



Reforming UK car taxation

How to tackle the influx oversized, highly polluting cars coming onto the UK's roads

February 2024

Summary

The UK is failing to properly tax oversized, highly polluting cars compared to other European countries. It is lagging well behind in creating a clear tax differential between battery electric (BEVs) and petrol SUVs, ranking 24th out of 31 European countries (see [figure 1](#)). New higher polluting cars are taxed at a significantly lower rate at the point of purchase in the UK compared to other European countries with similar tax systems (see [figures 2, 3 and 4](#)), meaning the UK Government is missing out on an equitable and easily actionable source of revenue by not targeting buyers of oversized, over-polluting SUVs.

A consequence of not properly taxing higher polluting cars at the point of purchase is that the UK has a much higher proportion of new highly polluting cars registered than other European countries. Cars with over 160 gCO₂/km represented over 15% of new private car registrations in 2023 in the UK, compared with just 0.7% in France, which taxes higher polluting, oversized cars much more heavily (see [figure 5](#)).¹

The UK is also seeing a trend of increasing vehicle sizes, with SUV sales increasing across the board (see [figure 6](#)). Recent T&E analysis showed that the average vehicle width in the UK is [one of the highest in Europe](#), above the European average. With the heightened impacts large SUVs have on resource use, pollution, road safety and road space, the UK should join France (see [figure 7](#)) in introducing a weight element to its acquisition tax that adds a levy to the heaviest new vehicles. As BEVs become an increasingly significant part of new car sales, bringing in new elements to the UK's acquisition tax will be crucial to make up for lost revenue from the current CO₂-based system that will eventually need to be replaced entirely.

The UK has shown leadership in the corporate channel, with its benefit-in-kind (BiK) system which ranks among the top 2 in Europe for incentivising BEV uptake (see [figure 8](#)). When studying BEV uptake in the corporate channel since BiK was reformed, it is clear that this has worked to great effect going from 1.6% in 2019 to 22.3% in 2023², pushing the corporate channel well ahead of the private channel at just 8.8%. The UK should build on its leadership in supporting BEV uptake in the

¹ Dataforce 2023

² Dataforce 2023

corporate channel by reforming first year Vehicle Excise Duty (VED) to provide a clearer incentive for new car buyers in the private channel too.

While the Government's recently introduced Zero Emission Vehicle (ZEV) mandate, which sets annual BEV sales targets for manufacturers, should help bring prices down and put more pressure on manufacturers to prioritise the sales of BEVs due to the risk of financial penalties, it is likely not going to be enough for the Government to solely rely on this regulation. Reforming taxes on new car purchases, targeting the purchases of expensive, oversized, highly polluting new cars, could be an important lever to incentivise growth of BEV sales ([see figure 9](#)) while also providing an equitable source of revenue for the Government to invest in supporting people on lower incomes to make the switch to BEVs.

T&E UK recommends that the Government:

- 1. Increases first year VED on the highest polluting new cars.**
- 2. Introduces a weight malus** to first year VED for all fuel types, setting progressively higher taxes for the heaviest new cars.
- 3. Provide long term certainty and begin to consider options for BiK beyond 2027/28, including modelling options to encourage smaller, more efficient BEVs to enter the corporate channel,** while still maintaining a strong differential between BEVs and other fuel types.

1. Introduction

Taxation is one of the most effective tools at a government's disposal to incentivise (or disincentivise) car purchasing decisions, pushing people towards more climate-friendly, more efficient and smaller cars. However, the UK Government is currently failing to properly utilise these tools to encourage British car buyers to switch from petrol cars to BEVs and from large SUVs to smaller, more compact car models. By studying examples from other European countries, it is clear that the UK has opportunities to rectify this without placing a heavier tax burden on lower-income groups.

T&E has analysed the car tax systems of 31 European countries for its [new Good Tax Guide tool](#), giving us the opportunity to compare not only levels of taxation between different countries but also how different countries tax different vehicle types and powertrains. In particular it has allowed us to understand how the UK's acquisition and ownership taxes stack up against European neighbours, as well as its company car taxation (benefit-in-kind), energy and fuel taxes and depreciation taxes. The analysis compares tax burden for the average car in the following segments: BEV Passenger Car (PC) B segment (e.g. Renault Zoe, Peugeot e-208), petrol PC B (e.g. Renault Clio, VW Polo), BEV Sports Utility Vehicle (SUV) C (e.g. VW ID.4, Volvo XC40) PHEV SUV C (e.g. Ford Kuga, BMW X1), petrol SUV C (e.g. VW Tiguan, Nissan Qashqai).

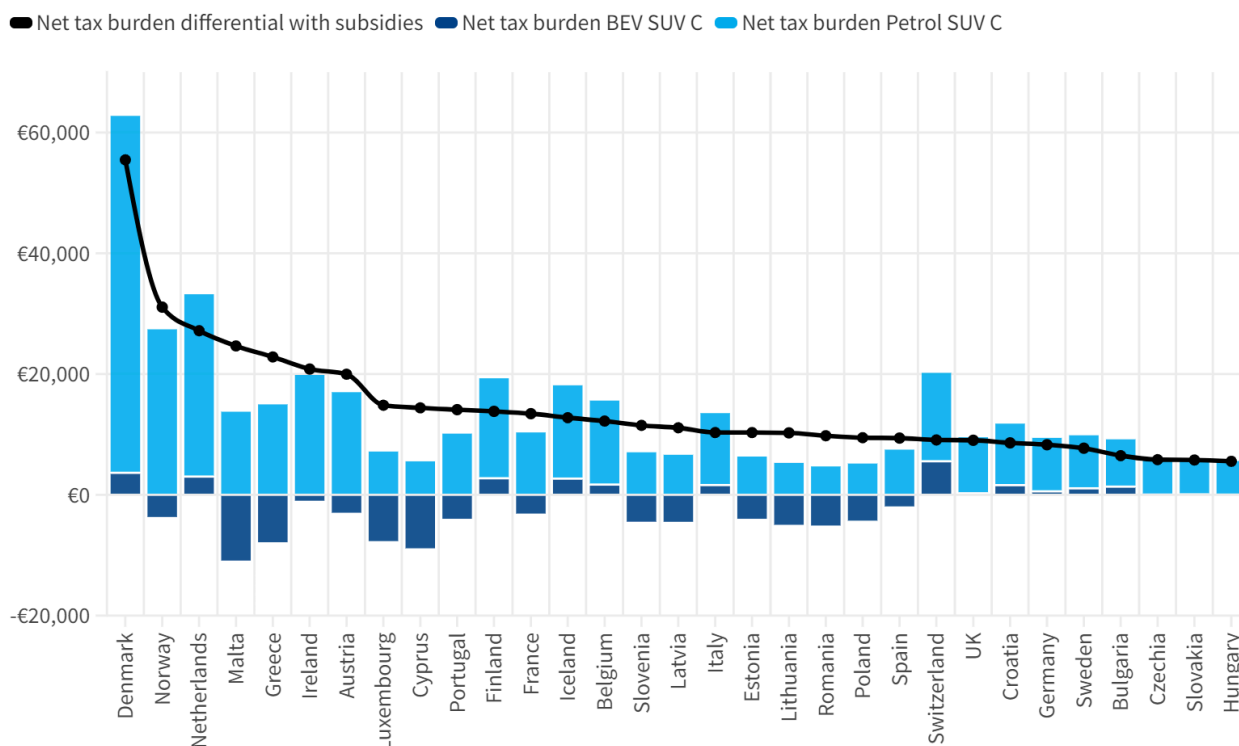
This briefing focuses on acquisition (the tax paid by a car buyer upon purchasing a *new* car - often known as first year VED) and ownership taxes (the annual tax paid by all car users - often known as annual VED) and BiK (company car taxation), which shows the UK at two different ends of the leaderboard in utilising taxes to incentivise uptake of BEVs. This provides an update on a previous [T&E UK briefing](#) from 2022 that also provided modelling analysis of the effects on total cost of ownership (TCO) from changes to VED and BiK.

2. Overall car tax burden

The UK's overall car tax burden differential, when factoring in subsidies provided by governments across Europe, ranks quite low compared to its European neighbours. The overall car tax burden takes into account all taxes applied to cars, including acquisition tax, ownership tax, VAT, energy and fuel taxation, purchase subsidies and, for company cars, benefit-in-kind.

Even though the current tax burden for a privately owned BEV (PC B and SUV C) in the UK is negligible, the differential between this and PC B petrol cars places the UK 19th out of 31 countries studied. The UK ranks even worse when comparing BEV SUV Cs to petrol SUV Cs, with the UK ranking 24th out of 31 (see *figure 1*). This differential will close further in 2025 when changes to ongoing VED ownership tax are due to come in requiring drivers of BEVs to pay £180 per year, the same as drivers of petrol cars. This would move the UK even further down the tax differential rankings.

Net private tax differentials across Europe between BEV and petrol SUV C



Note: Calculations for ten years of private ownership



Figure 1 - Net tax differentials between BEV and petrol SUV C

3. Vehicle Excise Duty

The UK's primary method of taxing cars is through Vehicle Excise Duty (VED). VED is split into two parts: 1st year VED (a tax paid on the purchase of a new car) and annual VED (a tax paid from the second year of the car onwards). These taxes can more easily be described as acquisition tax and ownership tax respectively.

3.1. Acquisition tax

Acquisition tax is the primary way of incentivising private BEV sales via taxation in the UK. BEVs currently pay £0 acquisition tax, while the average small petrol car pays £185 and the average SUV petrol car pays £255. While there is clearly a gap between these, the differential is negligible when set against the total cost of the car itself. As a result, the UK's acquisition tax fails to act as an effective incentive for new car buyers to choose a BEV.

Levying higher acquisition taxes on higher polluting new cars would be an equitable source of raising additional revenue, as it would primarily impact people on higher incomes or businesses, who tend to be the main purchasers of new cars. According to [ONS data](#), on average, the highest gross income decile spends nearly a third more on the purchase of new vehicles than any other decile, while the highest disposable income decile spends nearly two-thirds more than any other decile. The top two income deciles also spend a [significantly higher share](#) of their weekly household expenditure on new vehicles

compared to lower groups. This can be a quick and fair way of replacing some of the lost fuel duty revenue by focusing taxes on wealthier consumers who can afford to buy a car brand new. Adjusting VED rates is immediately actionable and would help ensure that the most polluting vehicles - with the higher environmental and social cost through air pollution - are priced more appropriately.

When comparing the UK's acquisition tax to other European countries, the differential between small BEVs and small petrol cars places the UK 13th out of 23 countries, while the differential between BEV SUVs and petrol SUVs places the UK down in 16th out of 23 countries (see figure 2).

Acquisition taxes for BEV, PHEV and petrol SUV C

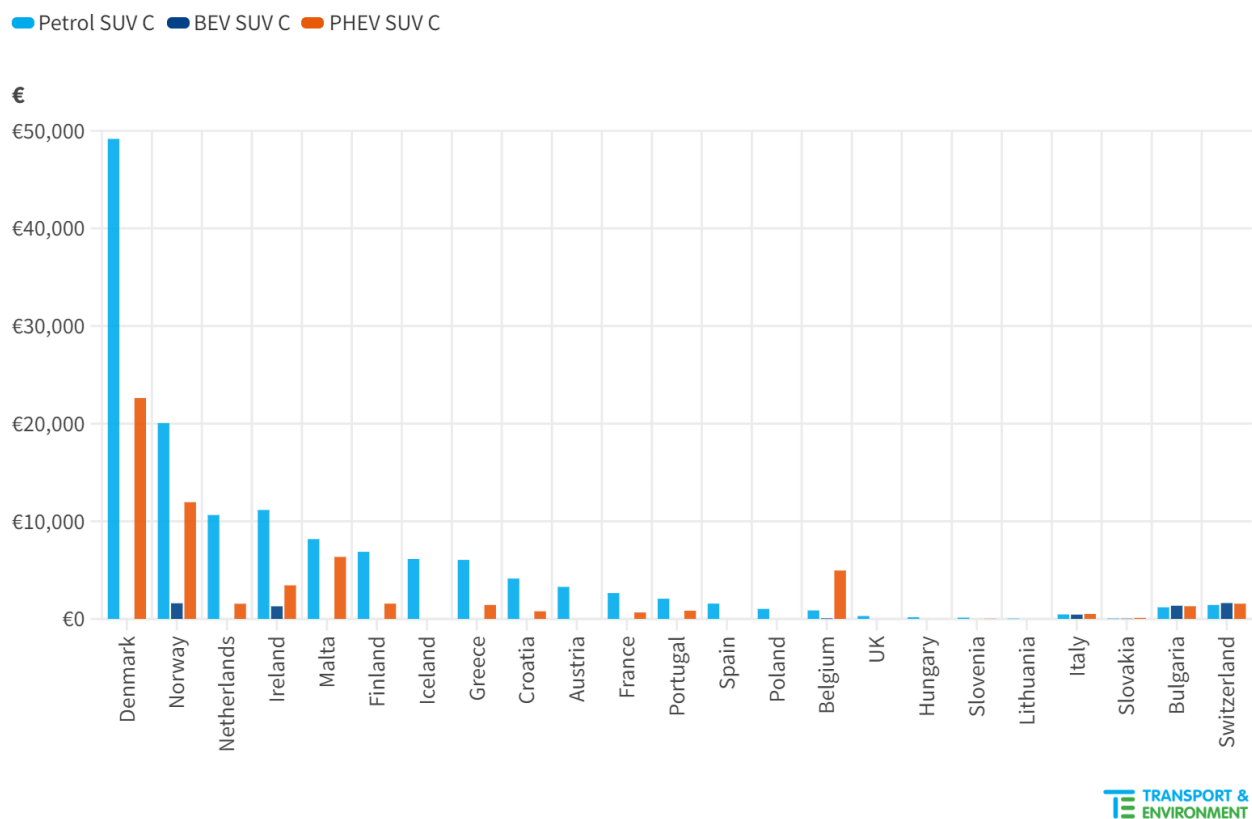


Figure 2 - Acquisition taxes by powertrains

The UK's acquisition tax is based on g/CO2 per km based on WLTP testing. Other countries also use this approach to determine acquisition tax, including France, the Netherlands, Norway and Portugal (see figure 3). However, while the UK's level of taxation on BEVs is similar to other countries, taxes on average and higher emitting models are much lower than other countries.

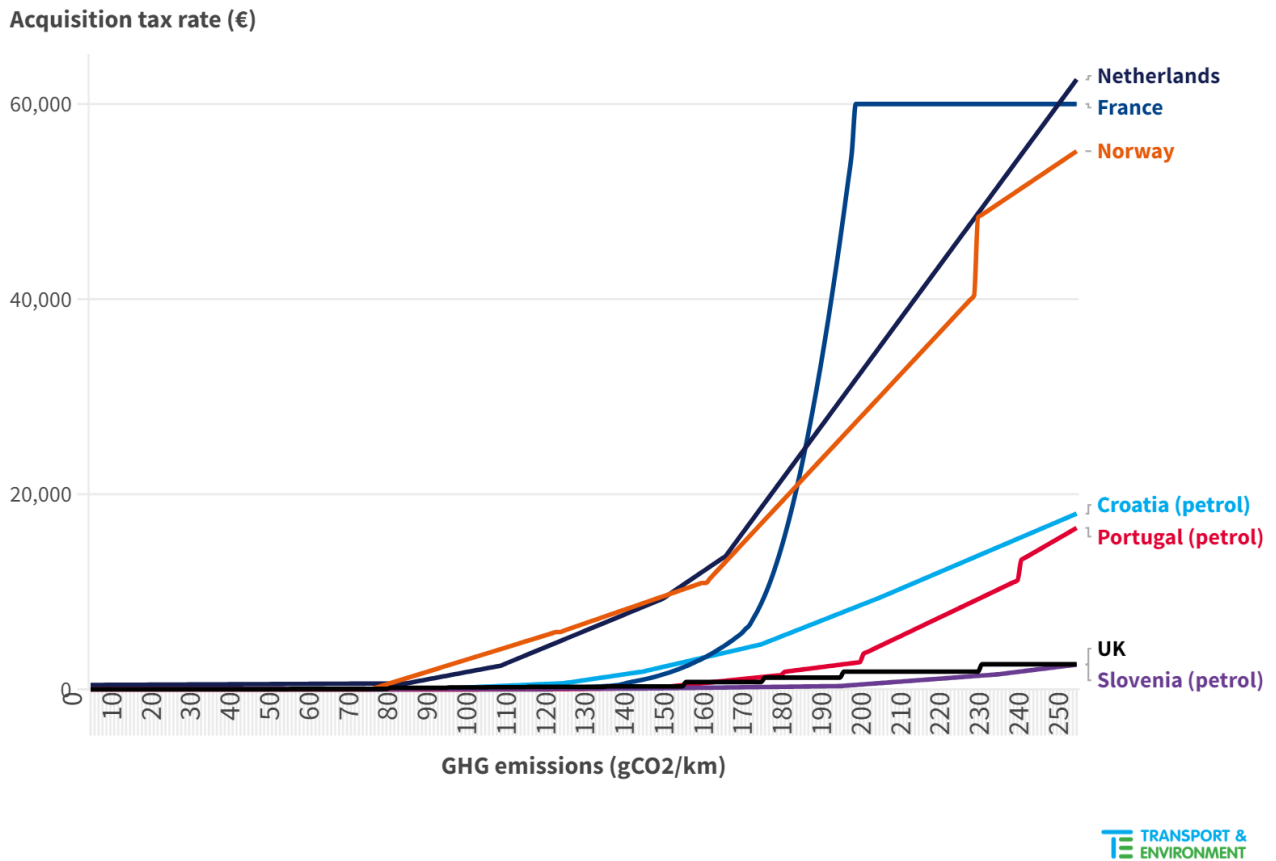


Figure 3 - Acquisition tax rates for countries with CO2-based systems

The level of tax for an average petrol SUV C (150g CO2/km) is £255 (€294) in the UK. This is clearly behind other countries with the same tax system (based on CO2 emissions), compared to €2,205 in France (based on CO2 alone, not including weight malus), €10,641 in the Netherlands (which also varies by fuel type), and €10,204 in Norway (not including weight malus). Portugal taxes at a lower rate than these examples, but still higher than the UK at €411.

When looking at even higher polluting cars, the disparity between the UK and its European neighbours grows. Using a BMW X5 (196g CO2/km) as an example, a £1,544 (€1,805) acquisition tax would be levied on it, compared to €60,000 in France, €32,870 in the Netherlands, €28,229 in Norway, and between €3,639 in Portugal (see figure 4).

BMW X5 acquisition tax (€/WLTP)

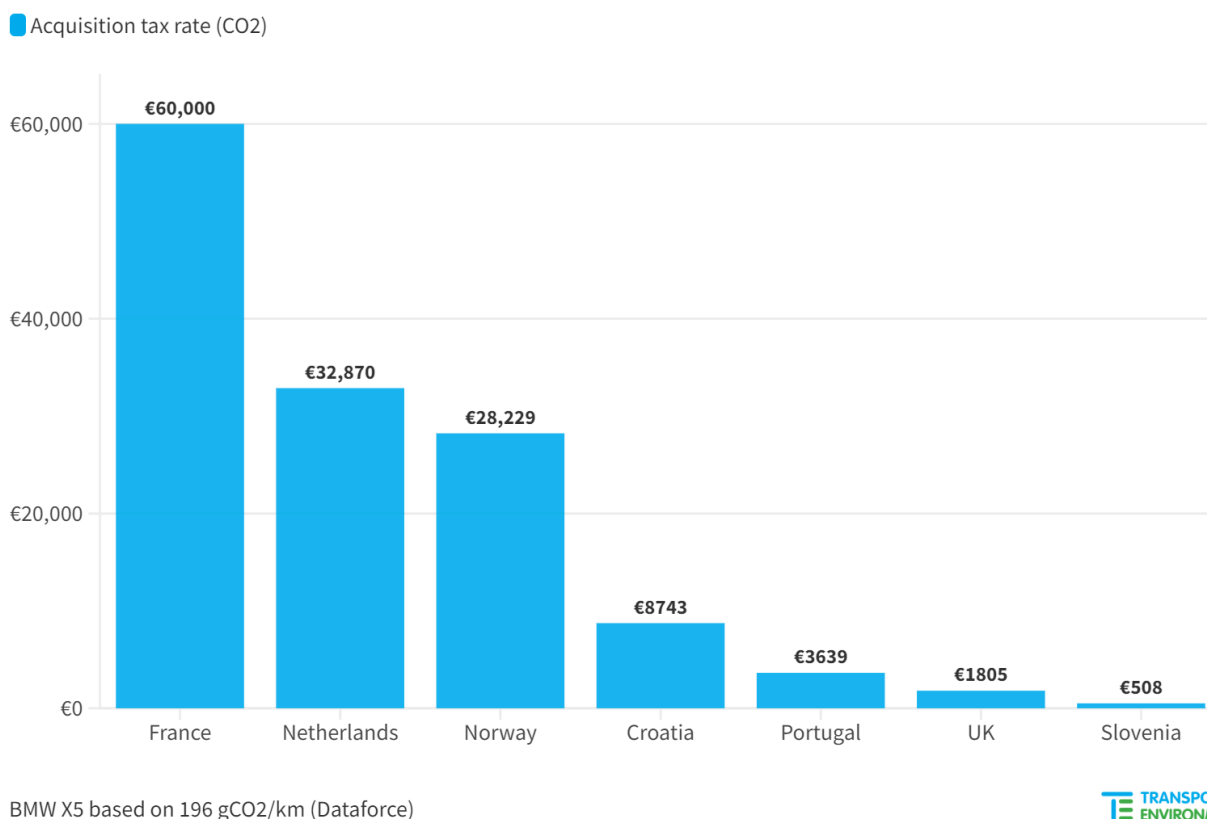


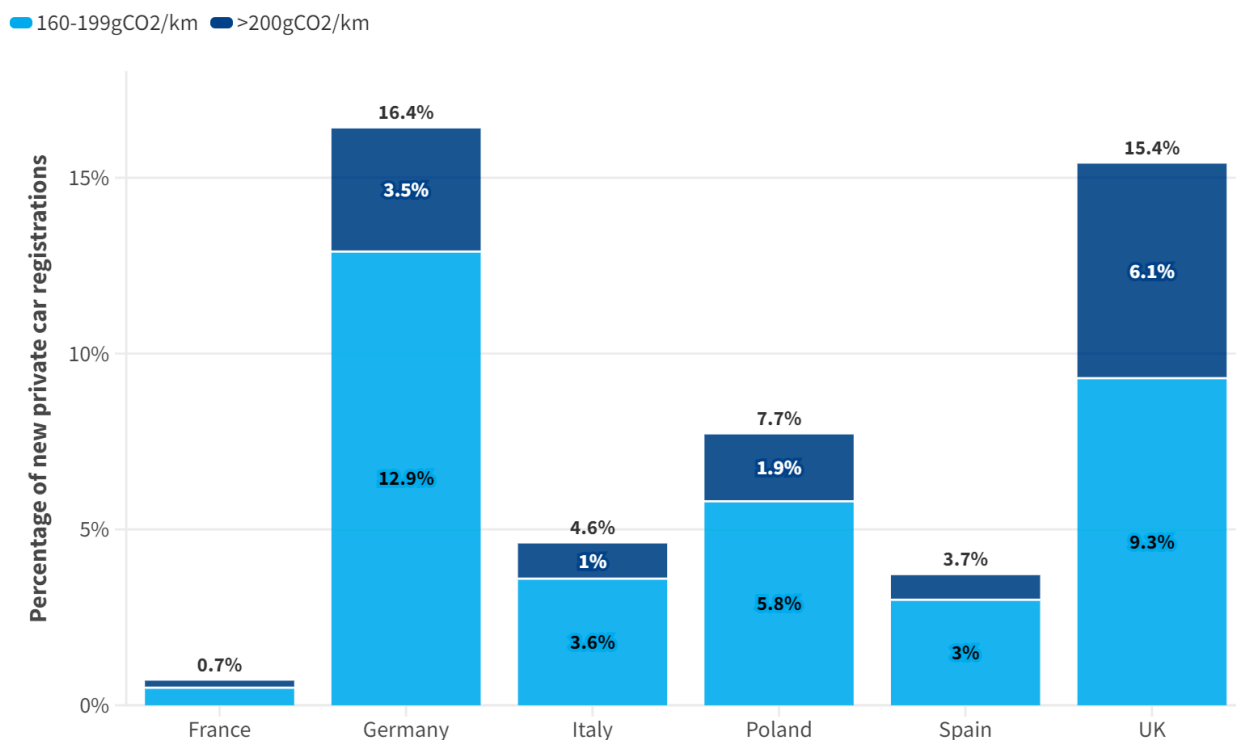
Figure 4 - Acquisition tax rates for BMW X5 (an example of an SUV Medium-Large (E))

The comparatively low levels of taxation for higher polluting cars could be the cause behind the higher proportions of these cars being registered in the UK (see figure 5). Cars with between 160 and 199 gCO₂/km³ represented 9.3% of new registrations in 2023 in the UK, while cars with 200+ gCO₂/km⁴ represented 6.1%. Meanwhile in France, cars over 160 gCO₂/km, including over 200 gCO₂/km, only represent 0.7% of new car registrations. While Germany has a higher proportion of cars registered between 160 and 199 gCO₂/km than the UK (12.9%), the share of the UK's registrations of cars over 200gCO₂/km is much higher than Germany.

³ Examples include: Volvo XC60 (161gCO₂/km), Land Rover Discovery Sport (184gCO₂/km), BMW X5 (196gCO₂/km). Source: Dataforce 2022

⁴ Examples include: Audi Q7 (234gCO₂/km) Land Rover Defender (248gCO₂/km), Porsche Cayenne (310gCO₂/km), Mercedes G-Class (340gCO₂/km). Source: Dataforce 2022

Share of new private car registrations by gCO2/km



Source: Dataforce 2023



Figure 5 - Share of 2023 private registrations by gCO2/km

This is a problem for the UK. The UK's [Climate Change Committee's \(CCC\) 2023 Progress Report to Parliament](#) stated the UK is off track on reducing emissions from new internal combustion engine car CO2 intensity, with a marked increase from 2019 where average gCO2/km has risen from 121gCO2/km to 130gCO2/km in 2022.⁵ According to the CCC, "improvements in engine technologies are being offset by trends towards larger vehicle sizes... current trends are moving in the wrong direction".

We recommend that the UK increases its acquisition tax on higher polluting models. This would both ensure that the polluter pays principle is being properly applied to the UK's car tax system, as well as creating a bigger differential between BEVs and polluting cars. These cars will also generally be more expensive, and often larger, cars meaning that levying higher taxes on these vehicles will be largely targeted at those in higher income or wealth brackets.

The UK is also one of only 7 countries out of 22 with an acquisition tax to not tax an average plug-in hybrid (PHEV) SUV C at the point of purchase which, given the higher real-world emissions reported by T&E and ICCT, provides a perverse incentive for these cars. The UK should introduce acquisition tax on the purchase of PHEVs.

⁵ CCC, Progress in reducing emissions - 2023 Report to Parliament - Charts and Data (Figure 4.2)

While we have not newly modelled an appropriate level of taxation to set for different CO2 levels, the UK should look to examples from other countries as a guideline. For instance, when looking at the acquisition taxes of countries with similar CO2-based systems to ours (see figure 3), it appears that somewhere between 150 and 170gCO2/km is the level at which other countries begin to ramp up the taxation paid on new car sales.

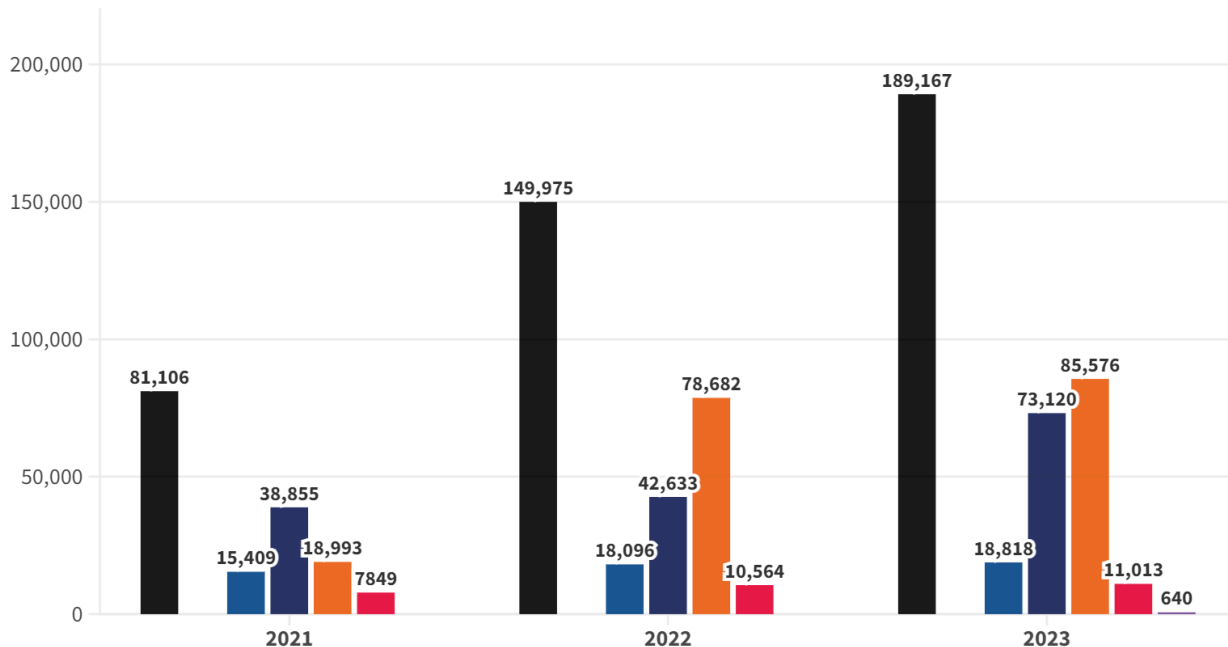
A [previous T&E briefing](#) showed that introducing first-year VED for BEVs at the same time as increasing the tax differential between them and other fuel types ensures that the TCO benefit for BEVs remains unaffected.

3.1.1. Introducing a weight tax

We believe that the trend towards ever-increasing car sizes is a major cause for concern in the UK and Europe. SUVs make up 59.7% of new car registrations in the UK, up from 50.5% in 2021⁶. In this time, the total number of new SUVs sold has increased by over a third while large SUVs (F segment) have increased by 50% in two years (see figure 6). T&E analysis has also shown that the UK is higher than the average across Europe for [car widths](#), second to only Germany in countries studied by T&E, with the average car now wider than the minimum on-street parking space.

UK BEV SUV sales by segment (2021-2023)

■ All SUVs (A-F)
 ■ SUV Mini (A)
 ■ SUV Small (B)
 ■ SUV Compact (C)
 ■ SUV Medium (D)
 ■ SUV Medium-Large (E)
 ■ SUV Large (F)



Source: Dataforce 2023



Figure 6 - Total UK SUV sales by segment between 2021 and 2023.

⁶ Dataforce 2023

In addition to taxing new cars by CO2, the UK Government should explore adding a weight-based element to its acquisition tax. One key example of this is in France where, in addition to CO2, their acquisition tax has recently included a weight malus. This newly introduced tax adds an additional surcharge on cars over 1,600kg, requiring €10 for every kilogram over this threshold, rising to €15 for cars over 1,800kg, €20 for cars over 1,900kg, €25 for cars over 2,000kg and €30 for cars over 2,200kg (see figure 7). A weight malus is an approach to disincentivise the rise of large SUVs, which are more dangerous to other road users (particularly cyclists and pedestrians), more polluting, more resource intensive, cause more damage to roads and take up more road space (including parking spaces).

Lower range (kg)	Upper range (kg)	Marginal tariff (EUR)
0.00	1,599.00	0.00
1,600.00	1,799.00	10.00
1,800.00	1,899.00	15.00
1,900.00	1,999.00	20.00
2,000.00	2,100.00	25.00
2,100.00	5,000.00	30.00



Figure 7 - French weight malus tax rates by weight (kg)

While the French weight malus doesn't apply to BEVs, the trend of increasing car sizes is an issue across all powertrains.

The UK Government should follow the example set by the French Government and add a weight malus element to its acquisition tax to discourage new car buyers from purchasing large SUVs. However, the UK should go further and ensure that the weight malus also applies to BEVs, with a higher threshold to account for the heavier weight BEVs have due to the battery. It should also treat PHEVs equally to other polluting models as a result of their comparable real-world emissions.

With UK new BEV registrations expected to scale up to 80% by 2030, this is a timely moment for the Government to explore new ways of taxing new car purchases. Acquisition tax receipts will dwindle if the Government doesn't explore options such as a weight tax that also penalises the heaviest BEVs. Other future options could also include looking at the power or efficiency of a car to account for the energy demand of a vehicle.

3.2. Ownership tax

Ownership tax is generally not used as a way to incentivise car choices, as much as acquisition tax. Ownership tax is paid by all car users in the UK, including those buying their car on the used market or who have owned their car for a number of years.

While BEVs currently benefit from £0 ownership tax in the UK, this is set to change from 2025 when BEV drivers will be taxed £180 per year - the same amount as petrol drivers pay. The UK is one of only three countries (along with Iceland and Norway) that doesn't tax petrol SUV C's higher than petrol PC B's, meaning that a Range Rover driver would end up paying the same amount of ownership tax as someone buying a Fiat 500. With the introduction of an ownership tax on BEVs from 2025, it will mean drivers of a Renault Zoe will also then pay the same amount as a Range Rover driver.

While we agree that BEV drivers should begin to pay tax as they also contribute to congestion and road damage, the further closing of the tax differential between petrol and BEV cars will not help the UK to encourage faster uptake of BEVs. The wider impact of the introduction of ownership tax on BEVs, without increasing acquisition taxes on petrol cars, is that it will further close the overall tax burden differential with subsidies for private vehicles between BEVs and petrol as detailed in [section 2](#).

4. Benefit-in-Kind

As opposed to taxation on private vehicles, the UK performs much better on creating a differential between BEVs and petrol cars for corporate cars. The analysis looks at the tax burden for a corporate car owned for 4 years (the average for a company car). Studying the data, the UK is 10th out of 31 for tax burden differential with subsidies for corporate BEV PC B vs corporate petrol PC B and 6th for corporate BEV SUV Cs vs corporate petrol SUV Cs.

The main reason for this wider differential than in the private channel is the UK's benefit-in-kind system, which heavily incentivises company car drivers to have a BEV (see *figure 8*). In the UK, the 2% BiK rate means the BiK addition to an employee's salary over 4 years ownership for BEV PC B's is €2,304 and BEV SUV C's €3,600, compared to €18,144 for petrol PC B and €55,440 for petrol SUV C. This means there is over a €15,000 differential between BEV PC B and petrol PC B and over €51,000 differential between BEV SUV C and petrol SUV C. Compared to other countries, the UK BiK differential for PC B's ranks 1st out of 30 and 2nd for SUV Cs. The average petrol PC B pays a 27% BiK rate, with the average petrol SUV C paying 35%, almost the top rate (37%). The result of this is that 22.3% of new corporate registrations in 2023 were BEVs, the seventh highest out of the EU27 and UK, with BEVs making up a massive 40.9% of registrations in the leasing channel.

Annual benefit-in-kind tax rate

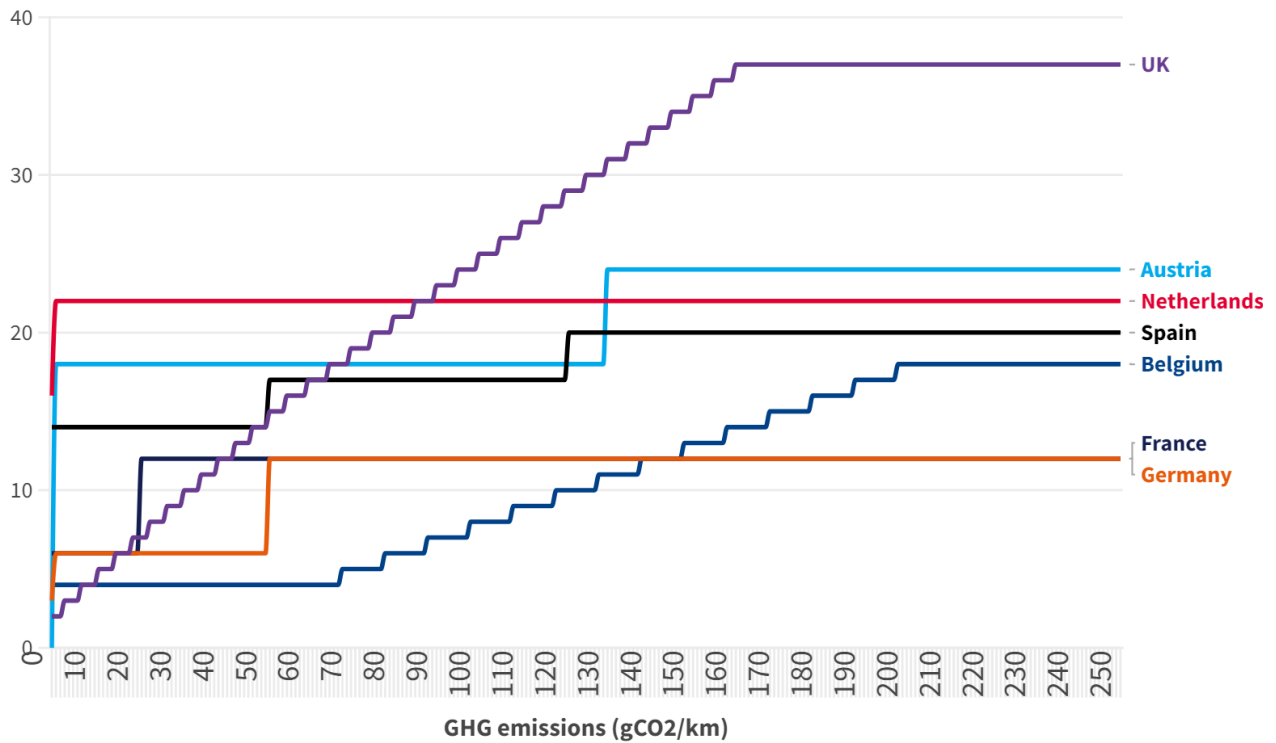


Figure 8 - Annual benefit-in-kind rates for countries with CO2 based systems

This is a clear sign of the UK leading on company car taxation, an example for other countries in Europe to follow. BiK rates are now set out until 2027/28, providing some level of longer-term certainty for company car drivers but the Government will soon need to clarify its plans for BiK after this period.

The UK should continue to maintain a strong differential between BEVs and petrol cars to ensure the system still incentivises uptake of BEVs. However, additional elements could be explored to better incentivise company car drivers to select smaller, more efficient BEV models of which there should be more of in the late 2020s due to the introduction of the Zero Emission Vehicle mandate and generally wider models in global production. Introduction of such measures from the late 2020s would be timely, as BEVs will overwhelmingly dominate the corporate channel, and ultimately, company car drivers should not benefit from significant tax cuts forever.

The corporate channel makes up over half of new registrations and cars end up in the used car market after 3-5 years, meaning that it's not only a significant market to electrify but also has an important role to play in feeding the wider car market with more affordable BEVs for the British public.

5. Conclusion

The UK Government has shown signs of taxation leadership when it comes to benefit-in-kind taxation, which has a great impact on electrification of the corporate car channel. However, BEV uptake in the private channel is not progressing in the same way, while the share of highly polluting and oversized cars remains significant. While taxation is not the only factor behind this it is clear that taxation has a role to play in incentivising BEV uptake, particularly at the point of purchase. Levying higher acquisition taxes on higher polluting petrol and diesel vehicles and introducing a weight-based element to acquisition tax would bring the UK more in line with its European neighbours and provide an equitable source of revenue for the Treasury, by targeting wealthier new car buyers. This revenue could be used to support people on lower incomes to access BEVs via targeted financial support or further investment in other things like public charging infrastructure.

Correlations small private BEVs vs petrol tax differentials and uptake - Western Europe

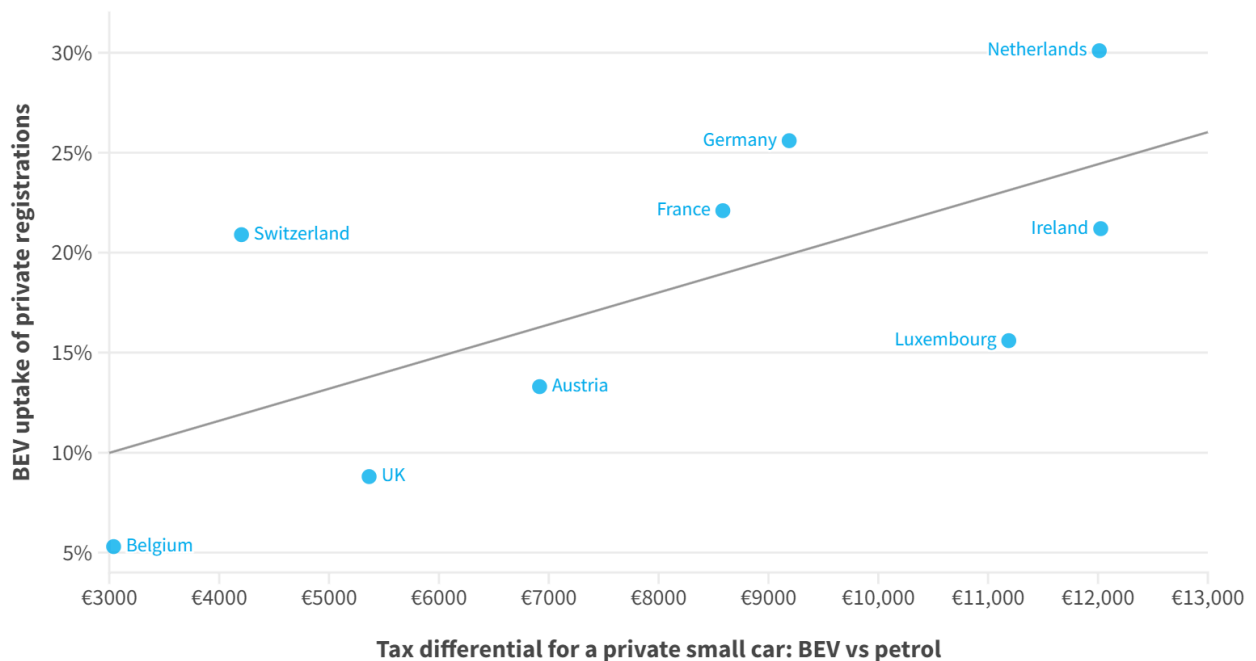


Figure 9 - Correlation between tax differentials for small BEV and petrol cars against uptake in the private channel

The UK has one of the most ambitious targets for increasing the sales of BEVs via the ZEV mandate, helping demonstrate the UK's climate leadership. At the moment, just benefit-in-kind supports that ambition. The UK must change its approach to acquisition tax to ensure that the tax system is helping, rather than hindering the decarbonisation of new cars.

Further information

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