EUROPEAN COMMISSION
DIRECTORATE-GENERAL
CLIMATE ACTION

Directorate C - Mainstreaming Adaptation and Low Carbon Technology

REDUCING CO_2 EMISSIONS FROM ROAD VEHICLES

RESULTS OF THE PUBLIC CONSULTATION

SEPTEMBER 2011–DECEMBER 2011

In line with the Commission's commitment to transparent and interactive policymaking this documents aims at providing an overview and general impression of the feedback provided to the Commission in the context of a public consultation. The statements and opinions expressed in the document do therefore in no way necessarily reflect those of the Commission or the Commission services.

EVALUATION OF THE ONLINE STAKEHOLDER CONSULTATION ON REDUCING CO_2 EMISSIONS FROM ROAD VEHICLES

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1. SUMMARY HIGHLIGHTS

This document provides an evaluation of the responses from individuals and stakeholders to a public consultation (conducted through an online questionnaire) on reducing CO_2 emissions from road vehicles. In total, 3233 responses were submitted via the online questionnaire. The online consultation was only available in the English, German and French languages, and the majority of responses came from stakeholders/individuals from the United Kingdom, Germany and France. Responses were also submitted from organized stakeholders (137 out of 3233), with very active participation from companies/professional associations followed by NGOs.

While there was some differing views between respondents on the appropriate methods, policies and initiatives for reducing road vehicle emissions, there was an overwhelming consensus that the reduction of CO_2 emissions from road vehicles is a key aspect in the EU effort to reduce greenhouse gas (GHG) emissions and slow down the effects of climate change. Some respondents acknowledged the progress to date in this particular policy area, however, the main theme identified in the majority of responses was a desire for Europe to continue focussing on and improving its efforts to reduce CO_2 emissions from road vehicles. A large number of respondents, primarily individuals, felt that binding legislation with ambitious targets was essential if overall road vehicle emissions are to continue to be reduced. On the other hand, some representatives of vehicle manufacturers raised concerns over setting new long-term targets and called for the focus on implementation of the existing legislative framework, highlighting that the targets in place are already challenging.

A range of initiatives and policy areas were highlighted as being important in the ongoing effort to reduce CO_2 emissions from road vehicles. These included measures to affect consumer purchasing decisions, the need to provide further education for the public, the development of public transport, a modal shift to less energy and resource intensive modes of transport, the need to further incentivise the development of and research into alternative fuels and fiscal measures to incentivise the use and development of cleaner vehicles.

Some of the main obstacles to reducing CO_2 emissions from road vehicles identified by respondents are a lack of ambition in terms of targets, resistance from manufacturers, an over reliance on personal vehicles and a lack of promotion and incentives to encourage the development and purchase of more efficient vehicles. The majority of comments focussed on light duty vehicles, although comments were also submitted in respect of heavy duty vehicles.

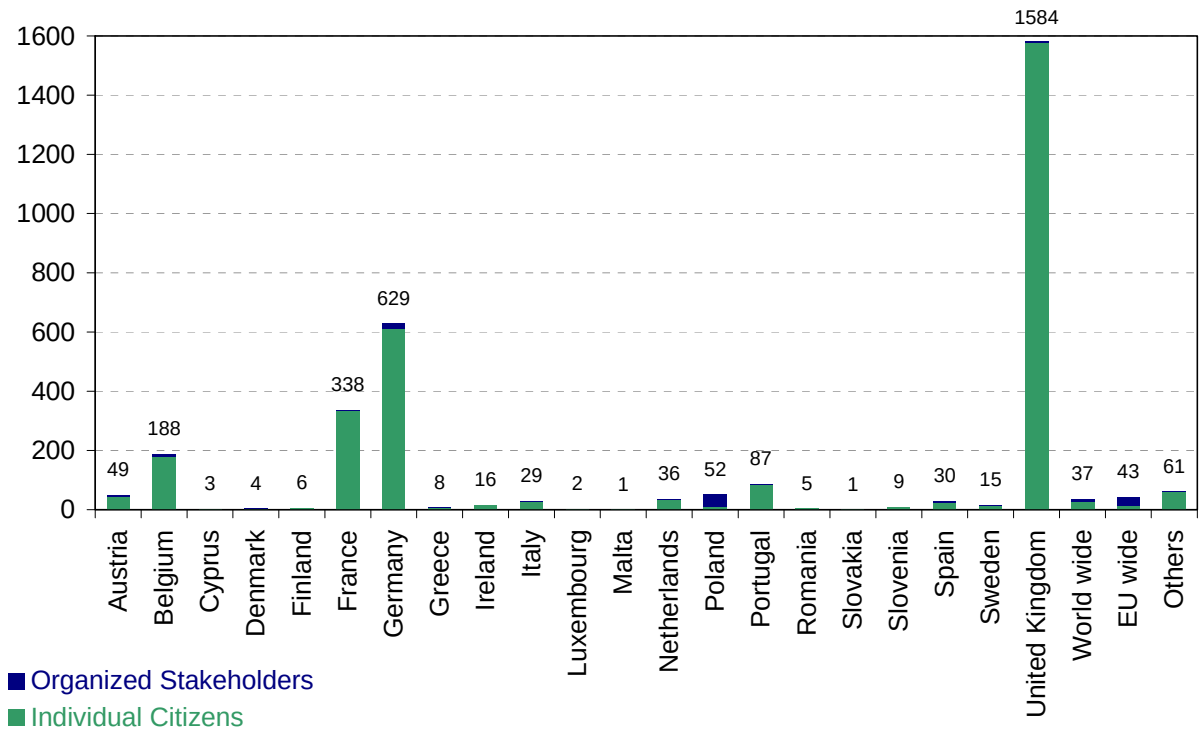
2. INTRODUCTION

The Climate Action Directorate-General of the European Commission launched this public consultation on road vehicle CO_2 emissions as part of its preparation for a revision of Regulation (EC) No 443/2009, Regulation (EC) No 510/2011 and the development of a HDV strategy. The consultation was open from 16 September 2011 to 09 December 2011. It was conducted online through an interactive questionnaire which was posted on the website of DG Climate Action http://ec.europa.eu/clima/consultations/0012/index_en.htm together with additional documents as required in the stakeholder consultation guidelines (protection of personal information note and specific privacy statement).

3. BASIC QUANTITATIVE DESCRIPTION (EVALUATION OF PART A)

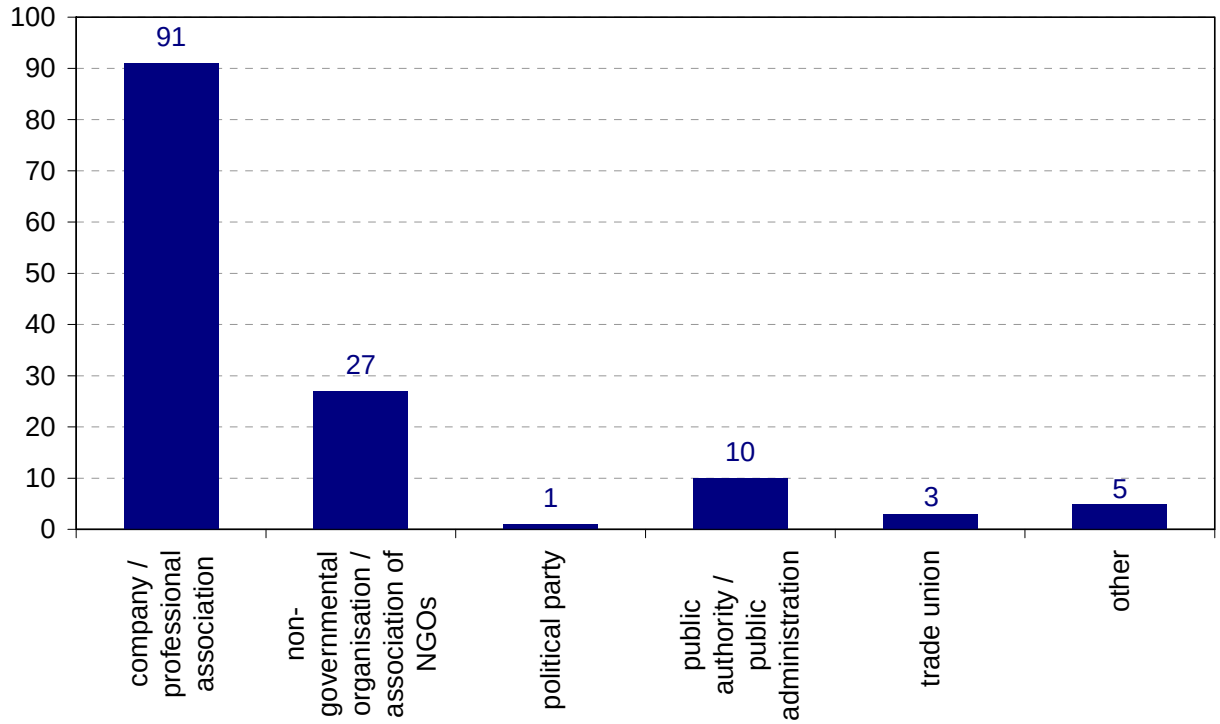
In total, 3233 responses have been submitted via the online questionnaire and evaluated. The vast majority of these responses were from individual citizens (3096) with a relatively small proportion from organized stakeholders (137). The fact that the questionnaire was only available in English, German and French has probably influenced the results, as evident from Figure 1. None of the stakeholders or citizens who responded to the consultation indicated to being from Bulgaria, the Czech Republic, Estonia, Hungary, Latvia or Lithuania and thus these countries are not shown in Figure 1. Although an overwhelming majority of responses were submitted by individual citizens, Poland was the only Member States where organised stakeholders submitted more than half of responses.

Figure 1: Received responses by country of origin indicated in the questionnaire



In total 137 organised stakeholders answered the questionnaire. Most of these contributions were received from companies or professional associations, followed by NGOs and associations of NGOs (see Figure 2).

Figure 2: Received responses from stakeholders by affiliation



A further 6 responses were received by email due to technical difficulties with responding to the online IPM questionnaire. Answers and attachments in these emails were in various formats. These responses were not evaluated as part of the quantitative evaluation shown in this document, but their content was taken into the respective qualitative evaluation sections. If relevant, position papers from registered stakeholders (regardless of the method of submission) who agreed to the publication of their responses are published on the website[1].

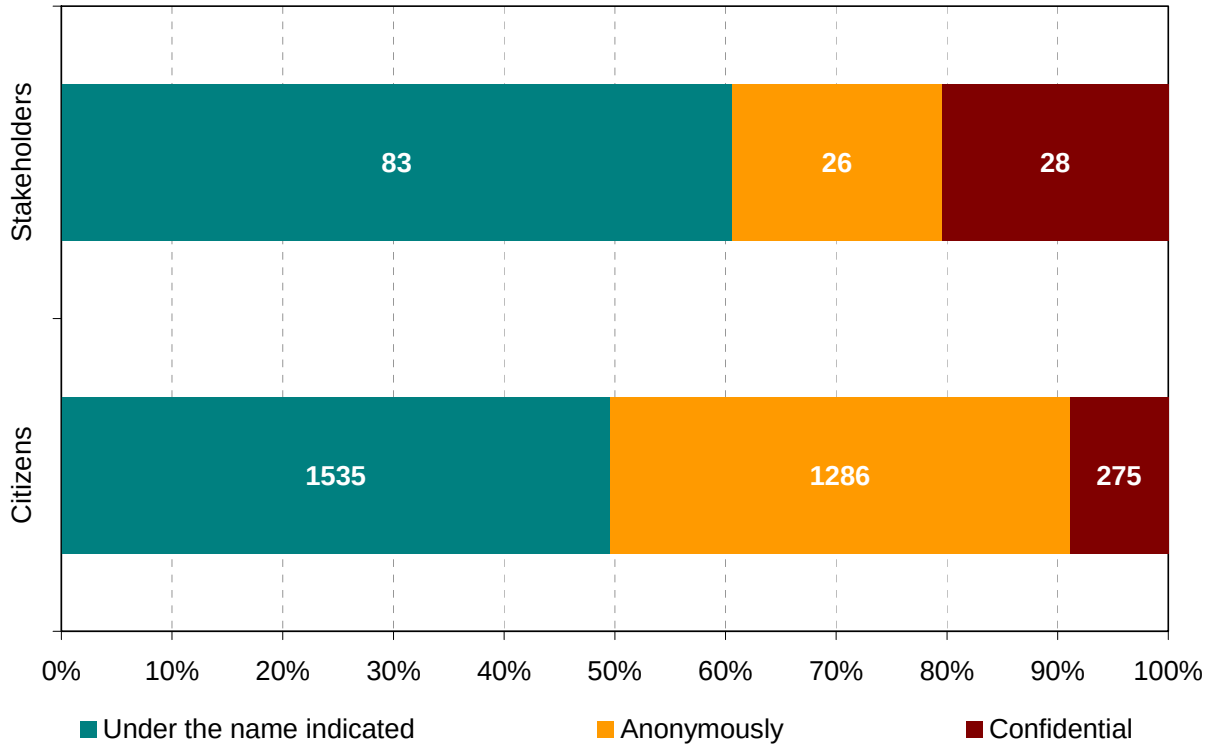
Respondents had to make a choice about the confidentiality of their responses by selecting one of the following 3 options:

- under the name indicated - I consent to publication of all information in my contribution and declare that none of it is under copyright restrictions that prevent publication.
- anonymously - I consent to publication of all information in my contribution and declare that none of it is under copyright restrictions that prevent publication.
- not at all – keep it confidential - my contribution will not be published, but it will be used internally within the Commission.

[1] http://ec.europa.eu/clima/consultations/0012/index_en.htm

The breakdown of the choices made by respondents in respect of confidentiality is shown in figure 3.

Figure 3: Confidentiality of received responses



4. EU POLICY ON ROAD-VEHICLE GREENHOUSE EMISSIONS (EVALUATION OF PART B)

*Analysis of responses to **Questions B.1-B.5***

B.1 Setting greenhouse emission standards for road vehicles is an important aspect of EU action to reduce such emissions.

B.2 These standards should be in line with the greenhouse targets in the EU's roadmap to a low carbon economy and Transport White Paper.

B.3 Road vehicle greenhouse gas emissions standards should be set based on the average greenhouse gas emissions of new vehicles entering the vehicle fleet.

B.4 Standards for road vehicles should apply equally to different technologies used for powering road vehicles.

B.5 EU regulation of road-vehicle emissions stimulates innovation in the automotive sector and helps keep Europe's automotive industry competitive.

In general, the responses to section B of the consultation questionnaire were quite similar amongst stakeholders and individuals. For most questions, there was stronger support amongst individuals towards entirely agreeing with the policy statements, while with stakeholders there was more of a split between those who entirely agreed and those who partly agreed with the policy statements set out in section B.

Of individuals, 95% agreed that it was important to set greenhouse gas (GHG) emission standards as part of overall EU action to reduce such emissions while 55% of stakeholders entirely agreed and 31% partly agreed. A majority of respondents (89% of individuals entirely/partly and 77% of stakeholders entirely/partly) agreed that these standards should be in line with the GHG targets set out in the EU's roadmap to a low carbon economy and Transport White Paper. The choice of the appropriate measurement approach for setting GHG emission standards provoked a broader range of responses. While 64% and 59% of individuals and stakeholders respectively were in favour (entirely/partly agreed) of using the (current) fleet average approach, 33% of all respondents were either neutral or disagreed to some extent with setting targets based on the average GHG emissions of new vehicles entering the entire fleet.

Stakeholders (72% entirely/partly agreed) and individuals (69% entirely/partly agreed) were mainly supportive of applying standards equally to different technologies used for powering road vehicles, while 72% of stakeholders and 83% of individuals agreed or partly agreed that EU regulation of road-vehicle emissions stimulates innovation in the automotive sector and helps keep Europe's automotive industry competitive. The number of stakeholders who disagreed or partly disagreed that standards should be applied equally to different technologies or that EU regulation had had a positive impact in terms of innovation and competitiveness (12% and 13% respectively) was proportionately higher than that of individuals.

These results are shown graphically in figures 4 and 5.

Figure 4: Answers from all citizens to questions in Part B

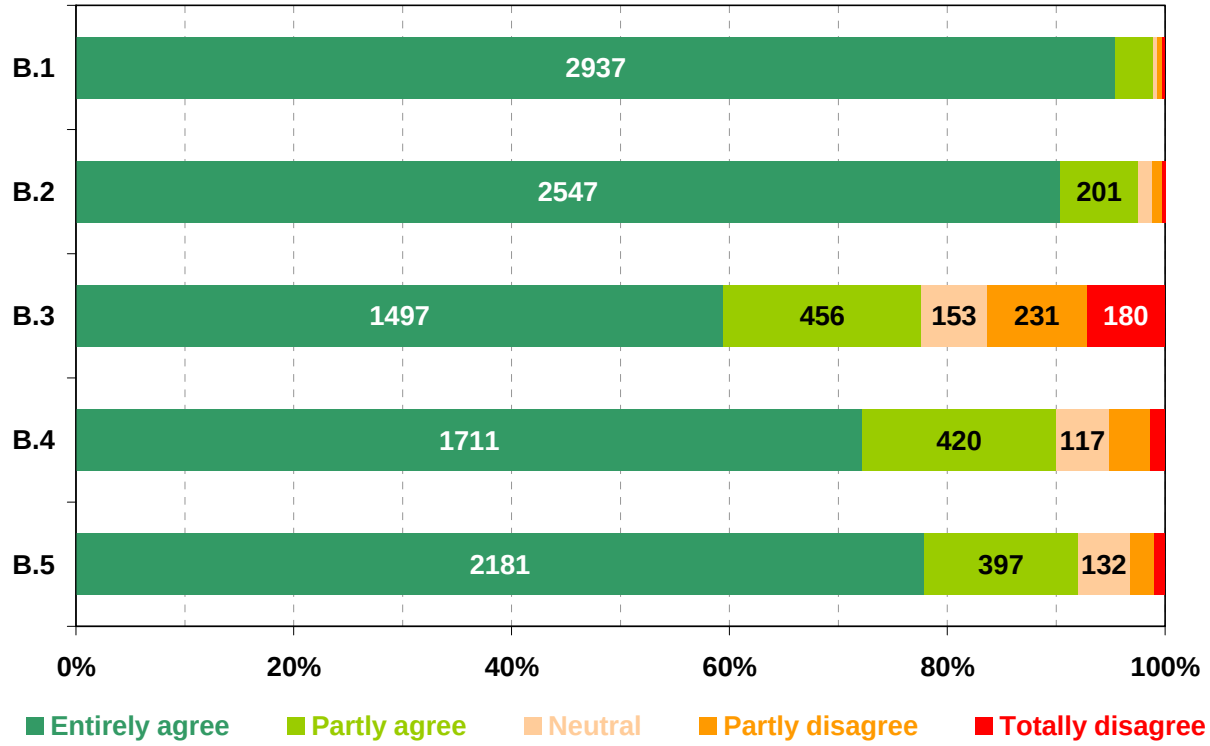
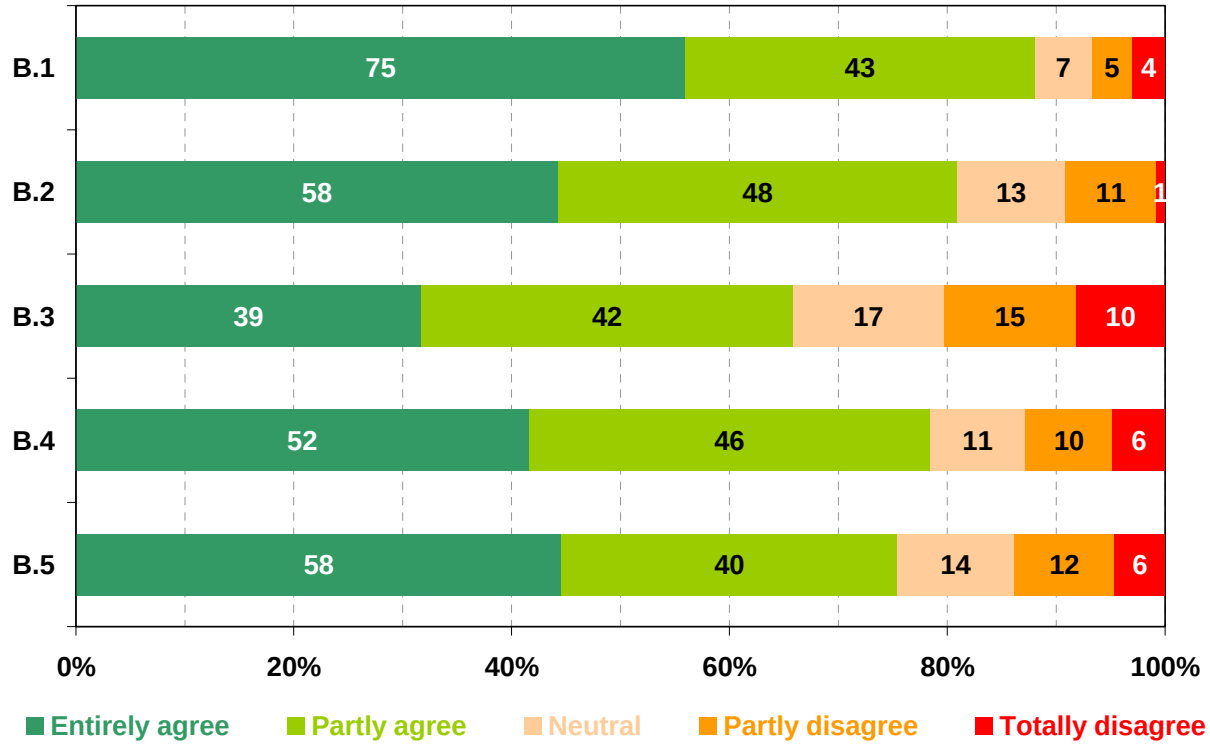


Figure 5: Answers from organized stakeholders to questions in Part B



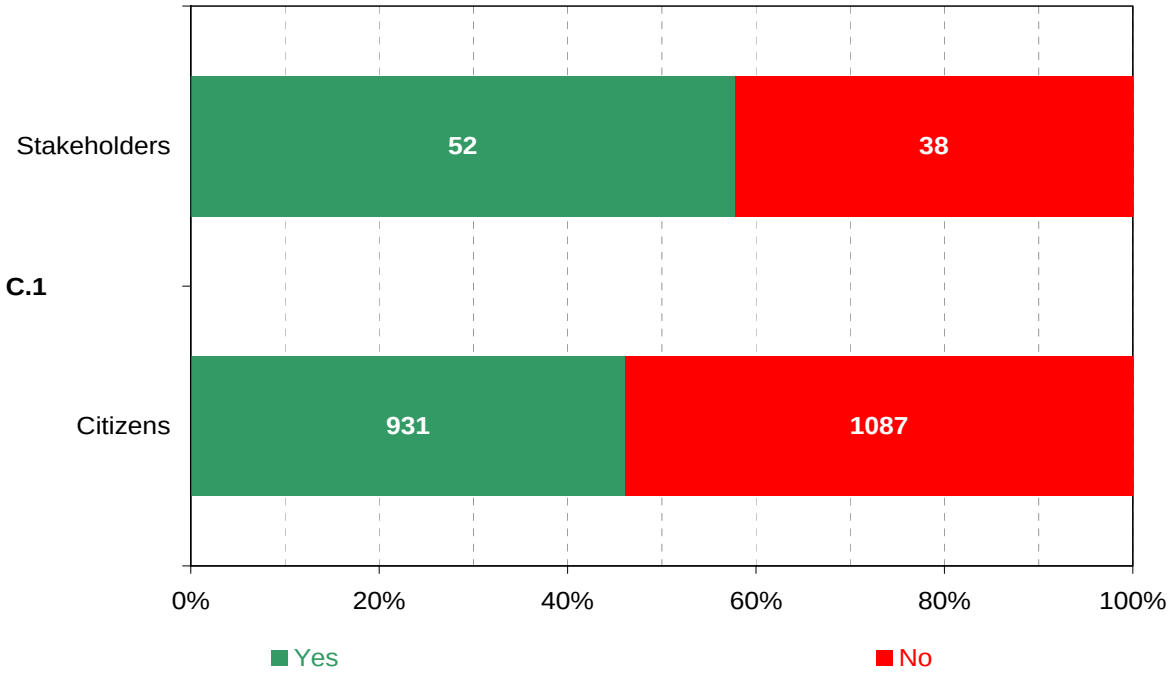
5. LIGHT-DUTY VEHICLES (CARS AND VANS) (EVALUATION OF PART C)

*Analysis of responses to **Question C.1***

C.1 Do you think the current legislation is working and delivering tangible benefits?

There was a mixed assessment of the impact of the current legislation on light duty vehicles (cars and vans) by both stakeholders and individuals. While 38% of stakeholders agreed that the legislation was working, 28% felt that the legislation wasn't working or delivering tangible benefits. With regard to individuals more people felt that the legislation wasn't working (35 %) as opposed to those who agreed that it was delivering benefits (30%). Quite a significant proportion of stakeholders (34%) and individuals (35%) had no opinion in relation to question C1. This may partly be due to the fact that the legislation has only been in force for a short period of time (particularly the legislation on vans), and thus it is difficult to conclusively assess the impact it has had to date.

Figure 6: Answers to questions C.1 in Part C



*Summary of responses to **Question C.2** (only answered by respondents answering no to question C1)*

C.2 Please specify why the current legislation is not working and delivering tangible benefits.

The respondents who felt that the legislation was not working or delivering tangible benefits mostly argued that the targets within the current legislation were not ambitious enough (almost 500 responses raised this point, including six from organisations). The majority of these respondents felt that the targets should be more stringent in order to have a greater impact on the reduction of CO_2 emissions and to encourage and stimulate the development of new technologies. Indeed over 80 respondents specifically argued that the legislation does not

force technology change, while over 50 respondents felt that non-technical policies, including the promotion of alternative forms of transport, education and taxation, were required to complement technical policies in reducing CO_2 emissions and affecting a culture change in the use of transport. A significant number of these respondents also argued that progress was being made too slowly and that greater enforcement of the current legislation and future legislation was required (over 50 individuals). Around 40 respondents felt that the legislation should do more to promote the use of alternative fuels.

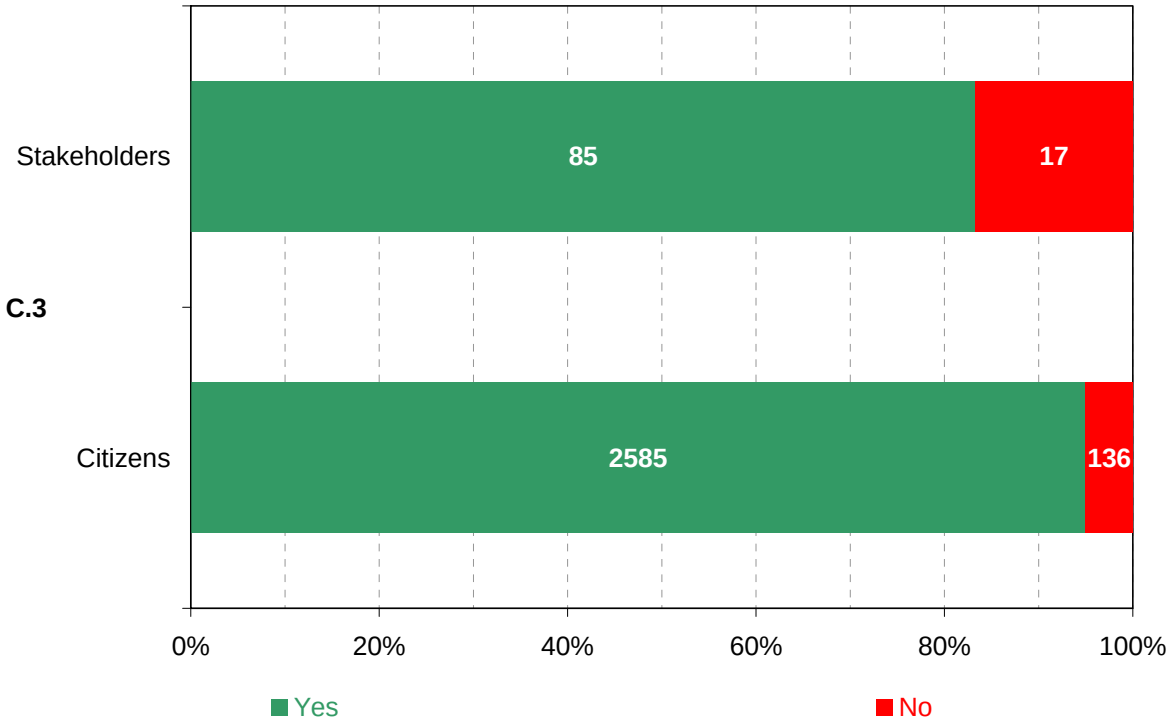
A large number of respondents (almost 200 individuals) felt that the resistance of manufacturers to fully embrace greener technology and produce and promote cleaner and more efficient cars was a major factor in the legislation not being effective. Indeed many of these respondents felt that manufacturers are too powerful, have too much influence over politicians and policymakers and are profit-driven. On the other hand, a small number of manufacturers and individuals felt that the markets were driven by customer needs and consumer demand and thus influencing this would be the driver for change rather than regulation. Over 30 respondents highlighted the need for creating incentives to purchase more efficient, greener vehicles. For some respondents (over 60 individuals), a perceived increase in the number of new cars in general and, in particular, high performance and 4x4 cars being sold, indicated that the legislation was having no effect.

A number of organisations (including World Autosteel) questioned the use of tailpipe measurements, arguing that the legislation should focus on well-to-wheel emissions to enable a better assessment of overall vehicle emissions. Around 60 individuals also argued that more benefits could be obtained through focussing on other initiatives, including imposing more stringent standards on other industries and regulating emissions of other pollutants. Over 20 respondents highlighted that the current legislation was undermined by the fact that it does not regulate older cars, of which there are still a large amount in use. Other comments raised by a small number of respondents (individuals) included the need for alternatives to fleet average measurements, weight of vehicles relative to emissions, distortion between implementation of the legislation in member states, black carbon and the lack of a global market for low CO_2 vehicles.

*Analysis of responses to **Question C.3***

C.3 If the Commission's analysis demonstrates that the 2020 target of 147 gCO2/km for light-commercial vehicles is technically achievable, at reasonable cost, should the target be confirmed?

In response to this question, 83 % of individuals and 62% of stakeholders felt that the 2020 target of 147g CO_2/km for light commercial vehicles should be confirmed. A relatively small proportion of stakeholders (26%) and individuals (12%) had no opinion in relation to question C3.



*Summary of responses to **Question C.4** (only answered by respondents answering no to question C3)*

C.4 Please specify why the 2020 target of 147gCO_2/km for light-commercial vehicles, if technically achievable, should not be confirmed.

The respondents who did not agree that the 2020 target of 147gCO_2/km for light commercial vehicles should be confirmed mostly argued for a more ambitious level of reductions. A large number of individuals (over 80) claimed that, if the target can be achieved and it is not set at the limit of feasible reductions, it may not be ambitious enough and thus hinder innovation and delay the necessary CO_2 reductions. Furthermore a small number of individuals (around 10) felt that greater support and investment should be given to developing other technological solutions and cleaner technology. Some individuals (around 20) indicated that the target should be lowered to between 100-130gCO_2/km or suggested (around 10) that the target date should be shifted to an earlier date than 2020 (e.g. 2015). On the other hand, International Road Transport Union (IRU) and some other organisations linked to IRU (e.g. German Bus and Coach Association) questioned the practicality of CO_2 efficiency standards claiming a fuel efficiency standard would be more appropriate and would give greater incentives for transport operators to invest in more efficient vehicles. Some respondents also pointed out the fact that well-to-wheel emissions should be part of the 2020 target (City of Stockholm and 5 individuals) or that the CO_2 standard should rather become an energy efficiency standard accompanied by standards on carbon content of fuels (2 individuals). Other comments raised by a small number of individuals (less than 5) included the need to focus on other areas in reducing CO_2, the benefits of reducing the number of vehicles on the road and the importance of not allowing 'reasonable cost' to be a barrier to setting ambitious targets.

6. HEAVY-DUTY VEHICLES (EVALUATION OF PART D)

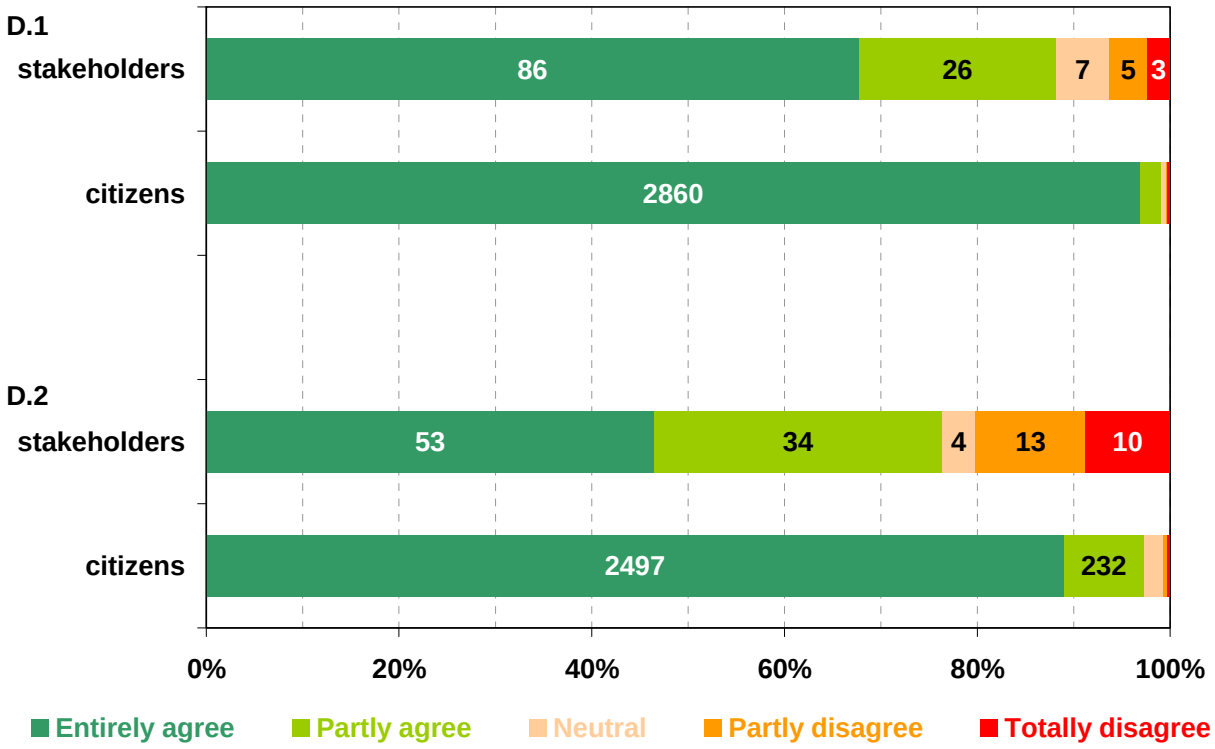
*Analysis of responses to **Questions D.1 & D.2***

D.1 The EU should have a strategy for reducing HDV greenhouse gas emissions.

D.2 Additional regulation (as opposed to non-regulatory measures) is needed for this purpose.

In relation to heavy duty vehicles, over 92% of individuals entirely agreed that the EU should have a strategy for reducing GHG emissions, with 88% of individuals also (entirely or partly) agreeing that additional regulation was the best approach for such a strategy. The support from stakeholders for a strategy on reducing heavy duty vehicle GHG emissions was proportionally less than that from individuals although it was still strong, with 82% either entirely or partly agreeing that an EU strategy was necessary and 64% agreeing that regulation was needed as the main approach of such a strategy. 11% of stakeholders had either neutral views or disagreed that an EU strategy was required and furthermore, 20% of stakeholders had either neutral views (3%) or disagreed entirely or partly (17%) that regulation was needed for the purpose of a HDV strategy.

Figure 7: Answers to questions D.1 & D.2 in Part D

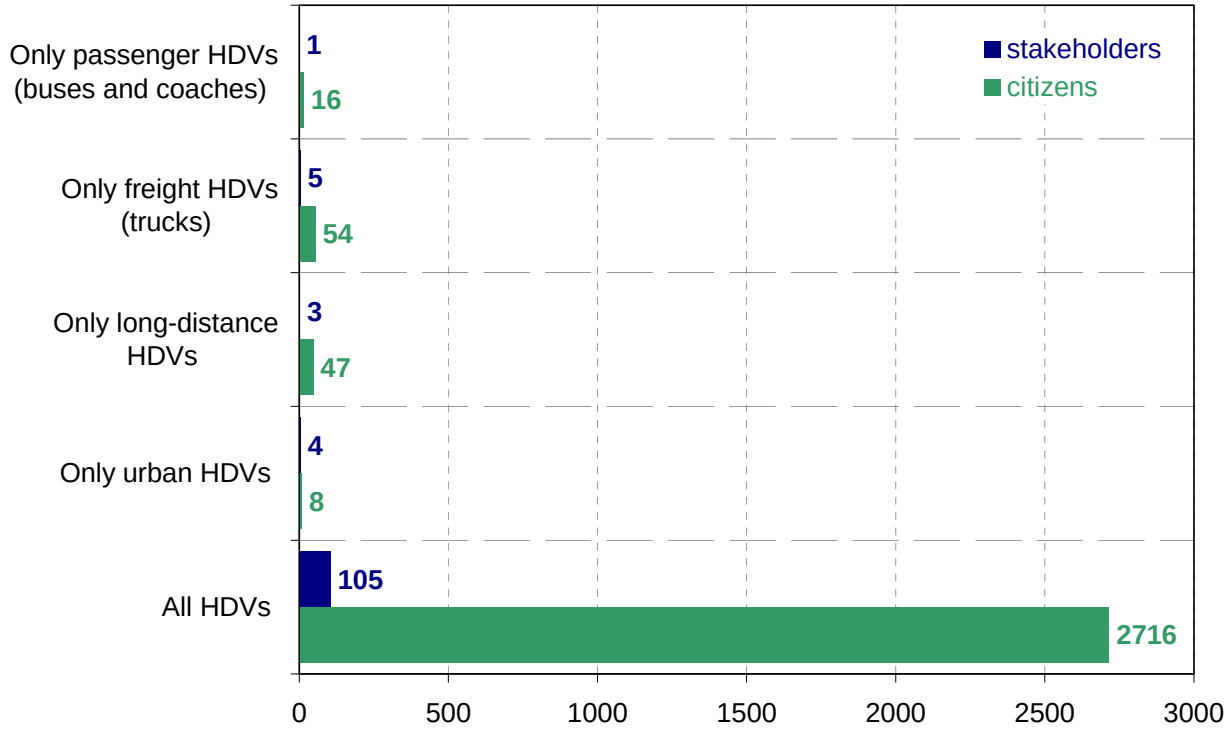


*Analysis of responses to **Question D.3***

D.3 If the Commission proposes a HDV greenhouse gas strategy, which types of HDVs should it cover (as far as is feasible)? (single choice)

With regard to the types of HDVs which should be covered by an EU HDV GHG strategy (if proposed), the vast majority of stakeholders (77%) and individuals (88%) felt that such a strategy should cover all HDVs. Only 9% of stakeholders and 4% of individuals felt that an EU HDV strategy should narrowly and specifically focus on certain types of HDVs.

Figure 8: Answers to question D.3 in Part D



*Analysis of responses to **Question D.4***

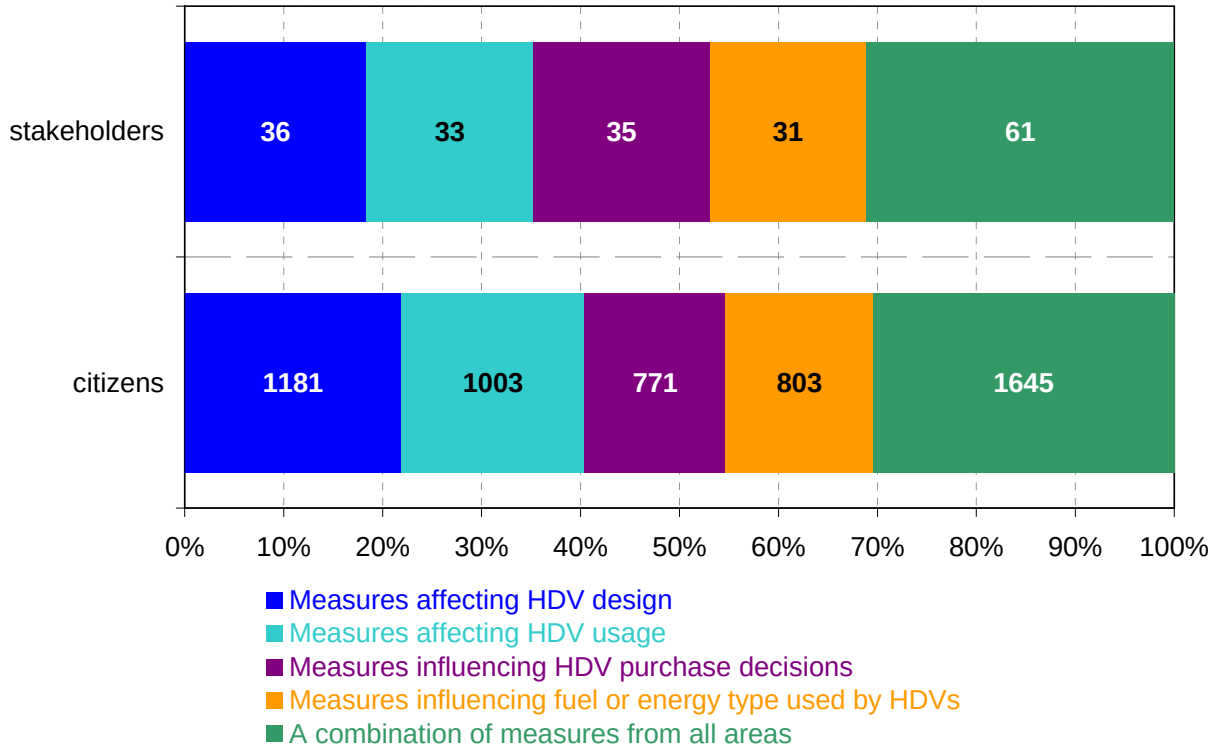
D.4 And what sort of measures should be considered for inclusion? (max 3 choices)

In terms of the measures which should be considered for inclusion in any EU HDV GHG strategy, respondents were permitted to select up to three of the five options presented. The percentages given in the following analysis represent the proportion of individuals and stakeholders who selected each option.

The overall range of opinions was similar across stakeholders and individuals. A combination of measures from all areas was the most popular choice for stakeholders (45%) and individuals (53%). 38% of individuals and 26% of stakeholders also selected measures affecting HDV design as being important, while 24% of stakeholders and 32% of individuals felt that measures affecting HDV usage should be included in any strategy. Measures influencing decisions in relation to the purchase of HDVs (26% stakeholders, 25% individuals) and the type of fuel or energy used by HDVs (23% stakeholders, 26%

individuals) were also selected as being an important part of any HDV GHG emissions reduction strategy.

Figure 9: Answers to question D.4 in Part D



7. FUTURE DEVELOPMENTS – BEYOND 2020 (EVALUATION OF PART E)

*Analysis of responses to **Questions E.1 and E.3***

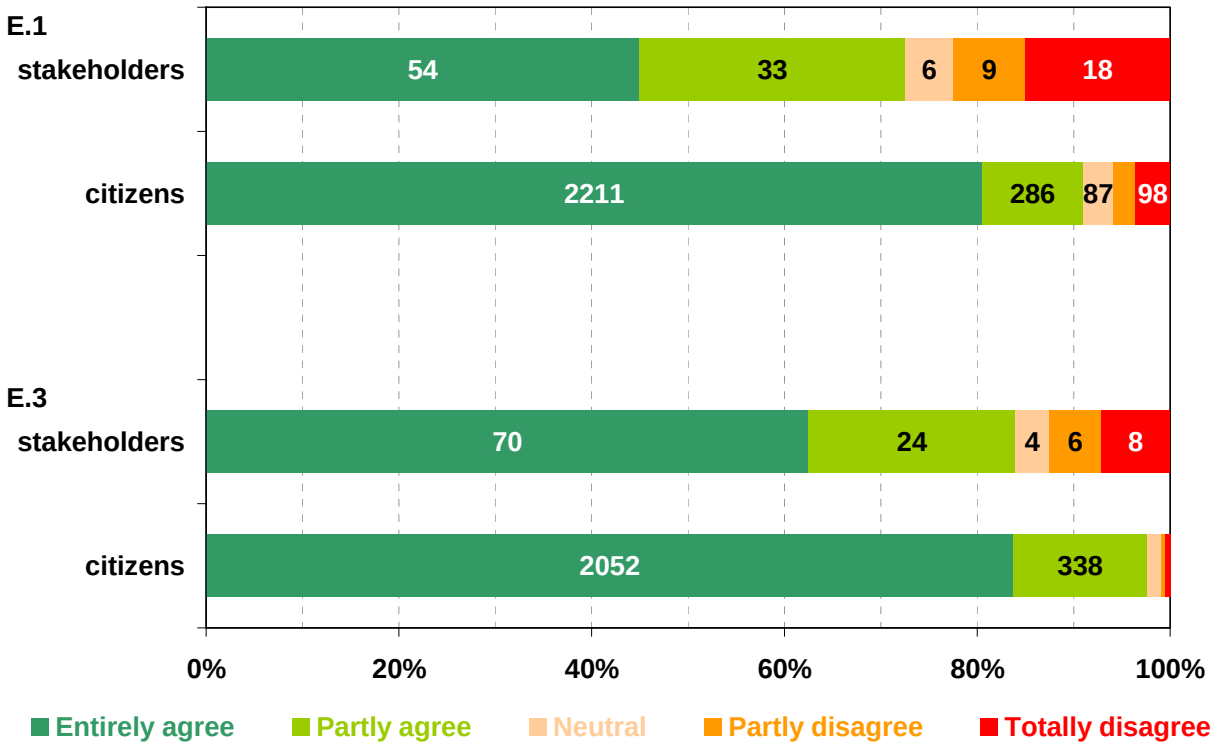
E.1 Road-vehicle emissions may be reduced by changes in other policies, such as taxation. Should targets for road vehicles continue to be set, regardless?

E.3 Should the approach to regulating road-vehicle emissions consider emissions from the whole energy lifecycle?

With regard to developments beyond 2020, there was a slight variation in the views expressed overall between stakeholders and individuals. A majority of individuals (81% entirely/partly agreed) and stakeholders (64% entirely/partly agreed) felt that targets for road vehicles should be set, regardless of the potential impact of other measures on road-vehicle emissions. Quite a significant number of stakeholders (20%) partly or totally disagreed that targets should continue to be set for road vehicles while less than 5% of individuals made similar responses.

There was general support for a life cycle energy approach to regulating road-vehicle emissions from individuals, with 66% entirely agreeing that this approach should be taken and 11% partly agreeing. Proportionally a smaller number of stakeholders were in favour of such an approach (69% entirely/partly in favour), with 13% either being neutral on the issue or disagreeing that a life-cycle energy approach should be adopted.

Figure 10: Answers to questions E.1 & E.3 in Part E



*Summary of responses to **Question E.2***

E.2 In your opinion, which are the policies in which changes might affect the setting of greenhouse gas targets for road vehicles?

Respondents to this question highlighted a range of general policy areas in which changes might affect the setting of GHG targets for road vehicles. A common theme in a large number of responses (over 300 individual responses and over 30 responses from organisations) was a belief that taxation or fiscal policies could have a significant effect on the setting and achievement of targets. Many organisations listed taxation as a key policy area without providing further detail while some individuals highlighted specific tax policies including general taxes on fuel/cars/maufacturers, tax reductions/exemptions for company cars, lower taxes for low emitting vehicles, taxation on alternative fuels and carbon taxes. A large number of respondents (over 200 individuals) argued that policies promoting the use of alternative transport for freight, such as rail and river, and for people, such as walking, cycling, electric and hybrid vehicles, would have a significant effect on the setting of GHG targets. Furthermore over 100 respondents (inc. 5 from stakeholders) felt that policies promoting, developing and improving public transport would be important. In addition over 60 respondents argued that congestion policies, including environmental zoning and road charging, would reduce overall road usage and influence the setting of GHG targets. Further policy areas aimed at reducing road usage and long distance travel, such as general foreign & trade policies and the promotion of local production and consumption (over 75 individuals) were highlighted as being influential on the setting and achievement of targets. Improved industrial and employment policies and practices were also considered to be potential mechanisms through which road usage could be reduced.

A large number of respondents (over 120, including Transport & Logistiek Vlaanderen (Road Haulage Association) and European Road Haulers Association (UETR)) identified policies concerning the design, manufacturing and sale of vehicles as being areas in which further changes and improvements could impact on the setting of GHG targets. Policies in respect of research, development and promotion of alternative fuels (over 90 respondents) and energy/renewable energy (over 70 individuals) were also highlighted by respondents as important. A number of individual respondents (over 40) and organisations (including International Council on Clean Transportation, European Tyre & Rubber Manufacturers Association (ETRMA), Fédération nationale des transports routiers (FNTR), Federeation Internationale de l'Automobile (FIA)) felt that policies concerned with improving public education/awareness of emissions/green technology and behavioural campaigns could have an impact on the setting of GHG targets. A large number of respondents also felt that R&D and innovation (over 75, including 18 organisations) and investment in infrastructure and improved urban planning (over 60) could affect the setting of GHG targets.

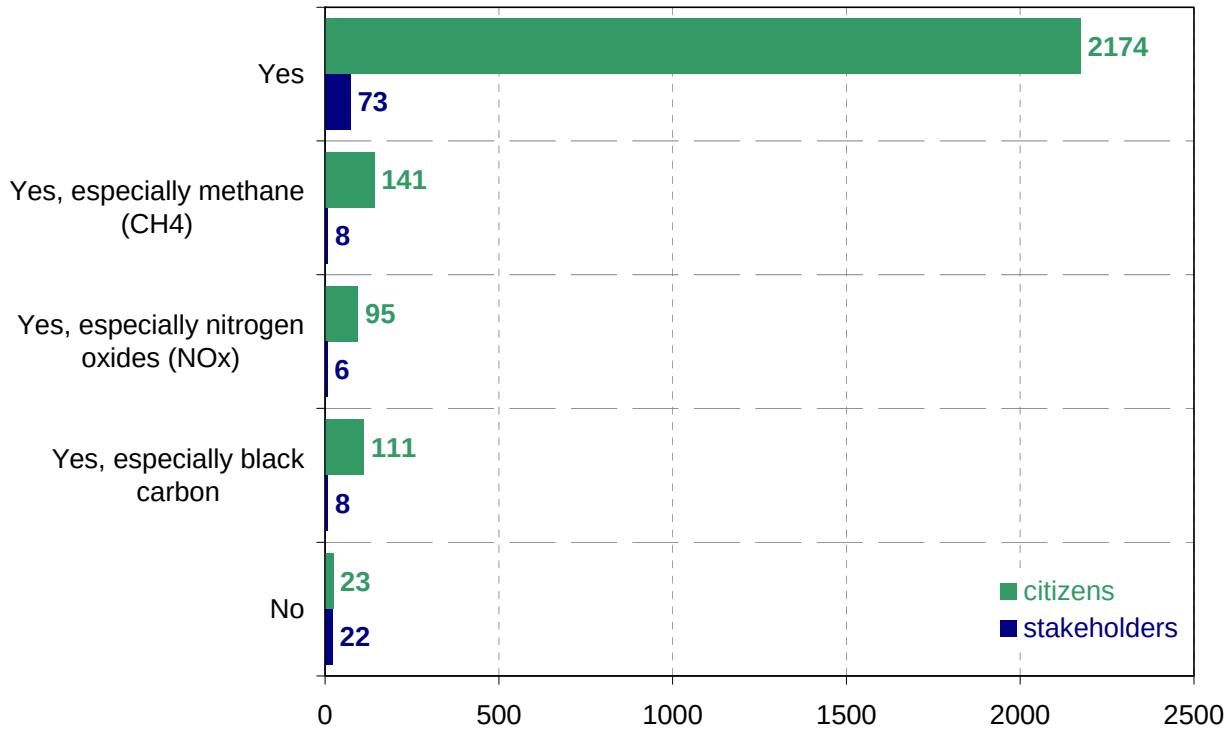
Organisations such as Transport for London, Jumbocruiser Limited, International Association of Public Transport (UITP) and Verband Deutscher Verkehrsunternehmen (VDV) highlighted emission policies such as the EURO classes legislation as an area which could affect the setting of targets while a significant number of individuals (over 90) provided general comments on the actual setting of emission limits and targets. Respondents also highlighted other general policy areas as being significant. These included general transport policy (150+), environment policy (70+), climate change policy (20+), air quality policy (8+), agricultural policy (10+), economic policy (75+), social policy (30+) and health policy (10+).

*Analysis of responses to **Question E.4***

E.4 Should other road-vehicle greenhouse emissions also be measured, alongside carbon dioxide (CO2)?

Individuals tended to be more demanding with regard to the issue of other road-vehicle greenhouse emissions being measured alongside CO_2. 70% of individuals agreed that other greenhouse emissions should be measured with 5%, 3% and 4% specifically agreeing that methane, nitrogen oxides and black carbon respectively should be measured. Less than 1% of individuals felt that other greenhouse emissions should not be measured. 53% of stakeholders agreed that other greenhouse emissions should be measured with 6%, 4% and 6% specifically agreeing that methane, nitrogen oxides and black carbon respectively should be measured. 16% of stakeholders specified that other road-vehicle greenhouse emissions should not be measured.

Figure 11: Answers to question E.4 in Part E



*Analysis of responses to **Questions E.5 & E.6***

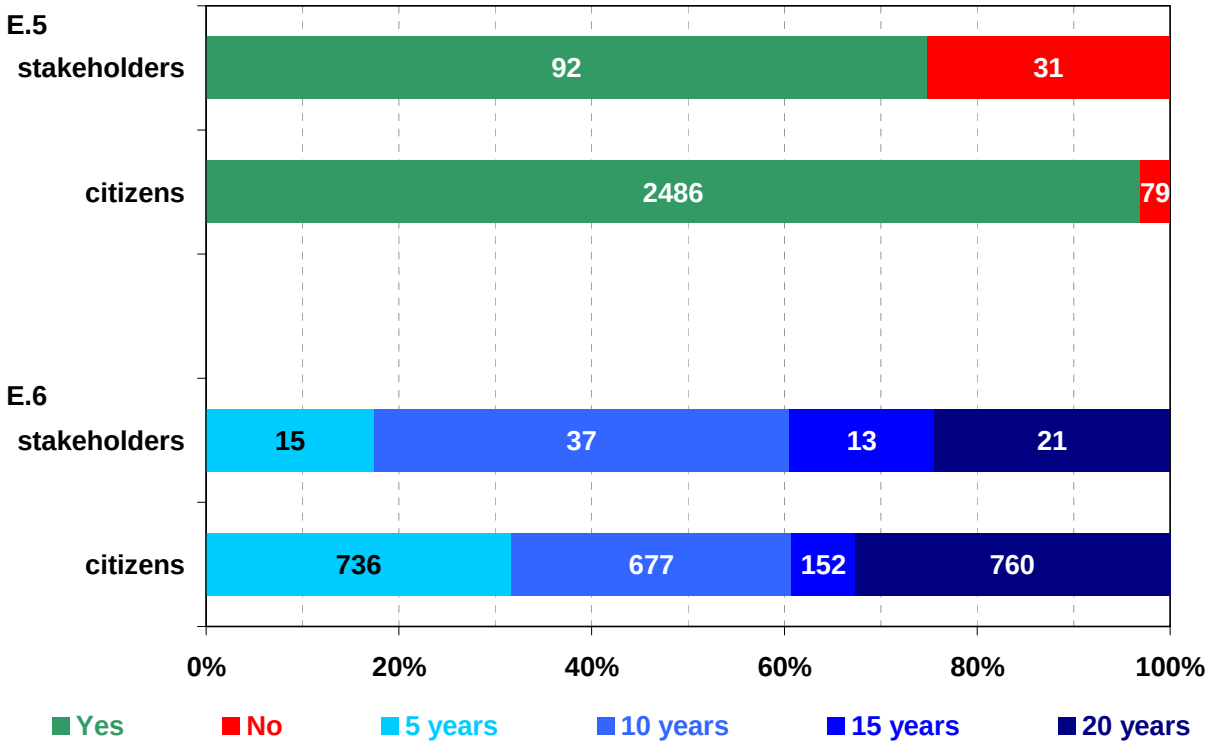
E.5 Should longer-term indicative targets (for after 2020) be set?

E.6 Please specify for what time period (following adoption of the related legislation)?

While the majority of both stakeholders (67%) and individuals (80%) agreed that longer term indicative targets should be set for after 2020, there was more opposition to this amongst stakeholders with 23% disagreeing with the setting of longer term indicative targets as opposed to only 3% of individuals disagreeing with the setting of longer term targets. 17% of individuals and 10% of stakeholders provided no opinion on question E5.

Responses in relation to the time frame for such legislation were quite mixed amongst both stakeholders and individuals. A quarter of all individuals chose not to answer question E6 or expressed no opinion, but of those that did 32% felt that the time frame for targets (following adoption of the related legislation) should be within 5 years, 29% specified 10 years, 15% specified 15 years and 33% specified that 20 year targets should be set. With regard to the stakeholder responses, 63% provided an answer to E6. Of these respondents, 17% felt that the time frame for targets (following adoption of the related legislation) should be within 5 years, 43% specified 10 years, 15% specified 15 years and 24% specified that 20 year targets should be set.

Figure 12: Answers to questions E.5 & E.6 in Part E



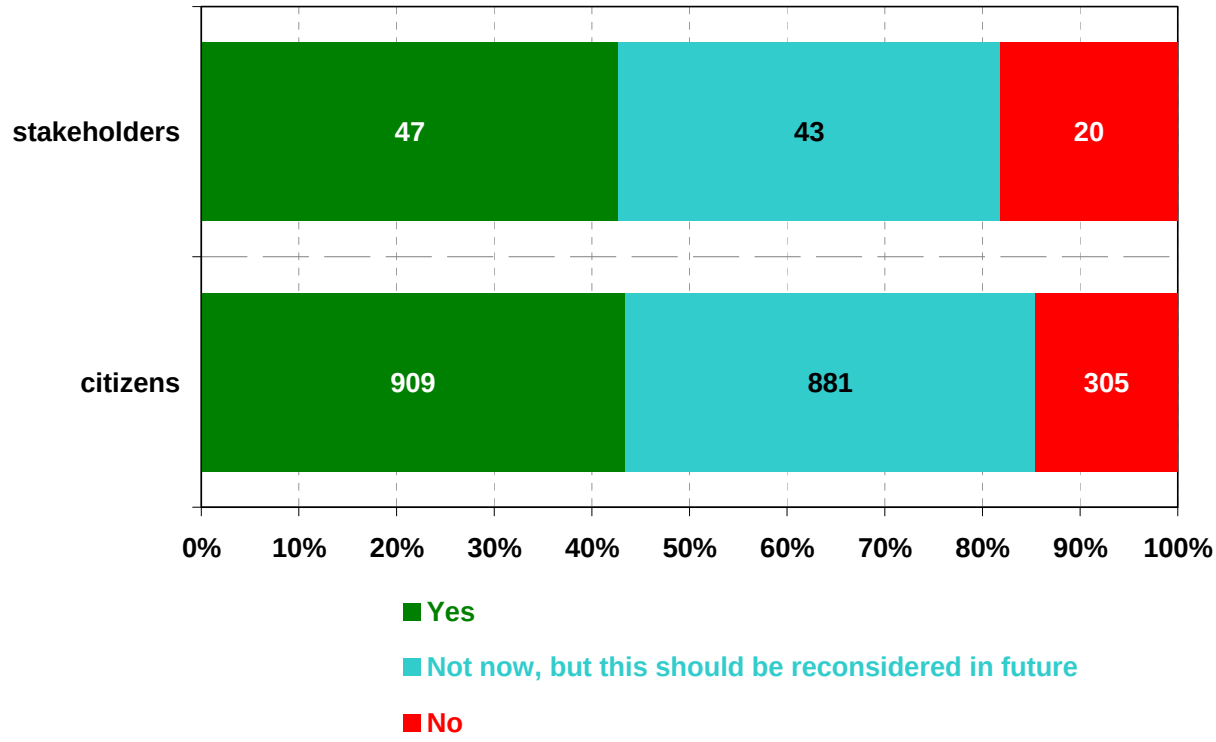
Summary of responses to ***Question E.7*** *(only answered if respondents answered No to Question E5)*

E.7 Please specify why long term indicative targets for after 2020 should no be set

The respondents who did not agree that long term indicative targets (for after 2020) should be set mostly argued that it was more appropriate to focus on implementing action in the short term to reduce CO_2 and achieve the targets already set for 2020. Around 10 organisations (including representatives of the car industry) and 20 individuals questioned the practicality of setting indicative targets for beyond 2020 without having knowledge of the developments in technology which may or may not materialise between now and then. In addition, 10 respondents claimed that short term targets are more achievable than unrealistic long term targets. The International Road Transport Union further stated that, in the absence of new procedures for the declaration of fuel consumption and CO_2 generation of complete transport

units being designed, voluntary targets set by the transport industry should be encouraged. Other comments raised by a small number of respondents (<3) included the setting of conditioned fleet targets, the limited positive impact of legislation on small business, the restriction of private vehicle use and the inconvenience for hauliers of too many policy changes.

Figure 13: Answers to questions E.8 in Part E



*Analysis of responses to **Question E.8***

E.8 The current legislation contains vehicle-based targets until 2020. For post-2020, should we consider alternatives to vehicle-based greenhouse gas regulation?

In relation to question E.8 and the possible consideration of alternatives to vehicle-based targets post 2020, responses were generally quite similar amongst stakeholders and individuals. 34% of stakeholders and 29% of individuals agreed that alternatives to vehicle based regulation post 2020 should be considered. 31% of stakeholders and 28% of individuals felt that alternatives to vehicle based regulation should not be considered now but be reconsidered in the future, while 15% of stakeholders and 10% of individuals felt that alternatives to vehicle based regulation should not be considered. A significant number of stakeholders(20%) and individuals(32%) had no opinion or chose not to answer the question.

*Summary of responses to **Question E.9***

E.9 Please specify which alternatives

The respondents who provided comments on alternatives to vehicle based greenhouse gas regulation (post 2020) highlighted a number of other policy areas and initiatives in which further measures could be implemented to reduce the emission of greenhouse gases. A

common theme in a number of responses from individuals (around 65) was a desire for the promotion and development of improved rail and river networks for the transportation of both people and goods. These individuals argued that a reduction of road usage is key to reducing pollution and a proportion of these respondents also recommended that more widespread, targeted congestion measures and road-charging policies should be implemented in towns and cities. In tandem with these comments, a significant number of other respondents (around 40) highlighted the importance of developing, promoting and incentivising the use of public transport, walking and cycling as viable, affordable and safe alternatives to the use of private vehicles. Further promotion and development of electically powered vehicles was supported by organisations including Shecco and Going Electric as well as individuals, as was the research, development and promotion of alternative fuels and more sustainable/renewable energy sources (individuals). The promotion of local production and consumption was also considered to be economically and enviromentally advantageous by individuals.

A large number of respondents (greater than 60) argued that a holistic approach was required with regard to the regulation of all industries/sources of pollution in society, with particular reference being made by some to the airline and energy production industries. A number of transport and motoring organisations, including Transfrigoroute International and IRU, highlighted the importance of implementing a wide range of initiatives in the field of transport, energy and fiscal policy as well as industry led initiatives to reduce fuel consumption. Taxation policy was also viewed as a key tool by individual respondents (around 40), who argued that further initiatives, ranging from the introduction of a carbon tax to having higher taxes on companies/consumers producing/purchasing high emitting vehicles and vice versa, could have a significant effect on the manufacturing, promotion and sale of goods (in particular vehicles) with a subsequent effect on the environment. Some respondents (around 30) also pointed out the fact that well-to-wheel emissions should be part of all future targets (City of Stockholm), while other respondents (around 15) supported the introduction of a personal carbon allowance (or cap and trade) scheme.

Both individual (around 15) and organisational (including ETRMA) respondents supported the undertaking of further research and stakeholder engagement on possible alternative policy options and the development of new technology for reducing pollution. A number of individuals (around 15) supported measures to regulate and improve the design and production of vehicles, with particular focus on the energy costs and emissions from vehicle production, the weight of vehicles and the type and recyclability of materials used in vehicle production.

8. ADDITIONAL COMMENTS (EVALUATION OF PART F)

The comments provided as additional input covered a wide range of issues concerning light-duty and heavy-duty vehicles.

Light-Duty Vehicles

A substantial number of individuals (almost 300) felt that it was essential for Europe to continue to lead by example in making efforts to reduce GHG emissions from transport. The majority of these respondents felt that binding legislation, which forces manufacturers to develop, produce and promote more efficient vehicles, is key to reducing overall transport emissions. Furthermore, a large number of individuals (around 100) specifically called for the setting of more ambitious targets and the taking of more urgent action to reduce the impact of transport emissions, raising concerns about the environmental consequences of delayed action on emissions or a lack of action. Some respondents (around 20), including the consumer organisation, highlighted the benefits to consumers of greater fuel efficiency of light-duty vehicles and thus affordable mobility in the context of increasing fuel prices, and called for greater use of vehicle regulation rather than, for example, targets on share of biofuels. A similar number of respondents (individuals) noted other co-benefits of increased fuel efficiency such as greater energy security, better air quality, and savings on fuel spending. Greenpeace and a significant number of individuals (around 50) called for targets for both cars and commercial vehicles to be set for 2025 which should be in line with the effort needed to decarbonise transport by 2050. Public authorities generally stated that the indicative targets for 2025 and 2030 should be set prior to 2015 to give sufficient planning certainty to the industry. A large number of individuals (over 80) felt that the car industry had too much influence and lobbying power and that it was essential that vehicle manufacturers were led by policymakers rather than the reverse.

On the other hand, representatives of vehicle manufacturers raised concerns over setting long-term targets and called for the focus on implementation of the existing legislative framework. Representatives of the automotive industry highlighted that the targets in place are already challenging. According to these contributions, the targets should not be dismissed as unambitious because the good progress the industry has made is due to the substantial investments of car manufacturers in the recent past. They called for taking account of duration of the life cycle of products and the necessity to set the targets which are known to be achievable already today. A delivery company raised concerns of a possible extra burden on the vehicle users in case the legislation is unbalanced and discriminatory across transport users.

Some respondents (around 10) highlighted the need to change the current scheme and base the legislation on the size-based utility parameter rather than mass. The problem of unrepresentative results of the official measurement of fuel consumption and the need to bring it closer to reality was brought up on several occasions (including by 5 individuals). One automotive manufacturer claimed the need to shift to a well-to-tank approach in evaluating the emissions from different sectors and sources, e.g. electricity generation for upstream emissions and automotive producers for tailpipe emissions. A number of individuals (around 20) and organised stakeholders were in favour of regulating life-cycle emissions i.e. taking into account pollution resulting from the vehicle production phase, and involving a range of stakeholders- auto manufacturers, fuel suppliers and users- into action to reduce CO_2. Other

individuals (around 35) felt that it was important for manufacturers to continue to invest in research and development and to improve the design and use of technology in vehicles.

A lot of respondents (individuals) referred to the need for a wider integrated legislative approach leading to behavioural change (over 50) and greater transport efficiency e.g. incentives to shift from personal to public transport (around 75), a reduction in road usage and congestion (around 70), appropriate fiscal incentives (around 80), alternative modes of freight transport such as rail and river (around 80), incentives for and promotion of alternative fuels and energy sources (around 80) including those in the early phase of development, a sustainable mobility policy (around 30), and the promotion of local production and consumption (around 40). Respondents representing transport operators claimed the incentives to upgrade their fleets to increase efficiency should be allowed to ease the burden of upfront investments, e.g. financial incentives etc. The same respondents were against speed limiters for light commercial vehicles claiming these could lead to reverse modal shift to other less efficient modes of transport. Transport associations were also concerned by the impact of legislation on SME's and lack of coherent approach of EU transport policies.

Other comments raised by a small number of individuals (less than 10) included the need to review the current scheme by including upstream emissions from production of fuels, extension of the scope of CO_2 standards to other categories of vehicles (e.g. non-road mobile machinery), labelling of vehicles, personal carbon quotas, the need for a worldwide international approach to fighting climate change, the need to reduce emissions of all pollutants and a reduction in speed limits.

Heavy Duty Vehicles

While most individual respondents' comments focussed on cars and, to a lesser extent, vans' emissions, some also (around 230) made comments on HDV emissions and ways to curb them (primarily in the additional comments section but also in other parts of the questionnaire). Among those a significant majority (65%) insisted on the need for a policy supporting a freight transport modal shift to less energy and lower GHG emission intensive modes such as trains and waterways. A number (69) of these individual respondents also considered that, in order to curb emissions, the transport and logistics chain should be reorganised with a more extensive recourse to local rather than remote suppliers of goods.

Among other comments made by individuals, a number of options were supported: the need to regulate heavy duty vehicles' emissions (10), with two respondents even suggesting that a 2025 emissions target should be set for HDVs in the same way as for cars and vans; charging external societal costs of road freight transport(1); taxes on road freight(15), higher taxes on fuel(4), avoiding lower pricing of fuel in favour of duty-vehicles(1); carbon footprinting of merchandises (4); the use of bio-fuels by HDVs(7), with one respondent suggesting a ban from town centres of HDVs powered by fossil fuels; the use of hydrogen and electricity by buses(1); the need to improve HDV performance through further R&D (6); providing incentives for influencing purchasing decisions, i.e. encouraging business to invest in more efficient vehicles (5); having more stringent checks, controls and speed limits for HDVs(5); and restricting the size of HDVs (4).

Various organisations (43) also provided comments on HDVS within the questionnaire and in written submissions: NGOs, enterprises, public authorities, and professional associations or federations. A large number of organisations (13, including Transport for London and

Fenebus) were in favour of policies which encouraged an active modal shift in favour of less energy and emission intensive transport modes such as rail or waterways for freight, as well as the promotion of public transport for passengers. Furthermore some organisations (8, including Fenebus, Jumbocruiser and Federal Association of German Bus and Coach Operators (BDO)) specifically highlighted the promotion of buses and coaches as a means to reducing overall transport emissions and felt that the benefits of imposing fiscal and legislative measures on buses were questionable. Other organisations (2, including Argyll and Bute Council) felt that the promotion of local suppliers, and thus shorter delivery journeys, would have a positive effect. A significant number of organisations (13), including NGOs (World Wildlife Fund (WWF)) and professional associations (Transfrigoroute International) felt that a comprehensive strategy to reduce emissions was required. A number of organisations (8, including the Swedish Transport Agency and Administration, Greenpeace, WWF) argued that specific legislation and targets were essential in respect of HDVs, with some suggesting milestone targets, while a number of other respondents (9, including Le Poste, IRU) felt that market forces would be more effective than regulation in reducing fuel consumption and CO_2 emissions.

The positive impact of further support for R&D into improving the efficiency of HDVs was highlighted by a number of organisations (11, including Bundesverband Güterkraftverkehr Logistik und Entsorgung (BGL), ETRMA, UITP) while others highlighted the need to pursue measures which affect purchasing decisions and incentivise the move to more efficient vehicles (11, including Jumbocruiser, Le Poste, Transport for London). Support was also expressed for the increased use of bio-fuels and non-fossil fuels by a range of organisations (10, including UETR). A number of organisations (9), in particular professional associations and public authorities (Swedish Transport Agency and Administration, IRU, Transport for London) commented on the need for a measurement methodology/tool for measuring HDV CO_2 emissions. Furthermore, other organisations (10, including IRU) commented on the appropriate measurement metrics with regard to assessing HDVs, for example, CO_2 per ton-km or per passenger/km, m3-km of goods. A small number of organisations commented on the Energy Taxation Directive (3, including VDV, European Express Association) and the need to focus on measures which reduce fuel consumption (5, including BGL and BDO). While the Community of European Railway and Infrastructure Companies (CER) and the European Express Association was in favour of charging for the external costs of transport (all types), European Association for Forwarding, Transport, Logistics and Custom Services (CLECAT) emphasised the importance of recognising that transport companies already incur costs which are internalised through excise, taxes or charges.

Other comments made by a small number of organisations included the taxation of freight transport, increasing fuel taxes, the recyclability of HDVs, the need to focus on the classes which emit the most, the need to focus specifically on measures which reduce fuel consumption, labelling, the importance of regulating engine-only emissions, allowing longer vehicles for transporting freight and banning the use of HDVs altogether.

9. ANNEX I: RECEIVED WRITTEN CONTRIBUTIONS

Please visit our website to see the specific concise contributions and position papers received. Only contributions from organized stakeholders who provided their registration number in the Transparency Register and at the same time indicated that their contribution should be treated as "under the name indicated" are published on our website. All contributions have not been edited and are shown as submitted. They do not represent the opinions and views of the European Commission and are the sole responsibility of those submitting these responses.

http://ec.europa.eu/clima/consultations/0012/index_en.htm

10. ANNEX II: CONTRIBUTIONS OF REGISTERED ORGANIZED STAKEHOLDERS

This annex only includes contributions from stakeholders who submitted responses via the online questionnaire (for so called "position papers" see Annex I). Responses are shown only from those registered stakeholders/organisations which indicated that their contribution should not be treated as confidential or anonymous. Any response from organised stakeholders that did not provide the registration number in the Transparency Register[2] is not shown here.

Contributions are shown sorted by the identification number in ascending order. Some of the contributions refer to attachments or accompanying papers – these can be found on our website (see Annex I). All contributions shown have not been edited and are published as extracted from the IPM system.

Contributions shown below do not represent the position, opinions and views of the European Commission and are sole responsibility of those submitting these comments.

01890906437-84 LA POSTE company / professional association France B.1 Entirely agree B.2 Entirely agree B.3 No opinion B.4 Partly disagree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Partly agree E.2 Le Groupe, la Poste est un acheteur de transports et constate que les innovations relèvent plus d'une volonté des chargeurs que d'initiatives des transporteurs. Pour aider les transporteurs à s'équiper de véhicules émettant moins de CO2, une politique de réduction des émissions carbone combinée à des mesures fiscalement incitatives est sans doute souhaitable. Ces mesures doivent cependant s'appliquer de manières harmonisée dans les différents pays Européen, mais aussi à l'intérieur même des Etats, de façon pérenne pour lutter à la fois contre les effets d'aubaine et les distorsions de concurrence. E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 Les évolutions technologiques potentielles ne sont à ce jour pas modélisables ce qui incline pour une révision périodique des objectifs. E.8 Yes E.9 Au-delà des émissions de CO2, les polluants sont naturellement à prendre en considération (NOX, HC, particules…) ainsi que les niveaux de bruit émis par les véhicules Additional Comments Commentaire associé à la question sur l'encouragement de l'innovation: La Poste en tant qu'acheteur de prestations de transport de marchandise constate auprès de ses fournisseurs que les innovations technologiques des véhicules ont pour effet de renchérir leur prix (cela est particulièrement vrai pour le véhicule électrique). Pour cette raison, la réglementation doit s'accompagner, dans la mesure du possible, d'une politique d'incitation de long terme à l'achat, via divers instruments financiers. Une telle politique devrait permettre de stimuler la demande et de contribuer ainsi à la compétitivité de l'industrie automobile européenne. Commentaire associé à la question sur l'objectif 2020 de 147g de CO2/km: : la notion de coût raisonnable évoquée dans la question mérite un examen attentif car c'est un paramètre essentiel du modèle économique du transport de marchandises. Commentaire associé à la question de la nécessité d'une réglementation supplémentaire pour réduire les émissions de gaz à effet de serre: contrairement aux véhicules légers, le marché des véhicules lourds représente un marché réduit ou les retours d'investissement sont plus difficiles à obtenir. Les sauts technologiques ont pour effet de renchérir la chaine de valeur et d'impacter la compétitivité des transporteurs. Une politique incitative permettrait d'améliorer l'équilibre

[2] http://europa.eu/transparency-register/index_en.htm

financier des transporteurs. Par ailleurs, indépendamment des innovations portant sur les moteurs et les énergies de traction, La Poste fait observer que certaines politiques volontaristes ont montré leur efficacité en matière de réduction des émissions de CO2 (limitation de vitesse, formations à l'éco-conduite, etc…). Les 70 000 formations à l'éco conduite organisées par La Poste pour ses facteurs et l'optimisation des schémas de transports ont permis à eux seuls des gains très importants de consommation de carburant. Ces initiatives apportent aussi des bénéfices pour la société dans son ensemble en réduisant le nombre d'accidents de la route et en pacifiant les comportements des automobilistes et chauffeurs routiers. De telles initiatives, qui ne ressortent pas d'une logique réglementaire, apportent néanmoins de très bons résultats qui méritent d'être soutenus. Commentaire associé à la question des types de véhicules devant être couverts par la stratégie relative aux gaz à effet de serre: Les mesures doivent cependant être adaptées aux contraintes techniques propres à chaque type de véhicules avec des délais de mise en œuvre compatibles avec l'offre des constructeurs et la politique de renouvellement des véhicules.

02452103934-97 Allgemeiner Deutscher Automobil-Club e.V. non-governmental organisation / association of NGOs Germany B.1 Partly agree B.2 Partly agree B.3 Partly agree B.4 Entirely agree B.5 Neutral C.1 Yes C.2 C.3 Yes C.4 D.1 Partly agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions; Measures influencing fuel or energy type used by HDVs E.1 Partly agree E.2 Bezugnehmend auf die Frage: "Die Emissionen von Straßenfahrzeugen könnten durch Veränderungen in anderen Politikbereichen, beispielsweise der Besteuerung, gesenkt werden. Dennoch sollten weiterhin Ziele für Straßenfahrzeuge festgesetzt werden." Der ADAC setzt sich dafür ein, dass Emissionsziele für Straßenfahrzeuge festgesetzt werden. Diese Ziele sollte jedoch durch technische Innovation erreicht werden und nicht nur restriktive Ansätze (Besteuerung, Internalisierung externer Kosten) verfolgt werden. E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 Aus ADAC-Sicht sollten keine längerfristigen Richtziele festgesetzt, sondern diese Werte kontinuierlich angepasst werden. Wie die Vergangenheit zeigt, bietet dieses flexible Vorgehen deutliche Vorteile gegenüber einem starren, langfristigen Ansatz (vgl. PM10-Debatte). E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

03904371831-43 Africa Europe Faith and Justice Network non-governmental organisation / association of NGOs World wide B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 No opinion B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures influencing fuel or energy type used by HDVs E.1 Entirely agree E.2 Renewable Energy Directive 98/70/EC and Fuel Quality Directive 2009/30/EC : in relation with the accounting of GHG reduction in transport sector by using biofuels, including the ILUC factor. The NREAP reports requested by the Renewable Energy Directive 98/70/EC show that EU member States plan to reduce their GHG emissions mostly by using biofuels of first generation. Unfortunately, this leads to important negative social and economic impacts in third countries, including water and land grabbing for raw materials production, both in Africa and other continents. Consequently, the setting of GHG targets for road vehicles must take into account these negative environmental, social and economic impacts. It must eliminate the use of biofuels and promote the reduction of energy consumption in order to ensure an objective that is really sustainable. It must comply with the right to food and not to displace the GHG emissions in another place on the earth. E.3 Entirely agree E.4 Yes E.5 Yes E.6 5 years E.7 E.8 No opinion E.9 Additional Comments

04172957341-73 Jumbocruiser Ltd company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 Partly disagree B.4 Partly agree B.5 Neutral C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 Only urban HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing fuel or energy type used by HDVs E.1 Entirely agree E.2 The present formula is effective but I believe that Euro 6 is too ambitious and realistically, buyers will delay purchases of Euro 6 causing financial damage to the manufacturers. This is especially true of buses and coaches that typically expect (and need) twice the life of trucks due to their purchase cost being so much higher. There is another argument that it costs more in pollution terms to build a bus or coach than it does to replace it. It should be accepted that an operator must keep a bus or coach for 15 years and that Euro 6 does not allow a 10 year old Euro 2 or 3 bus or coach to be upgraded further than Euro 4 or 5 by exhaust upgrades. It will cause severe financial loss to the operator who has to stop using his bus or coach because it cannot be upgraded to Euro 6 yet it being only half way through a required life cycle. See question E3 - that should include the emissions caused by replacement in a new vehicle build. E.3 Entirely agree E.4 Yes, especially black carbon E.5 No E.6 E.7 Actually I want to say "yes" but only in discussion with manufacturers who are struggling to cope with Euro 6 economically. Maybe taxation on private fuel should increase to reduce cars on the road and thus reduce congestion that causes heavy vehicles to pollute more. E.8 Yes E.9 Taxation based on private cars. Not nice but car use has exploded over the last few years causing road building (polluting) and congestion (polluting) issues. Additional Comments

06250094777-73 International Council on Clean Transportation non-governmental organisation / association of NGOs World wide B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 In order to reduce GHG emissions from road vehicles most effectively, a combination of policies is needed. This includes setting mandatory GHG targets well in advance in order to spur development and application of innovative technologies and to push energy efficient vehicles into the market. At the same time, intelligent taxation / feebate systems in combination with consumer information and labeling are needed to create a strong pull for efficient vehicles on the demand side. In addition it has to be ensured that GHG emissions from road vehicles are reduced in real-world terms, for example by having a representative test-cycle in place. E.3 Entirely agree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 Yes E.9 To be discussed in the context of the upcoming post-2020 study by DG CLIMA. Additional Comments Please see attached document.

1119946481-54 NGVA Europe non-governmental organisation / association of NGOs EU wide B.1 Entirely agree B.2 Entirely agree B.3 No opinion B.4 Entirely agree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Partly agree D.2 Partly agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Partly agree E.2 Directive on the promotion on clean and energy efficient vehciles (2009/33/EC) RES Directive (2009/28/EC) Fuel Quality DIrective (2009/30/EC) European strategy on clean and energy efficient vehicles (COM(2009)186: long-term strategy in STTP (Strategic Transport Technology Plan) and CTS (Clean Transport Systems White Paper "Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system" Energy Roadmap Aor Quality Directive (2008/50/EC) E.3 Entirely agree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 Yes E.9 The alternative could be putting limits for the average emissions of the full production of each manufacturer. Additional Comments

1414929419-24 WWF European Policy Programme non-governmental organisation / association of NGOs EU wide B.1 Entirely agree B.2 Partly agree B.3 Entirely agree B.4 Partly agree B.5 Entirely agree C.1 Yes C.2 C.3 No opinion C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 E.3 No opinion E.4 No opinion E.5 Yes E.6 5 years E.7 E.8 No E.9 Additional Comments

15997912445-80 Glass for Europe company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 No opinion B.4 Entirely agree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Partly agree D.2 No opinion D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions E.1 E.2 E.3 Entirely agree E.4 E.5 Yes E.6 E.7 E.8 No opinion E.9 Additional Comments

18939412904-80 ΚΕΝΤΡΟ ΠΡΟΣΤΑΣΙΑΣ ΚΑΤΑΝΑΛΩΤΩΝ non-governmental organisation / association of NGOs Greece B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 Tax legislation which is related to car transport (such as for example on fuel, cars and tax reduction/exemptions for company cars) has a large influence on the purchasing decisions and thereby also on the types of cars offered by car manufacturers because a large part of the costs related to the use phase of a car derives from taxes. In the future, prices for fuel will continue to increase. In order for consumers to remain mobile in the future, car manufacturers need clear economic incentives to provide only as fuel efficient cars as possible to consumers. The attractiveness of public transport needs to be enhanced in order to offer better opportunities to consumers to switch from individual to collective transport and thereby reduce the negative impact on the environment. This would require investment into infrastructure and services, customer oriented offers, better interoperability of train traffic throughout Europe and possibilities to better combine the use of car and train trans E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

1894704851-83 European Express Association company / professional association EU wide B.1 Entirely agree B.2 Partly agree B.3 Entirely agree B.4 Entirely agree B.5 Partly agree C.1 No C.2 Current legislation has created additional burdens for customers and road haulage companies, who are the ones who have to pay the additional costs to upgrade their LCV fleet in view of new CO2 standards. New CO2 limits come with increased procurement costs for operators and buyers, and especially SMEs. In order to compensate operators and buyers for these extra costs, incentives for the demand side should be foreseen to stimulate a quicker substitution of the older vehicles in operation. Unfortunately, the current Regulation has failed to encourage Member States to adopt such incentives, which could take the form of direct subsidies (to the purchasing price, one-time or recurring tax reductions, on the vehicle tax) or of benefits in kind (use of quick lanes for bus or taxi in urban areas). Moreover, the regulation contributes to putting a larger amount of smaller vehicles into use instead of curbing CO2 emissions. C.3 Yes C.4 D.1 Entirely agree D.2 Partly disagree D.3 All HDVs D.4 A combination of measures from all areas E.1 Partly agree E.2 Setting CO2 targets for vehicles should only be done after a careful assessment of other initiatives taken in the fields of fuel taxation, energy efficiency and internalisation of external costs, in order to avoid a disproportionate burden on road transport users such as hauliers and logistics companies, for which CO2 costs are already (fully or partly) internalised through existing excise, taxes or charges. -The current revision of Energy Taxation already foresees the introduction of a

carbon tax element and higher levels of minimum taxation for commercial diesel vehicles. - Road charging systems based on the internalisation of external costs also aim to reduce transport CO2 emissions. These systems should target all road vehicles, including passenger cars. -Finally, initiatives in the field of transport efficiency can also lead to significant CO2 reductions. The deployment of EMS (European Modular System) across the EU would increase load optimization and help reduce emissions. E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 The EEA believes that long-term, unrealistic targets for 2030 and 2050 would not bring any benefits and only create more confusion for the industry. Priority should be given to meeting the 2020 targets before introducing new targets. E.8 Not now, but this should be reconsidered in future E.9 Additional Comments The EEA would like to underline some key positions on CO2 emissions reductions in the field of road transport. - No double-charging for heavy-duty vehicles The EEA would like to prevent a situation whereby freight transport operators are 'double-charged' to reduce CO2 emissions. In 2008 passenger transport emission levels accounted for 60% of GHG compared to 40% for freight transport. The Commission should therefore ensure that legislation aimed at reducing CO2 emissions is balanced and non-discriminatory across all transport users, both passenger and freight. With CO2 already being internalized through taxes (through a possible revision of the Energy Taxation Directive) or charges (through the Eurovignette Directive), the setting of new CO2 standards for heavy-duty vehicles would constitute an extra burden on road transport operators. Road charges adopted through the recent revision of the Eurovignette Directive should also be applied to other road users, including passenger cars. - No unrealistic targets for post-2020 For the time being, priority should be given to the implementation of current targets, instead of setting additional targets. The consultation refers to "alternatives to vehicle-based greenhouse gas regulations" after 2020 (question E.8). The EEA can only support such alternatives if the measures do not come in addition to existing measures, but as a replacement to them. The consultation also refers to the possibility of addressing non CO2 greenhouse gas emissions (NOx, methane, black carbon) (question E.4). While these emissions should indeed be measured, the introduction of any new standards or targets should be carefully assessed after appropriate stakeholder consultations. - Energy efficiency: the deployment of long-truck combinations (EMS, European Modular System) Allowing 25.25 meter truck combinations across Europe would result in lower fuel consumption, lower emission levels, and reduced traffic congestion on EU roads, without threatening co-modality. The expected increase in transport demand by over 50% between 2000 and 2020 cannot possibly be absorbed by rail and inland waterway transport only. EMS could fill the gap without increasing CO2 emissions. Field tests are already underway in some Member States and the EU should allow cross-border use of EMS through a revision of Directive 96/53/EC on weights and dimensions of heavy-duty vehicles. - Incentives for fleet upgrade The express industry is keen to reduce emissions of road transport, notably through investments in new technologies such as electric and hybrid vehicles and alternative fuels. The express industry already has operational electric vans across Europe (notably in the UK), therefore contributing to green city logistics in the EU. Transport operators should be incentivized in upgrading their fleet to alleviate high upfront investment. Incentives could be in kind (such as longer period of access into the city center for vans) or financial (such as tax rebates). - Speed limiters do not bring significant benefits regarding reduction in CO2 emissions and road safety In the past EU policymakers were tempted to associate CO2 vehicle standards with provisions on speed limiters. The EEA would like to underline again that studies do not demonstrate that speed limiters would entail a significant reduction of CO2 emissions. Benefits brought by speed limiters are not significant enough to impose additional obligations and costs on economic operators. From the perspective of the express industry, speed limiters, especially for LCVs, could lead to a

reverse modal shift from road to air or to using more passenger cars instead of LCVs, which would have a negative impact on CO2 emissions.

20457441380-38 BDEW Bundesverband der Energie- und Wasserwirtschaft e. V. company / professional association Germany B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Entirely agree B.5 Partly disagree C.1 No C.2 1) technologische Vorleistungen für die Einführung alternativer Antriebsarten mit entsprechenden CO2-Minderungspotentialen werden nicht ausreichend berücksichtigt. Ein entsprechender Technologiebonus sollte eingeführt werden, um Alternativen wie BEV, CNG oder LNG in ihrer Marktentwicklung zu stützen. 2) Gerade kurzfristig kann CNG und mittelfristig können BEV ein Baustein zur Erfüllung der 147g-Zielsetzung bei LCVs sein und sollten gefördert werden. C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 Measures influencing fuel or energy type used by HDVs E.1 Partly agree E.2 E.3 Entirely agree E.4 Yes, especially nitrogen oxides (NOx) E.5 No E.6 E.7 E.8 No E.9 Additional Comments

21866227354-46 Centre de Recherche et d'Information des Organisations de Consommateurs. non-governmental organisation / association of NGOs Belgium B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 No opinion B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 5 years E.7 E.8 No opinion E.9 Additional Comments

22128416452-61 Verkehrsclub Deutschland, Landesverband Bayern e.V. non-governmental organisation / association of NGOs Germany B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Entirely agree B.5 Entirely agree C.1 No C.2 Die gesetzten Ziele sind nicht ambitioniert genug. Die Erhöhung der Grenzwerte unter Gegenrechung von Agrokraftstoffen ist nicht sinnvoll, da Agrokraftstoffe nicht CO2-neutral sind. Die Anrechung von elektrisch betriebenen Pkw mit 0-Emission, berücksichtig nicht deren tatsächlichen CO2-Emissionen und lässt die erhöhten CO2-Emissionen bei der Herstellung dieser Fahrzeuge (Bsp: BMW i3, CO2-Amortisation im Vergleich zu einem konventionellen BMW erst ab 50000 km Fahrstrecke) unberücksichtigt. C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes, especially black carbon E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

23810875571-65 Greater Than company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Entirely agree B.5 Entirely agree C.1 No opinion C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV usage E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 The value chain and policy makers are focused on machine performance only. Process performance ie. how vehicles are driven and used must be inlcuded in the thought process. Additional Comments Road freight transport providers have in best case no incentive to save fuel and in worst case a perverse incentive to avoid making investments in energy savings. This is the reason as to why trucks still are driven in such a manner that leads to 15-20 higher than necessary fuel consumption. Hence, only 8,1% of all transport providers view fuel savings a priority. The process drive truck is not measured nor controlled and all focus is given to solutions such as EcoDriving but not the result or efficiency of it. Other industries focuses on process improvements and measure the efficiency of a process and uses

this as a ground to further improve it. The cost of fuel is passed on to the transport buyers, as fuel is shelterd by so called "fuel adjustement clauses". The purpose of FAC´s are to protect the providers from changes in oil price, as a negative consequence, also the consumption is sheltered and hence no incentivie to save fuel. With FAC´s, a fuel saving will hit turnover and profitabiltiy, hence fuel has become a source for profit generation. The larger 3Pl´s such as DHL etc view FAC´s a vital part of their revenue stream. In addition, many 3Pl´s outsource the road transport of the value chain and take a commission from the haulier, based on the revenue. With a FAC in the bottom and a commissopn on the top, the higher the fuel cost the higher the commission, or one could say, the higher the CO2 emission the higher the commission. Independent research supports the fact that FAC´s may give a perverse incentive to avoid making fuel savings.

26167587376-11 European Small Volume Car Manufacturers Alliance company / professional association EU wide B.1 Entirely agree B.2 Neutral B.3 Partly agree B.4 Partly agree B.5 Neutral C.1 No opinion C.2 C.3 No opinion C.4 D.1 Entirely agree D.2 Entirely agree D.3 No opinion D.4 No opinion E.1 Partly agree E.2 E.3 No opinion E.4 No opinion E.5 Yes E.6 10 years E.7 E.8 Yes E.9 Additional Comments

27799842497-69 SUEZ ENVIRONNEMENT company / professional association EU wide B.1 Partly agree B.2 Partly agree B.3 Entirely agree B.4 Neutral B.5 Partly agree C.1 No C.2 Bonus/malus schemes relating to the CO2 emissions and the fuel consumption of motor vehicles have had a positive impact on consumers behaviour (increasing acquisitions of light motor vehicles).However, we think that the approach of setting emission standards for vehicles is in principle effective but current standards are not strict enough to incentivize alternative technologies such as electric or natural gas vehicles. Furthermore standards should be complemented by policy measures which support the development of the necessary charging infrastructure for alternative fuels. C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 - All legislation concerning air quality (Directive 2008/50/EC for example); including the noise pollution component and the Low Emission Zones component (even though LEZs should not completely ban the traffic of heavy vehicles). - Changes in the Low Carbon Economy Roadmap, Energy Roadmap or Transport Roadmap. - The 10% RES target for transport in the Renewable Energy Directive. - Policies encouraging alternative options such as smarter logistical solutions (eg reverse logistics between different type of loads), better inter-modal connections (particularly road-rail) and use of water-borne transport. E.3 E.4 Yes, especially methane (CH4) E.5 Yes E.6 15 years E.7 E.8 Yes E.9 - Incentives (e.g tax rebate) for the use of more efficient and cleaner fuels, such as CNG, LNG, biomethane. - Pollutants not targeted so far by Euro regulation (e.g benzene-derived components in diesel) - Incentives for buying cleaner vehicles emitting less CO2 and GHG emissions. Probate of alternative type of motors (hydrogen, biodiesel) should be promoted. - With regards to the recycling of heavy-duty vehicles, which are not covered by the ELV directive, regulation should be put in place to facilitate - eg. through eco-design - and strengthen the recyclability of such vehicles. This would notably contribute to ensure that the heavy polluting gases (HFCs) contained in air-conditioning and refrigeration units for vehicles are properly recovered. - R&D support is needed now. We also need incentives to put the necessary fuelling infrastructure in place. With R&D support, standards for vehicles and an adequate infrastructure, further incentives might not be necessary any more. Additional Comments

2893800753-48 Verbraucherzentrale Bundesverband non-governmental organisation / association of NGOs Germany B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4

Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 Steuerrechtliche Regelungen (Mineralölsteuer, Kfz-Steuer, steuerliche Absetzbarkeit der Kosten für Dienstwagen) haben einen großen Einfluss auf die Kaufentscheidung und damit auch auf die Produktpolitik der Hersteller, weil die tatsächlichen Kosten für den Betrieb eines PKW zu einem großen Teil durch die Steuerlast beeinflusst werden. Mittel- und langfristig wird der Erdölpreis weiter ansteigen. Damit Verbraucher auch in Zukunft noch mobil sein können, sollten die Autohersteller jetzt schon klare ökonomische Anreize haben, PKW so energieeffizient wie möglich zu bauen. In Deutschland wirkt sich insbesondere die steuerliche Absetzbarkeit von Dienstwagen in eine gegenteilige Richtung aus. Außerdem sollte die Attraktivität des öffentlichen Verkehrs gesteigert werden, um die Verbraucher zum Umsteigen zu bewegen (Investitionen in Netze und Fahrzeuge, kundengerechtes Angebot, Kombinierbarkeit von öffentlichem Verkehr und Autoverkehr). E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments Die Förderhöchstmenge von Erdöl ist in diesen Jahren erreicht oder sogar schon überschritten. Zugleich steigt die Nachfrage nach Erdöl durch die aufholende Entwicklung in Indien und China und in vielen anderen Ländern der Erde. Die unausweichliche Folge sind steigende Spritkosten. Eine vorausschauende Politik zur Steigerung der Effizienz von PKW ist daher nicht nur aus Klimaschutzgründen notwendig, sondern auch um Verbrauchern langfristig Mobilität zu sichern. Klare, anspruchsvolle und schrittweise verschärfte Emissionsgrenzwerte für PKW sind hierfür ein wichtiges Instrument. Die Technik für Einsparungen beim Verbrauch und entsprechend geringere CO2-Emissionen ist noch längst nicht ausgereizt. Durch Leichtbauweise und Hybridtechnologie könnte nach Berechnungen des deutschen Umweltbundesamtes der Verbrauch von Neuwagen bis 2050 um 70 Prozent gegenüber heute sinken. http://www.umweltbundesamt.de/uba-info-medien/dateien/3773.htm, S. 45. Bisher wurden Effizienzverbesserungen zu einem großen Teil durch höhere Fahrzeuggewichte, energieverbauchende Nebenaggregate sowie leistungsstärkere Motoren neutralisiert. Allein die Nebenaggregate, insbesondere die Klimaanlage, erfordern bis zu 17 Prozent mehr Kraftstoff . Für Verbraucher bringen strenge Emissionsgrenzwerte für PKW reale Ersparnisse durch geringere Spritkosten. Deshalb ist eine Strategie der schrittweisen Effizienzverbesserung von PKW aus Verbrauchersicht vorteilhaft gegenüber anderen Strategien zum Klimaschutz im Verkehr, etwa einer weiteren Steigerung des Biokraftstoffanteils. Nach den Berechnungen von Fraunhofer ISI zum Integrierten Energie- und Klimaschutzprogramm der Bundesregierung ist der Einsatz von Biokraftstoffen im Verkehrsbereich mit volkswirtschaftlichen Kosten von 84 bis 168 Euro pro Tonne CO2 verbunden, die Steigerung der Effizienz von PKW dagegen mit Ersparnissen von 128 Euro pro Tonne CO2. http://www.bundesumweltministerium.de/files/pdfs/allgemein/application/pdf/fraunhofer_bewertung_iekp.pdf, dort S. 5.

32591134448-30 European Producers Union of Renewable Ethanol company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Partly agree B.5 Entirely agree C.1 No C.2 ePURE supports the setting of greenhouse gas emission standards for cars and vans. However, one major omission in the current legislation is that no support is given to constructors of Flex-Fuel-Vehicles (FFV). We believe that this needs to be amended in order to incentivize the production of more environmental friendly vehicles. C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions; Measures influencing fuel or energy type used by HDVs E.1 Entirely agree E.2 If the fuel specifications of the Fuel Quality Directive were amended to allow for higher ethanol incorporation rates with petrol

this would allow the auto industry to comply with the greenhouse gas target in full or in part. Also tax policies will have an impact on the setting of the greenhouse gas targets, especially the Energy Taxation Directive. E.3 Entirely agree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 Yes E.9 ePURE holds the view that vehicle-based greenhouse gas regulation is essential. However, alternative fuels differ from current mass market fuels in the sense as their emissions occur upstream. As the existing paradigm measures greenhouse gas emissions at the tailpipe, it needs to be adapted to the degree that this shift occurs. A new balance between these elements need to be found. Additional Comments

3862796520-92 World Steel Association company / professional association World wide B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Partly agree B.5 Entirely agree C.1 No C.2 The tailpipe measurement that is used in current regulation gives an unrealistic picture of overall vehicle emissions. Vehicle emissions are not only produced during the driving of a vehicle but also during the production and recycling phases. When vehicle emissions assessment is focused solely on emissions during the driving phase, this encourages the use of greenhouse gas-intensive materials in an effort to reduce vehicle weight and fuel consumption. But this may have the unintended consequence of increasing GHG emissions during other vehicles' total life cycle phases. In most cases, these emissions override any benefits that may be gained through fuel efficiency improvements. This problem becomes even more crucial with the advent of more efficient powertrains that reduce emissions in the use phase. This is why shifting the basis of CO2 emissions regulations to a Life Cycle Assessment approach that considers emissions from all aspects of a vehicle's life is needed, and is feasible. C.3 Yes C.4 D.1 No opinion D.2 No opinion D.3 No opinion D.4 No opinion E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 E.7 E.8 No E.9 Additional Comments As already indicated in our comments to question C1 we believe that future European vehicle emission legislation should consider a Lifecycle Assessment (LCA) as the best available method for measuring emissions from all types of vehicles. For a more detailed explanation of the LCA in relation to vehicle emissions including practical examples and scientific studies please see our supportive document we uploaded together with this contribution. This attached document also refers to questions B3, B4, C4, E3 and E4 and gives additional background information on our answers.

3960234639-24 Quaker Council for European Affairs non-governmental organisation / association of NGOs EU wide B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 No opinion B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 E.3 No opinion E.4 No opinion E.5 Yes E.6 5 years E.7 E.8 No E.9 Additional Comments There are three questions where we have answered "no opinion". This is because the debates surrounding these questions are actually quite complicated, which is difficult to adequately represent by selecting a single tick-box. For instance, measuring black carbon might be a good thing, but if it is a first step towards weakening CO2 limits, then it would be nonsensical. Cars are responsible for 14% of the EU's total CO2 emissions, and they are the single largest source of transport emissions, representing around half of the total. CO2 emissions from the transport sector have increased by 29% since 1990, whereas those of other sectors have decreased by 22%. The contribution of the transport sector to the EU's CO2 emissions now stands at 30%, up from 20.5% in 1990. The real picture is actually worse, because transport greenhouse gas emissions statistics do not include lifecycle emissions, only 'tailpipe' emissions. In the case of oil, this leads to an underestimation of 20%. Transport is also critical in the debate on Europe's energy dependence. Transport is responsible for about two-thirds of oil use. Cars are

the single biggest consumer of oil in the EU, responsible for using around half of transport sector demand, and hence a third of all oil. At current oil prices, Europe imports approximately €250 billion worth of oil every year, or €700m every day. For comparison - this is roughly the same amount as the Greek, Irish and Portuguese bailouts combined – every year. This is incredibly expensive and wasteful, only serving to further sap the EU economy, exacerbate inequalities, poverty and insecurity, and make more difficult our very real sustainability challenges. The age of cheap oil is over. Reducing fuel consumption of cars is one of the most effective strategies to help achieve the EU's aspirational energy savings target of 20% by 2020. Efficiency savings is demonstrably the fastest, cheapest, most effective, flexible and safest way of getting our greenhouse gas emissions down. But it is not going to happen naturally. Instead, it requires real policy and legislative focus. We are also increasingly forced to consider the risks involved in securing traditional energy sources; inter-state wars have been fought over energy resources such as oil. Efforts to adjust energy provision in ways which maximise the potential for peace and development will fail if we refuse to become more discerning in terms of the sources and methods of energy provision which most of us take for granted. Furthermore, a wide range of studies has concluded that 'ex ante' (pre-regulation) cost estimates of environmental policy tend to systematically overestimate. For example, studies conducted ten and five years ago predicted that reducing CO2 emissions from new cars to an average level of 140g CO2/km would make cars more expensive. Meanwhile new cars have become 13% cheaper on average in real terms over the past eight years. We are aware of the complex set of factors that make up a car's retail price, and that regulatory compliance costs is just one of these factors. Nevertheless the analysis shows that fears that reduction of CO2 emissions would make cars unaffordable have been unfounded. The absence of any relationship between reduction of CO2 and higher retail prices has important implications in future emissions compliance negotiations with carmakers in the implementation periods after 2015. According to objective analysis, carmakers in Europe are heading for very significant 'over-compliance' with the CO2 regulation and are hence likely to hit the 130 g/km CO2 target for 2015 several years in advance. The industry as a whole reduced average CO2 emissions by 3.7% in 2010, continuing the trend of much faster reductions since adoption of the EU's mandatory CO2 targets for cars. As of 2011, the carmaking industry stands at an average CO2 emission of 140 g/km. We support Transport and Environment's recommendation that 'weight' is a bad parameter to base CO2 standards on, proposing to base CO2 standards on the surface area between the car's four wheels. This is how the USA regulates CO2 emissions from different vehicles. Research commissioned by Transport and Environment found that basing CO2 standards on the car's 'footprint' is likely to allow cheaper and deeper CO2 reductions, and likely to lead to safer vehicles than weight-based standards. We also believe the Commission should publish a proposal that would account for the full climate impact of biofuels on transport emissions, including the emissions resulting from indirect land use change. The policy should be fixed by introducing feedstock-specific 'ILUC factors' that reflect emissions from indirect land use change for different types of biofuel crops. The Commission should review these factors periodically, revising them as necessary in order to reflect the best available scientific evidence. Some text copyright, European Federation for Transport and Environment

41712511261-57 Transport en Logistiek Nederland non-governmental organisation / association of NGOs Netherlands B.1 Partly agree B.2 Partly agree B.3 Partly disagree B.4 Entirely agree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly disagree D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing fuel or energy type used by HDVs E.1 Partly disagree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

GHG related to road vehicles is strongly influenced by type of fuel, engines and human behaviour. This knowledge requires a technical targets and improvements on fuel- and engine issues. Specifically for HDV goes that the GHG-exhaust depends on circumstances, kind of operation and load. This variety of aspects demonstrates that methods and measurements require specific solutions and can not be treated easily by averages comparing passenger cars for instance. Furthermore, setting standards for GHG for HDV, any systems to be introduced should cover all kinds of transport modes to avoid measurement competition in stead of market competition including GHG performances. This aim should be put into practise as well for the harmful exhaust via an equaliz and fair taxation system covering various transport modes. Both the price of transport fuels and the GHG-caring taxation system will influence the human behaviour factor in transport, regardless the mode of transport.

41802525291-86 International Road Transport Union Permanent Delegation to the EU non-governmental organisation / association of NGOs World wide B.1 Partly agree B.2 Partly agree B.3 Neutral B.4 Neutral B.5 Partly agree C.1 No opinion C.2 C.3 No C.4 It is important to express the target in terms of the reduction of fuel consumption reduction as the reduction of fuel consumption automatically leads to a reduction of both CO2 and toxic emissions. This in turn could encourage commercial road transport operators to invest in such vehicles. D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 Competent authorities should: Facilitate and promote road transport to work in partnership ; Provide real business incentives to facilitate the penetration of innovative transport technologies, best practices and training; Start suggesting new legislation aiming at fuel consumption instead of reducing toxic emissions; Promote the change of fossil fuel to alternative energy/fuel sources, such as hydrogen fuel; Ensure that alternative energy sources are produced in an environmentally friendly way, remain affordable, cost-effective and available at the pump; Create a level playing field for energy taxation between the different modes of transport; "Promote and increase by incentives the use of buses, coaches and taxis; " Develop international standards to allow the widest use of the modular concept by standardising weight and dimensions; "Stop introducing measures which leads to increases of fuel taxes for commercial road transport and which will do nothing to reduce CO2 emissions; etc. E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 Long-term targets should not be set by EU legislation until new EU procedures for the declaration of fuel consumption and CO2 generation of complete transport units have been designed. Until then, voluntary targets as set by the road transport industry should be encouraged. E.8 Yes E.9 As indicated earlier, vehicle-based targets may not be sufficient but should be accompanied by a wider range of initiatives in the field of transport, energy and fiscal policy. Not all emphasis should be placed on legislation; and at-source industry-lead initiatives to reduce fuel consumption, CO2 and toxic emissions should equally be encouraged. Additional Comments You cannot introduce vehicle-based CO2 performance targets without being able to measure in a standardized way CO2 emissions and fuel consumption from the different types of Heavy Duty Vehicle (HDV) combinations involved in a wide variety of different duty cycles. Therefore, the IRU calls on the European Commission to develop a declaration and measurement procedure for CO2 emissions and fuel consumption for HDVs. A different test cycle (realistic driving cycle) from the emission cycle should be elaborated to enable all actors in the road transport sector to use a tool for fuel efficiency calculation of the different heavy commercial vehicles (trucks, truck/tractor combinations, buses and coaches). A simulation-based system able to evaluate a large number of vehicle types should be preferred, taking into consideration the balance between the fuel used versus the work done, which means that the expected declaration would indicate grams of CO2 per ton-km or per passenger/km, m3-km of goods.

44538055618-06 Federación Nacional Empresarial de Transporte en Autobús (Spanish Federation of Transport by Bus) company / professional association Spain B.1 Neutral B.2 Partly agree B.3 Partly agree B.4 Partly disagree B.5 Partly agree C.1 No opinion C.2 C.3 No opinion C.4 D.1 Neutral D.2 Partly disagree D.3 Only freight HDVs (trucks) D.4 A combination of measures from all areas E.1 Totally disagree E.2 Taxation, industry, enviornment, energy and transport E.3 No opinion E.4 No E.5 No E.6 E.7 It is difficult to set targets without knowing the existing technologies at that moment. That is why short and medium targets are better. E.8 No E.9 Additional Comments Please find hereby attached our position paper concerning this issue.

45410477367-13 Danish EV Association / Dansk Elbil Alliance company / professional association Denmark B.1 Entirely agree B.2 B.3 Totally disagree B.4 Entirely agree B.5 Partly agree C.1 No C.2 There's a need for tougher regulation - and regulation that includes the total well-to-wheel energy consumption This will make it easier to compare the actual energy usage of different technologies C.3 C.4 D.1 D.2 D.3 D.4 E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 E.9 Additional Comments As more wind energy is expected to be integrated in the eletricity grid, there's a need to use more electricity in the transport sector. This can potentially lead to huge reductions in CO2-emissions from road vehicles. The EU could help this transformation by - take active part in the standardization of different types of charging stations and plugs - support the roll-out of the necessary infrastructure - produce a best practice catalogue of initiatives used to support the introduction of EVs and plug-in hybrids - for example free parking, reduced taxation, no congestion charge etc - public procurement: government/municipalities should in the very near future only be able to buy cars that emit less than 50 g/CO2 per kilometer - introduce a new labeling - that could include noise and with an A++ for EV's - highlight the benefits of EVs/plug-in hybrids for the general public. Consumers tend to be conservative an stick to the existing technology

4593317661-25 CONFEDERACION ESPAÑOLA DE TRANSPORTE DE MERCANCIAS company / professional association Spain B.1 Entirely agree B.2 Partly agree B.3 Partly agree B.4 Partly agree B.5 Partly agree C.1 No opinion C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 Only urban HDVs D.4 A combination of measures from all areas E.1 Totally disagree E.2 Energy Taxation directive Eurovignette directive energy efficiency plans E.3 Partly agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 No opinion E.9 Additional Comments

48544465107-88 Deutsche Post DHL company / professional association World wide B.1 Entirely agree B.2 Partly agree B.3 Partly agree B.4 Entirely agree B.5 Entirely agree C.1 No C.2 It does not regulate how a vehicle is used and is not often representative of what we will see in operation/use but it does set a consistent benchmark for improvements to be based upon. If anything the drive cycle should be broader to not allow manufacturers to fine tune vehicles to simply achieve good results in the drive cycle tests but to perform better across all aspects of its operation. C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV usage; Measures influencing HDV purchase decisions; Measures influencing fuel or energy type used by HDVs E.1 Partly disagree E.2 Alternative fuels that produce lower emissions could have much lower tax rates to promote their use but for any real take up these need to be guaranteed for extened periods of time to enable the development, delivery and take up of the compatible technology. E.3 Entirely agree E.4 No E.5 No E.6 E.7 later! E.8 Not now, but this should be reconsidered in future E.9 Additional Comments Manufacturers will not invest heavily enough or fast enough into new technologies

where there is no infrastructure in place to fuel the vehicles i.e. Hydrogen, LNG, Electricity. Without a strategy to support the delivery of fuel network manufacturers will continue to make vehicles that run on fossil fuels as the network is in place and very strong across the globe.

4856744583-30 Going-Electric company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 Totally disagree B.4 Totally disagree B.5 Partly disagree C.1 No C.2 Current legislation is not ambitious enough to ensure the future competitiveness of European automotive manufacturers. As 2020's objective of 95gCO2/km is feasible without investments in alternative technologies, car manufacturers will focus on improving Internal Combustion Engine technology for the next 10-15 years and will dedicate more resources on alternative power trains such as electric vehicles (EVs) only after that. C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 Electrically-powered vehicles Additional Comments

48838196790-63 erdgas mobil e. V. company / professional association B.1 Partly agree B.2 Entirely agree B.3 Partly disagree B.4 Entirely agree B.5 Partly agree C.1 No C.2 Die Fokussierung auf eine "tank-to-wheel" Betrachtung führt zu einer einseitigen Fokussierung auf fahrzeugseitige Maßnahmen mit möglicherweise gegenläufigen Effekten auf der Seite der Energiebereitstellung. Die Rolle der Kraftstoffe, hier insbesondere zukünftiger Alternativen wird nicht ausreichend gewichtet. Die Betrachtung der Vorkette von Kraftstoffen muss in einem balancierten Ansatz münden, der auf harmonisierten CO2-Vermeidungskosten sowohl auf der Fahrzeug- als auf der Kraftstoffseite basiert. C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV usage; Measures influencing fuel or energy type used by HDVs E.1 Partly agree E.2 Besteuerung von Dienstwagen E.3 Entirely agree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments Die Reduktion der CO2-Emissionen sollte in Einklang stehen mit den weitergehenden Zielen "Bezahlbare Mobilität" sowie "Diversifikation der Energieträger im Verkehr". Insbesondere die Verbreiterung der Bezugsbasis für die Energieträger des Verkehrs ist stärker als in Vergangenheit zu betrachten, um zukunftsichere und bezahlbare Optionen zu realisieren. In diesem Zusammenhang sind entsprechende Maßnahmen für einen Infrastrukturaufbau für alternative Energien wie Strom, Wasserstoff oder Methan zu bewerten.

49864752280-23 Transfrigoroute International company / professional association EU wide B.1 Partly agree B.2 Partly agree B.3 Neutral B.4 Neutral B.5 Neutral C.1 No C.2 TI supports the following IRU comments: Regulation 510/2011 is a positive step forward in the reduction of CO2 emissions of Light Duty Vehicles, but unfortunately, it is too early after adoption and entry into force to measure the impact of the legislation. One aspect which is missing from the regulation is clear and transparent information to the operators about the gains in fuel consumption reduction which can be obtained by investing in these vehicles. This would have been a positive incentive to operators to invest in such vehicles. C.3 No C.4 It is important to include subsidy provisions for investments undertaken by road transport operators into CO2 friendly technology in vehicles. TI supports the following IRU comments: It is important to express the target in terms of the reduction of fuel consumption reduction as the reduction of fuel consumption automatically leads to a reduction of both CO2 and toxic emissions. This in turn could encourage commercial road transport operators to invest in such vehicles. D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1

Entirely agree E.2 TI supports the following IRU comments: Competent authorities should • Work in partnership with the road transport sector so that it can achieve the full potential of its ambitious CO2 emission reduction targets (30% reduction by 2030) as part of the whole logistic chain; • Provide real business incentives to facilitate the penetration of innovative transport technologies, best practices and training; • Focus new legislation on the aim of reducing fuel consumption instead of reducing toxic emissions; • Promote the change of fossil fuel to alternative energy/fuel sources and ensure their cost-affordable and environmentally friendly production; • Develop international standards by standardising and harmonising vehicles, transport units, weight and dimensions; • Use international environmental Conventions to benefit the environment and create a EU wide framework to establish a sustainable energy policy instead of a using simple fiscal policy for environment related taxes and charges; E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 TI supports the following IRU comments: Long-term targets should not be set by EU legislation until new EU procedures for the declaration of fuel consumption and CO2 generation of complete transport units have been designed. Until then, voluntary targets as set by the road transport industry should be encouraged. E.8 Yes E.9 TI supports the following IRU comments: As indicated earlier, vehicle-based targets may not be sufficient but should be accompanied by a wider range of initiatives in the field of transport, energy and fiscal policy. Not all emphasis should be placed on legislation; and at-source industry-lead initiatives to reduce fuel consumption, CO2 and toxic emissions should equally be encouraged. Additional Comments There are an estimated 1 million refrigerated vehicles in Europe, with 10 million TEQ CO2 per year due to the refrigeration equipment only. TI is aware of its environmental responsibility and is currently developing a tool to measure the energy consumption of refrigerated vehicles, taking into account a broad range of parameters and notably the duty cycles. TI supports common rules to reduce the CO2 emissions of road vehicles, including specific measures on refrigerating appliances as long as reasonable transition costs are guaranteed for operators. However, the uniqueness of mobile refrigeration equipment requires an independent set of measures and tools. TI also calls upon the EU to consider all existing standards and regulations, notably in California on this matter in order to ensure economic and technological consistency. TI is willing to share its expertise in the area and is looking forward to work together with the European Commission to develop sustainable rules.

50254292140-86 Verband Deutscher Verkehrsunternehmen company / professional association Germany B.1 Partly agree B.2 Partly agree B.3 Neutral B.4 Partly agree B.5 Partly agree C.1 No opinion C.2 C.3 No opinion C.4 D.1 Entirely agree D.2 Totally disagree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage E.1 Partly disagree E.2 • Overall discussions/policies on climate change mitigation and more specifically on decarbonising transport (worldwide, European level) • Policies on alternative fuels • Legislation on vehicle exhaust gas emissions (EURO classes legislation): in the urban bus sector the introduction of stricter EURO standards resulted in increased energy consumption (and higher CO2 emissions) • Public Procurement Directive 2009/33 • Energy taxation Directive E.3 Entirely agree E.4 Yes, especially methane (CH4) E.5 No E.6 E.7 VDV has doubts whether introduction of CO2 limits for buses (on a vehicle basis) has considerable impacts on reducing CO2 emissions from transport in general and more specifically from bus transport. VDV is concerned that such legislation could result in additional (administrative) burden and costs for public transport undertakings and bus manufacturers with little impact. E.8 Yes E.9 • Making bus systems more attractive and make more people shift to attractive public transport systems, this also means incentives for reducing car usage in urban areas • Increasing the commercial speed and reliability of bus systems has major impacts on CO2 emission reduction (need to provide necessary infrastructure: bus lanes, traffic light priority

etc.) this has a major influence on the attractiveness of bus systems • Support and fund European research on making bus systems more attractive • Support and fund European research in decarbonising bus systems (electrification, low-carbon fuels, etc.) Additional Comments Although it is likely that vehicle based emission targets are to be a relevant part of reducing CO2 emissions from road vehicles, VDV is not convinced whether introduction of CO2 limits for buses (on a vehicle basis) has considerable impacts on reducing CO2 emissions from transport in general and more specifically from bus transport. VDV is concerned that such legislation could result in additional (administrative) burden and costs for public transport undertakings and bus manufacturers with little impact. VDV supports the position paper that UITP has just published on "A comprehensive approach for bus systems and CO2 emission reduction" jointly developed by public transport undertakings and bus manufacturers, all members of UITP. Key findings are: • A comprehensive approach for reduction of CO2 emissions from buses is needed • A specific approach for buses is needed ("a bus is not a truck"), UITP has developed the nowadays widely used SORT standards on fuel consumption based on real operating conditions of urban buses. UITP asks to take into account the SORT standards when developing a measurement methodology for CO2 emissions from buses. • Existing legislation on the reduction of exhaust gas emissions (EURO standards) for HDV has resulted in the development of more complex technology for exhaust gas aftertreatment etc. This has resulted in additional energy consumption and thereby increased CO2 emissions in case of use of fossil fuels. Such "undesired" and rather contradictory developments have to be taken into account when developing future policy initiatives for reduction of GHG emissions from HDV. • Attractive bus systems are a key solution (and not a problem) to achieve low-carbon urban mobility • Promoting bus systems and modal shift to high quality multimodal and integrated public transport systems have very high impacts to reduce CO2 emissions in urban transport • Increasing the commercial speed and reliability of bus systems is a key strategy to reduce CO2 emissions from buses • Support for research and demonstration projects to make bus systems more attractive and low-carbon intensive is necessary

56004707328-30 Fisker Automotive company / professional association World wide B.1 Entirely agree B.2 Entirely agree B.3 Partly disagree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 No opinion D.2 No opinion D.3 No opinion D.4 No opinion E.1 Entirely agree E.2 Fees for urban use of vehicles Congestion charges Allowing vehicles into emissions trading programs E.3 Entirely agree E.4 Yes E.5 Yes E.6 20 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

5663061233-60 Arbeitgebervereinigung für Unternehmen aus dem Bereich EDV und Kommunikationstechnologie company / professional association Germany B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 No opinion D.3 All HDVs D.4 Measures influencing HDV purchase decisions E.1 Entirely agree E.2 Dreh- und Angelpunkt ist die Besteuerung von Haltung und Betrieb von KFZ E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments Wichtig für Zielerreichung und Akzeptanz ist die Festlegung von Grenzwerten unabhängig von Fahrzeuggrößen und Betriebsstoffen / Energiearten.

6025320863-10 European Tyre & Rubber Manufacturers' Association company / professional association EU wide B.1 Entirely agree B.2 Partly disagree B.3 No opinion B.4 Partly agree B.5 Partly agree C.1 Yes C.2 C.3 No C.4 Article 13 (1) of the Regulation (EC) 510/2011 states that on the basis of a review of the specific emissions targets, which the

Commission is due to undertake by 1 Jan 2013, the Commission "shall, if appropriate, make a proposal to amend this [510/2011] Regulation, in accordance with the ordinary legislative procedure, in a way which is as neutral as possible from the point of view of competition, and which is socially equitable and sustainable." In other words, the Commission should adhere to the initial proposal for a full impact assessment and a co-decision procedure involving the European Parliament and the Council should it restate its position on the 147 g CO2/km target. D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Partly agree E.2 Support for research and development; consumer information and behaviour campaigns; public procurement strategy; to some extent positive tax initiatives. E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 Vehicles as a whole, and tyres as specific automotive components are already extensively regulated in terms of technology. It should be examined to what extent other measures, such as, improving eco-driving behaviour, educated purchasing choices, and incentives for new technologies and improved infrastructure would further support the overall objective. Additional Comments In the attached document we offer more detailed views and answers to the questions in this consultation.

65570907162-93 shecco company / professional association Belgium B.1 Entirely agree B.2 Entirely agree B.3 Totally disagree B.4 Totally disagree B.5 Partly disagree C.1 No C.2 shecco believes that setting a limit of 95gCO2/km for new vehicles by 2020 would not trigger any massive innovations in the EU's automotive industry, thereby putting EU's competitiveness in danger. As mentioned in the Boston Consulting Group report of July 2011, "Powering Autos to 2020", improvements in internal combustion engine (ICE) technologies can contribute to up to 40% emissions reduction.This means that while in 2008 the average level of CO2 emissions from passenger cars in the EU was 153gCO2/km, a 40% reduction would result in 92gCO2/km. Since this would still be below the 2020 target of 95gCO2/km, instead of investing in new low carbon technologies that could bring long□term benefits, European automotive manufacturers would still devote a substantial part of their investments into improvement of the existing ICE technologies.However, the benefits that these improvements could bring are very shortsighted and they will eventually face limitations in 10--□15 years. C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 Electrically-powered vehicles (Parallel Plug-in Hybrid Electric Vehicles, Extended-Range Electric Vehicles, Battery Electric Vehicles, Fuel Cell Electric Vehicles) Additional Comments

684985491-01 CLECAT - European association for forwarding, transport, logistic and Customs services company / professional association EU wide B.1 Entirely agree B.2 Partly agree B.3 Entirely agree B.4 Partly agree B.5 Partly agree C.1 No C.2 The current legislation has created additional burdens for the customer and the road haulage company, who are the ones who have to pay the additional costs for the Light-Duty Vehicle to be conformed to rules CO2 emissions. Moreover, the regulation contributes to put a larger amount of smaller vehicles into use instead of curbing CO2 emissions. C.3 Yes C.4 D.1 Entirely agree D.2 Partly disagree D.3 All HDVs D.4 A combination of measures from all areas E.1 Partly agree E.2 Taxation, road charging systems based on the internalisation of external costs in road transport for all types of road vehicles, and EU policy related to masses and dimensions for road freight transport (for load optimisation), are some examples of policies that should affect the setting of greenhouse gas targets for road vehicles. In particular, CLECAT members want to avoid the situation where the Commission fails to consider existing fiscal burdens on transport users by not taking into account those CO2 costs that are already (fully or partly)

internalised through existing excise, taxes or charges. E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 CLECAT believes that long term unrealistic targets would bring not benefits and just create more confusion for the industry. E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

75269867099-79 Groupement National des Entreprises de Voitures de Taxi et de Location avec Chauffeur company / professional association Belgium B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Partly agree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Totally disagree E.2 La taxation au kilomètre parcouru. E.3 Partly agree E.4 Yes, especially nitrogen oxides (NOx) E.5 No opinion E.6 E.7 E.8 Yes E.9 Particules fines Additional Comments Les transports en commun, et donc aussi le transport par taxi, devraient bénéficier d'une approche différente que les transports individuels (au niveau fiscal, écoscore,...). C'est déjà le cas dans plusieurs pays et/ou villes d'Europe. Un taxi remplace 10 à 20 courses en voiture privée par jour. Le transport collectif avec des minibus permet de compléter l'offre de transports en commun, avec des véhicules peu polluants et permettant une plus grande flexibilité que les grands véhicules. Le transport en taxi ou le transport collectif rémunéré avec des minibus font partie de la chaîne de transports collectifs/publics de personnes. Mesures politiques complémentaires que nous proposons: • Reconnaître la place essentielle des taxis dans la chaîne des transports collectifs/publics.… • Recommander que les taxis soient autorisés à emprunter les couloirs bus dans les villes (amélioration de leur rapidité dans la circulation) • Au niveau fiscal, nous estimons qu'il faudrait encourager les États membres à demander l'application du plus faible taux de TVA aux services de taxis, y compris lorsque ceux-ci sont couverts par un billet unique bus, tram et métro.

7574621118-27 Community of European Railway and Infrastructure Companies company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Entirely agree B.5 Entirely agree C.1 No opinion C.2 C.3 No opinion C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV usage; Measures influencing HDV purchase decisions; A combination of measures from all areas E.1 Entirely agree E.2 Road freight transport (tonne-km) has grown sharply over the past few decades and is expected to grow by a further 60% in the EU-27 between 2005 and 2030, due not only to economic growth, increased internal EU trade and globalisation, but also to supply-side effects such as improved quality and stable or declining freight prices. From a technological point of view, there is no sign of a serious low-carbon alternative for the current fuels used for traction. Given the environmental impact of the sector and the lack of alternatives, HGVs should be subject to the stricter standards possible to reduce emissions in transport. The reduction of road-vehicle emissions via technology improvements/CO2 emission standards is not enough to reverse the unsustainable growth of GHG emissions from transport. Policy measures to improve fuel efficiency should go along with transport demand optimisation via a variety of measures (e.g. realistic pricing of transport that includes its external costs). E.3 Entirely agree E.4 Yes E.5 Yes E.6 20 years E.7 E.8 No opinion E.9 Additional Comments

76130992074-15 Gas Infrastructure Europe company / professional association EU wide B.1 B.2 B.3 B.4 B.5 C.1 C.2 C.3 C.4 D.1 D.2 D.3 D.4 E.1 E.2 E.3 E.4 E.5 E.6 E.7 E.8 E.9 Additional Comments Meeting the EU's very ambitious commitments towards a low-carbon economy by 2050 will require parallel development of energy efficiency measures, the development of renewable energy sources and the deployment of carbon capture and storage (CCS). Road transport will contribute towards this reduction if alternative fuels such as CNG

and LNG are further developed within the road vehicle market. Most importantly, these developments will have to be accompanied by a significant development of new natural gas infrastructures. Natural gas is the cleanest, most efficient and versatile of the fossil fuels, making it a unique choice in the path towards a lower carbon energy mix and sustainable future. The abundance of natural gas, its competitive cost of supply, its immediate availability clearly favors it as the best alternative fuel to address emission reductions at the lowest cost. In the transition to a low-carbon economy, natural gas will play a key role in electricity production and as an alternative fuel for transports. Natural gas is the fossil fuel with the lowest CO2 emissions, and associated with biogas will contribute to achieve the CO2 reductions targets. In addition to appropriate standards for CO2 emissions from vehicles, it is important to put in place requirements on energy efficiency addressing all types of fuels. Although all fuels should be considered in the European alternative fuel strategy, Natural Gas (CNG/LNG) is the only alternative that fits to any type of vehicle (cars, trucks, ships, trains) for long and short distances. CNG is the best adapted alternative fuel for passengers' vehicles whilst LNG is the best alternative for long distance transportation. Natural gas (CNG and LNG) has demonstrated its great performance as an alternative fuel and is the only proven technology applicable to any kind of vehicles for short, medium and long distances. To further contribute to a low carbon economy, biomethane can be injected to natural gas systems allowing the biogas to be mixed with the passing natural gas. Biomethane as an additional and renewable energy source promotes indigenous production and supports meeting commitments towards sustainability, diversifies energy sources and contributes to security of supply. In order to further facilitate its usage, biogas is injected to natural gas systems, which requires that it is produced, upgraded and purified to the required quality according to the specifications applied in the relevant systems. Furthermore, Biomethane has the highest energy efficiency of all biofuels per surface of land. Biofuels should be developed where possible and not competing with agriculture. Gas infrastructures are needed to ensure the availability of CNG and LNG as alternative fuels. Gas infrastructure investment entails long-lead times and thus requires long-term visibility. A sound investment climate together with a stable and predictable regulatory framework are fundamental for the development of infrastructure. The public sector should foster the development of the alternative fuel market by promoting the development of the refueling/recharging infrastructures. The development of this market needs significant investments in infrastructure and in converting trucks or ships. Players will be understandably reluctant to take risks to invest too much before a certain critical mass is reached and before the legislative and fiscal framework is clearer.

76295483387-66 EUPAVE - European Concrete Paving Association company / professional association EU wide B.1 Partly agree B.2 Partly agree B.3 Neutral B.4 Neutral B.5 Neutral C.1 No opinion C.2 C.3 No opinion C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV usage E.1 Neutral E.2 Infrastructure, transport, industry, energy and taxation E.3 Entirely agree E.4 Yes, especially nitrogen oxides (NOx) E.5 No opinion E.6 E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments CONCRETE PAVEMENTS CONTRIBUTE TO DECARBONISING OF TRANSPORT The longevity and durability of concrete structures is well-known. Just like the fact that concrete pavements hardly need any maintenance, which makes that traffic is less disturbed and congestion is avoided. But who knows that concrete roads can contribute to CO2 reduction, even if the opposite often is told? There are several direct positive aspects of concrete which are present throughout the lifetime of the pavement : the uptake of CO2 in the hardened concrete, the light reflectivity of a concrete surface which contributes to the cooling of our planet and last but not least : the reduced fuel consumption of heavy vehicles riding on a non-deformable pavement. This third aspect has been the subject of a number of

international studies and researches. All studies and researches on this subject show clearly, that stiff and rigid pavements, such as concrete roads, remarkably reduce the fuel consumption compared to flexible pavements. The findings of this studies and researches show substantial fuel savings – up to 6 % - for heavy trucks riding on concrete pavements This results correspond to the physical principle, that the rolling resistance between a wheel and a bearing surface decreases according to the rigidness and the hardness of both, wheel and surface. The lowest technical rolling resistance is known between the steel wheels of a train running on a steely rail. Even though the particular findings of the aforementioned studies and researches may presently seem fairly defined to give a final evaluation on average savings of fuel and CO2, the summation of the findings show the clear evidence of the saving-effect. This may be a strong motivation for all concerned authorities and governments in Europe to concentrate on further research in order to achieve a final perception. Summary of the researches The fuel consumption of both passenger cars and heavy duty vehicles has been investigated from the perspective of several parameters. Out of those parameters affecting fuel consumption, the type of pavement, more specifically the rigidity of the pavement, has been examined throughout research projects: • The Canadian National Research Council study show that fuel saving on concrete roads compared to asphalt roads ranges from 0.8 to 3.9%. • Transport Research Laboratories found out that the reduced deflection of concrete pavement led to a fuel saving of 1.1%. • Swedish researchers showed that there is a substantial potential to save fuel by choosing the appropriate pavement type for truck traffic where the energy lost in concrete pavement is four times less than in asphalt pavement due to visco-elastic behavior of the structure. • The Swedish National Road and Transport Institute research showed 1.1 to 6.7% less fuel consumption on concrete pavement compared to asphalt pavement, to be attributed to the stiffness of the concrete. • Japanese researchers showed that fuel consumption rate for the asphalt pavement is 0.8 to 4.8% higher than the concrete pavement, for different modes stated. • A research in U.S. showed that fuel consumption rates per unit distance were consistently lower (3 to 17%) on the concrete sections regardless of the test section, driving mode and surface condition (dry vs. wet) • The Massachusetts Institute of Technology developed a pavement-vehicle interaction model showing that asphalt pavements need to be 25 to 60% thicker to display the same fuel consumption performance as concrete. All studies and researches, related to heavy traffic loadings, lead to the conclusion that fuel consumption is lower on concrete pavements compared to asphalt pavements in a range from about 1 to 6 %. Smooth concrete pavements are not only the most favourable option in terms of life-cycle cost. They also constitute an easy and effective solution in the decarbonising of freight road transport.

7690236700-94 European Road Haulers Association company / professional association Belgium B.1 Partly agree B.2 Partly agree B.3 Partly disagree B.4 Partly agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Partly agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV design E.1 Partly agree E.2 Euro norms have reduced most of the harmful emissions from HGV. Engine technology improvement, if technically feasible and at a reasonable cost, is the only effective way to reduce CO2 emissions. Tyre manufacturers should be called upon in order to further reduce rolling resistance and hence fuel consumption. For HGVs a revision of directive 96/53 should be taken into account in order to evaluate the feasibility of measures for longer vehicles whose fuel consumption can be reduced by specific tools in order to reduce the CX value of these vehicles. UETR stresses the importance of further research on aerodynamics of vehicles and, in case, of provisions on the shape of new commercial vehicles. Moreover, on a limited basis and ensuring road safety and modal split, member states should be allowed to implement long and heavy vehicles of up to 25,25 metres, even for intra EU cross border transportation if agreed by neighboring

countries. E.3 Partly disagree E.4 No E.5 No E.6 E.7 The 2020 perspective appears adequate in order to verify datas and introduce feasible measures to reduce CO2 emissions. Introducing mandatory targets in a longer term risks to be not realistic or even harmful. As a matter of fact, experience demonstrates that in the past long-term predictions have been incorrect or inaccurate. E.8 No E.9 Additional Comments Reduction of oil-dependency (which makes the sector vulnerable to fluctuations of oil price increases in the future less competitive) is of paramount importance for UETR. A deeply investigated cost-benefit analysis is necessary in order to prevent any future EU-legislation from having more costs than overall benefits. Such analysis must absolutely include the overall influence on transportation costs on both the micro scale (road transport entrepreneurs, SMEs in particular) and macro-economic consequences. No economically viable alternative on a EU-wide scale to the HGV diesel engine has been found yet, hence the diesel engine is bound to be predominant for the next 10 to 15 years with regards to this segment. Reduction of CO2 will hence have to be realistically sought for within these limits. LNG can be a feasible solution in the future, provided the necessary energy infrastructure (e.g. refueling stations). Should the legislator intervene in a financial of fiscal way and thus make diesel powered vehicles more expensive to run, then the consequence would be a mere cost increase with no real improvement of CO2 emissions. Therefore more is to be expected from measures that enhance technical innovation and measures that work on reductions of CO2 emissions by changing other legislation (e. g. directive 96/53). Road haulage sector is characterized by a large number of micro and small enterprises. Very often the only affordable investment regards the acquisition of vehicles. The introduction of new standards at the same time all over the EU for new vehicles is the best way to achieve the desired results. Furthermore haulage companies should be supported in order to be able to make the investments in these new vehicles. Various member states have supported their companies with subsidies for the greenest vehicles in the past: it is the best way towards a quick implementation of vehicles that will meet higher CO2 emissions standards. Despite fleet renewal in the pas, economic crisis of 2008/2010 severely hit our sector, with much harder access to credit for entrepreneurs, and even by end 2011 a pressure for many just to stay on the market. Investments are being postponed because there is no alternative. Aiming at the already weakened sector by harsh fiscal measures regarding the existing fleet will worsen the situation at least for half a decade from now, both in terms of the survival chances of these companies and as to the desire decrease in CO2 emissions.

776106236-67 UITP - International organisation for public transport company / professional association World wide B.1 Partly agree B.2 Partly agree B.3 Neutral B.4 Partly agree B.5 Partly agree C.1 No opinion C.2 C.3 No opinion C.4 D.1 Entirely agree D.2 Totally disagree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage E.1 Totally disagree E.2 • Overall discussions/policies on climate change mitigation and more specifically on decarbonising transport (worldwide, European level) • Policies on alternative fuels • Legislation on vehicle exhaust gas emissions (EURO classes legislation): in the urban bus sector the introduction of stricter EURO standards resulted in increased energy consumption (and higher CO2 emissions) • Public Procurement Directive 2009/33 • Energy taxation Directive E.3 Entirely agree E.4 Yes, especially methane (CH4) E.5 No E.6 E.7 UITP has doubts whether introduction of CO2 limits for buses (on a vehicle basis) has considerable impacts on reducing CO2 emissions from transport in general and more specifically from bus transport. UITP is concerned that such legislation could result in additional (administrative) burden and costs for public transport undertakings and bus manufacturers with little impact. E.8 Yes E.9 • Making bus systems more attractive and make more people shift to attractive public transport systems, this also means incentives for reducing car usage in urban areas • Increasing the commercial speed and reliability of bus

systems has major impacts on CO2 emission reduction (need to provide necessary infrastructure: bus lanes, traffic light priority etc.) à this has a major influence on the attractiveness of bus systems • Support and fund European research on making bus systems more attractive • Support and fund European research in decarbonising bus systems (electrification, low-carbon fuels, etc.) Additional Comments Although it is likely that vehicle based emission targets are to be a relevant part of reducing CO2 emissions from road vehicles, UITP is not convinced whether introduction of CO2 limits for buses (on a vehicle basis) has considerable impacts on reducing CO2 emissions from transport in general and more specifically from bus transport. UITP is concerned that such legislation could result in additional (administrative) burden and costs for public transport undertakings and bus manufacturers with little impact. UITP has just published a position paper on "A comprehensive approach for bus systems and CO2 emission reduction" jointly developed by public transport undertakings and bus manufacturers all members of UITP. Key findings are: • A comprehensive approach for reduction of CO2 emissions from buses is needed • A specific approach for buses is needed ("a bus is not a truck"), UITP has developed the nowadays widely used SORT standards on fuel consumption based on real operating conditions of urban buses. UITP asks to take into account the SORT standards when developing a measurement methodology for CO2 emissions from buses. • Existing legislation on the reduction of exhaust gas emissions (EURO standards) for HDV has resulted in the development of more complex technology for exhaust gas aftertreatment etc. This has resulted in additional energy consumption and thereby increased CO2 emissions in case of use of fossil fuels. Such "undesired" and rather contradictory developments have to be taken into account when developing future policy initiatives for reduction of GHG emissions from HDV. • Attractive bus systems are a key solution (and not a problem) to achieve low-carbon urban mobility • Promoting bus systems and modal shift to high quality multimodal and integrated public transport systems have very high impacts to reduce CO2 emissions in urban transport • Increasing the commercial speed and reliability of bus systems is a key strategy to reduce CO2 emissions from buses • Support for research and demonstration projects to make bus systems more attractive and low-carbon intensive is necessary

78124596498-25 Bundesverband Deutscher Omnibusunternehmer non-governmental organisation / association of NGOs Germany B.1 Partly agree B.2 Neutral B.3 Neutral B.4 Neutral B.5 Neutral C.1 No opinion C.2 C.3 No C.4 It's important to express the target in terms of the reduction of fuel consumption reduction as the reduction of fuel consumption automatically leads to a reduction of CO2 and toxic emissions. This could encourage commercial road transport operators to invest in such vehicles. D.1 Partly agree D.2 Neutral D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions E.1 Partly agree E.2 Authorities should facilitate and promote road passenger transport and work in partnership with this sector so that it can achieve the full potential of its ambitious CO2 reduction targets Authorities should focus on legislation with the aim to reduce fuel consumption and investin new infrastructure to remove bottlenecks and avoid traffic jam Authorities should promote and increase by incentives the use of buses and coaches. E.3 Entirely agree E.4 Yes E.5 No E.6 E.7 it's not possible to predict the progress of technical developments for more than 10 years E.8 Yes E.9 Vehicle-based targets may not be sufficient but should be accompanied by a wider range of initiatives in the field of transport, energy and fiscal policy. At-source industry-lead initiatives to reduce fuel consumption, CO2 and toxic emissionsshould equally be encouraged. Additional Comments

81849786507-65 Justice and Environment non-governmental organisation / association of NGOs EU wide B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Partly agree B.5

Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing fuel or energy type used by HDVs E.1 Entirely agree E.2 Road use taxation and individual vehicle taxation policy. Railway use cost policy. Environmental policy (bans on use of HDVs, etc.). Product and waste policy (taxation of products based on product miles traveled, etc.). E.3 Entirely agree E.4 Yes E.5 Yes E.6 20 years E.7 E.8 Yes E.9 Additional Comments

84545717-79 EVO the Dutch Shippers's organization non-governmental organisation / association of NGOs Netherlands B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Partly disagree B.5 Entirely agree C.1 Yes C.2 C.3 No C.4 A standard light duty van does't exist. Always keep size of a light duty van into account when the EC want's to determine CO2 target's. D.1 Partly agree D.2 Partly disagree D.3 All HDVs D.4 A combination of measures from all areas E.1 Partly disagree E.2 E.3 Entirely agree E.4 No E.5 Yes E.6 20 years E.7 E.8 No E.9 Additional Comments Always take the size of a duty vehicle into account. Shippers/carriers buy and use bigger vehicle with a clear vision. They want to move more good in one movement. This is often more substainable then moving goods with smaller vehicles. Increase size and weight and reduce CO2 emmission. This principle must not be disturbed in EC legislation.

84839535366-67 Fédération Internationale de l'Automobile non-governmental organisation / association of NGOs EU wide B.1 Entirely agree B.2 Partly agree B.3 Entirely agree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions; Measures influencing fuel or energy type used by HDVs E.1 Entirely agree E.2 - improving eco-dring skills and training - improving traffic management trough a better use of IT - incentives for research, development and deployment of low-carbon technolgies - Investments in research to develop cost-effective renewable and efficient energy technologies, improve the performance of carbon energy systems E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 E.9 Additional Comments 1. In setting policies for reducing CO2 emissions from vehicles it is crucial that consumers are well informed on the environmental impact of their vehicles. Awareness, demonstration end education are essential tools to involve consumers in the process of making vehicle cleaner. 2. In the future, considering a progressive introduction in the market of new low-carbon vehicles and technolgies, well-to-whell emissions should be considered, instead of today's tank-to-wheel values

89395477388-18 Baltic Environmental Forum-Latvia non-governmental organisation / association of NGOs B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Entirely agree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 Policies on Climate change mitigation, Fuel production, Agriculture, Use of Renewable energy sources, Trans-European networks. E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 No opinion E.9 Additional Comments

91408765797-03 European Association Automotive Suppliers company / professional association EU wide B.1 Entirely agree B.2 Partly agree B.3 Neutral B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV design E.1 Neutral E.2 - Fuel Taxation - Road usage taxes - Zoning regulations - Vehicle Sales tax E.3 Entirely agree E.4 Yes E.5 Yes E.6 20 years E.7 E.8 Yes E.9 GHG emissions from Transport is a function of many parameters, of which

emission standards is only one element. CLEPA recommends technology neutrality in emission regulations. Additional Comments

9224280267-20 European Aluminium Association AISBL company / professional association Belgium B.1 Entirely agree B.2 Neutral B.3 Partly disagree B.4 Partly agree B.5 Partly agree C.1 No C.2 We think the legislation is delivering on the goals, but the way it is constructed creates disincentives for lightweighting effort on vehicles. Since the legislation is based on mass as a utility parameter any lightweighting effort will result in a tougher target. This means that lightweighting is not treated in the same way as other CO2 reducing measures like for example engine efficiency or aerodynamics. A technology neutral utility parameter would be fairer since the car manufacturers would be allowed to use any CO2 reducing method they want in order to achieve their target emission level. As was also pointed out in the consultant report and further stressed at the stakeholder meeting on Dec 6th, lightweighting will be even more important beyond 2020.Therefore we would encourage the EC to already now propose to move away from using mass at the utility parameter. That is the only way the industry actually receives all the benefit for the lightweighting efforts now and beyond 2020. C.3 No opinion C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 E.3 Partly agree E.4 Yes E.5 Yes E.6 5 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments

93038071152-83 European Confederation of Iron and Steel Industries company / professional association EU wide B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Partly agree B.5 Entirely agree C.1 No C.2 Current regulation uses tailpipe measurement giving so an unrealistic picture of overall vehicle emissions. Vehicle emissions are not only produced during the driving of a vehicle but also during the production and recycling phases. The influence of production and recycling phases will be more relevant when more efficient powertrains are used since these help vehicles have less emissions in the use phase. According to these observations, it is worth underline that tailpipe measurements give wrong incentives to car manufactures, giving the unintended consequence of increasing greenhouse gas emissions during other vehicles' total life cycle phases. GHG emissions could override any benefits that may be gained through fuel efficiency improvements. Greatest reductions in vehicle emissions can be reached only considering with the same importance level material selection and investment in both new powertrains and fuels. On this basis, a proper reduction of GHG emissions can be only achieved C.3 Yes C.4 D.1 D.2 D.3 D.4 E.1 Entirely agree E.2 The impact of a switch from setting standards to using taxation as an incentive for cleaner vehicles is consider by the Commission. However, other policies should be complementary to standards and not act as a substitute to them. In any case, an integrated policy approach towards emissions reduction from the transport sector should be pursued. Anyway, the impact of other policies such as taxation on emission standards should be carefully assessed just for finding integrated policies that sustain and promote the reduction of GHG emissions. E.3 Entirely agree E.4 Yes E.5 Yes E.6 20 years E.7 E.8 No E.9 Additional Comments

93391655619-15 Asociación Nacional de Transportes Colectivos Urbanos de Viajeros de Superficie (Spanish Surface Collective Urban Transport Association) company / professional association Spain B.1 Neutral B.2 Partly agree B.3 Partly agree B.4 Partly disagree B.5 Partly agree C.1 No opinion C.2 C.3 No opinion C.4 D.1 Neutral D.2 Partly disagree D.3 Only freight HDVs (trucks) D.4 A combination of measures from all areas E.1 Totally disagree E.2 Transport, industry, energy, environment, climate action and taxation E.3 No opinion E.4 No E.5 No E.6 E.7 Lack of knowledge on the existing technologies at that

time. Setting targets now would not taken into account and those targets would not be real and serious E.8 No E.9 Additional Comments Please be aware of the different environmental contributions of road vehicles. Buses & coaches, cars and trucks have a different carbon footprint. Measures and strategies should bear that on mind. Besides, you have to consider that vehicles are expensive and sectors with many SMEs suffer a lot if you impose them to buy certain type of vehicles. Let's do not forget the social and scoietal advantages that some road transport modes bring and take into account the contribution of each vehicle to generate external costs. Finally, please agree on a coherent approach of all EU policies. One of the EU transport policy objectives is to promote public collective transport. Thus, charging buses and coaches does not seem to be the right way to achieve that. Therefore, think about who the real polluters are.

94275086214-14 Fédération Nationale des Transports Routiers company / professional association France B.1 Partly agree B.2 Entirely agree B.3 Partly agree B.4 Entirely agree B.5 Partly agree C.1 No C.2 Il est nécessaire de segmenter les objectifs par catégorie de véhicules et d'utilisateurs, d'afficher la performance énergétique de chaque véhicule, de développer des outils pour que les acheteurs puissent faire des choix éclairés, de développer des solutions hybrides et carburants alternatif. C.3 No C.4 Le coût technologique est actuellement déraisonnable en raison de la valeur du véhicule. Les plafonds d'émission doivent dépendre de la catégorie du véhicule et de son utilisation. Les connaissances en termes d'utilisations des VUL doivent être approfondies avant de fixer des plafonds D.1 Partly agree D.2 Totally disagree D.3 All HDVs D.4 A combination of measures from all areas E.1 Totally disagree E.2 Il est essentiel d'avoir une totale transparence sur les émissions réelles de chaque mode de transport et sur la fiscalité globale appliquée à chaque mode. E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 Additional Comments

94948576873-32 European Metalworkers' Federation trade union EU wide B.1 Partly agree B.2 Partly agree B.3 Partly agree B.4 Partly agree B.5 Entirely agree C.1 C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures influencing HDV purchase decisions; Measures influencing fuel or energy type used by HDVs E.1 Partly agree E.2 E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 E.9 Additional Comments

9505781573-45 Bureau Européen des Unions de Consommateurs non-governmental organisation / association of NGOs EU wide B.1 Entirely agree B.2 Entirely agree B.3 Partly agree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 Tax legislation which is related to car transport (such as for example on fuel, cars and tax reduction/exemptions for company cars) has a large influence on the purchasing decisions and thereby also on the types of cars offered by car manufacturers because a large part of the costs related to the use phase of a car derives from taxes. In the future, prices for fuel will continue to increase. In order for consumers to remain mobile in the future, car manufacturers need clear economic incentives to provide only as fuel efficient cars as possible to consumers. The attractiveness of public transport needs to be enhanced to offer better opportunities to consumers to switch from individual to collective transport and thereby reduce the negative impact on the environment. This would require investment into infrastructure and services, customer oriented offers, better interoperability of train traffic throughout Europe and possibilities to better combine the use of car and train transport. E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments The oil peak has been reached or already overstepped and

we are consuming much more resources than are available to satisfy the needs of all people living on this planet today and in the future. At the same time the demand for oil is increasing at global level due to the development in countries such as China, India, Brazil and many other countries. The consequence will be an increase in fuel costs. A forward looking policy to increase the fuel efficiency of cars and deliver innovative technical solutions are needed not only to protect the climate but also to allow consumers in the long term to remain mobile. Ambitious limit values for emissions are needed which will be strengthened in a staged approach over time. The technical limits have not been reached yet to improve the efficiency of cars as for instance the German Environmental Protection Agency pointed out that new vehicles could be made considerably more efficient by 2050 compared to today's technology (http://www.umweltdaten.de/verkehr/downloads/Texte_05_2010_CO2Minderung_Verkehr_Kurzfassung_englisch.pdf). In the past energy efficiency improvements have been neutralized by higher weight, more powerful engines and energy consuming ancillary units. For consumers, stricter emission values lead to costs savings in the use phase. For this reason, strategies to improve further the fuel efficiency are preferable than strategies which aim to increase the proportion of biofuel in conventional fuel.

97535421274-21 European Twowheel Retailers' Association company / professional association EU wide B.1 B.2 B.3 B.4 B.5 C.1 C.2 C.3 C.4 D.1 D.2 D.3 D.4 E.1 E.2 E.3 E.4 E.5 E.6 E.7 E.8 E.9 Additional Comments Improving air quality and reducing traffic congestion represent decisive challenges for the environment and for our mobility. Transport emissions account for around a quarter of greenhouses emissions at EU level, coming from cars, vans and heavy duty vehicles. The White Paper on Transport released by the European Commission in March 2011 tackles this issue, as it sets the target of cutting CO2 emissions by 20% by 2020 compared to 1990 levels, and by 60% by 2050 compared to 1990 levels. ETRA believes that it is of paramount importance to reach this target, and therefore strongly advocates a modal shift in the transport sector, from private car use to the use of two wheels, especially in urban areas. ETRA also believes it is important to promote the periodical renewal of the circulating fleet, for instance through fiscal incentives, in order to create a safer and more environmentally friendly fleet. Taking into account the fact that 50% of car trips are done for distances under 5 kms, and 30% under 2 kms, two wheels can provide a simple and very low-cost solution to reduce CO2 emissions. Estimations have been made that if by 2020, the modal share of cycling would be at the same level in Europe as it was in Denmark in 2000, this would save 62 to 139 million tons of CO2. In addition to that, if the level of cycling would double by 2020, the current 24 million tons of CO2 saved thanks to cycling would increase up to 54 million tons. Reducing CO2 emissions will also have a considerable impact on health. In the European Union, every year, air pollution is linked to 300,000 premature deaths; noise caused by transport is linked to 50,000 fatal heart attacks and 200,000 cases of cardio-vascular disease in the EU. The use of two wheels will address those issues and having a physical activity through cycling will contribute to better physical conditions. As for the costs, shifting from private car use to the use of two wheels will not include any additional financial investment. There will be no need for substantial infrastructure investment, and even the investment required is negligible compared to the investment needed in other transport modes. Furthermore, every km cycled costs 1.5 eurocents, whereas every kilometer driven by car costs just under €1. As a result a shift from car to cycle would save the economy some 97 eurocents per km. As regards powered two wheelers, ETRA believes that powered two wheelers are fairly sustainable motorised means of transport especially due to their efficient power-to-weight ratio. Their light weight results in significantly less fuel consumption as they require less energy than a car to move. Furthermore a recent study made by ADEME (French Environment and Energy Management Agency) has shown that Euro3 PTWs greenhouse gas

emissions (CO2 in particular) are well below those of the average automobile vehicles sold today. Moreover a study (see footnote) conducted by Transport & Mobility Leuven states that the total external emission cost of motorcycles (all pollutants combined) is 21% lower than that of an average car. In addition the finding of the same study shows that if 10% of car drivers would give up their car for a motorcycle or a scooter, traffic congestion would be reduced by 40%, (the case study referred to one of Belgium's most congested routes - E40 Leuven - Brussels). The study extrapolates this figure to the entire primary road network and the findings suggest that 15,000 lost vehicle hours could be saved in Belgium every day, which is equivalent to a total time-saving of around €350,000 per day. In conclusion, the study shows that if 25% of all commuting trips were made on powered two wheelers, congestion could even turn into a bad memory. Since the European Commission is seeking to reduce emissions and hence to improve quality of life, part of the solution can and therefore should come from (electric) bicycles and powered two wheelers. 1 The study « Powered Two Wheelers compared with cars : driving dynamics, fuel consumption and exhaust emissions in daily use" has been published in December 2008 by ADEME

9832909575-41 Greenpeace European Unit non-governmental organisation / association of NGOs World wide B.1 Entirely agree B.2 B.3 Entirely agree B.4 B.5 Entirely agree C.1 Yes C.2 C.3 C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 E.3 E.4 E.5 Yes E.6 5 years E.7 E.8 No E.9 Additional Comments The EU has been leading the global effort to clean up road vehicles and should continue to do so. On cars and vans, the EU should have targets in place until 2025. These targets should be in line with the need to fully decarbonise the sector by 2050. For trucks, the EU should get its act together after the US and Japan have already put standards in place.

11. ANNEX III: CONTRIBUTIONS FROM PUBLIC AUTHORITIES/PUBLIC ADMINISTRATIONS

This annex only includes contributions from public authorities/administrations who submitted responses via the online questionnaire. Responses are shown only from those public authorities/administrations which indicated that their contribution should not be treated as confidential or anonymous.

Contributions are shown sorted by the identification number (where available) in ascending order and then alphabetically. One of the contributions refers to an attachments – this can be found on our website (see Annex I). All contributions shown have not been edited and are published as extracted from the IPM system.

Contributions shown below do not represent the position, opinions and views of the European Commission and are sole responsibility of those submitting these comments.

18756626989-49 Transport for London public authority / public administration United Kingdom B.1 Entirely agree B.2 Partly agree B.3 Partly agree B.4 Partly agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Partly agree D.3 All HDVs D.4 Measures affecting HDV design; Measures affecting HDV usage; Measures influencing fuel or energy type used by HDVs E.1 Partly agree E.2 • Overall discussions/policies on climate change mitigation and more specifically on decarbonising transport at a European and worldwide level. • Policies on alternative fuels • Policies to provide incentives for hybrid

drivelines and electric vehicles • Legislation on vehicle exhaust gas air quality emissions (Euro standards legislation) • Steps to ensure that future incremental steps in the Euro standards are met in real world driving conditions, otherwise the legislation is meaningless. • Light duty vehicles: - The NEDC test is not representative and low CO2 emissions can be recorded which are not repeatable in the real world. A New Harmonised drive cycle will be very important in future. Heavy Duty vehicles: - CO2 limits must be mass/passenger based otherwise 2 smaller vehicles might be considered better than one larger vehicle which is not realistic E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 Please see attached cover letter for details. Additional Comments Measurement of CO2 emissions from HDVs should include a factor for the load carried, otherwise known as the "intensity ratio". This means that a grammes/km figure is not adequate. Measurement should be in grammes/tonne-km or grammes/passenger-km. This will take account of the high efficiency of fully laden HDVs. This method is already used both in TfL reporting and the Greenhouse Gas Protocol. Publication of road freight vehicle lading factors at EU-27 level would be a welcome benchmark. Energy efficiency is key: delivered through improving lading factors to make better use of vehicle payload (i.e. tone-km operated per vehicle-km operated) and also technology – i.e. engine efficiency, use of alternative fuels, including electricity. HDV specification is very diverse, often bespoke. Loading ratios between empty and fully laden are much greater than for cars. It is not a case of "one size fits all". It would not be practical to set a single limit for CO2 emissions, even per vehicle type. Limits must take account of vehicle size, loading factor, duty cycle and fuel or driveline technologies employed. HDV fleets may be able to take advantage of measures which compliment other industries for an overall CO2 benefit. (eg a switch to bio-methane which provides benefits via reduced emissions from the waste industry). Emissions measurement should take account of the full life-cycle of the fuels and vehicle manufacture/maintenance, not just tailpipe emissions. CO2 limits (question B3) based on average vehicle emissions may ignore the high efficiency of larger (or smaller) vehicles for specific operations. It is important to consider the diverse nature of HDV design. (average emissions levels may be a suitable basis for limits on generic types such as panel vans <3500kg gvw). New regulations on CO2 limits (question D2) which are incumbent upon vehicle manufacturers should be considered alongside other measures which would require action by vehicle operators. Electric vehicles (possibly using inductive "top-up" charging en route and overnight full charges) would benefit both air quality and greenhouse gas emissions. They may also help improve power generation efficiency by smoothing demand. EU regulation of things which are common across member states is logical and equitable. This includes emissions regulation for new vehicles. One area that is currently lacking in this regard is regulation/certification of alternative fuels for use across all member states. For the time being, the focus should be on bio-fuels (to certificate the sustainability and life-cycle CO2 benefits), but could in future cover other alternative fuels that may present issues relating to sustainability and/or true life0cycle impacts. HDVs (buses and lorries) are already much more efficient than smaller vehicles in CO2 per passenger or tonne carried. Overall CO2 levels should be reduced by increased bus patronage, shifting from less efficient modes, and increased freight lading factors . Bus priority/bus lanes should be considered to reduce CO2 from buses and possibly to allow efficient freight vehicles too. Consideration could be given to use of road space / kerb space for loading and unloading and the effect on through traffic. Before mandating technical measures, it should be considered that HDVs, especially buses, are sold in small volumes, compared to cars. This may lead to high on-costs for consumers, which may damage business. TfL is promoting behavioural change for freight operators and their clients. Principally, reducing freight trips (i.e. combining modes), re-timing deliveries to avoid using the highway network at busy/congested periods and switching

mode of delivery from road to more efficient alternatives – i.e. water and rail where suitable facilities exist or could be installed.

56689727240-51 City of Stockholm, Environment & Health committee public authority / public administration Sweden B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Partly agree B.5 Partly agree C.1 No C.2 Current legislation has sped up a development that would have happened anyway - driven by an increasing oil price. Low hanging fruits and off-the-shelf technology is now introduced a few years earlier than otherwise would have happened. The legislation is however NOT inspiring the development of energy-efficient technologies using renewable fuels. There is a large potential to develop energy-efficient vehicles using the already commercially available fuels biogas and ethanol - possibly also biodiesel - but the legislation is not givining any incentives towards this. It is actually counteracting the development of biogas vehicles by looking only at tailpipe emissions - which has almost no correlation to climate effect in the case of biofuels. The legislation should be technology neutral and include all emissions of the system vehicle+fuel, Well-to-Wheel. Looking at vehicle and fuels separatelly will not lead to the objective: energy-efficient non-fossil fuelled vehicles. C.3 No C.4 The Commission first need to develop a recognised method for taking Well-to-Whell emissions into account, otherwise manufacturers will keep on developing ever more efficient - but fossil fuel dependent vehicles, not necessarily possible to operate on any renewable fuel that is possible to produce in large enough quantities or at reasonable price. We need the development of energy efficient, renewable fuelled vehicles to start. A good way would be long term targets using Well-to-Wheel values. D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 - Fuel tax based on WTW CO2eq-emissions - environmental zoning - according to figures in this consultation, 60 % of all HDV-emissions occurs in local & regional traffic - Make it possible for public authorities to request low-carbon transport in all their procurement of both goods and transport (public procurement represent 25-40 % of EUs GDP) E.3 Entirely agree E.4 Yes E.5 Yes E.6 10 years E.7 E.8 Yes E.9 The Well-to-Wheel perspective needs to be included as soon as possible, as tailpipe CO2-emissions only is an indicator on energy efficiency of the vehicle. It has very weak correlation to climate effect also for fossil fuels. For biobased fuels and electricity, the correlation is almost none at all - which makes the current legislation counterproductive as it actually blocks the most promising fuels, e.g. biogas. Biogas emitts more CO2 from the tailpipe than e.g. diesel vehicles but on a well-to-whell basis, the emissions are only 20 & of the diesel emissions. Additional Comments Regarding Question B4: only when a well-to-whell perspective is used different technologies can be treated equal. Otherwise the legislation will be biased in favour of fossil fuels. It might be necessary to treat technologies differently during their market development phase, as different incentives may be needed for different technologies in this phase.Once they're established at the market, they should however be treated equal - based on the WTW-emissions B5 - see answer C2.

Argyll and Bute Council public authority / public administration United Kingdom B.1 Entirely agree B.2 Entirely agree B.3 Neutral B.4 Partly agree B.5 Partly agree C.1 Yes C.2 C.3 Yes C.4 D.1 Neutral D.2 Partly agree D.3 Only urban HDVs D.4 A combination of measures from all areas E.1 Partly agree E.2 Policies that relate to Climate Change, Energy Efficiency and Low Carbon, Environmental, Transport, Spatial Planning, Economic Policies and Taxation policies (including fuel duty). E.3 Entirely agree E.4 Yes, especially nitrogen oxides (NOx) E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments Argyll and Bute is situated in the south west Highlands and Islands of Scotland and as such the area is characterised by its peripherality, mountainous, coastal and

island terrain, and sparicity of population, these physical features combine and compound the regions distance from economic markets and result in long journey times within the area and beyond. Argyll and Bute Council recognises that there can be conflicts between polices aimed at growing the economy and preserving the environment, particularly in an area such as Argyll and Bute which is so dependent on the road network for access to local and national centres. Despite this the Council are committed to investing in transport infrastructure which promotes sustainable economic growth whilst reducing the areas carbon footprint and protecting/enhancing the areas rich natural environment. This is underlined by the objectives set out in key strategic documents such as the Local Transport Strategy (LTS), Economic Development Action Plan (EDAP) and Renewable Energy Action Plan (REAP). The Council has been working with partners including Transport Scotland and Sustrans to deliver a network of traffic-free walking and cycling routes which will encourage modal shift away from the private car helping to reduce CO2 emissions. Argyll and Bute Council is part of the delivery forum for the Scottish Government's Cycling Action Plan for Scotland (CAPS) which aims by 2020 to have 10% of all journeys taken in Scotland by bike. As such, the Council are committed to monitoring levels of walking and cycling in the region via new and existing cycle counters and by assisting Sustrans with their annual Hands Up Surveys. The Council have worked closely with local schools to implement a series of School Travel Plans which aim to encourage more sustainable travel to school and we have participated in initiatives such as Walk to School Week and Cycling Scotland's 'Give me Cycle Space' campaign. There have been increased levels of communication with local industries to promote more sustainable freight transport, in particular the Timberlink Project where timber is shipped from local ports saving up to 1245 tonnes of CO2 per year (Forestry Commission Scotland Figures) compared to standard road haulage operations. Furthermore, in terms of the Council's own vehicle fleet, the Council has actively participated in Transport Scotland's Low Carbon Vehicle Procurement Support Scheme where grant funding has been used to assist in the purchase of low carbon vehicles. This will lead to a reduction in the Council's carbon footprint as will the introduction of all-electric vehicles to the vehicle fleet which is anticipated to happen by April 2012. For more information about Argyll and Bute Council, please refer to www.argyll-bute.gov.uk

Ministerium für Verkehr und Infrastruktur public authority / public administration Germany B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 Measures affecting HDV usage; Measures influencing HDV purchase decisions E.1 Entirely agree E.2 Energie, Umwelt, Verkehr, Binnenmarkt, Forschung und Innovation E.3 Entirely agree E.4 Yes, especially methane (CH4) E.5 Yes E.6 10 years E.7 E.8 Not now, but this should be reconsidered in future E.9 Additional Comments Bei der weiteren Reduzierung der CO2-Emissionen von Straßenfahrzeugen müssen die Auswirkungen auf Luftschadstoff-Emissionen beachtet werden, insbesondere die Emissionen von Feinstaub/Ruß, Stickstoffoxiden und Methan. Dies betrifft zum Beispiel die Bereitstellung von Energie für Elektrofahrzeuge aus nachwachsenden Rohstoffen (Biogasanlagen, Holzfeuerungen).

Scottish Environment Protection Agency public authority / public administration United Kingdom B.1 Entirely agree B.2 Entirely agree B.3 B.4 Entirely agree B.5 Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 Entirely agree E.3 E.4 Yes E.5 Yes E.6 20 years E.7 E.8 E.9 Additional Comments In Scotland, the Scottish Environment Protection Agency (SEPA) regulates activities that may pollute water, land and air; the storage, transport and disposal of waste; and the keeping and disposal of radioactive substances. SEPA, in

carrying out its duties, is aware of the pressures placed on the environment by transport choices, in particular we are concerned by the increasing greenhouse gas emissions and local air quality impacts attributable to transport. SEPA believes the overall objective of transport policy should be clearly directed towards the reduction of overall fuel consumption in conjunction with an increase in efficiency of the fuel being consumed. Whilst SEPA supports measures establishing standards for the GHG emissions of new vehicles and measures stimulating the alternative fuels market, it is important that these are accompanied by wider behaviour changes. For instance, there needs to be a reduction in the need and frequency of journeys taken and the use of public and active modes of transport should be maximised. It is essential that measures to reduce CO2 do not have negative or unintended impacts on other issues such as air pollution. Measures to reduce CO2 from transport should work in tandem with other European measures such as the Euro standards, which aim to deliver improvements to local air quality. The European Environment Agency's report 'Towards a resource-efficient transport system' (2010) found that despite recent reductions in air pollutant emissions, road transport was the largest emitter of oxides of nitrogen and the second largest contributor of pollutants forming particulate matter in 2007. Continued pressure is required to drive down all harmful emissions from road transport (including, but not limited to, CO2). The Climate Change (Scotland) Act 2009 creates a statutory framework for greenhouse gas (GHG) emissions reductions in Scotland by setting a 42% reduction target for 2020, with the power for this to be varied based on expert advice, and an 80% reduction target for 2050. The Climate Change Act 2008 sets a similar 80% reduction target by 2050 for the whole of the United Kingdom (UK). To achieve these ambitious targets, all sectors in Scotland and across the UK will need to put in place measures to reduce emissions; therefore, SEPA welcomes targets set for 2020 for new vehicle CO2 emissions and believes further targets beyond 2020 may also be useful. SEPA has previously expressed its views on biofuels to the European Commission (EC) in its responses to the consultation on Indirect Land Use Change (ILUC) (Ref: ORG13-A2583 291010 EC) and the consultation on the Clean Transport Systems (CTS) Initiative (Ref: ORG13-A2675 EC). Sustainable biofuels have the potential to make a meaningful contribution towards reducing the carbon intensity of liquid fuels used in road vehicles. However, in order that biofuels for transport deliver real-world carbon savings, it is essential that their full lifecycle impacts are taken into account, including the GHG impacts of Indirect Land Use Change (ILUC). Whilst managing GHG emissions from ILUC is a key consideration, land use change also has far reaching environmental and social consequences. SEPA is of the opinion that an adequate and robust solution to ILUC is required in order to avoid the negative indirect impacts of production of some biofuels. SEPA notes that a clear steer from the EC on ILUC is still outstanding. Over the next decade, it is likely that most biofuels will be derived from first generation crops (food crops). Biofuels derived from second generation energy crops (non-food crops) may provide better results in terms of overall GHG savings, but may still contribute towards land use change. Biofuels that do not compete for land, such as biofuels derived from wastes and residues and biofuels derived from microalgae, present an opportunity to avoid negative land use change impacts. The United Kingdom Department for Energy and Climate Change (DECC) report, 'Methodology and Evidence Base on the Indirect Greenhouse Gas Effects of Using Wastes, Residues, and By-products for Biofuels and Bioenergy' (2009), suggests some non-crop biofuel feedstocks may have other indirect effects. All biofuels, whether they are derived from crops or non-crop feedstocks, should undergo a complete GHG lifecycle analysis (including indirect effects) to establish their suitability.

Swedish Transport Agency and Administration public authority / public administration Sweden B.1 Entirely agree B.2 Entirely agree B.3 Entirely agree B.4 Entirely agree B.5

Entirely agree C.1 Yes C.2 C.3 Yes C.4 D.1 Entirely agree D.2 Entirely agree D.3 All HDVs D.4 A combination of measures from all areas E.1 Entirely agree E.2 White paper on transport and Road map for low carbon economy 2050. E.3 Totally disagree E.4 Yes E.5 Yes E.6 15 years E.7 E.8 Yes E.9 Energy efficiency in vehicle independent of energy source (including FCV, PHEV, BEV) Additional Comments Carbon reduction targets in White paper on Transport and Raod map on low carbon economy 2050 are not ambitious enough, especially the period up to 2030. Indicative targets for 2025 and 2030 shoud be set before 2015. For passenger cars a reasonable limit could be 70 g/km and 50 g/km, respectively. Method for measuring and declaring fuel consumption and CO2 for HDV should be set in due time before 2014. Soon after that date, a regulation for limiting emissions of GHG should be set. Indicative targets for new vehicles 2030 could be 30% reduction compared with 2010. Measures for a CO2 free city-logistics, as mentioned in the White paper, need to be outlined in a heavy duty vehicle greenhouse gas strategy The Commission strategy should also include measures for reducing emissions of GHG from non-road mobile machinery.