



ON Road

The Quiet Electric
Car Revolution





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Introduction

It's time to learn about what really matters to electric vehicle (EV) drivers. Increased affordability and reliability have helped EV adoption to rise to 20% of global new car sales in 2024*. But there's more benefits to driving an EV car to explore, and this report is about the emotional drivers of EV ownership.

We live in an age when the romance of the road can be drowned out by congestion, time pressures, and the everyday realities of driving. Yet that's not happening to EV drivers.

Working with our research partner, Crowd DNA, we commissioned a detailed survey that included 3,000 people in China, Germany, and the US, conducted drive-alongs and consulted with highly regarded auto experts (see [page 34](#) for full Research Methodology). The research tells us that electric cars are certainly not just about getting from A to B, and feelings about EVs are fundamentally different from those of ICE (Internal Combustion Engine) cars.

In this report, you will get to know all about the relationship between EV drivers and their cars: how the quiet acceleration of their EV helps the driver feel calm, how the instant torque and smart tech give them a strong sense of control, and the joy of the cabins that are often considered a 'third space' - for work, rest, and connection.

Research like this can help us tap into these emotional motivations and help our industry do everything it can to keep on harnessing the immense potential of the EV market now, and into the future.

Welcome to going ON Road with the electric driver...

* The International Energy Agency (IEA) Global Outlook Report 2025.

**Of survey respondents, comprising an audience of EV considerers and owners.

A6. And now, looking at the following statements about electric vehicles specifically, please tell us how much you agree or disagree with how they reflect your feelings towards electric vehicles. Base: All respondents (3,000)

The future of driving

84%
of people** believe EVs are the future of driving.^[A6]

4 in 5
people feel driving an EV makes a positive statement about them.^[A6]

To bring the EV driving experience to life, we used photos captured with participants during the research in this report.

The Joy of the Journey

The biggest lure factors of EV ownership

In this report, we examine how people think and feel about electric vehicles, offering insights into these key motivations for both EV owners and considerers (Hybrid and ICE car owners).

Our study identified five key lure factors shaping the EV driving experience:

1

Tranquility

2

Performance
& Control

3

Tech
Forwardness

4

Identity

5

Superior Cabin
Experience

+

We also heard about three desirable extra benefits that are valued highly and make driving an EV feel truly different:

Personalisation

Maintenance

Local Brand Love

1 Tranquillity



Why EV drivers are falling for the tranquillity of the road

There is a moment, familiar to many EV owners, when the car simply glides forward - with a smooth, seamless movement.

For Dirk, a 58-year-old driver from Hamburg, that moment has transformed his daily experience behind the wheel of his VW ID.7. *"What I like most about my EV is actually the silent driving,"* he says. *"It's like floating. I'm past the age where everything needs to go vroom vroom vroom - it's unnecessary. And it's a very comfortable way to drive. The car does exactly what you tell it to with your foot."*

This is an understated, yet potent lure of electric vehicles. In the past, driving promised freedom. Today, EVs are promising something rarer: peace. For a generation balancing the demands of work, family, and technology, this may be the most compelling reason to make the switch.

A car that calms

For decades, cars have been marketed as tools of adventure, adrenaline, and speed. Yet today, in a world of mounting noise - both literal and metaphorical - EVs are carving out a new role. Our research highlighted that they are often seen as sanctuaries, and this emotional benefit can be the new focus through which adoption is accelerated.

Jenny, a 39-year-old VW ID.4 owner from Hamburg, feels her car is a place of calm and describes a relaxed driving experience that feels like floating.

Wu, 43, who lives in Shenzhen, echoes this sentiment, saying: *"It's very quiet. Whether I'm stepping on the accelerator or brake, there's not much noise."*

This floating sensation is a product of engineering: no gear changes, no engine growl, and, in many models, refined cabin insulation. But it taps into something far deeper, and that's the growing desire for stillness. In a culture of constant digital distraction and urban congestion, drivers are beginning to see their cars as a place of refuge.



A space to retreat and recover
Top: Wu, 43, Shenzhen
Bottom and Left: Jan, 58, Hamburg

B1a. Can you tell us how knowledgeable you feel about each of these features? [Functional / performance].
Base: EV considerers (1,314)

B4a. Looking at all of the features we have just shown you, please tell us how appealing you find each one?
Base: EV considerers (1,314)

B11. How satisfied are you with the following aspects of your experience with your electric vehicle?
Base: EV owners (1,686)

1 Tranquillity

Tranquillity is a significant lure factor for EV adoption

The quiet driving experience ranked as the number-one functional feature that EV considerers are aware of in EVs, outpacing instant acceleration (82%) and even automatic software updates (80%).^[B1a]

#1 functional feature known by EV considerers is the quiet driving experience.^[B1a]

81% of EV considerers identify the quiet driving experience as a top-appeal feature.^[B4a]

83% of EV owners express satisfaction with the quiet driving experience.^[B11]



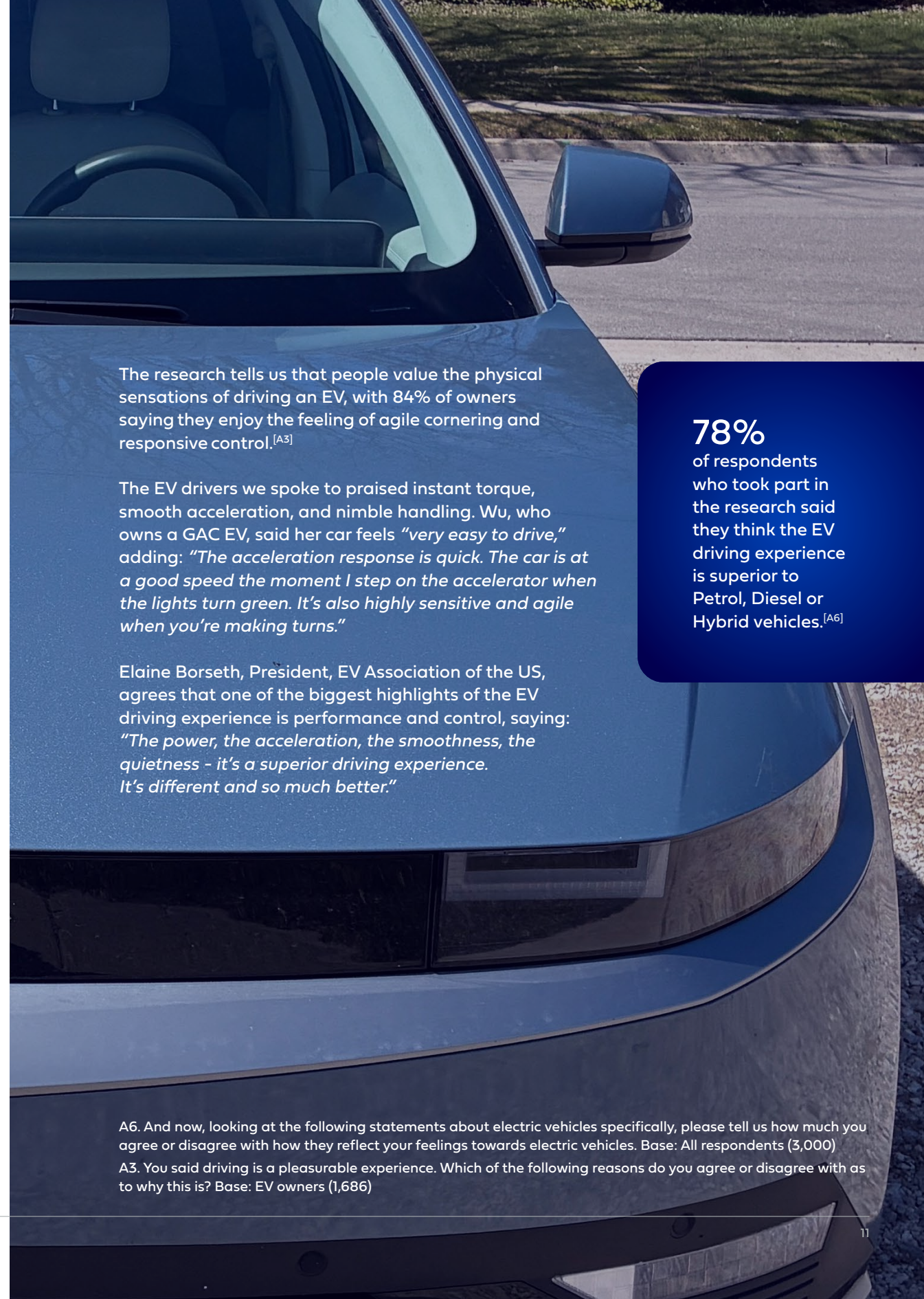
Tech to assist. Above: Jan, 58, Hamburg

2

Performance and Control

The physical feeling

Yes, serenity and calm are important. But people also underscored that a key advantage of EVs is how they perform on the road. When compared to ICE vehicles, our research indicated that EVs are perceived more favourably in terms of performance and control.



The research tells us that people value the physical sensations of driving an EV, with 84% of owners saying they enjoy the feeling of agile cornering and responsive control.^[A3]

The EV drivers we spoke to praised instant torque, smooth acceleration, and nimble handling. Wu, who owns a GAC EV, said her car feels “very easy to drive,” adding: “The acceleration response is quick. The car is at a good speed the moment I step on the accelerator when the lights turn green. It’s also highly sensitive and agile when you’re making turns.”

Elaine Borseth, President, EV Association of the US, agrees that one of the biggest highlights of the EV driving experience is performance and control, saying: “The power, the acceleration, the smoothness, the quietness - it’s a superior driving experience. It’s different and so much better.”

78%
of respondents who took part in the research said they think the EV driving experience is superior to Petrol, Diesel or Hybrid vehicles.^[A6]

A6. And now, looking at the following statements about electric vehicles specifically, please tell us how much you agree or disagree with how they reflect your feelings towards electric vehicles. Base: All respondents (3,000)

A3. You said driving is a pleasurable experience. Which of the following reasons do you agree or disagree with as to why this is? Base: EV owners (1,686)

Control when it matters

As you would expect, drivers in every market still want to have that sense of control behind the wheel. But control is confidence, as well. So, they appreciate a little help with the use of smart driver-assist technologies. It's not about doing away with driving ability but benefitting from the extra support, particularly in high-stress conditions like city congestion or motorway driving.

So, driving an EV means having both high-performance capability and intelligent assistance. While drivers can enjoy the performance and control of an electric car - thus, the pure joy of driving - they can be confident that it will also assist when necessary.

As Borseth says, it's important to understand this merger of performance and control. *"For people who still want to feel in command, it's not about replacing control - it's about enhancing it."*

53%
of respondents prefer to maintain full manual control of the vehicle at all times compared to...

32%
who feel comfortable with driver assistance taking control in certain situations.^[A2]



Helpful intel
Above: Zheng, 44, Shenzhen



2 Performance and Control

80%
agree their car is one of the few places where they feel completely in control.^[A3]

64%
of respondents associate EVs with powerful performance - 10 percentage points more than Hybrid vehicles and 16 points more than ICE vehicles.^[A5]

71%
of respondents say EVs are exciting to drive - 19 percentage points more than Hybrid vehicles and 24 points higher than ICE vehicles.^[A5]

Tech to enhance control
Top: Li, 36, Shenzhen
Bottom: Evan, 51, Detroit

A2. We are now going to show you a series of statements that relate to your driving experience. For each pair of statements, please use the sliding scale to tell us which statement most closely reflects your current / expected experience with driving. Base: All respondents (3,000)

A3. You said driving is a pleasurable experience. Which of the following reasons do you agree or disagree with as to why this is? Base: All respondents (3,000)

A5. Looking at the following statements, please select which vehicle type(s) you think the statement applies to. Base: All respondents (3,000)



Charging up to drive or play
Above: Zheng, 44, Shenzhen



Tech Forward

Charging ahead

We know that software plays an increasingly dominant role in today's cars - whether through features like Sat-Nav, voice control and connectivity, or through physical systems like cruise control. It doesn't take a great leap of imagination to envision your car booking dinner or reserving a parking spot soon.

But electric vehicles are racing ahead, firmly embedded in the tech landscape in a way ICE vehicles are not. After all, a driver begins to navigate their EV's technology from the very first charge.

Being tech forward is listed as one of the top considerations for EV purchase among all respondents.^[A11]



So unsurprisingly, unlike ICE or even Hybrid vehicles, the research tells us that EVs are associated with being 'future proof', and this is a powerful purchase driver. Among the respondents surveyed, 74% associated EVs with being 'future proof' - leaving Hybrid (50%) and ICE (34%) far behind.^[A5]

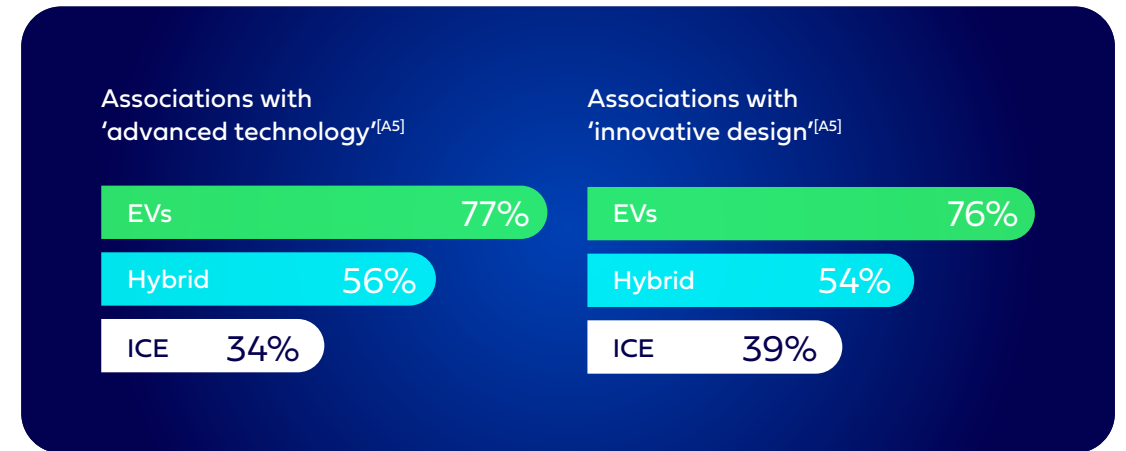
Li, 36, from Shenzhen, says it is very clear in China that EVs represent our move toward the future. *"We can never compete with German, Japanese, and American brands for ICE cars. But for EVs, it's a completely different racing track and arena. We're way ahead."*

For a lot of drivers, EVs are as much like phones as they are cars - slick, smart and increasingly more integrated into our daily lives. *"ICE cars are just like a Nokia phone. I can only call and send messages on it."*

EVs are like smartphones; there are so many things I can do with it," says Huang, 39, who lives in Shenzhen and drives a BMW X1.

The research tells us that one of the biggest draws is automatic software updates. Drivers value how their EVs can be 'upgraded' without too much work on their part - even, like smartphone updates, while they sleep. This is in stark contrast to ICE vehicles, which may even need to be replaced to access new technology.

"A week ago, my car's shock system was updated overnight," says Evan, 51, who lives in Detroit and drives a Rivian. *"In my old ICE car, I would've had to go to a garage to get new shocks - or just live with them as they were. Or buy a new car altogether."*



A11. Which of the following, if any, are the reasons why you purchased your / are considering an electric vehicle?

Base: All respondents (3,000)

A5. Looking at the following statements, please select which vehicle type(s) you think the statement applies to.

Base: All respondents (3,000)



My EV isn't just a mode of transport, it's more like a tech innovation"

Cao, 31, EV owner, China

What are the favourite advanced features among EV owners?^[B4b]

1. Assisted driving features.
2. Lane assist and blind spot detection.
3. Automatic parking capabilities.

Driving ease

Perhaps not surprisingly, in today's increasingly busy and over-stimulated world, drivers love that the cutting-edge technology in their EVs can lessen their mental load.

What matters is that driverless parking, lane assist, automatic updates, and all their other favourite features are taking the grind out of driving, especially for commuters or people who live in busy cities. It can also take the pressure off and allow drivers to take an entertainment break or bond with their passengers.

"I can be more at ease when parking," says Huang, 40, from Shenzhen, about allowing his XPENG G6, an electric SUV, to navigate narrow parking spaces in his neighbourhood. "I don't have to worry about whether I'm getting the angles right."

B4b. Looking at all of the features we have just shown you, please tell us how appealing you find each one?
Base: EV owners (1,686)



Electric vehicles reflect one's personal style and values

#5

'To feel unique' is high on the list of reasons behind purchasing/ considering an EV.^[A11]

The top 3 EV mindsets:

44%

of people say their car reflects their passion for new technology.^[A4]

42%

say their car reflects their own personal taste.^[A4]

37%

say their car represents their interest in design and aesthetics.^[A4]



Car pride
Above: Li, 36, Shenzhen

4 Identity

Better for life

We know that people see their car as playing a role in how they express themselves - 74% of respondents say their car is an important part of their identity and values, and 74% of respondents say how their car looks on the outside is very important to them.^[A2]

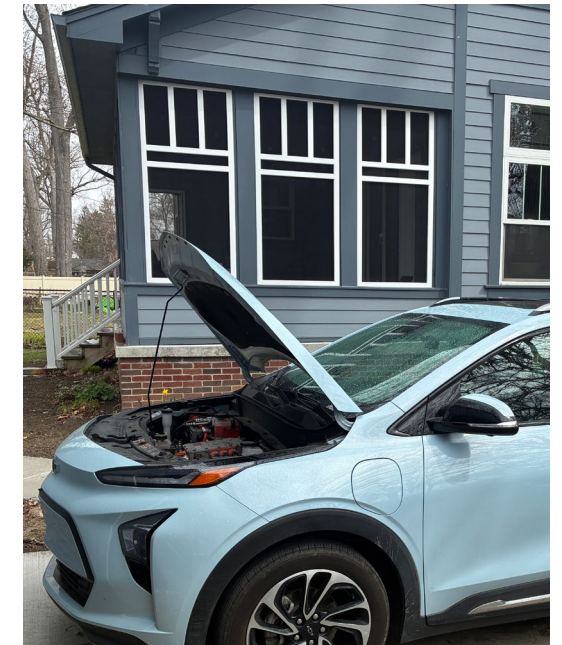
Here lies one of the most fascinating shifts that emerged in this study. Owning an electric car has historically been a way for people to show they prioritise climate action, but it's now become a major way for drivers to show themselves in a positive light from multiple perspectives.

EVs allow people to express their personal taste and dreams, when otherwise they might not be able to, as highlighted by Tu Le, the founder of Sino Auto Insights: *"In China, I'm going to personalise my vehicle because I want it to reflect my personality. If I'm not at the point in my life where I can afford to buy a 3-million-dollar apartment in Beijing yet, but that's what I aspire to. And because I can't personalise my home yet, I'm going to personalise this vehicle."*

And it's an expression of identity that has the potential to be available to more people as the affordability of EVs increases. As Gary, who owns an electric hatchback (a Chevy Bolt), told us: *"It's easy to do luxury, like Lucid's 1000-mile range. What's hard - and this is what is impressive about China - is making a cheap, good EV that the masses can drive."*

Further, our research showed that much of electric vehicle marketing today already describes an EV in this light - as an evolved, aspirational way of living: a key part of your all-in-one seamless, technology-driven lifestyle. In their EVs, drivers can turn from work to entertainment and back in milliseconds.

"It's stressful with family and societal expectations. A lot of Chinese middle-aged men like me would lie down in our cars for a bit [after work], smoke a cigarette and cheer ourselves on [before going home]. It's important to be able to do such an adjustment well [in the car]." Huang, 39, Shenzhen, seeker, BMW X1



US drivers are open to EVs
Above: Evan, 51, Detroit



Regional attitudes vary a little

While Chinese customers embrace futuristic lifestyle narratives, qualitative research reveals a sharp contrast in Western markets such as US and Germany where the idea that you might have a 'lifestyle car' is still out there for some people.

A2. We are now going to show you a series of statements that relate to your driving experience. For each pair of statements, please use the sliding scale to tell us which statement most closely reflects your current / expected experience with driving. Base: All respondents (3,000)

A11. Which of the following, if any, are the reasons why you purchased your / are considering an electric vehicle? Base: All respondents (3,000)

A4. You said your car is an important expression of your identity and values. Which of the following reasons explain why this is? Base: All respondents (3,000)



More space
Left: Huang, 39, Shenzhen

5

Superior Cabin Experience

A major upside to an EV is the interior

77% of EV owners find the flat floor design with more cabin space appealing.^[B11]

79% of EV owners find the customisable ambient lighting appealing.^[B11]

59% say the interior comfort and cabin design is important when purchasing an EV.^[A10]

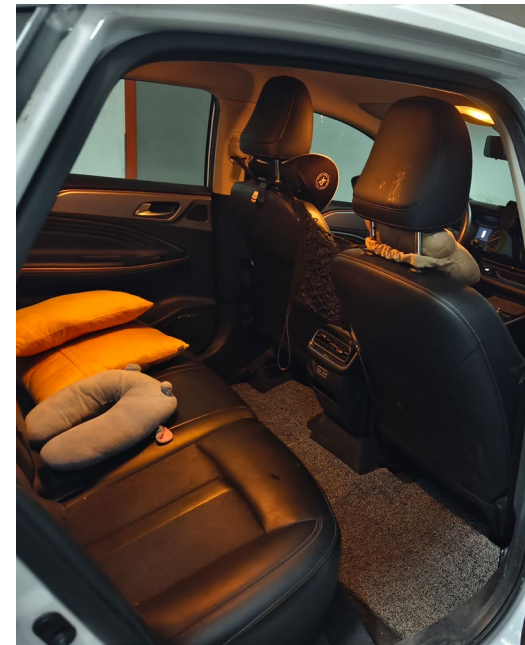
Inside matters

How good we feel inside our cars is important to everyone - 75% of respondents say driving is a pleasurable experience and 73% of respondents view their car as a multipurpose space for work, entertainment and relaxation.^[A2]

But with the extra space due to the lack of an engine and tech forward features, EVs have a better chance of enabling that good feeling.

We heard that what makes owning an electric MINI such a great experience for Caroline, 24, from Hamburg, is the big panoramic roof with its natural lighting, and how she can change the ambient lighting in her cabin whenever she wants.

And she is not alone. As many as 83% of EV owners report satisfaction with cabin comfort. Spacious boots have a clear feel-good value when it means that packing for a camping trip is so much easier. And who wouldn't want to get some respite on a long drive by taking advantage of the massaging seat?^[B11]



Regional attitudes vary a little

For many, the cabin is a sanctuary. However, it is particularly important in China, where EVs are being reimagined as mobile living rooms, gaming hubs, or even places to study.

Zheng, 44, from Shenzhen, uses her XPENG P7 to sing karaoke, entertain her daughter with in-car games, or create themed driving environments.

Bill Russo, Founder of Automobility Ltd in China explains that the thirst for cabin comfort can be met in so many ways: *"Chinese EVs have refrigerators, a thermal unit that can warm up your tea, heat a bottle if you're a parent with a child. There are massage and controllable heated seats. You're thinking about everybody in the car, not just the driver."*

Cosy and stylish interiors
Top: Wu, 43, Shenzhen
Bottom: Huang, 39, Shenzhen

A2. We are now going to show you a series of statements that relate to your driving experience. For each pair of statements, please use the sliding scale to tell us which statement most closely reflects your current / expected experience with driving. Base: All respondents (3,000).

B11. How satisfied are you with the following aspects of your experience with your electric vehicle? Base: EV owners (1,686)

A10. When you purchased your EV / are looking to purchase an EV, which factors are important? Base: All respondents (3,000)



The Added Extras

The desirable extras that lure drivers to an EV



Personalisation

More than just a cool feature

For many EV drivers, personalisation is more than just a cool feature; it's how their deeper relationship with their car begins - and 2 in 5 drivers consider it a key factor when buying an EV.^[A10]

The research showed clear benefits for those who do personalise their car. People expect it to enhance the driving experience (47%), save time (44%) and reduce routine adjustments (41%).^[B7]

As Matthias Schmidt, Automotive Market Intelligence, explains, it is a major differentiator from an ICE vehicle: *"EVs offer this huge new level of convenience and user experience that ICE vehicles have struggled to keep up with. The car recognises who you are. If you lend your car to family the vehicle recognises straight away that it's a different person. It adjusts the vehicle to your settings - not just seat settings, but infotainment settings, mirrors... Everything!"*

For Zheng, who owns a XPENG P7, being able to program a personal voice in her car is hugely important. She says without hearing it command: 'Princess, please get in,' her EV would be "just a car." She adds, "personalisation makes me feel closer to my car. It's like my assistant; it makes life more convenient. Without personalisation the car feels dead and monotonous."



Regional attitudes vary a little

By embracing personalisation, in China, EVs are increasingly seen as companions. But the reception in Germany is more reserved. Some fear it would damage the resale value of their vehicle, question future demand in the EV market, and customisation is seen as gimmicky.

But many consumers don't really know what feats their EV cars could perform, and this has created a hole in perceived emotional value - and an opening for Western automakers to address.

Personalisation Boosts + Barriers

Through our research, one thing became clear: personalisation is highly valued, but it needs to be easy and ensure drivers aren't left to navigate options in a maze of menus or apps.

Boosts

- +Builds connection
- +Increases functionality beyond transport
- +Most value comes from a one-time guided setup

Barriers

There are heightened concerns about privacy with personalisation.

- Concern about data privacy - 36%^[B8]
- Worried features will become outdated - 31%^[B8]
- Overwhelmed by complexity - 30%^[B8]
- Fear of hurting resale value - 30%^[B8]
- Not worth a premium price - 29%^[B8]
- Too complicated for daily use - 28%^[B8]
- Feels unnecessary - 24%^[B8]

A10. When you purchased your EV / are looking to purchase an EV, which factors are important?
Base: All respondents (3,000)

B7. Now, we'd like to hear your thoughts on personalisation features specifically. Which of the following reasons, if any, make you like the idea of personalisation in your electric vehicle? Base: All respondents (3,000)

B8. And which of the following reasons, if any, make you dislike the idea of personalisation in your electric vehicle? Base: All respondents (3,000)



Maintenance



What EVs lack - and why that's good

For many EV drivers, one of the biggest bonuses is that they suddenly don't need to pour all that time and energy into maintenance.

In fact, the association with 'low maintenance' is significant, at 67% for EV owners, and just 44% for Hybrids and 41% for ICE vehicles.^[A5]

But while this is an appreciated benefit, it rarely causes a change in vehicle choice. Instead, it can be seen more as an emotional (and often financial) sigh of relief, especially in contrast to how ICE vehicle maintenance is often tied to feelings of annoyance, frustration and unexpected costs.

I still want to understand my car

But interestingly, while drivers welcome fewer maintenance needs, they still want that feeling of being in control. Many potential buyers in the US and Germany express concern about being able to 'read' their car - to sense when something goes amiss or know what sort of attention it needs.

This reluctance often comes from a lack of knowledge about how EV servicing operates, and not any real lack of features or support.

For Sergej these are concerns that factor into deciding whether to go electric. The 36-year-old from Hamburg tells us: *"It'd be good to know a battery for sure lasts 10 or even 20 years. Then I don't need to worry. Because, what happens when the battery breaks? Or if I want to resell the car, is that even a thing with EVs?"*

It's important to look at how Chinese EV makers are reinventing what vehicle maintenance looks like - and it's all about simplicity. Whether it's service centres offering everything from valet pickup to friendly environments for parents, or live-streamed repairs and service logs that can be tracked via an app.

As Elaine Borseth, President of the EV Association, explains: *"OEMs (original equipment manufacturer) need to do better at educating people. The key is just getting the education out there."*

Repairs and maintenance can be something genuinely pleasant, not just necessary. In most cases, repairs will see you back on the road in less than an hour or are otherwise free. And that's usually because parts need to be replaced.

For the technically minded, there are still fluids to change and suspension systems to monitor in EVs. And some drivers would feel lost without their car washing ritual - and that's okay.

"Maybe this is a bit prissy. But I love the German Saturday, driving to the car wash on Saturday mornings. I'm not someone who likes to tune his car or needs big rims, but I do want my car to look good. It's just a thing I always do; I get groceries and then drive through the car wash."

Henrik, 33, Hamburg.



Regional attitudes vary a little

While 80% like the idea of charging at home rather than visiting petrol stations, this is a bonus in the US in particular.^[A6]

Flora, a 55-year-old Mustang Mach-E owner, says: *"People who don't drive an EV think you will be spending all your free time at a charging station. But I charge my car overnight. One of the best parts of this whole EV thing is that I never have to go to a gas station."*

A5. Looking at the following statements, please select which vehicle type(s) you think the statement applies to. Base: All respondents (3,000)

A6. And now, looking at the following statements about electric vehicles specifically, please tell us how much you agree or disagree with how they reflect your feelings towards electric vehicles. Base: Those in US (1,000)



Local Brand Love

1 in 2

say their EV brand aligning with their personal values is important.^[A10]

As we've heard a lot about in this report, drivers of EVs believe their vehicles show who they are. And one of the biggest influences on all of us is our country of origin, so it's no surprise that local brand preference reigns supreme. Each market fosters strong loyalty for local brands, but the reasons why vary.



US

'Admired by others' is the 2nd ranked association.^[C8]

EVs in the US deliver an unspoken message of identity. Scott is a 65-year-old in Detroit, who knows that EVs are better for the environment and cheaper to run but is worried about what his friends would think. He is mulling over buying a Tesla, which he calls 'the conservative EV'.

Tesla remains at the forefront of global electric-vehicle innovation, standing at #1 in brand awareness in the US (78%).^[D1]

A10. When you purchased your EV / are looking to purchase an EV, which factors are important? Base: All respondents (3,000)

C8. Now, looking at the statements below, please select which electric vehicle's country of origin you think this applies to. Base: Those in US, those in Germany (2,000)

D1. Which of the following electric vehicle brands are you aware of and have knowledge about? Base: Those in the US, those in Germany (2,000)



Germany

'Built to last' is the 2nd ranked association.^[C8]

In Germany, preference for driving German brands is based firmly on a long-standing belief in the production, quality and dependability of German-made cars.

Jenni, aged 39, is from Hamburg. Her father was a mechanic when she was growing up, who always said she should drive a German car, so she does.

While Tesla leads in awareness (with 73% knowing it in Germany), Volkswagen is the leader that people are most likely to consider buying.^[D1, D2]



China

'Pride in my country's engineering capabilities' is the 1st ranked reason for local brand preference.^[C10]

For many Chinese consumers, national pride in tech innovation is their main reason for choosing domestic brands. As GAC Aion owner Wu, from Shenzhen, puts it: *"Local brands know our daily habits better. Lei Jun's Xiaomi car has a small hook for breakfast takeaways. It's a small detail, but it shows that he knows what we need. It brings convenience to our lives."*

Tesla ranks #2 in consideration of EV brands behind BYD.^[D2]

D2. You said you knew these electric vehicle brands, how likely are you to consider the following for your future car purchase? Base: All respondents (3,000)

C10. You said you would prefer a local electric vehicle brand, which of the following, if any, explains why this is? Base: Those in China (1,000)

Tesla: A global pioneer at a crossroads

Across the board, Tesla's prestige is beginning to fade. *"I'm not sure if I would buy another Tesla,"* said 58-year-old Jan, from Hamburg. *"They grew so quickly and stopped trying!"*

While Tesla is something of a role model for other electric vehicle brands, it is now coming under pressure from both local hero companies and several other minor players alike.

And in today's highly charged political atmosphere, the association of the business with leader Elon Musk is increasingly becoming a burden: even for loyal Tesla buyers.

The Next Destination

Finding a way to a charging station is no longer the uphill battle it once was

77% of drivers now report that it is convenient for them to reach electric vehicle charging stations.^[B10]



Where there's still room to move forward

We have seen how these lure factors are truly influencing how people feel about their EV. Our study also showed that there are huge leaps in advancement happening across the EV industry, with our respondents citing improvements in key areas including battery range capabilities (53%), charging speed (53%), range of brands (53%), charging point availability (53%) and battery longevity and durability (50%).^[C5]

So, what's next? There is potential to further influence widespread adoption by looking at range anxiety, infrastructure gaps, and lack of knowledge. As meaningful connections to EV ownership zoom ahead, infrastructure will have to keep up.

What might this look like? In many cities, free parking for EVs is perceived as a key perk - especially as urban parking prices rise. Two hours of parking for free can mean a lot to urban drivers. So, while drivers are mostly hopeful and thankful for the progress that has been made, the next phase of the industry's growth will depend on more intelligent, speedier and more dependable charging networks - especially in cities.

C5. Thinking about changes to the electric vehicle industry over the past 1-3 years, how would you rate the changes in the following aspects? - % I have seen improvements in the past 1-3 years.
Base: All respondents (3,000)

B10. To the best of your knowledge, how convenient is it for you to get to an electric charging point?
Base: All respondents (3,000)

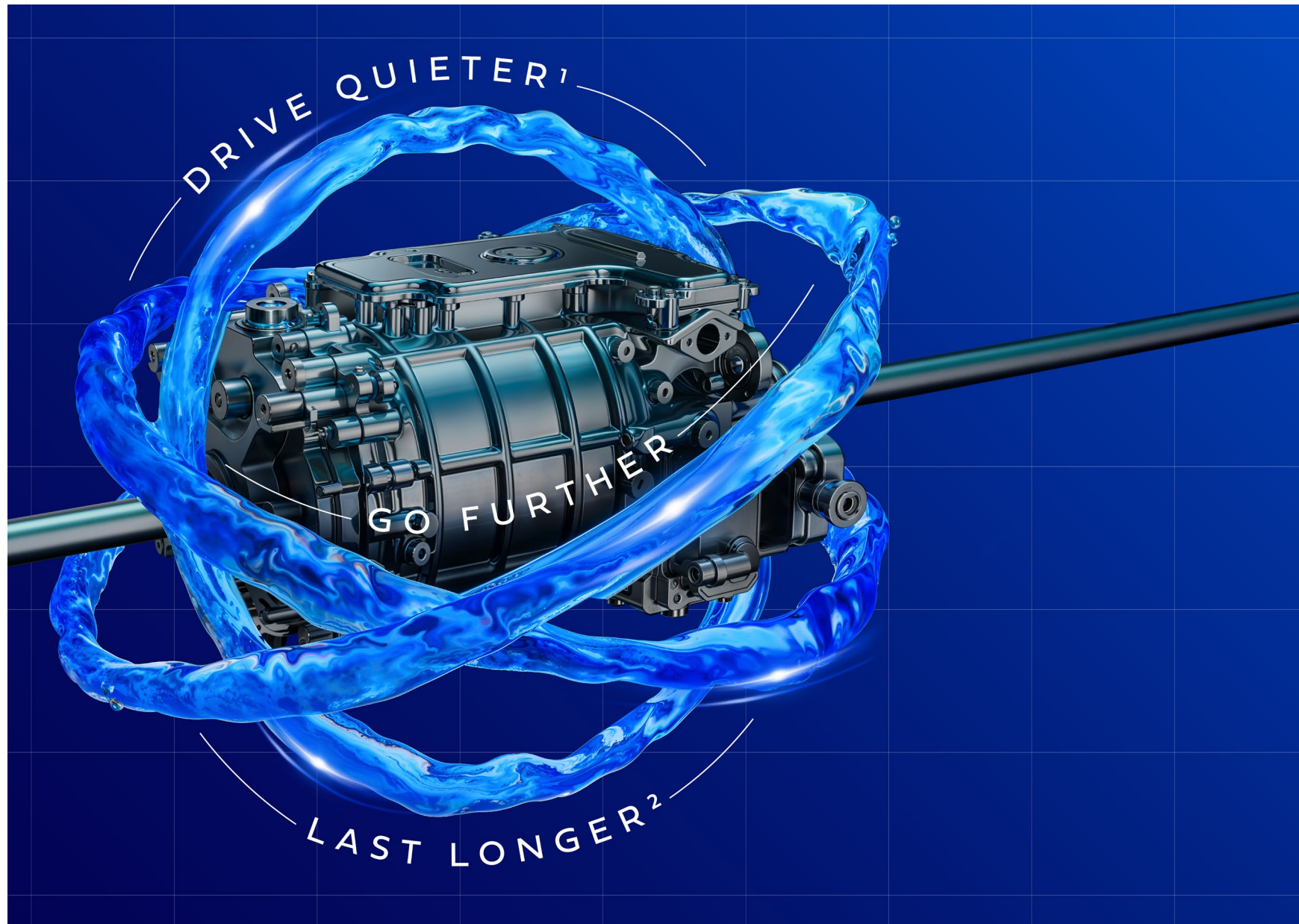


Regional attitudes vary a little

A viable charging infrastructure is not simply a nice-to-have; for many people, it is essential. In Germany, for example, there still are not enough public charging stations to meet demand, and there are also few fast-charging units. Meanwhile for many Americans, especially outside urban hubs, charging an EV can still seem like a logistical challenge.

China's EV infrastructure, in contrast, has changed quickly. Over the last five years, cities have constructed vast networks of supercharging points, many with ultra-fast charging in as little as 10 minutes, while domestic buildings typically have EV charging bays installed as standard, and charging stations are becoming destinations in and of themselves - some have lounge areas, internet connections, food and drink, even entertainment. However, even in China, the system is strained at peak travel time and during its major events, such as Lunar New Year.

The Road Ahead



How are Castrol ON EV Fluids playing a part in this:

We conducted this global research to help drive the EV industry forward.

Castrol ON EV Fluids are used by 3 out of 4 of the world's major vehicle manufacturers and we are looking forward to working together on what's needed next.

- + Castrol work with OEM design teams, co-engineering to accelerate the development life cycle, and increasing efficiency of the powertrain.
- + Low viscosity oils are a key feature of EV Fluids, as well as continuous research into new raw materials for all applications - including bio feedstock and re-refined oil.
- + Low viscosity fluids have significant benefits as they improve efficiency without compromising durability.
- + Advanced testing capability: In addition to established testing protocols and standards, we introduce new methods to support emerging technologies

Drive quieter

By reducing or eliminating vibration in the drivetrain, Castrol ON EV Transmission Fluids – tested with bespoke methods against competitor fluids in various existing and developmental drivetrains – deliver noise reduction at the vehicle level under identical driving conditions.

¹By reducing vibration that leads to mechanical noise reduction.

²Bespoke testing performed with Castrol ON EV Transmission Fluids against competitor fluids in various existing and developmental drivetrains.

The Methodology



The markets: US, Germany & China

Our study explored EV ownership across three distinct markets: the tech-driven momentum of China, Germany's manufacturing and motoring heritage, and the deeply entrenched, distance-driven car culture of the US.

These markets offer contrasting adoption rates, cultural attitudes, and infrastructure, allowing us to uncover what truly motivates drivers. By combining urban, suburban, and rural insights from Shenzhen, Hamburg, and Detroit, we captured a global yet deeply local view of the factors that can pull more people toward EVs.

<https://castrol.com/on>

*The International Energy Agency (IEA) Global Outlook Report 2025.

The big question?

Despite 17 million EVs being sold in 2024, just 20% of new car sales are electric*, with cost, charging access, and range anxiety still shaping perceptions. What will motivate people to make the switch to an EV to further drive global EV adoption?

To answer this question, we took a multi-stage and global approach that included:

- + Stakeholder & Expert Interviews
 - Stakeholders: Yulia Emelyanova – *Global Brand manager for Castrol ON EV*; Richard Pearson – *Senior Advisor for Castrol ON*
 - Experts: Elaine Borseth – *US, President of EV Association*; Bill Russo, *Founder of Automobility Ltd*; Matthias Schmidt – *Automotive Market Intelligence*; Tu Le, *EV & Mobility Consultant and Founder of Sino Auto Insights*
- + STEEP analysis of the EV landscape
- + 24x Ethnographic drive alongs with owners/adopters, acceptors, seekers and soft rejectors, covering three cities and adjoining suburbs and rural areas around Hamburg, Detroit and Shenzhen.
- + Quantitative validation with 3,000 respondents.
 - 1,000 per market (US, Germany, China)
 - 1,686 EV owners
 - 1,314 EV considerers





We make EVs
more tranquil

