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**COMMISSION STAFF WORKING DOCUMENT**

*Accompanying the*

**Proposal for a**

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**concerning type-approval requirements for the general safety of motor vehicles**

***Summary of the Impact Assessment***

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## EXECUTIVE SUMMARY

In order to meet the European Union's safety and environmental objectives, there is a continual need to update the various regulations that apply to new vehicle construction. However, there is an equal need to limit the regulatory burden on industry, and to simplify existing legislation wherever possible. New technologies are now available which can dramatically improve vehicle safety (such as vehicle stability control) or reduce CO<sub>2</sub> emissions (such as low rolling-resistance tyres) and research has indicated that there would be significant benefits if such technologies were introduced as standard on new cars, and possibly other vehicles as well.

However, before considering amending or expanding the current type-approval Directives to mandate, or at least set standards for, these new technologies, it is necessary to review the current system of safety-related type-approval Directives. In 2005 the CARS 21 report recommended the simplification of the current regime, replacing many of the current Directives with equivalent regulations developed by the United Nations Economic Commission for Europe (UNECE). Further simplification could be achieved by replacing the current 50 base Directives (and 100 related amending Directives) with one Council and Parliament Regulation. An advantage of such an approach would be that such a Regulation, and its subsequent amendments, would not need to be transposed by Member States.

The proposal which is the subject of this impact assessment will be to simplify the current systems for vehicle safety but also introduce new requirements, where technically feasible and economically justifiable, to improve the safety and environmental performance of new vehicles.

This Impact Assessment analyses possible changes to the current safety requirements under three themes; **Simplification, Advanced Safety Systems and Tyres**.

With regard to **simplification**, the following options were considered:

- (a) Do nothing (maintain all existing safety –related Directives).
- (b) Do nothing as part of the current exercise, but review each Directive as and when they are due to be modified, and decide whether replacement is appropriate.

- (c) Replace all existing Directives through the proposed Regulation.

Option (c) was considered most viable since it represents the quickest way of simplifying the current regime and is in line with the CARS 21 recommendations.

With regard to **advanced safety systems**, three types of systems were considered; **electronic stability control, advanced emergency braking and lane departure warning**. For each of these systems, the following options were examined:

**Option a)** Do nothing and allow the market to take the initiative.

**Option b)** Establish technical standards for such systems (where fitted) and allow manufacturers to fit them optionally.

**Option c)** Establish technical standards and mandatory fitting requirements.

In all cases, the analysis concluded that relying on market forces alone was unlikely to achieve full fleet penetration, and that there was justification for mandatory action. However, in the cases of **advanced emergency braking and lane departure warning** systems, the emphasis should be on mandatory installation on heavy duty vehicles as a first stage.

Regarding **tyres**, there are four areas, some of them inter-related, where action has been proposed. These concern **tyre/road noise, rolling resistance, tyre pressure monitoring systems and tyre wet grip performance**.

With regard to **tyre noise** the following options were considered:

**Option a)** Follow the recommendations of a report by the Federation of European Highway Research Laboratories (FEHRL) and propose tyre noise limit reductions of around 4dB(A), with the actual values depending on which of five width categories the tyre falls into.

**Option b)** Similar to Option a) but allowing a longer two-phase introduction.

**Option c)** Follow the recommendations of a report by TRL which proposes similar noise reductions to FEHRL but effectively reduces the number of width categories to two. This makes compliance with the requirements proportionately more difficult for wider tyres.

As the FEHRL report has indicated that a large proportion of existing tyres can already meet the proposed requirements of option a) there appears to be no justification in delaying the implementation (as proposed in option b)). There may be some feasibility concerns over the ability of some tyres to meet the option c) requirements, so option a) with minor adjustments following consultations with stakeholders, is the preferred option.

With regard to **tyre rolling resistance**, the following options were considered:

**Option a)** Rely on a grading and labelling scheme to encourage the increased use of low rolling resistance tyres. For tyres supplied as original equipment, rely on the vehicle manufacturers' incentive to produce cars with low fuel consumption, and to produce cars with a low CO<sub>2</sub> rating in order to meet future CO<sub>2</sub> emission targets.

**Option b)** Introduce a grading and labelling scheme as in Option 1 but make at least the minimum standard mandatory for vehicle and component type approval.

**Option c)** Same as Option b) but would also apply to after-market tyres.

It was considered that Option c) should be chosen since the benefits would apply to existing vehicles and would thus be realised over a shorter timescale. However, only the mandatory limit values would be included in the main Regulation. Details of a grading and labelling scheme would be agreed at a later date.

With Regard to **Tyre Pressure Monitoring Systems**, the following options were considered;

**Option a)** Do nothing and allow the market to take the initiative.

**Option b)** Establish technical standards for such systems (where fitted) and allow manufacturers to fit them optionally.

**Option c)** Establish technical standards and mandatory fitting requirements.

It was considered that, in order to be effective in maintaining an optimum pressure to minimise fuel consumption and CO<sub>2</sub> emissions, a higher degree of accuracy was required than is available with current systems. In addition, there was justification for mandatory fitment since reliance on market forces alone was unlikely to achieve full fleet penetration.

With regard to **tyre wet grip**, it was considered that voluntary options were not appropriate since wet grip was an important safety issue and the 'no action' option could lead to a reduction in wet grip standards due to the pressure on manufacturers to meet noise and rolling resistance requirements. Therefore compulsory wet grip approval was considered as the best option.

In general, the impact assessment shows that it is possible to improve the safety and environmental performance of new vehicles in a cost-effective manner, while simplifying the legislative framework covering vehicle safety.