

# New CO<sub>2</sub> emission standards for heavy-duty vehicles: enabling climate friendly logistics while keeping supply chains intact

## What needs to be done now:



Include **renewable fuels** in the CO<sub>2</sub> emission standards of **heavy-duty vehicles**. Ensuring the **resilience** and **flexibility** of the entire logistics sector is fundamental to the success of our economy.



### Heavy-duty transport

**Trucks** carry **73 % of all goods transported by land** in the EU, making them the **backbone of trade and commerce** on the European continent. Heavy-duty traffic is responsible for 27 % of EU road transport CO<sub>2</sub> emissions and **5 % of total EU CO<sub>2</sub> emissions - more than air and maritime transport combined**.

The new CO<sub>2</sub> emission standards will play a significant role in meeting the 2030 climate targets and our goal of climate neutrality by 2050. The **enormous climate potential** of hydrogen and its derivatives such as **eFuels** can speed up the phase-out of fossil fuels in European transport.



### More choices, fewer emissions

The current EU regulation focuses on tailpipe emissions only and does not take into account the CO<sub>2</sub> reduction potential of renewable fuels. Yet two thirds of stakeholders favour a system that recognises the role of renewable fuels, according to a public consultation conducted by the EU Commission. In a joint letter, more than 200 stakeholders – including 93 scientists – call on the Commission to include renewable fuels as an option for truck manufacturers to meet stricter CO<sub>2</sub> emission targets. Currently, **only zero tailpipe drivetrains such as battery-electric and fuel cell trucks** are considered a climate-friendly solution. Unless renewable fuels are included as a carbon-neutral alternative in the regulation, logistic companies will have no choice but to move away from technologies based on internal combustion engines. This imbalanced **regulatory approach** not only **undermines** the principle of **technology-neutrality**, but also **limits customer** choice and **jeopardises effective climate protection**.

Heavy duty vehicles are used by hauliers, travel and logistics companies with a number of different mobility requirements and constraints. For that reason, we need all available solutions to address the variety of needs – we cannot afford to exclude any option.

**Zero tailpipe drivetrains will remain unsuitable** for many heavy-duty vehicles. In addition, several issues remain to be resolved: will service stations across the EU have sufficient multi-megawatt charging sourced from renewable electricity, or hydrogen infrastructure, available at all times? Can Europe establish crisis-proof supply chains for the raw materials required to produce batteries without becoming dangerously dependent on individual exporting countries? Will there even be enough raw materials available to meet the enormous demand for rare earths, copper, lithium and cobalt?



## Resilience and flexibility

**Well-functioning logistics** as well as **flexible supply chains are vital** for an economy, especially in terms of economic and strategic security. Guaranteeing a resilient and flexible transport sector is of paramount importance when revising any EU transport legislation.

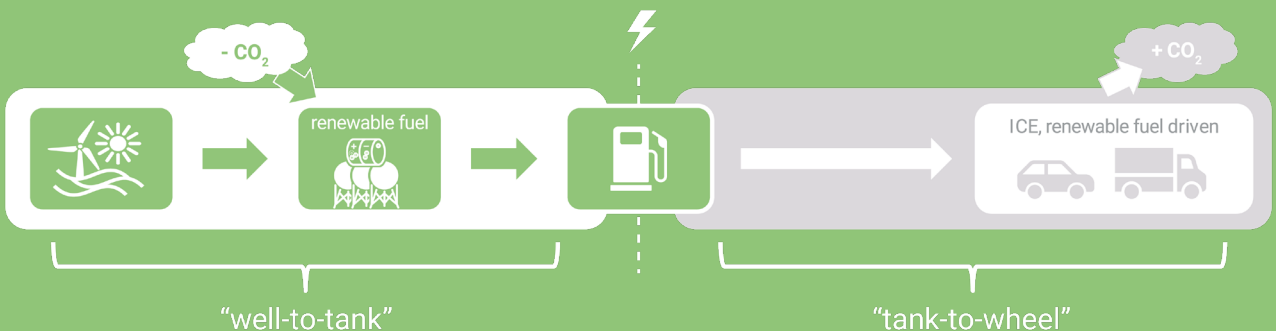
About 2 million trucks are used in the long-haul transport of goods – a third of the total current heavy-duty vehicle fleet. To electrify a truck suitable for such distances (usually a 40-tonne truck), a battery adequate to achieve ranges up to 800 km would weigh between 5,000 and 6,000 kg, equivalent to a payload loss of 5–10 % (depending on the truck) compared to diesel.

Providing more opportunities to meet stricter CO<sub>2</sub> emission standards will also minimise negative impacts for end users, such as higher costs and prices, while enabling a just transition to carbon-neutral mobility. **Renewable fuels** can contribute to an immediate, **effective and affordable reduction of GHG emissions** – right up to climate neutrality. With increased quantities of eFuels being added gradually to conventional fuels (thanks to their drop-in capability) and production costs falling due to economies of scale, **eFuels** would be **affordable** for logistic companies at every stage. The upscaling of output, and the by-products generated in the process of producing eFuels, will also reduce costs for hard-to-abate sectors such as aviation and maritime.



## How to make renewable fuels count

The European Commission's proposal to revise CO<sub>2</sub> emission standards for heavy-duty vehicles falls short of addressing the carbon footprint of energy carriers (well-to-wheel), from the generation and supply of propulsion energy to its conversion into kinetic energy. Instead, it **divides up the responsibility for emissions into separate stages along the supply chain**: Fuel suppliers are responsible for fuel emissions from the original energy source ("well") to the vehicle ("tank"), while vehicle manufacturers bear the responsibility for reducing direct emissions released during combustion in the vehicle itself, i.e. those generated on the way from the tank to the wheels. In practical terms, this means that car makers must meet a certain average fleet target, which is defined by the CO<sub>2</sub> emission standards regulation, for new vehicles sold each year. By failing to provide a coherent framework that covers all these areas the **EU legal framework misses significant environmental gains** as well as restricting the possible powertrain options for heavy-duty vehicles.



The EU legal framework for reducing CO<sub>2</sub> emissions in the road transport sector separates responsibility along the supply chain

There are two possible options to bridge this gap: **introducing a carbon correction factor** and a **voluntary crediting system for renewable fuels in the regulation**. These can be implemented individually, but they can also complement each other. A **carbon correction factor** takes into account the quantities of renewable fuels available in the market. Such an option would reduce the CO<sub>2</sub> emission targets for truck manufacturers by the amount of renewable fuels already included in the current fuel mix. This would recognise the fact that, in addition to technological and efficiency improvements in trucks, the fuel mix is decisive in determining their actual carbon-footprint.

Under a **voluntary crediting system for renewable fuels**, fuel suppliers would receive credits for supplying the fuel market with additional renewable fuels beyond the legally required quantities. Vehicle manufacturers could buy these credits and offset them against their fleet targets under the CO<sub>2</sub> emission standards. This voluntary scheme would provide an additional option for truck manufacturers to meet their targets.