

# Company car fossil fuel subsidies in Europe

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#### ACRONYMS AND ABBREVIATIONS

Acronym	Description	
BEV	Battery electric vehicle	
BiK	Benefit-in-kind	
CO <sub>2</sub>	Carbon dioxide	
EC	European Commission	
EU	European Union	
HEV	Hybrid electric vehicle	
ICE(V)	Internal combustion engine (vehicle)	
OECD	Organisation for Economic Co-operation and Development	
PHEV	Plug-in hybrid electric vehicle	
VAT	Value added tax	



### 1. EXECUTIVE SUMMARY

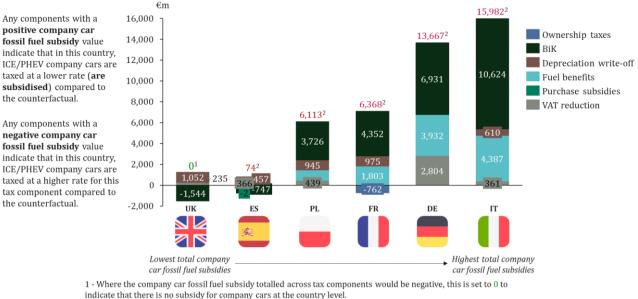
Many European companies make company cars available as an in-kind benefit to a subset of their employees. Employees who receive a mixed-use company car can drive it for both business and private purposes (with commuting counting as private use in all the countries covered in this report). Company cars usually benefit from tax advantages that are not available to private purchasers. Registration data also shows that across the countries studied, a lower proportion of electric cars are registered to company cars fleets compared to private consumers (apart from in the UK, where more electric company cars are registered), whilst companies also tend to purchase larger and heavier cars. Combined with the availability of company car schemes encouraging greater car use, the lower taxation of company cars for private use can be considered as an undesirable subsidy which increases emissions and promotes the purchase of larger vehicles.

In this context, this study sought to quantify the tax revenue loss from the private use of nonelectric company cars, which can be classified as a type of "fossil fuel subsidy," in the six European countries of France, Germany, Italy, Poland, Spain, and the UK, which are the largest car or company car markets in Europe (see <u>Definition of "fossil fuel subsidy"</u>). To do so, the tax advantages for the purchase or lease and use of a company car were calculated for all relevant tax components (i.e., value-added tax (VAT) reduction, depreciation write-offs, benefit-in-kind (BiK) tax, ownership taxes, purchase subsidies, and fuel benefits) and were compared to a counterfactual (see Defining the counterfactual tax system). The analysis is based on real mixeduse company car fleet data covering more than 750 combinations of company car make, model, and powertrain in each country (see General methodology and assumptions), representing the first evaluation that uses real data rather than archetypes to estimate company car fossil fuel subsidies in Europe. The company cars in the dataset analysed do not include the vehicles used by delivery or ride-share drivers. This study adopted the conservative approach of only calculating the fossil fuel subsidies arising from the private use of company cars (i.e., the "central" scenario for analysis assumes that each employee drives 80% of the time for private purposes), while company cars that are used exclusively for business purposes were excluded from the analysis (see Focus on tailpipe emissions and private use). From the initial calculations of the non-electric company car fossil fuel subsidies in 2023, the forecasted powertrain sales share in each country was used to project the annual and cumulative fossil fuel subsidies to 2035 (see Projection to 2035).

**Results of this study show there is scope in each of the countries analysed to reduce the tax advantages offered to highly polluting company cars.** Examples of possible amendments include reducing the depreciation deductibility of fossil fuel vehicles or providing a Mobility Budget option as an alternative to a company car (see <u>Belgium: a case study on tax system reform to reduce benefits for fossil fuel company cars)</u>.

Under the 80% private use scenario, in 2023 the UK had the lowest fossil fuel subsidies at  $\in$ 0m, while Italy had the highest subsidies at ca.  $\in$ 15.9b (see Figure 1). For the countries with the largest fossil fuel subsidies, BiK tax had an outsized impact on the favourable tax rates for company cars compared to the counterfactual (relative to other tax components). Across the six countries analysed, company car fossil fuel subsidies in 2023 totalled ca.  $\in$ 42.2b.



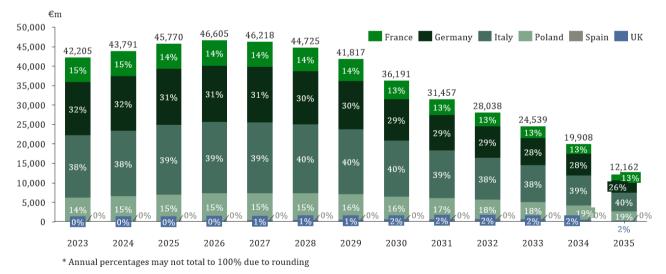


<sup>2 - 2023</sup> totals in red are correct but may not evently watch sum of values in here due to

2 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

*Figure 1*: Total 2023 fossil fuel subsidies for the private use of company cars in each country broken down by tax component in an 80% private use scenario.

Based on the projected future changes to the powertrain split of the company car parc in each country (provided by T&E), a projection of the company car fossil fuel subsidies from 2023-2035 was performed under the 80% private use scenario (Figure 2). From this, in all years, subsidies offered by Italy make up the greatest share of annual totals, followed by subsidies offered by Germany. Although France granted more subsidies than Poland in 2023, Poland's share of subsidies grows toward 2035, surpassing France by 2025. The total annual fossil fuel subsidies from all countries increases to a peak of ca. €46.6b in 2026 due to an increase in sales of PHEVs (which have high fossil fuel subsidies), before reducing in all subsequent years due to the increase in sales of BEVs (which are considered not to have fossil fuel subsidies in this study).

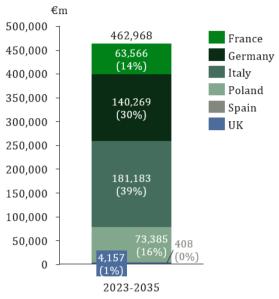


**Figure 2**: Projection of annual fossil fuel subsidies offered by France, Germany, Italy, Poland, Spain, and the UK with annual totals broken down by the share attributable to each country under the 80% private use scenario.

In terms of the cumulative company car fossil subsidies across all countries, from 2023-2035 under the 80% private use scenario, over the six countries analysed the 13-year total is ca. €463b or almost half a trillion euros (Figure 3). Italy, Germany, and Poland make up a large

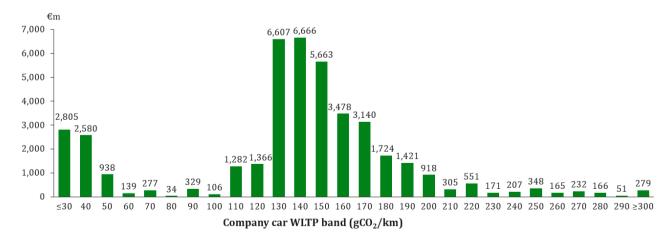


share of this total, collectively contributing to ca. 85% of this total. Of the remaining ca. 15% of the cumulative total, most of the subsidies are attributable to France.



**Figure 3**: Total cumulative company car fossil fuel subsidies from 2023-2035 for all six countries as powertrain mix changes under the 80% private use scenario.

Looking at the breakdown of the total company fossil fuel subsidies in 2023 under the 80% private use scenario by vehicle CO<sub>2</sub> emissions intensity band (Figure 4) across all countries, there is a cluster of ca.  $\in$ 6,323m in subsidies for cars at 50 gCO<sub>2</sub>/km and under, representing the emissions from PHEVs. Most of the petrol and diesel cars are clustered around intensities between 110-200 gCO<sub>2</sub>/km, with the largest share of subsidies going to cars in the 130-140 gCO<sub>2</sub>/km band. Looking at car manufacturers, company cars produced by BMW received the largest fossil fuel subsidy share across countries under the 80% private use scenario.  $\in$ 5,006m in fossil subsidies went to BMW company cars that year, followed closely by Volkswagen ( $\in$ 4,617m) and then Mercedes-Benz ( $\in$ 4,463m). These are the only three car brands for which company car total fossil fuel subsidies exceeded  $\in$ 4b in 2023.



**Figure 4:** Total 2023 company car fossil fuel subsidies across all countries broken down by vehicle emissions intensity band under the 80% private use scenario.



### 2. INTRODUCTION

### 2.1 CONTEXT OF THE STUDY

Across Europe, 60% of new cars in Europe were registered by companies in 2023 rather than by private individuals (the country specific shares of company registrations were, e.g., 67% in Germany and 52% in France), and this share has steadily increased from 50% in 2015 (Transport & Environment, 2024, p. 5).

Cars purchased by companies in Europe generally benefit from tax advantages that are not available to private buyers. Furthermore, corporate BEV sales have recently lagged compared to private car BEV sales in most European markets (Transport & Environment, 2024, p. 9). Dimitropoulos et al. (2016) states that the average company car is larger (and by extension more expensive) than the average privately owned car and has a bigger engine capacity (company cars have 5% larger engines, according to the European Commission (n.d.)), and therefore produces more emissions per kilometre. Additionally, Vandenbroucke et al. (2020) point out that the provision of a company car encourages car use and disincentivises drivers from changing their mode of travel to public transport or active travel.

Since company cars are more likely to be larger and non-electric, and the availability of company car schemes encourages greater car use, the lower taxation of company cars can be considered to be a negative incentive, or an undesirable subsidy promoting their use. The tax revenue loss from non-electric company cars specifically can be classified as a type of 'fossil fuel subsidy'. The European Commission provides a similar definition in its use of the term 'environmentally harmful subsidy' for company car taxation (2022). Further discussion of fossil fuel subsidies is provided in <u>Definition of "fossil fuel subsidy"</u>.

In this context, Transport & Environment commissioned ERM to quantify the annual company car fossil fuel subsidies in 2023 for mixed-use company cars, and to model what the subsidies could be in the future up to 2035 for six European countries: France, Germany, Italy, Poland, Spain, and the UK. These countries are the biggest company car markets in Europe. The relevant tax components considered include value-added tax (VAT) reduction, depreciation write-offs, benefit-in-kind (BiK), ownership taxes, purchase subsidies, and fuel benefits. For the purposes of this report, a '(mixed-use) company car' is defined as "a car made available to a worker by his/her company or employer as a benefit-in-kind, and which may be used for private purposes" (Brussels Studies, 2019). Cars used solely for business use are not considered in this study (justification for this approach is included in <u>Definition of "fossil fuel subsidy"</u>).

### 2.2 DEFINITION OF "FOSSIL FUEL SUBSIDY"

In this report, a 'fossil fuel subsidy' is defined as "a government action that confers an advantage on consumers, in order to supplement their income or lower their costs and causes fossil fuel emissions to increase as a result," from the European Commission (2022). Applying this definition to company cars, the calculations undertaken in this study estimate the fossil fuel subsidies from the private use share of company cars that produce tailpipe emissions, i.e., petrol or diesel internal combustion engine vehicles (ICEVs) and from the engine use of plug-in hybrid vehicles (PHEVs), while battery electric vehicles (BEVs) are excluded.



The above definition was derived from a review of relevant literature on fossil fuel subsidies and quantifying company car tax advantages from the European Commission, Copenhagen Economics, Brussels Studies, and the OECD.

The fossil fuel subsidies calculated in this study are conservative, because only the private use of the vehicle is considered as the benefit to the employee. Therefore, the subsidies are only calculated to include the taxation benefits for the portion of private use of the company car. This private use of the vehicle is not required for the business, therefore any subsidies linked to private use is purely reducing the cost for a company to provide a fossil fuel asset with no link to business operations. These subsidies are less defensible than subsidies linked with the commercial use of fossil fuel powered assets, as these may be required to conduct business.

Commercial use of a vehicle has been considered in line with general commercial assets (e.g., VAT is deductible, and the depreciation of the asset value can be all or partly written-off), which in general also applies to other assets which rely on fossil fuel use (e.g., industrial machinery, commercial vehicles, heating systems). While the tax advantages given to commercial use vehicles could be considered a fossil fuel subsidy, this study only focuses on the private benefit given to the employee. If all tax benefits linked to the commercial use of vehicles were considered a fossil fuel subsidy, the total subsidy would be considerably higher as it would include more vehicles (adding purely commercial cars as well as other commercial vehicles) and account for the higher usage of each vehicle.

Additionally, this study does not consider wider subsidies that fossil fuel company cars benefit from, such as oil and gas subsidies. Further detail on the consideration of company car taxation as a form of fossil fuel subsidy is explained in <u>General methodology and assumptions</u>.



### 2.3 BELGIUM: A CASE STUDY ON TAX SYSTEM REFORM TO REDUCE BENEFITS FOR FOSSIL FUEL COMPANY CARS

10% of the cars on the road in Belgium are company cars, and T&E found that Belgium had the highest levels of subsidies for company cars in Europe in 2020 (Moens, 2021; Transport & Environment, 2020). In 2017, the European Commission estimated that the favourable Belgium company car tax treatment created  $\in$ 3.75 b in revenue loss annually (0.9% of Belgium's GDP in 2016) (European Commission, 2017). These vehicles have 5% larger engines than private cars on average, which increase emissions and air pollution (European Commission, n.d.a). Through the 2023 Belgium National Recovery and Resilience Plan, the Belgian government has started to reduce the beneficial company car taxation regulations to mitigate these impacts, providing a case study on company car tax reform to reduce fossil fuel subsidies for other European countries.

The first changes in Belgian company car taxation affect depreciation deductibility. This refers to the ability for the value of the vehicle to be deducted from corporate taxable income. Fossil-fuelled vehicles (ICEV, HEV and PHEV) purchased in Belgium from 1 July 2023 to 31 December 2025 will be limited to a maximum depreciation deductibility of 75% of the cost of the vehicle in 2025, decreasing to 50% in 2026, 25% in 2027 and 0% in 2028. Vehicles that run on fossil fuels (fully or partly) that are purchased in 2026 or later will not be deductible at all from company profits. BEVs will also have their profit deductibility gradually reduced from 100% to 67.5% in 2031. Note that depreciation deductibility is also based on the business use of the vehicle (including commuting) (European Commission, 2017). Therefore, if 80% of the use of the vehicle is used for business purposes, only 80% of the vehicle can be deducted. The limits of carbon intensity then apply to this maximum deductibility (for example, if the vehicle is a petrol vehicle, the maximum deductibility would be reduced from 80% to 75% in 2025).

In Belgium, the benefit-in-kind tax is calculated based on the  $CO_2$  emissions of a vehicle, with a minimum percentage of 4% of the value of the vehicle being taxable for electric cars and a maximum percentage of 18% of the value of the vehicle being taxable for the most polluting cars. Social security contributions follow a similar calculation based on  $CO_2$  emissions only (LeasePlan, n.d.).

According to the Belgium Federal Planning Bureau, the net effect of the tax reforms is projected to create an additional  $\leq 1-2$  billion in tax revenues from 2027 onwards (2022).

Belgium also introduced a Mobility Budget as an alternative to a company car in 2019, offering employees the option to exchange their company car/eligibility for a company car with a smaller, low-emission car and use the remaining budget for sustainable travel (public transport, bicycles, shared cars, etc.) or a cash payout that is exempt from income tax. Recent data shows that the policy is slowly growing in use (Aguirre, 2024).

Belgium's company car scheme changes have had a significant effect on the uptake of electric vehicles, with half of new company cars now BEV or PHEV (The Brussels Times, 2023). In these ways, Belgium is a good example of company car taxation reform that focuses on emissions and air pollution reduction (i.e., reducing the fossil fuel subsidies provided by the country's company car tax system), while still providing options for employers to reward their employees with mobility benefits.



### 3. GENERAL METHODOLOGY AND ASSUMPTIONS

### 3.1 OVERVIEW

As the first input for this study, T&E collated the most recent data from fleet market research firm Dataforce on mixed-used company cars (including make, model, powertrain, etc.) for the real-world corporate fleets of the six in-scope countries for this study: France, Germany, Italy, Poland, Spain, and the UK. ERM research on the employer/employee beneficiary split and other country-specific tax component rules was used to update the Good Tax Guide<sup>1</sup> model managed by T&E. After applying these updates, T&E ran the Good Tax Guide model using the Dataforce data to yield per vehicle financial outputs for all countries under different scenarios of private use. In this way, this study is the first to calculate company car tax revenue using real statistics on company cars instead of archetypes, representing a novel contribution to the literature. Based on the Good Tax Guide outputs, ERM then calculated the fossil fuel subsidies (the total across all models and powertrains) in each country by comparing the results from the Good Tax Guide of the taxes currently paid by employers and employees for the mixed-use company cars in reality, with the taxes paid in a theoretical counterfactual scenario (see Defining the counterfactual tax system). Finally, after calculating the company car fossil fuel subsidy totals by country for the initial base year of 2023, ERM projected the fossil fuel subsidies to 2035 using the forecasted share of vehicle sales by powertrain for each country provided by T&E.

A full description of the assumptions used to define the counterfactual scenario is provided in <u>Literature review to support definitions</u>, and further detail on the calculations is available in <u>Appendix B</u>. Note that only mixed-use company cars were included in the calculations, and service/commercial cars (company cars used solely for business purposes), salary-sacrifice cars (which are not company cars and are only owned and driven privately, i.e., not mixed use), and privately owned cars that may be driven for work (such as for ride share or delivery) are out of scope.

Overall, the specific focus of this study on calculating the fossil fuel subsidies from the private use share of mixed-use company cars using real data represents a conservative approach, meaning the subsidy figures reported should be considered the lower bound of the actual subsidies currently granted by the tax systems of the in-scope countries.

### 3.2 LITERATURE REVIEW TO SUPPORT DEFINITIONS

This section provides additional background on the literature review undertaken to support the definitions used for this study.

ERM collated several definitions of "fossil fuel subsidy" in public literature to inform the definition that is used in this report to apply to a mixed-use company car, summarised in the <u>Overview</u> above. The first source used to inform the working definition is "A toolbox for reforming environmentally harmful subsidies in Europe" (European Commission, 2022). The report defines an "environmentally harmful subsidy" as any "government action that confers an advantage on consumers or producers, in order to supplement their income or lower their costs and causes negative environmental impacts to increase as a result". The report explains that the beneficial taxation of company cars used for private mileage is an example of an environmentally harmful subsidy, using input from "Company Car Taxation: Subsidies, welfare and environment"

<sup>&</sup>lt;sup>1</sup> The <u>Good Tax Guide</u> is a country vehicle tax calculation tool originally created in collaboration with 31 NGOs, with the results compiled by T&E.



(Copenhagen Economics, 2009). "Reform of environmentally harmful subsidies" by Bertelsmann Stiftung (2023) also includes company car taxation as a type of environmentally harmful subsidy.

In the European Commission report, the definition is narrowed to focus on emissions from fossil fuels as the specific type of negative environmental impact (2022). Therefore, the same definition of a 'fossil fuel subsidy' is used in this study: "a government action that confers an advantage on consumers, in order to supplement their income or lower their costs and causes fossil fuel emissions to increase as a result".

It should be noted that the European Commission did not calculate company car fossil fuel subsidies in the report, citing the lack of data on the costs of cars to companies and the proportion of private use of the cars, but the European Commission estimated that subsidies are at minimum 30% of the total costs of the car (assumed to mean 30% of the list price of the vehicle excluding VAT).

In "Company Car Taxation: Subsidies, welfare and environment" Copenhagen Economics used average vehicle assumptions to calculate that company car fossil fuel subsidy amounts across 18 EU countries were in the range of 23-29% of the weighted average of the car value (company acquisition cost) or 22-26% based on the simple average car value (2009). The lower and upper bounds of these ranges result from the use of either a low or a high private mileage assumption (Copenhagen Economics, 2009). However, note that this calculation was based on 2008 data and is now likely out of date based on modifications to country tax systems in the proceeding years. In contrast to the European Commission and Copenhagen Economics approaches described above, this study uses real data on mixed-use company cars, calculating more €42b in total company car fossil fuel subsidies in 2023 for the six countries analysed.

Finally, the Organisation for Economic Co-operation and Development (OECD) (2014) also classify the beneficial taxation of the private use of company cars as a negative incentive, with undesirable effects on congestion and emissions. The study uses a benchmark of neutral tax treatment of company car benefits relative to cash wage income to calculate the subsidies. The study calculated the subsidies for the private use of company cars for the 27 OECD countries in 2012, reaching total annual subsidies per average car of  $\leq 1,600$ , and total subsidies across all 27 countries of ca.  $\leq 19-\leq 33$  billion.

### 3.3 FOCUS ON TAILPIPE EMISSIONS AND PRIVATE USE

The calculations to estimate the fossil fuel subsidies in this study are focused on vehicles that produce tailpipe emissions, i.e., petrol or diesel internal combustion engine vehicles (ICEVs) and plug-in hybrid vehicles (PHEVs), while battery electric vehicles (BEVs) are excluded (for separate exploration of ICE vs BEV subsidy differences for select similar models, see <u>Appendix C</u>). For PHEVs, only the proportion of mileage that is powered by the engine (and not the battery) is considered within the calculations of the subsidies. See <u>Plug-in hybrid vehicle calculations</u>.

This study takes a conservative approach by only considering fossil fuel subsidies linked to the private use of a company car (aligned with the European Commission (2022)), as this is the benefit that employees enjoy when having a company car. This means that the fossil fuel subsidies described in this report are linked to the benefit provided by a company car to employees outside their use for work (note, commuting is considered private use in all of countries in-scope for this study), rather than accounting for any business use required as part of the job. Fossil fuel subsidies linked to the use of vehicles as part of business operations (either for company cars or in commercial fleets) is outside the scope of this analysis. Further



information on how these considerations are accounted for in the subsidy calculations is detailed in <u>Appendix B</u>.

For all countries, Good Tax Guide outputs and ERM's post-processing tested the impacts of three different assumptions of the percentage of private mileage driven ("private use") by company cars to understand the sensitivity of this variable on influencing the fossil fuel subsidies for mixed-use company cars: 65% "low", 80% "central", and 100% "high" private use. See <u>Company car private use scenario selection</u> in Appendix A for additional detail on what informed the selection of these three private use scenarios and what is considered "private use" in all inscope countries. A sensitivity modelling approach was used to adjust the share of private use for company cars in each country.

### 3.4 DEFINING THE COUNTERFACTUAL TAX SYSTEM

The European Commission (2022) uses the concept of "tax neutrality", defined by a Copenhagen Economics study (2009), to illustrate an approach for calculating the size of the company car tax subsidies in Europe. "Tax neutrality" is described as a scenario where "the employees' net disposable income is the same whether compensation from the employer is provided as cash remuneration or as fringe benefits in the form of a company car also for private use." The European Commission report recommends the approach of comparing the actual company car tax situation in reality with a tax neutral scenario to determine the size of the subsidies in each country. ERM used this definition to guide the creation of the counterfactual scenario in this study.

To be able to compare the taxes paid by the employer and employee for a company car with the taxes paid for a private car, an appropriate counterfactual tax system must first be defined to be compared against. The counterfactual tax scenario used in this study is a scenario where the employer increases the employee's net salary by an amount which allows the employee to lease the same car privately, while receiving *the same net salary* as a company car user.<sup>2</sup> This ensures that the final state for the employee is the same in both scenarios: they have access to a car which they can use for private use and they receive the same net salary after receiving the car (either as a company car or by leasing privately). Note that this scenario is not intended to be a realistic alternative tax system but is instead a scenario with which to fairly compare the taxes associated with receiving a company car to the taxes associated with leasing a car privately.

The definition of the counterfactual tax scenario is illustrated on the next page with a worked example for the benefit-in-kind (BiK) tax component, which helps to explain how a company car is considered a benefit in kind which an employee receives from their company which is not part of their salary (also referred to as a "fringe benefit").

 $<sup>^2</sup>$  This "net salary" after privately purchasing or leasing a company car will be lower than the original salary, as a company car user has their original salary reduced after paying benefit-in-kind taxes.



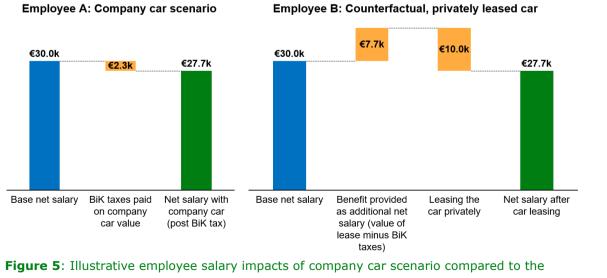
Consider two employees in France with a net salary of  $\in$  30,000, who are given the same car from their company in two ways:

**Employee A** (company car recipient) is provided a diesel Audi A3 car worth  $\in$ 45,000 (incl. VAT) as a company car, which costs approximately  $\in$ 10,000/year to lease privately (including registration tax, etc.). For the company car, the employee pays an additional  $\in$ 2,300/year in taxes due to the taxable increase to their salary through benefit-in-kind (BiK). These BiK taxes are calculated from a BiK salary increase of  $\in$ 5,400 (12% of vehicle value post VAT), and a marginal tax rate of 42.2% (including income taxes and social security contributions, from OECD (see <u>Additional assumptions incorporated into the T&E Good Tax Guide provided by ERM</u>). Only BiK tax is considered at this point, as this is the only company car tax which changes the net salary of the employee, which therefore changes the salary uplift required for employee B below.

For **employee B** (privately leased car, counterfactual), their employer increases the employee's net salary by  $\in$ 7,700/year (after paying  $\in$ 5,600 in income taxes). This is equivalent to the company car recipient's  $\in$ 10,000/year leasing costs minus the  $\in$ 2,300/year BiK taxes paid by employee A. This will allow the employee to privately lease an Audi A3 while having the same net income as employee A, after the vehicle leasing costs have been deducted (including vehicle registration taxes, VAT, etc.).

Both employees are now in the same situation: they each have a diesel Audi A3 and have a net salary of  $\leq 27,700$  once car leasing costs are removed for employee B.

The fossil fuel subsidy can then be calculated by comparing the taxes paid by the employer and employee for employee A (company car recipient) and for employee B (privately leased car, counterfactual). For the fossil fuel subsidy to the employee through BiK taxes, this equals  $\in$ 3,300 ( $\in$ 5,600 -  $\notin$ 2,300) in the above example. This allows the comparison of all relevant taxes associated with the use of a company car (see table below for a summary of the taxes quantified for a company car and the counterfactual scenario). Applying this comparison to all company cars in each country (as well as accounting for the private use share of the company car as described in Appendix B) makes it possible to calculate the total fossil fuel subsidies attributable to each tax component. This is illustrated in Figure 5.



counterfactual scenario.



**Table 1**: Taxes considered in the company car scenario compared to the counterfactual scenario, used for calculating the fossil fuel subsidy.

Applicable taxes in each scenario used to calculate fossil fuel subsidy		
Company car scenario	Counterfactual: additional income and privately purchased car	
Marginal income taxes and social security contributions paid by employee and employer on the benefit-in-kind value	Marginal income taxes and social security contributions paid by employee and employer on the additional income provided to achieve the required increase in net salary	
Company car registration tax paid by employer	Company car registration tax paid by employee	
Annual ownership tax paid by employer	Annual ownership tax paid by employee	
Decrease in VAT paid by employer	Full VAT paid (no deductions) by employee	
Purchase subsidy for the employer	Purchase subsidy (or none) for the employee	
Decrease in corporate income tax due to depreciation write-off	No depreciation write-off	
Fuel cards provided by the company	Fuel costs paid for by employee	

Under the current tax systems in all in-scope countries, when a petrol or diesel company car is purchased by the employer and provided to an employee, both the employee and employer receive different tax reductions compared to the counterfactual tax system. The tax components considered when checking the tax benefits for both parties for offering a company car were: VAT recovery, depreciation write-offs, benefit-in-kind taxes, purchase grants for PHEVs, ownership taxes, registration taxes, and benefits from the company paying for fuel (i.e., through fuel cards or similar). In this report, we assume that 100% of employees receive fuel benefits, when this provides a tax benefit to the employee and employer. It is assumed that for company cars, the employer is responsible for paying ownership and registration taxes.

For **employees**, company car taxation differs compared to the taxes paid in a counterfactual scenario in terms of:

- The payment of benefit-in-kind tax instead of increased income tax (from a higher salary);
- The reduced social security taxes on the benefit-in-kind compared to on an increased salary;
- The reduced cost of paying taxes on the benefit-in-kind on fuel used for private use and paid for by the company compared to increasing the salary for the individual to pay for fuel.

For **employers**, company car taxation differs compared to the taxes paid in a counterfactual scenario in terms of:

- The removal or reduction of VAT from the purchase of the vehicle;
- The reduction of social security taxes on the benefit-in-kind compared to an increased employee salary;



- The reduction in corporate profit taxes from the inclusion of vehicle depreciation in operational costs;
- Differences in ownership and registration taxes for vehicles registered as private or company cars;
- Differences in whether a purchase subsidy is applied to the purchase of an electric vehicle for corporate purchase compared to private purchase
- Reduced cost of paying social security taxes on the benefit-in-kind on fuel used for private use and paid for by the company compared to increasing the salary for the individual to pay for this fuel.

### 3.5 DIFFERENCES WHEN COMPANY CARS ARE LEASED RATHER THAN PURCHASED

Many company cars are leased by the company from a leasing agency instead of purchased outright. In the company car scenario, the employer pays for the monthly lease payments, and the rules on VAT deduction and depreciation write-off specific for leased vehicles are applied to the annual leasing cost.

From ERM's research into the current tax regimes for the in-scope countries, whether the vehicle is owned outright or leased does not change the tax benefits for the tax components. Any minor rule changes to the benefits based on a company car's leased/owned status are outlined in the later country-specific sections.

### 3.6 PLUG-IN HYBRID VEHICLE CALCULATIONS

For the plug-in hybrid company cars, the fossil fuel subsidy calculated for the vehicle is scaled by the estimated real-world proportion of engine-to-battery use. The assumption used in this study is that 12% of company car PHEV mileage is electric and 88% is fossil fuel (engine) mileage (Plötz et al., 2022). Therefore, the fossil fuel subsidy applies only to the fossil fuel use of the vehicle, so ERM applied an 88% multiplier to the post-processing outputs for PHEVs.

### 3.7 PROJECTION TO 2035

The method undertaken for projecting the company car fossil fuel subsidies calculated for 2023 to 2035 for the in-scope countries in this study uses a "Business-as-usual" approach. This assumes that no additional measures are taken to influence the company car fleet other than country-wide or EU-wide legislation to reduce emissions from new cars. The total size of the company car fleet is kept constant from 2023 to 2035. The share of sales of each vehicle is scaled based on the estimated sales proportion by powertrain and segment in each country (provided by T&E). There is an increase in the proportion of BEVs sold over time and a reduction in the number of ICE company cars sold as manufacturers selling in EU countries abide by legislation to reduce the tailpipe emissions of new cars (i.e., to comply with Fit for 55). For simplicity, it is assumed that the characteristics of vehicles sold currently stay constant (e.g., a Nissan Qashqai continues to be sold with the same price, emissions, engine size, etc.). In addition, it is assumed that country company car tax rules stay constant over time (e.g., no measures are taken to reduce or increase the company car tax burden on each vehicle) since it is not possible to predict what changes countries will make to their tax schemes in future years. This approach for the projection was agreed with T&E early in the project.



### 4. INDIVIDUAL COUNTRY ANALYSES

In the following country-specific results sections, positive fossil fuel subsidy figures at either the tax component or the country level mean that the tax system for the country provides financial incentives (in terms of a reduced tax burden) for ICE/PHEV company car purchases compared to the counterfactual tax system. Conversely, negative fossil fuel subsidies at the tax component level mean that compared to the counterfactual tax system, there is an increased tax level for this tax component for company cars with the private use share modelled (e.g., central 80% private use share). It is worth noting that generally as the share of private use decreases, the tax advantage of a company car decreases, especially for BiK, indicating that there is more of a tax advantage for employees with higher shares of private use.

The next sections present the study results and discussion for France, Germany, Italy, Poland, Spain, and the UK.

### 4.1 FRANCE

### 4.1.1 FRANCE EXECUTIVE SUMMARY

Overall, France has average company car tax benefits compared to the other countries in this study, with the third highest fossil fuel subsidies.

The company car subsidies for private use in France largely derive from the favourable BiK tax rate and fuel benefit rate, offering lower taxes than for privately owned cars in the counterfactual scenario. Annual ownership tax is higher for company cars than for private cars in France, so this metric decreases the subsidy total slightly.

The total fossil fuel subsidy amount for France under the 80% (central) private use scenario was calculated to be ca.  $\in$ 6.4 billion for 2023.

### 4.1.2 FRANCE: COMPANY CAR SYSTEM SUMMARY

Table 2 clarifies the application of and examples for each tax metric in France.

Tax metric	Applies to employer or employee?	France summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
Annual ownership tax	Employer	Based on the carbon emissions intensity of the vehicle.	€1,833.
Benefit-in-kind	Employee and employer	Based on the carbon emissions intensity of the vehicle.	Additional income and social contribution taxes owed on 9% of the car list price.
VAT	Employer	Cannot be deducted from the cost of mixed-use company cars.	No deduction.
Depreciation	Employer	Employers can write off 100% of the cost of the vehicle from corporate profits for mixed-use vehicles, over 4-5 years, up to a limit that is based on the carbon emissions intensity of the vehicle.	100% deduction up to €18,300, over 4-5 years.



Tax metric	Applies to employer or employee?	France summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
Purchase subsidies	Employer	There are no purchase grants available for PHEVs.	None.
Fuel benefits	Employee and employer	Flat BiK tax rate for all vehicles.	Additional income and social contribution taxes owed on 3% of the car list price.

### 4.1.3 FRANCE METHODOLOGY AND ASSUMPTIONS

The fossil fuel subsidy calculation method followed for this country follows that used for all other countries, as described in <u>Appendix B</u>. Any departures from this approach or particular considerations for France are described below.

For depreciation write-offs, there is a cap to the value which can be written off against profits, which varies with the emissions rating of the vehicle.<sup>3</sup> For vehicles worth more than this cap, the company can only write off the value of the vehicle up to that cap. For write-offs of leasing costs, the proportion allowed is equal to the ratio of the cap against the list price of the vehicle. The amount of depreciation able to be written off from corporate profits is not impacted by the share of private use of the company car.

### 4.1.4 FRANCE RESULTS

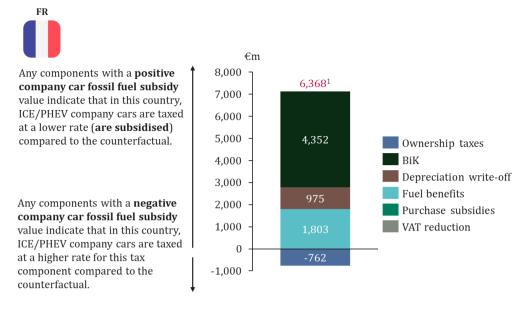
In the central 80% scenario (where employees are assumed to use the vehicle 80% of the time for private use), France had a ca.  $\in$ 6.4 billion net fossil fuel subsidy (summing employee and employer subsidies) in 2023 (see Figure 6).

As shown in Figure 6, BiK tax and fuel benefits contribute the most to the company car fossil fuel subsidies provided in France. Annual ownership tax is higher for company cars than for private cars, so the subsidy is shown as negative. There are no purchase grants currently available for PHEVs in France, and VAT deduction is not permitted, thus these metrics do not contribute to the total subsidies.

In terms of the beneficiary split, the fossil fuel subsidies to employers for the private use of company cars in France in 2023 in the 80% private use scenario total ca.  $\in$ 3,372m (with an average of ca.  $\in$ 2,824 per car). The subsidies to employees total ca.  $\in$ 2,996m (with an average of ca.  $\in$ 2,509 per car).

<sup>&</sup>lt;sup>3</sup> Maximum vehicle value written off: 0-20 gCO<sub>2</sub>/km = €30,000, 21-50 gCO<sub>2</sub>/km = €20,300, 51-160 gCO<sub>2</sub>/km = €18,300, >160 gCO<sub>2</sub>/km = €9,900.



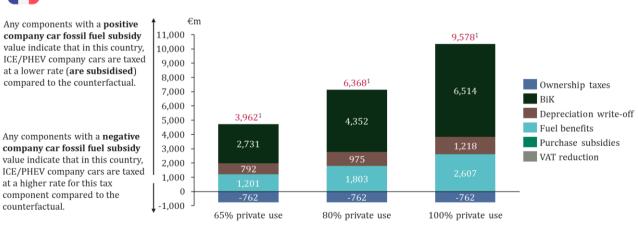


1 - 2023 total in red is correct but may not exactly match sum of figures in bar due to rounding.

#### Figure 6: Total fossil fuel subsidies in France across different tax types for the private use of company cars in 2023, assuming 80% private use. Results are based on the current ICE/PHEV powertrain and models mix in all company car fleets in France.

From the other private use scenarios modelled (see Figure 7), compared to the central 80% private use scenario, there are €4 billion in subsidies provided in a 65% private use scenario (where every recipient of a mixed-use company car is assumed to drive 65% of the time for private use). The lower subsidy is due to the higher BiK tax and fuel benefit tax paid for private use in the company car system relative to the counterfactual taxes, providing a lower subsidy for the private use of a company car. Conversely, in the 100% private use scenario the BiK and fuel benefit taxes are lower relative to the taxes in the counterfactual scenario, and the total subsidies thus rise to ca. €9.6 billion.





1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

**Figure 7**: Total fossil fuel subsidies in France across different tax types for the private use of company cars in 2023, assuming three private use scenarios. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in France.



at a higher rate for this tax

counterfactual.

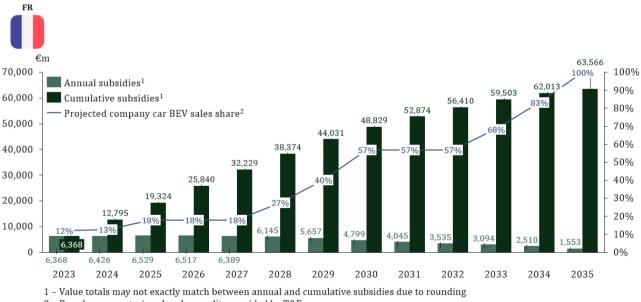
component compared to the

From Table 3, in 2023 under the 80% private use scenario, fossil fuel subsidies broadly increase as segment size increases (since larger vehicles tend to have higher emissions, which is part of the tax calculation for France (see Table 2)). The segment A petrol model has a higher overall subsidy than the segment B and C models due to the higher subsidy from employee fuel savings for the Fiat 500 relative to the models in the larger segments. The top PHEV model receives a subsidy that is similar to that of the diesel model in its same segment.

**Table 3**: Average annual fossil subsidies for the top company car models (per car) in France by segment/powertrain (80% private use scenario). Leased vehicles only.

Model	Powertrain	Segment	Average annual fossil fuel subsidy per car (and over 3.5-year length of lease) ( ${f C}$ )
FIAT 500	Petrol	А	5,485 (19,119)
RENAULT CLIO	Petrol	В	5,149 (18,022)
PEUGEOT 308	Diesel	С	5,046 (17,662)
PEUGEOT 5008	Petrol	D	6,443 (22,550)
LEXUS ES	Petrol	E	8,017 (28,060)
PEUGEOT 308	PHEV	С	4,895 (17,132)

As more PHEVs and fewer ICEVs enter the company car fleet up to 2025, annual fossil fuel subsidies are expected to increase slightly up to this point (see Figure 8). However, as BEV sales increase over time (shown as a line on Figure 8), the annual fossil fuel subsidies are expected to decrease from 2026 to 2035. The total cumulative fossil fuel subsidies by 2035 (i.e., revenue not paid to the French government) would be ca. €64 billion.



2 – Based on powertrain sales share splits provided by T&E

**Figure 8**: Projected company car fossil fuel subsidies in France to 2035 based on 80% private use scenario with no policy changes (i.e., solely assuming a change in vehicle powertrain mix over time).



### 4.1.5 FRANCE DISCUSSION

Out of the six countries analysed for this study, France had the third highest total fossil fuel subsidy in 2023. Under the central 80% private use scenario, the total subsidies were ca.  $\leq$ 6.4 billion.

In a wider context, it is difficult to calculate fossil fuel subsidies in France because they are not classified as such. However, France does publish information on fiscal expenditures in the Green Budget. In 2024,  $\in$ 13.1b of State expenditure was deemed to have an "unfavourable impact" on the environment, with the European Commission stating that this likely includes transportation (but not explicitly including lost tax expenditure from fossil fuelled-company cars) (Gouvernement France, 2024; European Commission, n.d.b). Independent analysis by Enerdata for the European Commission estimates that total fossil fuel subsidies across all sectors in France totalled  $\in$ 30 billion in 2022 (European Commission, 2023). The total fossil fuel subsidies for employees and employers in the 80% private use scenario in this study were  $\in$ 6.4b: 49% of the "unfavourable impact" expenditure in 2024 or 21% of the Commission-identified fossil fuel subsidies. (Note, company cars are not mentioned explicitly in the Enerdata analysis, and the Enerdata analysis uses a different definition of fossil fuel subsidies than used in this report, making a direct comparison to the results from this report difficult.)

### 4.2 GERMANY

### 4.2.1 GERMANY EXECUTIVE SUMMARY

Overall, Germany has large company car tax benefits compared to the other countries in this study, with the second highest fossil fuel subsidies.

The company car subsidies for private use in Germany derive from the favourable BiK tax rate and fuel benefit system and VAT deduction, offering lower taxes than for privately owned cars in the counterfactual scenario.

The total fossil fuel subsidy amount for Germany under the 80% (central) private use scenario was calculated to be ca.  $\leq$ 13.7 billion for 2023.

### 4.2.2 GERMANY: COMPANY CAR SYSTEM SUMMARY

Table 4 clarifies the application of and examples for each tax metric in Germany.

Tax metric	Applies to employer or employee?	Germany summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
Annual ownership tax	Employer	Based on the carbon emissions intensity and the cylinder capacity of the vehicle, with a discount for low-emission cars.	€186.
Benefit-in-kind	Employee and employer	Flat rate of 12%, with lower rates for PHEV (<50 gCO <sub>2</sub> /km, 6%) and BEV (3%).	Additional income and social contribution taxes owed on 12% of the car list price.
VAT	Employer	100% of VAT can be deducted from the purchase or lease of mixed-use company	100% deduction in most cases.

**Table 4:** Germany company car tax rules



Tax metric	Applies to employer or employee?	Germany summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
		cars if the private use of the vehicle is lower than 90%. VAT cannot be deducted if the private use is $> 90\%$ .	
Depreciation	Employer	Employers can write off 100% of the cost of the vehicle from corporate profits for mixed-use vehicles over 8 years if the employee uses the vehicle <50% for private use. If the vehicle is used >50% for private use then only the proportion of business use is allowed to be deducted from corporate profits (e.g. 20% in an 80% private use scenario).	100% over 8 years if private use < 50%. If not, then only the proportion of business use is allowed to be deducted (e.g., 20%).
Purchase subsidies	Employer	There are no purchase grants available for company car PHEVs.	None.
Fuel benefits	Employee and employer	No additional BiK taxes owed for private fuel provision from the employer.	None.

### 4.2.3 GERMANY METHODOLOGY AND ASSUMPTIONS

The fossil fuel subsidy calculation method followed for this country follows that used for all other countries, as described in <u>Appendix B</u>. Any departures from this approach or particular considerations for Germany are described below.

In Germany, the depreciation of a fossil fuel car is spread across 8 years, meaning that the whole value of the depreciation is not written off across a typical company car ownership period (3-4 years).

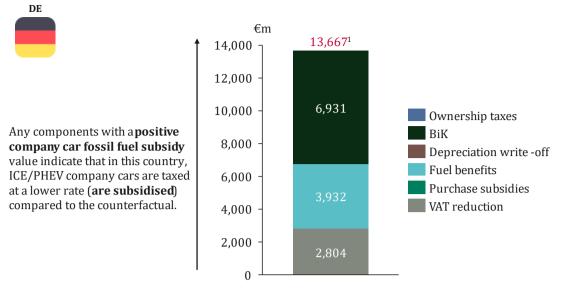
### 4.2.4 GERMANY RESULTS

In the central 80% scenario (where employees are assumed to use the vehicle 80% of the time for private use), Germany had a ca.  $\in$ 13.7 billion net fossil fuel subsidy (summing employee and employer subsidies) in 2023 (see Figure 9).

As shown in Figure 9, BiK, fuel benefits and VAT reductions contribute the most to the company car fossil fuel subsidies provided in Germany. Annual ownership tax does not differ for company cars compared to private cars, so this metric does not affect the subsidy. There are no purchase subsidies for PHEVs currently available in Germany for private or company cars, so this metric also does not impact the subsidy. Finally, the depreciation write-offs for the three private use scenarios are only available for the exact proportion of business use, so there is no depreciation subsidy for private use (depreciation for business use is not considered a private-use fossil fuel subsidy in the report).

In terms of the beneficiary split, the fossil fuel subsidies to employers for the private use of company cars in Germany in 2023 in the 80% private use scenario total ca.  $\in$ 2,804m (with an average of ca.  $\in$ 1,185 per car). The subsidies to employees total ca.  $\in$ 10,863m (with an average of ca.  $\in$ 4,589 per car).

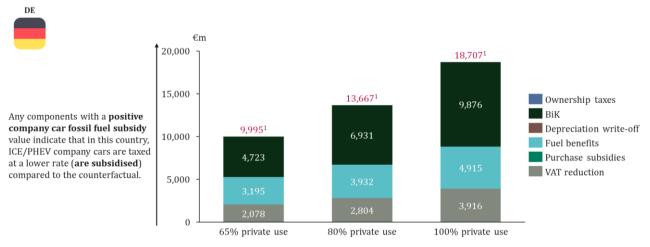




1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

## *Figure 9*: Total fossil fuel subsidies in Germany across different tax types for the private use of company cars in 2023, assuming 80% private use. Results are based on the current ICE/PHEV powertrain and models mix in all company car fleets in Germany.

From the other private use scenarios modelled (see Figure 10), compared to the central 80% private use scenario, there are  $\in$ 10 billion subsidies provided in a 65% private use scenario (where every recipient of a mixed-use company car is assumed to drive 65% of the time for private use). The lower subsidy is mainly due to the higher BiK tax and fuel benefit tax paid for private use in the company car system relative to the counterfactual taxes, providing a lower subsidy for the private use of a company car. Conversely, in the 100% private use scenario the BiK and fuel benefit taxes are lower relative to the taxes in the counterfactual scenario, and the total subsidies rise to  $\in$ 18.7 billion.



1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

**Figure 10:** Total fossil fuel subsidies in Germany across different tax types for the private use of company cars in 2023, assuming three private use scenarios. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in Germany.

From Table 5, in 2023 under the 80% private use scenario, top models in larger segments receive higher fossil fuel subsidies compared to the counterfactual than models in smaller segments in Germany. Both the employer and employee components of the subsidy get larger

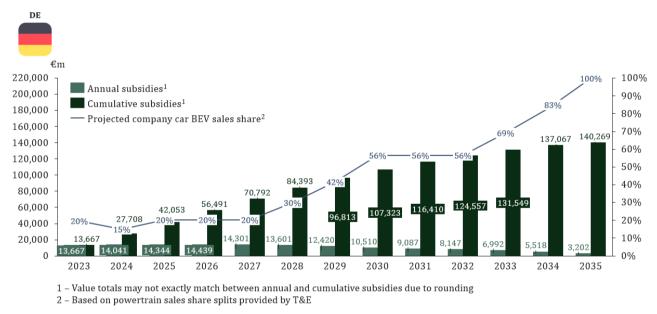


with increasing segment size, and as larger segments are also typically more expensive, this impacts the BiK calculation (see Table 4). The segment D PHEV model receives the highest fossil fuel subsidy of this selection of models, with a high contribution from employee BiK.

Model	Powertrain	Segment	Average annual fossil fuel subsidy per car (and over 3.5-year length of lease) (€)
VW UP	Petrol	А	3,563 (12,471)
OPEL CORSA	Petrol	В	4,015 (14,053)
VW GOLF	Diesel	С	5,380 (18,830)
VW PASSAT	Diesel	D	6,707 (23,475)
AUDI A6 S6	Diesel	E	8,040 (28,140)
MERCEDES GLC	PHEV	D	10,135 (35,472)

**Table 5:** Average annual fossil subsidies for the top company car models (per car) in Germany by segment/powertrain (80% private use scenario). Leased vehicles only.

As more PHEVs and fewer ICEVs enter the company car fleet up to 2026, fossil fuel subsidies are expected to slightly increase up to this point (see Figure 11). However, as BEV sales increase over time (shown as a line on Figure 11), the annual fossil fuel subsidies are expected to decrease from 2027 to 2035. The total cumulative fossil fuel subsidies (i.e., revenue not paid to the German government) by 2035 would be ca. €140 billion.



**Figure 11:** Projected company car fossil fuel subsidies in Germany to 2035 based on 80% private use scenario with no policy changes (i.e., solely assuming a change in vehicle powertrain mix over time).

### 4.2.5 GERMANY DISCUSSION

Out of the six countries analysed for this study, Germany had the second highest total fossil fuel subsidy in 2023. Under the central 80% private use scenario, the total subsidies were ca. €13.7 billion.

Comparing results from this analysis to the wider context of fossil fuel subsidies in Germany, analysis by Enerdata for the European Commission estimates that total fossil fuel subsidies



across all sectors in Germany totalled £21 billion in 2022, (European Commission, 2023). Therefore, the total fossil fuel subsidies for company cars in 2023 in the 80% private use scenario in this study were 65% of the total fossil fuel subsidies. (Note, company cars are not mentioned explicitly in the Enerdata analysis, and the Enerdata analysis uses a different definition of fossil fuel subsidies than used in this report, making a direct comparison to the results from this report difficult.)

Note, in early September 2024, the German government proposed increasing BEV company car depreciation write-offs to 40% (Reuters, 2024). Based on the focus on subsidies to fossil fuel company cars (see Focus on tailpipe emissions and private use), this proposed tax system change is not relevant to the analysis in this study (including in separate analysis conducted in Appendix C).

### 4.3 ITALY

### 4.3.1 ITALY EXECUTIVE SUMMARY

Overall, Italy has large company car tax benefits compared to the other countries in this study, with the highest fossil fuel subsidies.

The company car subsidies for private use in Italy derive from the favourable BiK tax rate, high income tax rates and fuel benefit system, offering lower taxes than for privately owned cars in the counterfactual scenario.

The total fossil fuel subsidy amount for Italy under the 80% (central) private use scenario was calculated to be ca.  $\leq$ 16 billion for 2023.

### 4.3.2 ITALY: COMPANY CAR SYSTEM SUMMARY

Table 6 clarifies the application of and examples for each tax metric in Italy.

### **Table 6:** Italy company car tax rules

Tax metric	Applies to employer or employee?	Italy summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
Annual ownership tax	Employer	Based on the engine power and fuel type of the vehicle, with tax exemptions for low-emission cars.	Varies by engine power.
Benefit-in-kind	Employee and employer	Based on the carbon emissions intensity of the vehicle.	Additional income and social contribution taxes owed on 30% of government-listed running cost of the vehicle over 15,000 km.
VAT	Employer	40% of VAT can be deducted from the purchase or lease of mixed-use company cars.	40% deduction.
Depreciation	Employer	Employers can write off 70% of the cost of the vehicle from corporate profits for mixed-use vehicles (if employees use	70% deduction over 5 years.



Tax metric	Applies to employer or employee?	Italy summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
		the vehicle for more than 6 months $+ 1$ day), over 5 years.	
Purchase subsidies	Employer	Depending on the vehicle, there is a purchase subsidy of $\leq 1,500$ or $\leq 4,000$ for PHEVs depending on whether an older fossil fuel vehicle is scrapped. There are the same subsidies available for private buyers.	€1,500 or €4,000.
Fuel benefits	Employee and employer	No additional BiK taxes owed for private fuel provision from the employer.	None.

### 4.3.3 ITALY METHODOLOGY AND ASSUMPTIONS

The fossil fuel subsidy calculation method followed for this country follows that used for all other countries, as described in <u>Appendix B</u>. Any departures from this approach or particular considerations for Italy are described below.

In Italy, the depreciation of a fossil fuel car is spread across 5 years, meaning that the whole value of the depreciation is not written off across a typical company car ownership period (3-4 years).

Benefit-in-kind is also calculated differently compared to the other countries studied, being calculated against the cost of running the vehicle for 15,000 km as estimated by the government, rather than the list price of the vehicle. Compared to other countries, this results in a lower addition to the salary (and therefore tax), as the running costs over 15,000km are generally much lower than the list price of the car. For example, the average running cost of a gasoline car reported by the government is €0.81/km, leading to a total benefit of about €12,000. When applying the BiK rate for an average car (30% for a car emitting between 60 and 160 gCO<sub>2</sub>/km), this results in only about €3,600 being added to the salary, which would roughly equate to a BiK rate of 5-10% if it were based on the list price of the car (as in other countries).

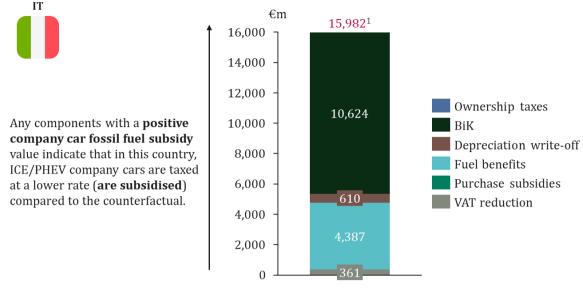
### 4.3.4 ITALY RESULTS

In the central 80% scenario (where employees are assumed to use the vehicle 80% of the time for private use), Italy had a ca.  $\leq$ 16 billion net fossil fuel subsidy (summing employee and employer subsidies) in 2023 (see Figure 12).

As shown in Figure 12, BiK and fuel benefits contribute the most to the company car fossil fuel subsidies provided in Italy. Annual ownership tax does not differ for company cars compared to private cars, so this metric also does not affect the subsidy. There are the same purchase subsidies for PHEVs whether purchased by a company or a private individual, so this metric does not contribute to the fossil fuel subsidies.

In terms of the beneficiary split, the fossil fuel subsidies to employers for the private use of company cars in Italy in 2023 in the 80% private use scenario total ca.  $\in$ 6,640m (with an average of ca.  $\in$ 5,870 per car). The subsidies to employees total ca.  $\in$ 9,342m (with an average of ca.  $\in$ 8,259 per car).

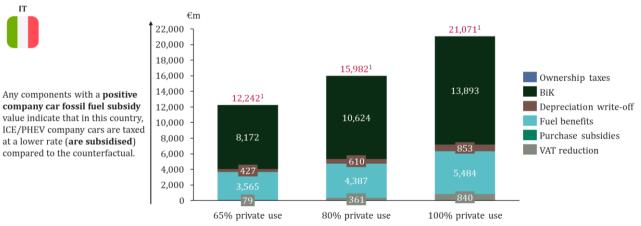




1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

## **Figure 12:** Total fossil fuel subsidies in Italy across different tax types for the private use of company cars in 2023, assuming 80% private use. Results are based on the current ICE/PHEV powertrain and models mix in all company car fleets in Italy.

From the other private use scenarios modelled (see Figure 13), compared to the central 80% private use scenario, there are  $\in$ 12 billion subsidies provided in a 65% private use scenario (where every recipient of a mixed-use company car is assumed to drive 65% of the time for private use). The lower subsidy is mainly due to the higher BiK tax and fuel benefit tax paid for private use in the company car system relative to the counterfactual taxes, providing a lower subsidy for the private use of a company car. Conversely, in the 100% private use scenario the BiK and fuel benefit taxes are lower relative to the taxes in the counterfactual scenario, and the total subsidies thus rise to  $\notin$ 21 billion.



1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

### **Figure 13:** Total fossil fuel subsidies in Italy across different tax types for the private use of company cars in 2023, assuming three private use scenarios. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in Italy.

From Table 7, in 2023 under the 80% private use scenario, top models in larger segments receive higher fossil fuel subsidies compared to the counterfactual than models in smaller segments in Italy. Both the employer and employee components of the subsidy get larger with increasing segment size, and as larger segments are also typically more expensive, this impacts

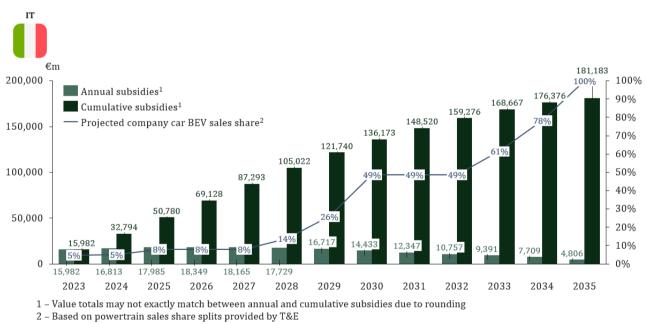


the BiK calculation (see Table 6). The segment C PHEV model receives lower fossil subsidies than the segment C diesel model due to lower BiK from the lower emissions intensity of the PHEV.

<b>Table 7</b> : Average annual fossil subsidies for the top company car models (per car) in Italy by
segment/powertrain (80% private use scenario). Leased vehicles only.

Model	Powertrain	Segment	Average annual fossil fuel subsidy per car (and over 3.5-year length of lease) ( ${f C}$ )
FIAT PANDA	Petrol	А	9,029 (31,602)
VW T-ROC	Diesel	В	14,614 (51,149)
PEUGEOT 3008	Diesel	С	15,121 (52,924)
BMW X3	Diesel	D	21,141 (73,994)
MASERATI GRECALE	Petrol	E	24,000 (84,000)
LYNK & CO 01	PHEV	С	11,231 (39,310)

As more PHEVs and fewer ICEVs enter the company car fleet up to 2026, fossil fuel subsidies are expected to increase up to this point (see Figure 14). However, as BEV sales increase over time (shown as a line on Figure 14), the annual fossil fuel subsidies are expected to decrease from 2027 to 2035. The total cumulative fossil fuel subsidies (i.e., revenue not paid to the Italian government) by 2035 would be ca. €181 billion.



**Figure 14**: Projected company car fossil fuel subsidies in Italy to 2035 based on 80% private use scenario with no policy changes (i.e., solely assuming a change in vehicle powertrain mix over time).

### 4.3.5 ITALY DISCUSSION

Out of the six countries analysed for this study, Italy had the highest total fossil fuel subsidy in 2023. Under the central 80% private use scenario, the total subsidies were ca.  $\leq$ 16 billion.

Comparing results from this analysis to the wider context of fossil fuel subsidies in Italy, analysis by Enerdata for the European Commission estimates that total fossil fuel subsidies across all sectors in Italy totalled ca. £25 billion in 2022 (European Commission, 2023). Therefore, the total fossil fuel subsidies for company cars in 2023 in the 80% private use scenario in this study



were 64% the total fossil fuel subsidies estimated by Enerdata. (Note, company cars are not mentioned explicitly in the Enerdata analysis, and the Enerdata analysis uses a different definition of fossil fuel subsidies than used in this report, making a direct comparison to the results from this report difficult.)

### 4.4 POLAND

### 4.4.1 POLAND EXECUTIVE SUMMARY

Overall, Poland has average company car tax benefits compared to the other countries in this study, with the third lowest fossil fuel subsidies.

The company car subsidies for private use in Poland largely derive from the favourable BiK tax rate, offering lower taxes than for privately owned cars in the counterfactual scenario.

The total fossil fuel subsidy amount for Poland under the 80% (central) private use scenario was calculated to be ca.  $\in$ 6.1 billion for 2023.

### 4.4.2 POLAND: COMPANY CAR SYSTEM SUMMARY

Table 8 clarifies the application of and examples for each tax metric in Poland.

#### Table 8: Poland company car tax rules

Tax metric	Applies to employer or employee?	Poland summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
Annual ownership tax	Employer	There is no annual ownership tax for company cars in Poland.	None.
Benefit-in-kind	Employee and employer	Based on the powertrain and engine power of the vehicle.	Additional income and social contribution taxes owed on ca. €1100.
VAT	Employer	50% of VAT can be deducted from the purchase or lease of mixed-use company cars.	50% deduction.
Depreciation	Employer	Employers can write off 100% of the cost of the vehicle from corporate profits for mixed-use vehicles over 5 years, up to a limit that is based on the carbon emissions intensity of the vehicle.	100% deduction over 5 years.
Purchase subsidies	Employer	There are no purchase grants available for PHEVs.	None.
Fuel benefits	Employee and employer	No additional BiK taxes owed for private fuel provision from the employer.	None.

### 4.4.3 POLAND METHODOLOGY AND ASSUMPTIONS

The fossil fuel subsidy calculation method followed for this country follows that used for all other countries, as described in <u>Appendix B</u>. Any departures from this approach or particular considerations for Poland are described below.



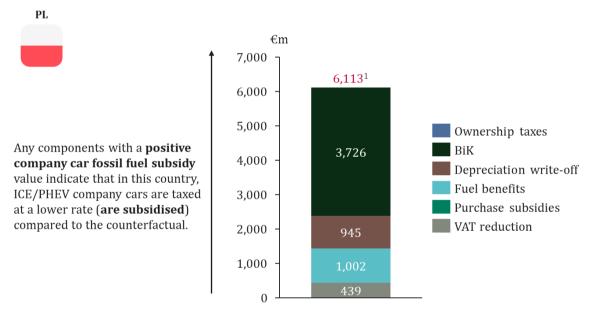
In Poland, the depreciation of a fossil fuel car is spread across 5 years, meaning that the whole value of the depreciation is not written off across a typical company car ownership period (3-4 years). The amount of depreciation able to be written off from corporate profits is not impacted by the share of private use of the company car.

### 4.4.4 POLAND RESULTS

In the central 80% scenario (where employees are assumed to use the vehicle 80% of the time for private use), Poland had a ca.  $\in$ 6.1 billion net fossil fuel subsidy (summing employee and employer subsidies) in 2023 (see Figure 15).

As shown in Figure 15, BiK tax contributes the most to the company car fossil fuel subsidies provided in Poland. Annual ownership tax does not differ for company cars and there are no purchase subsidies for PHEVs in Poland, so these metrics do not impact the subsidy.

In terms of the beneficiary split, the fossil fuel subsidies to employers for the private use of company cars in Poland in 2023 in the 80% private use scenario totalled ca.  $\in$ 3,121m (with an average of ca.  $\in$ 4,157 per car). The subsidies to employees totalled ca.  $\in$ 2,992m (with an average of ca.  $\in$ 3,984 per car).



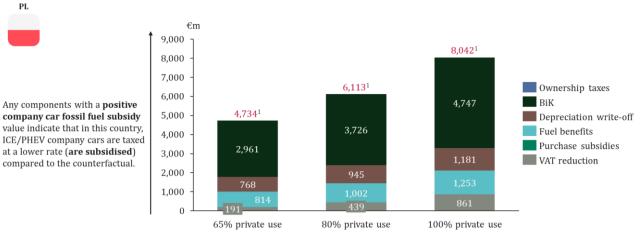
1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

### **Figure 15**: Total fossil fuel subsidies in Poland across different tax types for the private use of company cars in 2023, assuming 80% private use. Results are based on the current ICE/PHEV powertrain and models mix in all company car fleets in Poland.

From the other private use scenarios modelled (see Figure 16), compared to the central 80% private use scenario, there were ca.  $\in$ 4.7b subsidies provided in a 65% private use scenario (where every recipient of a mixed-use company car is assumed to drive 65% of the time for private use). The lower subsidy is mainly due to the higher BiK tax and fuel benefit tax paid for private use in the company car system relative to the counterfactual taxes, providing a lower subsidy for the private use of a company car. Conversely, in the 100% private use scenario the BiK and fuel benefit taxes are lower relative to the taxes in the counterfactual scenario, and the total subsidies thus rise to  $\in$ 8b.



COMPANY CAR FOSSIL FUEL SUBSIDIES IN EUROPE



1 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

### *Figure 16*: Total fossil fuel subsidies in Poland across different tax types for the private use of company cars in 2023, assuming three private use scenarios. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in Poland.

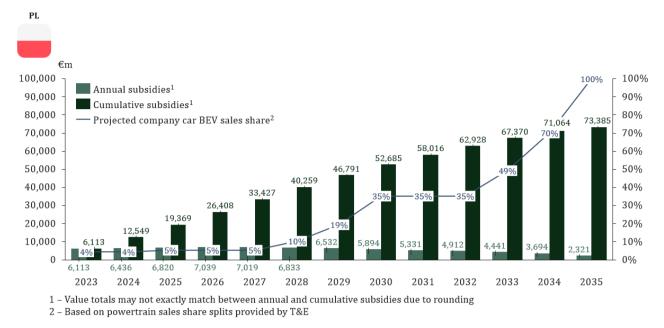
From Table 9, in 2023 under the 80% private use scenario, models in larger segments received higher fossil fuel subsidies compared to the counterfactual than models in smaller segments in Poland. A large part of this increase is attributed to higher subsidies from employee BiK and fuel savings, which go up based on the engine size of the vehicle (see Table 9). Both the employer and employee components of the subsidy get larger with increasing segment size, and as larger segments are also typically more expensive, this impacts the BiK calculation (see Table 4). The segment D PHEV model receives a comparable subsidy as the petrol model in the same segment but is somewhat reduced since the BiK calculation is also moderated by powertrain.

Model	Powertrain	Segment	Average annual fossil fuel subsidy per car (and over 3.5-year length of lease) ( ${f C}$ )
FIAT 500	Petrol	А	4,279 (14,978)
TOYOTA YARIS	Petrol	В	6,048 (21,168)
TOYOTA COROLLA	Petrol	С	5,915 (20,704)
TOYOTA RAV4	Petrol	D	9,944 (34,804)
BMW X5	Diesel	E	17,765 (62,178)
VOLVO XC60	PHEV	D	9,229 (32,300)

<b>Table 9</b> : Average annual fossil subsidies for the top company car models (per car) in Poland by
segment/powertrain (80% private use scenario). Leased vehicles only.

As more PHEVs and fewer ICEVs enter the company car fleet up to 2026, fossil fuel subsidies are expected to increase slightly up to this point (see Figure 17). However, as BEV sales increase over time (shown as a line on Figure 17), the annual fossil fuel subsidies are expected to decrease from 2027 to 2035. The total cumulative fossil fuel subsidies (i.e., revenue not paid to the Polish government) by 2035 would be ca. €73 billion.





*Figure 17*: Projected company car fossil fuel subsidies in Poland to 2035 based on 80% private use scenario with no policy changes (i.e., solely assuming a change in vehicle powertrain mix over time).

### 4.4.5 POLAND DISCUSSION

Out of the six countries analysed for this study, Poland had the third lowest total fossil fuel subsidy in 2023. Under the central 80% private use scenario, the total subsidies were ca.  $\in$ 6.1 billion.

Comparing results from this analysis to the wider context of fossil fuel subsidies in Poland, analysis by Enerdata for the European Commission estimates that total fossil fuel subsidies across all sectors in Poland totalled ca. £2 billion in 2022 (European Commission, 2023). Therefore, the total fossil fuel subsidies for company cars in 2023 in the 80% private use scenario in this study were 3x the total fossil fuel subsidies estimated by Enerdata. (Note, company cars are not mentioned explicitly in the Enerdata analysis, and the Enerdata analysis uses a different definition of fossil fuel subsidies than used in this report, making a direct comparison to the results from this report difficult.)

### 4.5 SPAIN

### 4.5.1 SPAIN EXECUTIVE SUMMARY

Overall, Spain has fewer fossil fuel-related company car tax benefits compared to most of the other countries in this study, leading to relatively small company car fossil fuel subsidies for most scenarios of private use, and, in the scenario with the lowest private use (65% private use), no subsidies.

The company car subsidies for private use in Spain derive from the depreciation write-offs and VAT reductions. The high benefit-in-kind tax percentages that are based on the carbon emissions intensity of the vehicle lowers the subsidy, particularly for ICE vehicles, as do the purchase subsidies that are available for private vehicles but not for company cars.

The total fossil fuel subsidy amount for Spain under the 80% (central) private use scenario was calculated to be ca.  $\in$ 74 million for 2023.



### 4.5.2 SPAIN: COMPANY CAR SYSTEM SUMMARY

Table 10 clarifies the application of and examples for each tax metric in Spain.

**Table 10:** Spain company car tax rules

Tax metric	Applies to employer or employee?	Spain summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km	
Annual ownership tax	Employer	Based on the engine capacity and number of cylinders, with a discount of 75% for PHEVs and BEVs.	€130.	
Benefit-in-kind	Employee and employer	Based on the powertrain used and the vehicle price. Base rate is 20%, rate reductions available for Euro 6, hybrids/CNG/LPG and BEV/PHEV, subject to vehicle price caps.	Additional income and social contribution taxes owed on 20% of the car list price (or 17% if Euro 6 and under €25,000).	
VAT	Employer	50% of VAT can be deducted from the purchase or lease of mixed-use company cars.	50% deduction.	
Depreciation	Employer	Employers can write off 50% of the cost of the vehicle from corporate profits for mixed-use vehicles, over 6 years.	50% deduction over 6 years.	
Purchase subsidies	Employer	There are purchase subsidies given to PHEV company cars, however the size of the subsidy is lower than for individual purchase.	None.	
Fuel benefits	Employee and employer	Income tax and social contributions are paid on the real cost of the fuel provided by the employer for private use.	Additional income and social contribution taxes owed on the cost of the fuel.	

### 4.5.3 SPAIN METHODOLOGY AND ASSUMPTIONS

The fossil fuel subsidy calculation method followed for this country follows that used for all other countries, as described in <u>Appendix B</u>. Any departures from this approach or particular considerations for Spain are described below.

In Spain, the depreciation of a fossil fuel car is spread across 6 years, meaning that the whole value of the depreciation is not written off across a typical company car ownership period (3-4 years).

### 4.5.4 SPAIN RESULTS

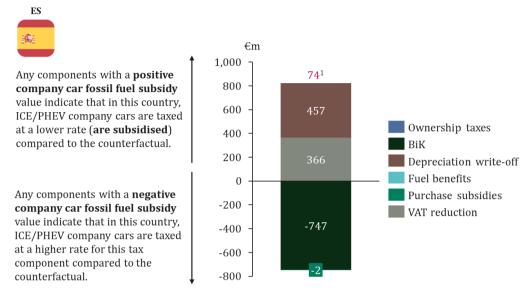
In the central 80% scenario (where employees are assumed to use the vehicle 80% of the time for private use), Spain had a ca.  $\in$ 74 million net fossil fuel subsidy (summing employee and employer subsidies) in 2023 (see Figure 18).

As shown in Figure 18, depreciation write-offs and VAT reductions contribute the most to the company car fossil fuel subsidies provided in Spain. Spain has a high BiK rate for petrol and diesel vehicles (20% for vehicles with >121 gCO<sub>2</sub>/km), resulting in a high tax burden from BiK compared to the counterfactual. This means that the total subsidy for BiK is negative. Annual ownership tax does not differ for company cars compared to private cars, so this metric does



not affect the subsidy. There are purchase subsidies for private vehicles but not for company cars, thus there is a negative subsidy for company cars.

In terms of the beneficiary split, the fossil fuel subsidies to employers for the private use of company cars in Spain in 2023 in the 80% private use scenario total ca.  $\in$ 502m (with an average of ca.  $\in$ 623 per car). The subsidies to employees total ca.  $-\in$ 427m (with an average of ca.  $-\in$ 531 per car).

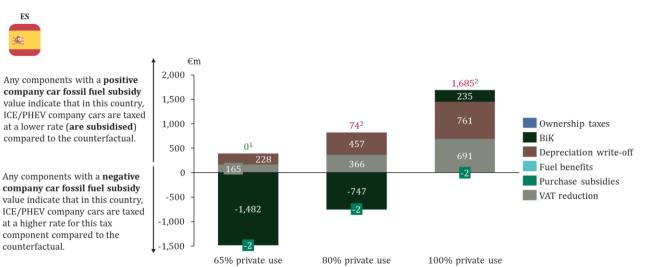


1 - 2023 total in red is correct but may not exactly match sum of figures in bar due to rounding.

**Figure 18**: Total fossil fuel subsidies in Spain across different tax types for the private use of company cars in 2023, assuming 80% private use. Results are based on the current ICE/PHEV powertrain and models mix in all company car fleets in Spain.

From the other private use scenarios modelled (see Figure 19), compared to the central 80% private use scenario, there are no subsidies provided in a 65% private use scenario (where every recipient of a mixed-use company car is assumed to drive 65% of the time for private use). This is due to the higher BiK tax and lower depreciation write-off and VAT reduction benefits for private use relative to the counterfactual taxes, creating higher taxes for the private use of a company car. Conversely, in the 100% private use scenario, the total subsidies rise to ca.  $\in$ 1.7 billion.





1 - Where the company car fossil fuel subsidy totalled across tax components would be negative, this is set to 0 to indicate that there is no subsidy for company cars at the country level.

2 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

### *Figure 19:* Total fossil fuel subsidies in Spain across different tax types for the private use of company cars in 2023, assuming three private use scenarios. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in Spain.

From Table 11, in 2023 under the 80% private use scenario, only models in the smaller segments receive higher fossil fuel subsidies compared to the counterfactual. This is because Spain's BiK tax system provides smaller vehicles with a more favourable BiK rate due to their lower emissions. However, with the more expensive segment E model, the depreciation write-off results in the model receiving a large subsidy. The segment D PHEV model does not receive a fossil fuel subsidy.

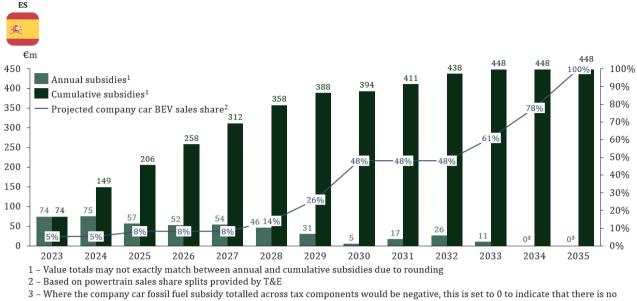
segment/powertrain (80% private use scenario). Leased vehicles only. (As in Figure 19, where the total subsidy would be negative this is set to zero to indicate there is no subsidy for that particular model.)

**Table 11**: Average annual fossil subsidies for the top company car models (per car) in Spain by

Model	Powertrain	Segment	Average annual fossil fuel subsidy per car (and over 3.5-year length of lease) (€)
FIAT 500	Petrol	А	216 (754)
RENAULT CLIO	Petrol	В	194 (678)
TOYOTA COROLLA	Petrol	С	16 (54)
MERCEDES GLC	Diesel	D	0 (0)
MERCEDES GLE	Diesel	E	1,792 (6,272)
MERCEDES GLC	PHEV	D	0 (0)

Figure 20 shows both the annual and cumulative total fossil fuel subsidies modelled for Spain from 2023-2035 based on the 80% private use scenario. As BEV sales increase over time (shown as a line on Figure 20), the annual fossil fuel subsidies are expected to decrease over time. The total fossil fuel subsidy increases slightly again in the early 2030s, due to the stalling BEV uptake. The total cumulative fossil fuel subsidies (i.e., revenue not paid to the Spanish government) by 2035 would be ca. €448 million.





subsidy for company cars at the country level

*Figure 20:* Projected company car fossil fuel subsidies in Spain to 2035 based on 80% private use scenario with no policy changes (i.e., solely assuming a change in vehicle powertrain mix over time).

#### 4.5.5 SPAIN DISCUSSION

Out of the six countries analysed for this study, Spain had the second lowest total fossil fuel subsidy in 2023. Under the central 80% private use scenario, the total subsidies were ca.  $\notin$ 74 million.

Comparing results from this analysis to the wider context of fossil fuel subsidies in Spain, analysis by Enerdata for the European Commission estimates that total fossil fuel subsidies across all sectors in Spain totalled £10 billion in 2022 (European Commission, 2023). Therefore, the total fossil fuel subsidies for company cars in 2023 in the 80% private use scenario in this study were 0.74% of the total fossil fuel subsidies. (Note, company cars are not mentioned explicitly in the Enerdata analysis, and the Enerdata analysis uses a different definition of fossil fuel subsidies than used in this report, making a direct comparison to the results from this report difficult.)

#### 4.6 UK

#### 4.6.1 UK EXECUTIVE SUMMARY

Overall, the UK has less favourable ICE company car tax benefits compared to the other countries in this study, leading to no fossil fuel subsidies for most scenarios of private use and only a relatively small total subsidy for the 100% private use scenario.

The high company car taxes (and resulting low or negative fossil fuel subsidies) are largely due to the benefit-in-kind tax percentages that are based on the carbon emissions intensity of the vehicle. This applies a high benefit-in-kind rate for high-emitting ICE vehicles (e.g., 37% for 160 gCO<sub>2</sub>/km). However, for PHEVs the rates are relatively low and therefore beneficial for PHEVs (e.g., 9% for 30 gCO<sub>2</sub>/km), leading to higher company car fossil fuel subsidies for PHEVs. Additionally, employers can write off the depreciation of mixed-use vehicles from company profits, and reduce VAT from the vehicle cost, creating a positive fossil fuel subsidy for the employer.



#### 4.6.2 UK: COMPANY CAR SYSTEM SUMMARY

Table 12 clarifies the application of and examples for each tax metric in the UK.

 Table 12: UK company car tax rules

Tax metric	Applies to employer or employee?	UK summary for fossil-fuelled vehicles	Tax rate for a mixed- use petrol vehicle with an emissions intensity of 160 gCO <sub>2</sub> /km
Annual ownership tax	Employer	Based on powertrain type.	£180.
Benefit-in-kind	Employee and employer	BiK tax rate is based on the carbon emissions intensity (or electric range for PHEV) of the vehicle. The value of the vehicle is multiplied by the BiK tax rate, then income tax and national insurance contributions are paid on this amount.	Additional income and national insurance contribution taxes owed on 37% of the car list price.
VAT reduction	Employer	Employers can deduct 50% of VAT for the leasing of a mixed-use company car but cannot deduct any VAT for the purchase of a mixed-use company car.	50% deduction (if leased), 0% (if purchased).
Depreciation write-off	Employer	Employers can write off 100% of the cost of the vehicle from corporate profits for mixed-use vehicles, and the time length varies based on carbon emissions intensity of the vehicle.	100% deduction over 6 or 17 years.
Purchase subsidies	Employer	There are no purchase grants available for PHEVs.	None.
Fuel benefits	Employee and employer	The fuel benefit charge multiplier (£27,800 in 2023/2024 tax year) is multiplied by the BiK tax rate, then income tax and national insurance contributions are paid on this amount. 7% of company car recipients received fuel benefits in 2022-23 (HM Revenue & Customs, 2024).	Additional income and national insurance contribution taxes owed on 37% multiplied by the fuel benefit charge multiplier

#### 4.6.3 UK METHODOLOGY AND ASSUMPTIONS

The fossil fuel subsidy calculation method followed for this country follows that used for all other countries, as described in <u>Appendix B</u>. Any departures from this approach or particular considerations for the UK are described below.

In the UK, the depreciation of a fossil fuel car is spread across 6 or 17 years depending on the  $gCO_2/km$  band for the vehicle, meaning that the whole value of the depreciation is not written off across a typical company car ownership period (3-4 years). The amount of depreciation able to be written off from corporate profits is not impacted by the share of private use of the company car. For leased (rather than purchased) company cars, there is a minor rule change where 85% of the leasing cost is deductible if the car has an emissions intensity >110 g/km, otherwise leasing costs are 100% deductible by the company.

In addition, VAT deductions vary between whether the company purchases the car or leases it from another company. If the company purchases the company car, they cannot claim any VAT back (unless it is 100% for business use, which is unlikely as commuting counts as private use),



whereas they can claim back 50% of the VAT paid on the leasing costs when leasing the company car.

#### 4.6.4 UK RESULTS

In the central 80% scenario (where employees are assumed to use the vehicle 80% of the time for private use), the UK did not have a net fossil fuel subsidy (summing employee and employer subsidies) in 2023 (see Figure 21).

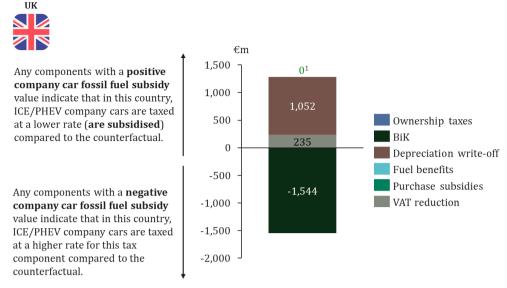
As shown in Figure 21, depreciation write-offs and VAT reduction contribute to the company car fossil fuel subsidies provided in the UK, whilst BiK taxes create a negative fossil fuel subsidy. The UK has a high BiK rate for petrol and diesel vehicles (37% for vehicles with >160 gCO<sub>2</sub>/km), meaning that taxes are owed on 130% (3.5 years  $\times$  37%) of the vehicle's value over a 3.5-year ownership, resulting in a high tax burden from BiK. This high BiK tax rate leads to a negative fossil fuel subsidy from BiK taxes for most ICE models, while PHEVs receive fossil fuel subsidies from BiK taxes as the BiK rate is much lower (2-14%).

Annual ownership taxes are the same for company cars and private cars, thus this metric does not contribute to the total subsidies in the UK. Regarding fuel benefits, the fuel benefit taxes are higher than the taxes in the counterfactual scenario for the average employee, so the model assumes that employees will pay for private fuel themselves and will not claim it. Therefore, fuel benefits do not contribute to the total subsidies in this report. In reality, 7% of company car owners do claim fuel benefits (HM Revenue & Customs, 2024), but the fossil fuel subsidy that arises from these fuel benefits is likely to be relatively small compared to the other tax components, and therefore would not alter the UK results significantly.<sup>4</sup> Finally, there are currently no purchase subsidies for PHEVs in the UK, so this metric also does not contribute to the total subsidies.

In terms of the beneficiary split, the fossil fuel subsidies to employers for the private use of company cars in the UK in 2023 in the 80% private use scenario total ca.  $\in$ 893m (with an average of ca.  $\in$ 1,049 per car). The subsidies to employees total ca.  $-\in$ 1,151m (with an average of ca.  $-\in$ 1,352 per car).

<sup>&</sup>lt;sup>4</sup> The UK government received £100m in tax revenues from fuel benefits for FY 22-23 (approximately £2,000 per beneficiary) (HM Revenue & Customs, 2024). It is unlikely that the fossil fuel subsidy from fuel benefits is significantly higher than £100m (which would require the counterfactual tax scenario to be paying over £4,000 per beneficiary in fuel benefit tax), which means this subsidy is negligible compared to the impact of depreciation and BiK taxes.





1 - Where the total company car fossil fuel subsidy totalled across tax components would be negative, this is set to 0 to indicate that there is no subsidy for company cars at the country level.

**Figure 21**: Total UK fossil fuel subsidies across different tax types for the private use of company cars in 2023, assuming 80% private use. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in the UK.

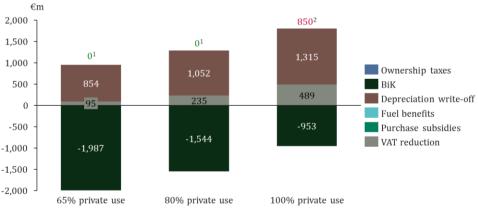
From the other private use scenarios modelled (see Figure 22), compared to the central 80% private use scenario, there are also no subsidies provided in a 65% private use scenario (where every recipient of a mixed-use company car is assumed to drive 65% of the time for private use).

However, in the 100% private use scenario, there are fossil fuel subsidies of ca.  $\in$ 850 million. This is due to higher income taxes paid in the counterfactual scenario compared to BiK tax and 100% of the VAT reduction and depreciation write-off in the company car scenario being considered as a subsidy.



Any components with a **positive company car fossil fuel subsidy** value indicate that in this country, ICE/PHEV company cars are taxed at a lower rate (**are subsidised**) compared to the counterfactual.

Any components with a **negative company car fossil fuel subsidy** value indicate that in this country, ICE/PHEV company cars are taxed at a higher rate for this tax component compared to the counterfactual.



1 - Where the company car fossil fuel subsidy totalled across tax components would be negative, this is set to 0 to indicate that there is no subsidy for company cars at the country level.

2 - 2023 totals in red are correct but may not exactly match sum of values in bars due to rounding.

**Figure 22**: Total UK fossil fuel subsidies across different tax types for mixed-use company cars in 2023, assuming three private use scenarios. Results are based on the current ICE/PHEV powertrain and models mix across all company cars in the UK.

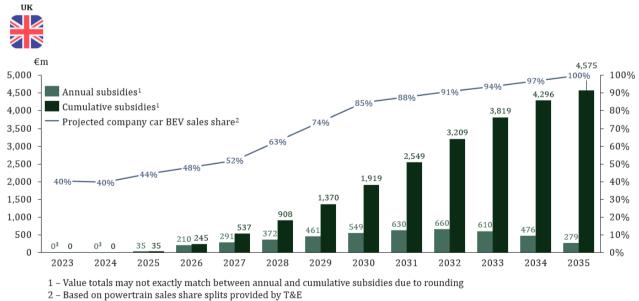


From Table 13, in 2023, the top ICE models in the UK did not receive fossil fuel subsidies under the 80% private use scenario (due to the UK's high BiK tax compared to the counterfactual). However, the top PHEV model received an annual subsidy exceeding  $\in$ 7k, mostly attributable to a different BiK rate applied based on its electric range versus the CO<sub>2</sub> emissions intensity for the ICEVs.

**Table 13**: Average annual fossil subsidies for the top company car models (per car) in the UK by segment/powertrain (80% private use scenario). Leased vehicles only. (As in Figure 22, where the total subsidy would be negative this is set to zero to indicate there is no subsidy for that particular model.)

Model	Powertrain	Segment	Average annual fossil fuel subsidy per car (and over 3.5-year length of lease) ( ${f C}$ )
HYUNDAI I10	Petrol	А	0 (0)
VW POLO	Petrol	В	0 (0)
VW GOLF	Petrol	С	0 (0)
AUDI A4 S4	Petrol	D	0 (0)
VW TOUAREG	Diesel	E	0 (0)
BMW 3 SERIES	PHEV	D	7,037 (24,630)

Figure 23 shows both the annual and cumulative total fossil fuel subsidies modelled for the UK from 2023-2035 based on the 80% private use scenario. As more PHEVs and fewer ICEVs enter the company car fleet up to 2032, fossil fuel subsidies are expected to increase up to this point. However, as BEV sales increase over time (shown as the line in Figure 23), the annual fossil fuel subsidies are expected to decrease from 2033 to 2035. The total cumulative fossil fuel subsidies (i.e., revenue not paid to the UK government) by 2035 would be ca.  $\in$  4.6 billion.



3 - Where the company car fossil fuel subsidy totalled across tax components would be negative, this is set to 0

*Figure 23*: Projected UK company car fossil fuel subsidies to 2035 based on 80% private use scenario with no policy changes (i.e., solely assuming a change in vehicle powertrain mix over time).

#### 4.6.5 UK DISCUSSION

The UK did not have a fossil fuel subsidy in 2023 in the 80% private use scenario.



to indicate that there is no subsidy for company cars at the country level

However, there were positive subsidies for the private use of company cars through individual components of company car tax, such as the depreciation write-off and the VAT reduction. This provides employers with a positive fossil fuel subsidy, even if employees do not receive a subsidy. Additionally, although ICEVs do not receive a fossil fuel subsidy currently, PHEVs do. As these are projected to become more popular in the company car market over time, there could be a total fossil fuel subsidy of €35 million starting in 2025 across the company car fleet in the UK, increasing to a peak of €660 million in 2032.

Comparing results from this analysis to the wider context of fossil fuel subsidies in the UK, subsidies for fossil fuel producers in the UK totalled £80b from 2015 to 2021 (The Guardian, 2023). If the subsidies were equal over the six years, then the yearly subsidy to fossil fuel producers would be approximately £13b. The total fossil fuel subsidies for company cars projected for 2025 in the 80% private use scenario in this study were €35m (~£29m using the exchange rate at time of writing), or 0.2% of the yearly subsidy to fossil fuel producers.



## 5 REFERENCES

- Aguirre, B. (2024). "Mobility budget on the rise?". Published 31 January 2024 by Liedekerke. Accessed 28 July 2024. Retrieved from: <u>https://liedekerke.com/en/insights/mobility-budget-on-the-rise</u>
- Belgium Federal Planning Bureau (2022). "Ex ante evaluation of the reform of company car taxation in Belgium: Working paper". Accessed 28 July 2024. Retrieved from: <a href="https://www.plan.be/publications/publication-2293-en-">https://www.plan.be/publications/publication-2293-en-</a> <a href="https://www.plan.be/publications/publication-2293-en-">ex ante evaluation of the reform of company car taxation in belgium</a>
- Bertelsmann Stiftung (2023). "Reform umweltschädlicher Subventionen" [Reform of environmentally harmful subsidies]. Accessed 28 July 2024. Retrieved from: <u>https://www.bertelsmann-stiftung.de/de/publikationen/publikation/did/reform-umweltschaedlicher-subventionen</u>
- The Brussels Times (2023). "Nearly one in two new cars now electric in Belgium." Retrieved from: <u>https://www.brusselstimes.com/747420/nearly-one-in-two-new-cars-now-electric-in-belgium</u>
- Copenhagen Economics (2009). "Company Car Taxation: Subsidies, welfare and environment". Accessed 28 July 2024. Retrieved from: <u>https://taxation-</u> <u>customs.ec.europa.eu/document/download/0d2c0187-b539-4cc7-bb98-</u> <u>9b4845841c3b de?filename=taxation paper 22 en.pdf</u>
- Derauw, S., Gelaes, S., Pauwels, C. (2019). "Enquête MONITOR sur la mobilité des Belges" [MONITOR survey on the mobility of Belgians]. Published December 2019 by Service public fédéral Mobilité et Transports. Accessed 28 July 2024. Retrieved from: <u>https://mobilit.belgium.be/fr/mobilite-durable/enquetes-et-resultats/enquete-monitorsur-la-mobilite-des-belges</u>
- Dimitropoulos, A., van Ommeren, J. N., Koster, P., Rietveld, P. (2016). "Not fully charged: Welfare effects of tax incentives for employer-provided electric cars". *Journal of Environmental Economics and Management*. Published July 2016. Retrieved from: <u>https://www.sciencedirect.com/science/article/abs/pii/S009506961600005X?via%3Dih</u> <u>ub</u>
- Element Energy (2022). "Electric Mobility: Inevitable, or Not?". Retrieved from: <u>https://www.platformelectromobility.eu/wp-</u> <u>content/uploads/2022/01/20220110 InevitableEV Final.pdf</u>
- European Commission (2017). "Taxation of Company Cars in Belgium Room to Reduce their Favourable Treatment." Retrieved from: <u>https://economy-</u> <u>finance.ec.europa.eu/document/download/e2dc0ceb-aedc-4527-ab11-</u> <u>61722fdda083\_en?filename=eb026\_en.pdf</u>
- European Commission (n.d.a). "Company car tax benefits". Retrieved from: <u>https://environment.ec.europa.eu/economy-and-finance/phasing-out-environmentally-</u> <u>harmful-subsidies/belgium-ehs-candidate-reform\_en</u>
- European Commission (n.d.b). "France EHS Country Case Study". Accessed 20 August 2024. Retrieved from: <u>https://environment.ec.europa.eu/economy-and-finance/phasing-out-environmentally-harmful-subsidies/france-ehs-country-case-study\_en</u>



- European Commission (2022). "A toolbox for reforming environmentally harmful subsidies in Europe: Final report". Amended October 2022. Retrieved from: <u>https://circabc.europa.eu/ui/group/c1a5a4e9-7563-4d0e-9697-</u> <u>68d9cd24ed34/library/3e685dda-2269-487d-a253-28cfd23b7466/details</u>
- European Commission (2023). "Study on energy subsidies and other government interventions in the European Union – 2023 edition". Retrieved from: <u>Study on energy subsidies and</u> <u>other government interventions in the European Union - Publications Office of the EU</u> (europa.eu)
- European Commission (2024). "Weekly Oil Bulletin". Accessed August 19<sup>th</sup>. Retrieved from: <u>https://energy.ec.europa.eu/data-and-analysis/weekly-oil-bulletin\_en</u>. Data averaged from 1st Jan 2024 to 24th July 2024.
- Gouvernement France (2024). "Repères : politique, procédure et gestion budgétaires". Accessed 20 August 2024. Retrieved from: <u>https://www.budget.gouv.fr/reperes/green\_budgeting/articles/budget-bill-2024-4th-edition-green-budget</u>
- The Guardian (2023). "Fossil fuels received £20bn more UK support than renewables since 2015". Accessed 19 August 2024. Retrieved from: <u>https://www.theguardian.com/environment/2023/mar/09/fossil-fuels-more-support-uk-than-renewables-since-2015</u>
- HM Revenue & Customs (2024). "Benefit in kind statistics commentary June 2024". Retrieved from: <u>https://www.gov.uk/government/statistics/benefits-in-kind-statistics-june-</u> <u>2024/benefit-in-kind-statistics-commentary-june-2024</u>
- KBC Brussels (n.d.). "Tax treatment of company cars in 2024". Accessed 28 July 2024. Retrieved from: <u>https://www.kbcbrussels.be/business/en/products/credit/fiscaliteit-bedrijfswagens.html</u>
- LeasePlan (n.d.). "Taxation of company cars". Accessed 28 July 2024. Retrieved from: https://www.leaseplan.com/en-be/car-taxes-2021-2031/
- May, X., Ermans, T., Hooftman, N. (2019). "Company cars: identifying the problems and challenges of a tax system". Accessed 28 July 2024. Retrieved from: <u>https://journals.openedition.org/brussels/2499</u>
- Moens, B. (2021). "Belgium's company car conundrum". Published 3 December 2021 by Politico. Accessed 28 July 2024. Retrieved from: <u>https://www.politico.eu/article/belgium-company-car-conundrum/</u>
- OECD (2014). "Personal Tax Treatment of Company Cars and Commuting Expenses". Published 11 July 2014. Retrieved from: <u>Personal Tax Treatment of Company Cars and</u> <u>Commuting Expenses : Estimating the Fiscal and Environmental Costs | OECD Taxation</u> <u>Working Papers | OECD iLibrary (oecd-ilibrary.org)</u>
- OECD (2024). "Taxing Wages 2023: Indexation of Labour Taxation and Benefits in OECD Countries: Effective tax rates on labour income in 2022". Retrieved from: <u>https://www.oecd-ilibrary.org/sites/8c99fa4d-</u> <u>en/1/3/1/3/index.html?itemId=/content/publication/8c99fa4d-</u> <u>en& csp =f4d3c57328afb7f1cbd530cb119213be&itemIGO=oecd&itemContentType=b</u> <u>ook#section-d1e12545-b1ed73e076</u>



- Plötz, P., Link S., Ringelschwendner, H., Keller, M., Moll, C., Bieker, G., Dornoff, J., Mock, P. (2022). "Real-world usage of plug-in hybrid vehicles in Europe: A 2022 update on fuel consumption, electric driving, and CO2 emissions". Accessed 28 July 2024. Retrieved from: <u>https://theicct.org/publication/real-world-phev-use-jun22/</u>
- Reuters (2024). "German government agrees proposals for tax relief on EVs". Retrieved from: <u>https://www.reuters.com/business/autos-transportation/german-cabinet-agrees-</u> <u>proposals-tax-relief-evs-source-says-2024-09-04/</u>
- Transport and Environment (2020). "Company cars: how European governments are subsidising pollution and climate change." Retrieved from: <u>https://te-</u> <u>cdn.ams3.cdn.digitaloceanspaces.com/files/2020\_10\_Company\_cars\_briefing.pdf</u>
- Transport and Environment (n.d.). "Good Tax Guide". Accessed July-August 2024. Retrieved from: <u>goodtaxguide.org</u>
- Transport and Environment (2024). "Unveiling Europe's corporate car problem: How the EU can unlock the potential of company fleets". Accessed 28 July 2024. Retrieved from: <u>https://www.transportenvironment.org/uploads/files/Unveiling-Europes-corporate-carproblem\_TE.pdf</u>
- UK Department for Energy Security and Net Zero (2024). "Accredited official statistics: Weekly Road fuel prices". Accessed 19<sup>th</sup> August. Retrieved from: <u>https://www.gov.uk/government/statistics/weekly-road-fuel-prices.</u> Data averaged from 1st Jan 2024 to 24th July 2024.
- Vandenbroucke, A., Mezoued, A., Vaesen, J. (2019). "Bedrijfswagens en duurzame mobiliteit: Analyse en uitdagingen" [Commercial vehicles and sustainability mobility: analysis and challenges]. Published March 2019. Retrieved from : <u>https://www.researchgate.net/publication/333775837\_BEDRIJFSWAGENS\_EN\_DUURZ\_AME\_MOBILITEIT\_Analyse\_en\_uitdagingen</u>



# 6 APPENDIX A: ADDITIONAL ASSUMPTIONS AND PRIVATE USE SCENARIO SELECTION

#### 6.1 Additional assumptions incorporated into the T&E Good Tax Guide provided by ERM

**Table A14**: Additional assumptions incorporated into the Good Tax Guide

Assumption	Sources	UK	France	Spain	Italy	Germany	Poland
Petrol price (EUR/I)	(1) UK prices	1.72*	1.87	1.62	1.86	1.84	1.51
Diesel price (EUR/I)	from (2)	1.82*	1.75	1.51	1.76	1.70	1.53
<b>Employee</b> income tax & social contribution rate on net salary	Marginal rates calculated by ERM using	74.5	73.0	66.7	109.2	88.7	39.3
<b>Employee</b> income tax & social contribution rate on gross salary	Tables 3.6 and 3.7 from (3) and using the assumption that company car drivers are	42.7	42.2	40.0	52.2	47.0	28.2
<b>Employer</b> income tax & social contribution rate on net salary	usually single with no children, earning an average of 167% of the average income as	25.5	77.0	49.8	66.3	0	22.8
<b>Employer</b> income tax & social contribution rate on gross salary	done in (4)	14.6	44.5	29.9	31.7	0	16.4

\* UK values converted using £1 = €1.19.

(1) European Commission (2024). "Weekly Oil Bulletin". <u>https://energy.ec.europa.eu/data-and-analysis/weekly-oil-bulletin\_en</u>. Data used from 1<sup>st</sup> Jan 2024 to 24<sup>th</sup> July 2024.

(2) UK Department for Energy Security and Net Zero (2024). "Accredited official statistics: Weekly road fuel prices". <u>https://www.gov.uk/government/statistics/weekly-road-fuel-prices</u>.

(3) OECD (2024). "Taxing Wages 2023: Indexation of Labour Taxation and Benefits in OECD Countries: Effective tax rates on labour income in 2022". <u>https://www.oecd-ilibrary.org/sites/8c99fa4d-en/1/3/1/3/index.html?itemId=/content/publication/8c99fa4d-</u>

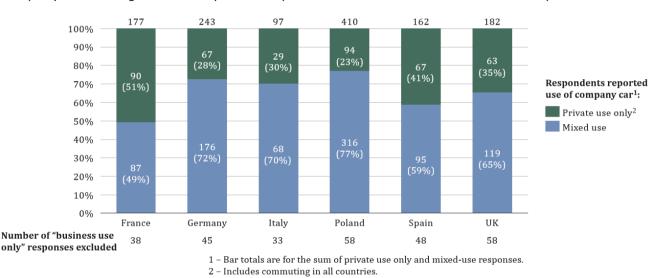
<u>en& csp =f4d3c57328afb7f1cbd530cb119213be&itemIGO=oecd&itemContentType=book#section-</u> <u>d1e12545-b1ed73e076</u>

(4) OCED (2014). "Personal Tax Treatment of Company Cars and Commuting Expenses". <u>https://www.oecd-ilibrary.org/taxation/personal-tax-treatment-of-company-cars-and-commuting-expenses\_5jz14cg1s7vl-en</u>



#### 6.2 COMPANY CAR PRIVATE USE SCENARIO SELECTION

Additional analysis was undertaken by ERM on the split of use cases of company cars, to inform the context for this study. ERM analysed the survey data provided for the report 'Electric Mobility: Inevitable, or Not?' conducted by Element Energy (2022) to determine the share of usage types among company car drivers in the six European countries in scope. Note, the "business use only" response is considered out-of-scope (see prior explanation in Focus on tailpipe emissions and private use). Commuting is considered private use in all in-scope countries for this study<sup>5</sup>. Out of the remaining responses, an average of 32% of company car drivers use the car for "private use only" (i.e., personal and/or commuting). Therefore, on average 68% reported using their company cars for a mix of private and business use. Of the mixed-use share, if we assume approximately half is for private use, then half of 68% is 34% plus the 32% who drive their company car for "private use only" totals to 66% private use, which informed the selection of 65% private use as the "low" private use scenario. If instead two-thirds of the share of mixed use is private use in reality, then two-thirds of 68% is ca. 45% plus 32% from "private use only" totals to 77%, which informed the selection of 80% private use as the "central" private use scenario. Finally, the "high" private use scenario assumes 100% private use, meaning all company car driving whether reported as private use or mixed use is considered private use.





A review of literature yielded few relevant sources reporting on the actual share of private use for company car drivers. Sources for Poland and the UK (in-scope countries) and the Belgium & the Netherlands (out of scope countries) suggest that the private use of company cars ranges from 45%-78%, further influencing the selection of the 65% "low", 80% "central", and 100% "high" private use scenario assumptions used in the analysis for this study.<sup>6</sup> Analysis of responses from the MONITOR survey on the mobility of Belgians found that company car owners drove at a 95% private use share providing further support for the selection of 80% private use for the "central" scenario in this study (Derauw et al., 2019).

<sup>&</sup>lt;sup>6</sup> See additional sources from which the private use share of company cars was inferred for: <u>Poland</u> (bar chart 5 on page 6), <u>UK</u>, <u>Belgium</u> (table 2.1 on page 12), and the <u>Netherlands</u> (table 2.1 on page 12).



<sup>&</sup>lt;sup>5</sup> Sources confirming commuting counts as personal/private use of a company car in: <u>France</u>, <u>Germany</u>, <u>Italy</u>, <u>Poland</u>, <u>Spain</u>, and <u>UK</u>.

## 7 APPENDIX B: CALCULATION OF FOSSIL-FUEL SUBSIDY BY TAX TYPE

#### 7.1 BENEFIT-IN-KIND

The benefit-in-kind (BiK) tax paid for a company car is compared to the increase in incomerelated taxes paid by employee and employer when adding to the employee's salary to allow for the lease of an equivalent car in the counterfactual scenario.

The necessary increase in employee salary is calculated as:

#### Employee net salary increase

```
= (Cost of leasing car – Employee BiK tax paid for company car) \times %Actual private use
```

This is multiplied by *%Private* use to only account for the relative subsidy attributable to private use of the car (which is the benefit provided). The business use of the car is considered a business expense, which isn't a benefit to the employee, and therefore is excluded when considering the fossil fuel subsidy arising from the benefit of having a company car.

The income-related taxes paid are calculated as:

Income taxes  $paid_y = Employee$  net salary increase  $\times$  Marginal tax rate on net salary increase<sub>y</sub>

Where y denotes the tax paid and marginal tax rates for taxes paid by employees and employees.<sup>7</sup>

The fossil fuel subsidy for both the employee and employer is calculated as:

BiK fossil fuel subsidy<sub>y</sub> = Income taxes paid<sub>y</sub> - BiK taxes paid for company  $car_y$ 

Where *y* denotes the values for employees and employers separately.

Parameter	Company car	Counterfactual
A: % Actual private use	80%	80%
B: Annual BiK tax paid	Employee: €2,700	N/A
	Employer: €2,000	
C: Annual cost of private lease	N/A	€10,000/year
D: Net salary increase	N/A	€5,840/year
E: Marginal tax rates on net	N/A	Employee: 50%
salary		Employer: 40%
F: Additional income-based	N/A	Employee: €2,920
taxes paid		Employer: €2,336
G: Fossil fuel subsidy from	Employee: €2,920 - 4	€2,700 = <b>€220/year</b>
BiK	Employer: €2,336 – €	€2,000 = <b>€336/year</b>

<sup>&</sup>lt;sup>7</sup> For example, if the employee's net salary increase was €100/month and the marginal tax rate was 50% for employee and 25% for the employer, this would mean an additional €50/month tax would be paid by employee (meaning the gross tax rise would be €150/month) and the employer pays an additional €25/month in taxes.



#### 7.2 DEPRECIATION WRITE-OFFS

Depreciation refers to the reduction in the value of the car over time. In all in-scope countries, companies can partially write-off depreciation of company cars in their taxes, however, there are limits to how much depreciation can be written off in each country based on vehicle purchase price. The calculation for depreciation varies by country and is described in the country-specific methodology and assumptions sections in the respective <u>Individual country analysis</u> subsections. Depreciation write-offs only provide a benefit to the employer.

As the counterfactual (private purchase of a vehicle) does not have any depreciation tax benefits, the fossil fuel subsidy related to depreciation write-offs can be calculated as follows:

If the country varies the depreciation of the car between business only and mixed-use cars (Spain and Italy), and provides a default % business use value which can be used, then the subsidy is:

Depreciation fossil fuel subsidy

= Value of car  $\times$  (% depreciation allowed for mixed use cars

– % Actual business use) × Corporate tax rate

For Germany, the % of vehicle depreciated is calculated via a logbook, so there is no difference between assumed % business use and actual business use, hence the fossil depreciation write-off fuel subsidy is zero.

For countries which do not vary the amount of depreciation of a company car between business only and mixed-use cars (UK, France, Poland), the following formula is used:

Depreciation fossil fuel subsidy

= Value of car allowed to be written of  $f \times Corporate tax rate \times \%$  private use

This formula takes the proportion of depreciation write-off equal to the proportion of private use of the car. The business use of the car is considered a business expense, which isn't a benefit to the employee, and therefore is excluded when considering the fossil fuel subsidy arising from the benefit of having a company car.

For company cars that are leased (rather than purchased by the employer), the same equations are used with "Value of car" or "Value of car allowed to be written off" replaced by "Value of annual leasing costs allowed to be written off" to calculate the annual depreciation fossil fuel subsidy. The rules on the amount of leasing costs that can be written off vary between countries, but in general are consistent with the rules used for a purchased car.

Parameter	Varies depreciation between business only and mixed use	No variation between business only and mixed use
Example Country	e.g., Spain	e.g., France
A: % Actual private use	80%	80%
B: % of assumed private use	50%	N/A
C: Value of car (Spain), or value written off (France)	€30,000	€18,300 (limited by a cap in France)
D: Corporate tax rate	25%	25.825%



E: Fossil fuel	€30,000 * (50% - 20%) * 25% =	€18,300 * 25.825% * 80% =
subsidy from	€2,250	€3,781
depreciation		

#### 7.3 VAT DEDUCTION

For all countries, the fossil fuel subsidy from VAT deduction is based on the difference between the % VAT deduction allowed in the country for a mixed-use car, and the actual share of business use as described in the formula below:

VAT deduction fossil fuel subsidy

= Private consumer VAT  $\times$  (mixed use % VAT deduction – % Actual business use)

This means the fossil fuel subsidy from VAT deduction calculated only considers the VAT deduction linked to private use of the car. This is consistent with the approach of only considering fossil fuel subsidies related to the private use of the vehicle (which is the benefit provided to employee). If the mixed-use % VAT deduction is less than the actual % business use, the fossil fuel subsidy is set to zero, as in most countries the % VAT deduction can be increased to match the proportion of business use when a logbook has been kept (meaning there is no difference between % VAT deduction and % actual business use).

Parameter	Company car	Counterfactual
A: % Actual business use	20%	20%
B: Value of VAT paid on the purchase of the car	€8,000	€8,000
C: Default % VAT deduction	50%	N/A
D: Fossil fuel subsidy from VAT deduction	€8,000 * (50% ·	- 20%) = €2,400

The same methodology is used for leased cars; however, VAT is considered based on the annual leasing cost rather than the value of the car.

#### 7.4 FUEL BENEFITS

In this report, it is assumed that all employees receive the fuel benefit, provided that this results in a fossil fuel subsidy (i.e. costs the employer/employee less than then paying for their own fuel).

For fuel benefits, the counterfactual is defined in a similar manner as for vehicle purchase benefit-in-kind, with the employer paying their employee more so that the employee gets the same net salary after they pay for their own private fuel, i.e.:

Employee salary increase

- = Cost of fuel used for private use
- (BiK tax paid by employee when company provides fuel to employee)

The income-related taxes paid on private fuel purchase are calculated as:

Income taxes paid on private fuel purchase<sub>y</sub>

= Employee net salary increase  $\times$  Marginal tax rate on net salary increase<sub>y</sub>

Where *y* denotes the tax paid and marginal tax rates for taxes paid by employees and employers.

For the both the employer and the employee, the fossil fuel subsidy for fuel provision can be calculated as:



#### Fuel provision fossil fuel subsidy

#### = Taxes paid on net salary increase – (BiK taxes paid for providing fuel)

If the taxes paid by a company car owner are higher than those calculated for the increased salary (mainly in the UK), the fossil fuel subsidy is set to zero (rather than negative), assuming that the employer will not provide fuel as a benefit if it costs more than the employee paying for their own fuel.

For fuel benefits, the level of benefit-in-kind taxes paid varies significantly by country, with Germany, Italy and Poland having no additional benefit-in-kind taxes for providing fuel with the company car. In the UK, there is a set benefit value ( $\sim \in 33,000$ ) to which the BiK rate is applied. For France, the BiK rate on the car is increased by 3 percentage points (from 9% to 12%). For Spain, the amount on which tax is owed is equal to the cost of fuel paid for, which means that the fossil fuel subsidy in Spain from fuel benefits is zero. Note, mileage expenses are separate from fuel benefits and are not considered in the analysis for this study.

Below shows a worked example for each country, with the different methods of calculating BiK additions to salary for fuel shown:



Parameter	UK	France	Spain	Germany, Italy, Poland
A: Cost of fuel used for private use per year	€10,000/year	€10,000/year	€10,000/year	€10,000/year
B: BiK rate (UK) and vehicle value (FR)	BiK rate: 25%	€48,000	N/A	N/A
C: BiK increase to gross salary	33,000 * 25% = €8,250/year	48,000 * 3% = €1,440/year	€10,000/year	€0/year
D: Marginal tax rates for	Employee: 42.7%	Employee: 42.2%	Employee: 40.0%	Employee: 52.2% <sup>8</sup>
gross salary increase	Employer: 14.6%	Employer: 44.5%	Employer: 29.9%	Employer: 31.7% <sup>8</sup>
E: BiK Taxes paid per year (C * D)	Employee: €3,523 Employer: €1,205	Employee: €608 Employer: €641	Employee: €4,000 Employer: €2,990	Employee: €0 Employer: €0
F: Increase in annual net salary for counterfactual	10,000 - 3,523 = € 6,477	10,000 - 608 = €9,392	10,000 - 4,000 = €6,000	€10,000
G: Marginal tax rates for	Employee: 74.5%	Employee: 73.0%	Employee: 66.7%	Employee: 109.2% <sup>8</sup>
net salary increase	Employer: 25.5%	Employer: 77.0%	Employer: 49.8%	Employer: 66.3% <sup>8</sup>
H: Income taxes paid for	Employee: €4,825	Employee: €6,856	Employee: €4,000	Employee: €10,920
counterfactual per year (F * G)	Employer: €1,651	Employer: €7,232	Employer: €2,990	Employer: €6,630
I: Fossil fuel subsidy from fuel benefits per year, by beneficiary (H – E)	Employee: €1,302 Employer: €446	Employee: €6,248 Employer: €6,591	Employee: €0 Employer: €0	Employee: €10,920 Employer: €6,630

<sup>&</sup>lt;sup>8</sup> Marginal tax rate is for Italy. Replace with the country-specific marginal tax rates (see Appendix A) and apply the same method to calculate the fossil fuel subsidies from fuel benefits for Germany and Poland.



## 8 APPENDIX C: COMPARISON OF SUBSIDIES FOR ICE VERSUS BEV COMPANY CARS FOR SELECT SIMILAR MODELS

As a separate piece of analysis, the total average annual subsidies were compared for five pairs of similar BEV and petrol company car models. (Note, the figures in Table A15 below are the subsidy outputs from the modelling and post-processing conducted for this study, i.e., they are not limited to fossil fuel subsidies in this section of the report. In all other sections of this report, BEV company car subsidies are not considered fossil fuel subsidies, while all ICE subsidies are considered fossil fuel subsidies. See <u>Focus on tailpipe emissions and private use</u>.) Note, Germany's September 2024 proposed rule change for BEV depreciation write-off is not included in this analysis (see <u>Germany Discussion</u>).

- For France, there was large variation in the subsidy difference depending on the BEV and petrol models analysed, ranging from €2k more subsidy to BEVs to €6k more subsidy for petrol company cars. Larger negative subsidy differences for the more expensive model pairs (i.e., BMWs) were due to the high acquisition tax on expensive petrol models increasing the leasing cost for the counterfactual.
- In Germany the BEV models received more average annual subsidy than the petrol models except for the BMW model pair for which the petrol model received ca. €300 more subsidy, as a BMW X3 petrol model has a higher list price than the electric BMW iX3, resulting in high subsidies for taxes that rely on the value of the car (i.e., BiK), as well as having a high fuel benefit subsidy as a larger car with lower fuel economy.
- For Italy, there was large variation in the subsidy difference depending on the BEV and petrol models analysed, ranging from €5k more subsidy to BEVs to €3k more subsidy for petrol company cars. There were larger positive subsidy differences for the more expensive model pairs (i.e., BMWs), mainly due to the fuel benefit given to petrol cars being a larger proportion of the total subsidy for cheaper cars who receive a smaller BiK subsidy.
- For **Poland**, there was a mix, with the BEV model receiving more average annual subsidy than its petrol match in two out of the five model pairs, with the subsidy difference depending on the balance between taxes that rely on car value (BiK, VAT, depreciation), fuel benefits for petrol cars, and the impact of acquisition taxes on expensive petrol cars.
- In **Spain**, only the cheapest BEV model, the Peugeot 208, received an average annual company car fuel subsidy, with the higher BiK taxes associated with the more expensive BEV models cancelling out the BEV subsidies from other tax components.
- And in the **UK**, the subsidy difference was larger than in any other country with nearly all BEV models receiving five figure average annual subsidies compared to no subsidies for the petrol models, predominately down to the significant difference in BiK rates for BEVs and petrol ICE vehicles in the UK.

<b>Table A15</b> : BEV vs petrol model comparison of average annual fossil fuel subsidies for five comparable
models under the 80% private use scenario in 2023. All figures are per car. Leased vehicles only.

Country	<u>BEV</u> : VW ID.4	<u>Petrol</u> : VW Tiguan	Subsidy difference
France	€ 8,577	€ 8,180	€ 397
Germany	€ 7,286	€ 6,717	€ 569
Italy	€ 12,086	€ 15,197	-€ 3,111



COMPANY CAR FOSSIL FUEL SUBSIDIES IN EUROPE

Country	<u>BEV</u> : VW ID.4	<u>Petrol</u> : VW Tiguan	Subsidy difference
Poland	€ 7,308	€ 8,562	-€ 1,254
Spain	€0	€ 73	-€ 73
UK	€ 10,456	€0	€ 10,456

Country	BEV: PEUGEOT E-208	Petrol: PEUGEOT 208	Subsidy difference
France	€ 7,689	€ 5,457	€ 2,232
Germany	€ 5,936	€ 4,219	€ 1,717
Italy	€ 9,970	€ 11,271	-€ 1,301
Poland	€ 5,833	€ 4,909	€ 924
Spain	€ 2,386	€0	€ 2,386
UK	€ 8,375	€0	€ 8,375

Country	<u>BEV</u> : AUDI Q4 E-TRON	Petrol: AUDI Q3	Subsidy difference
France	€ 9,577	€ 9,591	-€ 14
Germany	€ 8,901	€ 6,634	€ 2,267
Italy	€ 16,122	€ 14,260	€ 1,862
Poland	€ 9,020	€ 8,304	€ 716
Spain	€0	€ 145	-€ 145
UK	€ 12,776	€0	€ 12,776

Country	<u>BEV</u> : BMW IX3	Petrol: BMW X3	Subsidy difference
France	€ 9,881	€ 15,899	-€ 6,018
Germany	€ 8,719	€ 9,023	-€ 304
Italy	€ 19,811	€ 14,752	€ 5,059
Poland	€ 10,313	€ 13,841	-€ 3,528
Spain	€0	€ 70	-€ 70
UK	€ 14,793	€0	€ 14,793

Country	<u>BEV</u> : VOLVO XC40 (elec.)	<u>Petrol</u> : VOLVO XC40 (petrol)	Subsidy difference
France	€ 9,181	€ 8,380	€ 801
Germany	€ 8,261	€ 6,683	€ 1,578
Italy	€ 14,840	€ 15,125	-€ 285
Poland	€ 8,340	€ 8,484	-€ 144
Spain	€0	€ 146	-€ 146
UK	€ 11,855	€0	€ 11,855



## ERM HAS OVER 160 OFFICES ACROSS THE FOLLOWING COUNTRIES AND TERRITORIES WORLDWIDE

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Colombia	Senegal	
France	Singapore	
Germany	South Africa	
Ghana	South Korea	
Guyana	Spain	
Hong Kong	Switzerland	
India	Taiwan	
Indonesia	Tanzania	
Ireland	Thailand	
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Japan	UK	
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Malaysia		
Mexico		
Mozambique		

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