



REPORT

Still smoking: the PHEV emissions scandal continues

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Summary

Analysis of official 2024 real-world data reveals that plug-in hybrid electric vehicles (PHEVs) continue to exhibit a widening gap between real-world performance and official WLTP testing values. On average, real-world emissions for 2024 PHEV models were nearly six times higher than official figures. The widening gap is driven largely by the market shift toward heavier, higher-power, longer-range models that lack sufficient electric motor power. These empirical findings underscore the necessity of the upcoming November 2026/27 utility factor (UF) correction to align official accounting with actual climate impact and incentivize meaningful vehicle performance improvements.

Correcting the plug-in hybrid electric vehicle UF does not threaten the European PHEV producers, it ensures that PHEV design and performance are improved. Market evidence from the past 2025 UF correction shows that CO₂ emissions can be reduced through better technology and longer electric range to offset the increase in official CO₂ emissions from the UF correction.

The UF corrections encourage manufacturers to develop PHEVs with longer electric ranges. However, demand also determines which models succeed, and taxation plays a key role in influencing buyers' choices. In most Member States, current PHEV taxation does not prevent high-emitting models from receiving more favourable treatment than best-performing PHEVs.

6 times

For 2024 models, real-world PHEV emissions were almost six times higher than official values.

75% offset

Longer electric range offset 3/4 of the UF-related rise in official CO₂ emissions for upgraded models.

< 50 g/km

Thanks to improvements in range and efficiency, emissions can be limited to below 50 gCO₂/km in 2030.

Real-world fuel consumption data reveal that **PHEVs climate benefits were overstated and have emissions close to traditional combustion cars:**

- **Average real-world emissions of PHEV sold in 2024 were 6 times higher than what officially reported in WLTP testing.** PHEVs drive only 27% of the time in pure electric mode.
- **Freezing the UF to the 2025/26 correction would underestimate real world emissions by 56%.**
- **Longer range models had higher emissions gaps between real world versus official emissions:** +52% gap for PHEV with range above 70 km (with the correct November 2026/7 UF) versus +35% gap for range below 70 km. The average PHEV range grew from 58 km to 75 km between 2021 and 2024, so long range models were responsible for more than half of the 2024 gap.
- **Electric-to-combustion power ratio is a better indicator of real-world performance than electric range:** PHEVs with 25% more electric than combustion power emit just 95 gCO₂/km in real-world, a third of the average PHEV. Charge-depleting mode (electric and hybrid functioning) emissions were 20 g/km or three times lower than the average for this mode.

The evidence from recent PHEV model launched after the 2025 UF correction suggests that the **UF correction incentivised technical improvements:**

- **Some carmakers have increased the electric range of their vehicles from 63 km to 117 km (+85%)** to offset the impact of the first UF correction.
- **The average battery size in upgraded 2026 models has risen from 14 kWh to 24 kWh, or +68%** (compared to past variants).
- **Three-quarters of the increase in official CO₂ emissions caused by the corrected UF has been offset** for the models upgraded with larger batteries. This kept many models below 50 gCO₂/km.
- **The increased battery size required for this upgrade only increased vehicle price by 2%.**

T&E's analysis shows that, by 2030, electric ranges of around 140–220 km will keep PHEVs at or below 50 gCO₂/km. This increase in range is consistent with the expected progress in battery and vehicle technology. If PHEVs are fitted with better technology, the range increase needed is limited to about 180 km. The final UF correction starting in November 2026 not only harmonises regulation with real-world performance, thus correcting a critical regulatory misstep, but it also encourages the development of higher-performance PHEVs.

Crucially, freezing the UF is the single change to the car CO₂ framework that would have the largest impact on 2030 and 2035 BEV sales. In total it would lower BEV sales by 13 percentage

points in 2030 and 18 percentage points in 2035 in the car CO₂ proposal of EPP rapporteur Massimiliano Salini.

Current tax systems do not reward the best-performing PHEVs and often provide them with similar treatment to pure electric vehicles:

- **Companies are the main buyers of PHEVs in Europe.** In the first half of 2026, they accounted for 71% of new PHEV registrations in the EU, well above their 58% share of the overall new-car market.
- **24 out of 27 Member States provide PHEVs with preferential tax treatment through at least one tax measure, but only 12 use a ≤50 gCO₂/km threshold or stricter.**
- 21 Member States use CO₂ emissions directly in at least one of the five tax instruments analysed, **meaning that accurate CO₂ values are essential for effective PHEV taxation.**
- **Only Portugal and Spain require both a CO₂ threshold and a minimum electric range for PHEV tax benefits**, although Spain's range requirement is particularly weak at just 15 km.
- **In 19 of the 27 Member States, the annual tax difference between a corporate PHEV and a BEV is almost the same or below €1,000.** These countries account for almost 90% of EU corporate PHEV registrations.
- **Several major PHEV markets barely increase taxation when official CO₂ emissions rise** under the 11.2026/7 UF, limiting both the demand signal for better-performing PHEVs and the potential increase in government revenues.

Key recommendations

The EU should keep the planned correction of the PHEV UFs: European co-legislators should not interfere with the planned and approved upcoming correction of the UF in the current Automotive package discussions.

The UF is a technological methodology that is designed to ensure the official PHEV emissions match real-world emissions. It should not be for politicians to interfere with the application of this technical methodology. Instead, co-legislators should merely reaffirm their political support for a **robust, science-based system that guarantees that official emission accounting reflects real-world performance.**

Taxation should complement the UF correction by using stricter CO₂ and electric-range criteria to better distinguish between PHEVs. This would ensure that the high-emitting models do not receive more favourable treatment than best-performing PHEVs.

Section 1

Utility factors updates: a necessary correction based on real-world evidence

Utility factors — the main parameters that influence PHEV CO₂ emission — are being corrected based on empirical evidence in order to better reflect real-world conditions. Political demands to cancel this correction are obstructing a science-based approach.

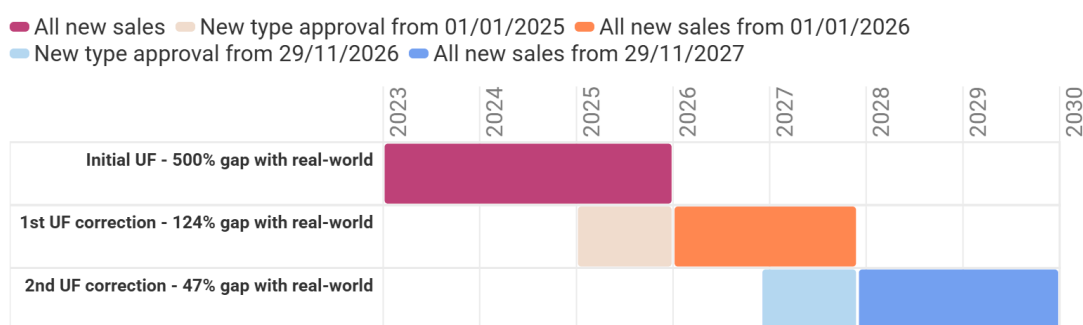
1.1 What are utility factors

The utility factor (UF) is a key parameter used to calculate the official CO₂ emissions of PHEVs under the Worldwide Harmonised Light Vehicles Test Procedure (WLTP). It estimates the average share of total driving that is powered by electricity, based on the electric range (in km) that is measured in laboratory conditions. The higher the range, the more the PHEV is assumed to be running in electric mode.

Following research which showed that the WLTP included overly optimistic assumptions, resulting in significant discrepancies between real-world and official emissions, the European Commission planned a correction of the UF in a two-step approach. The first correction took effect in 2025 for newly type approved PHEVs and in 2026 for existing models. A second [correction](#) is scheduled for 29.11.2026 (new type approval) and 29.11.2027 (all new vehicles).

These correction steps can be illustrated in terms of underlying share of driving on electric mode. For instance, with the initial UF (pre-2025), a PHEV with a 100 km electric driving range was assumed to be driven 90% of its mileage on electricity. With the first correction, the PHEV model is assumed to drive two-thirds on electricity. With the second correction, a more realistic 44% of the distance is assumed to be driven on electricity.

Utility factor correction timeline



Source: Euro 6e / Euro 7 regulations ; T&E analysis of real-world emission data (2024)



China is also correcting the PHEV UF

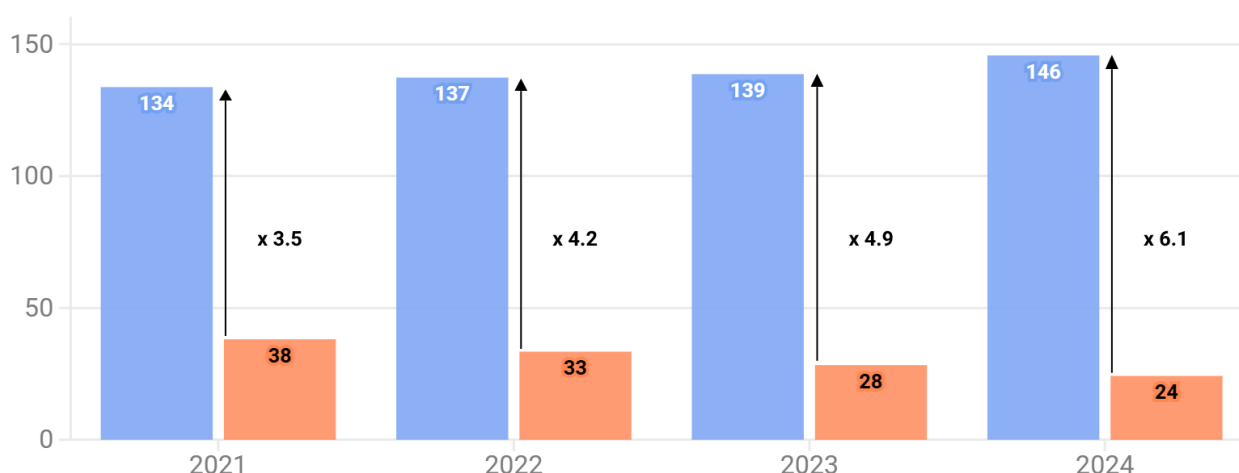
China officially adopted a [revised UF curve](#) for plug-in hybrid electric vehicles (PHEVs) in May 2026. This change will be implemented on January 1, 2028. Like Europe and the United States, PHEVs in China were initially assigned higher-than-actual UF values due to limited real-world data. This led to an assumption that PHEVs drive more on electricity than many users actually do. Based on recent real-world data, the updated UF curve reduces this assumed electric driving share to better reflect actual vehicle use. For example, a PHEV with 100 km of electric range was previously assumed to operate on electricity 80% of the time; under the revised curve, this assumption is reduced to approximately 65% as [reported by ICCT](#). One key characteristic of the new Chinese UF is that it does not approach 100% for large ranges, being limited to a [maximum of 88%](#). China also [cancelled tax incentives for PHEVs](#) and Extended Range Electric Vehicles (EREVs). These incentives had been in place since 2012 and were due to end on 1 January 2027.

1.2 The real world emission gap has grown in 2024

Our analysis of official real-world data confirms the significant gap between real-world and official emissions and shows that the 11.2026/7 correction is essential in order to reduce the real-world gap to a level comparable with that of other internal combustion engine (ICE) powertrains. T&E analysis of [real-world emissions data](#) reported by the European Environment Agency showed that, on average, real-world emissions were six times higher than official WLTP emissions for PHEVs registered in 2024, up from a five-fold difference in 2023.

The real-world vs. WLTP emissions gap is widening

■ Real-world emissions ■ WLTP emissions



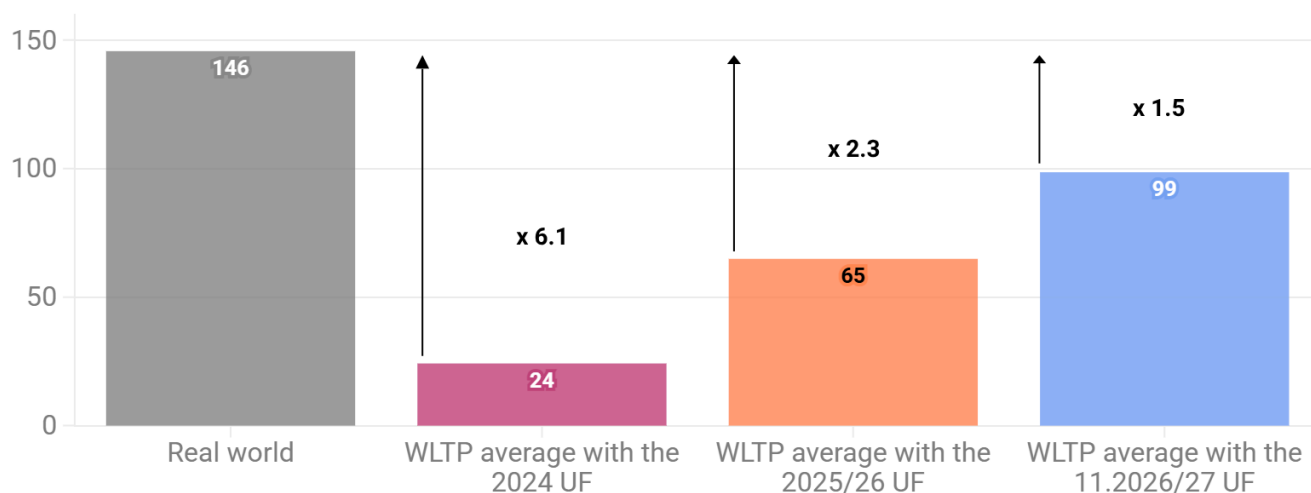
Source: T&E analysis of 2021-22-23-24 OBFCM data collected by the EEA • Emissions are presented as arithmetic (non-weighted) averages derived from OBFCM data. WLTP emissions are based on the utility factor that was applicable before 2025.



Real-world PHEV emissions would remain 47% higher than official CO₂ figures even after the planned UF correction starting in November 2026, which will reduce the gap but not close it. This gap is larger than the one observed for conventional petrol and diesel cars. This confirms that the planned correction in 11.2026/7 is essential to partly close the gap and better reflect real world emissions. Freezing the current 2025/26 UF would knowingly underestimate PHEV emissions by 56%.

Planned future corrections to the WLTP utility factor won't close the gap with real-world emissions

PHEV emissions (gCO₂/km)



Source: T&E analysis of 2024 OBFCM data collected by the EEA - registration year 2024

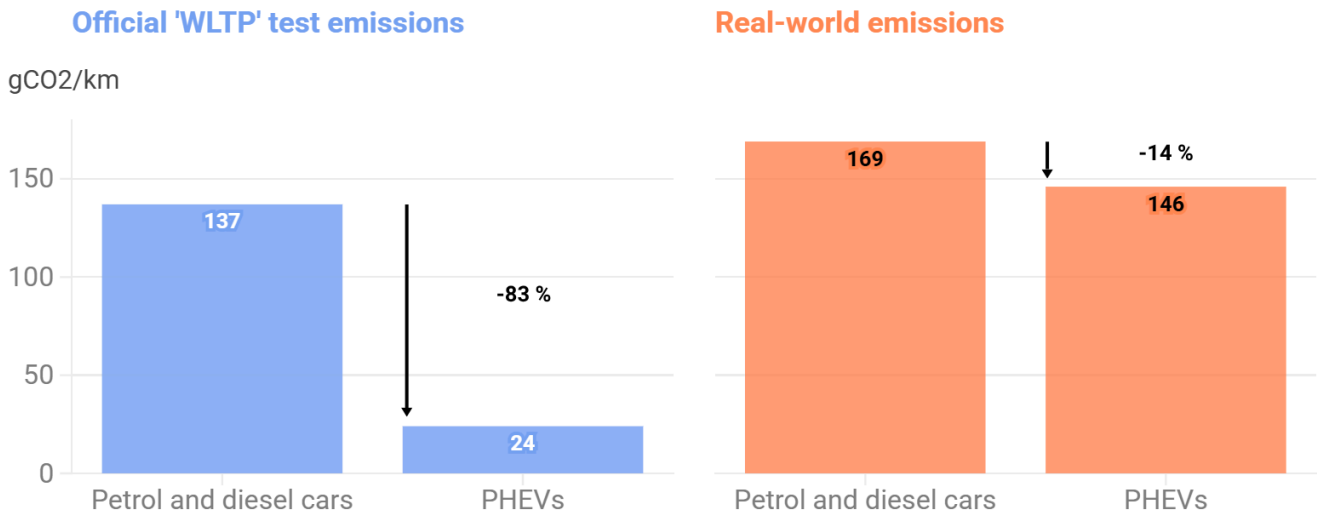


Freezing the UF is the single change to the car CO₂ regulation that would have the largest impact on 2030 and 2035 BEV sales. In total it would lower BEV sales by 13 percentage points in 2030 and 18 percentage points in 2035 in the car CO₂ proposal of EPP rapporteur Massimiliano Salini (more information in Annex).

Real-world emissions of PHEVs are much closer to the ones of combustion and conventional hybrid vehicles. Despite a difference in official WLTP emissions of -83% with respect to ICE (pure ICE and HEV) cars, real world data show that PHEV emissions were just 14% lower than those of traditional powertrains.

PHEVs emit almost as much CO₂ as petrol and diesel cars

Average emissions of PHEVs versus petrol and diesel in both **official test** and **real-world**



Source: T&E analysis of 2024 OBFCM data collected by the EEA • Petrol and diesel cars have been grouped together, including both conventional hybrid electric vehicles (HEVs) and combustion vehicles (ICEs). WLTP emissions were calculated using the utility factor that was applicable before 2025.



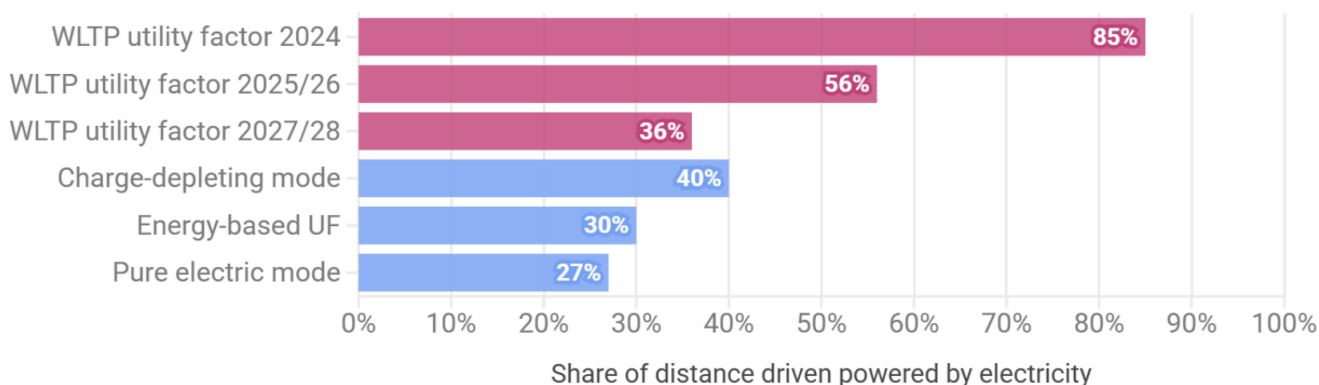
1.3 PHEVs emit 63 g/km in charge-depleting mode

We calculated three metrics to provide an estimate of the real-world UFs: (1) the share of kilometers driven in the charge-depleting (CD) mode; (2) the share of kilometers driven in pure electric mode, i.e. CD operation with the combustion engine off; (3) an energy-based utility factor, which more precisely represents the share of operational energy supplied by grid electricity. The CD mode is the PHEV operation in which the battery is gradually depleted, with the e-motor providing all or part of the propulsion. The combustion engine may also run during part of CD operation, when the vehicle operates in hybrid mode. The energy-based UF is the most precise measure of electric driving because it counts only the energy actually supplied by the grid.

The official WLTP reporting is based on an optimistic UF that overstates how much a PHEV drives in electric mode. Real-world fuel consumption data indicate a PHEV typically operates in full-electric mode for 27% of kilometers driven. CD mode covers a larger share, 40% of kilometers, because it includes operation with some engine use. The energy-based UF shows that 30% of the operational energy comes from grid electricity. These metrics compare with the assumed 56% UF under the current 2025/6 UF definition.

A 2025/26 UF freeze corresponds to an average overestimate of 26 percentage points (56% - 30%). On average, the combustion engine provides power in one third (32%) of kilometers driven in CD mode, mainly because of insufficient e-motors power as we will see in Section 2.

Official utility factors compared to real-world utility factors

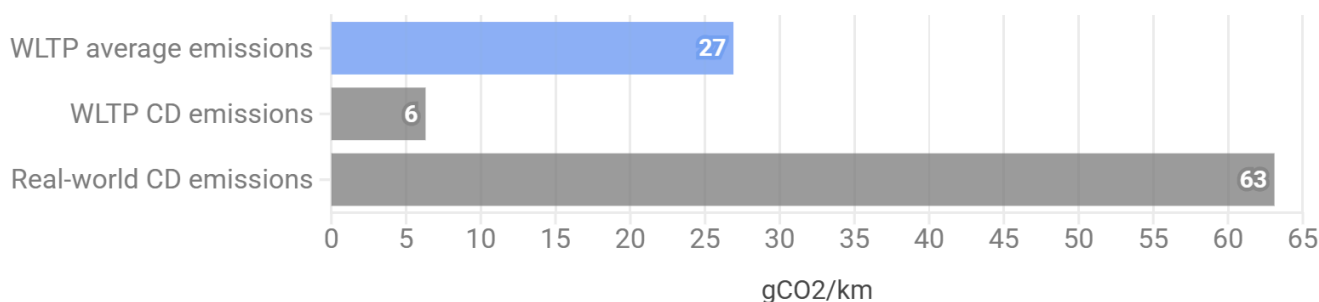


Source: T&E analysis of 2021-22-23-24 OBFCM data collected by the European Environmental Agency (EEA) • Values are weighted by EEA registrations data
Pure electric one is the fraction of the Charge Depleting mode for which the combustion engine is off



Real-world emissions in charge-depleting (CD) mode are 10 times higher than the official WLTP figure: 63 gCO₂/km (2.8 L/100km) versus 6 gCO₂/km. This is a slight improvement on the 68 gCO₂/km recorded the previous year. This shows that CD mode can hardly be considered equivalent to full electric driving.

Emissions in charge-depleting mode: WLTP vs real-world



Source: T&E analysis of 2024 OBFCM data collected by the EEA • Values are weighted by EEA registrations data
Charge-depleting (CD) mode: PHEV operation in which the battery is gradually depleted, with the e-motor providing all or part of the propulsion.



In an energy shock, PHEV drivers spend 680€/year more than what official figures claim.

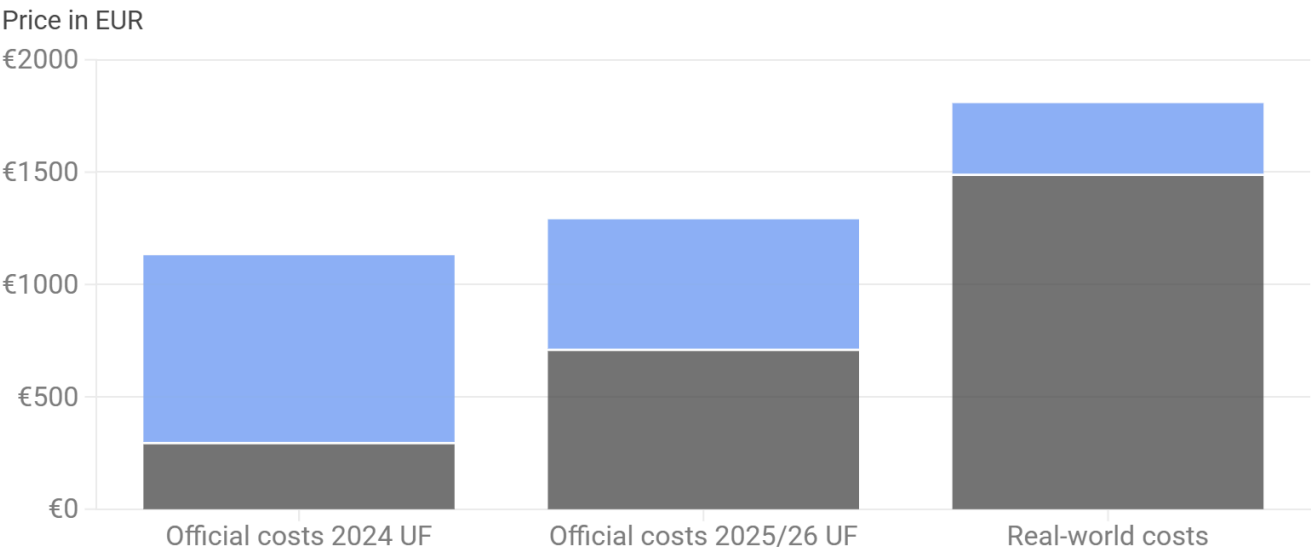
Driving a PHEV registered in 2024 would result in a yearly expense of 1,810€, versus an expected 1,130€ total from WLTP consumption figures. This is considering the 2024 UF used at the time of

of sales, and average prices for petrol and diesel since the start of the war in Iran (March to beginning of October 2026). Using the corrected 2025/26 UF, the cost difference amounts to 515€.

Powering PHEVs costs drivers €680 more a year than claimed, on average

The cost difference would be of €515 when taking into account the 2025/26 UF update

■ Fuel costs ■ Charging costs



Source: T&E analysis of 2024 OBFCM data collected by EEA, EEA registrations data, EAFO, Weekly Oil Bulletin • Figures are weighted by registrations data.



Section 2

Why real-world emissions of PHEVs are worsening: deep dive into 2024 data

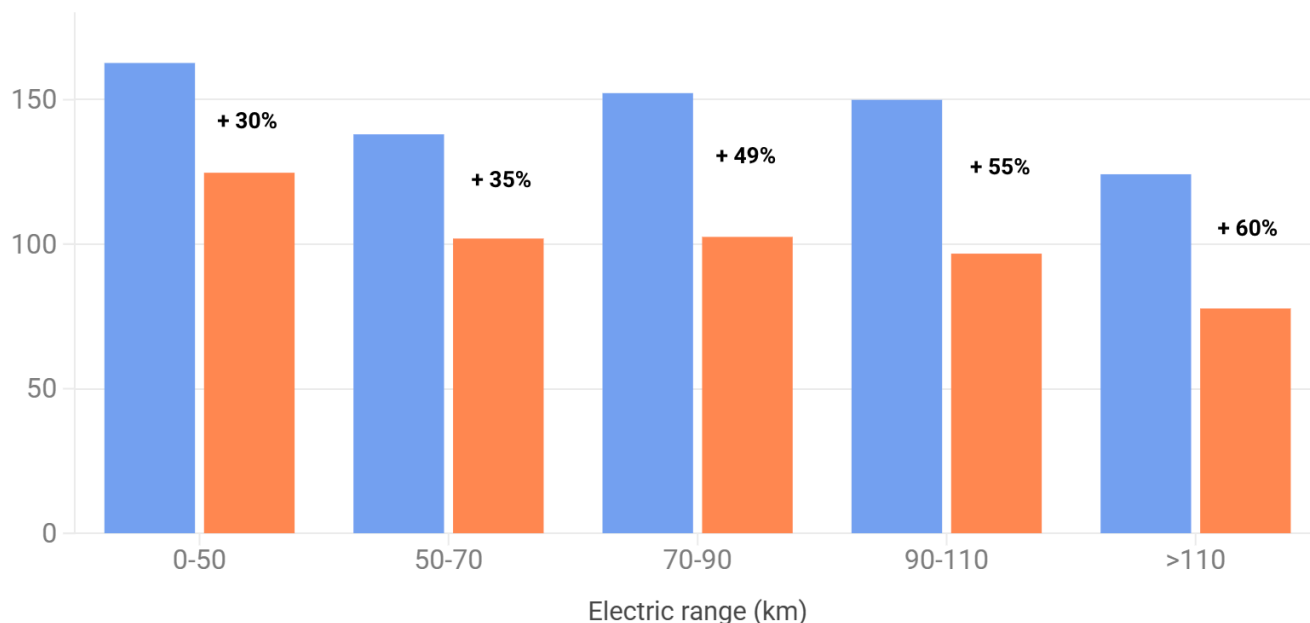
2.1 The PHEV real world emission gap increases with longer ranges

The gap between real-world emissions and official emissions widens significantly for ranges above 70 km, despite a decreasing trend in real world CO₂ emissions per kilometer. This remains largely true even after the 11.2026/7 UF correction is accounted for, stressing the importance of the 11.2026/7 correction as a minimum floor. Without the 11.2026/7, the gaps presented in this section would be much higher (approximately two to three times higher on average).

Comparison of real-world PHEV emissions and WLTP estimates with 2027/28 utility factor shows high gaps at longer ranges

Real-world emissions WLTP emissions (UF 11.2026/27)

Emissions (gCO₂/km)

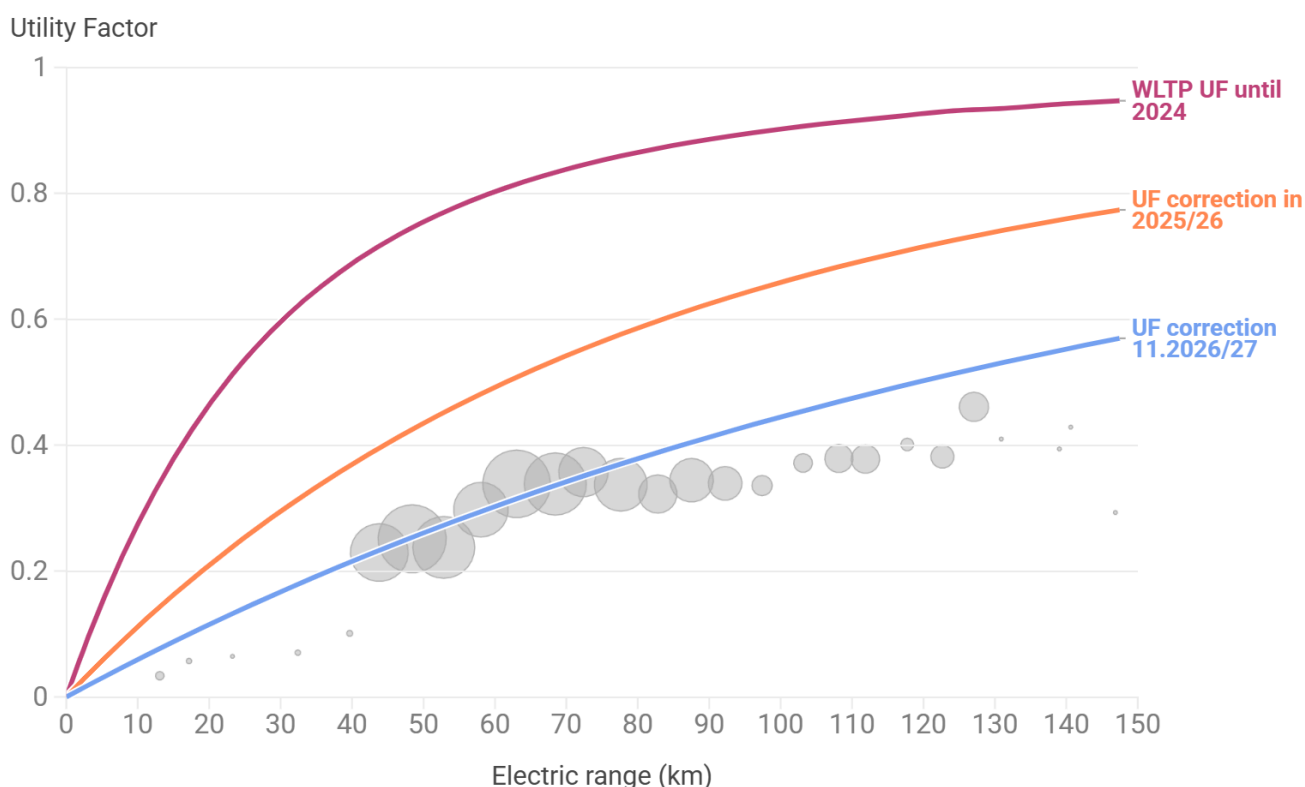


Source: OBFCM data from 2024 registered by EEA • Emissions are weighted by EEA registrations data.



The UF correction starting in November 2026 will bring real-world emissions closer to official emissions but will not be sufficient to fully close the gap. Short-range PHEVs (<50 km) are mainly premium, high-performance models, only sold in small volumes. PHEV with ranges between 50 km and 70 km have the smallest gap with 35%. However, PHEV with ranges above 70 km see a much larger gap of 52% between the real world performance and the official values even after the 11.2026/7 correction is accounted for. Ranges below 70 km have an average gap of 35%

WLTP utility factor curves and real-world utility factor



Source: T&E analysis of 21-24 OBFCM data collected by the EEA, EEA registrations data
The bubbles mark the energy-based real-world utility factor and their sizes represent the number of registrations per electric range group.



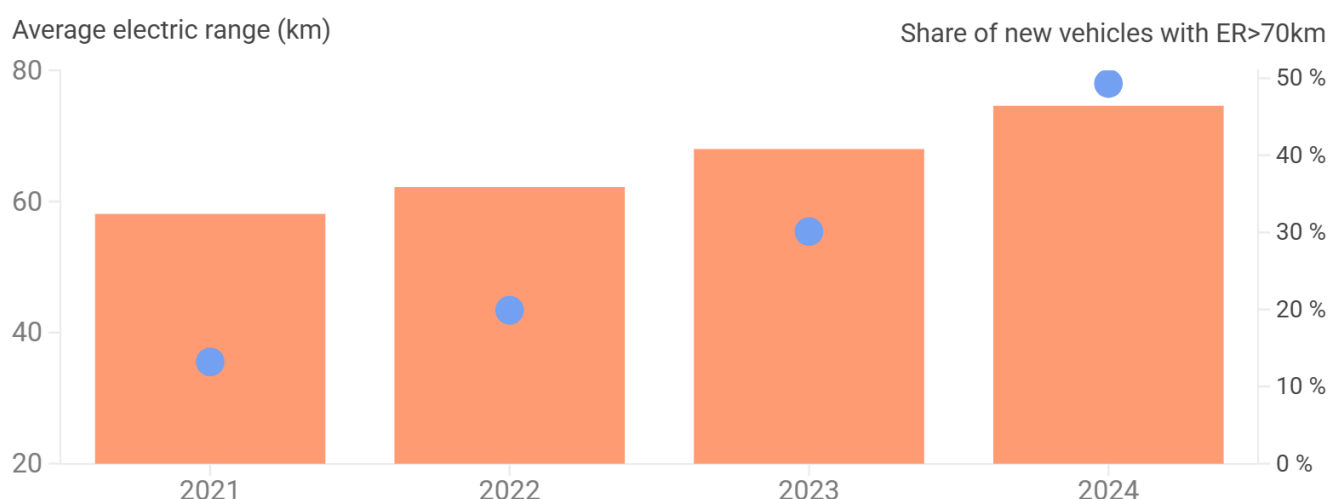
In recent years, new PHEVs have been shifting considerably towards long-range models. The average range has grown from 58 km in 2021 to 75 km in 2024, while the share of new PHEVs with a range longer than 70 km has gone from 13% to 49%.

However, this shift towards longer range has not been matched by other design choices that favour low-emission driving. Longer range correlates with vehicle mass (+13% in average above 70 km of range) and combustion engine power (+23% in average). Moreover, PHEV with longer ranges (above 70 km) have higher charge-sustaining (CS) emissions (i.e. when the battery is

empty): 200 gCO₂/km in average versus 182 gCO₂/km in the 50-70 km interval. Between 2021 and 2024, emissions in CS mode for PHEVs with range above 70 km rose 8% (from 186 to 200 gCO₂/km), mostly because of an increase of heavier SUV models in this range. These factors explain why longer range PHEVs have higher emissions, in particular if they are not often charged and/or have a low power electric motor as higher weight and combustion power results in high emissions in combustion modes.

The market is shifting towards PHEVs with a longer range

■ Share of long-range PHEVs ■ Average electric range



Source: T&E analysis of 21-24 OBFCM EEA data, EEA registrations data

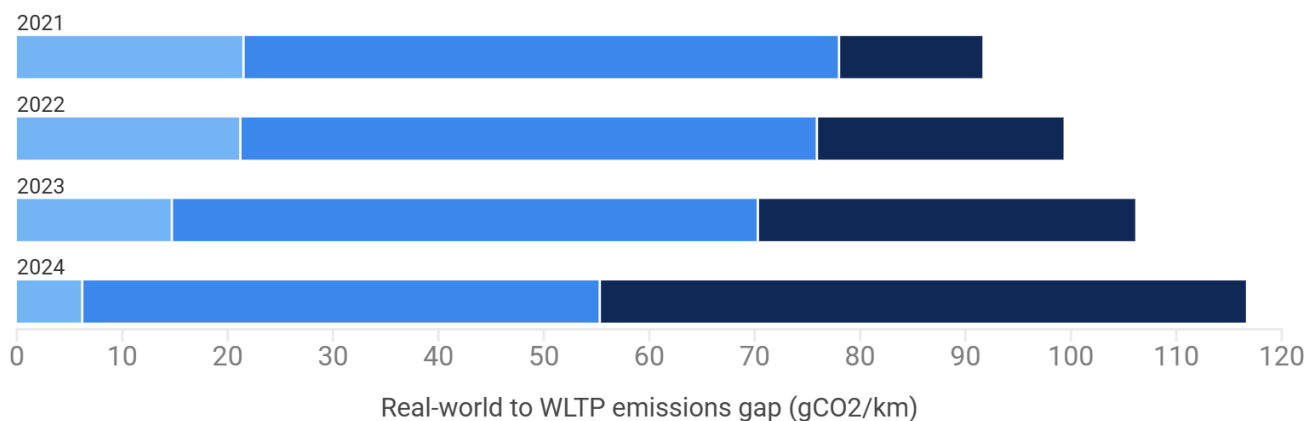


The increase in the number of PHEV with ranges above the 70 km range largely explain the growth of the real-world-to-WLTP gap in the period 2021-2024. In 2024, more than half of the emission gap was caused by PHEVs with ranges above 70 km, from only 15% in 2021. The model with the longest range in 2024 was the Mercedes Benz GLC, with 121.5 km of WLTP electric range and a 60% gap between real-world and WLTP 11.2026/7 emissions. This model accounts for 5% of 2024 registrations.

The gap between WLTP and real-world emissions comes more and more from long-range PHEVs

Decomposition of RW-to-WLTP gap in range bins

<50 km 50-70 km >70 km



Source: T&E analysis of OBFCM EEA data.
The data have been weighted by EEA registrations data



2.2 Mercedes-Benz and Renault Group are the worst performers

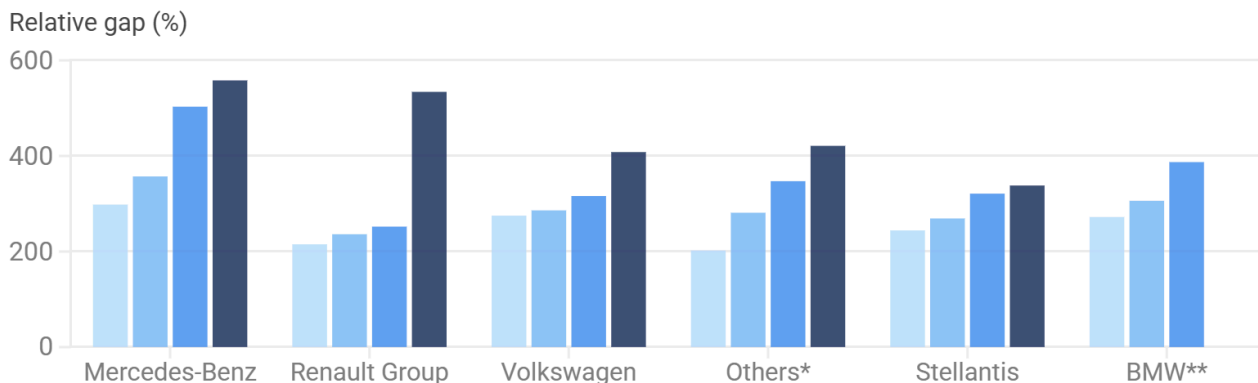
Mercedes-Benz and Renault have the largest real world gaps, with real world emissions more than 6 times higher than official values in 2024 (weighted by sales). Stellantis performs better, but its real-world emissions are still about 4 times higher than official values. On average, the sales-weighted real-world emissions are 5.3 times higher than official values.

Mercedes-Benz's larger gap reflects its high share of PHEV sales with a range above 70 km (35% in 2024, up from 20% in 2021), the highest among carmakers. Volvo follows with 22% and BMW with 15%. Mercedes-Benz also has the longest average electric range in 2024 (98 km), ahead of Volvo (80 km) and BMW (74 km).

Growing gap between real-world and official emissions for all major European carmakers

Relative gap between real-world and WLTP emissions for different carmaker pools

2021 2022 2023 2024



Source: T&E analysis of 21-24 OBFCM EEA data • Others*: Ford, Hyundai, JLR, Kia, Mazda, Suzuki, Volvo, Toyota. Gap size is weighted by sales. WLTP emissions are calculated using the utility factor applicable before 2025.

BMW**: the sample size in 2024 OBFCM data is too small for reliable results



2.3 Better PHEV power ratio supports improved real world performance

A strong indicator of real-world emissions performance is the ratio between the electric motor power and the combustion engine power. PHEVs with a high power-ratio (above 1.25) emit 108 gCO₂/km on average on the road. On the other hand PHEVs with lower power ratios (below 0.5) emit 227 gCO₂/km. The average power ratio for PHEV in 2024 is 0.7 and has stayed largely constant since 2021, showing that carmakers have not been providing meaningful upgrades to their models.

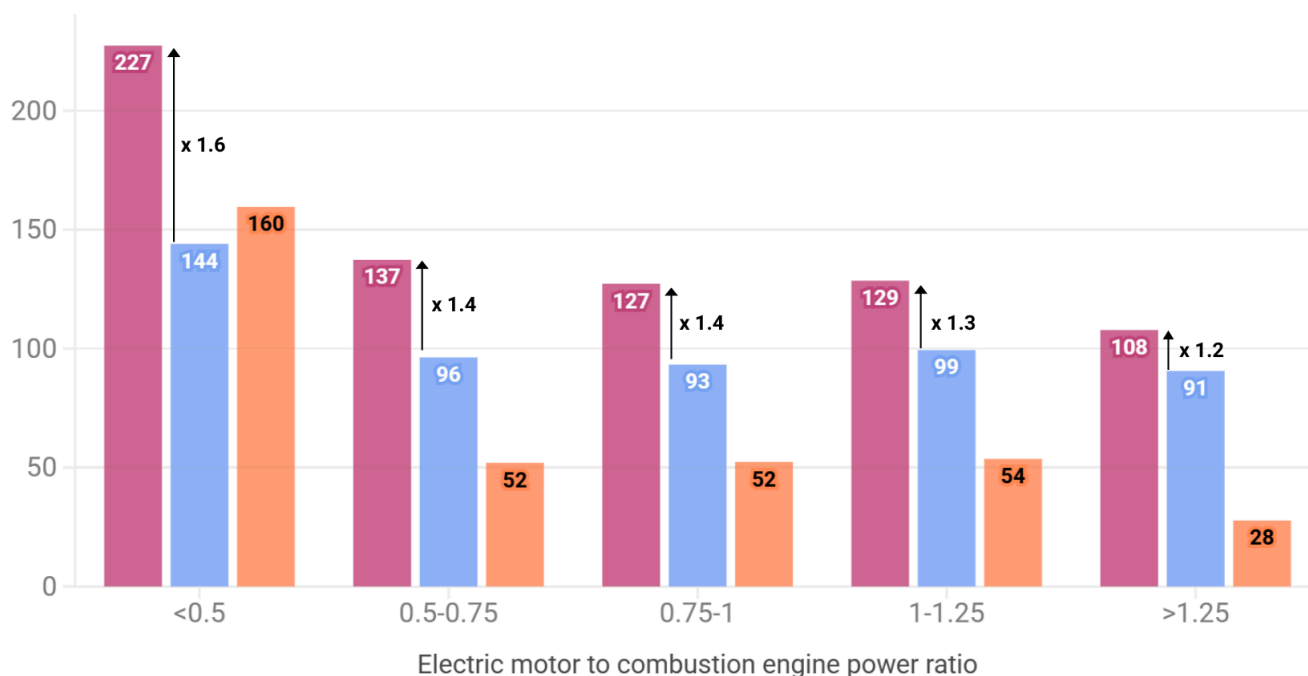
High-power-ratio PHEVs clearly outperform other PHEVs in electric mode. PHEVs with a power ratio above 1.25 emit just 28 gCO₂/km in electric mode, against a 2024 average of 63 gCO₂/km and 158 gCO₂/km for those with a ratio below 0.5. The model with the highest power-ratio in 2024 was the BYD Seal U, with a 1.64 power ratio and a 20% gap between real-world and WLTP 11.2026/7 emissions. This model accounts for 1% of 2024 registrations. When comparing the performance of the top 10 models by range versus the top 10 models by power-ratio, the advantage of high-power ratio becomes evident:

Group	Real-world emission (gCO ₂ /km)	WLTP 11.2026/7 emissions (gCO ₂ /km)	Gap	2024 registrations share
Top 10 range	141	90	57 %	19%
Top 10 power-ratio	117	94	24 %	7 %

Emissions are strongly influenced by power ratio

■ Real-world emissions ■ WLTP 11.2026/27 emissions ■ Emissions in charge depleting mode

Emissions (gCO₂/km)



Source: T&E analysis of 2024 OBFCM data published by the EEA.
Average values are weighted by EEA registrations data.



Section 3

The 2025 utility factor correction has led to improved PHEVs

The first correction step has led to a better accounting of official CO₂ emissions of PHEVs, which increases the official CO₂ emission of the PHEV if the design and range are not changed. However, some carmakers have improved their PHEV models in order to offset the effect of the UF correction.

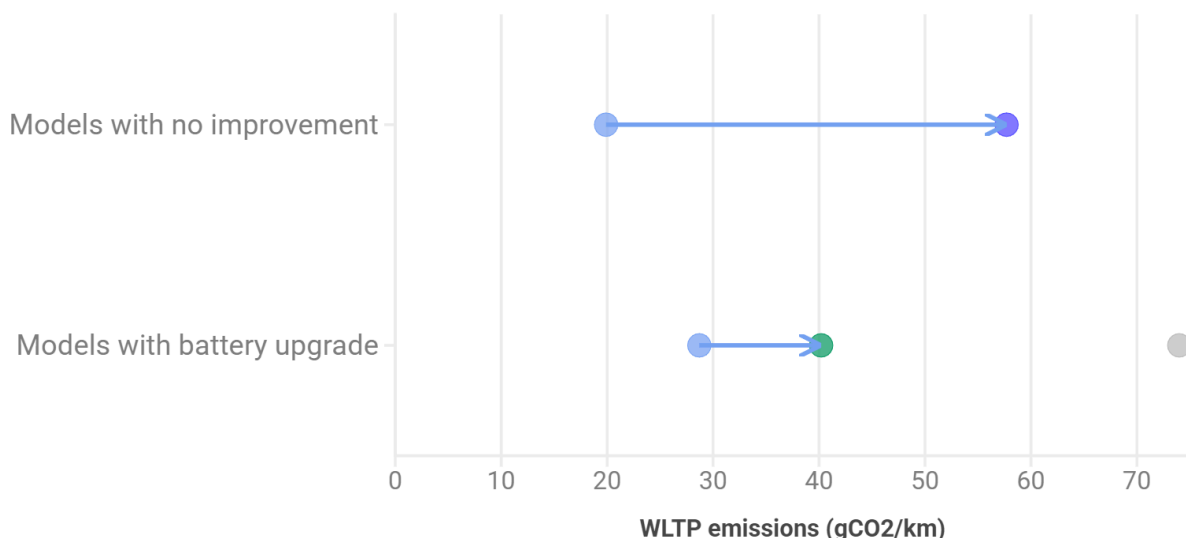
T&E finds that carmakers upgrading their PHEV technologies are keeping official PHEV emissions below 50 gCO₂/km.

- **Without technical improvements:** Carmakers that continue selling existing models without making technical improvements see official PHEV average emissions triple from 20 gCO₂/km to 58 gCO₂/km when the 2025-26 UF is applied.
- **Battery upgrades:** Carmakers who upgrade their battery technologies to extend the electric driving range of their new models only see a 40% increase in emissions, from 29 gCO₂/km to 40 gCO₂/km.

PHEV utility factor update

Higher PHEV ranges largely offsets the increase in CO₂ emission

● Uncorrected UF ● Model with no improvement - 2025-26 UF
● Model with upgraded battery - 2025-26 UF ● Expected without battery upgrade - 2025-26 UF



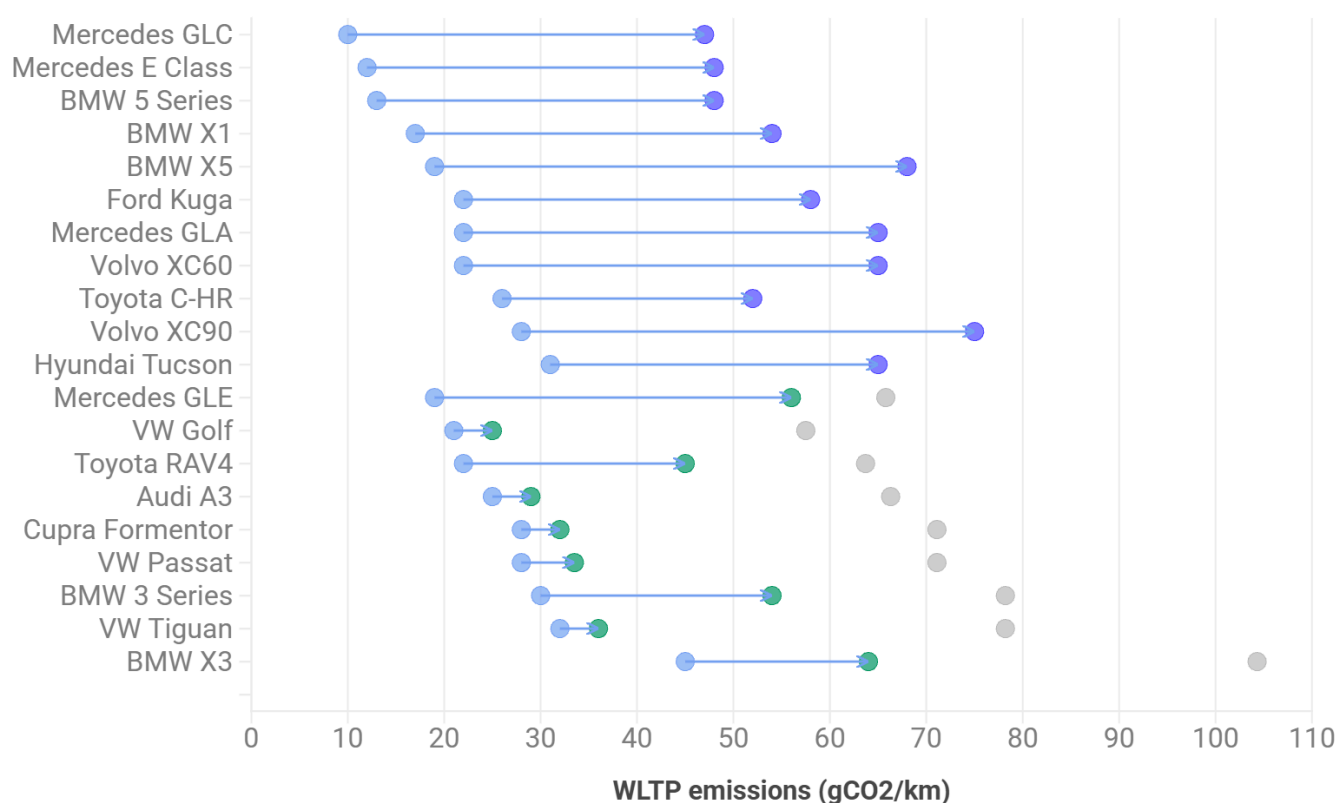
Source: km77.com & OEM websites (emissions, battery and range); T&E analysis (emission without upgrades) • Analysis based on 20 PHEV models, which account for 50% of the 2025 sales, including 9 models with battery upgrades.



T&E analysed 20 models among the top 30 of 2025 sales, representing 51% of the 2025 market. Of those, 9 models were upgraded in 2025 as a consequence of the introduction of the first correction to the UFs. Carmakers prioritised upgrading models with the highest emissions.

VW Group model upgrades offset 90% of the PHEV CO₂ emission increase

● Uncorrected UF, 2023-2025 variants ● Model with no improvement - 2025-26 UF
● Model with upgraded battery - 2025-26 UF ● Expected without battery upgrade - 2025-26 UF



Source: km77.com & OEM websites (emissions, battery and range); T&E analysis (emission without upgrades) • Analysis based on 20 PHEV models, which account for 50% of 2025 sales.



- **Three-quarters of the increase in official CO₂ emissions caused by the corrected UF has been offset for the models upgraded with larger batteries.** Without an upgrade, these models would have emitted 74 gCO₂/km after the 2025-26 UF is applied.
- **The batteries have been upgraded, increasing in size by an average of 68%,** from 14 kWh to 24 kWh. Assuming an average cost of €107/kWh for an NMC battery, this battery upgrade would cost around €1,000, which is an average 2% increase on the model's price.
- **The model upgrade has enabled the range to increase by 85%,** from 63 km to 117 km. The range has increased more than the battery size (85% vs. 68%), which suggests that, in addition to the battery upgrade, carmakers have achieved further technical improvements.

- **The model upgrades have offset 90% of the emission increase across five models from the Volkswagen Group.** The Volkswagen Tiguan is among the models with the most significant improvements; its battery size has increased to extend the electric driving range by 116%, from 55 km to 119 km, thereby limiting emissions to 36 gCO₂/km (from 32 g/km before the UF correction and range increase). Similarly, the range of the Cupra Formentor has increased by 114%, limiting emissions to 32 gCO₂/km.

Section 4

Vehicle improvements can keep PHEV WLTP emissions under 50 g/km in 2030

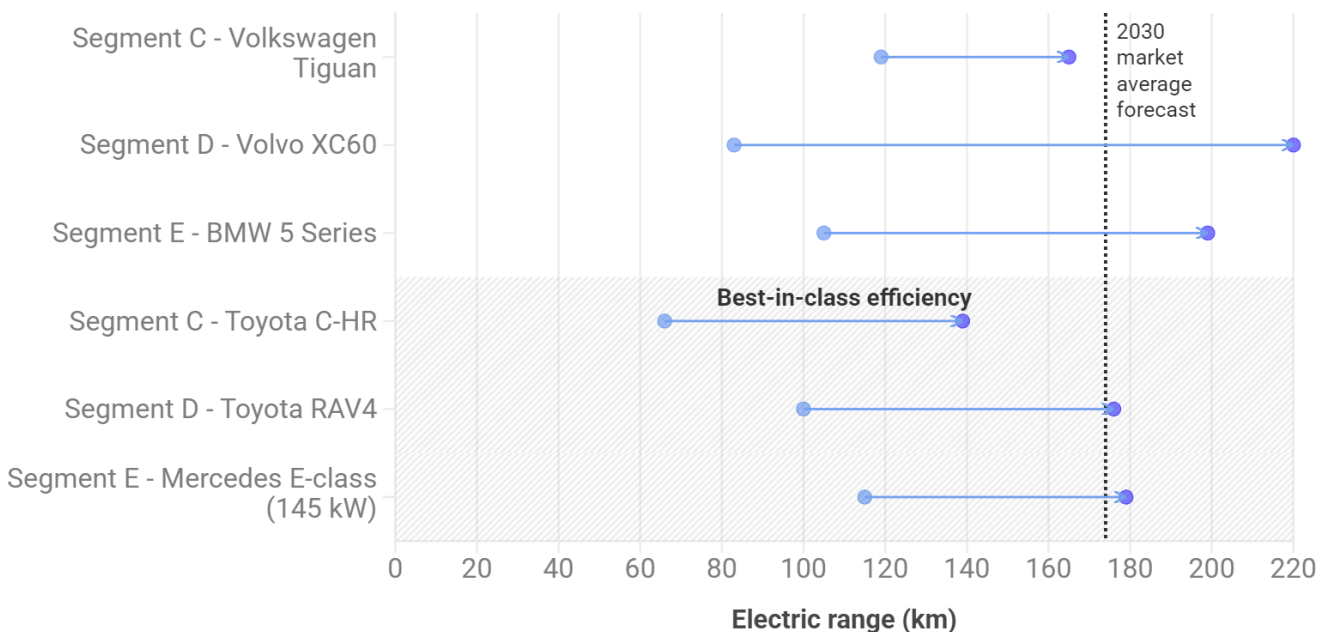
Carmakers can use higher ranges, innovation and technical improvements to limit PHEV WLTP emissions to 50 gCO₂/km by 2030. The second step of the UF correction incentivises progress rather than deterring PHEV sales.

T&E analysis of 6 representative PHEV models shows that the range needed in 2030 to reach 50 gCO₂/km (140-220 km depending on the models) is in line with the ranges expected in 2030 thanks to technology and design progress. Additionally, improved vehicle efficiency can help significantly reduce the range required to stay below 50 g/km and keep it below 180 km. This is illustrated in the graph below (methodology and additional information available in the Annex).

Battery improvements can ensure PHEVs do not exceed 50 g/km

The rise in electric range will limit the impact of the next correction of the utility factor (UF)

● 2025 ● Minimum range to achieve 50 gCO₂/km in 2030



Source: T&E forecast; km77.com and carmakers websites (2025) • 2030 emissions based on the next UF correction. Range forecasted so that each model achieve 50 gCO₂/km in 2030.



In the **medium segment**, the Volkswagen Tiguan would need a range of 165 km to limit emissions to 50 gCO₂/km. Therefore, the Tiguan's range growth is in line with technological trends (in the Annex, we present T&E's forecast of electric range, showing that the average new model should achieve a range of 174 km in our central scenario).

In the **large segment**, a best-selling European model such as the Volvo XC60 would need to achieve a range of 220 km, given its high fuel consumption in combustion mode. This type of range is possible for premium models, and Volvo has already demonstrated this with its [XC70](#) model in China, which has a range of over 200 km.

Regarding the **executive segment**, we found that a best-selling BMW 5 Series would need a range of 200 km. Premium carmakers can easily fit large batteries in their vehicles as they can afford to use high-end battery chemistry with a high energy density. This allows them to achieve a long range with a limited battery weight and volume.

When we consider the best-in-class models with the **best efficiency in combustion mode**, we find that a C-segment model such as the Toyota C-HR would require an electric range of only 139 km, while a larger model such as the Toyota RAV4 would need only 176 km. An efficient Mercedes E-Class variant would only require a range of 179 km. Reduced fuel consumption in combustion mode could be achieved through improvements in engine efficiency, aerodynamics, and the use of lightweight materials, as well as optimisation of the hybrid system's energy recovery.

In our central scenario, the range would increase from 103 km for the 2025 models to 174 km for the 2030 models, which would increase the battery price by €1,240, assuming an NMC battery price of €81/kWh in 2030. This would represent only a **2% price increase** compared to the new 2025 models.

Long ranges and lower WLTP emissions does not guarantee low real-world emissions

While PHEV models with longer range can keep WLTP emissions below 50 gCO₂/km, their real-world emissions may be significantly higher. Models with a range exceeding 130 km emit 45% more in real-world conditions than their WLTP emissions corrected with the 11.2026/7 UF. A medium-sized PHEV with a 165 km range and theoretical emissions of 50 gCO₂/km with the 11.2026/7 UF would therefore emit approximately 73 gCO₂/km in real-world conditions. This is because models with long range are heavier and often have high emission in combustion or hybrid mode. Also, PHEVs typically do not have fast-charging capability, which limits the ability to recharge them effectively.

To address this remaining gap between official and real-world emissions, T&E suggests using carmaker-specific real-world OBFCM data to continue correcting the UF curve after the 11.2026/7 correction takes effect. This can be done by fitting PHEV UF curves to real-world

data as also suggested by the ICCT.

In addition to more accurate PHEV UF curves, policymakers should design targeted policies (e.g. type approval) and tax incentives to encourage a shift towards the well-designed PHEV models which have the potential to lower real-world emissions. We propose the following list of criteria to incentivise:

- **E-motor vs engine power ratio of at least 3:** The power of the electric motor must be at least three times that of the combustion engine. This ensures that the vehicle can operate in pure electric mode under all conditions. This also ensures that the combustion engine is not too powerful, as the real-world emissions of PHEVs are partly correlated with engine power.
- **Fast charging capability:** The vehicle must have fast-charging capability and be compatible with DC charging above 100 kW. This ensures that drivers are incentivised to charge regularly using fast charging during longer trips or when conventional charging is unavailable at home or work.
- **Maximum fuel tank size of 15 litres.** Without this limitation, some drivers could use the vehicle extensively in combustion mode without strong incentives to recharge. Limiting the tank size ensures that drivers are incentivised to charge. With a fuel tank capacity of 15 litres and a fuel consumption rate of 6.7L/100km, an EREV could travel 220 km in combustion mode, which is equivalent to the electric range.
- **Real-world electric range of at least 200 km by 2030:** Although an increased range does not necessarily lead to lower emissions, combining a minimum range of 200 km with other stringent design criteria should boost the likelihood of achieving a higher real-world UF. The vehicle should drive fully in 0 g/km mode when the battery is not empty (EV priority mode). Best-in-class models should have at least 300 km electric range. An electric range above 200 km would be sufficient to drive in electric mode over one week assuming a daily mileage of 30 km.

Section 5

PHEV tax incentives often favour the label over actual performance

Governments should reward actual low emissions vehicles, not technology labels. The updated UF helps differentiate well designed PHEVs from poorly designed ones, but many tax systems still do not reflect that difference.

The UF corrections encourage manufacturers to develop PHEVs with longer electric ranges and lower real-world emissions. However, demand also determines which models succeed, and taxation plays a key role in influencing buyers' choices.

Current PHEV incentives are often based on labels or weak minimum criteria, meaning better performing models are not always rewarded more than higher emitting ones. This is particularly important because companies are the main buyers of PHEVs and, in many countries, PHEVs receive similar tax treatment to BEVs. Where fiscal benefits depend on official CO₂ values, correcting the UF can therefore directly affect which PHEVs qualify for preferential treatment. By linking tax support more closely to real CO₂ values and electric range, governments could provide stronger incentives for the best-performing PHEVs.

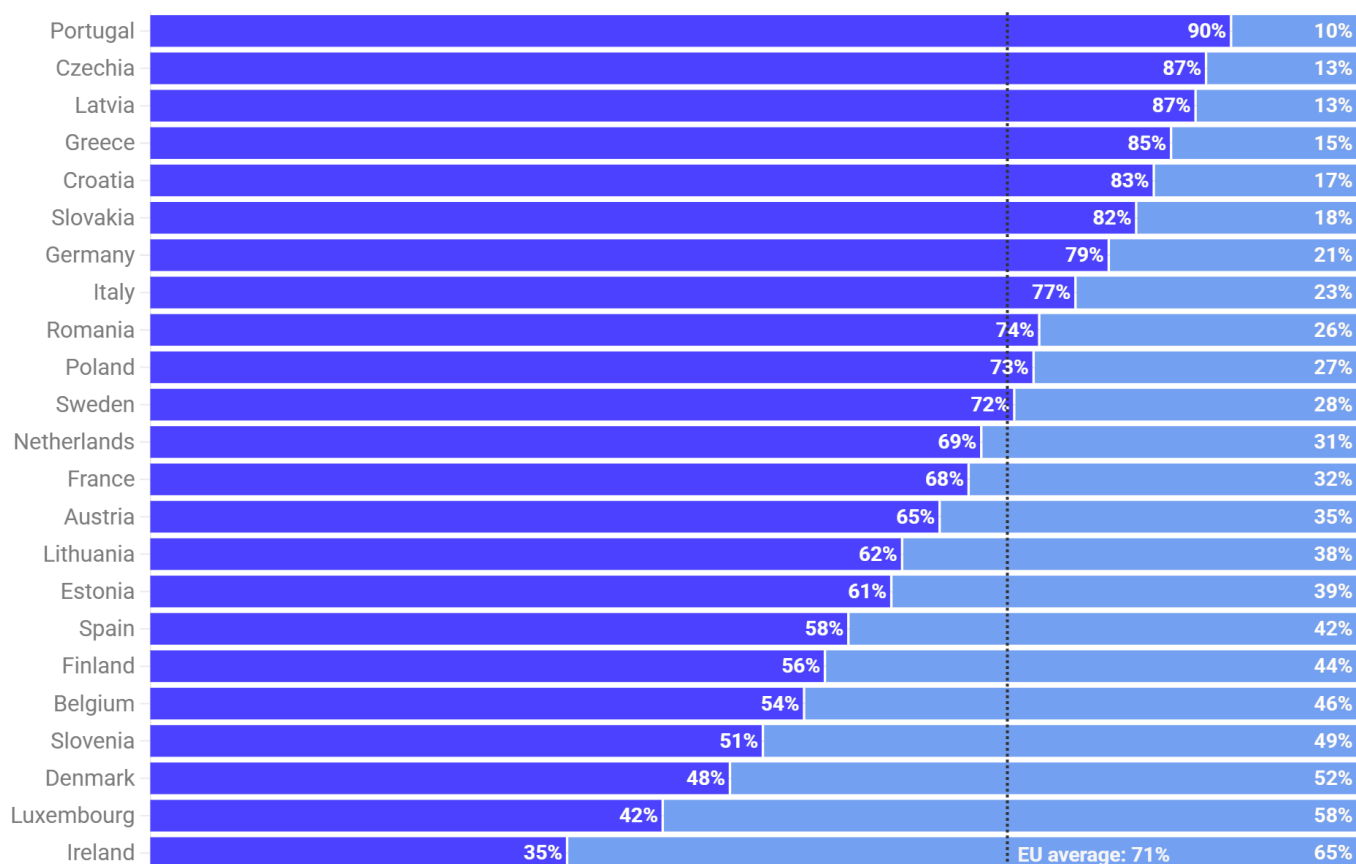
5.1. Corporate fleets dominate the PHEV market

Companies are the main buyers of PHEVs in Europe. In the first half of 2026, they accounted for **71% of new PHEV registrations in the EU**, well above their **58% share of the overall new-car market**.

Corporate registrations dominate PHEV sales across most Member States. The highest shares are found in Portugal, Czechia and Latvia, where companies register almost nine in ten PHEVs, while Denmark, Luxembourg and Ireland sit at the lower end of the ranking. Among the largest PHEV markets, companies account for more than seven in ten registrations in Germany, Italy, Poland and Sweden, and still represent a majority in France, the Netherlands and Spain.

PHEVs are disproportionately registered by companies

■ PHEV corporate market share ■ PHEV private market share



Source: T&E analysis of Dataforce H1 2026 registrations.



5.2. The current tax treatment of PHEVs across Europe

PHEV tax treatment varies considerably across Europe, with Member States using different combinations of CO₂ emissions, electric range, powertrain classification and other vehicle characteristics to determine eligibility for tax benefits. The detailed tax treatment for each Member State is provided in [Annex II](#).

To compare the different approaches, we classify each tax measure according to the main criterion determining eligibility for preferential tax treatment:

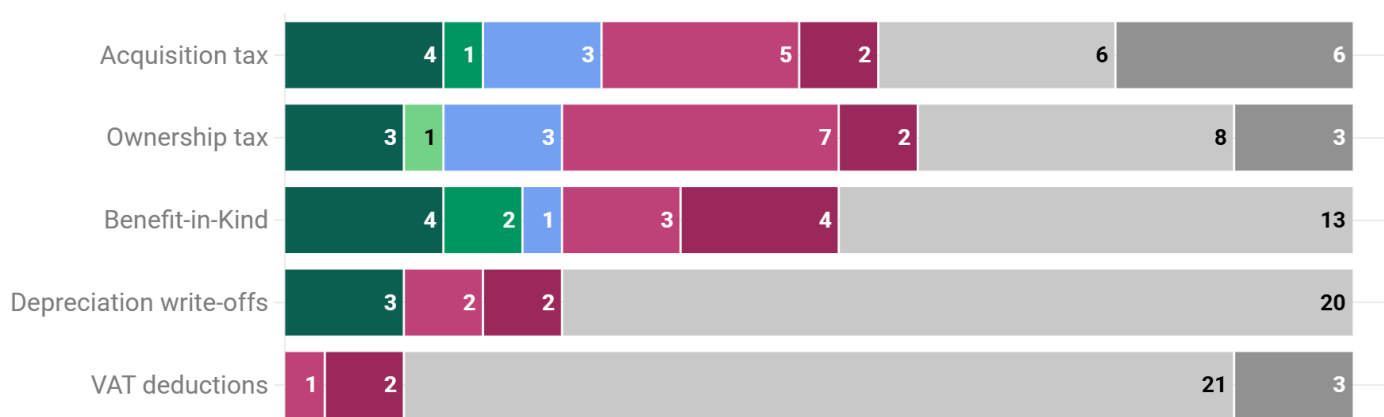
- **CO₂ (≤50 g/km):** Preferential treatment depends on meeting a maximum CO₂ threshold of 50 gCO₂/km or stricter.
- **CO₂ (>50 g/km):** Preferential treatment depends on a CO₂ threshold above 50 gCO₂/km.
- **Continuous CO₂-based:** The tax amount varies according to the vehicle's official WLTP CO₂ emissions, rather than being determined by a single eligibility threshold.

- **CO₂ + range:** The PHEV must meet both a maximum CO₂ threshold and a minimum electric range to qualify for preferential treatment.
- **Range only:** Preferential treatment depends on a minimum electric range, without an additional CO₂ requirement.
- **Powertrain label:** The PHEV receives preferential treatment based on its powertrain classification or PHEV status, rather than on a specific CO₂ or electric-range requirement.
- **Other variables:** The tax treatment is based on other vehicle characteristics, such as engine power (kW), engine capacity (cc), vehicle price, weight or a fixed rate. There are no reduced rates for PHEVs.
- **No tax:** There is no tax under the instrument considered.

Accurate CO₂ values are essential for effective PHEV taxation

Which criteria determine whether a PHEV qualifies for tax deductions across European Member States?

■ CO₂ (≤50 g/km) ■ CO₂ + range ■ Range only ■ Continuous CO₂-based ■ CO₂ (>50 g/km) ■ Powertrain label
 ■ Other variables ■ No tax



Source: T&E analysis based on the Good Tax Guide (2026).



An assessment of national fiscal policies conducted by T&E reveals that PHEVs receive substantial tax advantages in spite of their high real-world emissions: **24 out of 27 Member States provide PHEVs with preferential tax treatment through at least one tax measure but only 12 use a ≤50 gCO₂/km threshold or stricter.** Some other relevant information shows that:

- **21 Member States use CO₂ emissions directly** in at least one of the five tax instruments analysed, meaning that a correction of PHEV official WLTP CO₂ values can directly affect their tax treatment.
- At least **6 Member States** - Finland, Italy, Latvia, Malta, Portugal and Slovakia - **grant preferential treatment based on a PHEV label** for at least one tax instrument, without the tax rule itself specifying both a CO₂ and/or electric-range performance requirement.

- **Only Portugal and Spain combine a CO₂ threshold with a minimum electric range** for PHEV tax treatment. Germany allows either criterion (emissions and/or electric range). The electric range thresholds vary from 15 km in Spain to 80 km in Germany.
- **12 Member States apply a 50 gCO₂/km threshold** or stricter in at least one tax measure: Austria, Czechia, Denmark, France, Germany, Greece, Ireland, Latvia, Poland, Slovenia, Spain and Sweden.
- **Benefit-in-Kind taxation is one of the main tools used to favour PHEVs:** 13 Member States apply a reduced rate, discount or specific preferential treatment to qualifying PHEVs.
- **VAT and Depreciation rules rarely reward better-performing PHEVs.** Only a few countries link these benefits to CO₂ performance, while others grant advantages simply based on PHEV status.

Are governments diluting the impact of the 2025-26 UF update?

Following the 2025-26 UF update, few governments introduced tax reforms to grant extended flexibility and tax relief to PHEVs to counter the increase in official CO₂ emission values. Although manufacturers are demonstrating a commitment to enhancing vehicle technology to mitigate the increase of official emissions, some national authorities are providing unnecessary regulatory leeway. Such fiscal measures effectively undermine the science-based purpose of the UF correction and hinder progress toward real-world performance alignment:

- **Austria is increasing the PHEV CO₂ deduction** for ownership tax in both 2026 and 2028.
- **Portugal has increased the PHEV CO₂ eligibility threshold** for preferential tax treatment from 50 gCO₂/km to 80 gCO₂/km in both its registration tax and company-car tax.
- **Belgium raised the CO₂ threshold** for classifying PHEVs as “false hybrids” for benefit-in-kind taxation from 50 to 75 gCO₂/km.

5.3. PHEVs often receive similar tax treatment to BEVs

In most EU countries, companies face very similar taxation when choosing a plug-in hybrid instead of a battery electric car. T&E's Good Tax Guide shows that in **19 of the 27 Member States, the annual tax difference between a corporate PHEV and a BEV is almost the same or below €1,000**. These countries account for **almost 90% of EU corporate PHEV registrations**.

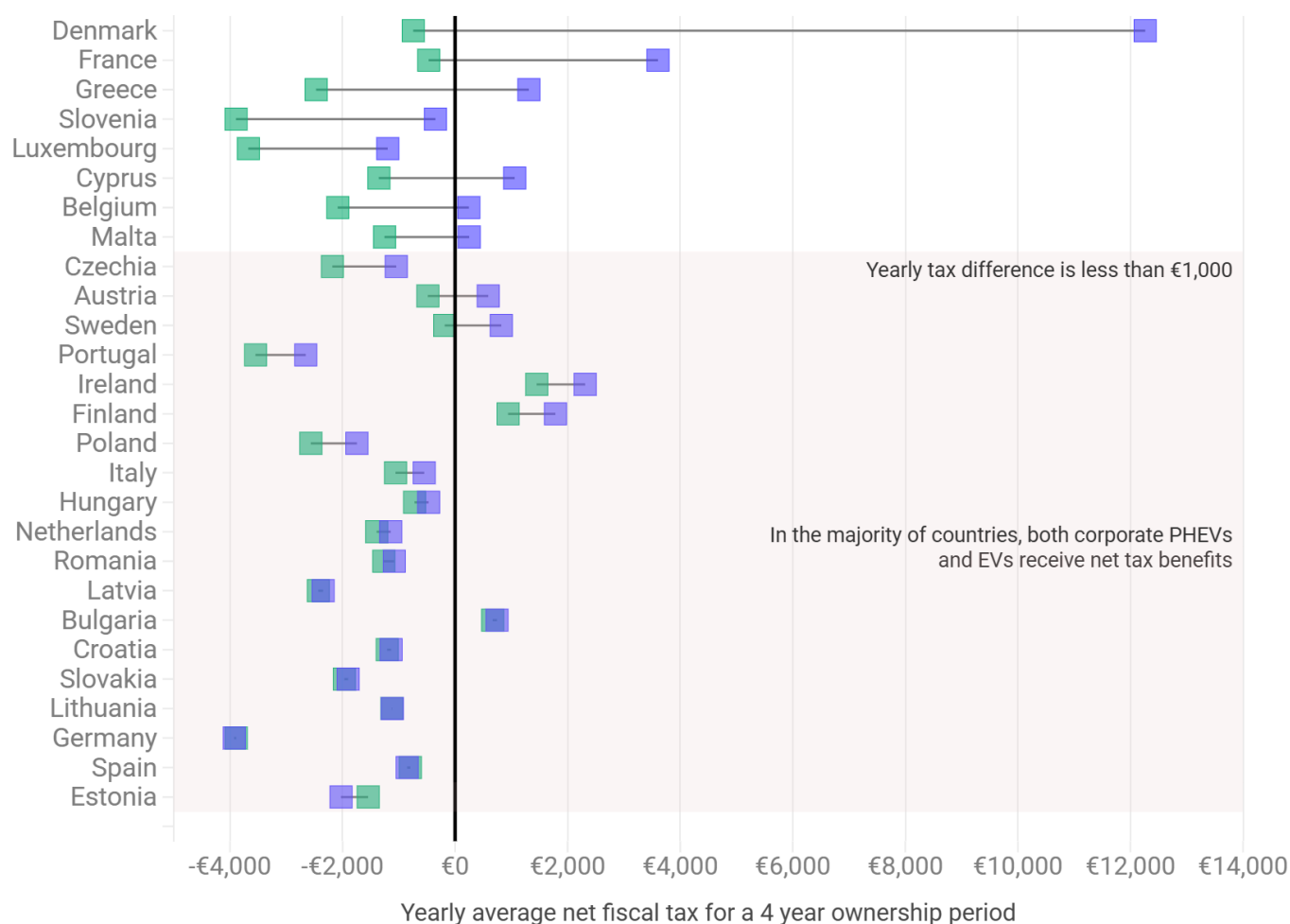
In major car markets such as **Germany, Italy and Spain**, the tax gap between the two powertrains is particularly small. In many Member States, PHEVs also receive a **net tax benefit**. In Estonia, the tax system even provides a slightly larger net benefit for a PHEV than for a BEV.

Only a small number of countries provide a substantially stronger tax advantage for BEVs. The largest gap is found in **Denmark**, at more than €12,000 per year, followed by **France**, **Greece** and **Slovenia**, where the difference is around €3,500 per year. These countries represent only a limited share of EU corporate PHEV registrations.

This limited tax differentiation weakens the incentive for companies to switch fully to zero-emission vehicles. It also means that PHEVs can receive tax treatment close to that of BEVs despite their significantly higher real-world emissions. **Company-car taxation should therefore provide a clear advantage to zero-emission vehicles, while PHEVs should be taxed according to their real-world emissions performance.**

Almost 90% of corporate PHEVs are registered in countries that tax them almost like pure electric cars

■ Company owning an electric car ■ Company owning a plug-in-hybrid car



Source: T&E Good Tax Guide (2026)

Note: Representative PHEV compact SUV (55 gCO₂/km). Total net tax from the company perspective. It includes acquisition tax, ownership tax, BiK employer and the benefits: VAT deductions, depreciation write-offs and purchase subsidies.



5.4. Current PHEV taxation can limit future tax revenues under UF updates

The 11.2026/7 UF update will increase the official CO₂ emissions of PHEVs that do not improve their real-world electric driving performance. The following graph compares the same Volkswagen Tiguan PHEV under the 2025/6 and 11.2026/8 UFs. Assuming no improvement in vehicle performance, its official CO₂ emissions rise from 36 to 83 gCO₂/km, allowing us to measure how national tax systems respond to the UF correction.

The results vary significantly across Member States. **Sweden shows the strongest response**, with the four-year tax burden increasing by around €6,550, while France, Belgium and Poland also increase taxation to a lesser extent. By contrast, **Germany, Italy and Spain show no change at all**, while the Netherlands changes only marginally.

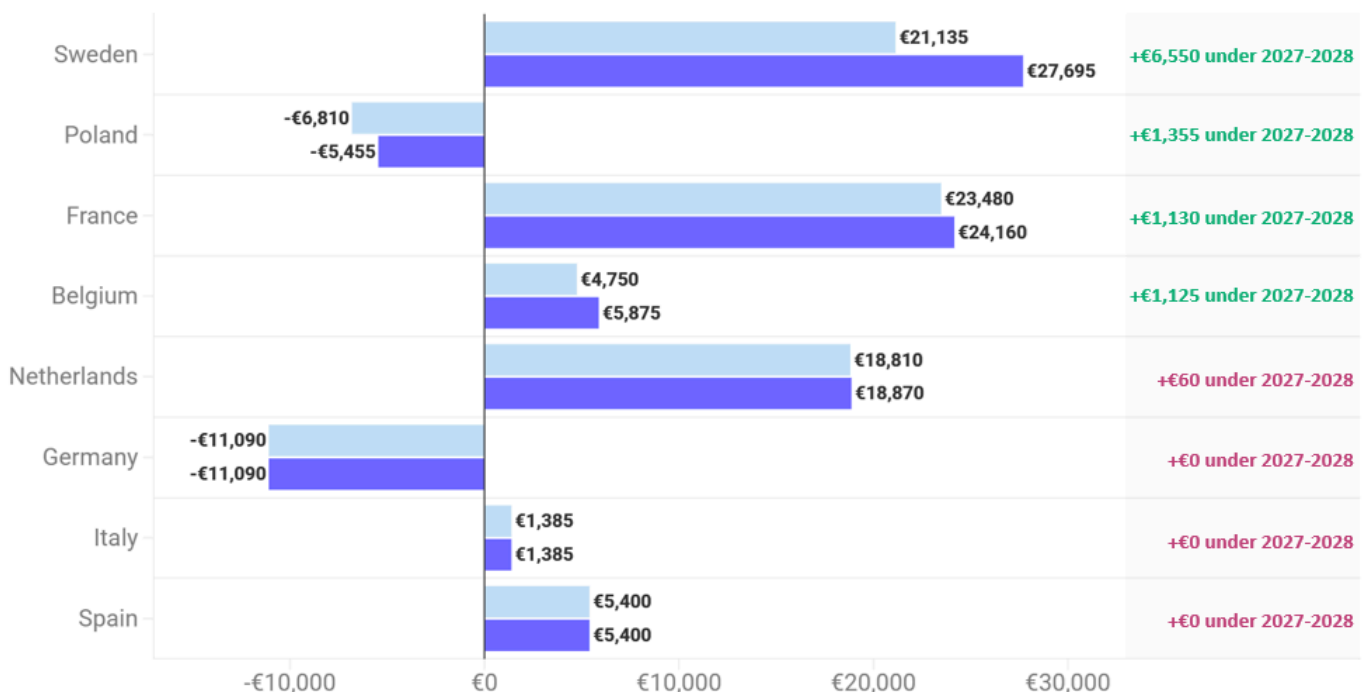
This means that in several of Europe's largest PHEV markets, the corrected UF alone will not be enough to align taxation with higher official emissions. **Without corresponding tax reform, governments risk continuing to subsidise high-emitting PHEVs and forgoing the additional tax revenues that higher official CO₂ values should generate.**



Major car markets are failing to reflect higher PHEV emissions, while some countries show the way

Total tax net taxes over four years of corporate ownership for the same PHEV with:

- emissions under 2025-2026 UF
- emissions under 2027-2028 UF



Source: Good Tax Guide analysis (2026).

Note: Referenced model is the Volkswagen Tiguan. Under 25-26 UF: 36 gCO₂/km and 119 km range. Under 27-28 UF without improvement: 63 gCO₂/km. The countries selected are the largest PHEV markets. Total net tax from the government perspective. It includes acquisition tax, ownership tax, BiK employee, BiK employer and the benefits: VAT deductions, depreciation write-offs and purchase subsidies.



Annex I

Analysis of real-world emissions data

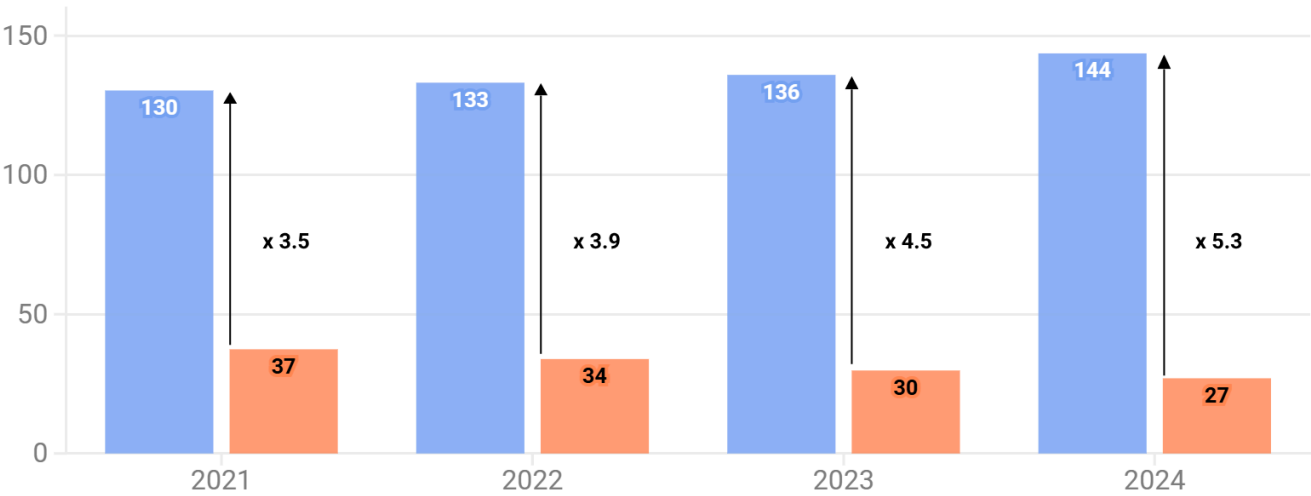
Using a non-weighted average, real-world emissions were 6.1 times higher than official emissions for models registered in 2024. For these models, our analysis shows that this ratio would be reduced to 2.3 in 2026 after the first correction step.

OBFCM data are broadly representative of new car registrations. However, the data can contain biases as some models and brands might be over or under-represented in specific years (BMW in 2024 for example). To reduce biases, we present here the average OBFCM quantities weighted by EEA registrations numbers, for models with enough entries in the OBFCM data to have a representative sample. We still report the arithmetic averages of OBFCM data in the main text, as these include all reported models and follow the methodology chosen by the EEA.

When weighting the average emissions by registrations numbers, the gap reduces slightly to a 5.3 factor in 2024, but the trend of growing gap is still present.

Analysis of real-world vs. WLTP emissions by registration year

Real-world emissions WLTP emissions



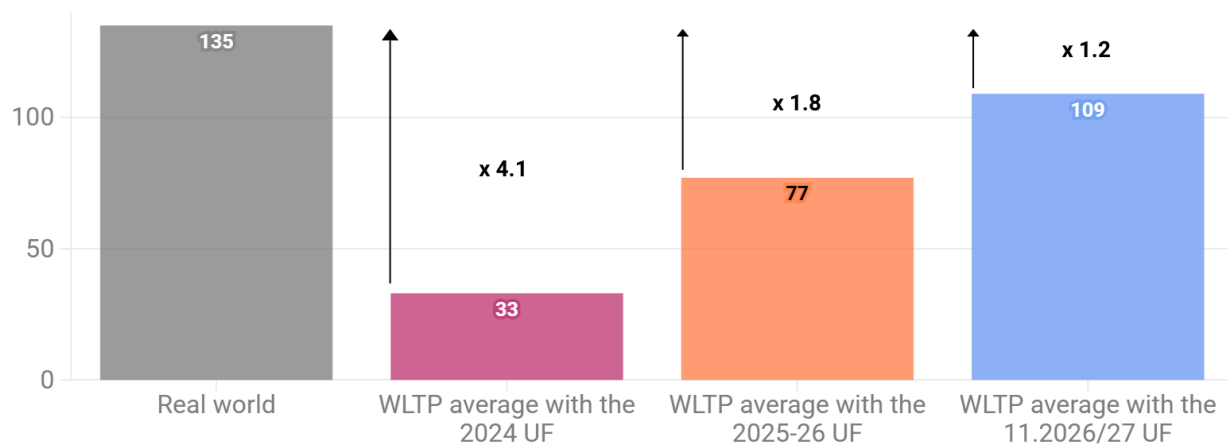
Source: T&E analysis of 2021-22-23-24 OBFCM data collected by the European Environmental Agency • WLTP emissions are based on the utility factor that was applicable before 2025. Emissions figures have been weighted by EEA registrations data.



Looking at models registered between 2021 and 2024, and applying a weighted average based on sales, the official real-world emissions would be 24% higher than official CO2 emissions when the planned UF correction in November 2026 is applied.

Comparison of different utility factor scenarios with real-world emissions based on PHEVs sold in 2021/22/23/24

PHEV emissions (gCO₂/km)



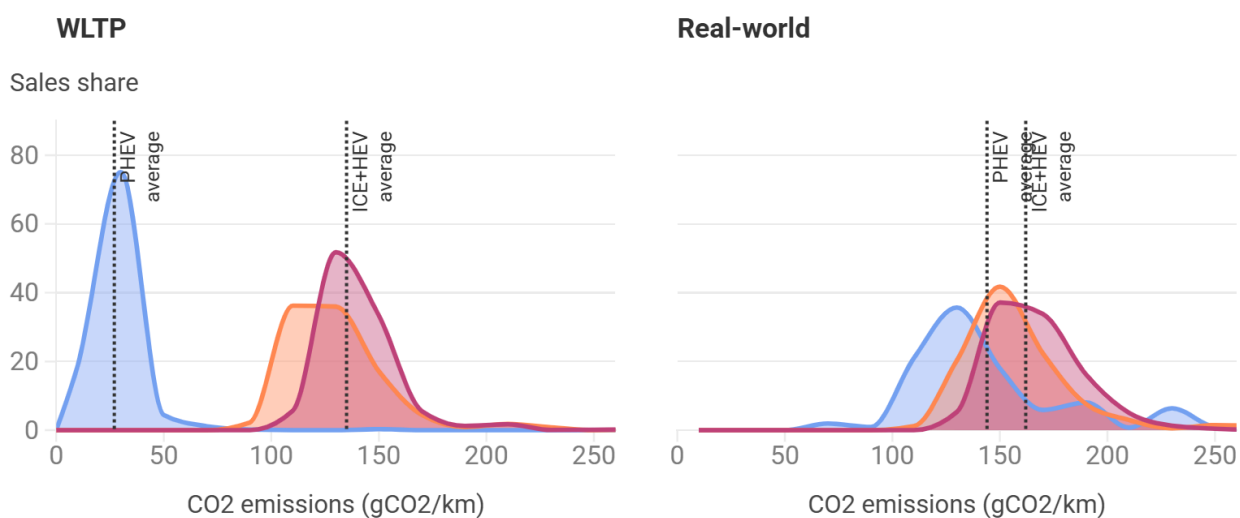
Source: T&E analysis of 2021-22-23-24 OBFCM data collected by the EEA
Average emissions are weighted by EEA registrations data.



The gap between WLTP emissions and real-world performance becomes evident when plotting the share of registered cars against the CO₂ emitted per km. WLTP test conditions see the PHEVs clearly grouped at low-emissions, while in real-world conditions they perform much closer to traditional combustion cars.

Real-world PHEV emissions align far closer to ICE vehicles than official figures suggest

■ PHEV ■ HEV ■ ICE



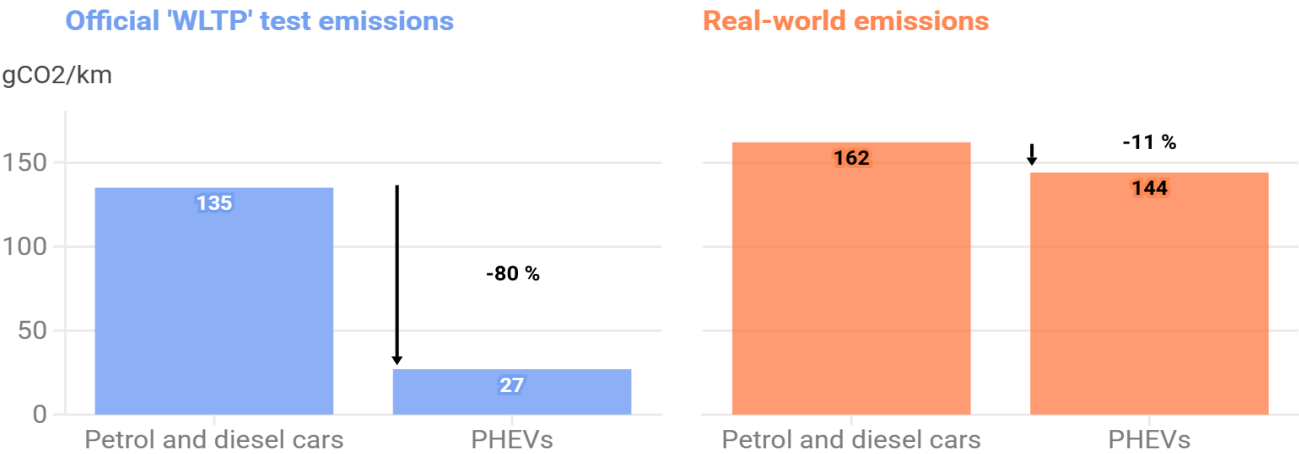
Source: T&E analysis of 2024 OBFCM data collected by the EEA, EEA registrations data



When weighted by registrations, the real-world emissions of PHEVs registered in 2024 are just 11% lower than the ones of conventional ICE and HEV counterparts.

PHEVs emit almost as much CO2 as petrol and diesel cars

Average emissions of PHEVs versus petrol and diesel in both official test and real-world



Source: T&E analysis of 2024 OBFCM data collected by the EEA • Petrol and diesel cars have been grouped together, including both conventional hybrid electric vehicles (HEVs) and combustion vehicles (ICEs). WLTP emissions were calculated using the utility factor that was applicable before 2025.

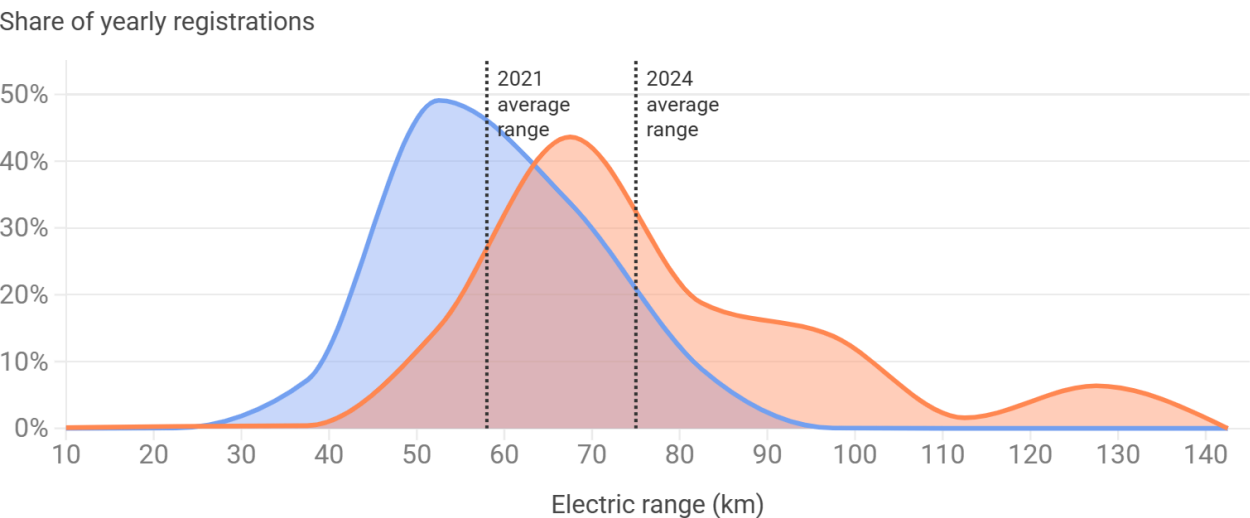
Figures are weighted by EEA registrations data.



At the same time, the PHEV market has shifted significantly to longer-range cars in between 2021 and 2024, with a growth of 29% of the average range.

The market shifted towards PHEVs with longer range

2021 2024



Source: T&E analysis of OBFCM data from the EEA, EEA registrations data

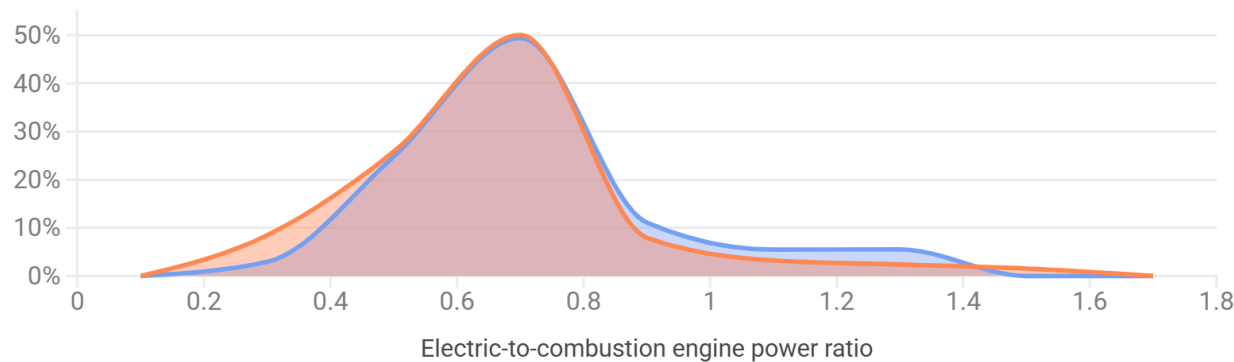


However, the average electric-to-combustion engine power ratio remained almost unchanged during the same period.

The average power ratio has been roughly constant between 2021 and 2024

2021 2024

Share of yearly registrations



Source: T&E analysis of OBFCM data from the EEA, EEA registrations data

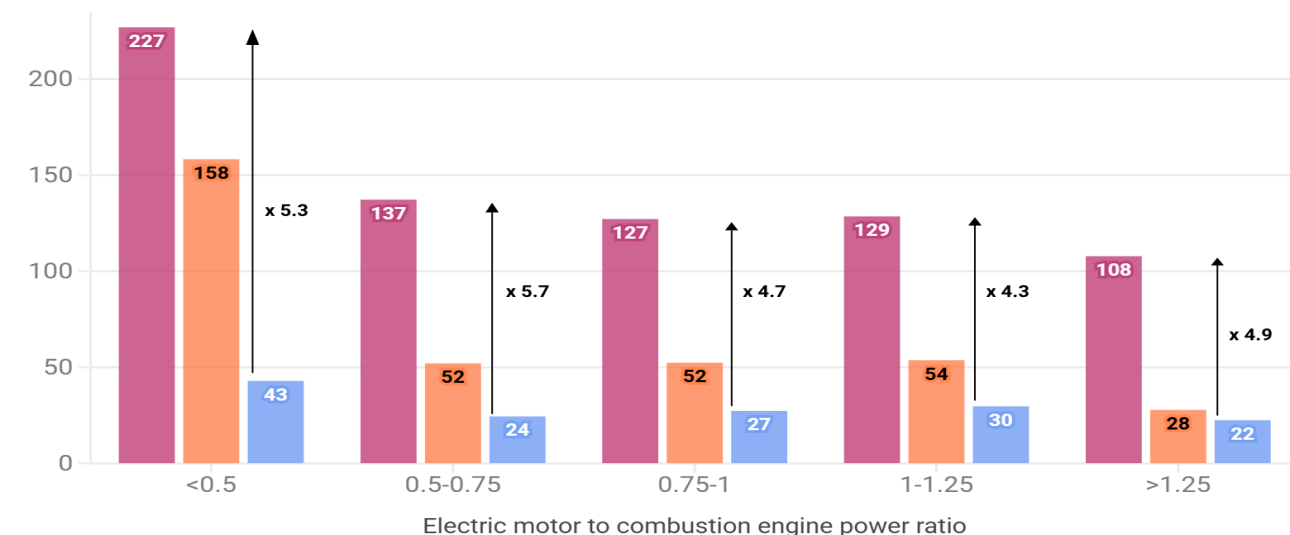


The 2024 UF underestimates the real-world emissions of high-power-ratio PHEVs by a factor 5. This gap would be reduced to a factor 1.2 by the 11.2026/7 update.

Emissions are strongly influenced by power ratio

Real-world emissions Emissions in electric mode WLTP emissions

Emissions (gCO₂/km)



Source: T&E analysis of 2024 OBFCM data published by the EEA. Average values are weighted by EEA registrations data. WLTP emissions refer to the 2024 UF.



PHEV fuel costs

The yearly running costs of PHEV are computed assuming an average mileage of 12,730 km. Petrol and diesel prices are EU27 averages from March 1st 2026 to date and they capture the increase in average fuel prices due to the conflict in Iran and the Hormuz Strait crisis. They amount to 1.86 €/l and 1.94 €/l respectively.

We used an electricity price of 0.343 €/kWh (worst-case estimate for September 2026). We started from a baseline of 0.288 €/kWh (EU average consumer price, H1 2025, Eurostat) and applied a +19% increase. This is half of the +38% increase that we expect in the mid-term if the crisis is prolonged. This mid-term impact is calibrated based on the 2022 energy crisis when wholesale prices spiked sharply, but consumer prices rose more slowly due to delayed contract renewals and pricing mechanisms. The short term assumption of +19% is therefore an upper bound as consumers may not yet be affected, given the usual lag between gas and consumer electricity prices.

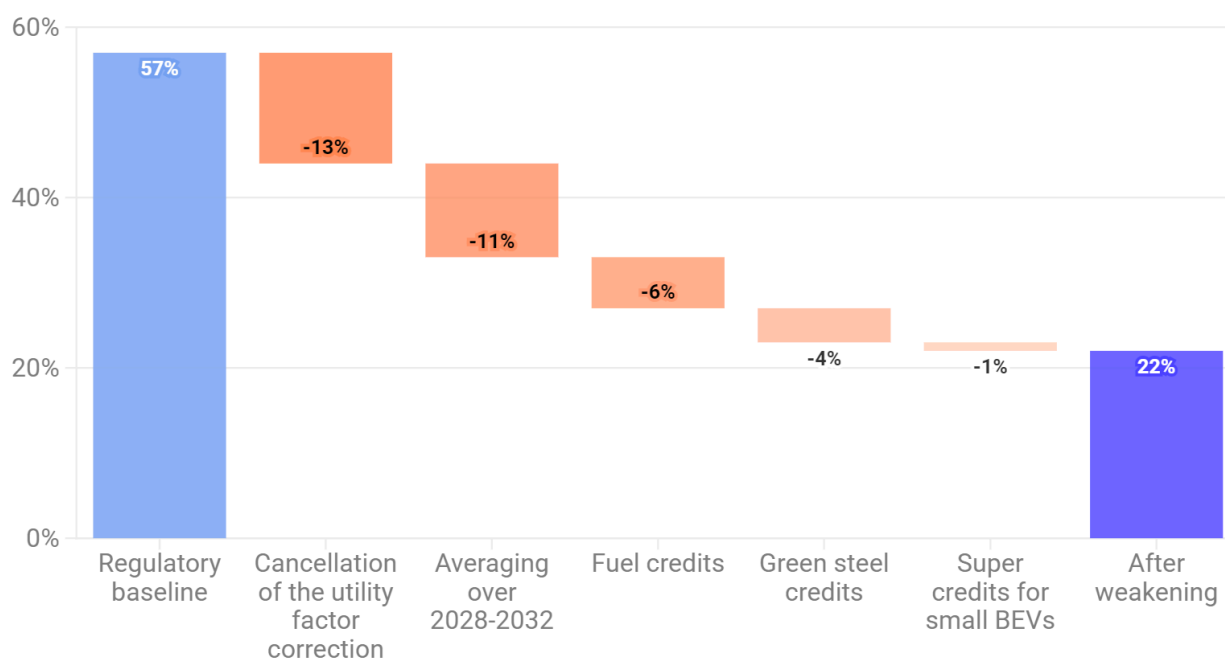
Freezing the UF has the biggest impact on BEV trajectory

The UF freeze has the largest impact on the ambition of the car CO2 regulation and the minimum level of BEVs that carmakers would have to sell to comply. This is shown in T&E analysis of EPP rapporteur Massimiliano Salini proposal for the 2026 review of the car CO2 regulation below. The Salini proposal has been described in the October 2026 edition of [T&E's EV progress report](#).

Salini's proposal could cut the BEV sales share by 35%p in 2030

Reduction in BEV market share in 2030 compared to current target

BEV share in 2030



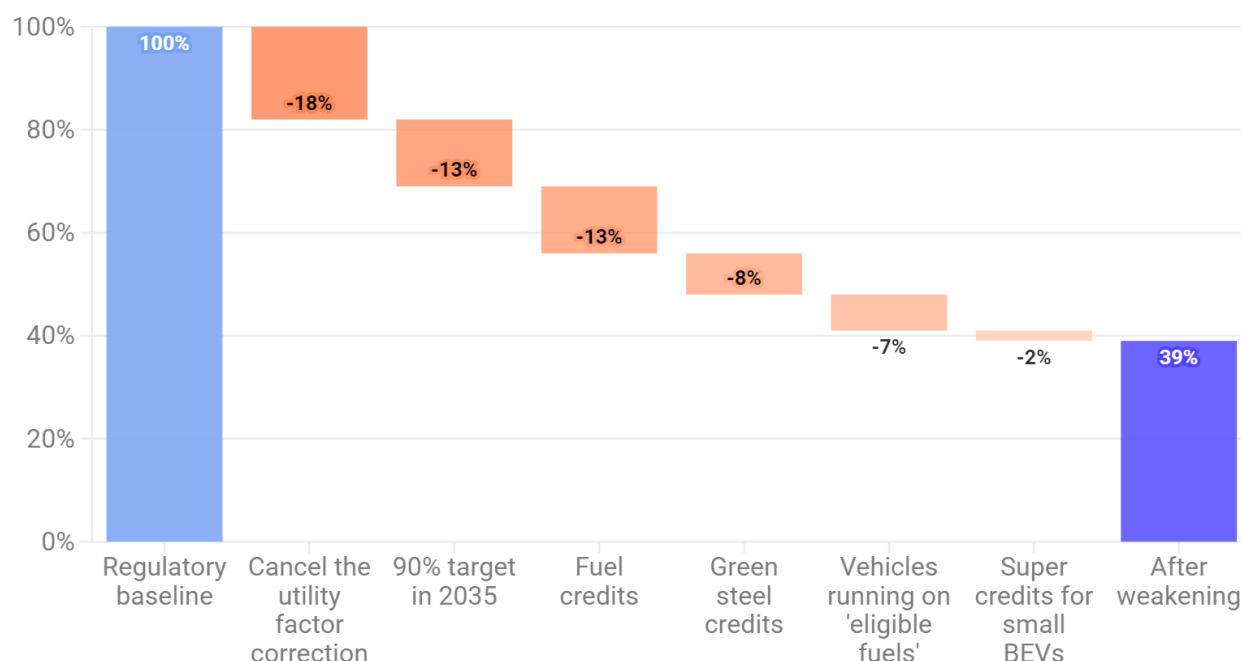
Source: T&E modelling



Salini's proposal could cut BEV sales by 60% in 2035

Reduction in BEV market share in 2035 compared to current target

BEV share in 2035



Source: T&E modelling



Analysis of PHEV models emissions

In section 3, we have analysed 20 models among the top 30 best-selling models of 2025. These models were available in the 2023-2025 period before the UF update and before the models had a significant battery update. Some manufacturers introduced a variant with an upgraded battery before the UF update in 2025, so these variants were excluded from the baseline before the UF update.

2030 emission forecast

In order to project emissions to 2030, we have used the corrected 11.2026/7 UF to recalculate the emissions of PHEV models. To provide a conservative estimate of the range required to achieve 50 gCO₂/km, we assumed that no improvements in efficiency would reduce emissions in combustion mode (charge-sustaining, CS mode). Therefore, the electric range was optimised to achieve the 50 gCO₂/km target. Using data from the European Environment Agency's 2021 and 2023 registration datasets, we carried out a linear regression to derive a relationship between electric range and CS emissions. On average, we observe that CS emissions increase by 0.4 gCO₂/km for every 10 km increase in electric range. This is due to the increased battery mass required to increase the electric range. This correlation is used to derive the change in CS emissions in 2030 when the range varies.

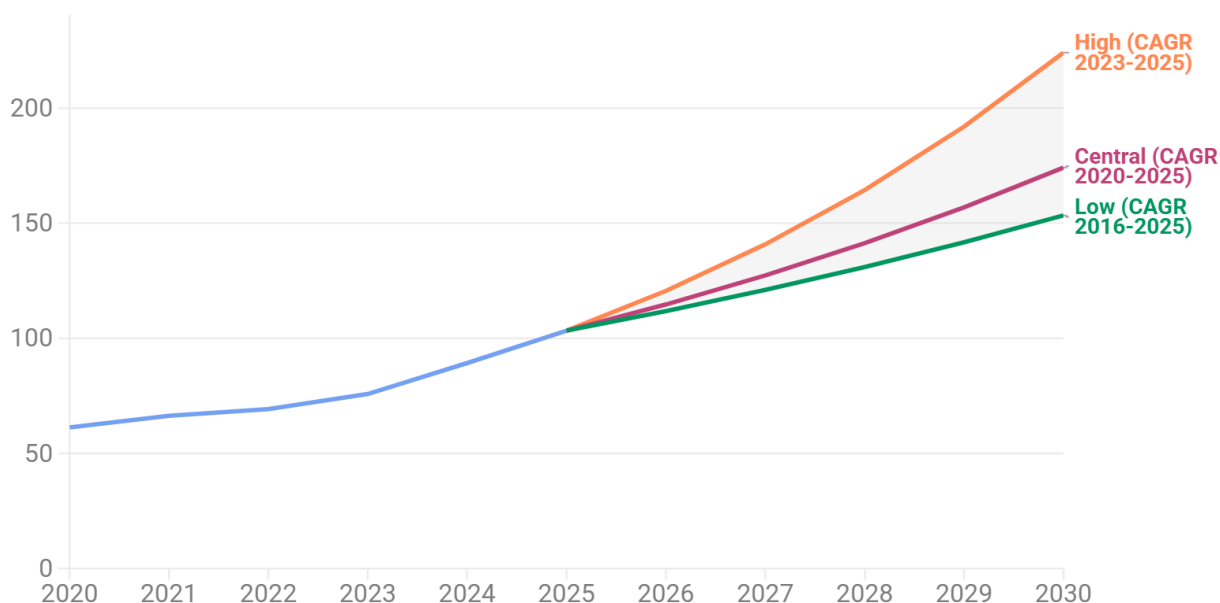
The average electric range of new models should exceed 150 km by 2030

Based on the observed growth rate between 2020 and 2025, the electric range of new models launched in 2030 is expected to reach 174 km in our central forecast. However, using a longer reference period (2016–2025), which includes years of slow growth, would result in an electric range of 153 km. This could be the consequence if the next UF correction were cancelled, meaning that carmakers would not need to innovate in order to achieve a longer range. Conversely, the recent trend between 2023 and 2025 shows that carmakers have upgraded their models as a result of the UF correction. If this trend continues and carmakers seek technical innovations, the electric range of new models could well exceed 200 km.

PHEV electric range to exceed 150 km by 2030

If recent trends continue, the electric range of new models could reach more than 200 km

PHEV electric range (km)



Source: T&E analysis of new PHEV models/variants; Autovista • Forecast based on the compound annual growth rate (CAGR) for different reference periods



Vehicles characteristics and forecast results

Scenarios	Year	Range (km)	CS emissions (gCO2/km)	Average emissions (11.26/7 UF)	Average emissions (2025/6 UF)	Average emissions (2024 UF)
Average new models	2025	103	166	90	55	15
Average new models	2030 - Central forecast	174	169	63	31	7
Average new models	2030 - Low forecast	153	168	70	36	8
Average new models	2030 - High	224	171	50	22	4

	forecast					
Segment C - Volkswagen Tiguan	2025	119	125	63	36	9
	To achieve 50 gCO2/km in 2030	165	126	50	25	6
Segment C - Toyota C-HR	2025	66	109	73	52	19
	To achieve 50 gCO2/km in 2030	139	111	50	27	7
Segment D - Volvo XC60	2025	83	162	99	65	21
	To achieve 50 gCO2/km in 2030	220	167	50	23	4
Segment D - Toyota RAV4	2025	100	132	73	45	13
	To achieve 50 gCO2/km in 2030	176	134	50	24	5
Segment E - BMW 5 Series	2025	105	147	80	48	13
	To achieve 50 gCO2/km in 2030	199	150	50	23	5
Segment E - Mercedes E-class (145 kW)	2025	115	134	69	40	11
	To achieve 50 gCO2/km in 2030	179	136	50	24	5

Annex II

How PHEVs are taxed across Europe and why accurate CO₂ values matter

Country	Acquisition tax	Ownership tax	Benefit-in-Kind	VAT deductions	Depreciation write-offs
Austria	Exemption up to 91 gCO₂/km	Exemption up to 24 gCO₂/km	Based on WLTP emissions	Percentage applied to price	Only allowed up to < €40,000
Belgium	Based on kW	Based on cylinder capacity (l)	Reduced rate up to 55 gCO₂/km	Percentage applied to price	Only allowed for BEVs
Bulgaria	Fixed % applied to price	Based on kW	Fixed % applied to price	Percentage applied to price	Percentage applied to price
Croatia	Exemption up to 94 gCO₂/km	Based on kW	Fixed % applied to price	Percentage applied to price	Only allowed up to < €54,000
Cyprus	<i>No acquisition tax</i>	Based on WLTP emissions	Based on price	No VAT deduction	Percentage applied to price
Czechia	Flat rate	<i>No ownership tax</i>	Reduced rate up to 50 gCO₂/km	Percentage applied to price	Only allowed up to < €82,000
Denmark	Reduced rate up to 50 gCO₂/km	Reduced rate up to 57 gCO₂/km	Reduced rate up to 57 gCO₂/km	Percentage applied to price	Percentage applied to price
Estonia	Based on WLTP emissions	Exemption up to 117 gCO₂/km	Based on kW	Percentage applied to price	Percentage applied to price
Finland	Based on WLTP emissions	Reduced rate up to 104 gCO₂/km	<i>Reduced rate PHEV label</i>	Percentage applied to price	Percentage applied to price
France	Exemption up to 107 gCO₂/km	Based on WLTP emissions	Fixed % applied to price	Percentage applied to price	Reduced rate up to 50 gCO₂/km
Germany	<i>No acquisition tax</i>	Exemption up to 95 gCO₂/km	PHEV discount: <50 gCO₂/km >80km range	Percentage applied to price	Percentage applied to price
Greece	Reduced rate up to 50 gCO₂/km	Exemption up to 122 gCO₂/km	Reduced rate up to 50 gCO₂/km	No VAT deduction	Reduced rate up to 50 gCO₂/km
Hungary	Based on kW	Based on kW	Based on kW	Percentage applied to price	Percentage applied to price

Country	Acquisition tax	Ownership tax	Benefit-in-Kind	VAT deductions	Depreciation write-offs
Ireland	Reduced rate up to 50 gCO₂/km	Reduced rate up to 50 gCO₂/km	Reduced rate up to 59 gCO₂/km	Only allowed if car <140 gCO₂/km	Reduced rate up to 140 gCO₂/km
Italy	Based on kW	<i>Exemption PHEV label</i>	<i>Reduced rate PHEV label</i>	Percentage applied to price	Only allowed up to < €18,000
Latvia	<i>No acquisition tax</i>	Exemption up to 50 gCO₂/km	<i>Reduced rate PHEV label</i>	Only allowed if car < €90,750	Only allowed if car < €90,750
Lithuania	Exemption up to 130 gCO₂/km	<i>No ownership tax</i>	Fixed % applied to price	Only allowed if PHEV < €50,000	Reduced rate up to 130 gCO₂/km
Luxembourg	<i>No acquisition tax</i>	Based on WLTP emissions	Fixed % applied to price. ZEV discount based on efficiency	Percentage applied to price	Percentage applied to price
Malta	<i>Exemption PHEV label</i>	PHEV exemption >50km range	Based on the value of the car	No VAT deduction	Percentage applied to price
Netherlands	Based on WLTP emissions	Based on weight (kg)	Fixed % applied to price	Percentage applied to price	Percentage applied to price
Poland	Based on engine capacity (cc)	<i>No ownership tax</i>	Based on kW	Percentage applied to price	Reduced rate up to 50 gCO₂/km
Portugal	Reduced rate: <80 gCO₂/km >50km range	Based on engine capacity (cc) + reduced rate up to 140 gCO₂/km	Reduced rate: <80 gCO₂/km >50km range	Only allowed if PHEV < €62,500	<i>Price cap benefit PHEV label</i>
Romania	<i>No acquisition tax</i>	Based on engine capacity (cc)	Fixed % applied to price	Percentage applied to price	Only allowed up to < €21,200
Slovakia	Based on kW + reduced rate PHEV label	Based on cc + discount PHEV label	<i>Reduced rate PHEV label</i>	Percentage applied to price	<i>Speed year benefit PHEV label</i>
Slovenia	Reduced rate up to 50 gCO₂/km	Based on engine capacity (cc)	Fixed % applied to price	Only allowed for BEVs	Percentage applied to price
Spain	Exemption up to 120 gCO₂/km	Based on fiscal horsepower (hp)	Reduced rate: 50 gCO₂/km >15 km range	Percentage applied to price	Percentage applied to price
Sweden	<i>No acquisition tax</i>	Reduced rate up to 75 gCO₂/km	Reduced rate up to 50 gCO₂/km	Percentage applied to price	Percentage applied to price

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