

How automotive market is changing to boost EU climate neutrality 3/42/23

Following the UN Framework Convention on Climate Change, aka the Paris Agreement, the European Parliament signed the resolution on the European Green Deal on 15 January 2020 and urged the member states to carry out the required transition to a climate-neutral society by 2050 at the latest. The Green Deal involves making a variety of important changes. One of such changes is Regulation (EU) 2023/851 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2019/631 as regards strengthening the CO₂ emission performance standards for new passenger cars and new light commercial vehicles in line with the Union's increased climate ambition. What this Regulation provides for is nothing new in substance, as CO₂ emission requirements for vehicles have been adopted earlier, but it does introduce some fairly ambitious goals. This article explores some of its requirements.

What the Regulation prescribes

The Regulation requires the automobile manufacturers to create a fully climate-neutral range of vehicles by using innovative technologies or their combinations by 2035. This means that no new vehicles running on petroleum-based fuel or gas will be sold in the EU after 2034. Dutch MEP Jan Huitema explained in an interview why the year 2035 has been chosen as the target for the automotive industry:

"If you buy a new car now, you can drive it until the end of its lifespan. But, because the average lifespan of a car is 15 years, we have to start in 2035 to aim for all cars to be CO₂-neutral by 2050."

It's important to note that the Regulation does not apply to vehicles registered in the EU earlier, so an internal-combustion car bought and registered in 2034 can be driven until the end of its lifespan and freely sold on the secondary market after 2035.

The Regulation also provides for a gradual reduction in the manufacturer's average specific CO₂ emissions, which means that the coming years will see the automobile manufacturers increasingly focusing on hybrid vehicles (running on petroleum-based fuel and electricity) and electric vehicles:

- 7 g CO₂/km by 2024
- 6 g CO₂/km from 2025 to 2029
- 4 g CO₂/km from 2030 to the end of 2034

In addition, over the period from 1 January 2025 to 31 December 2029 the manufacturers' range of vehicles has to reach 25% of all manufactured zero-emission and low-emission vehicles and 17% of new light commercial vehicles. So the automobile manufacturers wishing to operate in the EU are under pressure to create new and innovative technologies that could reduce the manufacturer's average CO₂ emissions and make climate-neutral vehicles less expensive and more efficient.

The Regulation also requires the automobile manufacturers to report on their CO₂ emissions. However, the European Commission has yet to draw up and publish a report setting out the methodology for assessing the life-cycle CO₂ emissions of passenger cars and light commercial vehicles placed on the EU market and for aligned reporting of data. The European Commission is to submit this report to the European Parliament by 31 December 2025. From 1 June 2026, the manufacturers will be able to voluntarily submit the life-cycle CO₂ emission data of their new passenger cars and new light commercial vehicles to the European Commission by using the methodology developed by the Commission.

It's also important to note that the Regulation does not prevent manufacturers from selling vehicles that run on e-fuel (a technology combining hydrogen and carbon dioxide to produce synthetic fuel). The negative stance of Germany, a global leader in automobile manufacturing, has led to intensive negotiations between the European Commission and the German Federal Transport Ministry. However, producing e-fuel is now considered to be an overly expensive and inefficient solution.

The Regulation will have the European automobile manufacturers create innovative solutions to meet the 2035 target. Yet the coming years could be more difficult for the European manufacturers than expected because some of their market share might be lost to China. The Chinese manufacturers have been actively investing in the manufacture of electric vehicles for years and are able to sell more units at lower prices than the European or US manufacturers. And nearly half of 5.9 million electric vehicles sold by China are being exported to Europe, which means the European manufacturers need to adapt to the Regulation's requirements quickly if they are to keep dominating the European market.