



Department
for Transport

The UK ZEV Transition

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Cenex Expo
4 September 2025



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1. Why do this?

2. How do we do this?

3. Progress

4. Next steps

5. Challenges



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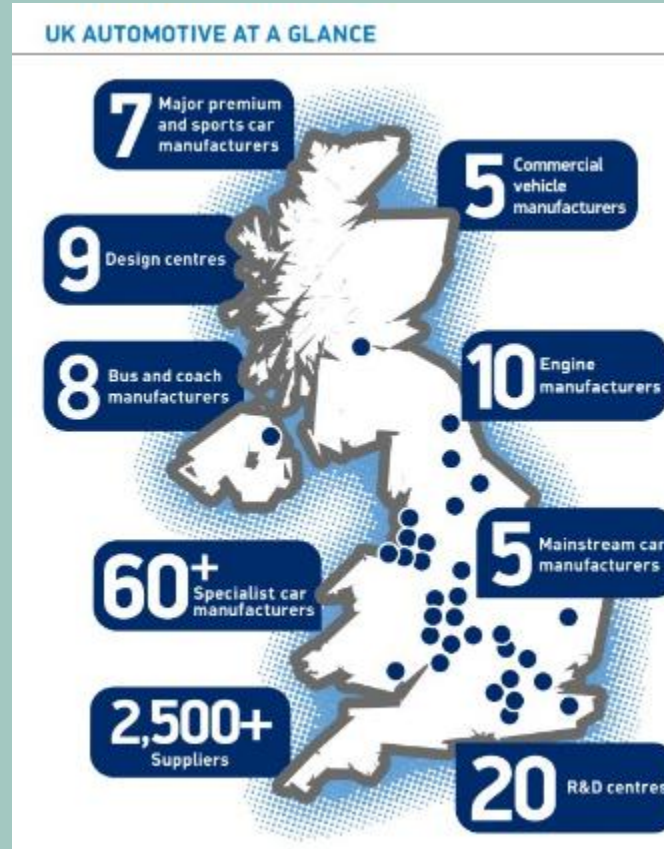
1. The industrial opportunity...

“We believe in an all-electric future...”
Mary Barra, GM 2024

“The future of four wheels is all-electric”
Goldman Sachs 2024

“Why the automotive future is electric”
McKinsey & Co 2021

“The future of mobility in Europe is electric”
VW CEO 2024

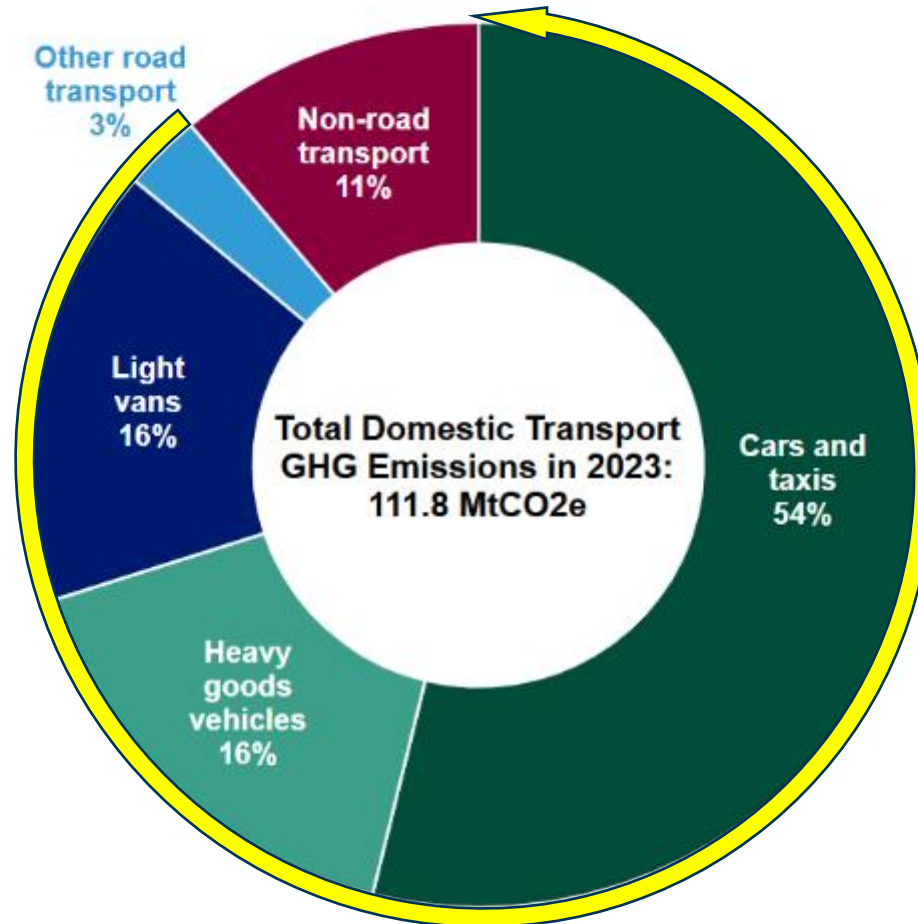


2. Air quality...



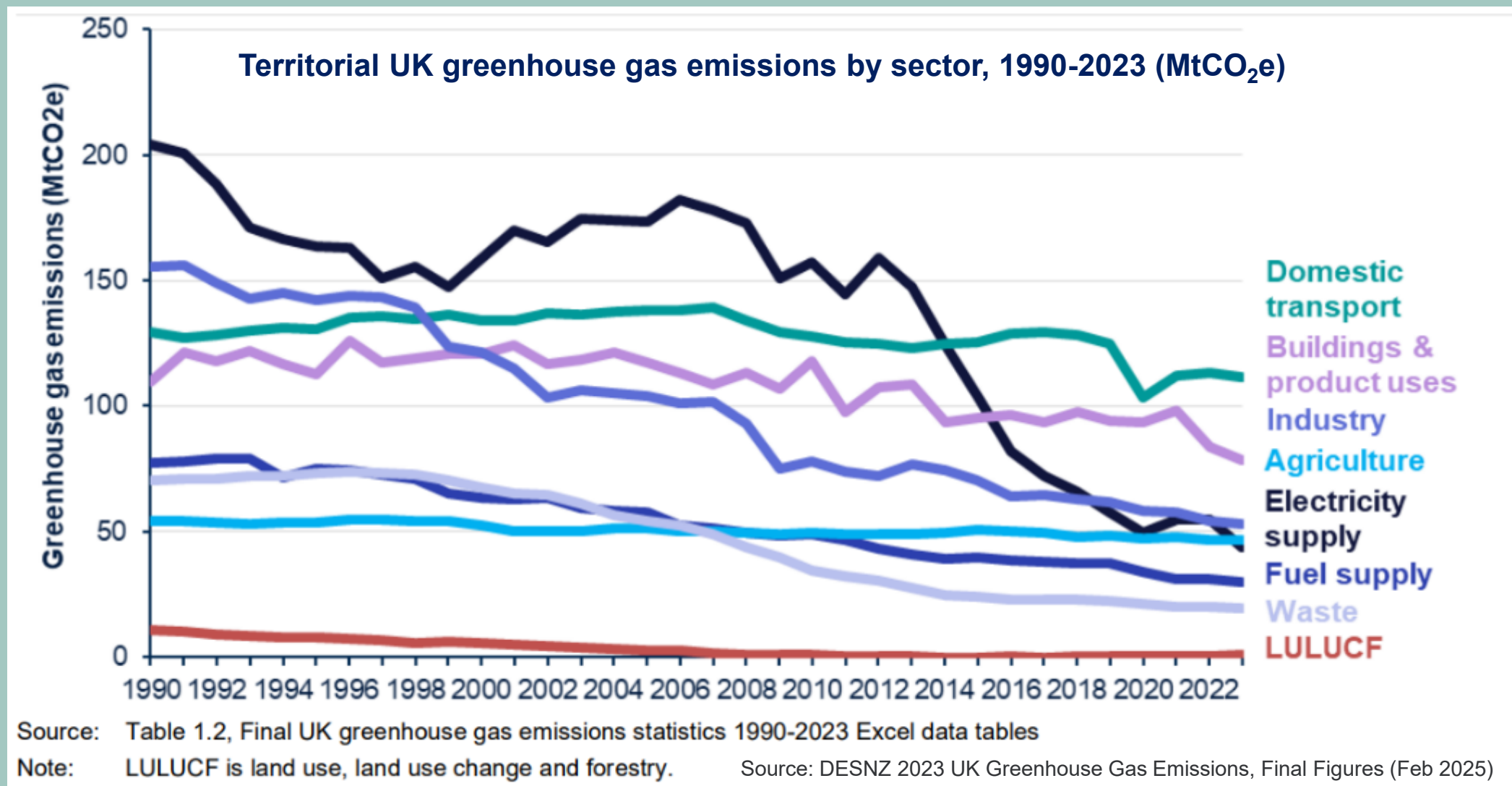
3. Carbon: Road Transport is 89% of domestic transport emissions.

Domestic greenhouse gas emissions by road transport modes and non-road transport, 2023



Source: DfT, Greenhouse gas emissions from transport in 2023 (April 2025).

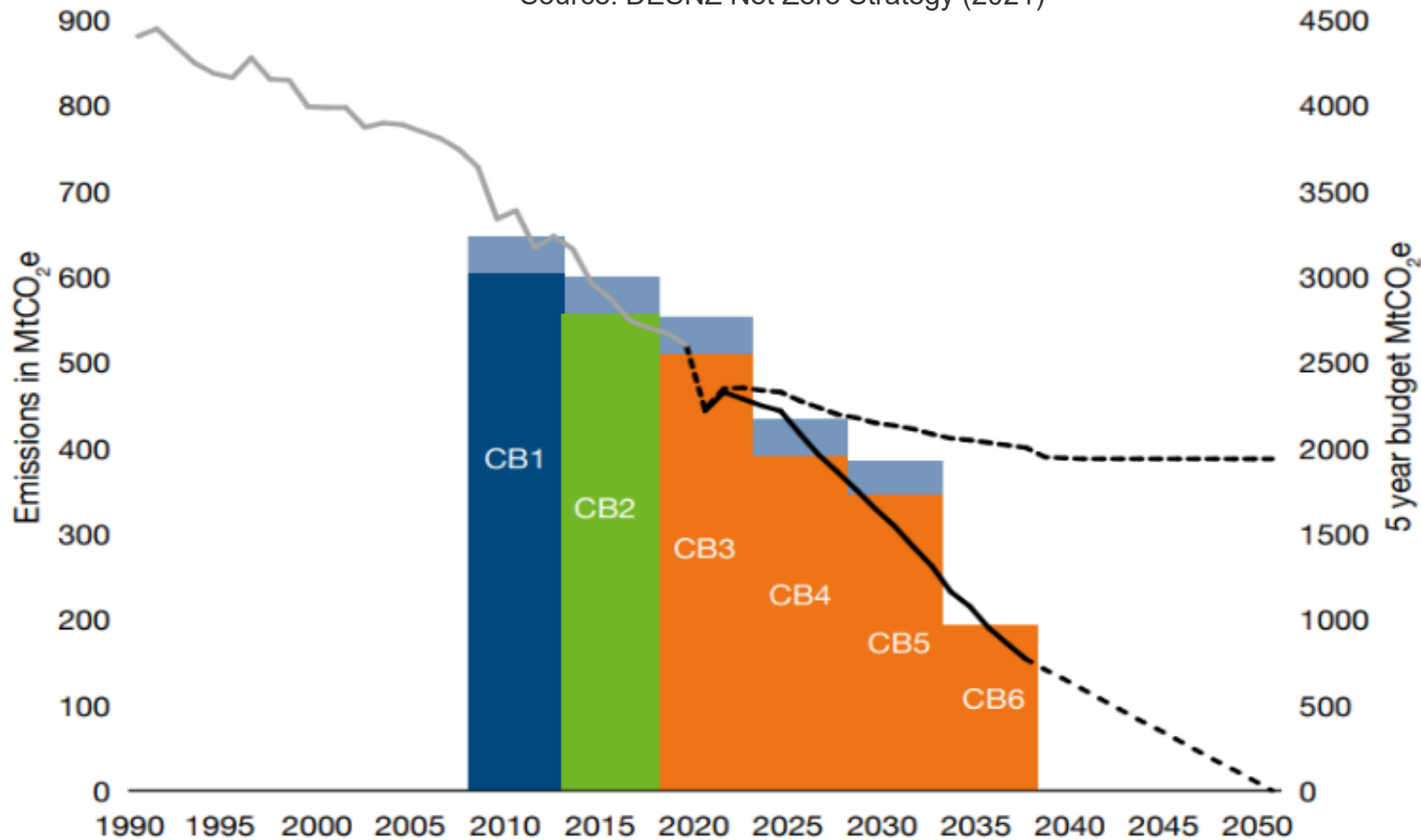
Transport is the largest emitting sector: 29% of emissions in 2023



Carbon budgets remain challenging (and legally binding)

Emissions reductions needed to meet UK carbon budgets

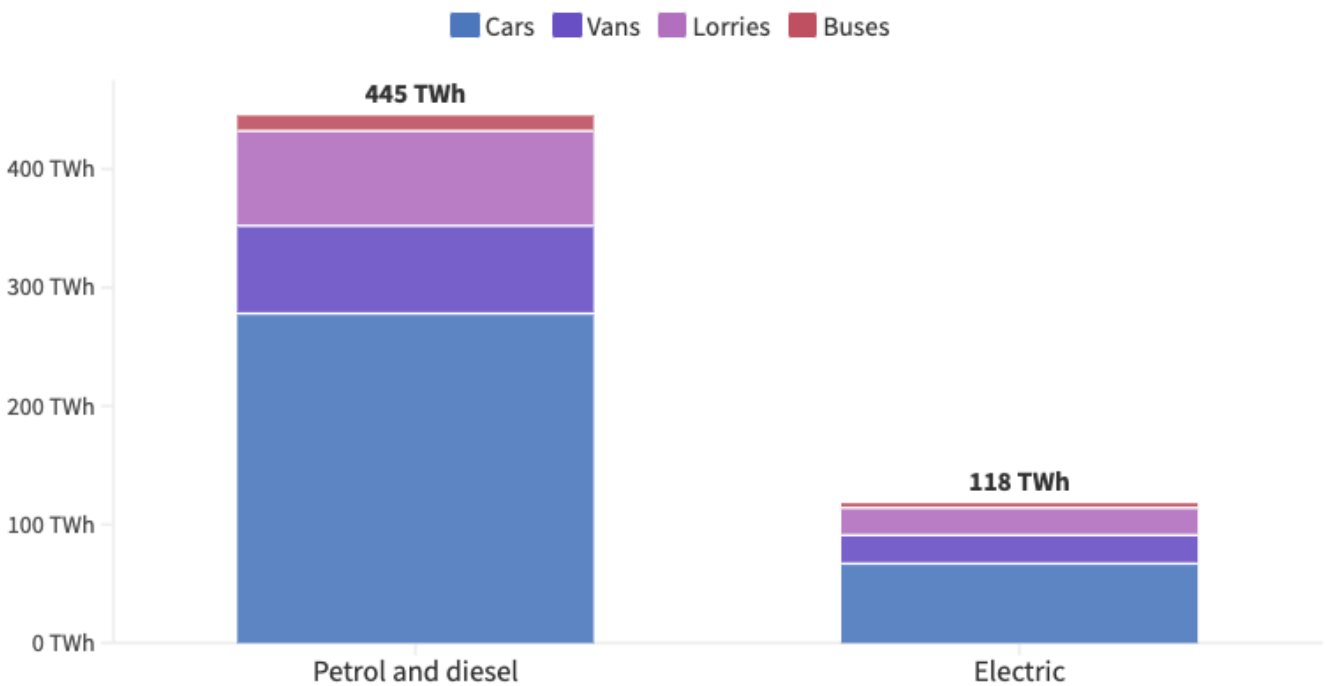
Source: DESNZ Net Zero Strategy (2021)



4. Energy Security...

Electricising road transport in Great Britain would significantly reduce energy demand

The amount of low-carbon electricity that would be needed to fully electrify Great Britain's road transport is compared to how much it currently uses from petrol and diesel. Electric vehicles are 3 to 4 times as efficient as gasoline.



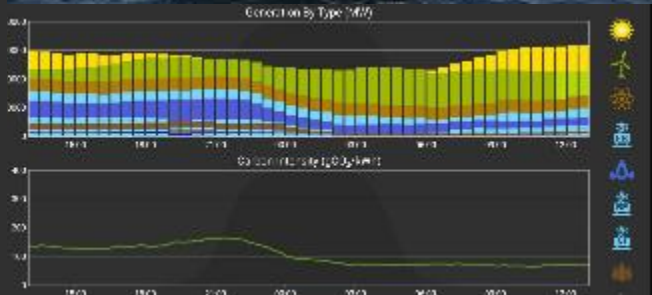
Data Sources: Based on the UK Government's Road Fuel and traffic statistics, and EV Database

GB Grid Carbon Intensity

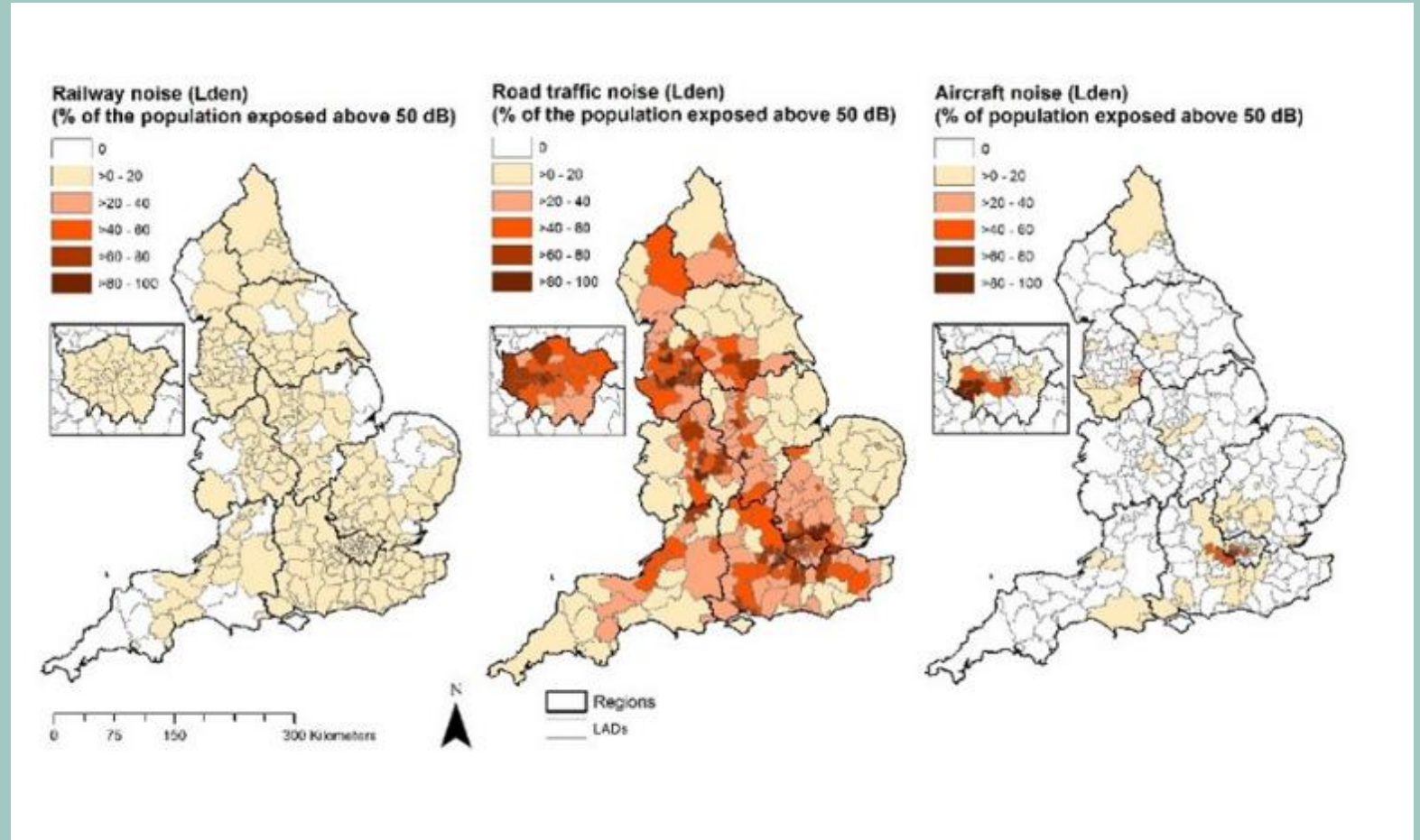


	Solar	9000 MW	(28.4%)
	Wind	8600 MW	(27.1%)
	Nuclear	4300 MW	(13.5%)
	France	3300 MW	(10.5%)
	Gas	2600 MW	(8.1%)
	Belgium	1000 MW	(3.2%)
	Netherlands	1000 MW	(3.1%)
	Biomass	820 MW	(2.6%)
	Norway	560 MW	(1.8%)
	Other	410 MW	(1.3%)
	Hydro	140 MW	(0.4%)
	Coal	0 MW	(0.0%)

Updated 08/06/2025 13:00 BST



5. Transform our towns and cities...





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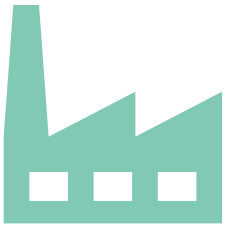
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Three key requirements for mass adoption of zero emission vehicles

1. Secure supply of vehicles

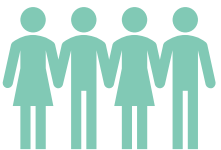


A **clear framework** is needed to require manufacturers to clean up their vehicles and bring EVs to the UK in a competitive market.

2. Strong consumer demand for vehicles



EVs currently **cost more upfront** than petrol or diesel vehicles due to the cost of the battery.



Drivers face **informational and educational barriers**, including widespread misinformation.

3. Visible, viable recharging infrastructure



EVs need **new infrastructure** and are a different proposition for drivers used to refuelling with petrol or diesel.





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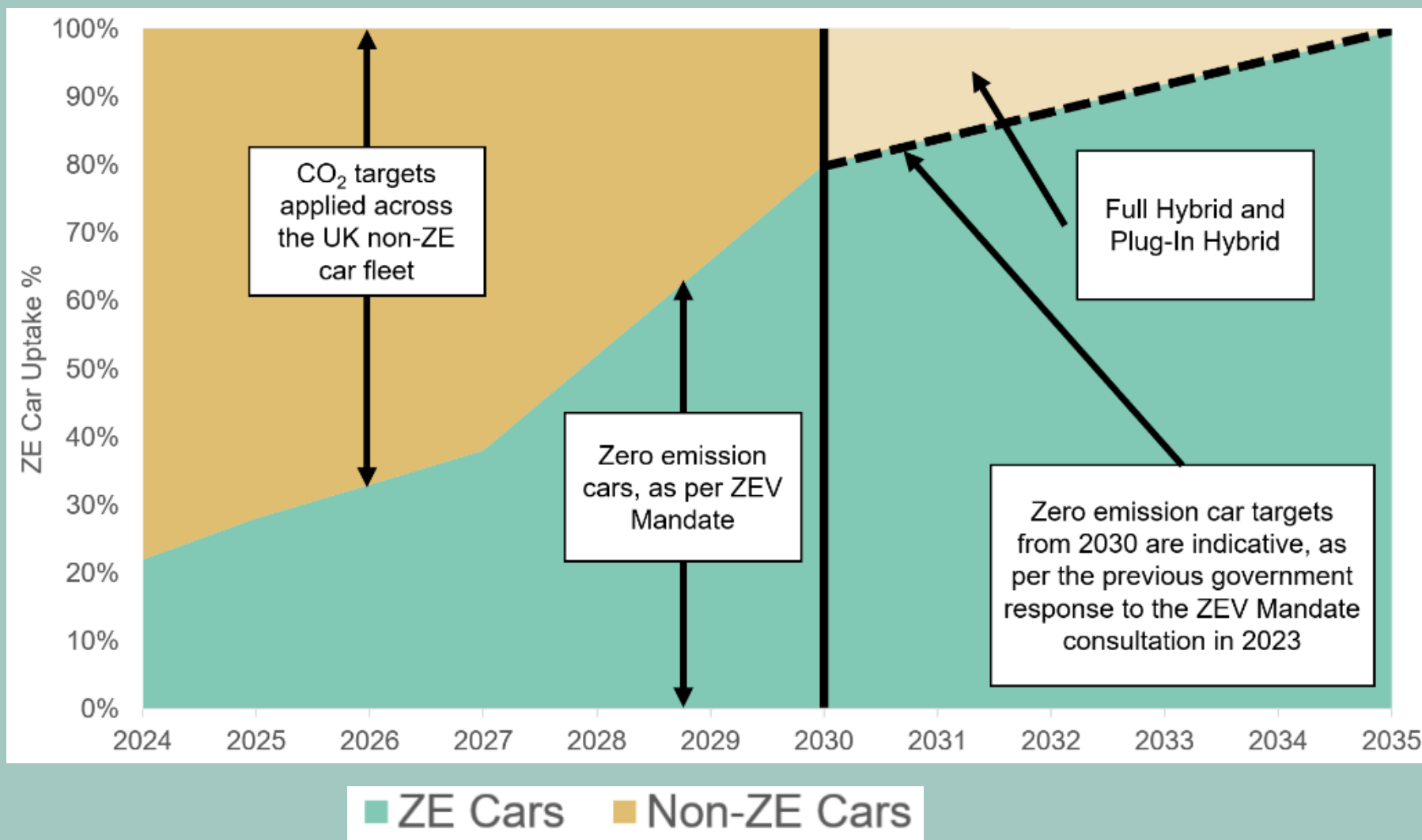
2. How do we do this?

3. Progress

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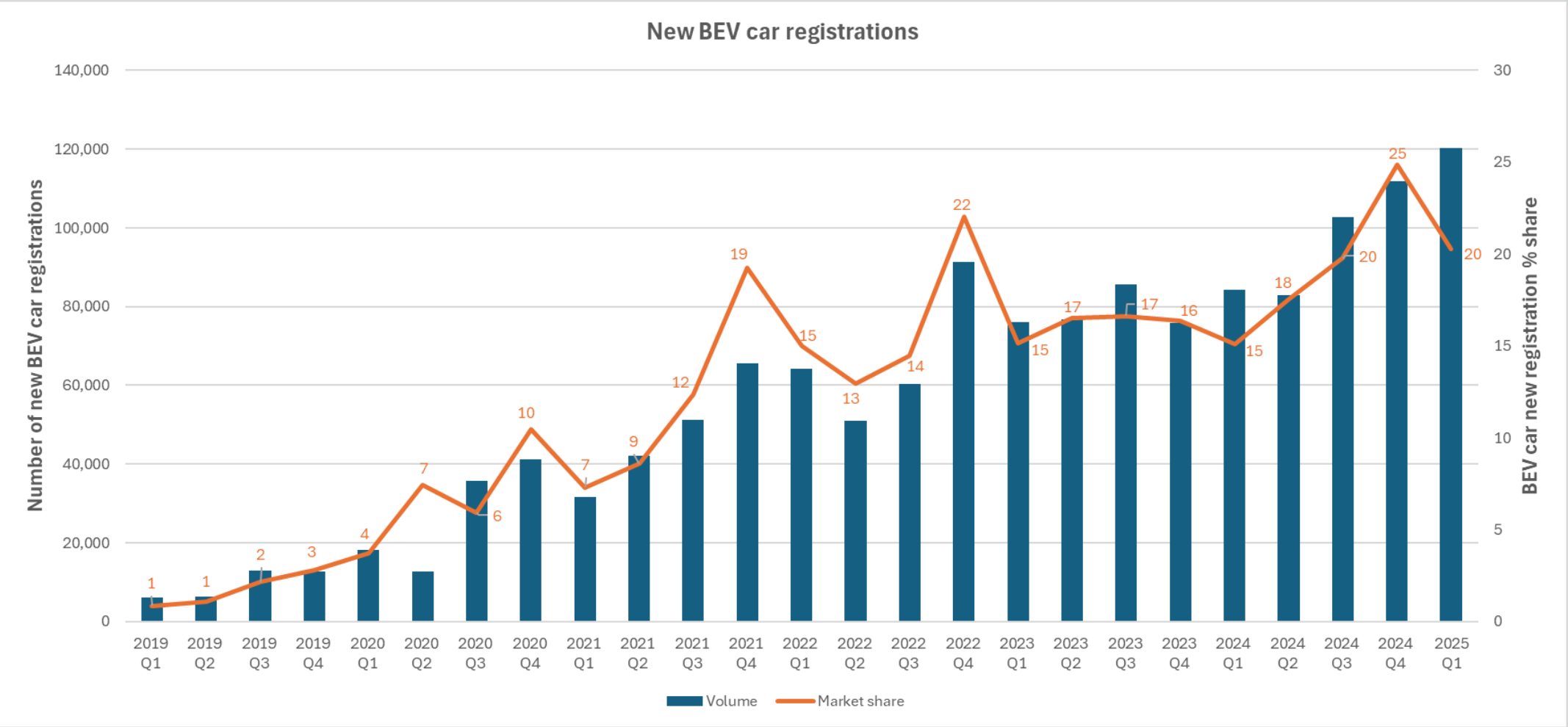
5. Challenges

Supply: Providing certainty for industry on ZEV Mandate



- Reconfirmed 2035 100% ZEV target;
- Reinstated 2030 phase out for pure ICE cars;
- Set out hybrid definition for 2030-35 period;
- Reconfirmed existing ambitious trajectory;
- Some new flexibilities for manufacturers.

EV Registrations: steadily increasing in volume and market share



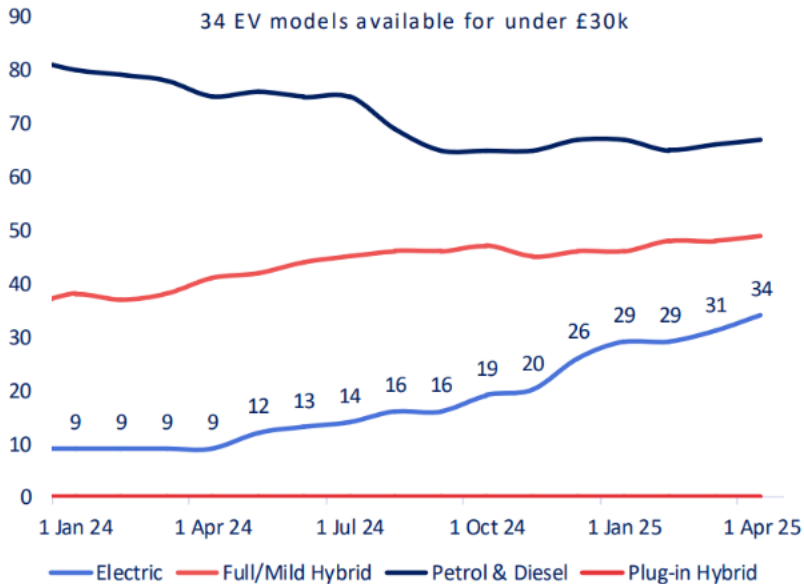
	2025	2024	Difference
New Electric Car Sales YTD	254,666	194,431	<div>↑</div> +31.0%
New Electric Car Market Share YTD	21.5%	16.8%	<div>↑</div> +4.7 pts

Vehicle choice increasing, £650m Electric Car Grant driving interest...

NUMBER OF MODELS UNDER £30K

Based on the RRP.

Source: SMMT / AutoTrader 2025



Band 1: £3,750



Ford Puma Gen-E
RRP: Now from £26k

Band 2: £1,500



Renault 5
RRP: Now from £21k



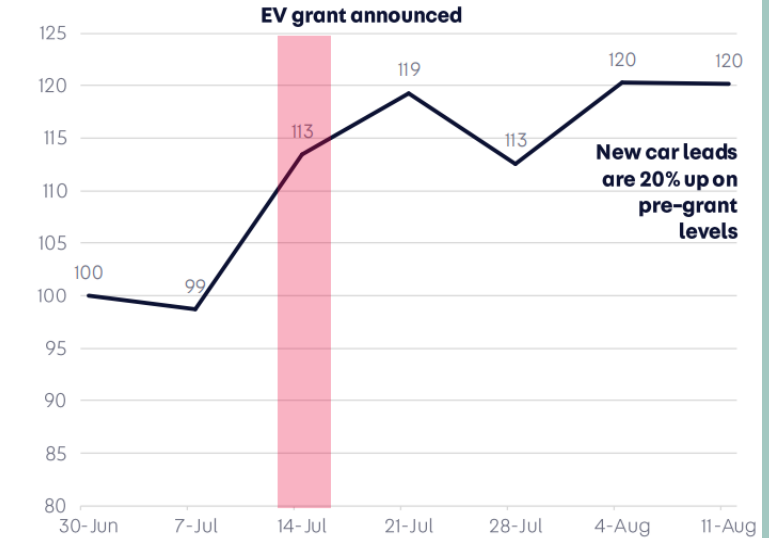
Citroen E-C3
RRP: Now from £20k



Nissan Micra
RRP: Now from £21k

Total new car leads : Indexed

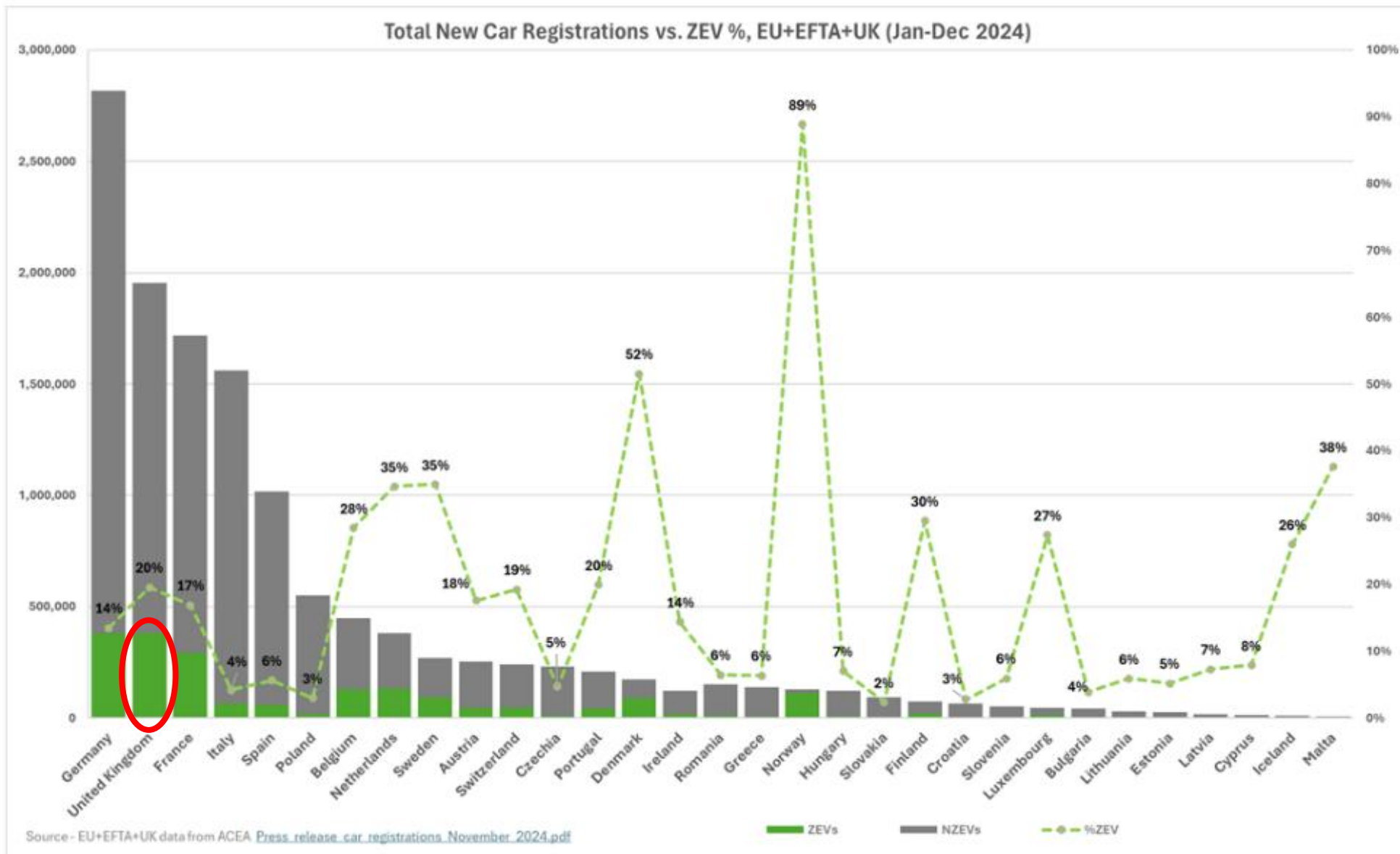
100 = w/c 30th June



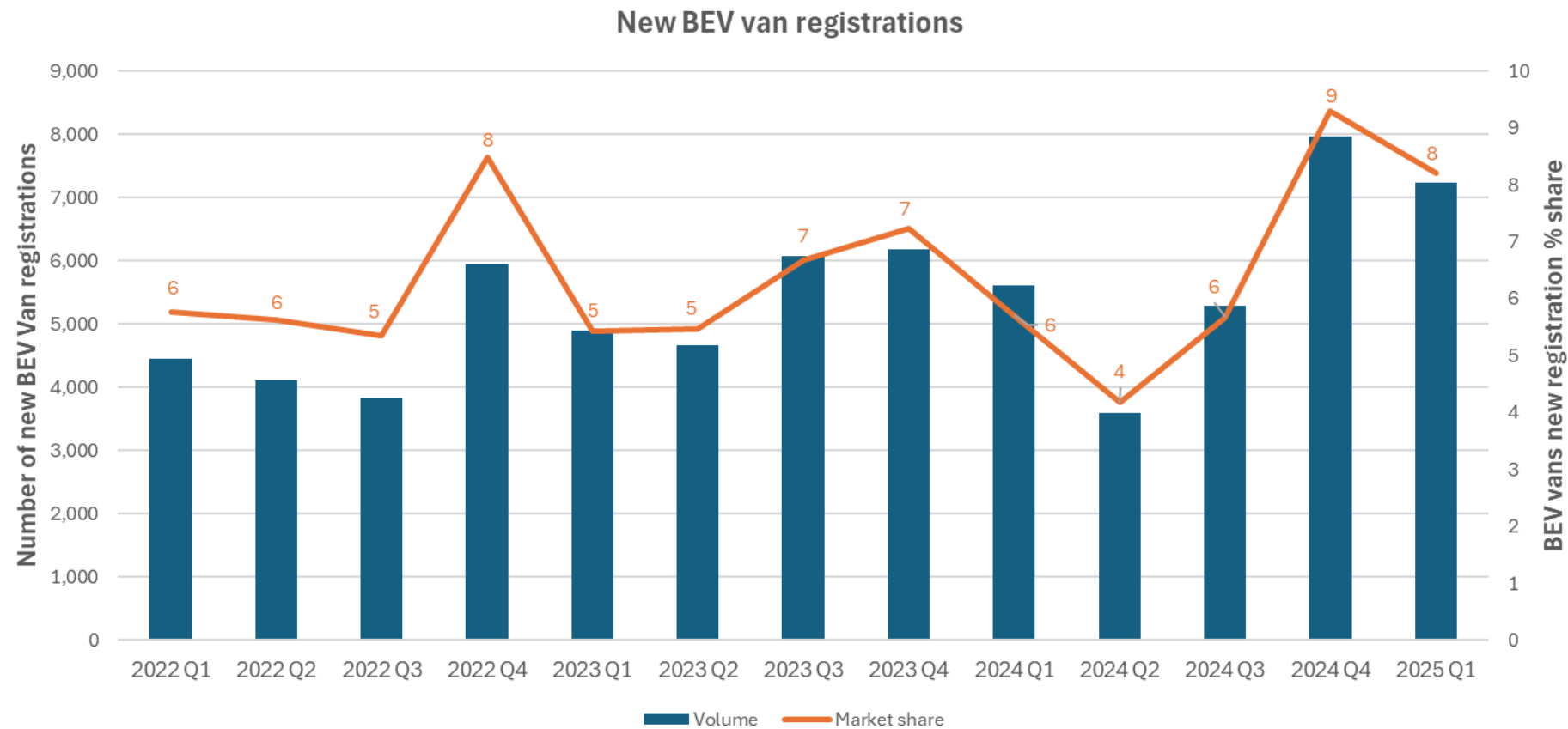
Autotrader

- 35 models have now been approved.
- The Electric Car Grant provides grants of £3,750 and £1,500 based on sustainability of manufacture.
- Base version of the vehicle must be available for £37,000 or less, with £5,000 leeway for optional extras.
- Appreciable immediate impact. We will continue to monitor the effects and update the grant as needed.

UK biggest EV market in Europe in 2024

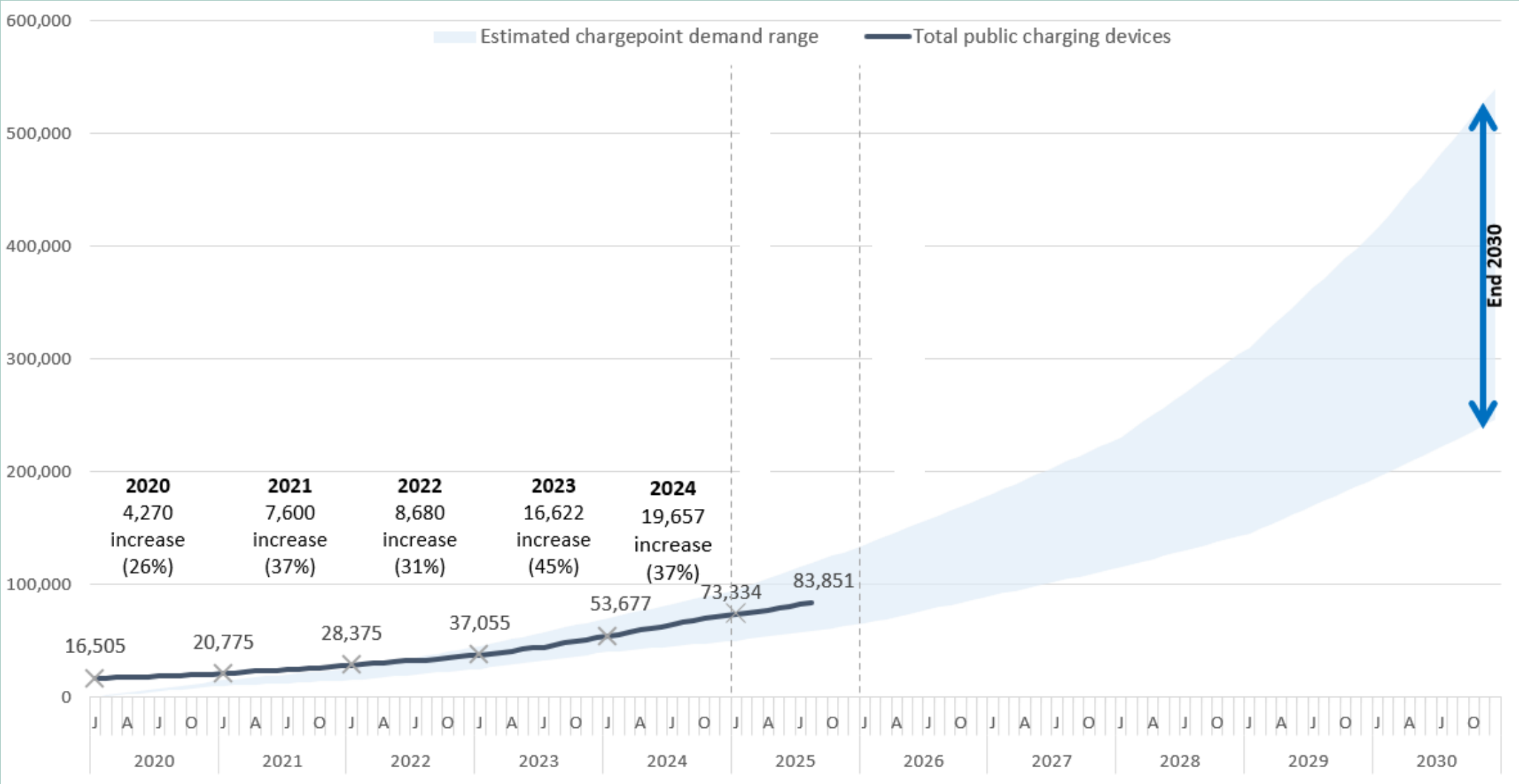


ZEV Van demand: Signs of growth...



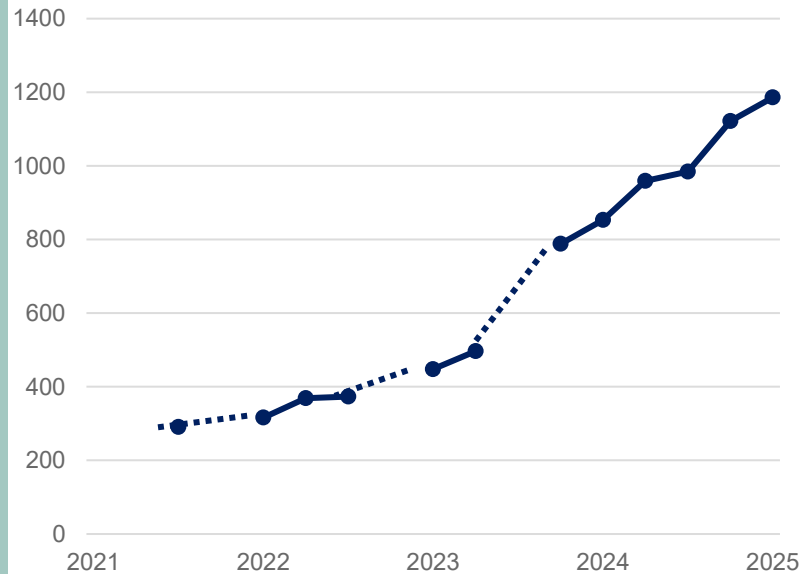
	<u>2025</u>	<u>2024</u>	<u>Difference</u>
New Electric Van Sales in July	2,442	1,415	📈 +72.6%
New Electric Van Market Share in July	10.3%	5.7%	📈 +4.6pts
New Electric Van Sales YTD	15,954	10,260	📈 +55.5%
New Electric Van Market Share YTD	8.9%	5.1%	📈 +3.8pts

Accelerating chargepoint deployment: £6bn private sector investment



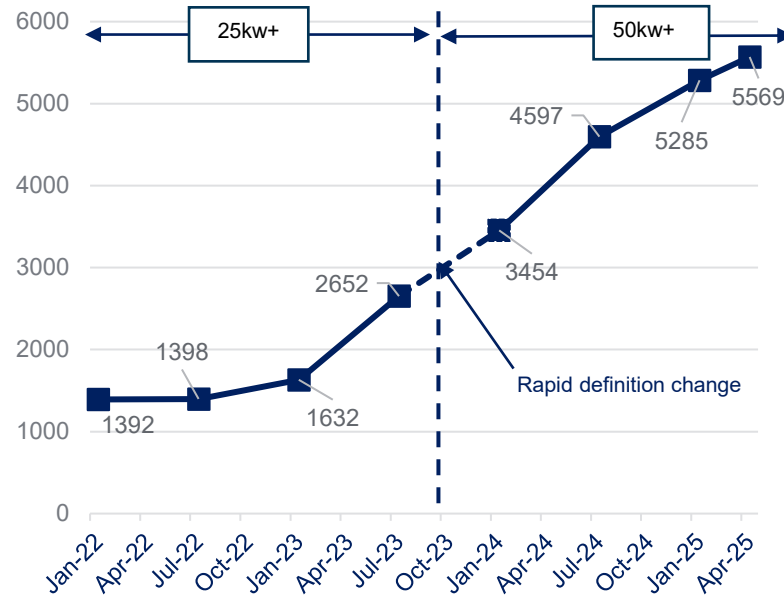
Charging infrastructure surging on motorways and major A-roads

50kW+ (rapid and ultra-rapid) open-access chargepoints at motorway service areas as of July 2025 (as self-reported by MSAs)



Total rapid and ultra-rapid chargepoints at MSAs have **tripled** in the last three years (industry data, July 2022 – July 2025)

50kW+ open access charging devices within one-mile of the SRN



Total rapid and ultra-rapid chargepoints **within 1 mile** of the SRN have nearly **quadrupled** in the last three years. (Zapmap, July 2022 – April 2025)



Public charging increasing in all regions

There are 83,851 public charging devices in the UK as of 1 August 2025, of which 16,920 are rapid devices.

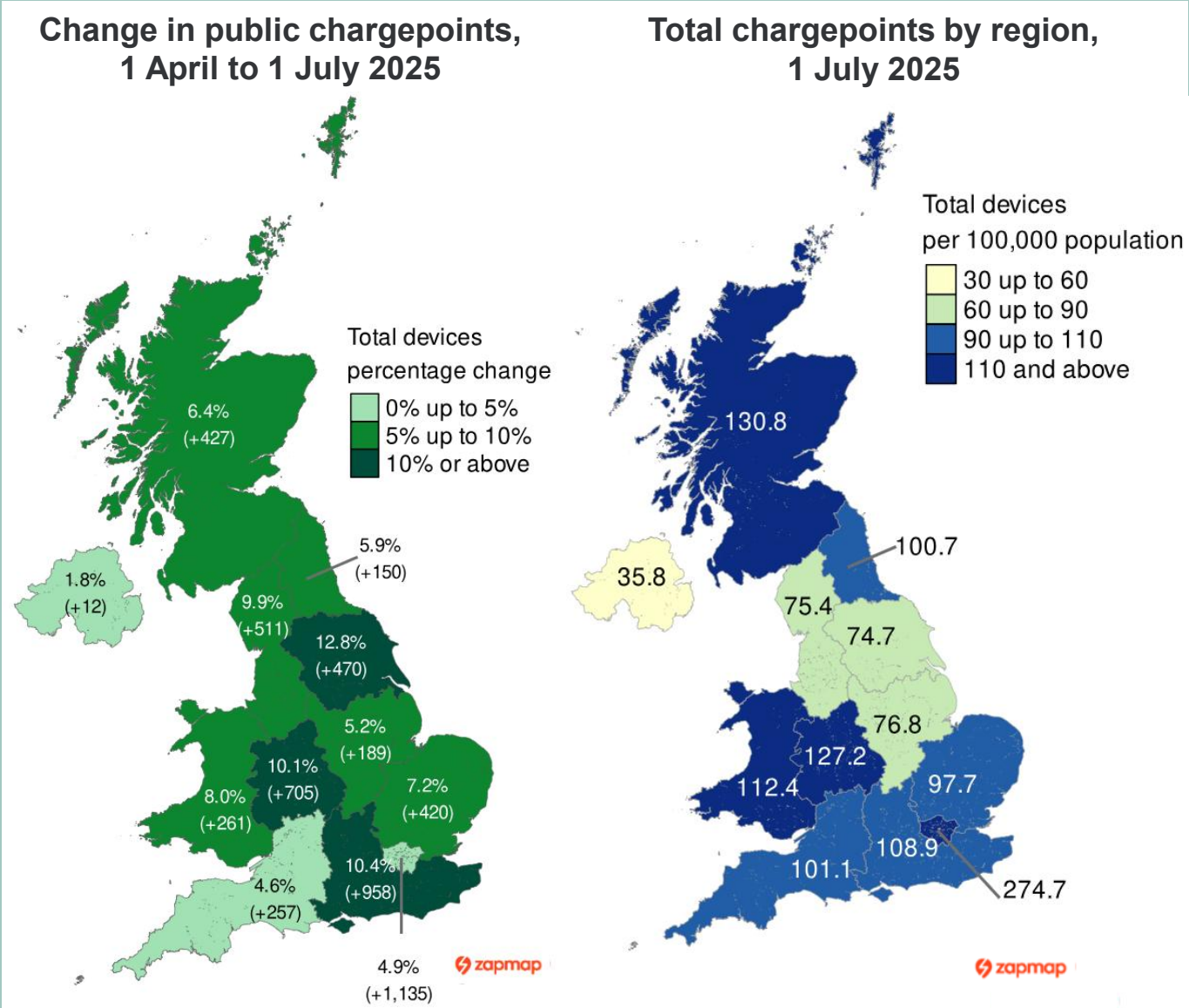
That's an annual growth rate of 26% compared to August last year.

There was strong growth in rural areas in 2024, with chargepoint numbers increasing by 45%.

In the year to July 2025, 47 charging devices were added to the public network per day



That's one new charging device every 31 minutes.





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Next steps: Charging on the Strategic Road Network

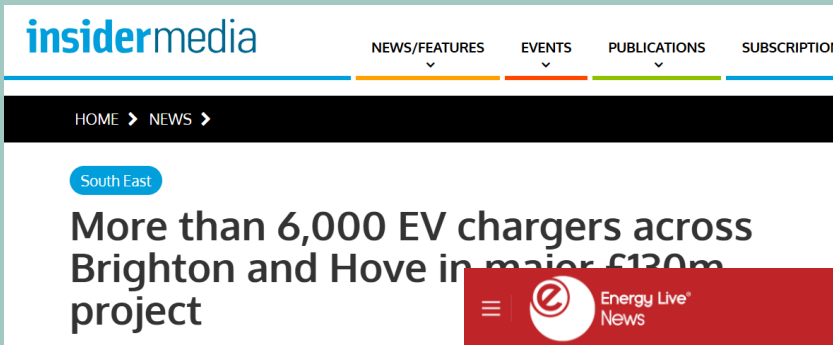
- New approach to address high costs and long lead-in times for **major grid upgrades at some MSAs**
- Improving **signage** for drivers on the SRN
- **Regulatory improvements** working with DESNZ, Ofgem and DNOs
- **Chargepoint barrier busting** on major A-roads and building evidence on truck stops
- Addressing short-term provision gaps eg via the use of **battery technology**
- **supporting industry** to build capability and to prepare for future challenges, including eHGVs



Local on-street charging: £343m LEVI fund / £25m gullies grant



- 78 LEVI projects, 3 contracts announced, 51 approved for delivery, 24 in pre-delivery
- At least 100,000 chargepoints expected



**WOKINGHAM
BOROUGH COUNCIL**

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Major chargepoint rollout to help drivers go electric

The move will help local drivers switch before petrol and diesel vehicles are phased out



ZEV Vans: more choice, better products, more to do



Kia PV5 Cargo
From £27,645
Range: 184 / 258 miles



Renault Trafic e-Tech
From £44,300
Range: 186 miles



Ford e-Transit
From £49,545
Range: 166-249 miles

Van model availability

Manufacturers continue to deliver more zero emission van models with almost 40 models of electric van.¹

Certain use cases, particularly long-range applications, remain a challenge.

- In 2025, the ZEV Mandate requires 16% of new van sales to be zero emission.

Regulatory flexibilities

- Category B (standard, car and light van) licence holders have an additional entitlement to drive zero emission vehicles up to 4.25tn, without the need to undertake additional training. They may also tow and can drive all vehicle types which are normally permitted up to 3.5tn.
- Some additional regulations still apply to ZE vans, which do not apply to ICE equivalents, for example, they fall into the HGV roadworthiness testing regime. A consultation on proposals relating to roadworthiness testing, drivers' hours and tachograph rules ended in March. A Government response is being prepared.

Zero Emission HGV and Infrastructure Demonstrator (ZEHID)

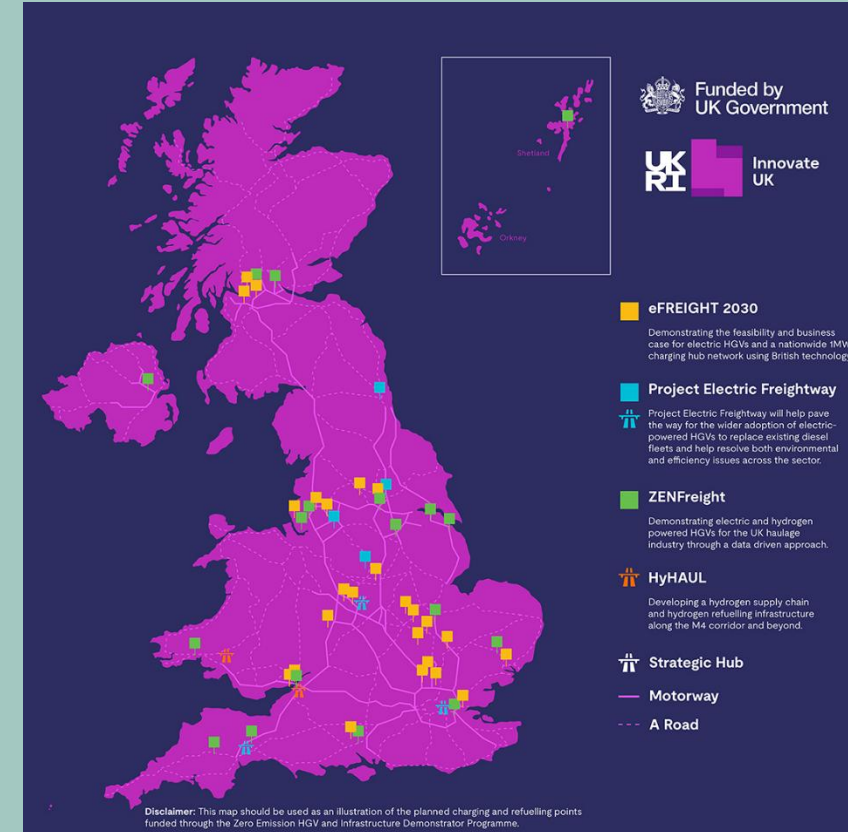


BCA DAF



Yusen Volvo

- **Aim:** the up to £200m ZEHID aims to demonstrate the performance of 40-44 tonne zero-emission HGVs and their fueling/charging sites in real life conditions.
- **Delivery:** The ZEHID programme unfolds in two phases:
 - Vehicle procurement and infrastructure development (2024–2026).
 - On-Road Demonstration (2026–2031): real-world demonstrations of zero-emission HGVs, showcasing their capabilities in various duty cycles / operations.
- **Status:** 300 zero- emission trucks have been ordered with 50 already delivered to fleets and in operation. 73 planned infrastructure locations have been announced representing over 360 charging bays.
- **Timelines:** All vehicles and infrastructure will be in place by March 2026.



Depot Charging Scheme

- **Aim:** The **£30 million fund** is supporting the freight and coach industry transition to zero-emission vehicles by addressing infrastructure concerns.
- **How?** Part-funding charging infrastructure installation at HGV, van and coach depots. The scheme will cover 75% of eligible costs, up to £1m per business.
- **Eligible costs:** chargepoints, and civil engineering and construction works.
- **Delivery:** Government Grants Managed Service (GGMS) is delivering this scheme on behalf of the Department. EST and Cenex are providing technical support and expertise.
- **Timelines:** The scheme opened in July and the grant application window will close on the 28 November.





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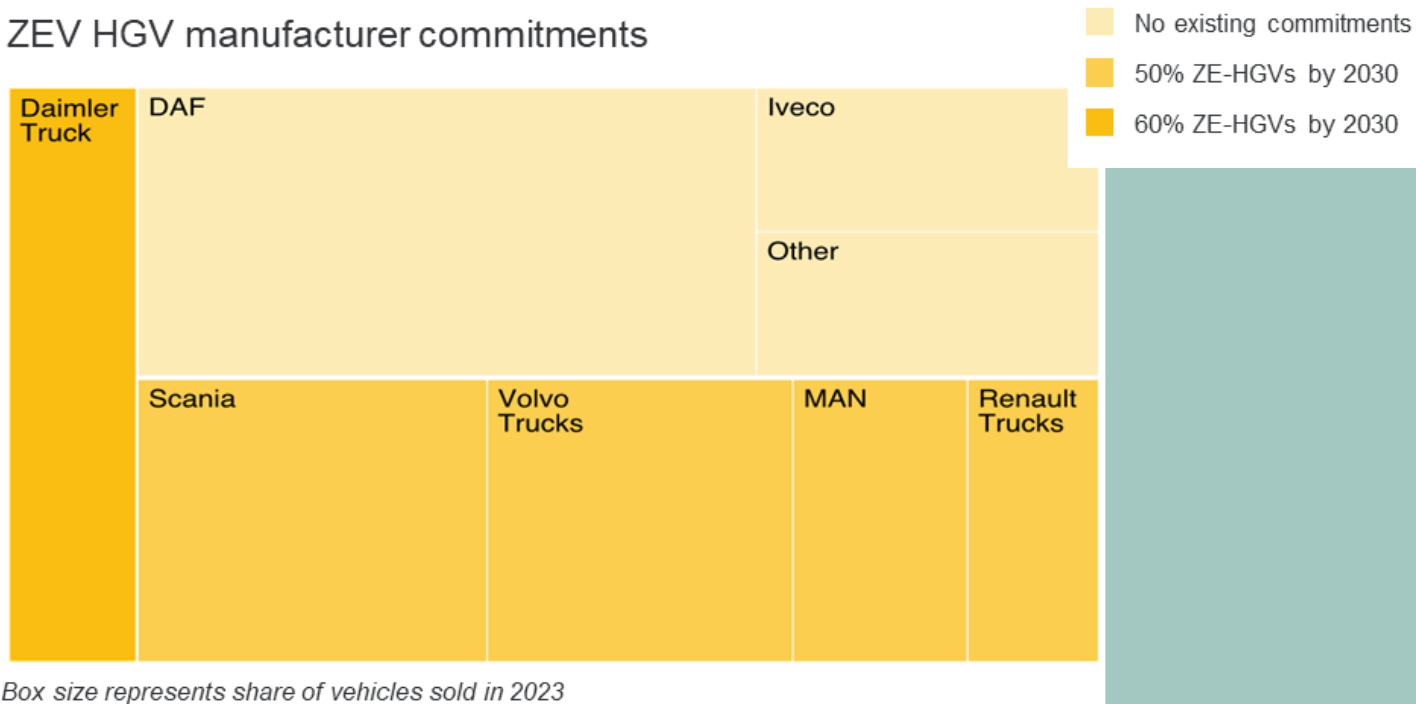
3. Progress

4. The ZEV Mandate

5. Challenges

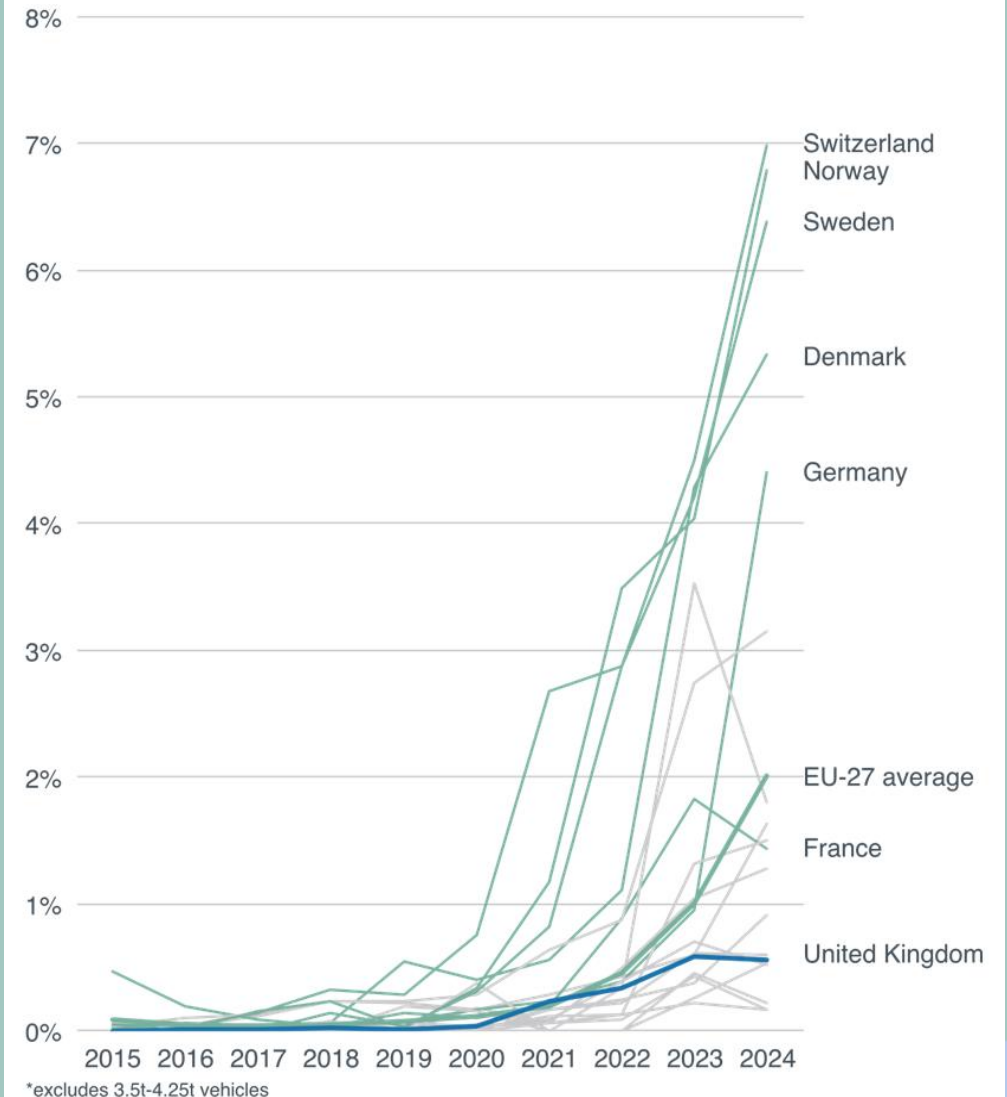
ZEV HGVs – UK lagging Europe

ZEV HGV manufacturer commitments



- In 2024, 259 BEV HGVs registered in the UK - 0.56% of all new HGVs. The EU-27 average over the same period was 2%.
- At the end of March 2025, there were 1,075 battery electric HGVs operating on UK roads. Market share of **1% of sales in March**.
- SMMT identified more than **35 ZE HGV models** available to purchase across all weight categories in April 2025.

Share of new zero-emission heavy goods vehicles in Europe



ZE HGV Supply: How to regulate CO2 from trucks...

We are considering our approach for regulations to decarbonise and phase out the sale of new non-zero emission HGVs and will engage with stakeholders in due course.



HGV Demand: How to stimulate the market

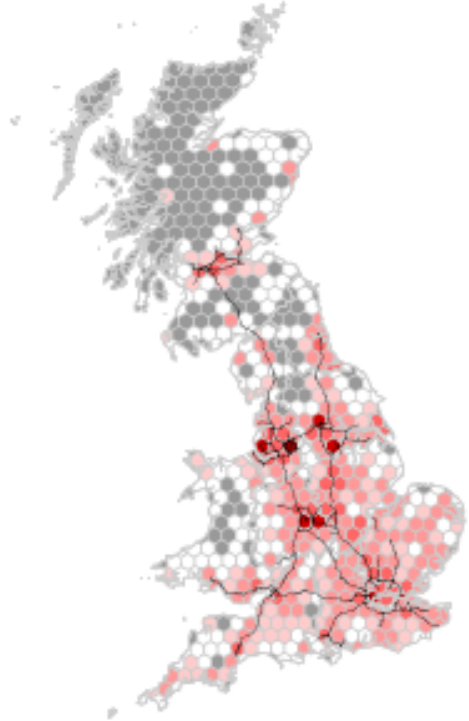


- The Plug-in Truck Grant offers up to £25,000 towards the purchase cost of a large Zero Emission truck (over 12t), and up to £16,000 for small Zero Emission trucks (up to 12t).
- The grant will continue to at least 2027 with grant levels for future years to be confirmed in due course.
- Recognise the need to address other barriers, make the TCO case...

HGV Infrastructure – call for evidence informing next steps...

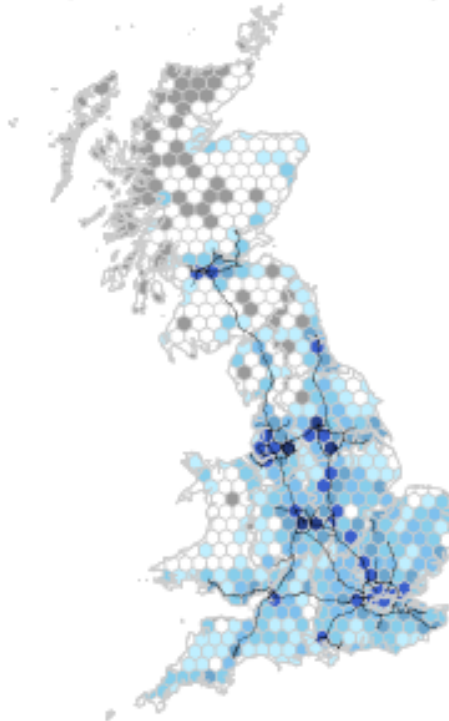
Modelled charger requirement

Location of on-route chargers, >150kW to 1MW, modelled in 2050, using central scenario inputs



Modelled charger requirement

Location of 22kW to 150kW chargers, modelled in 2050, using central scenario inputs



Electricity – short and long term work with DESNZ / Energy Sector...

- Direct electrification and use of low carbon fuels are central to delivering **transport growth and environmental goals** across all modes.
- **Transport-related demand** for electricity is projected to **increase significantly** between now and 2050.
- Direct demand for electricity from domestic transport could increase from c. 4-6% of total GB demand in 2025 (20 TWh/year), up to c. 23-27% by 2050 (over 160 TWh/year).
- It is essential that transport demand is included in short- and long-term energy planning.
- The focus here is on **getting the right grid infrastructure in place** where and when we need it.



ZEV Transition communications: Consumers need clear messaging

ELECTRIC CARS

The Facts

WHAT'S EV PRICING LIKE? ¹

1 in 3 used electric cars under

£20,000

21 brand new electric cars RRP under

£30,000

WHAT ABOUT RUNNING COSTS? ²

Save up to

£750

A YEAR

If you mostly charge at home, compared to petrol.

CAN I CHARGE ON-THE-GO? ³

As of October, there are

71,459

public charge points in total across the UK

Including 13,953 rapid/ultra-rapid chargers that can charge a car to 80% in just 20-40 mins

WILL MY EV BATTERY LAST? ⁴

YES

Data suggests you should expect your EV to last as long as an ICE car. Getting EVs repaired is getting easier with the increasing number of skilled technicians available.

WHAT CAN I EXPECT FROM A FULL CHARGE? ⁵

The average range of a new EV is

236

MILES

That's about 2 weeks driving for most people.

ARE EVS GREENER? ⁶

YES

Typically an EV emits just 1/3 of the harmful greenhouse gases of a petrol car during its lifetime.

DO I NEED TO WORRY ABOUT FIRE RISKS? ⁷

EVs are less likely to catch fire than ICE cars.

Jargon Buster

EV = Electric vehicle

ICE = Internal combustion engine (diesel or petrol)



See the sources



Office for Zero Emission Vehicles



CHARGEUK



AutoTrader



SMMT
DRIVING THE MOTOR INDUSTRY

© 2024

c.90%



Office for Zero Emission Vehicles

EV Uptake message toolkit

A stakeholder resource



July 2025



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Thank you