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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 13.11.2008
SEC(2008) 2861

COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on labelling of tyres with respect to fuel efficiency and other essential parameters

SUMMARY OF THE IMPACT ASSESSMENT

{COM(2008) 779}
{SEC(2008) 2860}

COMMISSION STAFF WORKING DOCUMENT

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Proposal for a Directive of the European Parliament and of the Council on labelling of tyres with respect to fuel efficiency and other essential parameters

IMPACT ASSESSMENT SUMMARY

Policy background

In the Energy Efficiency Action Plan (COM(2006) 545) the European Commission committed to consider drawing up a proposal for a tyre energy labelling scheme by 2008. **The aim is to promote vehicle fuel efficiency through market take-up of fuel-efficient tyres¹.**

This impact assessment is part of an integrated approach to improve tyre fuel efficiency and other essential parameters. This approach combines supply-oriented measures by means of mandatory standards (minimum requirements) defined in the type-approval legislation and demand-oriented measures by means of labelling. The proposal for a Regulation on the general safety of motor vehicles (COM(2008) 316) will significantly improve tyre rolling resistance (fuel efficiency), wet grip (road safety) and external rolling noise (traffic noise/health) through the adoption of new minimum requirements regarding those parameters. The objective of this impact assessment is to assess the opportuneness of supporting dynamic improvement in tyre fuel efficiency beyond those minimum requirements through the operation of market forces. It would address mainly the replacement market, which constitutes 78% of the tyre market.

A tyre is characterised by a number of parameters which are interrelated. Optimising one parameter, such as rolling resistance, may have an adverse impact on another parameter, such as wet grip², whereas optimising wet grip may have an adverse impact on external rolling noise. While it is possible to simultaneously improve different tyre attributes at higher production costs, it is also possible within a given technology to optimise one parameter at no additional cost but at the expense of another.

There are two ways to tackle this issue: (1) either minimum requirements guarantee a satisfactory level of safety and external rolling noise which can be progressively tightened, while tyre labelling gives information on fuel efficiency only; (2) or tyre labelling covers several parameters to give incentives for optimisation of all parameters beyond the minimum requirements. The policy options described below reflect these alternatives.

Policy Options

- **Option 1:** No EU action = baseline scenario, including the proposal for a Regulation on the general safety of motor vehicles which sets new minimum requirements for tyres.

¹ Also called “Low-Rolling-Resistance Tyres” (LRRTs), see definition in the impact assessment, Box 1.

² See definition in the impact assessment, Box 2.

- **Option 2:** Single-criterion labelling scheme for C1 tyres³ regarding fuel efficiency, with minimum requirements on other parameters (wet grip and external rolling noise).
- **Option 3:** Dual-labelling scheme for C1 tyres regarding fuel efficiency and wet grip, with minimum requirements on external rolling noise.
- **Option 4:** Multi-criteria labelling scheme for C1 tyres regarding fuel efficiency, wet grip and external rolling noise.
- **Option 5:** Extension of the labelling scheme developed for C1 tyres (Option 2, 3 or 4) to C2 and C3 tyres⁴.
- **Option 6:** Economic instruments and public procurement. This option does not necessarily substitute Options 2 to 5 but could complement them.

Option 1 highlights the current drivers of improvement in rolling resistance (RR) relevant for fuel efficiency, namely (1) the regulatory pressure put on car producers to reduce car emissions, and hence tyre RR; (2) the setting of minimum requirements governing RR in the proposal for a Regulation on the general safety of motor vehicles; and (3) to a lesser extent, demand from road transport sector professionals who want to reduce costs per km. Market transformation projection based on past trends and these three drivers shows that the market transformation towards fuel efficient tyres will fail to achieve its full potential without further EU action. This is due to a market failure arising from lack of information, i.e. the impossibility for consumers, and most of the time also for larger fleet managers, to objectively assess tyre performance characteristics and compare the potential increased purchasing price with fuel savings during the in-use phase of the tyres.

Option 2 illustrates that the impact of a single-criterion labelling scheme regarding fuel efficiency is likely to be the most effective in promoting market transformation towards fuel efficient tyres compared to Options 3 or 4. The information provided on tyre fuel efficiency via a grading system will be the easiest for consumers to absorb while minimum requirements on wet grip and external rolling noise will ensure drivers' safety and reduced traffic noise. One strong argument in favour of relying on minimum requirements for wet grip is that there cannot be compromises on road safety. On the other hand, minimum requirements do not give long-term incentives for tyre producers to further invest in R&D to optimise those tyre parameters which are not displayed on the label, since consumers will not have access to the information.

Option 3 shows that a dual-labelling scheme regarding fuel efficiency and wet grip may slow down the market transformation towards fuel efficient tyres. Since production costs will be significantly higher in order to optimise both parameters at the same time (e.g. to achieve an "A" grade in both performance characteristics), consumers are likely to choose a less expensive tyre with optimised wet grip and leave fuel efficiency by the wayside. The safety gains of higher wet grip levels going beyond the minimum requirement are difficult to assess. First, vehicle-tyre interaction will play an important role in the real on-road braking performance of a tyre; second, other parameters, such as aquaplaning or handling in a curve,

³ C1, C2 and C3 tyre classes as defined in COM(2008) 316 in general refer respectively to tyres fitted on passenger cars, light commercial vehicles and heavy-duty vehicles (see Box 3).

⁴ See footnote 2.

are also significant for road safety⁵; third, driving behaviour is the most critical factor in accident causes; and finally, statistics and national databases do not make for a solid analysis concerning the relation between tyre wet grip and accident causes. It can be assumed, however, with maximum probability that wet grip, i.e. the gain in braking distance, can make a difference in avoiding an accident. The impact assessment shows, in addition, that there is potential for improving wet grip beyond the minimum requirements. Including wet grip in a labelling scheme would provide producers with strong incentives to further optimise this parameter.

Option 4 demonstrates that there is still a large potential for reduced external rolling noise on the market below the minimum requirements. Since traffic noise is a nuisance and source of health problems, the inclusion of external rolling noise in a labelling scheme may be instrumental in promoting low-noise tyres and awareness-raising in compliance with Directive 2002/49/EC on environmental noise. The impact assessment shows, however, that the real impact on consumer behaviour is questionable, mainly because the standardised tests can only measure external rolling noise and do not necessarily reflect inside noise, which depends on the specific tyre-vehicle/road surface interaction. Neither would the current accuracy of tests make for a precise grading scheme. It is therefore recommended to take a middle approach, which consists of simply indicating the external rolling noise measured value on the label.

Option 5 entails the highest fuel-saving potential, since the vehicles of road transport companies annually consume and drive more than passenger cars. Bilateral interviews with fleet managers show that a labelling scheme would be instrumental in driving the market towards more fuel-efficient tyres: a 1kg/t difference for a set of truck tyres translates, for example, into 5% fuel savings (compared to 1.5% for passenger cars on average). Fleet managers currently face difficulties in objectively comparing tyre fuel efficiency performance; so that without further EU action price and mileage will continue to be the first and almost only parameters they take into account in their purchasing decision.

Option 6 discusses economic instruments and public procurement which could act as complementary measures. Economic or market-based instruments may indeed boost market change by, for example, decreasing levies on fuel-efficient tyres and increasing it on worst-performing tyres. This would improve price signals by attaching a value to the external costs and benefits. This may be effective especially on the fleet market, which constitutes up to 50% of the passenger car market in some Member States, since fleet owners do not pay fuel bills and may therefore be less interested in buying fuel efficient tyres. A labelling scheme could also be instrumental for cities, companies and public authorities in the design of proactive purchasing policies.

Final outcome

Comparison of the policy options shows that a multi-criteria labelling scheme (Option 4 on C1 tyres) should be the preferred option extended to C2 and C3 tyres (Option 5). Option 5 would bring indeed the most benefits, with a potential of 0.56 to 1.51 Mtoe savings per year, which is equivalent to removing 0.5 million to 1.3 million passenger cars from EU roads (or 3 to 8% of new passenger car registration). The slower market take-up of fuel-efficient tyres

⁵ The lack of testing methods for these parameters does not make it possible to include them in a labelling scheme (see Box 2 in the impact assessment).

compared to Option 2 (single-criterion labelling scheme) would be compensated by safety gains, while the extension of the labelling scheme to C2 and C3 tyres greatly increases total fuel savings.

Design of the fuel efficiency and wet grip classes

When defining the fuel efficiency and wet grip classes, several factors have been taken into account:

- the state of the art and technological potential for improvement,
- the minimum requirements set in the proposal for a Regulation on the general safety of motor vehicles which will define the lowest classes,
- the production costs to achieve a certain level of fuel efficiency or wet grip which – compared to the related fuel savings or safety gain – give a view on the cost-effective levels towards which the market can be rationally expected to evolve,
- the precision of testing methods which may influence the width of the bands,
- the potential for a proper differentiation among products. The aim of the grading scheme is obviously to give incentives both to the end-users to buy more fuel efficient and safer tyres and to the industry to place more fuel efficient and safer tyres on the market.

The lack of wet grip testing methods for C2 and C3 tyres does not currently enable the adoption of a wet grip grading for those tyre classes. Significant fuel saving potential was, however, highlighted in these two market segments. The impact assessment therefore considers the adoption without delay of fuel efficiency classes for C2 and C3 tyres in the proposal for a Directive on tyre labelling, followed, if relevant, by the extension of wet grip grading to these tyre classes in comitology as soon as testing methods are adopted (by 2010, according to the industry).

Display of the information

The display of the labelling scheme will be crucial for its success, since most of the time and contrary to other product groups such as household appliances, consumers have no access to tyres. The impact assessment highlights two ways of providing the information most effectively:

- One is to ensure that the labelling scheme (in its larger meaning, which includes the grading of fuel efficiency and wet grip and the external rolling noise measured value but not necessarily published in the same format as on the label) is available on electronic tools and all technical documentation such as leaflets and catalogues. This will guarantee that consumers and end-users will have access to the information before their purchase decision.
- The second is to ensure that the labelling scheme reaches the dealers. The majority of consumers rely on them for their choice of replacement tyres. It is therefore crucial to ensure that all dealers have easy access to the label. Since all of them already use current stickers put by the manufacturers on tyres as a working tool to easily select the right brand, dimension and load index, it is proposed to include the label and make it clearly visible on

those specific stickers. In compliance with the principle of proportionality of costs, the information on the label would be provided by means of pictograms so that no translation is required in line with the country where the tyres are delivered. Since tyres are produced in a few plants for delivery across the entire EU-27, translation of stickers would require disproportionate logistics costs.

Both provisions entail negligible costs, since the communication tools and stickers already exist.

Costs of the proposal

The impact assessment shows that the costs of the proposal would be marginal apart from the usual cost of transposing a directive into national law. The same tests as those defined in the type-approval legislation would be used to reduce the administrative burden on industry. Self-declaration should also decrease testing costs, which have been estimated at around 0.03 euro per tyre in the worst case.

Labelling tyres should not have the effect of increasing tyre prices either. Low-budget tyres will still be provided for sale on the market; the only change is that objective information on tyre parameters will be provided to consumers so that competition does not operate on price alone.