

**Public hearing**  
**"Reducing CO<sub>2</sub> from passenger cars and light-commercial vehicles"**

**Brussels, 11 July 2007, 9.00-13.00**

**FINAL REPORT**

**Session 1**

**Agenda Item 0: Welcome and Introduction by the European Commission**

Catherine Day (the Secretary General of the European Commission) welcomed the participants to the public hearing. She stressed that there was a wide range of interesting presentations on the agenda, ensuring an interesting exchange of views, and acknowledged the complexity of the topic.

In her introductory remarks, she set out the overall political background, recalling the difficult decisions made by the Heads of State and government in March 2007: a 20 % unilateral GHG emissions reduction target (30 % if developed countries join), a 20 % renewables target and a 20 % energy efficiency target. These targets are not just a political declaration, but are serious commitments based on an in-depth analysis and elaborated in the package put forward. The Commission's task is to deliver legislative and other initiatives and to turn the headline goals into reality. There is a clear need for partnership between the private and public sectors, as the public sector alone cannot effect the necessary change by itself. There is no one way to reach the objectives and the measures will have an impact on all sectors. Only by working across the board can we bring about the deep emissions cuts in the most cost-effective way. The proposal for reducing CO<sub>2</sub> emissions from cars is one important piece of the overall jigsaw. It should not be looked in an old fashioned way, but as an opportunity to turn challenges into an advantage, such as leading the switch to a low carbon economy or taking a technological lead. The goal of limiting average emissions from passenger cars to 120 g CO<sub>2</sub>/km has existed already for a long time. The reduction should come from two sources: down to 130 g by engine technologies and the rest through other technologies. Catherine Day recalled the core principles for the design. Any future legislative framework should be competitively neutral, socially equitable and respect the diversity of the European automobile manufacturers, avoiding any unjustified distortion of competition. These principles represent the terms for reference for the debate. The Commission has to offer a sufficiently robust system of monitoring and control to ensure real implementation and to build in enough flexibility to ensure that cost-effectiveness can be maximised. There is no shortage of options as the impact assessment work has already identified 46 options. Now there is a need to look carefully at the most realistic and cost-effective options. She stressed the key questions for the debate:

- How to set the target – as a uniform target, as a target modulated by a variable such as the type of car, or as a reduction from a baseline?
- On what should the target be applied – on different models, different manufacturers, on importers and dealers?
- What flexibility mechanism would work?
- What mechanisms are needed to guarantee compliance?

Whatever system is put in place, it needs to be predictable - for the citizens in terms of the emissions reduction and for the businesses for their planning.

***Peter Carl (Director General for Environment)*** informed the hearing about the ongoing public internet consultation and encouraged all to participate in the consultation process. He recalled that the Environment Council endorsed the strategy a few weeks ago and that positive signals are coming from the European Parliament. The question is therefore not if or when, but how the reduction goal and the timetable which have been agreed will be delivered through the legislation. He outlined 6 main guiding principles:

1. CO<sub>2</sub>/cars legislation is an essential component in the fight against climate change (passenger cars produce 12 % of overall EU GHG emissions and transport sector is the second biggest emitter). Since 1990, EU has reduced emissions by 5 % but the contribution of road transport increased by 26 %. In order to live up to the 20 % goal, it is not acceptable that the burden remains only on the other sectors. Transport emissions should also be reduced. The long-standing objective of 120g/km by 2012 will contribute as much as 20 % of the overall reduction effort still required to meet Kyoto. The Commission is proposing an integrated approach, because the requirements do not relate solely to new cars, but also on improvements to car components which could benefit the existing car fleet.

2. The car industry plays an important role in the EU economy, but has to fight in order to remain competitive. The Commission understands their concerns and the strategy should provide for a stable and predictable environment for investments.

3. Getting to grips with CO<sub>2</sub> emissions from cars will help address concerns about security of energy supply by reducing reliance on imported fossil oils.

4. All manufacturers should be treated with equal fairness and cars should be kept affordable as it does not make sense to produce clean cars that nobody can afford to buy. Legislation should be fair to all carmakers whatever their market niche and the distortions of competition should be avoided. The way the target is shared between carmakers should be sustainable and equitable.

5. Addressing consumer's demand for fuel efficient cars would reduce compliance costs to manufacturers. Taxation is one important tool and Member States have an important responsibility in this field. Some Member states have begun to make use of this (most recently Spain). The Commission will propose an amendment to the fuel efficiency labelling directive to improve its effectiveness. Unfortunately, so far manufacturers have not replied to the Commission's invitation to sign a code of good practice.

6. It is important to take a decision as on the legislation as early as possible in order to allow the car industry the lead-time it needs to deliver the CO<sub>2</sub> emissions reductions required. The target dates back to 1990s and it is not a figure invented in February by the Commission. It is nonetheless important that legislators give a clear signal to the industry on how the strategy will be implemented as early as possible. We will endeavour to make a formal proposal if possible in 2007.

He concluded that:

- Moving to a low-carbon economy is a must, not an option and the Community objective of adopting an integrated approach to have a new car fleet with average emissions of 120 gram CO<sub>2</sub>/km is at the very core of the work
- There is a need to recognise the legitimate demands of consumers for better and safer cars and to inform them better about fuel consumption and its cost.
- The legislation should be equitable and respect the diversity of car manufacturers.
- The world needs clean and efficient technologies to win the battle against climate change. Those who lead the way will reap the rewards.

***Heinz Zourek (Director General for Enterprise and Industry)***

He stressed that, in line with the principles of better regulation, the Commission will try to listen to different stakeholders. The public hearing provides a good opportunity for this exchange. It is better to discuss CO<sub>2</sub> and cars not only with the car industry, but also other interested parties, as the integrated approach involves other actors. Legislating on cars is not new. Nor is the sustainability concept. An integrated approach should result in four things:

1. Progressively more fuel efficient cars and cleaner fuels
2. Efforts should meet if not exceed 120 g – thus delivering on the commitment
3. Retain the competitiveness of the industry without discrimination
4. Set up a system, regularly improved and updated, with a need to keep lead time/instruments in place

Concerning the car industry's contribution to meeting the reduction target, it is possible to deliver on this although it should be admitted that the level of ambition is very high. The car technology pillar of the CO<sub>2</sub> strategy has to respond to the three challenges (neutrality of competition, not favouring one over another, avoidance of unfairly biased solutions) should be socially equitable and sustainable. There is no point in delocalising the car industry and we should not behave in an irresponsible way with regard to global performance. The initiative is about a global strategy (preserving our climate). We should be equitable to the diversity of car manufacturers and should not exclude certain segments (no banning of specific models). It is important to give options – to respond to consumer wishes and to environmental necessity. On the other hand, it is important to keep in mind the costs because of the effect and unwanted social implications they might have. It may take time to renew the existing fleet. It is therefore important from this public consultation and public hearing to get ideas in order to gauge the cost impact, not only the immediate impact, but the life-cycle impact. Contributions from other industries (outside the automotive industry) could be broadened in scope, not just measures targeting only the new fleet, but measures for the improvement of the fleet already in use. This would bring an additional benefit.

The Commission wishes to achieve two objectives:

- To rely on data brought forward to its attention by experts
- To avoid that this data is biased

The Commission is receptive, but this is only the beginning of the process to be continued in the European Parliament and the Council. The Commission will have to respond to questions on the choice of the different solutions.

***Catherine Day (the Secretary General)*** assured participants that the Commission has not yet decided on its preferred options. Therefore the discussion is important. She introduced the next agenda item, which set the scene for further discussion with 5 different views: the automotive industry, suppliers, NGOs, consumers and the international perspective.

### **Agenda Item 1: Automotive industry perspective**

In his presentation, Mr ***Ivan Hodáč (ACEA)*** underlined that this regulation represents the most important issue for the car industry. He argued that the industry had delivered on the voluntary agreement. The Community strategy is based on three pillars and only the industry's commitment delivered (an unbroken reduction trend of 13 % until 2004 and fleet composition changes can be observed). In his view, external factors pushed in the opposite direction and account for 15 g/km. These external factors should be considered in the assessment of whether the industry met the target. The automotive industry has introduced new technologies to the market every year. ACEA supports the political target of 120 g/km, but as a part of an integrated approach (together with eco-driving, alternative fuels, infrastructure measures). An integrated approach means that everybody has to participate. CO<sub>2</sub> taxation needs to be harmonized across the EU. The target at stake seems in ACEA's view significantly more ambitious than the EU target of 20 % reduction between 1990 and 2020. On

cost-effectiveness, both ECCP and the Stern review concluded that car technology is a high-cost measure. Other measures are much cheaper. This does not mean that the industry will not continue to improve vehicle technology. He illustrated the integrated approach with two potential measures (eco-driving (constant speed, which can deliver savings and reduces emissions across the board) and infrastructure (e.g. the Japanese experience). Complementary car technologies account for more than 5 g/km.

In conclusions, he reiterated ACEA's main points:

- Support for the 120 g target
- An integrated approach is needed
- The timeframe of 2012 is unrealistic and an appropriate lead-time (2015 at the earliest) is necessary
- Any system must safeguard diversity and social equity. Cars must remain affordable.
- Weight appears to be the most suitable parameter
- Flexibilities are needed (for instance group averaging, banking, credits for renewable fuel vehicles)
- 

According to Mr ***Hiroki Ota (JAMA)***, JAMA members make an important contribution to the EU economy (15.9 bln in research) and are actively pursuing the introduction of CO<sub>2</sub>-efficient vehicles as part of the fight against climate change. He put forward two main concerns with the upcoming framework: 1. the 2012 target application year and 2. target values. Firstly, the target application year should be postponed as the development of a new car model requires a total lead time of at least 7 years prior to regulatory application. Japan has introduced fuel-efficient standards, giving a lead time of 8 years to the industry. In JAMA's view, the target application should be postponed until 2015 at the earliest. Secondly, JAMA supports the 120 g/km target, but this goal can only be met through a combination of efforts by various stakeholders (including industry, Governments and the driving public) in an integrated approach.

For the legislative framework JAMA recommends that the EU adopt a segmentation system based on vehicle weight categories. On complementary measures, JAPA supports the increased use of bio-fuels. Their blend rates should be determined on the basis of a comprehensive evaluation of their impact on emissions, drivability etc. Further CO<sub>2</sub> reductions in the road transport sector will require improved road infrastructure and more effective traffic management as well as improved driver behaviour.

He illustrated this integrated approach by reference to the Japanese strategy which relies on three elements: 1. greater fuel efficiency, 2. traffic flow and 3. eco-driving. By adopting these measures, an estimated 54.9 Mt of CO<sub>2</sub> will not be emitted in order to meet the Kyoto Protocol-related 2010 CO<sub>2</sub> reduction target for Japan's road transport sector.

In conclusion, he stressed two major points:

- The application target year should be postponed until 2015 at the earliest
- An integrated approach should be considered

## **Agenda Item 2: Automotive supplier's perspective**

In his address, ***Lars Holmqvist (CLEPA)*** assured participants that CLEPA members are fully committed to addressing climate change. However, setting the target of 120 g/km for 2012 does not provide for a long-term solution and a longer perspective is necessary. Today advanced technology is capable of reducing CO<sub>2</sub> emissions, but a sufficient lead-time is needed. In his view, it is impossible with the current institutional set up to expect the legislation to be in place before 2009. The investment decisions driving the technologies to the market cannot take into account any late changes in the legislation. CLEPA is not afraid of more ambitious targets, but there is a need to implement them and

test them. Cars should remain reliable, safe, environmentally friendly and affordable in order to guarantee future mobility. Member States should stimulate demand for more fuel-efficient vehicles through labeling and/or taxes and there should be more investment in R&D. Good practices should be promoted (advertising). For the existing fleet (which is getting older and older), retrofitting is a solution. Among the complementary measures, CLEPA wishes to concentrate on telematics, tyre pressure monitoring, low rolling resistance tyres, alternative fuels and energy-efficient air conditioning. Use of eco-driving devices should be recognized alongside awareness campaigns. He quoted one experience with 2500 cars where a reduction in fuel consumption of 15 % was achieved through eco-driving. However, he admitted that this cannot be achieved across the board. He called for the agreed 10 years roadmap in CARS21 to be applied.

In her presentation, **Fazilet Cinaralp (ETRMA)** explained the technical details of the tyre related measures, mainly in respect of tyre rolling resistance. The latter contributes together with a vehicle's other sources of drag, to its fuel consumption and, thus to its CO2 emissions. The rolling resistance of a tyre depends mainly on two factors: tyre design and tyre inflation pressure. Depending on the type of road and driving style, rolling resistance causes about 20 % of the CO2 emitted by a car, and about 30 % of the CO2 emitted by a heavy truck. Two main tyre- technological solutions have a positive impact on CO2 emissions reduction: 1. tyre pressure maintenance and 2. low rolling resistance tyres (accounting respectively for ~2 and 4 % of expected CO2 emissions reduction). Concerning the correct tyre inflation pressure, she explained the relationship with the rolling resistance: the lower the tyre inflation pressure, the higher the effect on rolling resistance. With a permanent 20 to 25 % under-inflation, the tyre rolling resistance is increased by 10 %, which in turn results in about 2 % more fuel consumption. Mrs Cinaralp emphasized the relationship and interdependence of tyre performance items and that maximized performance of one may have impacts on others.

She concluded by setting the main tyre industry proposals and their contribution in terms of CO2 annual savings:

- Establishing maximum limits and implementing a grading for rolling resistance to assure that consumers can make informed choices (- 22 Mt of CO2 annual savings)
- Maintenance of inflation pressure at the right level (10 Mt of CO2 annual savings)
- Observe minimum limits and a grading for Wet Grip to make sure that low RR tyres are achieved without compromising safety
- Sufficient lead time is needed for all sectors
- Proper enforcement of rules in order to ensure compliance and therefore certainty on the market

### **Agenda Item 3: NGO's perspective**

In his presentation, **Jos Dings (Transport and Environment)** elaborated on four critical issues: 1. Impact assessment work, 2. targets and timelines, 3. compliance and 4. the class parameter.

In his view, the impact assessment has quite serious flaws:

- Its scope should be broadened to cover also the economic and environmental impact of the rules through lower oil imports and oil prices. He argued that costs and benefits are not symmetrical in geographic terms : most of the (oil) savings of the policy are net welfare gains for the EU, while most of the costs are not net welfare losses to the EU as they are

investments into the European automotive supply industry. Therefore, the costs of the policy are not really costs but investments of capture a share of the low carbon technology market

- The effect on oil prices is likely to be significant – the EU is the world largest car market and almost the whole of Asia follows EU air pollution standards and is likely to be strongly influenced by EU fuel efficiency standards. The upcoming regulation represents the most significant policy to reduce oil demand (similar to the introduction of US fuel economy standards in the 1970's).
- The environmental impact of lower marginal oil demand should be addressed: with tar sands or CTL (coal to liquid fuel) replacing increased CO<sub>2</sub> emission related to crude oil process.
- The impact of lower oil prices on coal/gas balance should be addressed as high oil/gas prices lead to a shift back to coal in power generation with the corresponding increased emissions.
- Not only low carbon technologies should be addressed, but also low carbon car specifications, i.e. look at possibilities of whole process of car design.
- The current impact assessment does not address the learning effect and mass production (for instance 3-way catalysts were estimated to cost 700 euro, whereas the current price is about 10 % of that figure).

Concerning targets and timetables, Jos Dings emphasized that the lead time given to the industry was already extended twice from 10 years to 17 years as the target was shifted from 2005 to 2012, and that the target moved from 120 g initially to 130 g. Due to a decade of regulatory inaction, only 5 brands are close to meeting the voluntary agreement. The 120 g target by 2012 is perfectly feasible with the cost of 19 euro per tonne of CO<sub>2</sub> according to the impact assessment. He concluded on this point that long-term targets are of absolute necessity for the industry and climate/energy policies. The regulator should accept that technological uncertainties exist.

The ambitious target would however mean nothing without a decent compliance mechanism. He warned against giving access to CDM/JI credits or ETS credits. He suggested a penalty of €150 per g/km per car as appropriate based on the marginal abatement costs. In case, it was lower, the industry would pay this as a tax which is not the purpose of this regulatory policy.

In principle the target should not distinguish between different types of cars. At least over time standards should become independent of car classes. If, however, a utility parameter is politically necessary in the short term, it should be a fair representation of customer value and avoid perverse incentives that increase CO<sub>2</sub> and safety. Put differently: the parameter should give car makers the maximum degree of options to reduce CO<sub>2</sub>. Footprint, number of seats or surface (shadow) represents the best compromise. They all enable car makers to reduce CO<sub>2</sub> by reducing weight, height or power of the car – improving safety at the same time. Weight, height and power of the car therefore should definitely not be part of the utility parameter.

He concluded:

- The targets should become stricter over time, 120 by 2012, 80 g in 2020, 60 by 2025
- A strict compliance regime should be set
- Footprint or number of seats should be chosen as utility parameters
- the impact assessment should take the strategic and global outlook (impact on oil markets and car suppliers)

#### **Agenda Item 4: Consumers perspective**

According to *Laura Degallaix (BEUC)*, the car manufacturers' voluntary agreement has failed. Transport sector is responsible for 12 % of EU total CO<sub>2</sub> emissions and its emissions rose by 26 % between 1990 and 2004. This sector has been the worst performing one regarding the achievement of EU objectives under the Kyoto Protocol. The car manufacturers' voluntary agreement lacked ambition, transparency and efficacy – in the same way as the vast majority of voluntary agreements have proven to be in the past. She denounced the increasing use of such agreements by EU institutions in the environmental area. It is time for car manufacturers to take their responsibilities and for the EU Commission to adopt a strong and ambitious regulation to reduce car emissions.

In overall, the proposed Commission's integrated approach is welcomed by EU consumers' organisations. The policy toolbox is varied in this area and all economic actors should contribute to the reduction of CO<sub>2</sub> emissions. However, the bulk of reduction should come from individual car emissions values. Other complementary technological improvements (such as gear shift indicators or biofuels) should only be additional to mandatory improved vehicle technology measures. All tools/techniques should be measurable, accountable and easy to monitor. Taxation and fiscal incentives should also be part of the legislative framework. In order to increase consumers' interest and contribution, energy efficiency, as well as sustainable development and mobility, should be promoted. Up to now, there has been a clear discrepancy between the increasing market for more powerful and fuel-intensive cars and the objectives of the EU climate change and energy efficiency policies. It is necessary to ensure coherence between market and political objectives; this only will guarantee the credibility of the EU policy in the future. An improved EU labelling scheme is needed as it is not harmonised across the EU and its visibility is low. This was illustrated by comparing the labels currently used in Germany and in the United Kingdom. Finally, rules should be imposed on advertising and marketing to avoid misleading messages and provide consumers with clearer and more visible information on CO<sub>2</sub> emissions. Ms Degallaix illustrated this with an advertisement which claimed that a hybrid car, whose CO<sub>2</sub> emission level was of 192g/km, was low-emitting. Consumers should have the possibility not only to compare products but also to identify which are more ecologically-friendly.

In conclusion:

- Ambitious regulation is a matter of urgency
- The implementation of this regulations should be transparent, and its progress should be monitored and made publicly available
- The 120g/km target for 2012 should be adhered to and should be implemented in a transparent way
- Intermediate and long-term mandatory targets for car emissions values also needed, it is unclear what is foreseen by the 2010 review in the Commission's communication
- Fundamental and sustainable change in the transport sector is needed, energy efficiency should become a minimum requirement

In his presentation, *Wil Botman (FIA)* presented the FIA vision from European, global and consumer information perspective. He applauded the efforts of the automotive industry so far, but acknowledged that the cars have become heavier and that this has resulted in increased CO<sub>2</sub> emissions. This is partly due to additional safety features included on cars. He welcomed the 120g/km target and the integrated approach. In his view, there is a role for complementary measures, such as infrastructure and consumer behaviour. Mobility has increased, but the infrastructure has not grown to the same extent. The consumers should have the right to choose to buy a bigger car but must have the information to make an informed choice. There are a number of measures which could

influence consumer choice: CO<sub>2</sub> based taxation, taxation on new cars, and the cost of fuel (which is in itself CO<sub>2</sub> based) and eco-labelling. The information on labels is often hidden and more work should be done on improving eco-labelling. Driver behaviour could be influenced by eco-driving, and this would not only cover new cars but also the existing fleet and could result in CO<sub>2</sub> savings of up to 10%. Efforts should be fairly distributed across the industry. From the global perspective, Mr Botman underlined that the climate change is a global problem and EU must look beyond its own borders. EU should therefore work in international fora, such the UNECE working party, where the fuel quality will also be addressed. He mentioned the EcoTest developed by ADAC with a database of 200 current models. FIA will further push for a harmonised clear fuel label as this is a promising way to influence consumer's choice.

### **Agenda Item 5: International perspective**

In his presentation *Drew Kodjak (ICCT)* placed the European proposals within the international context and gave some thought to addressing the competitiveness issue in the design of the regulation. He presented the early findings of a study done by ICCT reviewing passenger cars standards, fuel economy standards and GHG emissions. The report is entitled 'Passenger Vehicle Greenhouse Gas and Fuel Economy Emissions Standards: A Global Review'. Both the EU and Japan are still global leaders with the most stringent passenger vehicle greenhouse gas and fuel economy standards. Japanese standards are expected to lead to the lowest fleet average GHG emissions (125g by 2015). California was bolstered recently by the decision of the US Supreme Court that GHG is a pollutant and can be regulated by the Environmental Protection Agency. To date, eleven other US states have adopted the Californian standards. The US lags behind, but a lot is happening in the US Congress and the executive branch. A fuel economy standard of 35 mpg by 2020 was passed by the Senate. South Korea opted for different, more lenient standards for vehicles with larger displacement engines. The shift in the market is expected to result in an increase in GHG emissions. He explained the graphic with different CO<sub>2</sub>-equivalent emission standards based on the European test cycle and explained the methodology and translation of various vehicle standards (i.e., CO<sub>2</sub>, GHG and fuel economy) to enable a fair and uniform comparison. Japan has the most stringent standards, followed by the EU. No action has taken place in China since 2004, but China has new taxation measures in place. By 2011, the new U.S. passenger vehicle fleet is expected to achieve 236 g CO<sub>2</sub>/ km under the European test cycle. As to the magnitude of reductions, the EU has done an excellent job with a sufficient long lead time since 1995.

Competitiveness is a significant issue (also for the US): looking at the table showing the ranking of different manufacturers, there is a difference between the best performing (Peugeot, Fiat, Renault) and the low end, mainly German manufacturers. It is challenging but possible to reconcile environmental sustainability with competitive neutrality by adopting an appropriate policy design.

Drew Kodjak explained that the US has grappled with the same problem of competitiveness among manufacturers for many years. The latest reform of CAFE (Corporate Average Fuel Economy) changed dramatically the standards that apply to light trucks. This regulation is now based on size (by footprint) and on continuous function, correlating each vehicle size to a fuel economy standard. As a result, each manufacturer will have its own fleet average fuel economy standard based on its own sales mix of light trucks, starting in 2008. The slope of the function was designed in a way to disincentivise the upsizing of vehicles in order to achieve less stringent standards.

In conclusion:

- The EU has done a lot: long-term standards with sufficient lead time, high fuel taxes to reduce demand for driving and energy consumption, differentiated taxes in order to ensure higher diesel penetration
- It is a good idea to shift from voluntary to mandatory policy: for instance, Canada envisages the same move, starting in 2010



Looking ahead, the EU should continue with long-term targets. It is possible to design the policy in a way which addresses competitiveness concerns – the US is a good example here. The policy and any additional fiscal policies should promote technology innovation and discourage increases in vehicle size, weight and power as it is difficult to reverse the trend.

## **Session 2 : Statements by other stakeholders, Q and A**

In his statement, *Mr Axel Friedrich (Umweltbundesamt, UBA)* presented some thoughts about how reductions could be achieved through retrofit. A 125 KW (170 horse power) gasoline car was selected and through a number of measures with small CO2 reduction contribution (such as transmission with long gear ratios, downsized engine, start-stop function, heat storage, mirror substitution, low resistance tyres), the CO2 emissions of the basic vehicle were brought down from 172 g to 131 g with no changes in horse power, safety etc. He informed participants about another retrofit project carried out by VOX-TV in cooperation with 9ff Dortmund. Most of the reduction came through weight reduction. The goal is to bring the Diesel Golf below 80g/km CO2. He suggested a limit for each vehicle model based on the area of the vehicle as nearly all manufacturers would have the same burden and stressed that weight is not the best parameter.

In conclusion, he argued that:

- There is no need to develop new vehicles as this adjustment can be made on existing cars.
- Only exchange of parts and improvements are enough to meet the 130 g/km target in 2012.

According to *Sophie Dupressoir (ETUC)*, the organisation is supportive of the Commission's proposals. The future regulation should be based on 3 key principles:

- It should help the European industry to improve its long-term competitiveness. Fuel efficiency and CO2 emissions standards will be key future drivers for global vehicle markets, and especially emerging markets. The EU automotive industry has not stepped up innovative efforts on hydrogen or hybrid cars to the same extent as international competitors have already done. The regulation should therefore include long-term targets in order to trigger the necessary innovation and investments and bring significant competitive advantages to the automotive industry.
- The deadline of 2012 should be kept. A fair burden should be imposed on all industries as an advantage given to one industry would impose additional burden on others, including workers and consumers.
- The target should be set according to the polluter pays principle, rewarding the early movers while not threatening the viability of the high emissions car producers.

An open European social dialogue on the implementation of climate change policies should be established.

*Nikolaus Schmidt (EMF)* commented on the contribution of the automotive industry to employment in Europe (2.2 million direct jobs, 12 million indirect). It is therefore important to determine framework conditions leading to growth, innovation and employment. This should be at the heart of industrial policy. The measures for fighting the climate change should include the transport sector. The European EU Commission's objective is supported, but serious discussions are needed on the timetable. He welcomed the principles on which the future framework should be based (competitively

neutral and socially equitable and sustainable reduction targets which are equitable to the diversity of the European automobile manufacturers and which avoid any unjustified distortion of competition between automobile manufacturers). In line with these principles a legislative approach should be shaped in a way that:

- establishes targets for the further reduction of CO<sub>2</sub> emissions for all kinds of cars (all segments of PC's and LCV's) – with higher reduction targets for cars with higher weight and power.
- ensures that all types of cars can still be produced in the future
- minimizes the risk of job-losses and plant closures
- includes a control mechanism on the European level

As for the mechanism of implementation of the target, in his view a closed emissions trading system will not fit with the CO<sub>2</sub> reduction strategy, as it is not competitively neutral. He suggested the establishment of a European fund collecting the penalties, which could be used to finance measures to develop an integrated an intermodular system in Europe – including R&D.

**Arnaud Duvielguerbigny (AEGPL)**, commented on the LPG (liquefied petroleum gas) positive contribution in terms of savings.

LPG cars can be either brand new bi-fuelled cars or petrol-fuelled vehicles converted to LPG. About 4.5 million LPG-fuelled vehicles run on LPG in EU, supported by a network of 22,500 filling stations. The current fleet of LPG-fuelled vehicles saves 1.4 million tones of CO<sub>2</sub> per annum (compared to petrol-fuelled cars). LPG is also good from the energy diversification aspect, with less than 1.7 % imports coming from the Middle East. AEGPL would like to see an equal consideration given to all alternative fuels, that is to say the same kind of regulation for alternative gaseous fuels, LPG and Natural gas. In addition, they support the introduction of an instrument to allow car manufacturers selling bi-fuelled (petrol + LPG) vehicles to base their CO<sub>2</sub> emissions declaration on the LPG mode. AEGPL agrees with the specific target and the timeline set by the Commission in its Strategy, and is ready to contribute to the debate.

According to **Martin Suenson (EUROPIA)**, an integrated approach is a good way forward. He expressed some sympathy for the wish to have a target that could be monitorable and assigned. However, other soft measures such as infrastructure or eco-driving should not be overlooked. An integrated approach demands an integrated and holistic impact assessment. There are secondary effects and mutually conflicting goals that must be understood in order to arrive at coherent strategies and regulation. He illustrated this point on with three examples: First, the increased dieselization will reduce the emissions of CO<sub>2</sub> from cars, but will increase the CO<sub>2</sub> emissions from refineries and will even lead to an overall increase in CO<sub>2</sub> emissions if taken too far. Second, given a limited availability of biomass, if biomass is used for transportation fuels, it will not be available for other CO<sub>2</sub> emission reducing purposes, e.g. the generation of heat and power (where the CO<sub>2</sub> avoidance potential is roughly double). Biomass and bio-fuels is being mentioned in many different contexts and a coherent set of strategies must take account of the total availability of biomass as a fuels source. Finally, increasing environmental specifications for fuels, for example the sulfur content, are leading to increased processing in the refineries and hence increased CO<sub>2</sub> emissions in refineries, so holistic environmental regulation must recognize and balance these trade-offs.

**Michela Vuerich (ANEC)** stated that consumers could play a role when buying a new car, but need to be well informed and thus need comparable information. This could be achieved through harmonised and improved car labelling across the EU, with graphical displays and comparable energy efficiency grades. However, such a labelling scheme is of little use unless supported by mandatory car standards. High targets for car emissions should also be imposed.

**Joeri Thijs (Greenpeace)**, reacted to the statements of the industry representatives on the lead time. According to him, the lead time has already been there for 12 years and the 120g target, set in 1995, was postponed already 2 times. He claimed that today, with even much more certainty and proof showing the urgency of measures to tackle climate change and the need for a strong reduction of CO<sub>2</sub>-emissions, the Commission plans to weaken again this 12 year old target (by imposing only a 130 g by vehicle improvement). According to Mr. Thijs, this is because the car industry is claiming that the 120g target is not achievable and that more time is needed. He stated that not only did the industry already have a lead time of 12 years, but that it is also incorrect to say that this target is not achievable by 2012.

A recent study available on [www.cleangreencars.co.uk](http://www.cleangreencars.co.uk) showed that if all models in each class had the same CO<sub>2</sub>-output as the best performing models in their own class, the target would already be almost reached today. This shows again that it is not unrealistic at all to achieve 120g by 2012. Greenpeace expects the EU to take its own climate policies serious, and expects that the EU will set a binding 120g target (by vehicle measures only) for 2012 and ambitious long term targets. Finally, he pointed out that it would be outrageous and counterproductive to set an overambitious EU target for biofuels and at the same time remain much less ambitious in making cars more fuel efficient.

**Jeroen Verhoeven (Friends of the Earth)**, reacted to ACEA's statement on competition issues. In FoE's view, competition is about adopting best practices, and if all car manufacturers adopted existing best practices in every class, the target of 120 g could be reached now. He drew attention to the role of car advertising, as the majority of the advertisements are promoting high CO<sub>2</sub> emitting cars such as SUVs. Consequently, car advertisements failed to show the CO<sub>2</sub> emissions of cars, which is a clear responsibility of the automotive industry. At the same time, a "green washing operation" is happening where high CO<sub>2</sub> emitting cars are being advertised as environmentally friendly. Biofuels are also being used as a tool to green wash the trend to ever more powerful cars. As an example, a SAAB flexi-fuel car which is running on ethanol has 30 more horsepower than the regular version. "Mr Verhoeven raised the question whether this additional 30 horsepower is necessary and logical, especially when the car manufacturers are simultaneously promoting the idea of "eco-driving". Regarding energy efficiency, if the 120g CO<sub>2</sub>/km target is replaced by a 130g CO<sub>2</sub>/km target, while counting on the use of biofuels, this would lead to using biofuels as a substitute for energy efficiency. On top of this, converting biomass into biofuels is not the most energy efficient use of biomass, and biomass is a scarce resource as well. Finally, he questioned how the proposed policy can be in line with the EU target to increase energy efficiency by 20% by 2020.

**Stefan Singer (WWF)** expressed his support to ideas expressed by the environmental NGOs community and the criticism by T&E in its morning presentation. He reiterated that there is no reason for further delay in reaching the 120 g target. Opportunities for reaching the target were there and it is logical if voluntary approaches have missed the target, it should now become mandatory. Eco-driving, rolling resistance or tyres pressure monitoring systems are certainly valuable elements and educational tools, which should be made mandatory in any kind of system. WWF is however concerned by the the question of who should be accountable if those activities became part of the regulation. Secondly, WWF is in favour of sustainable biofuels, but is concerned if they count towards the target. If credits are generated through the use of biofuels, consideration should be given to what happens with debits from the use of dirty fuels (tar sands, CTL). Biofuels should be part of the policy on fuel quality and reward the fuel suppliers making them accountable for rendering biofuels sustainable. Finally, concerning the transport, the first generation of biofuels will only reduce growth of emissions. The IPPC report concludes, 90 % of emissions reduction should come from reductions in the industrialized countries. The transport sector should therefore strive to become a low carbon sector in order to achieve the objectives of halving transport emissions by 2020 or 2025.

**Hermann Meyer (Volkswagen)** commented on the short presentation from Mr Friedrich and underlined that it is positive that both Mr Friedrich and IKA work on the issues. The more institutions contribute to find ways to increase the CO<sub>2</sub> efficiency of cars, the better. However, he regretted that

Volkswagen was not consulted properly on the presentation prior to the public hearing. He expressed caution as some of the results seem to be derived from the simulations, and not yet shown by vehicles themselves. He also explained that through changes to seats or the hood, severe safety considerations are at stake. Conclusive statements on safety impact can only be made after crash tests. Finally, whatever changes are made on the prototype, it does not mean that this car can be produced in high volume and that this car can perform in all conditions. This would have to be thoroughly investigated. Volkswagen is prepared to discuss the results with Mr. Friedrich and the IKA in more detail in the future.

**Frank Van West (FIA)** stated that the EU has a harmonized directive on labelling, but unfortunately at the time of its adoption no agreement on the label was found due to subsidiarity considerations. As a result, 12 different consumption labels are used for the same car and this is very confusing. He informed participants about ADAC work on labelling. In assignment of the Commission (DG Environment) the ADAC has produced a report which could be used as a basis for future harmonisation. In addition, ADAC has the ecotest database with 200 car models. In conclusion, he pleaded for a legally harmonised label.

**Catherine Day (Secretary General)** stressed that the Commission has not made up its mind and pointed to the fact that the many issues raised are interconnected. A holistic approach is needed.

**Peter Carl (DG for Environment)** elaborated on the different responsibilities of various actors responsible for the implementation of the strategy. Four different actors have an important role to play:

- **The European institutions:** they have the responsibility for presenting the proposals not only on core issues, but also on associated issues (labelling)
- **Member States:** they have powerful tools, such as taxation and if they were to take quite significant measures, this would drive down the cost of the transformation of the EU industry.
- **Manufacturers:** through investment in new technologies and research, a tremendous amount can be achieved by the industry (slightly smaller, lighter cars, down sized cars, advertising)
- **Consumers:** driving less, consuming less fuel

**Heinz Zourek (Director General for Enterprise and Industry)**, explained that the focus of the session was on the hard legislation, but the contribution of labelling or infrastructure should not be underestimated. DG ENTR is used to working through an approach based on type approval. In this particular case, the scenario changes from a voluntary to a mandatory approach. However, there is no experience on market surveillance. Control costs should not overshoot the benefits. He emphasized also the importance of tyres. With the type-approval directive on tyres, tyres could be addressed in a comprehensive manner (not only CO2, but also noise). This directive might have immediate benefits as it would address the fleet in use.

**Catherine Day (Secretary General)**, concluded that the targets and the timeline are already decided and that the discussion should concentrate on the way to get there. She appreciated the usefulness of the meeting, which had enabled participants to make public their different views. The Commission will now have to look at the different options and weigh them up. Impact assessment is important for the Commission to make an informed choice and explain to others the Commission's choice. She reassured the audience that this was not the last time that the Commission would engage collectively with stakeholders.