



Average CO2 emissions from new cars and new vans increased again in 2019

According to provisional data, published today by the European Environment Agency (EEA), average carbon dioxide (CO2) emissions from new passenger cars registered in the European Union (EU), Iceland, Norway and the United Kingdom (UK), increased in 2019, for the third consecutive year. The average CO2 emissions from new vans also increased slightly. Zero- and low-emission vehicles must be deployed much faster across Europe to achieve the stricter targets that apply from 2020.

The EEA has published the provisional data for the average CO2 emissions from new passenger cars and vans registered in the EU, Iceland, Norway and the UK in 2019. The provisional 2019 data on new registrations can be explored through a new EEA data dashboard.

After a steady decline from 2010 to 2016, by almost 22 grams of CO2 per

kilometre (g CO₂/km), average emissions from new passenger cars increased in 2017 and in 2018 (by 2.8 g CO₂/km in total). According to provisional data, the upward trend continued with an additional increase of 1.6 g CO₂/km in 2019, reaching 122.4 grams of CO₂ per kilometre. This remains below the target of 130 g CO₂/km that applied until 2019 but well above the EU target of 95 g CO₂/km that phases-in this year.

The reasons for the increase in car emissions include the growing share of the sport utility vehicle (SUV) segment. The market penetration of electric cars remained slow in 2019.

Vans registered in the EU, Iceland, Norway and the UK in 2019 emitted on average 158.4 g CO₂/km, which is 0.5 g/km more than in 2018. This remains well below the target of 175 g CO₂/km that applied until 2019 but is still 11 g CO₂/km higher than the EU target of 147 g CO₂/km that applies from this year on. Several factors affected this emission increase, including an increase in the average mass and only a limited increase of the share of electric vans (BEV and PHEV) from 0.8 % in 2018 to 1.3% in 2019.

CO₂ emissions from diesel almost on par with petrol, cars becoming heavier

- Almost 15.5 million of new cars were registered in 2019 in the EU, Iceland, Norway and the UK.
- Petrol cars were the most sold passenger vehicles, constituting 59 % of all new registrations (and 63 % including hybrid electric vehicles (HEV)). Diesel vehicles constituted 31 % (32 % including HEV) of new registrations, marking a decrease of 4 percentage points from 2018, and 23 percentage points from 2011 when diesel cars peaked with a 55 % share of new registrations.
- On average, the CO₂ emissions of diesel cars (127.0 g CO₂/km) are now very close to those of petrol cars (127.6 g CO₂/km). The difference of

0.6 g CO₂/km was the lowest observed since the beginning of the monitoring.

- About 38 % of new car registrations were SUVs. Compared to other cars in the same segment, SUVs are typically heavier and have more powerful engines and larger frontal areas – all features that increase fuel consumption. The majority of new SUVs registered were powered by petrol, with average emissions of 134 g CO₂/km, which is around 13 g CO₂/km higher than the average emissions of other new petrol cars.
- The average mass of new cars increased by 30 kg from 2018 to 2019. The mass increase was observed for all vehicle segments (small, medium, large regular cars, and SUVs) and for both petrol and diesel cars.
- Sales of plug-in hybrid electric vehicles (PHEV) and battery-electric vehicles (BEV) continued to increase to about 3.5 %, compared with 2 % in 2018. About half of the BEVs were registered in Norway, Germany and the Netherlands. The combined shares of PHEV and BEV registrations were highest in Norway (56 %), Iceland (19 %), the Netherlands (16 %) and Sweden (12 %). These were also some of the few countries where the average emissions of new cars decreased from 2018 to 2019.
- (Non plug-in) hybrid electric vehicles (HEVs) represented around 4 % of new registrations.

More than 9 out of 10 newly registered vans still running on diesel

- 1.68 million new vans were registered in the EU, Iceland, Norway and the UK in 2019. Compared with 2018, more vans were registered in Lithuania (+25.2 %), Greece (+13.7 %), Luxembourg (+7.9%) and Germany (+6.6 %) while registrations dropped in Iceland (-40.4 %), Bulgaria (-35.3 %), Malta (-17.2 %) and Spain (-17.0 %).
- One of the factors affecting the emission increase of 0.5 g CO₂/km for new

vans was the increase in the average mass of 14 kg. At the same time, the share of electric vans (BEV and PHEV) remained low, although it increased from 0.8 % in 2018 to 1.3% in 2019.

- Diesel vehicles continue to make up the vast majority of the new van fleet, constituting 94% of registrations in 2019. The market share of petrol vans was 3.4 %, which is slightly less than in 2018.
- The average CO₂ emissions increased for petrol fuelled new vans from 144.9 to 147.3 g CO₂/km and for diesel fuelled new vans from 160 to 161.2 g CO₂/km.
- The average mass increased for diesel fuelled vans by 17 kg and decreased for petrol fuelled vans vehicles 20 kg. The latter having, however, a smaller effect on the overall average mass of the vans fleet due to their low number of registrations if compared to diesel fuelled vans.
- The overall 14 kg increase in the average mass of new vans contributed to the average emission increase of 0.5 g CO₂/km. The share of electric vans (BEV and PHEV) only increased from 0.8 % in 2018 to 1.3% in 2019.
- The average fuel efficiency of new vans varied widely across countries due to the different models and sizes of vehicles registered. Average emissions were lowest in Cyprus (131.9 g CO₂/km), Portugal (138.1 g CO₂/km), Malta (140.7 g CO₂/km) and Bulgaria (145.1 g CO₂/km). Average emissions were highest in Slovakia (174.3 g CO₂/km), Germany (172.0 g CO₂/km) and the Czech Republic (171.8 g CO₂/km).
- The average mass of new vans registered in 2019 was 1860 kg versus 1846 in 2018. Lighter vehicles were registered in and Cyprus, Bulgaria and Portugal (average mass < 1 650 kg); heavier vans (average mass >2 000 kg) in Iceland, Slovakia, Norway and Finland.

About testing vehicle emissions

The emissions of new vehicles are systematically tested using ‘type approval’ procedures. Since 2017, the new Worldwide Harmonized Light Vehicle Test Procedure (WLTP) has been put in place, with the objective to gradually replace the outdated New European Driving Cycle (NEDC). The WLTP allows to obtain more realistic information on vehicle emissions in the type approval tests. For compliance purpose, NEDC emissions values are used in 2019.

EEA activities

The EEA collects and regularly makes available data on new passenger cars and vans registered in Europe, in accordance with EU Regulation (EU) No 2019/631. The data are reported by all EU Member States, United Kingdom, Iceland (since 1st January 2018) and Norway (since 1st January 2019) in order to evaluate the efficiency of the new vehicle fleet includes information on CO₂ emissions and vehicle mass.

Compliance with targets

The European Commission will confirm whether individual manufacturers or pools have met their own specific annual targets, which are based on the average mass of the cars registered, when the EEA publishes the final data in late 2020 or early 2021.





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Published on 26 Jun 2020