



The future of EVs in the UK

MARKET DYNAMICS, CHALLENGES
AND OPPORTUNITIES

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Executive Summary

The electric vehicle (EV) market in the UK is experiencing a transformative period, driven by changing consumer preferences, technological advancements and robust government policies. This white paper delves into the current state of the EV market, focusing on market dynamics, key players, sales forecasts and future opportunities. Key insights indicate that while BEV registrations have surged significantly, challenges such as charging infrastructure and consumer education remain. Stakeholders must leverage these insights to navigate the evolving landscape effectively.





Introduction

Context

The automotive industry is in the midst of a profound transformation, particularly in Europe, where the adoption of electric vehicles is accelerating rapidly. In the UK, new EV (BEV) registrations have jumped from approximately 108,205 in 2020 to an estimated 656,425 in 2030, highlighting a growing acceptance of electric mobility. In 2020, EVs (BEVs and PHEVs) made up about 11% of all new passenger car registrations, a figure projected to reach 47% by 2030. Government initiatives, such as the 2035 ban on the sale of new petrol and diesel vehicles, have spurred consumer interest and investment in EV technology.

Purpose

Understanding the dynamics of the EV market is crucial for stakeholders—manufacturers, policymakers, investors and consumers—who need to make informed decisions in an increasingly competitive landscape. The goal is to provide a comprehensive overview of current trends, forecasts and opportunities in the UK EV market.

Scope

This paper will cover:

01

MARKET SIZING AND
SEGMENTATION



02

EV SALES
FORECASTS

03

BRAND
DOMINANCE

04

EV ADOPTION

(CHINA VS NORTH AMERICA VS
WESTERN EUROPE VS UK)

05

CHALLENGES IN
ADOPTION



06

CONCLUSION AND
RECOMMENDATIONS



Dynamics of the market

The UK government's aggressive plan to phase out gasoline and diesel cars by 2035 has accelerated the adoption of electric vehicles. Furthermore, a favourable climate for firms, consumers and manufacturers has been established through policy support measures

including tax incentives and subsidies. Growing environmental awareness and pledges to lower carbon emissions further increase the need for greener, cleaner transportation options. For example, the development of charging infrastructure and advancements in battery

technology have a direct impact on how quickly this transition will happen. With major automakers and startups pushing the boundaries of innovation, the UK has the potential to become a global leader in the EV area as the market grows.



Sizing And Segmenting The EV Market

The EV market can be segmented into various categories:

1 **Battery Electric Vehicles (BEVs):**
Powered solely by electricity.

2 **Plug-in Hybrid Electric Vehicles (PHEVs):**
Combine conventional engines with electric propulsion.

3 **Hybrid Electric Vehicles (HEVs):** Use both an internal combustion engine and electric power.

Consumer preferences

A significant shift toward BEVs is evident among UK consumers. The government's focus on reducing emissions has further encouraged this trend, with BEVs expected to account for 40% of new car sales by 2030. The government's policies, such as the phase-out of new petrol and diesel car sales by 2035, have further accelerated the transition toward cleaner vehicles. As a result, the UK is on track to see continued growth in BEV sales, aligning with the country's broader environmental and electrification goals.

Market size

In 2023, the UK registered approximately 315,000 BEVs, a substantial increase from 267,000 in 2022. Projections indicate that BEV registrations will reach 656,425 by 2030.

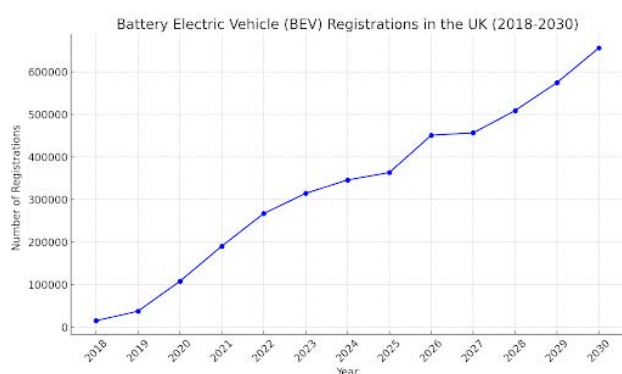
**Table 1: EV market size and growth forecasts
(in thousands of units)**

Year	Battery Electric Vehicles (BEVs)	Plug-in Hybrid Electric Vehicles (PHEVs)	Hybrid Electric Vehicles (HEVs)
2018	15,510	44,437	82,023
2019	37,850	34,984	89,887
2020	108,205	67,134	108,363
2021	190,727	114,554	140,563
2022	267,204	101,414	185,396
2023	314,684	141,311	233,962
2024	346,061	165,766	269,197
2025	363,664	195,373	282,420
2026	451,375	237,357	308,831
2027	456,760	264,374	313,819
2028	509,151	287,915	327,789
2029	574,904	311,807	331,131
2030	656,425 (projected)	339,994 (projected)	328,212 (projected)

Analysis

Battery Electric Vehicles (BEVs)

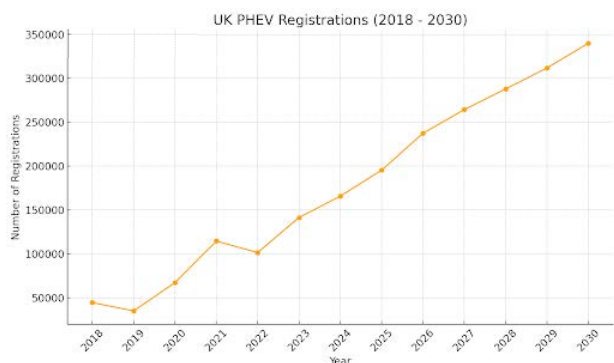
The BEV market is witnessing explosive growth, with an increase in registrations from 15,510 units in 2018 to an estimated 656,425 units by 2030. This represents an average compound annual growth rate (CAGR) of approximately 37%. However, the growth rate appears to slow after 2023, suggesting a potential market plateau in the coming years. This could be linked to infrastructure challenges, such as the pace of EV charging infrastructure rollout, consumer concerns about range anxiety and the higher upfront costs of BEVs compared to traditional internal combustion engine (ICE) vehicles.



The market is maturing and while BEVs are expected to dominate the electric vehicle space in the future, sustaining rapid growth will depend heavily on further governmental support, increased affordability and technological advancements in battery technology.

Plug-in Hybrid Electric Vehicles (PHEVs)

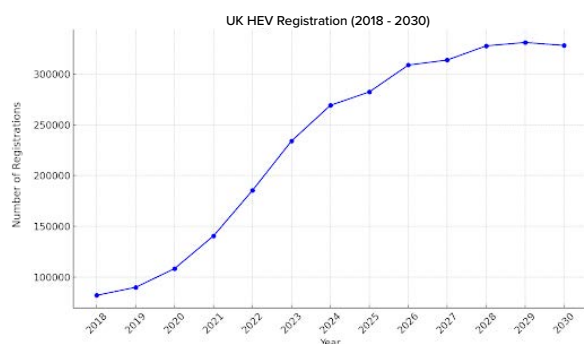
The PHEV segment shows modest growth fluctuating between years but generally trending upwards. The market size is expected to stabilise at around 339,994 units by 2030, representing a CAGR of about 19%. Often viewed as a bridge for consumers hesitant to go fully electric, PHEVs provide a transitional option in the EV landscape. However, as BEVs gain popularity, PHEVs may see moderated growth, facing potential challenges from regulatory shifts that discourage vehicles relying partly on internal combustion.



Nonetheless, PHEVs are likely to remain relevant as an intermediate powertrain choice, helping ease the shift to fully electric options as consumers gradually adapt to advancing EV technologies and infrastructure.

Hybrid Electric Vehicles (HEVs)

HEVs are also experiencing growth, though at a slower rate than BEVs. The market is expected to reach approximately 328,212 units by 2030, with a CAGR of about 12%. This growth reflects the continued demand for vehicles that provide a mix of electric and traditional fuel options. While HEVs are expected to continue their upward trajectory, there's a subtle indication of market saturation by the end of the forecast period. A slight decline to 328,212 in 2030 suggests that HEVs could lose appeal as BEVs and PHEVs become more competitive in price and convenience.



Consumers might view HEVs as a temporary solution as the push toward full electrification continues. Regulatory pressures to reduce vehicle emissions could also drive consumers away from HEVs towards more eco-friendly BEV alternatives in the longer term.



Brand dominance and industry impact

Current leaders

From 2018 to 2023, the UK's EV market has seen a dynamic shift in brand dominance, with Tesla, MG and Polestar emerging as key disruptors while traditional automakers like Volkswagen and Ford face challenges in keeping up.

Tesla has emerged as a dominant force, leading with approximately 184,602 unit sales, with models like the Tesla Model Y becoming the best-selling EV in 2023, capitalising on its strong brand image, technological advancements and an expanding charging infrastructure, which appeals to a wide range of consumers. Meanwhile, newer brands like MG, owned by Chinese firm SAIC and Polestar, a Volvo subsidiary, have rapidly gained traction by offering affordable and performance-oriented options.

While these newer brands are flourishing, traditional automotive giants such as Ford and Opel are struggling to maintain a foothold in the EV space. Despite their

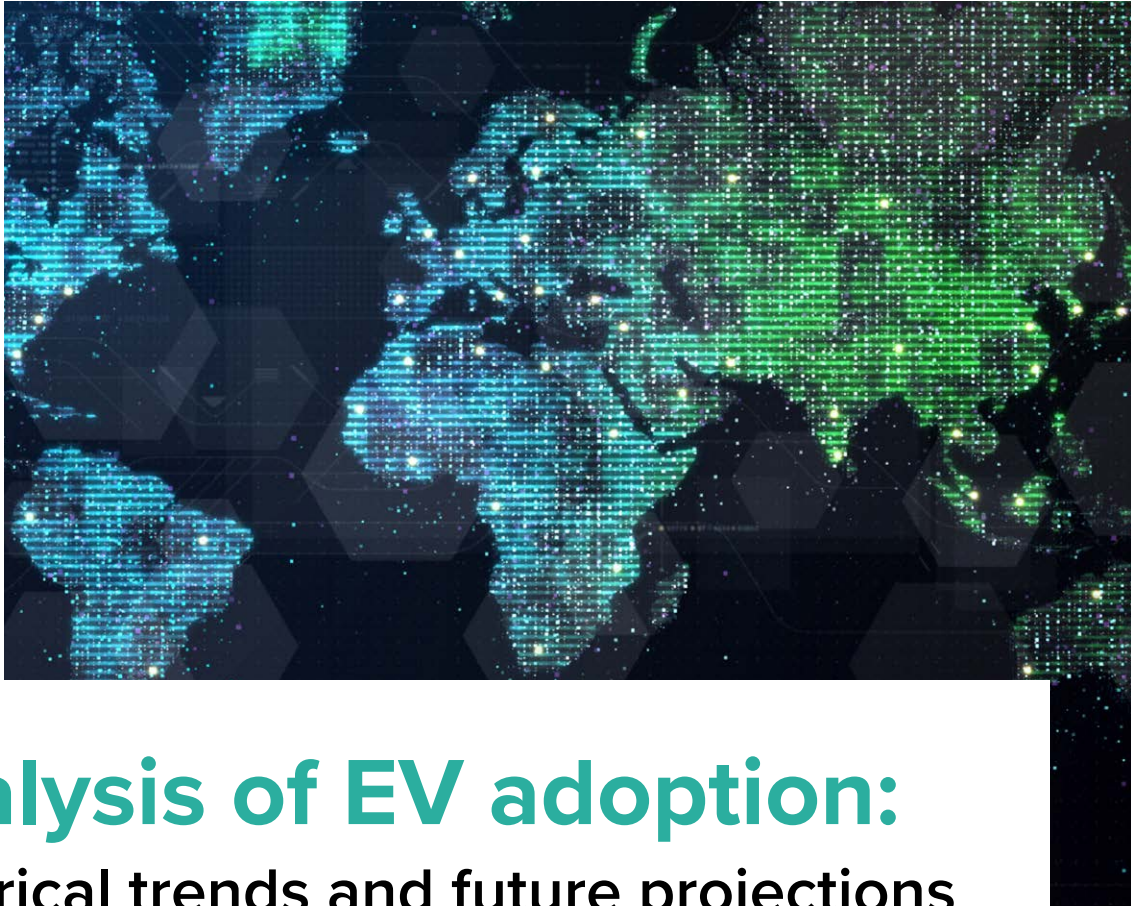
prominence in the ICE market, these brands are finding it difficult to compete with agile, tech-driven EV manufacturers.

Ford, although a leader in light vehicle sales, is losing ground to newer players like Tesla and MG, signalling a shift in consumer preferences. On the other hand, companies like BMW and Hyundai have fared better in the transition to electric vehicles.

BMW, with its strong luxury market appeal, has managed to integrate EV technology into its portfolio with models like the BMW i4 and iX3, achieving respectable sales in the EV space with 222,587 unit sales till 2023. Similarly, Hyundai has gained recognition for its innovative

approach, with models like the Hyundai Ioniq 5 performing well in the market, showing that these brands are more adaptable compared to others still reliant on their ICE heritage.

Additionally, Volkswagen sold around 103,635 units, but financial and competitive pressures have hindered its ability to compete in the rapidly evolving EV market. Likewise, the market has seen a major growth in BEV share, which jumped from 1.7% in 2019 to about 17% by 2023. This demonstrates not just consumer demand for EVs but also the growing challenges for long-established automakers to maintain their dominance.



Analysis of EV adoption:

Historical trends and future projections (2018-2030) in China, North America, Western Europe and the United Kingdom



Over the past decade, EV adoption has surged globally, driven by increasing environmental awareness, government incentives and advancements in EV technology. Key markets such as China, North America, Western Europe and the United Kingdom have been instrumental in shaping the global EV landscape, each with unique growth trajectories across Battery Electric Vehicles

(BEVs), Plug-in Hybrid Electric Vehicles (PHEVs), and Hybrid Electric Vehicles (HEVs).

Below is a detailed analysis of EV adoption trends in these leading regions based on historical data and future forecasts.

China: The world leader in EV adoption

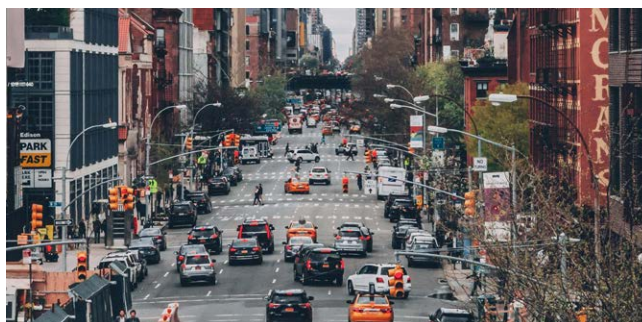


China has consistently led the global EV market, with rapid growth in BEV, PHEV, and HEV registrations. In 2018, BEV registrations stood at 984,000 units, but by 2022, that number had skyrocketed to 5,365,000 units demonstrating the country's aggressive push towards electrification. This growth trajectory is expected to continue, with BEV registrations projected to reach 9,819,976 units by 2030. China's dominance in the EV space is largely attributed to strong government support through subsidies, stringent emissions regulations, and the development of a robust charging infrastructure.

PHEV registrations have also grown significantly, from 271,000 units in 2018 to 2,778,958 units in 2023. However, as BEVs become more mainstream, PHEV growth is projected to grow to 7,072,447 unit sales in 2030. HEVs, though less prominent, have shown steady growth, with 829,240 registrations in 2022, expected to increase to 2,447,776 units by 2030. China's focus on reducing emissions, coupled with consumer demand for affordable electric models, will ensure the country remains a dominant force in the EV market.

North America: Accelerating BEV growth

The U.S. has seen growth in EV registrations, but its market uptake remains slower compared to major economies such as China and Western Europe. Between 2018 and 2023, BEV registrations in North America rose from 229,722 to 1,316,968, with projections to reach 3,121,506 by 2030. However, this increase reflects only moderate progress compared to regions with more aggressive electrification goals. Enthusiasm for EVs in the U.S. is primarily concentrated in states like California, driven by favourable state policies, tax incentives and a well-established charging infrastructure, which encourage adoption.



On a global scale, the U.S. lags behind China and Western Europe in terms of EV market share. For example, China accounted for approximately 60% of global EV sales in 2023, while Europe saw EVs reaching around 25% of new vehicle sales. In contrast, the U.S. market share for EVs stood at 10% in 2023.

This gap is largely due to affordability concerns, a lack of charging stations in rural areas and low fuel prices, all of which reduce the urgency for consumers to switch to electric vehicles.

One significant policy aimed at boosting EV adoption in the U.S. is the Inflation Reduction Act (IRA), which includes \$369 billion in climate and energy-related funding, with substantial tax credits for EV purchases. This act aims to accelerate the EV transition, but its impact is still unfolding. Despite the IRA's potential, regulatory requirements in the U.S. remain less stringent compared to Western Europe, which has committed to banning new petrol and diesel vehicle sales by 2030, significantly accelerating EV market growth.

PHEV growth in North America has been steady, with registrations rising from 83,513 units in 2020 to 322,117 units in 2023 - and projections pointing to 1,362,846 units by 2030. However, HEVs remain a more popular choice in the U.S., offering a compromise between internal combustion engines and fully electric power. HEV registrations are forecasted to grow from 1,585,304 units in 2024 to 2,790,361 units by 2030, indicating a sustained preference for hybrid solutions that provide range and fuel efficiency.

Western Europe: Pioneering EV policies drive growth

Western Europe has emerged as a key player in the global EV market, largely due to progressive policies promoting green mobility. In 2018, Western Europe registered 197,319 BEVs and by 2023, this figure had grown to 2,013,708.

Projections indicate that BEV registrations will reach 4,150,586 units by 2030, making BEVs the dominant vehicle type in the region.

Europe's strong regulatory framework, including strict emissions standards and financial incentives, has been instrumental in fostering this growth.



PHEV adoption in Western Europe has also expanded, though at a slower pace compared to BEVs. PHEV registrations rose from 183,630 in 2018 to 932,228 in 2024, with growth expected to stabilise at 1,930,512 units by 2030. On the HEV front, registrations have grown steadily, reaching 1,247,387 units in 2024 and are expected to continue increasing, peaking at 1,606,232 in 2030. Western Europe's comprehensive approach to sustainability and its efforts to expand charging networks have helped the region stay at the forefront of the EV revolution. A key driver of the transition is the European Union's planned ban on the sale of new petrol and diesel cars by 2035, a landmark policy aimed at drastically reducing carbon emissions and accelerating the shift toward electrification. This ban will further push the adoption of electric vehicles (EVs) as the only viable option for new car sales, cementing BEVs as the dominant vehicle type across the region.

United Kingdom: A rapidly growing EV market

The United Kingdom has experienced impressive growth in EV adoption, especially in BEVs. From a modest 15,510 BEV registrations in 2018, the UK is on track to reach 656,425 BEV registrations by 2030. The UK government's ambitious plan to ban the sale of new petrol and diesel cars by 2035 has accelerated this shift, as consumers increasingly turn to electric alternatives. This policy, coupled with growing consumer awareness of the environmental benefits and lower operational costs of EVs, is driving rapid BEV adoption.

PHEV growth in the UK has been more gradual, with registrations increasing from 44,437 in 2018 to an expected 339,994 units by 2030. Meanwhile, HEV registrations have shown steady growth, reaching 269,197 units in 2024, with projections indicating that HEV adoption will slow down after 2029 as consumers increasingly opt for fully electric vehicles.

Overall, the UK is positioning itself as a key player in the EV transition, with BEVs expected to become the dominant vehicle type as technological advancements in range, cost and battery efficiency continue to drive consumer adoption. These leading markets are at the forefront of the transition to sustainable electric mobility, setting the stage for a global shift in transportation.

..UK is positioning itself as a key player in the EV transition...





Challenges facing the EV market



In the UK, the switch to electric vehicles is being slowed down, despite some progress. The absence of a reliable infrastructure for charging, especially in less populated areas, is one of the most significant problems. Potential consumers are nevertheless discouraged by “range anxiety,” or the worry of running out of battery. Even though EV prices are gradually declining, many people still find them to be prohibitively expensive when compared to conventional gasoline or diesel automobiles.

Charging infrastructure



One of the primary barriers to widespread EV adoption in the UK is the inadequacy of charging infrastructure. According to a survey conducted by Euromonitor International Passport Mobility, the percentage of respondents citing poor charging infrastructure as a major reason for not purchasing an EV has steadily decreased, from 51% in 2022 to 41% in 2024. However, despite this improvement,

the issue remains significant. Consumers still face challenges such as a lack of accessible charging stations, slow charging speeds and limited availability in rural areas, creating range anxiety for potential buyers. Although progress is being made in expanding the charging network, the pace of infrastructure development is not yet sufficient to match the increasing interest in electric vehicles. To overcome

this hurdle, substantial investments in fast-charging stations, especially in remote locations and better integration with renewable energy sources will be crucial for building consumer

confidence in the viability of EVs. Additionally, a new law now requires all new and reconstructed buildings to include EV charging points, a step aimed at addressing these infrastructure gaps.

High costs of EVs



Another prominent challenge in EV adoption is the high upfront cost of electric vehicles, which continues to deter many potential buyers. Euromonitor International Voice of the Consumer: Mobility reveals that in 2022, 74% of respondents indicated that EVs were too expensive, a number that improved slightly in 2023 to 68% and further to 65% in 2024. Despite the downward trend, this issue remains a significant barrier, especially for price-sensitive consumers. While the cost of EVs has gradually decreased due to advances in battery technology and economies of scale, the gap between the prices of conventional internal combustion engine vehicles and EVs is still wide.

This affordability issue is further compounded by the perception of limited financial incentives and long-term savings, making it difficult for consumers to justify the higher initial investment. For EV adoption to accelerate, further cost reductions in

EV manufacturing, battery production and increased government incentives will be necessary to make electric vehicles more accessible to the average consumer.

Range anxiety



According to the Euromonitor International Voice of the Consumer: Mobility, 32% of respondents felt that EVs had a poor driving range in 2022. This concern increased slightly to 35% in 2023, but by 2024, it dropped back down to 30%. While improvements in battery technology and vehicle range have been made, nearly a third of consumers still feel that the current range is insufficient for their driving needs. This anxiety is particularly prominent among those who frequently travel long distances or live in areas with limited charging infrastructure. As manufacturers continue to enhance battery capacities and charging technologies, addressing range concerns will be key to further boosting consumer confidence and facilitating wider EV adoption.

Preference for petrol/diesel cars



Despite the growing momentum towards sustainability and cleaner energy, a significant number of consumers still express a preference for petrol or diesel vehicles. According to the survey, approximately 15% of respondents favoured conventional vehicles in 2022. By 2023, this number rose to 23% and in 2024, it further increased to 26% approximately. This persistent preference can be attributed to several factors, including familiarity with internal combustion engine (ICE) technology, perceived reliability and resistance to change. Many drivers are accustomed to the performance and infrastructure associated with petrol and diesel vehicles, which often leads to scepticism about switching to electric alternatives. To counter this trend, manufacturers and policymakers must place greater emphasis on highlighting the long-term cost savings, environmental benefits and technological advancements of EVs. Education campaigns and incentives will be key to shifting consumer behaviour and reducing the reliance on petrol and diesel cars.

Lack of availability

Although concerns over the availability of electric vehicles have been declining, it remains a notable issue for a segment of the market. In 2022, 13% of respondents

highlighted a lack of availability as a reason for not purchasing an EV. This figure dropped to 11% in 2023 and further to 11% in 2024, reflecting improvements in EV distribution and the introduction of more models across different price ranges. However, in certain regions, especially rural or remote areas, consumers may still feel that EVs are not easily accessible. The availability of charging infrastructure in these areas can also affect perceptions of whether EVs are a viable option. As the market continues to expand and more automakers introduce electric versions of popular models, the availability issue is expected to diminish further. Nevertheless, manufacturers must ensure that EVs are widely accessible across various regions to meet the growing demand.

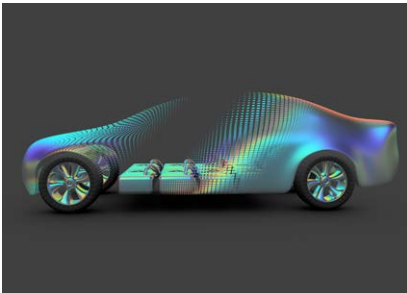
Safety concerns

Safety concerns around EVs have increased over the past three years, highlighting a growing apprehension among consumers as the technology becomes more widespread. In 2022, 7% of respondents were concerned about the safety of EVs, with this number rising to 10% in 2023 and reaching 16% in 2024. These concerns may stem from fears of battery-related incidents, such as fires, uncertainties about crash performance, or a general lack of understanding of EV technology. As electric vehicles become more common, it is crucial for manufacturers to address these concerns through improved design, safety testing and transparency in communicating the safety features of EVs. Providing clear information about the rigorous testing processes for batteries, emergency protocols and vehicle safety ratings can help alleviate these fears and build trust in electric mobility.



Market readiness

The transition to electric mobility necessitates readiness across the entire automotive ecosystem, beyond just consumer acceptance. Key stakeholders, including dealerships, energy grid operators, EV charging infrastructure companies and supply chain operators, must prepare to support this shift.



Dealerships and service facilities: Dealerships must adapt their business models by training staff on EV technology, offering specialised services and educating consumers about charging and maintenance.

Energy Grid Operators: Increased EV adoption will strain energy grids, requiring investments to enhance capacity and integrate renewable energy sources. Vehicle-to-grid (V2G) technologies can help manage demand.



EV Charging Infrastructure: Widespread and accessible charging stations are crucial for adoption. Charging infrastructure companies need to rapidly expand networks, especially in underserved areas, ensuring consumers can charge conveniently.

Supply Chain Readiness: Manufacturers must scale up the production of key components like batteries and motors while securing sustainable sources of materials. Innovations in battery technology will also be vital.

Collaboration Across Industries: Successful EV adoption relies on coordinated efforts among automotive manufacturers, energy providers, charging companies and supply chain operators. This collaboration will create a sustainable and scalable EV market, positioning key regions like China, North America, Western Europe and the United Kingdom for a robust electric mobility future.





Conclusion

Summary of key insights

This white paper has highlighted the UK EV market's significant growth trajectory, driven by consumer preference for Battery Electric Vehicles (BEVs) and an increasingly competitive landscape. The commitment to sustainability has further propelled this growth, positioning the UK as a key player in the global electric mobility transition. However, to sustain this momentum, challenges such as infrastructure development, range anxiety and high costs must be effectively addressed. By fostering collaboration among industry stakeholders, investing in charging infrastructure and promoting consumer education, the UK can create a robust ecosystem that supports the ongoing adoption of electric vehicles. Continued innovation and a focus on sustainability will be crucial for overcoming barriers and ensuring the long-term success of the EV market in the UK.

Future outlook

The next five years will be critical for the UK EV market, with predictions of substantial increases in adoption rates. Stakeholders must remain agile and responsive to changing consumer behaviours and technological advancements. Interest in hybrid and plug-in hybrid technology is expected to remain robust as challenges within the fully electric vehicle segment ensue, offering consumers alternative pathways to transition to greener mobility.

Call to action

Industry stakeholders, policymakers and investors should prioritise collaboration to enhance infrastructure, invest in research and development and create policies that encourage sustainable practices in the EV sector. Engaging with consumers through education and outreach initiatives will be essential for driving adoption and shaping a sustainable future for electric mobility in the UK.

Contributor



Euromonitor International is a leading provider of market intelligence and data analytics, specialising in the analysis of markets, industries, economies and consumer trends. With a presence in 16 offices worldwide and a team of over 1,000 analysts, Euromonitor offers comprehensive insights covering 210 countries and nearly all global consumers. Their extensive research capabilities encompass thousands of products and services, allowing clients to identify and capitalise on growth opportunities.

The data and insights provided by Euromonitor have been instrumental in shaping the analysis presented in this white paper. Their rigorous market research methodologies and

advanced data science techniques ensure that stakeholders can make informed, strategic decisions in the rapidly evolving electric vehicle market. By leveraging Euromonitor's expertise, this white paper delivers a robust and detailed examination of the UK EV landscape, highlighting key trends, challenges and opportunities for industry participants.

Reference

Euromonitor International,
Passport Mobility
The Society of Motor
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