



# A 2025 CO<sub>2</sub> emissions target for passenger cars: delivering value to consumers

## Short version

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## A 2025 CO<sub>2</sub> emissions target for passenger cars: Delivering value to consumers<sup>1</sup>

Most of our cars run on oil-based fuel and oil is an increasingly scarce resource. This obvious equation offers a bleak consequence for consumers: driving a car will become increasingly unaffordable. Between 2005 and 2013, the weighted average of petrol prices in the EU-27 increased from €1 to €1.6 per litre and diesel prices soared from 93 cents to €1.5. According to the International Energy Agency, oil prices will continue to significantly increase due to higher worldwide demand for oil. The rising cost of crude oil will translate also to an increase in fuel prices for car drivers, following the trend of the past few years. With expenditure on transport playing an important part in private households' budgets, this is a serious concern to many consumers. A 2013 survey by our UK member Which? found that fuel prices are the number one consumer worry.

In this respect, important regulatory measures have been adopted including the obligation for car manufacturers to reduce CO<sub>2</sub> emissions from cars in a step wise approach. In July 2012, the European Commission (EC) proposed a mandatory CO<sub>2</sub> emissions target of 95g CO<sub>2</sub>/km for new passenger cars to be achieved by the year 2020. CO<sub>2</sub> emissions from cars are directly related to the car's fuel consumption – each 1% decrease in CO<sub>2</sub> emissions results in a corresponding 1% decrease in fuel consumption. We welcome this 2020 emission target as we expect this target to protect consumers from steady increases in fuel prices.<sup>2</sup> There is, however, a clear lack of a post 2020 vision in the EC proposal.

BEUC proposes a 2025 indicative target of 70 g CO<sub>2</sub>/km to be included in the revision of Regulation 443/2009. This target must be subject to confirmation of its feasibility on the basis of an updated impact assessment.

We consider that this must include a full assessment of the financial costs and benefits for consumers, making use of a transparent and reliable cost-benefit analysis. In addition, any proposal must be prepared on the basis of an effective analysis of the social impact on different consumer segments of setting the precise target, as well as a thorough empirical evaluation of the public acceptability of setting such targets.

A long-term target for reduction in CO<sub>2</sub> emissions would:

- Provide considerable financial gains to consumers;
- Provide considerable health benefits to consumers;
- Guarantee that manufacturers/suppliers would be provided with planning certainty.

Finally, we suggest using footprint (wheelbase times track width) as the parameter for determining emissions targets in order to encourage manufacturers to invest into weight reductions.

<sup>1</sup> The long version of the position paper can be downloaded: <http://docshare.beuc.org/Common/GetFile.asp?ID=44723&mfd=off&LogonName=Guesten>.

<sup>2</sup> BEUC (2012): Good for the environment and good for your pocket: Consumer benefits of CO<sub>2</sub> emissions targets: <http://docshare.beuc.org/Common/GetFile.asp?ID=43385&mfd=off&LogonName=GuestEN>.

## Consumer benefits of setting a target of 70 g CO<sub>2</sub>/km in 2025

Based on available data we come to the conclusion that emissions could be brought to an average fleet level of 75g CO<sub>2</sub>/km without the necessity of a market penetration of ultra-low emitting cars (battery electric vehicles, plug-in hybrid electric vehicles, range-extender and fuel-cell electric vehicles combined).

However, for a 2025 target of 70 g CO<sub>2</sub>/km we believe a share of ultra-low carbon vehicles in new car sales of up to 10% would be required, on top of the emission reductions from the remaining 90% of conventional powertrains down to 75 g CO<sub>2</sub>/km. This level of market penetration is at the low end of numerous market share projections.

- **Buyers of cars powered by conventional powertrains will benefit significantly from lower cost of driving**

Our analysis shows that relative to the 130g CO<sub>2</sub>/km target manufacturers must comply with by 2015, lowering emissions of cars powered by an internal combustion engine down to 75g would lead to significant fuel savings of up to €643 per year for consumers. The total payback period for the increase in retail price incl. VAT would be approximately **3.6 years**. However, after a holding period of five years, the average vehicle is commonly sold at around a 1/3 of its original value. Therefore only around 2/3 of the higher initial purchase price has to be paid by the first owner of a new car. The payback period for the first buyer's share of the higher purchase price is therefore just approximately **2.3 years**.

- **Ultra-low carbon vehicles: early adopters will provide markets for broadening consumer segments**

Despite the higher initial purchase price, ultra-low carbon vehicles are expected to have much lower refuelling costs and thus a clear benefit of savings in yearly running costs. Demand will be driven mostly by early adopters segments, which have a clear perspective on the total costs of ownership of vehicles such as purchasers of governmental fleets, taxis, car sharing fleets. The initial market pull from these market segments could provide the scale economies which makes the new technologies more cost-effective in the long run also for a broader segment of consumers.

## Make footprint as the parameter to determine the limit value

Currently, the emissions limits are only applied to the average of all automobiles and not to individual car models. Manufacturers of heavier cars have to comply with less stringent CO<sub>2</sub> targets than manufacturers of lighter vehicles. Under such a weight-based system, any ambition to reduce weight by making use of light weighting materials is penalised: When reducing the weight of their car fleet, car makers would have to comply with a lower CO<sub>2</sub> target. By making weight the parameter for determining the limit values, less incentive is therefore provided to manufacturers to invest into light-weighting which is seen as a very efficient technical option for reducing CO<sub>2</sub> emissions from passenger cars. By making use of footprint which corresponds to the wheelbase times track width as the parameter for determining the limit values, the necessary CO<sub>2</sub> reductions can be achieved in a more economical way.