AD/BR8793/KVB Brussels, 14 March 2023

European Commission proposal on a Euro 7 standard

IRU position paper on the European Commission's proposal for Euro 7 emission standards for light- and heavy-duty vehicles

I. IRU POSITION

IRU recognises the European Commission's proposal for Euro 7 standards as an important measure to further improve the environmental performance of transport in the European Union.

Euro 7 sets standards for all existing technologies, including the internal combustion engine (ICE), battery-electric, and fuel cell hydrogen. To further improve the environmental performance of road transport, the new Euro 7 standards should be based on the following principles:

- **Keeping all options open:** Send the right signal for better environmental performance to all available technologies. Different vehicle propulsion systems suit different transport operations. Road goods and passenger transport companies should be able to choose from various options and apply technologies according to the needs of their operations.
- **Setting the right balance between additional environmental benefits and the cost of upgrading technologies.** Access to incentive schemes should be in place to accelerate the uptake of Euro 7 standards, with a gradual decrease over time to encourage early adoption. Incentive schemes should start before the new technology becomes mandatory for all new vehicles.
- **Ensuring legal certainty and consistency with international standards.** The EU should focus on the most relevant aspects with regards to the reduction of pollutant emissions and component durability and accuracy. The Euro norms for tyres and brakes should consider the work already done at the international level and be consistent with international standards.
- **Establishing sector-specific rules.** The standards should be clear on how the responsibilities are split between vehicle, brake and tyre manufacturers.
- **Defining the performance of tyres and brakes on a type-approval basis**. Measuring the performance of tyres and brakes should not require the installation of additional devices for real-world monitoring.
- **Finding the right balance between environmental performance and road safety.** Stricter pollutant standards for tyres and brakes should not undermine road safety.
- **Guaranteeing operators' choice over access to in-vehicle data.** Specifically pre-defined in-vehicle data should be made temporarily available on demand to authorised inspectors for periodic testing and roadside inspections under standardised and safe conditions, before being erased thereafter. Challenges in terms of technical, safety, security, and privacy requirements should be recognised. Access to in-vehicle data should not interfere with the performance of transport operations.
- **Setting a realistic start date.** IRU calls for the introduction of Euro 7 standards to follow a timeframe that gives enough time for new technologies to develop,

which would be later than the deadlines proposed by the Commission[1]. The implementation dates for Euro 7 standards should be selected carefully, considering that the latest Euro norms were introduced only recently, allowing sufficient time for transport operators to adapt to additional technological requirements. Different deadlines should be set for the full compliance of new vehicle types and all first registered new vehicles.

II. ANALYSIS

1. General

In parallel to decarbonising road goods and passenger transport, it is necessary to reduce pollutant emission levels and increase component durability.

IRU welcomes the fact that the newly proposed Euro 7 standards follow a technology-open approach, setting standards for internal combustion engines, as well as for battery-electric and hydrogen fuel cell.

a) Real-time surveillance

Emission surveillance will be expanded to real-time measurements and direct transmission. The proposed regulation foresees an on-board monitoring device that will be used to send data wirelessly and ensure that a vehicle type complies with the regulation (monitoring several thousands of vehicles of the same type). In case they detect persistently high emissions, real-time driving measurements would lead to the vehicle triggering an inducement procedure. They could potentially even prevent engine start. IRU is concerned that this technology could have a negative impact on road safety and threaten the security of transport and mobility operations.

The consequences of real-time surveillance and continuous data transmission could be significant, leading to technical, safety, security and privacy risks for transport and mobility operators. For IRU, the transmission of data should be on demand rather than on a permanent basis.

b) Newly added pollutants

The newly added pollutants that are emitted from exhaust systems include non-methane organic gases (NMOG), formaldehyde (HCHO), nitrous oxides (N_2O), and PN_{10}.

The European Commission will also publish emission limits for tyres and brakes at a later stage.

IRU considers that the Euro 7 standards should provide sector-specific rules, with the responsibilities split between vehicle, brake and tyre manufacturers. The performance of tyres and brakes should be defined on a type-approval basis. Furthermore, measuring the performance of tyres and brakes should not require the installation of additional devices for real-world monitoring.

Additionally, the rules for pollutant emissions from tyres should be aligned with the standards currently developed by the United Nations Economic Commission for Europe (UNECE).

IRU calls for:

- Improving the environmental and operational performance of battery-electric, fuel cell hydrogen, and internal combustion engines, setting

[1] 1 July 2025 for M1, N1 new vehicles and components and separate technical units for those vehicles, and 1 July 2027 for M2, M3, N2, N3 new vehicles and components and their separate technical units and O3, O4 trailers

standards for pollutant emissions as well as minimum component durability limits.

- Limiting real-time data collection to strictly necessary emission values that will support transport and mobility operators in improving their environmental performance as well as facilitating inspection procedures.
- Setting sector-specific rules. The norms should be clear on how responsibilities are split between vehicle, brake and tyre manufacturers.
- Defining the performance of tyres and brakes on a type-approval basis. Measuring the performance of tyres and brakes should not require the installation of additional devices for real-time monitoring.

2. Technology openness

The new draft regulation aims to reduce pollutant emissions and increase durability for all vehicle technologies and thereby demonstrates a technology-open approach. Alongside the uptake of battery electric and hydrogen-powered vehicles, finding feasible solutions to improve the internal combustion engine is key for decarbonising and reducing pollutant emissions. IRU underlines that the ICE should remain an option, be improved further, and used with even more sustainable fuels.

A very large variety of HDV types exist to ensure that road transport companies can manage a wide array of road goods and passenger transport operations. Today, ICE vehicles running on liquid or gaseous fuels continue to dominate the market, as this powertrain option continues to be the best suited for operational requirements. Fossil fuels should be gradually replaced by CO_2 neutral equivalents. Together with more efficient mobility and logistics chains, more efficient vehicles and other available powertrain technologies will further accelerate the decarbonisation of the commercial road transport industry.

Therefore, IRU considers that technology openness marks the most pragmatic and flexible approach for commercial road transport operators to embrace various technologies, including the ICE.

IRU calls for:

- Sending the right signal for better environmental, operational and safety performance for all available technologies.
- Allowing road goods and passenger transport operators the ability to choose from various options in order to apply the most suitable technology for their operations.

3. Cost implications and incentives

To cover the need for additional hardware, research and development costs for emissions compliance, each new Euro 7 regulation leads to an increase of the price of vehicles. New requirements on consumable parts, such as tyres and brakes, will also lead to an increase in the total cost of ownership. In addition, increased amounts of AdBlue will have to be purchased to comply with the new standards. IRU underlines that innovative technologies should be encouraged while balancing the stringency of the rules with associated costs and additional benefits.

A reasonable increase in the total cost of ownership is key for this proposal to be successful. Stricter standards could further reduce pollutant emissions if the cost increase is proportionate and in balance with the market's needs and financial limitations. In addition, the economic lifecycle of vehicles needs to be taken into account, allowing for sufficient adoption time. The introduction of Euro 7 should not lead to a premature depreciation of Euro 6, or limit access to certain zones for Euro 6 vehicles before fleets have been replaced following a cost-effective timeline. Investment cycles

of 10 to 12 years are common, the reasons being both contractual and financial. Imposing a shorter transition scheme would lead to financial deficits for operators. Hence, corresponding support measures would have to be coupled with these schemes.

Otherwise, IRU sees the risk of a counter effect, disincentivising, and eventually deterring, manufacturers from developing new technologies, or discouraging operators from buying them. This must be avoided. Vehicle prices have increased each time a new Euro norm has been issued, due to the use of new technologies fitted on-board to answer new engine standard requirements. The same applies to the new Euro 7 standards.

To promote the uptake of these more advanced technologies, and to account for additional costs, incentives for early adopters would be welcomed and accelerate the uptake. Examples of incentive schemes include purchase bonuses, tax exemptions or reductions, and/or other financial benefit schemes.

IRU calls for:

- Setting the right balance between additional benefits and the cost of upgrading technologies. New standards must not jeopardise operational efficiency and lead to an increase in the total cost of ownership.
- Accelerating the uptake of Euro 7 through incentive schemes that gradually decrease over time to encourage early adoption, alongside support mechanisms to facilitate fleet renewal. Incentives should start prior to a new technology becoming mandatory.

4. Consistency with international standards and legal certainty

The Euro 7 draft regulation in its current form does not provide legal certainty on all aspects included in the standards. The European Commission has announced it will include several acts that have yet to be drafted. Several limit values are also still to be defined. IRU underlines that the resulting legal uncertainty may lead to insecurity in the market and delay investment by transport and mobility operators in better performing and new technologies. A preferable solution to choosing the legal instrument of implementing acts would be separate legislative acts in order to ensure a complete legislative procedure.

An additional source of uncertainty will be caused by the introduction of options such as “Euro 7+A”, “Euro 7+G”, “Euro 7+AG” or “Euro 7AG”. It will remain uncertain if Member States consider these options to be beneficial. It is also unclear under which circumstances Member States will support manufacturers with appropriate incentives. IRU fears that creating additional subcategories may lead to additional confusion among users.

Legal certainty should also be achieved in accordance with existing international standards and those currently being developed, such as UNECE regulations for vehicle emissions and components (for example, regarding safety standards). Type approval should consider different conditions of usage and regional specificities.

The UNECE Working Party on Pollution and Energy (GRPE) adopted the Global Technical Regulation (GTR)[2] on brake particle emissions on 13 January 2023. It is currently developing standards for tyres. Both regulations should be considered in separate legal acts at the EU level, indicating limit values for average mass loss per kilometre, making reference to UNECE regulation.

[2] GRPE-87-40e_clean.pdf (unece.org)

IRU calls for:

- Focusing on the most relevant aspects with regards to reducing pollutant emissions and component durability and accuracy, as well as ensuring legal certainty and alignment with international standards.
- Taking into account the work already being carried out at international level and being consistent with international standards.
- Avoiding legal uncertainty and confusion among users through the creation of additional subcategories, such as “Euro 7+A”, “Euro 7+G” or “Euro 7+AG”.

5. On-board data collection and continuous data transmission

The proposed Euro 7 standards foresee an increased availability and accessibility of in-vehicle data, such as on fuel consumption and emissions in real conditions. The aim is to facilitate continuous emission monitoring as well as enhancing data access and sharing. The objective of measurements via sensors is to determine whether the emission control system of a vehicle is functioning properly or whether it is exceeding emission limits.

If high levels of emissions are persistently detected, the vehicle would trigger an inducement procedure to ensure that it does not continue to circulate for long periods with high emissions. IRU underlines that inducement procedures bear high safety and security risks. Malfunctioning of on-board monitoring (OBM), data transmission or evaluation could provoke incorrect inducement and lead to unforeseeable operational damages.

As mentioned, the continuous transmission of data to third parties should be limited to strictly necessary values. Specifically predefined in-vehicle data should be made temporarily available to third parties at periodic testing and inspections and be erased thereafter. Collecting vehicle data should either serve manufacturers for technical improvements and technology development, or to enforce pollutant emission rules. It should not lead to the development of long-term databases.

The new Euro 7 proposal requires vehicle manufacturers to equip their products with new electronic networks called OBM and on-board fuel consumption monitoring (OBFCM) systems. Used in combination with the current on-board diagnostic network (OBD) and Controller Area Network (CAN-BUS), these new units collect data on vehicle usage, such as speed, distance travelled, payload, levels of pollutant emissions, and fuel consumption. To verify compliance with emission limits, only a part of this data is relevant. On-board monitoring should be limited to strictly necessary data.

The availability of, and accessibility to, in-vehicle data can facilitate continuous emission monitoring, but challenges in terms of financial, technical, as well as safety, security and privacy requirements for access to in-vehicle data in this context need to be examined carefully. IRU considers that operators’ choice over third-party access to in-vehicle data should always be preserved.

Collecting, transmitting and processing real-time data will require enhanced data infrastructure and lead to significant new investments and costs. It remains to be clarified how the additional financial burden will be spread and accounted for.

IRU calls for:

- Operators’ choice over access to in-vehicle data to be guaranteed.
- Challenges in terms of technical, safety, security, and privacy requirements to be recognised.
- Specifically predefined in-vehicle data to be made temporarily available on demand to authorised inspectors during periodic testings and roadside inspections under standardised and safe conditions, and to be erased

thereafter. Transmission of data should not happen on a permanent basis but only on demand.

- Access to in-vehicle data should not interfere with the performance of transport and mobility operations. Inducement procedures that lead to engine malfunction should be avoided. This would put road safety at risk, and jeopardise the security of transport and mobility operations.

6. Timeline

The proposed deadlines foresee 1 July 2025 for M1, N1 vehicles, as well as components and separate technical units for those vehicles, and from 1 July 2027 for M2, M3, N2, N3 vehicles, as well as components and separate technical units for those vehicles and O3, O4 trailers.

New Euro norms are historically applied following two deadlines. The first one is for newly certified vehicle types (or newly designed vehicles). The second one, generally a year later, for all newly registered vehicles (or newly sold vehicles). IRU calls for keeping deferred deadlines as to provide additional time for the adoption of new rules.

The roll-out dates for the new Euro 7 norms for both categories should be carefully considered, given that the latest Euro norms were introduced only recently, and allowing sufficient time for manufacturers and operators to adapt to additional technological requirements.

IRU calls for:

- The introduction of Euro 7 standards at a date which allows enough time for new technologies to mature. The date for introduction of the new Euro 7 for both categories should be selected carefully, considering that the latest Euro norms were introduced only recently. They should also allow sufficient time for manufacturers and operators to adapt to additional technological requirements.
- A delayed introduction date for newly approved types of vehicles and engines and all newly registered vehicles would allow for additional adaptation time.

* * * * *