

How carmakers' 'relief measures' could kill the 2025 car CO₂ target

Summary

In this short note, T&E has analysed the impact of the flexibilities [proposed](#) by ACEA for "compliance relief" for the EU's 2025 car CO₂ target: the 90% phase-in (i.e. 10% of the most polluting vehicles are excluded) and the 5-year average compliance period (carmakers' performance is assessed over 2025-2029 instead of annually).

The analysis shows that each flexibility alone significantly reduces the ambition level of the 2025 target and allows carmakers to keep EV sales at the a similar level to 2024 (and for some, like Mercedes-Benz and BMW, even below in the phase-in scenario), resulting in further stagnation and depriving drivers of more affordable EV options.

- **Phase-in (90% in 2025 and 95% in 2026):** could result in a total loss of up to 1.8 million BEV sales in 2025-2027 (including 260,000 affordable sub-€25k BEVs) which would be replaced by ICEs. These additional ICEs sold with the phase-in would emit 60 MtCO₂ over their lifetime. The impact after 2027 is more uncertain but carmakers have the option of keeping BEV sales to a minimum until 2029.
- **5 year average compliance period:** could result in a total loss of up to 2.6 million BEV sales in 2025-2027 (including 520,000 affordable BEVs). The additional ICEs sold with the phase-in would emit 85 MtCO₂ over their lifetime. After 2027, carmakers would have to overcomply to compensate for their lower emissions in 2025-26. However the additionality of this overcompliance in terms of BEV sales is uncertain as carmakers may gradually increase the EV sales in the late 2020s anyway in the ramp up to the 2030 target.

The European Commission should reject any attempt to weaken the car CO₂ regulation and firmly uphold the 2025 target. Carmakers are fully capable of meeting these targets, making the likelihood of fines minimal or non-existent. Rather than weakening the 2025 ambition, the EU should focus on measures to support EV demand, ensuring a smoother transition while maintaining the integrity of the climate goals.

1. Phase-in (90% in 2025 and 95% in 2026)

The 90% phase-in of the target in 2025 allows carmakers to exclude 10% of the most polluting vehicles from the emissions average. Because these vehicles are simply not counted towards reaching the target, this flexibility reduces the ambition of the 2025 target and can result in a significant increase in CO₂ emissions.



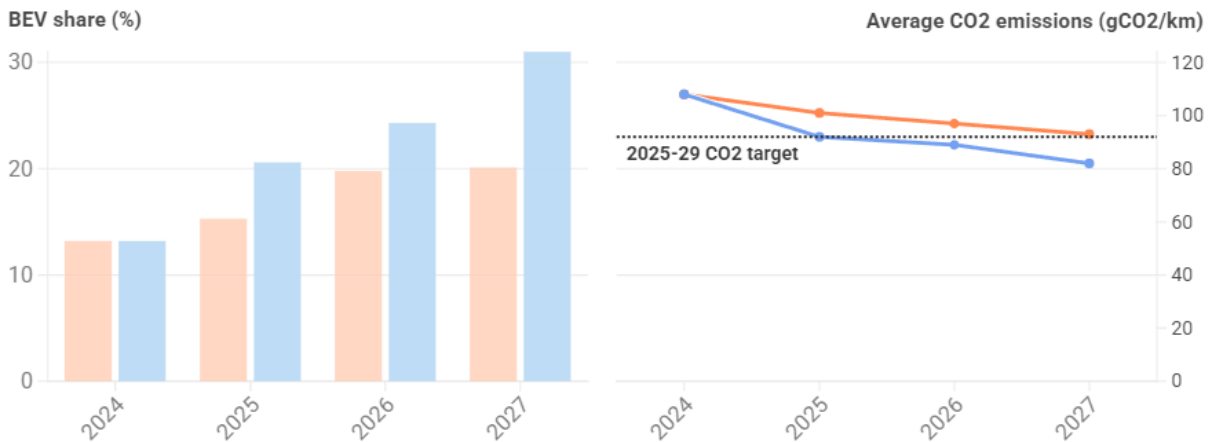
T&E analysis shows that with a 90% phase-in, carmakers would be able to comply with the 2025 target by selling only 2 percentage point more EVs compared to 2024. As a result, sales of EVs would stagnate.

A 90% phase-in would save around 8 gCO₂/km per carmaker, equivalent to a 9% bonus on the 2025 target. Introducing this flexibility would effectively reduce the emissions reduction target from 15% to just 7%. Looking at the major European carmakers, the phase-in could reduce their BEV sales by a third compared to a scenario where all carmakers meet their 2025 targets (maximum BEV potential scenario). With the phase-in, EU carmakers could therefore meet their 2025 targets by increasing their BEV sales by only 2 percentage points (%p) compared to 2024 while focusing on selling 19%p more hybrids. Carmakers could therefore limit BEV sales to 15% instead of increasing sales to reach the maximum potential of 21% if all European carmakers meet their 2025 CO₂ target without pooling. In 2026, a 95% phase-in would allow European carmakers to cap BEV sales at 20% instead of 22% if they do the minimum to meet the regulation without phase-in, or 25% in the maximum potential scenario, based on a market forecast purchased by T&E.

90% phase-in leads to lower BEV sales and higher carbon pollution

This could lead to the loss of up to 1.8 million BEVs over 2025-2027

CO₂ in the phase-in scenario CO₂ in the maximum BEV potential scenario BEV share in the phase-in scenario
BEV share in the maximum BEV potential scenario



Source: T&E analysis · Maximum BEV potential scenario where all carmakers meet their target in 2025 and then follow a market forecast from 2026. Phase-in scenario where all carmakers sell the minimum BEV to meet their target when a 90% phase-in is applied in 2025, and a 95% phase-in in 2026. Scope: European carmakers sales in the EU and Norway.



Overall, we estimate that the introduction of the phase-in could result in a cumulative loss of up to 1.8 million BEV sales in 2025-2027 compared to the maximum BEV potential scenario¹. The

¹ 1 million BEVs sold by European carmakers in 2024. In the maximum BEV potential scenario, BEV sales would increase up to 2.7 million in 2027.

additional ICEs sold in 2025-2027 would emit 60 MtCO₂ over their lifetime, close to the annual emissions of Ireland. Sales of affordable and mass-market models would also be delayed as a result of the phase-in, with 260,000 affordable models and 850,000 mass-market models (from the six main European carmakers) missing from the market in 2025-2027.

Allowing highly polluting models to be sold within the excluded 10% of sales in 2025 and 5% in 2026 could also lead to further additional CO₂ emissions as carmakers are likely to increase sales of the most polluting and profitable SUVs. This would benefit sales of ICE variants that can reach more than 300 gCO₂/km, such as the Audi SQ8, BMW X5 and Mercedes G500 and may lead to additional production of these models.

In the period after 2027, there is a lot of uncertainty about carmakers' strategies. In theory, they could follow a minimum BEV scenario by limiting BEV sales to the minimum required to meet the 2027 target by 2029. This scenario would lead to a significant gap between the CO₂ emissions achieved in 2029 and the 2030 target.

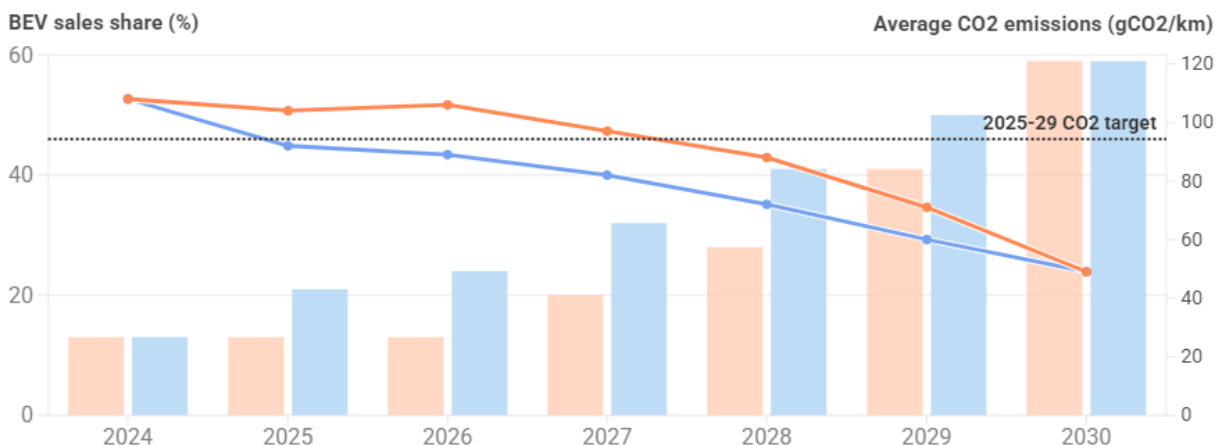
2. Average compliance for 2025-2029 (5 years)

The multi-year compliance allows carmakers to average the CO₂ emissions over the whole period 2025-2029 and compare it with the target over the same period. This flexibility allows carmakers to keep their BEV sales stagnant at 2024 levels until 2026, and only start to increase their sales from 2027.

BEV sales could stagnate for 2 more years if multi-year compliance is used

This could lead to the loss of up to 2.6 million BEV sales over 2025-2027

■ CO₂ in the maximum BEV potential scenario
 ■ CO₂ in the multi-year compliance scenario
 ■ BEV share in the multi-year compliance scenario
 ■ BEV share in the maximum BEV potential scenario



Source: T&E analysis - Maximum BEV potential scenario where all carmakers meet their target in 2025 and then follow a market forecast from 2026. Multi-year compliance scenario where carmakers sell the minimum BEV to comply when emissions are averaged over 2025-2029. Scope: European carmakers sales in the EU and Norway.



This would lead to slower EV adoption during 2025-2029: the 2-year delay in the BEV ramp-up could result in the loss of up to 2.6 million European BEV sales over the 2025-2027 period compared to the maximum BEV potential scenario (based on market forecast). The additional ICEs sold over 2025-2027 would emit 85 MtCO₂ over their lifetime, equivalent to the annual combined emissions of Hungary and Lithuania. As a result of the stagnation in 2025-2026, carmakers could keep the same sales mix as 2024, so 520,000 affordable models and 1.1 million mass-market models (from the six main European carmakers) would be missing in 2025-2027.

Why overcompliance in 2028-9 may have little to no effect

Contrarily to the phase-in flexibility, the multi-year compliance pushes carmakers to overcomply with the -15% target during the period 2025-2029 if they aim to compensate for higher emissions during the years 2025-2027. As the 2030 target requires more than 50% BEV sales, carmakers are expected to ramp up BEV production in the years before. They would therefore voluntarily overachieve the targets in 2028-9, even in a scenario without multi-year average compliance. Indeed, carmakers would continue to bring more affordable models towards the end of the decade, e.g. Renault Twingo at €20k in 2026 and VW ID.1 at 20k€ in 2027. As a result, the additionality of the overcompliance in 2028-9 is very uncertain. For this reason we choose to focus our analysis on the short-medium term impact as these flexibilities would have little to no impact on the years 2028-29.

Methodology and assumptions

A. General assumptions

- Geographical scope: EU27 and Norway
- “European carmakers” are defined by the largest carmakers headquartered in Europe: BMW, Mercedes-Benz, Renault-Nissan-Mitsubishi pool (assumed to be European as Renault Group has the largest share in the pool), Stellantis, Volvo Cars and Volkswagen.
- Cumulative emissions up to 2040 are calculated based on an average vehicle mileage of 225,000 km spread over 15 years. We assume a 19% difference between WLTP emissions and real-world emissions based on [OBFCM data](#). Average WLTP emissions of ICEs in each year are based on our baseline CO2 model (see section C for details) including a sales mix of all non-BEV powertrains.

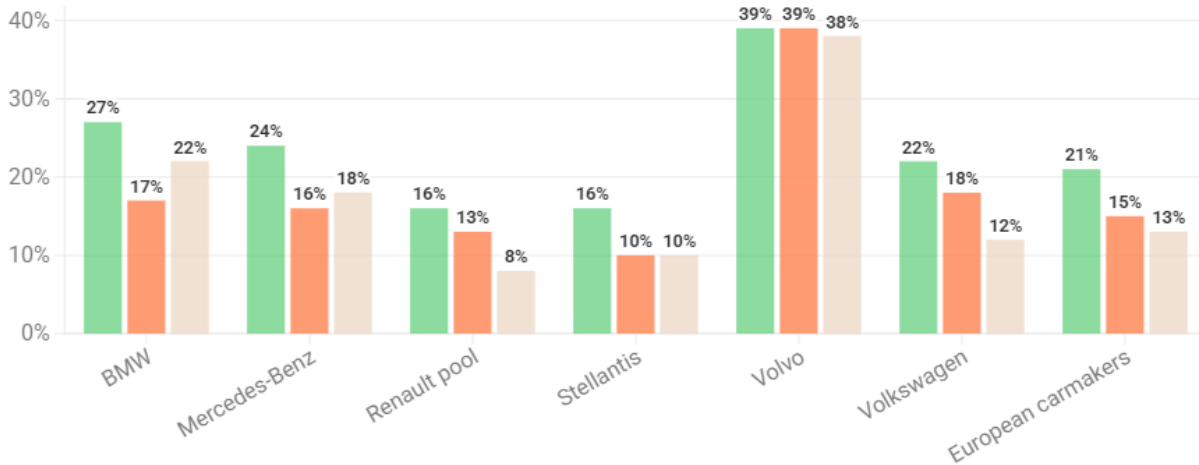
B. 90% phase-in analysis

- The 90% phase-in was first modelled using 2023 sales data from the [European Environmental Agency](#) (EEA). We derived the CO2 savings from the phase-in and we applied the same CO2 bonus to 2025 within our CO2 modelling described in a previous ‘Drive to 2025’ [report](#) to define the 90% phase-in scenario. The 95% phase-in in 2026 is estimated by applying half of the 90% phase-in savings.
- Compared to the assumptions in our previous report, the maximum BEV potential scenario in 2025 (T&E central scenario in the previous report) has been updated to include new CO2 trends from the full year 2024 and the target calculation has been adjusted based on the updated TM0 parameter announced in the latest [Commission Delegated Regulation](#). The maximum BEV scenario in 2025 implies both an increase in BEV sales, but also a significant increase in hybrid vehicle sales and improvements in engine efficiency for some carmakers. This scenario is based on the minimum BEV share required to meet the 2025 target and is built using a market forecast purchased by T&E. We therefore assume that the BEV share is the maximum between the market forecast and the minimum to meet the regulation. Carmakers such as Volvo, BMW and Stellantis overcomply by 38g CO2/km, 4 gCO2/km and 2gCO2/km respectively when using the market forecast data.
- The phase-in scenario assumes that each carmaker sells the minimum number of BEVs required to comply in each year between 2025 and 2027, while continuing to focus on increasing hybrid sales and improving engine efficiency. In this scenario, some carmakers such as BMW and Mercedes could reduce their BEV sales in 2025 compared to 2024, while Volkswagen would still need to increase its BEV sales.
- The impact of a 90% phase-in in 2025 for each European carmaker compared to the maximum BEV potential scenario is shown in the figure below:

A 90% phase-in would cut a third of European carmaker BEV sales in 2025

2025 - Maximum BEV potential scenario 2025 - 90% phase-in scenario 2024 sales

Share of the car market

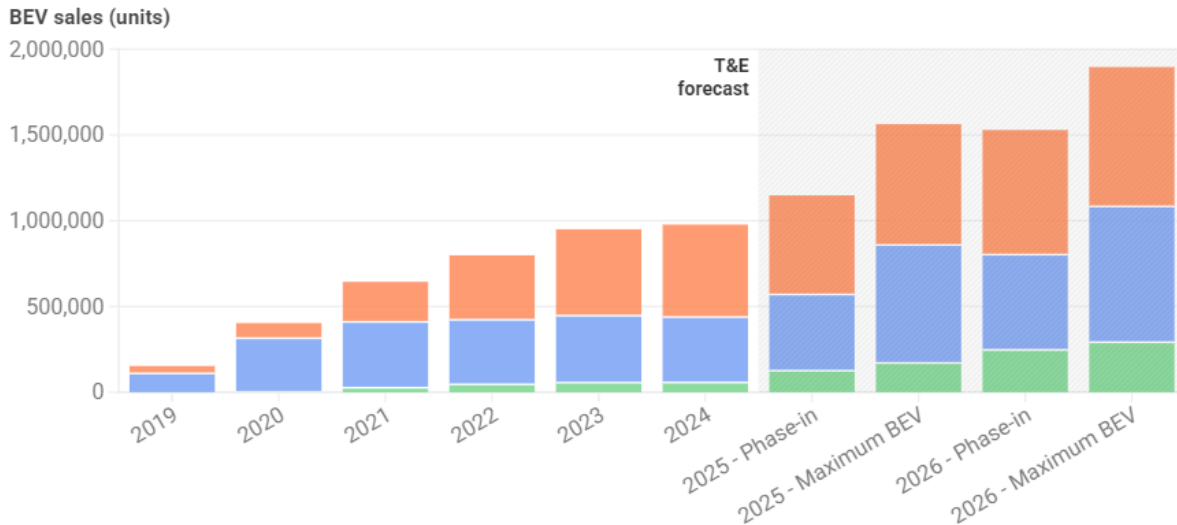


Source: T&E analysis - Maximum BEV potential scenario based on a market forecast where all carmakers meet their target in 2025 (Volvo, BMW and Stellantis would overcomply). Phase-in scenario where all carmakers sell the minimum BEV to meet their target when a 90% phase-in is applied in 2025. Scope: European carmakers sales in the EU and Norway.

- From 2026, the maximum BEV potential scenario is based on a market forecast purchased by T&E and previously used in the 'Drive to 2025' report.
- The following definitions were used to classify BEV models:
 - Each car brand was categorised as non-premium or premium based on a market forecast purchased by T&E and used in our previous 'Drive to 2025' report.
 - Affordable models are those with a starting price below €25,000 in 2025, as identified by T&E from public sources.
 - Mass-market models are BEV models in segments A to C from non-premium carmakers, excluding affordable models.
 - Premium and large models are BEV models from premium brands and large models (segment D and above) from non-premium carmakers.
- As our CO2 modelling is broken down by carmaker, we identified the number of BEV sales lost per carmaker in the phase-in scenario and identified the affordability type of BEV models from each European carmaker. The impact on the combined sales of European carmakers sales in 2025-2027 is shown below:

Mass-market BEV sales would be delayed if a phase-in is introduced

■ Affordable models
 ■ Mass-market models
 ■ Premium and large models



Source: T&E analysis • Affordable models with a variant starting below €25,000. Mass-market models defined based on mass-market brands in segment A-C. Scope: European carmakers sales in the EU and Norway. Passenger vans/MPV excluded.

C. Average compliance for the 2025-2029 analysis

- First, we created a baseline scenario for the European carmakers (assuming a single group with no breakdown per carmaker in this section), powertrain sales and CO2 emissions. Powertrain sales were aligned with a market forecast acquired by T&E and emissions per powertrain were adjusted based on 2024 data from Dataforce. PHEV emissions are adjusted based on the changes in [utility factor](#) that will be applied to all PHEV models in 2026 and 2028. The change in powertrain share therefore drives the reduction in emissions in this baseline scenario.
- From this baseline, we defined a full compliance scenario where the 2025 powertrain share is aligned with our CO2 modelling where all carmakers meet their 2025 target. The BEV shares from 2026 onwards were aligned to the baseline scenario (market forecast).
- From the baseline scenario, we estimated the average CO2 emissions, average targets and average flexibilities over the 2025-2029 period. An optimisation tool was then used to adjust each annual BEV sales share to derive the minimum BEV sales that would be sufficient to meet the average target over the whole period (multi-year compliance scenario). This methodology shows that carmakers can maintain the same sales mix in 2025 and 2026 as in 2024, before starting to ramp up BEV sales from 2027.
- The difference between the total BEV sales in the 2025-29 period between the maximum BEV potential scenario and the multi-year compliance therefore represents the potential BEV sales lost if European carmakers do the minimum to meet the average target for 2025-29.