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DIRECTORATE D - New and Renewable Energy Sources, Energy Efficiency & Innovation
Energy efficiency of products & Intelligent Energy – Europe
DIRECTORATE E - Inland Transport
Road Safety

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FINAL MINUTES of the Stakeholder Workshop on tyre labelling -26/05/08

Centre Albert Borschette (CCAB), Brussels

Participants: see Annex 1

The Chairman opened the meeting highlighting that the Workshop was part of the consultation process started under the impact assessment for a possible legislative initiative for a labelling scheme for tyres. He gave a brief overview of the context within which the impact assessment on tyre labelling takes place. Further improvements need to be achieved on transport fuel efficiency if the EU is to reach the post-Kyoto target and a sustainable transport pattern. The promotion of Low Rolling Resistance Tyres (LRRT) has been identified in the Integrated Strategy to reduce CO₂ emissions from passenger cars and light duty vehicles (COM(2007)19) as well as in the Energy Efficiency Action Plan (COM(2006)545) as one of the operational policy tools to reach the 20% energy savings potential by 2020.

Technological improvements allow the reduction of rolling resistance (RR) by up to 50% which means a difference in fuel consumption between the best and the worst performing tyre of 10% (a 10% reduction in RR means in average 2% fuel savings). LRRT are cost effective but their development tends to be hampered by lack of consumer information, hence a market failure. Various studies have identified a fuel savings potential due to the market take up of LRRT of approximately 3% leading to 100 billion euros savings from 2008-2030 and 600 millions tons CO₂ emissions reduction¹.

¹ Europe Economics, *Impact assessment study on a possible extension, tightening or simplification of the framework directive 92/75 EEC on energy labelling of household appliances*, 2007, http://ec.europa.eu/energy/demand/legislation/doc/2008_02_22/2008_consultation_energy_labelling_appendix2_en.pdf

The chairman recalled that the Commission adopted a proposal for a Regulation on general safety of motor vehicles on Friday the 23rd of May (COM(2008)316). The proposal sets out requirements for the type-approval of tyres including:

- Minimum requirements on RR which would ban the worst performing tyres from the market in a two-step approach in 2012/14 and 2016/18 for C1 and C2 tyres (respectively passenger cars and light duty commercial vehicles) and 2012/16, 2016/20 for C3 tyres (heavy commercial vehicles).
- Maximum rolling noise limit values for 2012/2016
- Minimum requirements on wet grip for C1 tyres for 2012/14 (transposal of UNECE regulation 117).

The aim of the workshop was to gather stakeholders' views on the possible introduction of an energy labelling scheme on tyres allowing for improvements of tyre performances above the limit values set in the above mentioned package. Special emphasis was given on possible trade off between the optimization of RR and other parameters such as wet grip (relevant for safety) and rolling noise (RN).

The meeting was structured according to the questions discussed in the working document that was published for consultation on 28 April 2008 on http://ec.europa.eu/energy/demand/legislation/under_discussion_en.htm. Written replies have been downloaded on the same webpage.

| | Yes | No |
|--|-----|----|
| <i>Q1: Do you agree that a grading on rolling resistance, for C1/C2 and C3 tyres, being made available to end users and retailers, would be effective in fostering market transformation towards LRRT? What conditions would need to be met (e.g. simplicity of markings, transparency of data)?</i> | X | |

All parties agreed that a grading scheme which would provide end-users with an objective comparison between tyres performances would be effective in promoting market transformation towards LRRT. The Netherlands experienced a very good feedback on their program on "safe, silent and climate friendly tyres²" which proves the momentum for policy action on this issue. The program included the testing of a great number of tyres with publication of the measured value and a wider awareness raising campaign.

There was divergence of views on the categories of tyres to be included in the labelling scheme with, on one side some stakeholders against the inclusion of C3 tyres (ETRMA/ German Ministry for Transport/ BIPAVÉR) on the grounds that road transport companies already have thorough information on the RR of their fleet and on the other side other stakeholders opposing this statement. FNTR, the French Federation of road transport, argued that its members would benefit from a harmonised labelling scheme and allow them to use potential "A grading" (i.e. the use of LRRT) in their Corporate Social

² <http://www.destilleband.nl>

Responsibility Strategies and outside communication. Ulf Sandberg from VTI also pointed out that some big and medium fleet companies contacted him to ask whether a transparent and objective grading scheme existed which proves an interest in the development of such a scheme from their part. T&E and the Dutch government highlighted that public authorities would benefit from a grading scheme and could use it in their public procurement policies including C3 tyres (e.g. for buses).

The range in tyre performances in RR for C3 tyres which came out from the Dutch measurement programme and reflects the 2004 state of the market provided by ETRMA (showing a difference in RRC of up to 100%) seems also to confirm that the market may not be functioning that well. The range in tyre performances of RR of C3 tyres should be much narrower if road transport companies would be well informed -knowing that "costs per km" is one of the first parameter they want to optimize.

A question on costs of RR measurement according to ISO 28580 was put forward by the German Ministry for Transport with a concern that not all tyres should be tested. DG TREN reinsured that a similar approach could be taken as for testing of rolling noise where only the worst tyre of a given family is to be measured. Tyre families for rolling resistance however have not yet been defined and will be the subject of discussion at the Geneva GRRF working group in September when proposals for the introduction of rolling resistance testing into the relevant UNECE tyre Regulation (either Regulations 30 and 54 or Regulation 117) will be considered. Once agreed, it is intended that the implementing measures of the proposal for a Regulation on general safety of motor vehicles (COM(2008)316) will refer to the revised UNECE Regulation(s). DG TREN will work together with DG ENTR in this framework. In the meantime costs estimations will be made within the external study on tyre labelling contracted with EPEC (GHK/ TNO). For a grading scheme though, it is likely that more tests will need to be done in comparison to those necessary to ensure compliance with a limit value as tyre producers will want to grade their tyres at the best possible level (families may also be defined more strictly so as to have a low range of tyre performances inside one family). First figures provided by ETRMA estimated these extra costs for C1 tyres to 0.006cent per tyre on average but this will be further developed in the impact assessment.

Conditions raised for the success of an energy labelling scheme in fostering market transformation towards LRRT included:

- Simplicity of information provided to end users
- Transparency of data, which could be achieved in different ways:
 - Public data base advocated by T&E and VTI but rising reserves from DG TREN (past experience show that data base are extremely complex to update, subject to liability, and costly) and Germany (no budget for this).
 - Display of the measured value on the label (T&E/ VTI) but which may not be understandable by consumers (ETRMA)
 - Mandatory display of the measured value/class on technical documentation, tariffs and/or websites made publicly available (suggested by DG TREN)
- Design of the banding scheme

- Minimum bandwidth of 1 kg/t (VTI/ T&E) –opposed by ETRMA on the ground that precision of testing methods does not allow for bandwidth below 1.5 kg/t. DG TREN will further investigate this point.
 - More bands allow for better differentiation among products and a stronger message towards consumers (DG TREN experience from other labelled products)
 - No tyres in band A (T&E) in order to give incentives for further innovations with a different point of view raised by DG TREN (experience with other products show that the credibility of the label increases when consumers can see that there are products in band A).
 - The chairman highlighted that the design of a possible banding scheme will depend on the outcome of analysis on precision of measuring methods (feasibility) and potential for market transformation
- Good correlation between "indoor" measurements (according to future ISO 28580) and in-use performance of tyres (in "real world" conditions).
 - VTI highlighted a problem occurring from the difference in tyre ranking measured according to the future ISO testing method and on actual road surface: for 50% of "real-world" measurements, the ranking will be different from the ISO "in door" tests. This should not delay the implementation of a grading scheme but should be improved in the long run. This needs to be further investigated in the framework of the impact assessment as experts from the ISO working group on rolling resistance seem to disagree with this statement.

A request was made to introduce the labelling scheme by 2010 (T&E).

| | Yes | No |
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| <i>Q2: Is there a need to adopt different grading schemes on rolling resistance for winter (M+S) and summer tyres (assuming that suitable criteria to distinguish the two categories can be agreed)?</i> | (X?) | X |

The 2004 state of the market provided for by ETRMA shows a difference in average rolling resistance of winter and summer tyres of +1kg/t (winter tyres 1kg/t above summer tyres) while VTI and M+P found the opposite results (winter tyres 1kg/t less than summer tyres). These contrasting results may be the consequence of different designs of winter tyres: tyres are made for Scandinavian countries to roll on ice and snow, in other countries they are made to roll on mud and wet road with in both cases different techniques and tread patterns used. According to VTI this difference is too short and the results too contradictory to justify a different grading scheme. Norway suggested including only summer tyres into the labelling scheme given the fact that under winter conditions other factors such as snow or ice influence RR; however this would take out 28% of the EU tyre market.

| | Yes | No |
|---|-----|----|
| <i>Q3: Are you in favour of a grading of both rolling resistance and wet grip for C1 and C2 tyres? If not, why?</i> | X | |

The possible trade off between rolling resistance and wet grip in a given technology was confirmed by all stakeholders even though evidence indicates that it is technically feasible to improve all tyre performances at the same time -results of the Dutch measurement programme for instance found tyres performing very well on rolling resistance and excellent on other tyre performances (one tyre for example performed 6dB lower than current rolling noise limit value and 140% on the wet grip index).

With the objective to avoid that improved rolling resistance is achieved at the cost of safety, all respondents supported the inclusion of a grading on wet grip on the labelling scheme together with rolling resistance.

At the time being, only information on wet grip could be provided to consumers because it is the only safety parameter on which there exists an agreed testing method (ISO 23671) which is also the basis of UNECE regulation 117 setting minimum requirements on wet grip for C1 tyres (in order to avoid that lower rolling noise is achieved while decreasing wet grip). According to a technical experts meeting, which took place on the 21st of April, there is a good correlation between tyre performances on wet grip and other parameters relevant for safety such as aquaplaning, handling in curves, dry grip and wet grip at higher speeds. Stakeholders did not contest this outcome but highlighted the necessity in the long run to refine testing methods in order to integrate other safety parameters (VTI) and to inform consumers that tyres' safety performances is also depending on end-users (e.g. regular control and change of worn out tyres) (VTI/ BIPAVER).

| | Yes | No |
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| <i>Q4: Should a grading on wet grip also include C3 tyres?</i> | X | X |

The possibility of the inclusion of C3 tyres in a wet grip grading will depend on the speed of the work at UNECE level in the adoption of a Standard Reference Testing Tyre (SRTT) in the C3 category (the same is valid for C2 tyres). According to the 21st of April technical expert meeting, the SRTT should be adopted by 2010. DG ENTR recalled that they have the intention to make minimum requirements on wet grip for C3 tyres mandatory in an implementing measure of the proposal for a Regulation on general safety of motor vehicles (COM(2008)316) as soon as Regulation 117 has been extended to cover C2 and C3 wet grip requirements.

For some stakeholders (ETRMA, German Ministry of Transport) the inclusion of C3 tyres in a wet grip grading is not necessary for the same reasons as for RR: professional road transport operators have already thorough information on tyre performance and do not need an additional labelling scheme. This was opposed by the other half of the respondents (same discussion and divides as in the answer to Q1, second paragraph). According to the German Ministry for Transport, the inclusion of C3 tyres in a wet grip grading will not be useful since the results on the ISO 23671 wet grip index do not reflect real world performances of tyres.

| | Yes | No |
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| <i>Q5: Is the display of the measured noise value in a labelling scheme technically feasible and understandable for consumers? Do you think that it would have any significant effect on the market bellow the limit values set for rolling noise?</i> | X | X |

The question was controversial with one side heavily in favour of the introduction of rolling noise on the labelling scheme and the other side opposing it. Some were neutral arguing that if wet grip was included on the labelling scheme then there would be no reason not to include noise as well (German Ministry for Transport).

Considering the opposition of the tyre industry against a banding scheme on tyre rolling noise, T&E proposed a low noise mark for tyres 3dB bellow the limit value (see proposal in annex 2). M+P/ T&E/ the Netherlands/ VTI/ Eurocities/ NW/ German Ministry for the Environment were supporting the inclusion of a low noise label. Arguments in favour of the inclusion of rolling noise include:

- Trade off between optimization of noise and of wet grip and rolling noise in a given technology. If wet grip was to be included on the label, then noise should be also included in order to give incentives for optimization of all three parameters (RR, wet grip and rolling noise).
- Information to be provided under the labelling scheme would reflect exterior noise measured according to the ISO 13325 method but as correlation between exterior and interior noise is "sufficient", this would still give valuable information to end-users. There appear to be a good correlation around 1000 Hz (>70%) but a weak correlation at low frequencies ("because it is masked by other noise sources like drive line or tyre induced vibrations") occurring to an overall moderate correlation (ca 25%) (M+P).
- Transparency of data on rolling noise will greatly facilitate the implementation of public policies against traffic noise, useful for public procurement and fleet owners (NL/ Eurocities/ Norwegian delegation).
- Standard deviation within a tyre family estimated at 0.5 dB according to research made by M+P. In other words, only the worst tyres are measured according to current testing protocol but given the established standard deviation, the best tyres within the same family would be maximum 0.5 dB below. So the proposal to adopt a low noise label for tyres 3dB below the limit value would imply no extra costs as rolling noise by tyre family has already to be measured in the type approval procedure.
- Limit values on noise in the proposal for a regulation on general safety of motor vehicles (COM(2008)316) have been downgraded in comparison to initial proposal put forward in the FEHRL study for C2 and C3 tyres, and the implementation date postponed to 2016 for existing tyre types. This makes the benefits of the inclusion of rolling noise on a labelling scheme more important and necessary (VTI/ NL/ T&E).
- Considering the technical possibility to produce tyres with rolling noise far below the limit values, there is a necessity to give that information to end-users (NL/ NW/ VTI/ T&E).

- Consumer survey and tyre industry marketing campaign on low noise tyres demonstrate that there is a demand for low noise tyres. According to a research run in Austria by Fallast et al, 94% of respondents would be willing to buy low noise tyres and 70% of them to pay a small price premium (T&E/ VTI).
- Rolling noise abatement costs due to technical improvement on tyres much less important than on road surfaces (VTI).
- Inclusion of rolling noise on the label will increase consumer awareness on this issue (German Ministry for the Environment).

ETRMA/ PSA/ SP/ UK/ WDK resisted the inclusion of rolling noise on the labelling scheme on the following grounds:

- Little priority given by consumers to the environmental performances of tyres when making their purchasing decision (German Ministry for Transport/ ETRMA).
- Problem due to variability of test tracks estimated at 5dB (ETRMA). Specialised magazine or consumer organisation could contest the claimed low noise mark if they find different measured values due to variability of test tracks.
- No correlation between exterior and interior noise (ETRMA/ VTI) for low frequencies coming from other noise sources which depend much more on the construction characteristics of the vehicle.

| | Yes | No |
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| <i>Q6: Do you consider that some of the issues raised in the preceding questions should be considered for retreaded tyres?</i> | (X) | X |

Though the majority of stakeholders agreed that in theory retreaded tyres should be included in the labelling scheme, there is currently not sufficient knowledge for designing concrete policy actions and the issue deserves a focused background study (FNTR/ T&E). VTI highlighted however the potential interest of retread companies themselves as the Scandinavian experience shows that five retread companies applied voluntarily for the Nordic Swan logo but only for a limited number of tyre dimensions (ETRMA).

BIPAVER representing the independent tyre retread industry, supported by the German Ministry for Transport and ETRMA, put forward that the introduction of a labelling scheme on retreaded tyres was not feasible in practice due to interaction between tread and carcasses, each individual retreaded tyre would have to be tested. "With 100 brands of tyres, and more than 80 brands of pre-cured and hot-cured treads, that makes a matrix of more than 8000 varieties in one size alone". BIPAVER suggested as an alternative the adoption of a Code of Conduct by the retread industry.

| | Yes | No |
|--|-----|----|
| <i>Q7: Do you think that a grading scheme could be used by car</i> | X? | |

| | | |
|---|--|--|
| <p><i>manufacturers to offer better performing tyres to their consumers? Do you think that car manufacturers can take advantage in their marketing strategy from a tyre labelling scheme?</i></p> <p><i>Q8: Should the grading of OE tyres (tyres originally fitted to new vehicles) be made available on catalogues and advertising tools on cars?</i></p> <p><i>Q9: What will be the likely impact of the worst tyre principle defined for emissions measurement, on average rolling resistance of OE tyres? Is there a need to encourage car manufacturers to offer tyres with improved rolling resistance compared with the 'worst case' tyre used for the mandatory tyre-approval measurement?</i></p> | | |
|---|--|--|

As no representatives from the car industry were present these questions were not tackled. The only written reply received came from PSA answering positively to the first two questions (Q8 and Q9) with an interest in being able to provide consumers with objective information on OE tyres.

It was however underlined that the choice of tyres fitted on new vehicles by car producers is crucial since it may influence consumers when they replace their tyres. 58% of consumers replace their tyres with the same as the OE tyres according to one member company survey of ETRMA (other consumer surveys show a share around 20%).

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| <p><i>Q10: How do you suggest the information on tyres should be provided (how, to whom and when)?</i></p> <p><i>Q11: What should be the role of the retailers?</i></p> |
|---|

The Chairman recalled in introduction the difference between endorsement labels such as the Nordic Swan (declaring that a specific product is complying with high quality criteria) and performance labels which provide the ranking of a product compared to others. Experience from the labelling Directive on household appliances (Dir 1992/75/EC) show the effectiveness of performance labelling in pushing market transformation towards energy efficient products; this would be the type of label favoured by DG TREN for tyres.

On the question raised by the German delegation whether the grading scheme would be static or dynamic, the Chairman replied that this depends on the speed of technological change in one product. The discussion between dynamic and static labelling scheme is being addressed within the revision of the above mentioned directive on household appliances, a labelling scheme on tyres will certainly follow the outcome.

There was a wide consensus on the mandatory display of the labelling scheme in catalogues, communication tools and on the internet. A disagreement was found however on the necessity or not to display the label on a sticker on tyres. According to the tyre industry this would not prove effective as (1) consumers most of the time do not see the tyres and (2) would be complex and costly to implement because of language constraints (tyres are produced in one production centre for export in all EU Member States and third countries).

Availability of measured values/ ranking was recalled by VTI and T&E asking for a public database with reserves on costs and complexity of implementation (updates, liability of

information ...) expressed from DG TREN and the German Delegation. It was suggested by the Chairman to give also the information on tyre ranking on the bill provided to the consumers or end-users so as to ensure reliability and transparency of the information given to the end-user.

Some stakeholders asked for the information to be moulded in tyre side walls (Eurocities/ VTI/ T&E/ German Ministry for the Environment) but faced strong opposition as regards costs/benefits of this measure (ETRMA/ BIPAVER/ German Ministry for Transport). No figures could be given however on both sides. Eurocities noted that moulding information on tyre performances on the side wall may be instrumental for those cities willing to restrict access to the city centre to worst performing cars which could include tyres (such as in London).

On the design of a labelling scheme, several proposals were put forward, see annex 2 for T&E and annex 3 for ETRMA proposals; the Dutch delegation proposed a three colours system (green, orange and red) used on each tyre performance, green reflecting the best performance and red the worst. It was agreed that the braking distances in metres should not be displayed to consumers as it may lead to misunderstanding and only reflects braking distances in strict conditions (at 80km/h speed on a road surface friction between 0.6 and 0.8 according to ISO 23671) and will differ from one vehicle to another (German delegation). DG TREN, unit E3 on road safety, also pointed out, that the reference of testing methods used for the ranking of tyres should be explicitly mentioned on the label.

See also on this chapter answers to Q1 on conditions to be met for the success of a labelling scheme on RR.

| | Yes | No |
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| <i>Q12: Do you think that the labelling scheme should be associated with other types of measures designed to accelerate the market take up of LRRT (e.g. specific criteria or guidelines for public procurement of replacement tyres, fiscal incentives...)?</i> | X | X |

Incentives schemes through public procurement procedure have already been put in place (1) in the Regulation on a Community energy-efficiency labelling programme for office equipment (regulation 106/2008) which requires EU institutions and central Member State government authorities to use energy efficiency criteria no less demanding than those defined in the ENERGY STAR programme when purchasing office equipment or (2) or are being considered such as in the revision of the energy labelling directive on households appliances (directive 92/75/EC) (input by the Chairman).

According to the Netherlands and T&E, this could be a possibility to explore for tyres.

In any case, the majority argued that a labelling scheme would be instrumental for cities, companies and public authorities in the design of proactive purchasing policy or fiscal incentives.

Annex 1: List of participants

EU Members States

Germany, Ministry for the Environment and Ministry for Transport

Spain, University Institute for Automobile Research in the name of the Spanish Interior Ministry, Road Traffic Directorate

The Netherlands, Ministry for the Environment and Ministry for Transport

EFTA Member Countries

Norway, Public Road Administration and Pollution Control Authority

NGOs, European organisations and research centres

Eurocities

GHK

M+P

T&E

VTI

Consumer/road transport organisations

ANEC

Test-Aankoop

FNTR (Fédération Nationale des Transporteurs Routiers (FR))

Industry

BIPAVER (Independent Retreader organisation)

ETRMA (Goodyear, Bridgestone, Michelin, Pirelli, Continental)

ORGALIME

European Commission

DG TREN (D3/E3), DG ENTR (F1)

Additional written comments received:

United-Kingdom, Department for Transport

Environment, Nature and Energy Department of the Flemish government

PSA Peugeot Citroën

WDK (Wirtschaftsverband der deutschen Kautschukindustrie)

IRU (International Road Transport Union)

Rhodia

Annexe 3: proposal for a grading scheme by ETRMA

