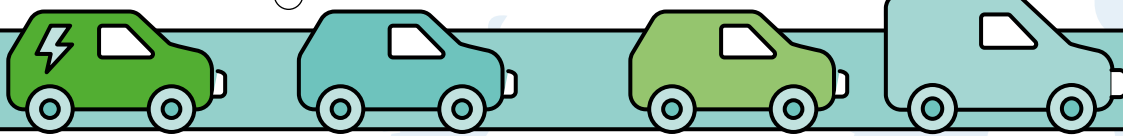
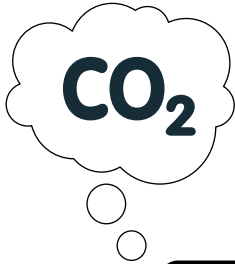


EU Automotive Emissions Standards Policy Case Studies



The EU Automotive Standards aim to limit the carbon intensity of all new vehicles sold in Europe.



Policy Type: Emission Intensity Standards

Key Features

The EU Automotive standards set carbon dioxide emission intensity limits (CO₂/km) which must be achieved on average across all new cars and vans sold across EU markets each year by a manufacturer.

Sectors Covered

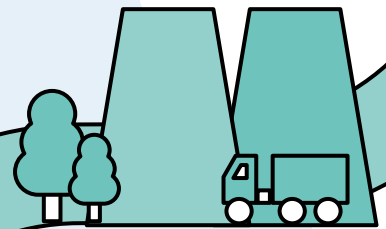
Road transport.

Sectors Not Covered

Power, Industry, Agriculture, Forestry, Waste, Buildings, Other Transport.

Emissions Covered

20%



Point of Regulation

Upstream. The regulation is applied on the car manufacturer.



Key Dates

The EU Automotive Standards was established in 2009 for passenger cars and 2011 for light commercial vehicles (LCVs).

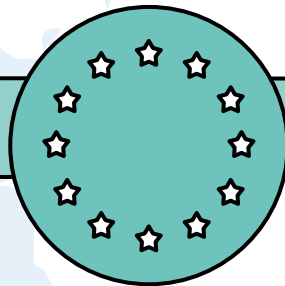
Introduction

The EU adopted Automotive Standards due to the difficulty of achieving emissions reductions or changing consumer behavior in road transport. Reducing emissions in the transport sector is generally expensive, as it requires significant technological and infrastructure changes. In addition, transport consumers are less sensitive to price rises compared with those in other energy consuming sectors.

The CO₂ performance standards cover passenger cars and vans sold by vehicle manufacturers on the European Market, who are required to report the emissions as an average across all vehicles sold each year. The regulations are applicable to manufacturers rather than Member States, and the targets are to be met by manufacturers through improvements in vehicle technology. While the performance

standard allows variation between vehicle types, the overall targets should treat manufacturers consistently. In order to accommodate specific characteristics of each manufacturer's vehicle fleet, several parameters for categorising vehicles were considered, and ultimately vehicle weight was chosen.

While the standards have led to significant improvement in the emissions performance of new vehicles sold, they do not directly target reduced use of the vehicles. Hence, a more effective overall policy framework to reduce emissions in the transport sector could be to combine such automotive policies with market-based measures focused on fuel consumption.



Key Findings

Standards Design

- In order to ensure that the policy drives overall emission reductions, it is critical that the performance standards use appropriate measures for emissions that reflect real-world driving conditions.
- Each weight category has an individual performance standard so that higher emission reductions are required from manufacturers of heavier vehicles. This makes the policy more complex as compared to one single standard for all vehicles. However, this tailored approach has been instrumental to ensure competitive neutrality between manufacturers as it accounts for the diversity in their portfolio of vehicle sales.

Policy Effectiveness

- The EU's CO₂ performance standards for passenger cars and vans are widely considered to have been successful in reducing the carbon intensity of the transport sector. They are credited with being the main driving force behind the sector's improvements. Evidence suggests that in the absence of any regulations, the fuel efficiency of vehicles would have remained static or even declined.¹ Actual figures of CO₂ emissions suggest that the standards have been responsible for around 65-85% of reductions in grams CO₂/kilometer seen in the car fleet from 2009 to 2015. Other measures such as national policies are thought to be responsible for smaller contributions to reduce emissions.



Definitions

Regulatory Standard

A regulatory obligation to achieve a particular outcome (e.g. emissions produced per unit of activity, proportion of low carbon fuel supplied) which is placed on an entity.

¹ Ricardo, (2015). Evaluation of Regulations 443/2009 and 510/2011 on CO₂ emissions from light-duty vehicles. Retrieved on 13/03/2018 from https://ec.europa.eu/clima/sites/clima/files/transport/vehicles/docs/evaluation_ldv_co2_regs_en.pdf