

**EXPLANATORY MEMORANDUM FOR EUROPEAN UNION LEGISLATION
WITHIN THE SCOPE OF THE UK/EU WITHDRAWAL AGREEMENT AND
NORTHERN IRELAND PROTOCOL**

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**Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE
COUNCIL on type-approval of motor vehicles and engines and of systems,
components and separate technical units intended for such vehicles, with
respect to their emissions and battery durability (Euro 7) and repealing
Regulations (EC) No 715/2007 and (EC) No 595/2009**

ADD1: ANNEXES to the Proposal

**ADD2: REGULATORY SCRUTINY BOARD OPINION Development of Euro 7/VII
emission standards for cars, vans, lorries and buses**

ADD3: COMMISSION STAFF WORKING DOCUMENT Subsidiarity Grid

**ADD4: COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT
REPORT**

**ADD5: COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT
REPORT (ANNEX 1-4)**

**ADD6: COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT
REPORT ANNEX 5-8**

**ADD7: COMMISSION STAFF WORKING DOCUMENT EXECUTIVE SUMMARY
OF THE IMPACT ASSESSMENT**

Submitted by Department for Transport

2 December 2022

SUBJECT MATTER

1. This Explanatory Memorandum sets out the expected implications to Northern Ireland of an EU regulation on type-approval of motor vehicles and engines and of systems, components and separate technical units, with respect to their emissions and battery durability. This regulation package is referred to as 'Euro 7', and is intended to repeal Regulations (EC) No 715/2007 and (EC) No 595/2009.
2. The proposal intends to address three key issues arisen from existing emission standards (i.e. Euro 6 for light duty vehicles and Euro VI for heavy duty vehicles): the complexity of the standards, which have caused burden to industry; obsolete limits for the emission of pollutants; and the insufficient control of real-world emissions of such pollutants over the vehicle lifetime, as durability under Euro 6/VI is currently required for only 5 years, compared to the average age of cars in the EU of ca. 11 years. It is stated that the combination of these issues means that an overall low pollution level for emissions from road transport cannot currently be achieved, neither for currently regulated pollutants (e.g., exhaust particles, NO_x), nor for unregulated pollutants such as non-exhaust particles from brakes and tyres, which are a major source of particle emissions from road transport.
3. Vehicles in scope of the proposed regulations are passenger cars, buses and coaches, vans and heavy goods vehicles. The general objective of the proposed regulation is to ensure the proper functioning of the EU single market by introducing rules for vehicle emissions that address the three key issues arisen from Euro 6/VI. In summary, the regulation introduces:
 - Stricter limits for the emission of all relevant air pollutants already regulated, and new limits for currently unregulated pollutants (e.g. ammonia, formaldehyde, nitrous oxide, ultrafine particles). For cars and vans, emission limits are to remain similar to those imposed under Euro 6. Limits for buses and lorries, however, are to become more stringent (e.g. cutting emissions from NO_x to roughly half compared with Euro VI levels), to reflect the potential for existing technologies to further reduce emission levels. The proposed targets are to apply from 1 July 2025 for cars and vans and from 1 July 2027 for buses, coaches and heavy goods vehicles.
 - Updated real-driving testing boundaries and durability requirements, and provisions for continuous on-board monitoring of emissions over the vehicle's lifetime.
 - Minimum performance requirements for battery durability for battery electric and plug-in hybrid passenger and light goods vehicles. These requirements are based upon the new UN Global Technical Regulation

No. 22. They have been included to ensure sub-standard electric vehicle batteries do not enter the market, as well as to improve consumer awareness and confidence, especially in the second-hand electrified vehicle market. Options have also been reserved to set similar requirements for buses, coaches and heavy goods vehicles in the future.

- New limits for the whole-vehicle emissions of particles from brake wear and tyre wear for all new vehicles. This is expected to require manufacturers to use technologies and materials reducing such emissions (e.g., low-emission tyres, brake pads and discs, particle collectors etc.) on new vehicles.

A more detailed description of the proposal is provided below.

4. Chapter I of the proposal (Articles 1 to 3) sets out the subject matter, the scope of application, and definitions of the key terms and technical concepts used in the regulation.
5. Chapter II (Articles 4 to 9) contain obligations of high- and low-volume vehicle manufacturers for the type approval of vehicles, systems, components and separate technical units in order to be designated as “Euro 7” vehicles, with additional criteria to declare vehicles as “Euro 7+”, complying with more ambitious emission and durability levels than the limits set. This Chapter also sets measures on anti-tampering, security and cybersecurity systems, vehicle durability requirements to ensure vehicles comply with the pollutant emissions limits, fuel and energy consumption figures, and energy efficiency over the lifetime of the vehicle. Additional requirements are detailed surrounding the design, construction and assembly of vehicles in order to reduce vulnerabilities to vehicle tampering (e.g. to remove or deactivate parts of emission control systems, or to alter the odometer to report false mileage).
6. Chapter III (Articles 10 to 12) details the obligations of Member States for putting in place the necessary measures for testing and inspection when granting emission type approval, and to ensure conformity of production and appropriate market surveillance. In addition, requirements for the verification of correct installation of emission measuring systems and tampering checks are detailed.
7. Chapter IV (Article 13) details the checks to be performed for in-service conformity by the European Commission and third parties.
8. Chapter V (Articles 14 to 15) details the methods, tests and criteria required for vehicle manufactures to prove compliance against requirements.

9. Chapter VI (Articles 16 to 18) details conditions for the delegation of power on the Commission, in addition to general provisions on procedure and reporting for Member States.
10. Chapter VII (named Chapter VI – Final Provisions in the proposal, and including Articles 19 to 20) explains that Regulation (EC) No 715/2007 and Regulation (EC) No 595/2009 would be repealed by this regulation, respectively from 1 July 2025 and 1 July 2027. Article 20 of this Chapter also sets the dates of entry into force and application of the Regulation:
 - 1 July 2025 for Passenger and light goods vehicles,
 - 1 July 2027 for heavy goods vehicles, buses, coaches and trailers;
 - 1 July 2030 Passenger and light goods vehicles produced by low-volume manufacturers.

SCRUTINY HISTORY

11. The most recent scrutiny of Euro 6 legislation was when EU document 6202/14, COM(14)28 was scrutinised as a Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulations (EC) No 715/2007 and (EC) No 595/2009 as regards the reduction of pollutant emissions from road vehicles. The Department for Transport submitted an Explanatory Memorandum dated 24 February 2014. The House of Commons European Scrutiny Committee reported on two occasions that the proposal raised issues of political importance (Reports 39, 13/14; and 20, 15/16. The House of Lords European Union Committee examined the proposal in sub-committee B and scrutiny was concluded on 31 January 2020.

MINISTERIAL RESPONSIBILITY

12. The Secretary of State for Transport.

INTEREST OF THE DEVOLVED ADMINISTRATIONS

13. The topic of vehicle type approval is a reserved matter. The Devolved Administrations, particularly in Northern Ireland, have an interest and have been consulted in the preparation of this Explanatory Memorandum.

LEGAL AND PROCEDURAL ISSUES

There are no legal or procedural issues.

14. i. **Legal Base:** The legal basis of the proposal is Article 114 of the Treaty on the Functioning of the European Union (TFEU).

15. ii. **Voting Procedure:** The European Parliament and the Council are expected to adopt the proposal through the ordinary legislative procedure by qualified majority voting.
16. iii. **Timetable for adoption and implementation:** The proposal was published on 10 November 2022. The timetable for consideration of this proposal by the Council and the European Parliament is currently unclear. Implementing acts are expected to be developed in parallel to the co-decision process, in advance of the proposed dates of entry into force of this regulation.

POLICY IMPLICATIONS

17. Overall, the proposed rules are intended to reduce complexity of the current emission standards by eliminating different application dates for limits and tests, and removing the requirement for multiple complex emission tests when not needed, in order to curb administrative costs for industry, and facilitate efficient implementation. Vehicle manufacturers have, however, expressed concerns regarding the feasibility of introducing new testing requirements and emission-reducing technologies complying with the proposed emission standards by the application date of 1 July 2025.
18. The EC predicts the proposed rules will reduce health and environmental impacts of pollution from road vehicles by providing updated limits for all relevant air pollutants that take into consideration up-to-date emission control technologies. Additionally, control of real-world emissions over a longer part of a vehicle's lifetime might be expected to improve through new testing requirements reflecting recent advancements in emission measurement equipment; and extended durability requirements for emission control systems better reflecting the average expected lifetime of vehicles.
19. The EC expects continuous emission monitoring, detection of non-compliance and malfunction to enable improved enforcement of emissions compliance throughout the lifetime of the vehicle. For battery electric vehicles and plug-in hybrids, ensuring they remain performant and durable by introducing the requirement for battery state-of-health monitors might also be expected improve customer trust in these vehicles.
20. In case of approval of the Euro 7 proposal by the EU, the requirements in this regulation will automatically apply to Northern Ireland (NI), but not Great Britain (GB), in accordance with the NI Protocol. In this case, some technical requirements for vehicles being placed on the market in NI may differ to those

in GB. This regulatory divergence may result in GB having less stringent testing requirements and emission limits than those applying to EU and NI.

21. This divergence would likely impact vehicle manufacturers and component suppliers in NI, and any others in GB involved in the EU market. Under a dual regulatory regime, NI manufacturers will have a choice to meet either UK or EU regulations, therefore they will continue to be permitted to place products on the GB market without additional approvals or testing.
22. Some implementing measures in Euro 7 may be developed through regulations within the UN ECE. This proposal is therefore expected to shape the global standards for pollutant emissions, providing an opportunity to harmonise standards and minimise divergence in the areas covered by these regulations. The UK is a contracting party of the UN ECE, and will therefore have the ability to influence the development of these standards. Indeed, the Department for Transport was already directly involved in shaping and supporting the development of UN regulations on battery durability and non-exhaust emissions, which some of the Euro 7 measures are based on.
23. In conjunction with the existing phase-out of new internal combustion engine cars and vans (e.g. hybrid, petrol and diesel vehicles) by 2035 in the EU, the adoption of the Euro 7 proposal might be expected to drive a faster transition towards an increasingly electrified vehicle fleet in the EU (including hybridisation and full electrification of fleets). As UK-based manufacturers and suppliers are part of a wider European market by supplying vehicles and components to the EU, their strategies are likely to be affected by the measures introduced by Euro 7. As the UK has similar ambitions of all new cars and vans being zero emission at the tailpipe by 2035, these proposals might be expected to further encourage the transition to zero emission mobility in the UK.
24. The Department for Transport is analysing the Euro 7 proposal to evaluate the financial and social impacts, and the environmental benefits that similar updates to emission standards could bring to the UK. This analysis will inform the development of future options for emission standards applying to GB, contributing to the UK's commitment to air quality targets and transition to net zero emissions by 2050.

CONSULTATION

25. During the development of this proposal, the European Commission consulted Member States and EU national authorities, motor vehicle manufacturers, component suppliers and other industry stakeholders, civil society (including consumer organisations and environmental NGOs) and citizens.

26. The Commission conducted an impact assessment, whose report was provided as Annex 4. In summary, the report details the substantial positive impacts on public health and the environment due to the reduction of harmful air pollutant emissions.

27. The Devolved Administrations were consulted in the preparation of this Explanatory Memorandum. No comments were made in relation to Northern Ireland and Wales. Transport Scotland noted the importance of further consideration to measures preventing tampering of emission control systems on vehicles after the point of sale, which represents a significant risk to air pollution from road transport that is currently not addressed by EU legislation e.g. through in-service conformity tests for anti-tampering, security and cyber security.

FINANCIAL IMPLICATIONS

28. Total regulatory costs for vehicle manufacturers are predicted to increase as a result of increasing costs on equipment and R&D, which will fall on manufacturers and suppliers and are likely to be transferred to their consumers. Overall cost per vehicle is estimated to increase by £263 for cars/vans and £2,316 for lorries/buses. Regulatory costs are estimated at £46 billion across the EU.

29. From the impact assessment conducted, the European Commission predicts that in 2035, Euro 7 will lower NO_x emissions from cars and vans by 35% compared to Euro 6, and by 56% compared to Euro VI from buses and lorries. At the same time, particles from the tailpipe will be lowered by 13% from cars and vans, and 39% from buses and lorries, while particles from the brakes of cars will be lowered by 27%. This is expected to lead to an estimated total monetary health benefit of savings of £164 billion over the period 2025-2050.

30. No significant impacts on national budgets and administrations are expected.

MINISTERIAL NAME AND SIGNATURE



Rt Hon Jesse Norman MP
Minister of State
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