

Position Paper

Proposal for a Euro 7 regulation for cars and vans



LEGISLATIVE CONTEXT

Since 1992, the EU has introduced increasingly stricter exhaust emission limits for each new vehicle sold in the EU ('Euro' standards). The latest standard – Euro 6 – introduced in 2014, was replaced in 2017 and then updated again by Euro 6d in 2020. With Euro 6d, NOx and particle emissions measured on the road are at barely measurable levels. In November 2022, the European Commission came forward with a proposal for a new standard: Euro 7¹, which now also addresses non-exhaust particle emissions (from tyres and brakes).

The new CO₂ regulation for cars and vans² and its intended phase-out of new vehicles with internal combustion engines will automatically lead to the elimination of the vast share of remaining exhaust pollutant emissions.

KEY MESSAGES

European vehicle manufacturers, represented by the European Automobile Manufacturers' Association (ACEA), are fully committed to providing the right vehicles to move Europe's mobility and transport sector to climate neutrality and to minimise the impact of our sector on air pollution. Indeed, ACEA already made an ambitious proposal for Euro 7 in mid-2021³. We remain ready to engage with regulators to help frame a proportional and fit-for-purpose Euro 7 regulation. The Euro 7 proposal that is currently on the table however does not meet these key criteria.

PROPOSAL IS UNNECESSARILY STRINGENT

The Euro 7 proposal for cars and vans is not a simple extension of Euro 6 for cars and vans, as the Commission claims. It represents a significant strengthening over Euro 6.

Its exhaust pollutant limits are the strictest of the Euro 6 petrol or diesel limits, and are particularly stringent for vans. The limits are tightened significantly because the variability of the on-road measurement instruments is no longer accounted for in the proposal. This means that manufacturers will have to set their engineering targets lower than for Euro 6. This is compounded by the extension of the on-road test conditions into statistically irrelevant areas of driving, bringing further complexity and costs.

Additionally, the Euro 7 proposal comes with unrealistic implementation dates. Several completely new and untested issues are also included in the Euro 7 proposal, raising serious engineering and liability concerns.

¹ The Commission proposal puts all vehicles under 'Euro 7'. This position paper addresses Euro 7 with respect to passenger cars and light commercial vehicles (vans).

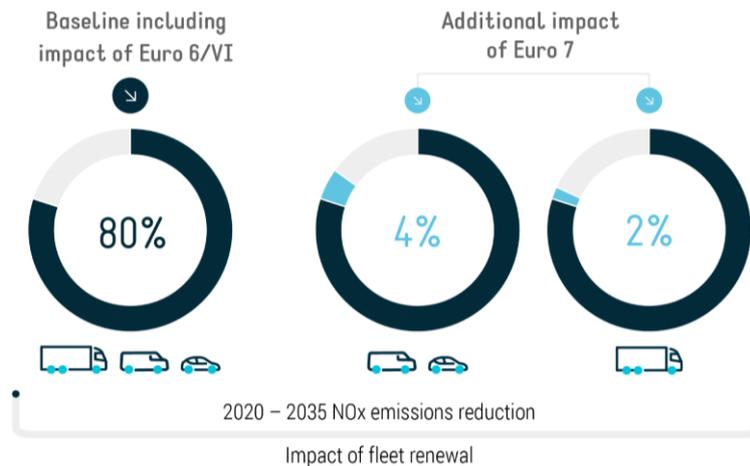
² Regulation amending Regulation (EU) 2019/631 as regards strengthening the CO₂ emission performance standards for new passenger cars and new light commercial vehicles in line with the Union's increased climate ambition.

³ <https://www.acea.auto/publication/acea-proposals-for-euro-7-and-euro-vii-emission-standards/>

PROPOSAL WILL HAVE MARGINAL IMPACT ON NO_x EMISSIONS

[Recent studies](#) have shown that the renewal of the fleet with the latest Euro 6 vehicles – alongside the electrification of new vehicles – would deliver an 80% reduction in road transport NO_x emissions by 2035 (compared to 2020). Over the same timeframe, the most stringent Euro 7 scenarios (ie limits for NO_x and particles set at zero) would reduce road transport NO_x emissions by less than a further 4% for cars and vans compared to Euro 6d levels, and by about 2% for trucks.

POTENTIAL OF EURO 7



What is more, any impact of Euro 7 will take several years to realise – meaning that it will start being felt when increasing numbers of zero-emission vehicles are coming to market due to the CO₂ regulations. As their sales numbers diminish, Euro 7 vehicles with internal combustion engines will have an ever more marginal impact on improving air quality.

With the Euro 7 proposal, cheaper models of cars and vans will either face steep price increases or be phased out. This will lead to less choice for customers, who will hold onto their older vehicles for longer, negatively impacting air quality. The greatest impact – on both pollutant and CO₂ emissions – will be delivered by e-mobility and by renewing the old vehicle fleet with the latest Euro 6d vehicles.

PROPOSAL WILL SLOW DOWN DECARBONISATION

European manufacturers are quickly transitioning to electrification to meet future CO₂ targets. The transition needs time, but it has started, and it is irreversible. The industry cannot afford to go back on its investment plans.

If the Euro 7 proposal is adopted without significant amendments of substance, it will force manufacturers to divert valuable resources from the development and engineering of new zero-emission vehicles back to further development of vehicles with internal combustion engines. This would slow down the decarbonisation efforts of our industry, at a time when global competitiveness, as well as manufacturing and employment in Europe, are already under high pressure.

RECOMMENDATIONS

Recommendations at a glance

- Provide at least three years lead-time from when the complete package, with all the details, is known
- Re-introduce one year between the ‘new vehicle types’ date and the ‘all registrations’ date
- Address only statistically-relevant driving with on-road testing
- Put in place less stringent exhaust pollution limits for heavier vans compared to those for cars
- Do not make further stepwise changes to Euro 7 (keep implementing/delegated acts to a minimum)
- Align the Euro 7 proposal with the small volume manufacturer derogation in the car and van CO2 regulation
- Address non-exhaust particle emissions from brake wear when the test procedure is fully complete
- Address measures to reduce particles from tyre abrasion directly to tyre industry

CARS AND VANS

1. Change the implementation date

The proposed date for this Euro 7 regulation is unrealistic, as it does not provide sufficient lead-time to develop, engineer, test and type approve all ICE and electric vehicle models and variants addressed by Euro 7.

The investment needed for this proposal would also include building and commissioning major new test facilities. The shorter the lead-time, the higher the vehicle cost increase because of short-term limited supplier capacities.

Apart from the substantial development work, type approval and testing capacity is insufficient to make the 1 July 2025 implementation date possible.

- Change the proposed implementation timing to a ‘new types’ date that delivers at least three years lead-time from when the complete package (including all implementing/delegated acts) is known.
- Return to the practice of having one year difference between the ‘all types’ date and the ‘new types’ date (a well-established provision in all previous Euro regulations).

2. Address only statistically-relevant driving with on-road (RDE) testing

The Euro 6 regulation delivers vehicles with extremely low exhaust pollutant emissions where it counts – on the road, covering the vast majority (95%) of statistically possible driving events and conditions. The Euro 7 proposal aims to extend coverage to the last few percent, adding complexity and requiring new hardware without any perceivable environmental benefit. For example, cars towing several tonnes of payload under dynamic driving cannot be seen as normal driving.

Biased driving/worst case conditions will force additional technology onto all Euro 7 vehicles, from the smallest car to the largest van. As a result, the smaller low-budget cars in Europe would see a four-digit Euro cost increase, which could lead to such models being withdrawn.

- Exclude extended testing combining worst-case conditions, because addressing these statistically-irrelevant conditions will have practically no impact on air quality.
- Protect manufacturers from deliberate (biased driving) attempts to fail well-engineered compliant vehicles.
- ACEA is ready to explore a proportional extension of the Euro 6 on-road driving test conditions. Rarer driving conditions could be considered but not in a punitive way.

3. Do not repeat the mistakes of Euro 6 by allowing stepwise changes in Euro 7

The number of Euro 7 vehicles with ICE will be increasingly limited as we move towards 2035. There is no environmental benefit to be gained from subjecting decreasing numbers of vehicles with ICE to further development steps.

- Restrict powers of implementation or delegation to the Commission to the absolute minimum.

4. Recognise that On-Board Monitoring (OBM) is not appropriate for monitoring vehicle compliance 24/7

Beyond type-approval, Euro 6 already has in place successful measures to ensure vehicle compliance, for example conformity of production (COP), in-service conformity (ISC), on-board diagnostics (OBD) and fleet surveillance through additional real driving emission (RDE) tests.

Euro 7 proposes to require on-board monitoring (OBM) of emissions at all times and for the lifetime of a vehicle. This would require new exhaust sensors, which are either not available or have limited capability and lifetime. Their cost is also unknown. Industry cannot accept a stepwise development in OBM after the initial Euro 7 introduction because the phase-out of vehicles with internal combustion engines has already been decided for 2035.

5. Recognise that a vehicle cannot be designed to be robust over its lifetime against future tampering methods and changes to data transmission standards

- Implement proportional measures to improve vehicle tamper-protection, but not in a way intending to keep pace with new unknown tampering methods that may appear over the lifetime of a vehicle, which were not evident when a vehicle was designed.

- The same applies to over the air data transmission (OTA) because vehicles introduced today cannot be expected to communicate via new data transmission standards that may appear several years after first registration.

6. Provide provisions for small volume car and van manufacturers

- Align the Euro 7 proposal with the small volume manufacturer derogation in the car and van CO2 regulation by postponing the entry into force date to 1 July 2035.

7. Address the Euro 6 car and van vehicles in stock when Euro 7 would apply

- Facilitate end-of-series derogations through clear encouragement by the Commission to the member states.

HEAVIER VANS (CATEGORY N1 CLASS III)

The Euro 7 proposal imposes disproportionate measures on vans which will limit future customer choice. In addition to the points made above for cars and vans, ACEA proposes the following additional key changes for vans, which are an important working tool in EU society.

8. Put in place less stringent exhaust pollution limits for heavier vans than those for cars

Heavier vans cannot fulfil the same exhaust pollutant limits as cars due to their higher weights and rolling resistance. This was well understood over previous Euro steps.

The Euro 7 proposal introduces a new category of less stringent exhaust pollutant limits applicable to vans with a power-to-weight ratio less than 35kW/t. There are no vans in the European market that could use these less stringent exhaust pollutant limits. Van manufacturers will therefore have no advantage from these limits, unless vehicle performance is downgraded in relation to weight capacity. It is highly unlikely that customers would purchase such vans. As a consequence, practically all vans will need to meet the same exhaust pollutant limits as cars. This increase in burden is amplified by the on-road (RDE) test conditions, which give no latitude for vans compared to cars.

- Retain the Euro 6 framework for vans with specific limits for the heavier vans that reflect higher driving resistance due to heavier loaded weights and frontal area of vans. Such fuel-neutral limits should be based on the Euro 6 N1 Class III limits.

9. Re-introduce the extra year for 'new approvals' and 'all registrations'

Van product cycle are longer than cars, so a common application date in Euro 7 would effectively shorten the product cycle for Euro 6 vans.

For heavier vans the extra step of one year for new approvals and one year for all registrations after the dates for cars has always been in the Euro regulations, and is needed for van manufacturers and the approval authorities.

10. Recognise that van models built on similar platforms can bridge wide weight ranges across light-duty and heavy-duty regulations

In order to better optimise the handling of van and special vehicle platforms that extend across light- and heavy-duty weight ranges, Euro 7 should facilitate the type-approval of a

heavier van in the same way as a lighter van, by simply extending the proposed cut-off at 4 tonnes to 5 tonnes.

- Allow van manufacturers to choose to type-approve heavier vans in a range in the same way as they would their lighter vans. This will avoid approving similar vans as both light-duty and heavy-duty, reducing cost and burden.

NON-EXHAUST PARTICLE EMISSIONS: BRAKE WEAR & TYRE ABRASION

11. Address non-exhaust particle emissions from brake wear only when the test procedure is comprehensive and accurate

The proposed brake wear particle limit of 7mg/km (per vehicle) will itself require more electrification of vehicles (to provide a regenerative braking function) and the use of new brake technologies.

- Introduce measures to address non-exhaust brake wear particle emissions for new cars and vans when all the necessary and relevant test procedures are ready to set the baseline for brake wear particle emissions. Only then can appropriate brake particle limits and implementation dates be established.
- For vans, take account of higher vehicle weight (due to customer need for cargo capacity and payload) to fix appropriate brake particle limits, and set a lead-time that reflects the additional constraints and developments compared to cars.
- Put in place a monitoring and reporting phase before confirming any regulation and lead-time appropriate for the vehicle categories.
- Adapt the proposed date of 1 July 2025, as it will not allow manufacturers and suppliers to make all the necessary technical developments in new brake systems for all vehicles.

12. Address non-exhaust particle emissions due to tyre abrasion to the tyre industry when the science of tyre abrasion is understood

- Address measures to reduce particles due to tyre abrasion directly to the tyre industry, rather than in the Euro 7 proposal. The tyre industry is best placed to manage the critical interdependencies regarding, for example, tyre wet grip, noise, rolling resistance and wear.
- Adapt the implementation date. It is not clear when such a requirement would apply, but the proposed Euro 7 date of 1 July 2025 is not feasible.



ABOUT THE EU AUTOMOBILE INDUSTRY

- 13.0 million Europeans work in the auto industry (directly and indirectly), accounting for 7% of all EU jobs
- 11.5% of EU manufacturing jobs – some 3.4 million – are in the automotive sector
- Motor vehicles are responsible for €374.6 billion of tax revenue for governments across key European markets
- The automobile industry generates a trade surplus of €79.5 billion for the European Union
- The turnover generated by the auto industry represents almost 8% of the EU's GDP
- Investing €58.8 billion in R&D per year, automotive is Europe's largest private contributor to innovation, accounting for 32% of the EU total

ACEA REPRESENTS EUROPE'S 14 MAJOR CAR, VAN, TRUCK AND BUS MANUFACTURERS

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