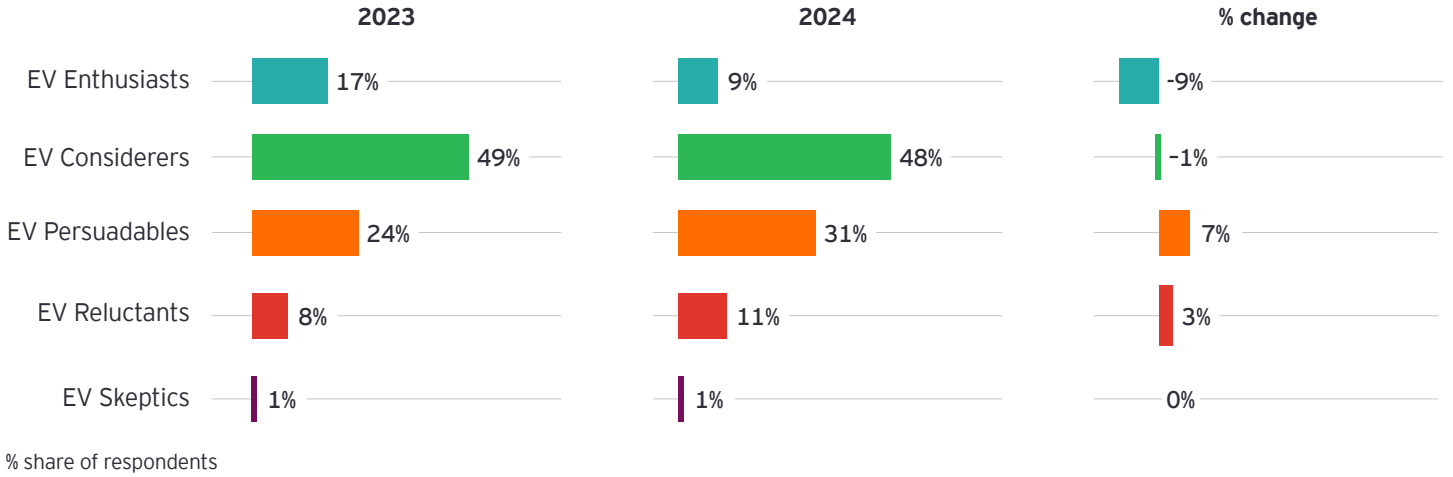
EV Considerers and Persuadables are on the cusp of making the jump to an EV, but they are hesitating. Considerers are the more affluent of the two groups and more inclined to choose

a premium or luxury EV. Persuadables are more middle-income and thus more likely to choose a mid-market model. But neither Persuadables nor Considerers buy on purchase price alone, and they expect more than just parity with ICE cars in terms of value. The overall value proposition of an EV must be greater than that of the equivalent ICE before these consumers make the change.

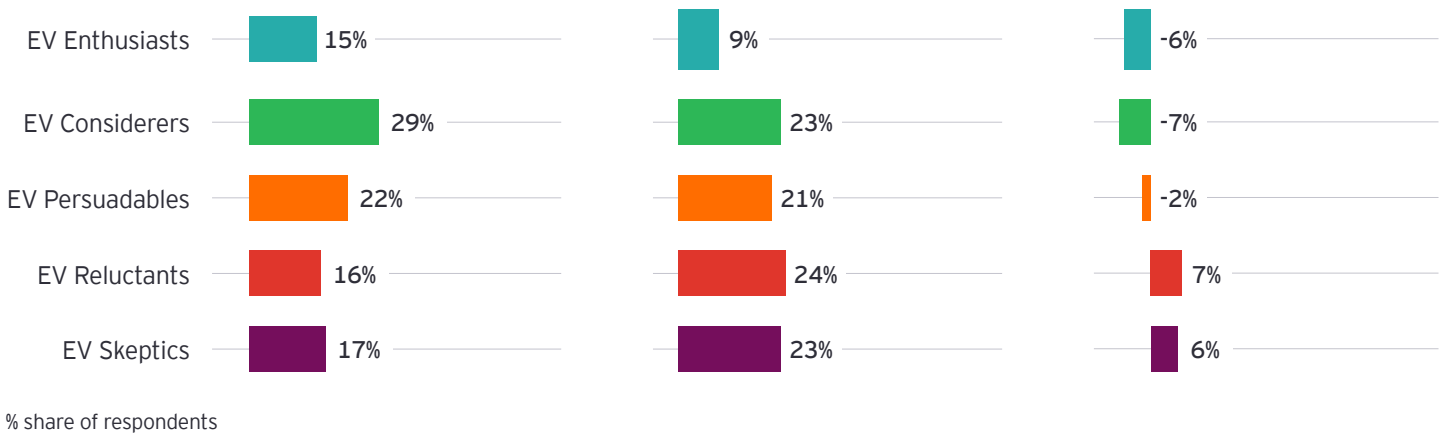


# Does consistent policy breed more positive attitudes?

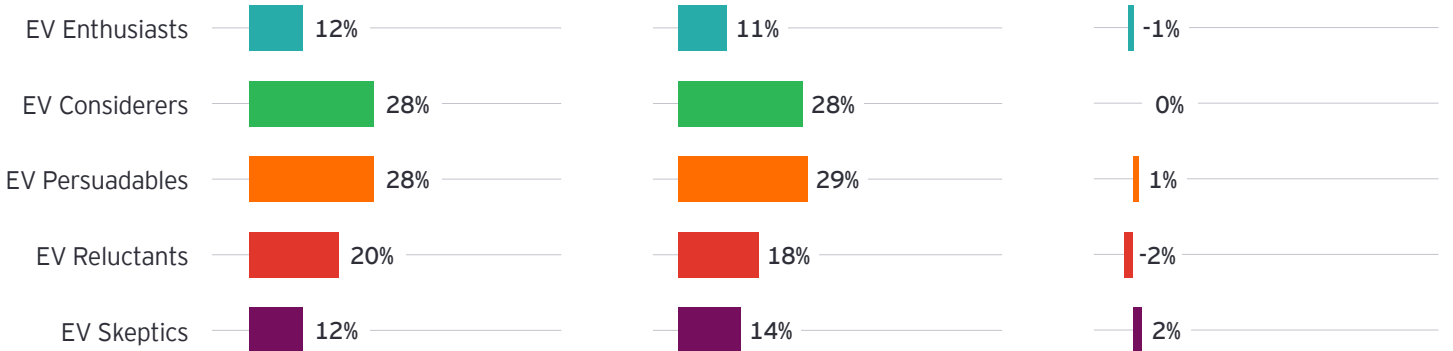
## Consumer segments – China



## Consumer segments – the US



## Consumer segments – Europe 5



% share of respondents; Europe 5: includes G5 countries - Germany, France, Spain, Italy, the UK

Once fairly uniform, EV positivity among consumers is growing in countries with a more consistent policy approach and shrinking in those where policies have been more changeable. China was home to the largest proportion of Enthusiasts, Persuadables and Considerers in 2024, while attitudes in the US have gone into reverse, with more Skeptics and Reluctants this year than in 2023. Europe – as represented by the five largest EU markets – occupies the middle ground, with the proportions of the five persona groups remaining relatively stable by comparison.

This diversity could simply reflect different levels of market maturity, but it also tracks consistency of government policy toward the EV transition: notably more stable over the long term in China than in the US or Europe, where a degree of weathercocking has dogged progress. The MCI analysis suggests that a consistent set of policies in China is fostering EV-mindedness in that country, while inconsistency is harming it in US and European markets.

## Consumers value connectivity

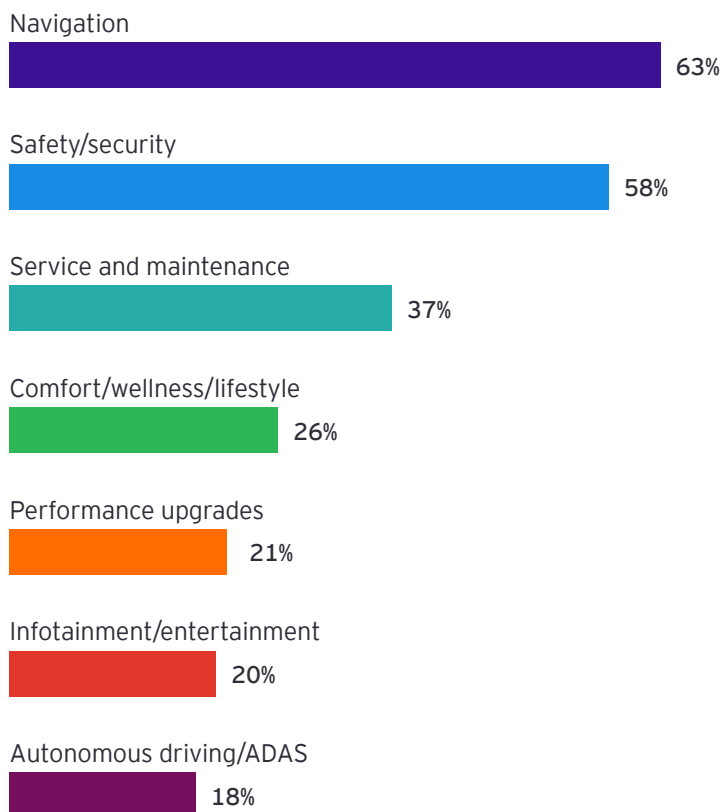
The MCI data suggests that connected car services could be the source of an enhanced EV value proposition that will spur hesitant middle ground Persuadables and Considerers into action. Connected car services around navigation, safety and security are seen as a central part of a premium experience and are valued highly by consumers.

While data privacy concerns and perceptions of high costs deter many consumers, the survey suggests that these concerns can be substantially alleviated using incentives to access strong latent demand for connected services.

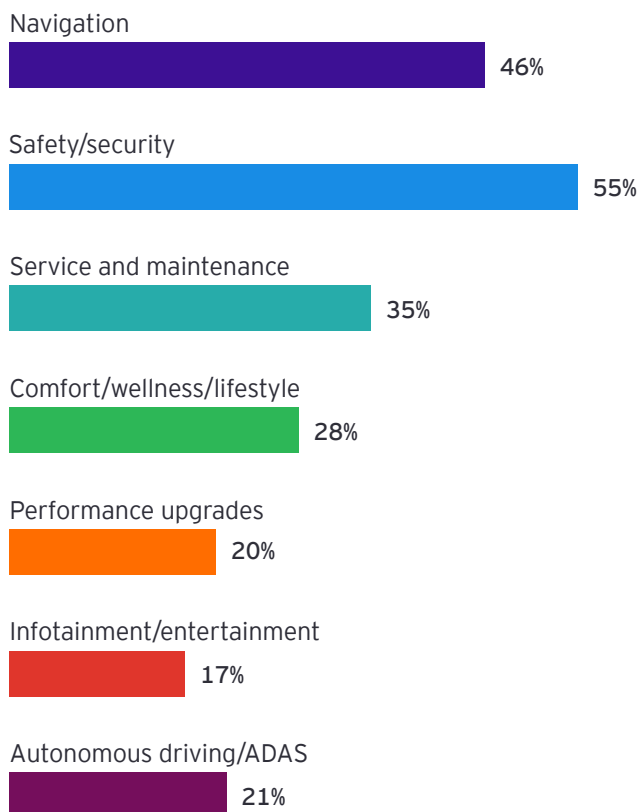
To optimize the perceived value of EVs and drive monetization, OEMs and dealers should consider positioning EVs as the connected choice by offering standard packages of connected services that are one or two segments higher than the equivalent ICE vehicle.

## Connected car feature preferences

### Willingness to use

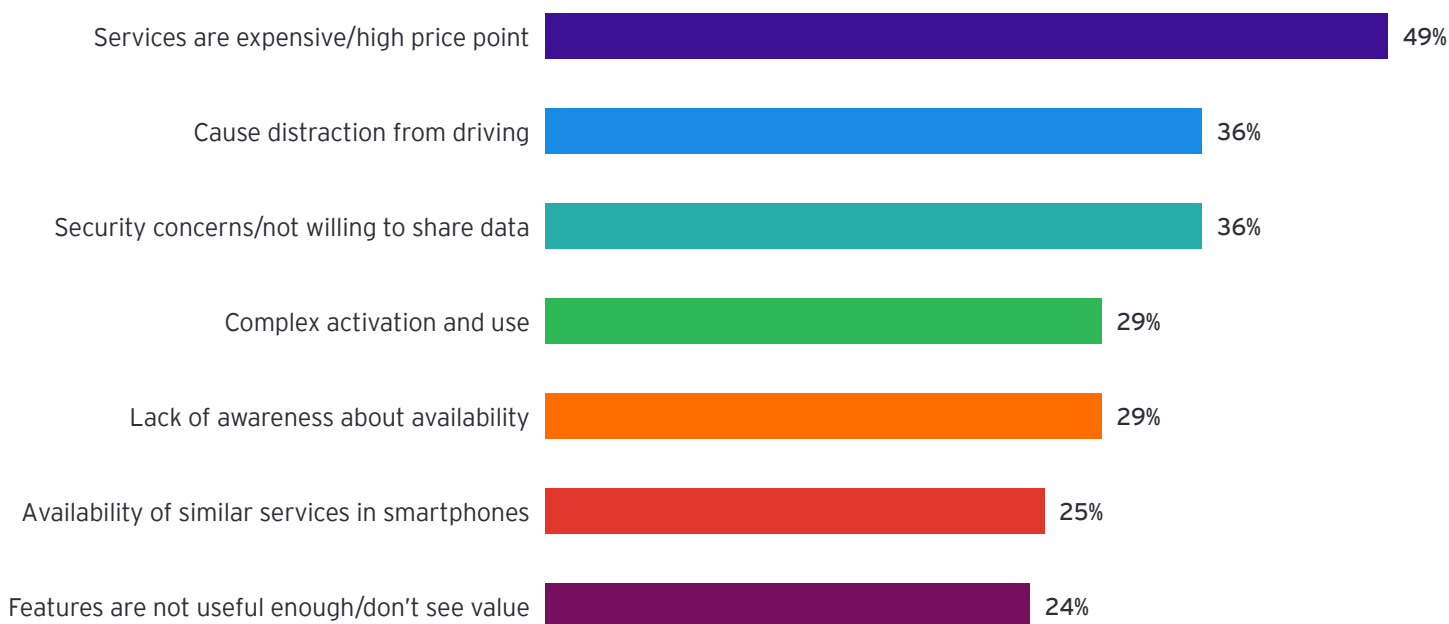


### Willingness to pay



% share of respondents

## Key pain points related to connected car features



% share of respondents

### The hybrid bridge

Much to the surprise of many automakers, hybrid EVs have emerged as a popular halfway choice for consumers unwilling to make the change from ICE to full EV in a single bound. Hybrids and plug-in hybrids drive adoption among those who might otherwise not make the switch by limiting the perceived risks of full BEVs and obviating concerns over charging infrastructure in particular.

The survey shows that hybrid technology has formed a valuable bridge that simultaneously helps more consumers cross the ICE/EV divide while offering OEMs a route off the sales plateau and back into double-digit growth.

In the longer term, however, improvements in battery technology, charging experience and affordability are expected ultimately to favor BEV sales growth over hybrids.







## Chapter 3

# Winning the EV race

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Overcome the EV sales plateau by meeting diverse consumer needs and enhancing the electric driving experience.





The overriding lesson of the latest MCI data is that the EV sales slowdown is a multi-factor issue – there are many different types of consumers with their own specific concerns, and they are all influenced by a wide range of factors, only some of which OEMs and dealers can influence.

Consumers are also becoming more certain about their attitudes to EVs. Sentiment is not as dire as it has sometimes been painted, but there is still a gap between intent and action.

A dual strategy is required, one that bolsters buying intentions and then translates those intentions into actual sales.

Set against this background, unlocking the next wave of EV sales growth is not about the search for a non-existent magic bullet; it is about meeting key consumer groups on their own terms, understanding their particular needs and motivations, and addressing them.

Here's how OEMs and dealers can do that:

- ▶ Lack of charging infrastructure is creating a negative perception of EVs. More plentiful chargers and a better charging experience are essential to the success of EVs. Substantial investments have been made, but charging infrastructure is still falling short of consumer expectations. Government and industry need to switch to prioritizing charging even more highly than incentives on vehicle purchases.
- ▶ Aim for a premium EV experience, but not at a premium price. Mainstream car buyers can be persuaded to switch to EVs if they are given options that are affordable but not cheap, and that offer a premium experience across all stages of the customer journey.
- ▶ Make EVs the “connected choice.” Consumers value connected car services highly, regardless of powertrain. If EVs offering a wider range of connected services are perceived as the “connected choice,” consumers will be more likely to choose an EV.
- ▶ Focus on value. Provide a greater variety of EV models and options at a wider range of price points. Offer features and in-car experiences on EVs that are one or two segments above those of equivalent ICE offerings.
- ▶ Provide EV drive and charge experiences. Extended test drives (24-hour/48-hour) with convenient home delivery and collection services can offer extended opportunities to help consumers experience EVs, potentially enhancing the customer experience.
- ▶ Offer comprehensive vehicle service contracts, extended warranties and guaranteed asset protection (GAP) insurance to help mitigate depreciation concerns, enhancing EV reliability. Extending such offerings to second-hand vehicles through certified pre-owned programs can further bolster resale value and mainstream adoption of EVs.
- ▶ Build business models around battery-as-a-service. Scaling battery leasing or subscription models, which allows consumers to separate the cost of the battery from the vehicle purchase, reduces up-front costs and alleviates concerns about long-term battery replacement expenses.

## Summary

The EY Mobility Consumer Index reveals that while overall car buying intentions are high, EV growth has slowed, with significant regional disparities. To boost EV sales, the industry must address charging infrastructure, offer value and enhance the EV experience, including connected services and diverse model availability.





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