



Supercharging the UK's Supply and Demand of Electric Vehicles

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Foreword



Tara Foley
AXA UK&I CEO

As an insurer, mitigating the impact of climate change is no longer a nice to have, it is an essential requirement for us to continue protecting our customers in the future. As a motor insurer, we are focused on applying our expertise to support the decarbonisation of road transport.

Good progress has been made towards the transition to electric vehicles (EVs) and the Government's net-zero ambition. However, more needs to be done to support charging infrastructure, skills, affordability, and the consumer experience.

Such action requires investment, and we can already see the substantial cost implications of the net-zero transition, particularly in the context of the current economic climate. The Government's decision to delay the ban of new petrol and diesel vehicles from 2030 to 2035 has sparked a wider debate on how to meet and finance the net-zero transition. These debates are likely to continue in the run up to the next General Election and beyond.

While we recognise the transition won't be straightforward and will require action from individuals, businesses, and Government, it also presents opportunities for economic growth, jobs, skills, and export markets. The UK's automotive industry is well positioned to capitalise on such opportunities. It has long been the jewel in the crown of UK manufacturing, turning over £67 billion per year, with major production sites located across the country including in the North West, West Midlands and South East.

The UK faces a globally competitive environment, with countries around the world developing innovative strategies to attract and retain investment in EV manufacturing. The USA's flagship \$370 trillion Inflation Reduction Act and the EU's Green Deal Industrial Plan are the most prominent examples. Against this backdrop, the UK requires measures to cement its position as an automotive green global leader.

AXA is committed to supporting our customers make the switch to lower carbon transport and the overall transition. That's why we convened an expert roundtable to understand the industry's main challenges and determine how we can best work together to support the country's net-zero ambitions.

From our discussions it is evident that the UK requires a cross-governmental, holistic, and long-term strategy to support the rollout of EVs across the UK. The Government should work in partnership with industry to develop this strategy and leverage the expertise from every component of the EV production and supply chain. AXA stands ready to share its expertise and work with industry and the Government to ensure that the net-zero targets are realised and that UK citizens benefit from the transition.

Executive Summary

As the largest contributor to the UK's total greenhouse gas emissions (24%), decarbonising the transport sector is critical to achieving the Government's net-zero target. With cars and taxis accounting for 55% of total transport emissions, a key part of shifting to cleaner road transport will require replacing 32 million internal combustion engine (ICE) vehicles with low-carbon alternatives.¹ The Government's 2021 Transport Decarbonisation Plan identified battery electric vehicles as the solution for everyday cars, and hydrogen for heavy goods vehicles (HGVs).²

This transition presents a significant economic opportunity for the UK. The global electric vehicle (EV) market is predicted to be worth over \$1,000 billion by 2030.³ The UK's historic manufacturing heartlands are well positioned to capitalise on such growth and good progress has already been made, with EVs accounting for 16% of new vehicles sold in 2022, surpassing diesel vehicles for the first time to become the second most popular vehicle after petrol.⁴ However, the shift to electric vehicles does not come without its challenges for the UK's automotive industry. These challenges include localised battery production, grid infrastructure, skills, regulation, investment certainty, affordability, and consumer demand.

The Government has supported regulation with its 2050 net-zero target. In addition, the zero-emission mandate will be implemented from 2024 and will inform manufacturers of the proportion of zero-emission vehicles they need to sell, and the incurred penalty for not.

However, the recent change in Government policy to delay the ban of new petrol and diesel vehicles to 2035 from 2030 has reignited uncertainty and confusion for businesses and investors. For the UK to cement its position as a global automotive leader and a key exporter, rather than importer of EVs, the Government should introduce legislation for the electric vehicle target regardless of date. In addition, a public and private partnership (similar to Digital UK leading the switch to digital TV) needs to be established to supercharge the supply and demand of EVs and support the Government in delivering its net-zero ambitions.⁵

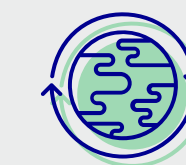
To assist the net-zero transition of road transport, AXA UK convened an expert roundtable which brought together the ABI, Charge UK, Green Alliance, Honda, IMI, National Grid, Public First, RAC, SMMT, Shell and Tesla, to discuss the cross-industry challenges and subsequent opportunities facing the rollout of EVs in the UK.

This report takes insights from our roundtable experts and explores how to drive the supply of EVs in the UK and how supply can sustainably meet demand to improve affordability as well as supporting the transition to net-zero. While heavily informed by the insights of our expert contributors, the analysis and recommendations made in this report represent AXA UK's views.

Key Recommendations



Regardless of the electric vehicle target being 2030 or 2035, the Government must provide businesses with certainty by introducing a legally binding date for the phase out of petrol and diesel vehicles. As part of this, a cross-governmental, holistic, and long-term strategy considering the whole EV production and supply chain should be developed to support the successful rollout of EVs across the UK.



Outdated regulations and planning requirements should be reformed to make them appropriate for the green age. This should include a fast-track approval process for green and carbon reducing projects.



The Government should improve equity of access to EVs by levelling the playing field on VAT for public and at-home charging, and energy suppliers should be encouraged to lower tariffs at off peak times for on and off street charging. Furthermore, in partnership with the industry, incentives should be developed to support the second-hand market, for example, social leasing.



State of Play

USA



- In 2022, 6% of new vehicles sold were electric⁶
- 18 EVs per charge point⁷
- 34 gigafactories planned for development, not clear how many are operational⁸
- The Inflation Reduction Act provides \$7,500 clean vehicle tax credit for vehicles that meet the home-grown infrastructure target and has subsequently attracted significant investment in US EV manufacturing and battery production⁹

UK



- In 2022, 16% of new vehicles sold were electric¹⁰
- 21 EVs per charge point¹¹
- 1 gigafactory and a further gigafactory in development¹²
- All new cars and vans sold will be zero emissions by 2035¹³

EU



- In 2022, 12% of new vehicles sold were electric¹⁴
- 15 EVs per charge point¹⁵
- 6 gigafactories with a further 20 planned^{16 17}
- All new cars and vans sold in the EU will be zero emissions by 2035¹⁸

China

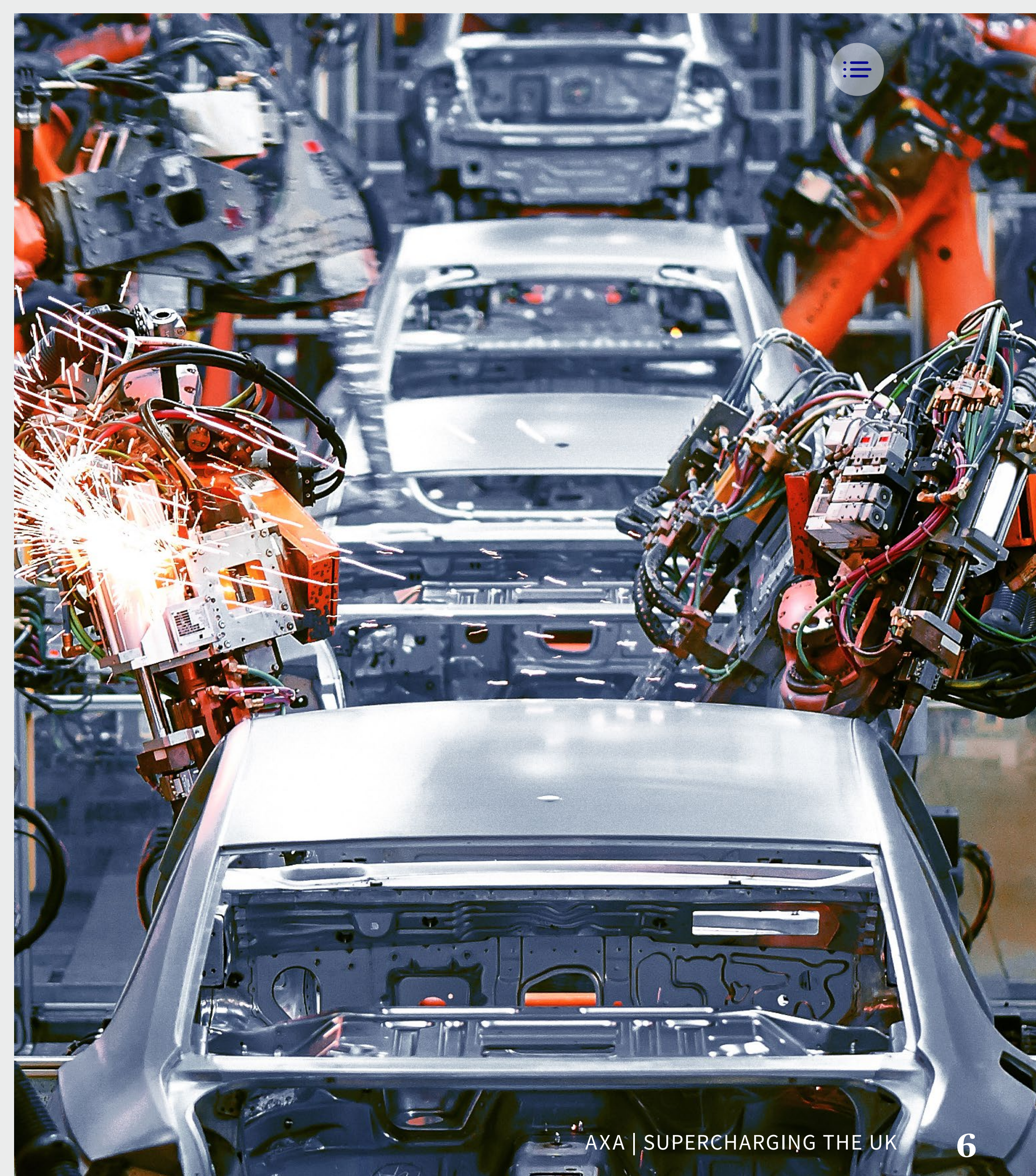


- In 2022, 29% of new vehicles sold were electric¹⁹
- 7 EVs per charge point²⁰
- Over 100 gigafactories in operation and a further 200 planned for development^{21 22}
- Produce 65% of the world's battery cell production capacity²³

Supply

The UK has historically been a global leader in automotive manufacturing with one of the world's most diverse and varied vehicle production sectors. It exports 82% of vehicles made, contributes to global R&D, and invented the three-point seat belt, airbags, and emergency braking.²⁴ In the next decade, the UK's expertise will need to evolve rapidly. By 2035, the UK and the EU (our largest export market) will end the sale of vehicles fuelled solely by petrol or diesel. As a result, the UK's mechanics and car garages will need to be upskilled to safely handle EVs.

Countries around the world are developing strategies to attract and retain investment in EV manufacturing. Most notably, the USA's flagship \$370 trillion Inflation Reduction Act and the EU's Green Deal Industrial Plan. While the UK has made progress in attracting investment in EV manufacturing (in the first half of 2023, more than a third of all cars produced were EVs), a more diverse supply chain will be critical to attracting further investment and ensuring the UK is competitive.²⁵



Gigafactories

The battery is the most central and costly component of the EV and as a result, the success, competitiveness, and profitability of the automotive industry will be reliant on a local, thriving, and varied supply chain.

Roundtable participants underlined the importance of gigafactories locations in attracting investment in car manufacturing. The close proximity between car manufacturers and battery production sites would reduce costs and subsequently attract vehicle manufacturers by enabling just-in-time production, better control over supply chain against geopolitical shocks, as well as mitigating trade tariffs (which could be as much as 10% if vehicles don't meet the rule of origin).²⁶ In addition, large scale battery production would support the development of highly skilled green jobs, and ultimately enable the UK to keep its position as a global automotive leader.

As it stands, UK vehicle manufacturers are having to source batteries from overseas as the UK's battery cell capacity is limited to just one gigafactory (2 GWh/ 11 GWh by 2025) with a further gigafactory (40 GWh) confirmed for development.^{27, 28}

This means the UK is currently behind its European and Chinese counterparts, who produce 10%²⁹ and 65% of the world's battery cell capacity respectively.³⁰ This shortfall has already resulted in some car manufacturers withdrawing their investment in the UK and relocating their operations to Asia.

The global race to attract investment in battery production is well underway; the US's Inflation Reduction Act is the most prominent example. Without further investment and incentives, more gigafactories are at risk of being built outside of the UK, and manufacturers may continue to follow suit to capitalise on production synergies. Such a scenario would result in the slow decline of the UK's automotive industry and present a threat to jobs and skills.

The recent announcement by Tata and Jaguar Land Rover to build a gigafactory in the UK is a welcome first step. However, further investment will be required to make the UK globally competitive. The UK will need at least 60-90GWh of cell production capacity per year to allow the UK to domestically produce one million battery EVs by 2030.³¹ However, some industry participants believe this is still not enough. The EU

hopes to have as many as 30 operational gigafactories by 2030, and should they reach their goal they will be able to build around nine million EVs a year.³²

Similarly, sourcing the materials required to build the batteries will be just as important. Battery cells require a wide range of raw materials including lithium, graphite, cobalt, or nickel which are mainly imported. It is estimated that global demand for EV battery minerals will increase by six to 13 times by 2040.³³ The price volatility and supply chain constraints could significantly impact EV production in the UK. Since the UK does not have abundant resources available, measures will be needed to enhance the resilience and diversify the UK's supply chain, including innovation in critical mineral extraction, processing, and recycling. In that regard, the Government's 2023 Critical Minerals Strategy is welcomed and must now be implemented.³⁴

Finally, investment in R&D should be prioritised to support battery recycling and build resilience within the UK's EV supply chain. At present there are no legitimate tests or ways to examine damaged batteries. Further research and investment in this area could drastically improve battery recycling thereby reducing their cost.



Skills

EVs have significantly different electrical and power requirements compared to traditional cars and as a result, existing mechanics, technicians, and car garages will need to be upskilled to be able to safely work on such vehicles.

The scale of the challenge should not be underestimated. Research shows that less than 10% of the automotive workforce is currently qualified to work on EVs. Without urgent action the UK will face a shortfall of 35,700 technicians.³⁵ This shortage will not only cause delays to repairs but could result in serious safety concerns, whereby untrained or not suitably trained mechanics are working on EVs, which could be a danger to life and drivers are left with unsafe vehicles. Furthermore, emergency services will require training to ensure they can safely discharge the battery in the event of a collision. This shortfall could have dangerous implications, stint demand, and present challenges to the supply chain, including the insurance industry. For example, long repair times and limited resources will impact the cost of repairs, the availability of courtesy cars, and potentially the safety levels of vehicles which would result in higher insurance premiums.

Roundtable participants stressed the impact of the skills shortage on the second-hand market, the circular economy, and the affordability of EVs. The success of the second-hand market will be dependent on knowledge of battery health and vehicle reparability. In this context, mechanics will provide insight by properly measuring the residual capacity of the battery, possibly

in the form of battery health certificates, which will promote consumer understanding and ensure that vehicles are sold at a fair price.

Experts in the EV skills industry noted that existing mechanics are willing to support the transition, but will require around four days of training to be able to safely work on EV repairs, costing around £2,500 plus the loss of productivity. Whilst on paper this appears achievable, there was consensus from participants that in the context of staff shortages, repair backlogs, and changes to the Government's 2030 target, there is no incentive for mechanics to undergo such training. This is hugely problematic given the 24,000 existing vacancies. The Government should consider repositioning the super-deduction scheme to include net-zero training.

Apprenticeships and vocational education will play an important role in training the next generation of experts that will manufacture and maintain these vehicles. However, the apprenticeship levy and T-level courses are not fit for purpose and need to be reformed to provide the right training. Currently, mechanic apprenticeships only cover a limited number of modules on EVs. Manufacturers including Tesla and Jaguar Land Rover have developed their own educational courses for apprentices to ensure they receive the correct training.

While this is extremely useful, independent garages and mechanics, which make up 64% of the repair, maintenance, and manufacturing network, are at risk of being left behind.³⁶

If the Government misses the opportunity to upskill independent car garages, the UK could not only face a skills gap whereby technicians are only equipped to work on their manufacturers' vehicles, but local economies in the UK's industrial heartlands would also be at risk of being squeezed out of the market by major manufacturers.

Germany has adopted a dual approach to vocational education and training. This sees young people experiencing standard school education and training in a real-life work environment. As a result, training, testing, and certificates are standardised in all industries throughout the country. This ensures all apprentices receive the same training regardless of region or company. The shared responsibility between the Government, employers and trade unions helps in responding to new challenges such as digital innovation.³⁷

Although upskilling presents a challenge for garages, EV manufacturers, and service providers, it presents a real opportunity to put the UK at the forefront of the automotive green jobs' revolution. The switch to EVs will require a greater focus on electrical and computer-based skills rather than mechanical skills and as a result, manufacturers, mechanics, and service providers, will become highly skilled green jobs. Research shows that green jobs in the USA have a salary premium compared to the national average.³⁸ This shift should subsequently support the UK Government's levelling up agenda and close the productivity gap.

Where Supply Meets Demand

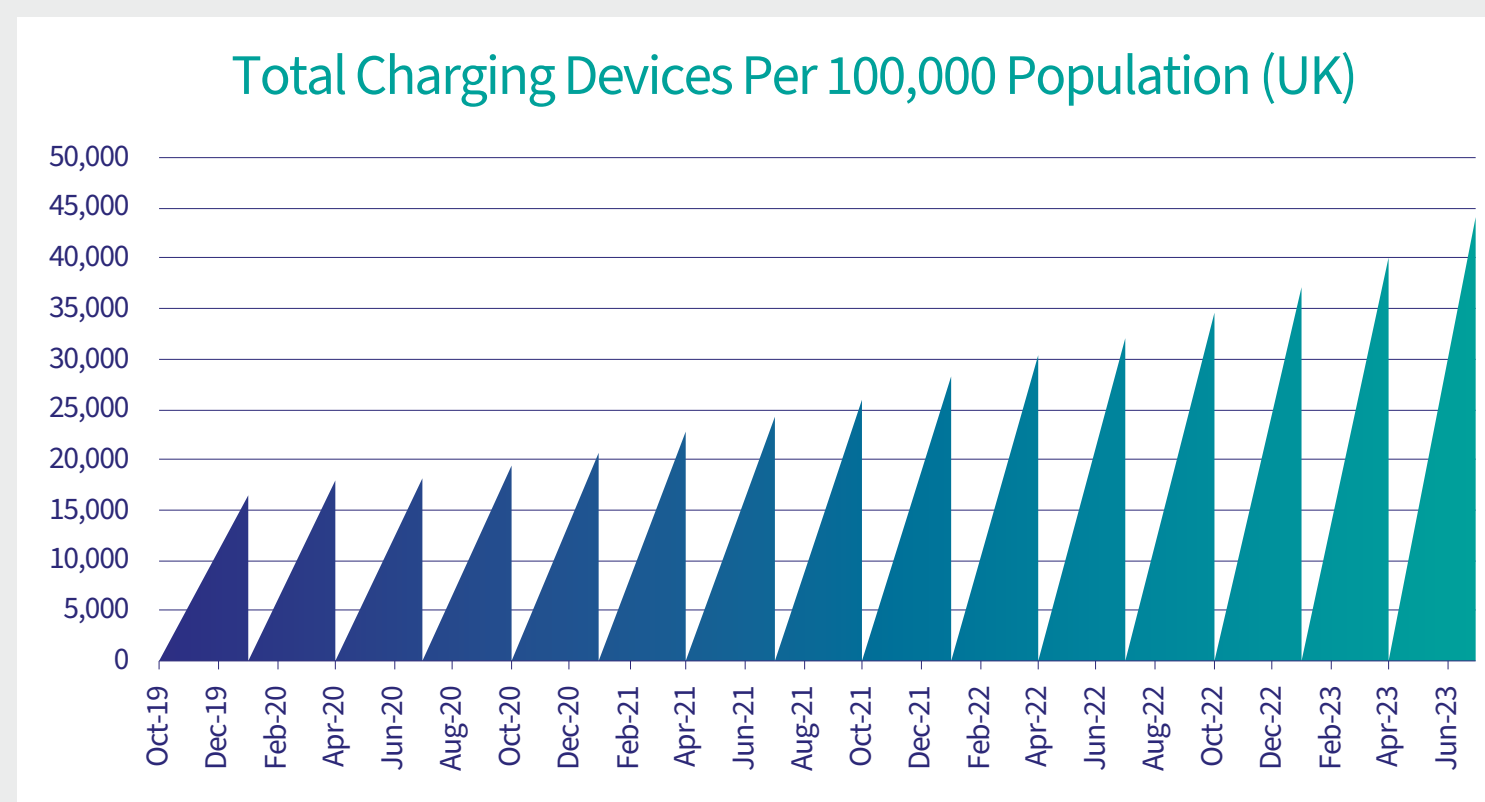
A resilient supply chain and a skilled and productive workforce will not be enough to supercharge EV production. EV manufacturers and consumers will also require assurances that the transition will be fair, sustainable, and affordable. Drivers and manufacturers will need to have confidence in the charging infrastructure and its capacity. In addition, clear regulation and targets will be critical in attracting business investment.



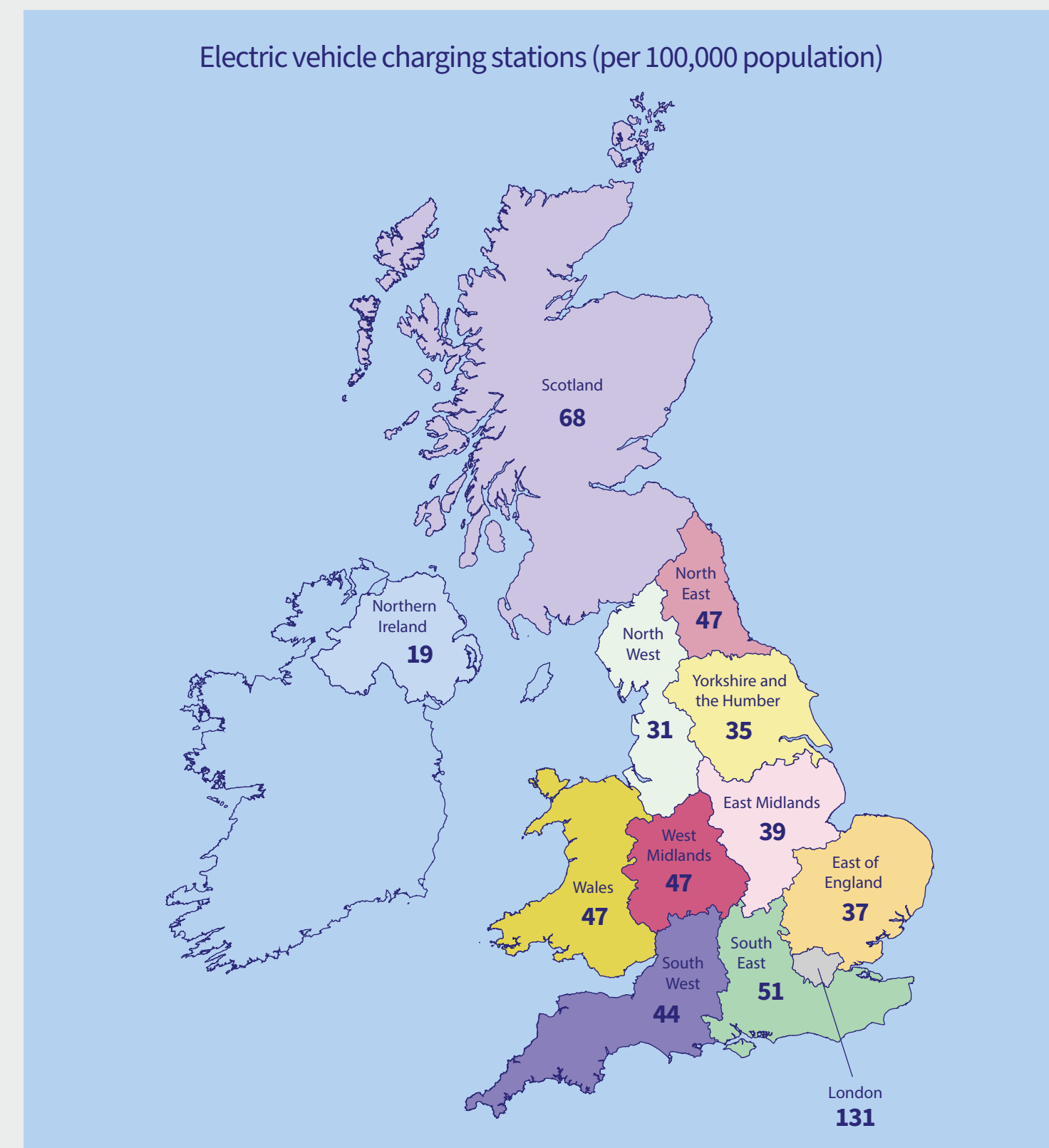
Charging and Grid Infrastructure

Charging, grid infrastructure, and EVs are inherently linked. Efficient grid infrastructure and adequate charging points are essential to support the sale and deployment of EVs across the UK. National Grid estimate that EV charging will only add 10% to electricity demand due to energy modifications and efficiency savings, and therefore will have little impact on the grid's performance.³⁹ However, the lack of charging infrastructure remains a challenge. The UK currently has around 44,000 public charging stations and the industry has warned that the UK will require 2.3 million charge points to meet the Government's 2035 target.^{40, 41}

Today, most charging demand is met by at-home charging, but enhanced public charging will be necessary to offer drivers the same level of accessibility and convenience as refuelling petrol and diesel cars. Recently announced measures to improve the UK's EV charging experience with the Public Charge Point Regulations (PCPRs) are a positive development.⁴² Particularly, the recommendations on contactless payments, the 24/7 helpline, and the requirement for the cost to be displayed in pence per kilowatt hour to enable easier price comparison for EV drivers. However, more actions are required to increase confidence in the network and improve drivers' experience of using EV public charge points.



Firstly, there is a lack of public charging power capacity to match the speed of EV deployment. It is estimated that on average in 2022, there were more than 95 EVs per rapid charger across the UK.⁴³ Data also shows a growing regional charging divide. At the beginning of this year, Northern Ireland had just 19 chargers per 100,000 people compared to 51 in the South East and 131 in London.⁴⁴ These regional disparities raise concerns about the fair and sustainable deployment of EVs. While the optimal ratio of EVs per charger will differ based on local specificities and driver needs, there was a broad consensus that the industry can and wants to do more to support the charging infrastructure rollout. However, they require an awareness of the Government's planned projects.⁴⁵



A clear all-encompassing national strategy that includes the Government's pipeline for infrastructure development would enable the industry to work in partnership with the Government by filling in the gaps to ensure equity of charging facilities. Furthermore, such a strategy would demonstrate that the Government is on the side of all motorists, including those who wish to reduce their emissions and the impact of climate change.

Secondly, it is encouraging to see electricity providers including British Gas and Octopus offering lower tariffs for off-peak charging. However, more needs to be done to equalise the cost of public charge points compared with at-home chargers to avoid creating an unequitable transition. The pavement tax currently sees a 15% price increase on street charging versus at-home charging.⁴⁶ Adding an additional £148 per year in tax alone for EV drivers without private parking.⁴⁷ And with 40% of UK households only having access to on-street charging, our roundtable participants strongly agreed that it is critical that the EV transition does not leave behind people who do not have reliable access to private home or workplace charging points.⁴⁸ Energy providers should consider providing the same tariffs for on-street off-peak charging to enable an equitable transition.

In addition, the Government should consider adding electricity to the Renewable Transport Fuel Obligation as a way of lowering the price of charging for consumers. Participants estimate that this would save consumers, 10 pence per kilowatt hour, enable the industry to trade credits and ultimately speed up infrastructure roll out.

Regulation and Planning Reforms

The UK Government's 2050 net-zero legally binding target, the zero emissions vehicle (ZEV) mandate, and the draft charge point regulations have been central in driving forward supply and the subsequent rollout of EVs. Without them, participants believe that the EV sector would not be as established in the UK. However, the Government's recent delay to the 2030 target, and the upcoming General Election have created significant doubt about the UK's attractiveness as an investment opportunity.

The roundtable participants repeatedly underlined the structural disadvantage facing the UK compared to competing markets, which offer cash incentives and tax breaks to attract investment in net-zero infrastructure. Without clear legally binding regulation and reforms to the planning system, the UK could be left unable to catch-up. Therefore, for the UK to be able to secure investment, develop skills, and create a circular economy, the UK Government must work with the devolved administrations to bring forward cross-governmental regulation and planning reforms with the intention of making it easier for businesses to invest in the UK.

The ZEV mandate is a unique opportunity to signal to the industry and the rest of the world that the UK is serious about the transition to EVs. While the cost penalty for manufacturers is up for debate, there was clear consensus that the actual mandate should stand firm. The industry is investing over £6 billion to 2030 to roll out charging infrastructure in all parts of the UK, supporting the switch to EVs and the transition to net-zero.

Wider regulatory reform is also required. The UK should create a framework that is fit for the green revolution that simplifies and fast-tracks green technology projects and funding approvals. The current process for securing permits and funds to build net-zero infrastructure, including gigafactories and wind farms, is extensive, with it taking longer to get a permit for a battery factory than to build it. Entire charging stations have been put on hold at Birch and Lancaster services because deadlines have been missed for preparatory work.⁴⁹

Other countries have already taken steps to combat this. In the EU, the proposed Net Zero Industry Act will enable a nine or 12-month time limit on permit-granting processes, for sites with output below and above 1GW, respectively.⁵⁰ Planning and wider reforms in the UK will enable the industry to lower costs and have the confidence to invest, and ultimately benefit consumers in the long-term.



Demand

Figures from SMMT show an uptake of EVs in new car registrations.⁵¹ However, the increase in EV sales must not be taken for granted, as there are signs that demand has hit the brakes. In Germany, manufacturers Volkswagen, BMW and Mercedes-Benz have cut their production by a fifth compared to pre-pandemic levels.⁵² And with the cost of car parts and components for batteries increasing, the industry has warned that there is a prospect of creating a society of haves and have-nots when it comes to decarbonisation of transport. The impact of COVID-19 and the cost-of-living crisis have also added to the likelihood of a green inequality. Therefore, addressing concerns around EV affordability as well as the lack of education and knowledge among customers will be critical to drive demand and build business confidence to invest in the UK and achieve the net-zero transition.⁵³





Affordability

The Government’s initial support (at-home charging grant, the plug-in car grant, and the vehicle excise duty exemption) played a significant role in kickstarting the EV market. Participants noted that without these incentives and the 2030 and 2035 targets, the current demand for EVs would not exist. However, there was consensus that more needs to be done to make the transition fair, inclusive, and equitable.

The upfront cost of EVs makes them unaffordable for many, particularly in the context of the cost-of-living crisis. There are only a handful of electric cars available below £30,000, compared with the less than £20,000 price tag that consumers would expect to pay for a mass market or entry-level petrol car. Prior to the pandemic and the war in Ukraine, participants had expected price parity between ICE and EVs to take place between 2025 and 2027. However, due to ongoing uncertainty, it is not clear when EVs will cost the same as petrol and diesel cars. Despite this we can see progress being made, as evidenced by the reduction in price point for Tesla’s vehicles from close to £100,000 down to now around £40,000.

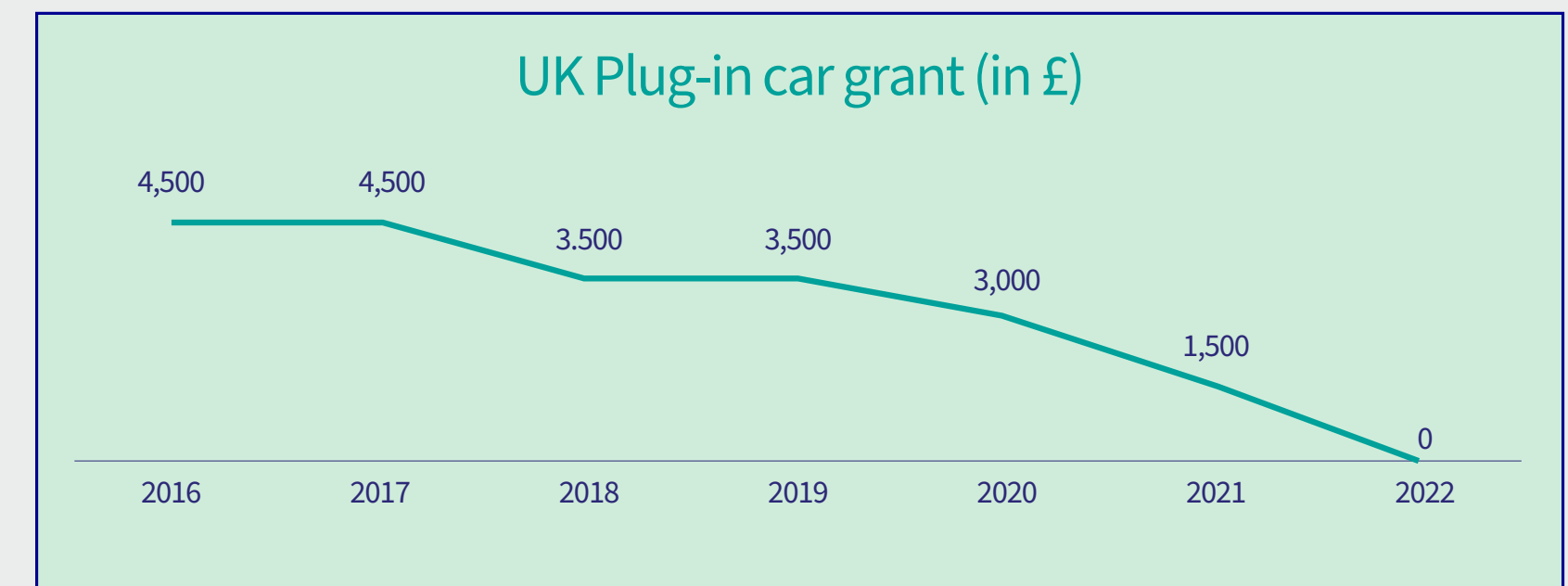
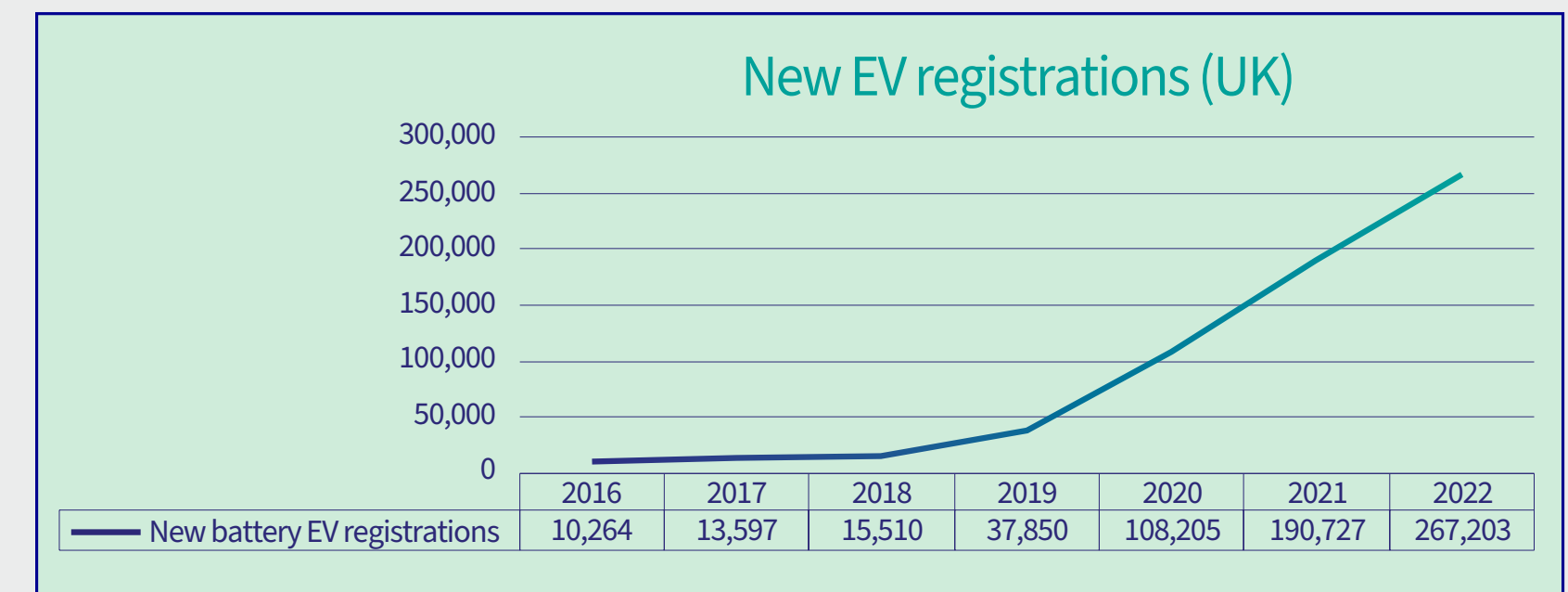
While we recognise EV affordability will improve over time, more could be done to demonstrate to consumers the long-term savings that EVs offer. Data shows that overall EVs tend to save drivers between £750 and £1,000 a year in fuel costs and reduced vehicle taxes.⁵⁴ In addition, maintenance costs are also thought to be less than that of petrol and diesel cars due to EVs

having fewer moving parts. These savings should be highlighted to consumers when considering purchasing or leasing a new vehicle. Furthermore, the Government should reconsider its decision to phase out the plug-in car grant (see graph) to support consumers with some of the upfront costs.

Participants unanimously agreed that improving EV affordability will require a thriving second hand car market. Used cars in the UK are priced on average at around £12,000 compared to £22,000 for a new car.⁵⁵ Companies have the potential to supercharge the supply to the second-hand EV market by rolling out EV company cars. These rentals can be easily, quickly, and effectively filtered through to the second-hand market, increasing the supply and driving down the average cost of an EV.

In addition, the Government should consider the option of supporting social leasing as a means to reduce adoption barriers and ensure the inclusive decarbonisation of passenger cars. In France, the Government is preparing to subsidise EV leasing to make vehicles more affordable for low-income consumers. The intention is to make EVs fully available for 100 Euros per month.⁵⁶ That price would make leasing an EV cost less than what most drivers spend on petrol/diesel in a month.

While we recognise EV affordability will improve over time, more can be done to demonstrate to consumers the overall savings that EV can offer as well as exploring incentives to boost the second-hand market.



Education and Knowledge

Although the EV industry has matured over recent years, lack of education and knowledge among consumers is still holding back adoption. According to a recent study, the main consumer concerns are related to the lack of charging and vehicle range anxiety, and part of these concerns are due to a lack of understanding.⁵⁷

Against that backdrop, enhanced customer education and contact is required to ensure the safe and sustainable use of the vehicle, not only at the point of sale but also during its entire lifecycle. A driver of any new vehicle always needs at least basic familiarisation, but also formal advice regarding the use, maintenance, and the recycling of key components of the vehicle, including the battery. This should be provided to consumers when purchasing the vehicle.

To prevent misconceptions and battery degradation, a trusted authority such as vehicle manufacturers and garages should also provide advice and myth busters to new EV owners. For example, advice on charging EVs under various weather conditions, including rain, as well as how to best maintain

battery health and whether to repeatedly charge the battery to 100% or let it run close to zero range before recharging. In addition, participants suggested that guidance on the battery's predicted lifecycle (most EV batteries have warranties of around eight years, or 100,000 miles, and they are expected to last longer) in the form of battery health certificates would mitigate common EV misconceptions and support the uptake of the second-hand market for EV batteries or used EVs.⁵⁸

Similarly, EVs in general require less maintenance than most ICE cars. This is mostly due to EVs having fewer fluids and less moving parts than a conventional fuel engine, therefore, they may not require the same level of ongoing repairs and services.⁵⁹ Yet, EVs are more likely than ICE vehicles to fail MOT tests.⁶⁰ This is due to drivers believing that EVs are smart cars and require no maintenance. However, like all vehicles, EVs do require some maintenance to ensure safe driving, including rotating tyres, changing brake pads or air conditioning filters. Data shows the most common EV breakdown is due to tyre pressure.⁶¹ EV drivers must be educated to address these issues and prevent car accidents.



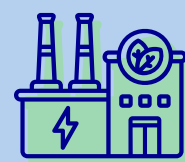


Conclusion and Recommendations



- It is evident that the UK requires a cross-governmental, holistic, and long-term strategy to support the rollout of EVs across the UK. A public private partnership should be established to develop the strategy and leverage the expertise from every component of the EV industry and supply chain. This overarching strategy should include:

For the supply of EVs:



- Implement a gigafactory and a supply chain strategy for the automotive industry. This would create a twin track approach to support both battery production and vehicle manufacturing as well as incentivise investment and show the UK is serious about decarbonising road transport.

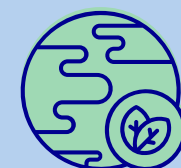


- Review the apprenticeship levy in line with the development of a national green skills strategy. This would ensure independent car garages are not left behind and support employers with the cost of upskilling, whilst ensuring the UK is developing the necessary skills for the future.

Where supply meets demand:

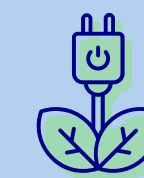


- Publish a pipeline of planned charging infrastructure rollouts. This would enable the industry to determine where and when public charging infrastructure is planned for development, fill in the gaps and liaise with the grid so that they can forecast capacity and suggest locations.



- Regardless of the electric vehicle target being 2030 or 2035, the Government must provide businesses with certainty by introducing a legally binding date for the phase out of petrol and diesel vehicles. Outdated regulations and planning requirements should also be reformed to make them appropriate for the green age. This should include fast track approvals for green projects.

To support consumer demand:



- The Government should level the playing field on VAT for public and at-home charging and implement a market-based solution. Furthermore, in partnership with the industry, incentives should be developed to support the second-hand market, for example social leasing.



- To support consumer education and knowledge, enhanced point of sale contact should be provided by the industry to improve awareness and driver safety. In addition, battery health certificates should be implemented to improve consumer awareness of the battery, promote recycling, and boost the second-hand market.

Attendees

We would like to thank our roundtable attendees for their insights and support.



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- 10 How many EVs are there in the UK - EV market statistics 2023 - Zapmap (zap-map.com)
- 11 Charging points per EV and kW per electric LDV in selected countries, 2021 – Charts – Data & Statistics - IEA
- 12 Tata Group to invest over £4 billion in UK gigafactory creating thousands of jobs - GOV.UK (www.gov.uk)
- 13 PM recommits UK to Net Zero by 2050 and pledges a “fairer” path to achieving target to ease the financial burden on British families - GOV.UK (www.gov.uk)
- 14 Europe: Plug-In Car Sales Increased In February 2023 By 14% (insideevs.com)
- 15 Charging points per EV and kW per electric LDV in selected countries, 2021 – Charts – Data & Statistics - IEA
- 16 UK gigafactories: an explainer on battery manufacturing in the UK | CAR Magazine
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