

3 Spark Ignition Measures (petrol vehicles)

3

PROPOSED REDUCTIONS ARE NOT JUSTIFIED BY AIR QUALITY CONSIDERATIONS AND GO AGAINST FUEL EFFICIENCY/CO₂ TARGETS

– Commission proposal

- Reduce NO_x to 60mg/km (25% reduction) and HC to 75mg/km (25% reduction)

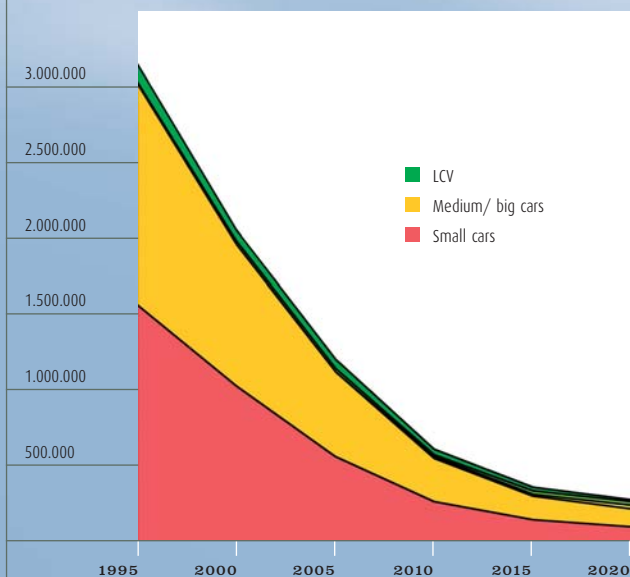
– ACEA position

- ACEA rejects the proposed reduction of gasoline limit values

– Arguments

- Spark ignition vehicles are already clean and further measures are not justified by air quality considerations
- From 1995 to 2020, a more than 90% reduction of NO_x and VOC emissions from gasoline vehicles will take place without Euro 5
- The inherent trade-off between reductions in NO_x and fuel consumption means that a further NO_x reduction will have undesired environmental consequences (increase in fuel consumption and CO₂ emissions)
- The proposed reduction of the hydrocarbon limit value would make it impossible to put on the market CO₂-saving compressed natural gas (CNG) vehicles

NO_x Sum of NO_x exhaust



Gasoline cars emissions: NO_x without Euro 5 in 2020

4 Heavy M1

4

CONSIDER DEDICATED TRANSPORT FUNCTIONS AND NEEDS OF RURAL COMMUNITIES

– Commission proposal

- Abolish provision for heavy M1 (mass exceeding 2.5t) to use N1 limit values

– ACEA position

- The “heavy M1 provision” is required and justified for certain types of vehicles
- ACEA is open to discuss an appropriate definition with decision-makers

– Arguments

- Many of the vehicle types in question are used for dedicated transport functions (shuttle buses, etc.) or have real off-road capability
- These vehicles meet particular transport needs, including of large families and rural communities
- These specific needs necessitate the design of heavier, higher and/or wider vehicles with particular gearing and ground clearance, and hence slightly higher emissions
- Simply abolishing the heavy M1 provision might impose a switch to gasoline engines with an associated negative impact on fuel economy and CO₂ emissions
- ACEA would support limiting the use of this provision to vehicles designed for 7 or more seats and/or having off-road capability as well as to motor-caravans and other special purpose vehicles

DID YOU KNOW...

Comparing the EU with other world markets

The EU market is fundamentally different from the US or Japan because of the role that diesel technology plays in Europe. European manufacturers are world-leaders in diesel technology, which is key for reducing fuel consumption and CO₂ emissions. Half of all new vehicle sales in the EU are diesel, with the share of diesel reaching more than two thirds in several national markets. This is in sharp contrast to the US and Japanese markets, where diesel passenger cars exist only as a fraction of the market (significantly below 1% in the US). Therefore, making diesel technology more expensive will not only have a negative environmental impact in terms of increased CO₂ emissions, but may also affect the competitiveness of European manufacturers.

Durability

5

EXTENSION OF DURABILITY TEST PROTOCOL AT TIME OF TYPE APPROVAL IS BURDENSOME AND UNNECESSARY

– Commission proposal

- Extend durability test protocol at time of type approval from 80,000km to 160,000km

– ACEA position

- The “type V test” should be considered for deletion

– Arguments

- While the durability test is time-consuming and burdensome, it does not reflect real-world conditions as it is based on US driving patterns in the 1970s
- In-use compliance tests, conformity of production checks, mandatory periodic inspections and the support of on-board diagnostic systems are sufficient to ensure durability in practice

DID YOU KNOW...

NO_x after-treatment technologies of the future

Different NO_x after-treatment systems are currently under investigation, but it is at present too early to decide on the most appropriate technology, which may differ between vehicle classes. The main concern with De-NO_x traps is their durability, as regeneration events require high temperatures that are critical for the coating. For SCR (selective catalytic reduction), which is a technology for heavy-duty vehicles, technical difficulties include packaging (e.g. urea tank system, dosing unit, etc.), dosing of urea and mixing, the need for a supporting network, etc. While these technologies are not ready for mass production within the Euro 5 timeframe, manufacturers are nevertheless continuing development efforts.

Access to vehicle repair information

6

COMPETITION, NOT TYPE APPROVAL

– Commission proposal

- Impose standardised access to repair information through Euro 5 regulation

– ACEA position

- Rules on access to repair information do not belong in the Euro 5 regulation

– Arguments

- The automotive block exemption regulation 1400/2002 already contains an obligation to make repair information available
- Access to vehicle repair information is a competition issue that does not belong in a type-approval Regulation
- Type-approval authorities should check compliance with technical requirements whereas competition authorities and courts should enforce competition law
- The Commission itself has never carried out an impact assessment of the proposed standard (OASIS), which is not workable in its present format

DID YOU KNOW...

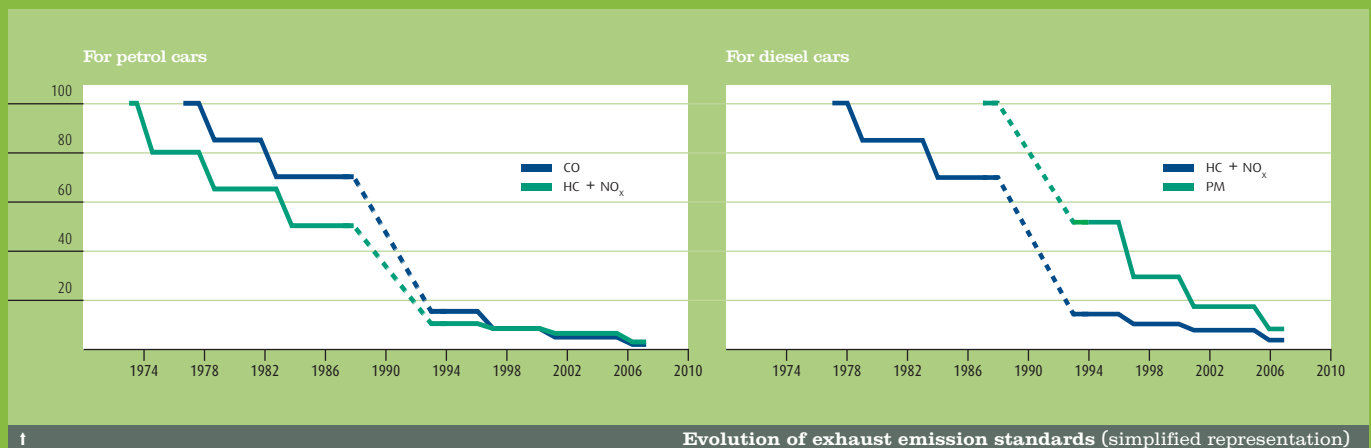
The Real Environmental Challenge: Fleet Renewal

New cars represent only a small segment of total cars in use. The real and main environmental (and safety) challenge is to ensure that today's modern cars replace old vehicles in the fleet. An excessive focus on further reductions in emissions limit values of new vehicles and expensive measures on already clean cars may be counter-productive, as they will make new cars less affordable and slow down fleet renewal. The real objective should be keeping new cars affordable and speed up phase-out of older vehicles.

euro 5

Vehicle emissions have fallen dramatically over the past decades. In the last 25 years, emissions from diesel vehicles have been reduced by about 95% with regard to NO_x and PM. Emissions from petrol engines are nowadays so low that even environmental agencies such as the German *Umweltbundesamt* do not demand lower limit values. Further reductions in petrol engine emission levels are not justified, as can be seen from the results of the Clean Air for Europe programme (CAFE). Such improvements have been made possible by major research efforts and large financial investment by automotive manufacturers that remain Europe's largest industrial investors in R&D. The scale of these investments and the cumulation of different regulatory requirements are important reasons why the automotive industry requires appropriate lead-times, planning certainty and a regulatory framework based on science, sound economic assessment and the respect of better regulation principles, as defined in CARS 21. Looking ahead, the environmental benefits from this technological progress will continue to be felt as new vehicles progressively replace old vehicles in the fleet. For example, CAFE predicts a more than 90% reduction in NO_x and VOC emissions from gasoline vehicles by 2020 even without Euro 5. Thus, the environmental challenge is increasingly to keep vehicles affordable and to speed up fleet renewal, not a further reduction of limit values of new vehicles. To cite CAFE: "in the future, other sectors, for which there is currently less strict legislation, will cause the majority of emissions".

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 - CLEAN AIR FOR EUROPE PROGRAMME (CAFE)

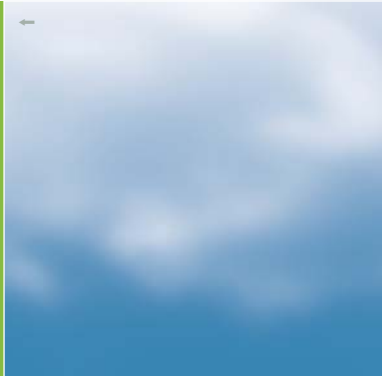


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ACEA's views on

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Timing

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36 MONTHS FOLLOWING FULL CLARITY ON TECHNICAL REQUIREMENTS

– Commission proposal

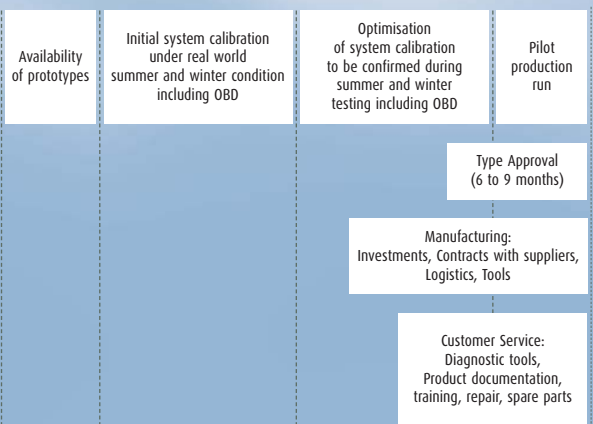
- 18 months after entry into force of co-decision regulation (+12 months N1 class II/III)

– ACEA position

- 36 months after full clarity on technical requirements (+12 months N1 class II/III)

– Arguments

- 3 years are required for bringing a known technology to mass production
- Pull ahead would lead to major disruption of development processes
- It is only after the publication of the comitology regulation that accompanies the co-decision regulation that industry has clarity on technical requirements
- Industry has legitimate expectations to plan for Euro 5 not earlier than 2010 based on the Commission Communication on Incentives and the CAFE modeling
- As Euro 4 applies from 2005/2006, even the date of 2010 means that regulatory requirements would not remain stable over one product cycle – and does not give industry sufficient time to recover investment costs



Lead-time : 3 years (Illustration of steps)

Compression Ignition Measures (diesel vehicles)

2

INDUSTRY ACCEPTS THE FITMENT OF DIESEL PARTICULATE FILTERS ACROSS THE FULL RANGE OF VEHICLES

– Commission proposal

- M1: 5mg/km (80% reduction); NO_x: 200mg/km (20% reduction)
- N1 class II and III to have same PM limit values as M1 (87.5% and 92% reduction)

– ACEA position

- M1: ACEA accepts the proposed reduction in diesel limit values for M1 vehicles
- N1: An 80% PM reduction should also be applied to N1 vehicles class II and III

– Arguments

- A PM reduction of 80% will force the fitment of diesel particulate filters (DPF) across the range of diesel vehicles, including N1 class II and III
- The additional cost burden for CO₂-saving diesel vehicles will be considerable
- Lower limit values would have no environmental benefit but lead to unacceptable uncertainties in terms of measurability, repeatability and reproducibility
- The proposed 20% NO_x reduction is a significant task
- The status of development of NO_x after-treatment systems is not mature and will not be ready for mass production within the Euro 5 timeframe
- Forcing technologies that are not available for mass production at this point would lead to unacceptable additional uncertainty and burden on European diesel technology and risks causing a reduction in the diesel market share

DID YOU KNOW...

Trade-off between Euro 5 and CO₂ emissions

An inherent trade-off exists between emissions reduction and fuel consumption (and hence CO₂). For example, the laws of thermodynamics explain the negative relation between NO_x levels and fuel consumption. A higher combustion temperature will lead to higher fuel efficiency but also to higher NO_x emissions. Similarly, diesel particulate filters (DPFs) require periodic regeneration, essentially by burning the particles trapped in the filter, during which the engine operates outside the fuel consumption optimal engine operation point. DPFs also increase the costs of diesel vehicles, so that additional costly measures would present a risk for the future of this European technology that is key for continued improvements in the average CO₂ performance of the European fleet – and the competitiveness of European manufacturers.