

Driving lower emissions – Conference Minutes
Wednesday 13 September 2006, Scotland House, Brussels

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09:00 Introduction by the chairman – José Palma

The delay between actions and environmental consequences is becoming ever shorter.

We're already seeing consequences of our actions.

Rationality of competition – consequences for shareholders.

Complexity – emissions is a complex but straightforward problem. Can be simplified and tackled. We are all bystanders, witnesses to problem. And we are all actors with responsibility.

Standing Policy: the 120g/km objective – Ms Corinne Lepage, French Presidential Candidate and former Environment Minister

A decision was reached during my time as environment minister 10 years ago: the objective to reach 120g/km CO₂ by 2005 or at the latest by 2010. I had the impression of being faced with inevitable changes. Today's initiative is a letter, which brings together former environment ministers of the EU. I established this association of former environment ministers to keep reminding current politicians of their obligations and direction to follow. There has always been a real solidarity between environment ministers from different countries – advocating for the future and the long-term.

10 years ago was the era of Kyoto agreement. We environment ministers wanted a 15% reduction of CO₂ and greenhouse gases. This is not so enormous! Of course, the question of transport posed itself in this context- substantial proportion of production of greenhouse gases. Search for effective solutions in terms of vehicles.

'Transports doux' and sustainable mobility are important as a symbol of our freedom and independence.

But we are not reaching our objectives, and I'm not sure that we will in the longer term if we don't act now.

The concept of emissions quotas and trading permits is not necessarily accepted by all Member states.. Internalisation of externalities, in this case CO₂, is of vital importance. We can look to the USA for embryonic systems, within companies.

Large French businesses showed commitment for the 140g/km target, but not the lower target. The agreement remained voluntary rather than contractual with the state because I believed the companies could commit to doing better. I believed then, and still believe now that they can realistically reach 120g/km.

The health and environment goals are inextricably linked. We have observed the rapid growth of environmental effects. We already have the technological solutions, it just remains for the market to have the will to put these technologies in place. It is the responsibility of industry and of the market.

I'm one of the optimists, who think it's not yet too late. More environmentally-sound vehicles are possible, and can be more economical and more competitive. This is an important vision. There is talk targeting a reduction by a factor of 4 by 2050. However, scientists say we have the next 10 or 15 years to rectify problems, and to get on right track. So an objective for 2050 just does not cut it!

There is not much chance that oil prices are going to fall back or collapse. There are some who believe the 'Peak oil' debate. Whether or not this is correct, transport is already taking up 20% of national budget and this is clearly unsustainable. The interests of global society, consumers and industry can and must be combined.

In conclusion, we have reached a new era in terms of the capacity of citizens to act. We had become frustrated by the incapacity to act, but now citizens have new opportunities to shape their own destiny and that of their children. This is a concrete possibility to change things. There are available choices to change to another type of consumption – adaptation of products, reduction of consumption of resources. It is the citizens' choice! The new opportunities to act, to change things (capacités d'agir, d'intervenir) via politics and consumer choices is there for the taking!

Questions:

Herman Meier, ACEA

Question on the importance of accessibility of technologies and vehicles for low-income families. ACEA perspective to involve as many stakeholders as possible and look for the cost-effective approaches to achieve 120g/km target. Relating to vehicle technology, alternative fuel technologies, eco-driving, etc.

Mme Lepage: I have always been a proponent of involving "civil society" in policy making. But I think it is unrealistic to expect the achievement of our goals from the involvement of a few people (stakeholders). But the new capacities to act, get involved are important. We must understand that there must be a combination of improvements, changes in behaviour – smaller, lighter cars, eco-driving, etc. is also needed to achieve goals.

During my time as environment minister, I used to propose a law, and set up a working group to support the lawmaking and implementation process. All relevant actors were involved – industries, NGOs, consumers, road users, etc. I tried to involve everyone and went with open mind. It is important to reach a civil society consensus. But within that framework every party has its own responsibility and that of the automobile industry is to realize its targets in reduction of the CO₂emission levels of its products.

10:00 The Policy problem from a carmaker's point of view – M. Luc Bastard, Manager Environmental Regulations, Renault

Renault shares the common concern on CO2 reduction. It is a main priority for policies and part of our company's public commitments.

Environmental policy of Renault- does not differ from other car companies. To some extent standard. But includes entire company plus all suppliers and networks.

Management certifications, ISO14000, etc. life cycle analysis of vehicles.

Renault's approach to CO2 reduction:

"remarkable shift" in market, towards 140g/km. 40% of Renault vehicles now achieve 140g or less. 20% achieve 120g.

All companies in same wave on efficiency, etc.

Mégane – 1.5dCi, achieves 120g/km – segment leading. 40% of sales of this model with this option – 130,000 vehicle sales per year in Europe. Very significant contribution of this vehicle to Renault's CO2 performance.

Public commitments of Renault for 2009: 1million vehicle sales below 140g from 2008, of which a third below 120g. And stay in top 3 in the world for CO2 emissions. Plus, offer range compatible with biofuels. 50% of petrol vehicles sold must be compatible with 85% ethanol fuels. Diesel vehicles – 100% compatible with 30% ethanol. Can only commit to compatibility – not to sales.

2nd generation biofuels with higher potential and higher CO2 reductions.

Renault's approach is dependent on the demand constraints from customers:

Most customers not prepared to compromise on any other aspect of vehicle – even if there are environmental benefits. Buyers not prepared to go backwards on key product requirements, new features, etc.

Mentions Swedish case – involving all value chain stakeholders in national policy.

CARS21 – was really dedicated to sector profitability. Very high level of competition. Low profitability for full range manufacturers. Contradiction between good CO2 performance and profitability (!!!)

Renault's view on current EU policy:

1995 communication of EC – fuel and use not considered in policy, only vehicles are targetted. Biofuels policy much more directed to agriculture;

Vehicle measures – VA 140g; labeling and fiscal.

VA delivered significant benefits on CO2.. There has been a 14% reduction of sector CO2 emissions.

Label – very ineffective, label not constructed in a way that is efficient.

Fiscal incentives are not efficient.

There is a fundamental disparity of CO2 fiscal systems in the EU at the moment – some countries have no regulation. Different rules for company cars. Huge differences in how customers value CO2 reductions, due to discrepancies in taxation. This is a big problem for manufacturers.

EURO5 and 6 discussions today – study by French administration on CO2 emissions consequences. Concluded that certain impacts at EU level could reach 6g, and up to 10g in France where market share of cleaner vehicles is higher.

OEMs caught between customers and policy-makers. There is a contradiction between policies and tendencies on the demand side. Strong demand for heavier, bigger, more comfortable, more powerful vehicles, plus demand for low usage cost. ‘we are in a virtual gap between supply and demand’ have to be careful that manufacturers don’t end up footing the whole bill.

Need for most cost-effective solutions in all areas – fuel, vehicle and use. These must affect all actors on this side, eg. including tire industry. Need to involve networks of customers, manufacturers, suppliers, etc. These solutions must also associate customers, drivers, consumers, and taxpayers much more – also to educate them.

Accessibility of technology – Renault’s assessment: very high cost per unit CO2 reduction of hybrid vehicles.

Recommendations:

Request integrated approach – totally support this approach, including consistent fiscal policies, including biofuels and so on. Think about performance rather than technology. Need to include ecodriving and taxation in ECCP2. Try to overstep institutional limitations – look at possibility to choose better policies.

Flexibility and visibility are needed – same or better performance at lower costs, distribute policy burden on all actors in the chain. Clear that must be no discrimination between certain technologies – all regulations address M1 vehicles.

Need to act on demand side, using fiscal measures consistently – institutional consequences for this issue. Clear request – fiscal measures compatible with single market. Fighting against French taxation measures which are disturbing market. regulation would further increase gap between demand and supply of vehicles.

EU CO2 harmonised label for cars is necessary (like UK label)

Importance of market take-up of low emission vehicles. Today’s business environment does not reward manufacturers for selling CO2 efficient vehicles. Insufficient profitability. Must support demand for these vehicles, esp via coordinated fiscal measures.

Questions:

Axel Friedrich, UBA:

Impact EURO5 and 6 on CO₂ – disagree that EURO6 will increase CO₂. observation of trucks on the road is improvement of 6-7%. After-treatment and decoupling of engine treatment. Why the long delay in future standards that are needed? The extra money needed for after-treatment is gained by the customer. Overall, no net loss to society. Answer. Assessment of company, important penalties to the company of EURO6. Calculate 1700EUR additional cost for small cars. (study by French gvt) – would have major impact on diesel vehicles' market share. Customer price sensitivity – would mean that if customer prices rise for small vehicles, would mean shift to petrol vehicles and therefore major CO₂ increase. What's the point if small diesel vehicles are clean but unaffordable?

FIA representative.

Harmonised directive on fuel labeling, but not harmonized labeling for fuel consumption in Europe. FIA wants to insist on harmonized labeling.

11:00 CO₂ regimes for cars around the world – Mr Michael P. Walsh, international consultant

- International experience in improving fuel efficiency and reducing greenhouse gases.

Vehicles are critically importance if we are to seriously address climate change. Different countries are motivated by different aspects and tackle it in different ways. But many countries are doing something.

The technologies already exist to allow us to make greater inroads than we currently are – and at a faster pace.

Transportation accounts for about a quarter of the world's CO₂ emissions at the present time, but also the fastest growing in terms of contribution to global warming. Light duty and freight vehicles are the most substantial and fastest growing.

Europe has played a leading role in highlighting the issue of climate change.

China – reducing oil imports as the primary motivation. Reduce expenditure. Other countries – target sustainable transport system and economy.

Variety of instruments – tax / fiscal incentives, traffic instruments, regulation (fuel economy/ consumtop; CO₂, greenhouse gas emissions), Vas, renewable fuelrequirements, etc.

Many countries have at least some kind of greenhouse concerns policy programme.

USA – energy policy and conservation act of 1975 in context of oil shocks of 70's. There have been very rapid and substantial improvements in recent years (2.8mio barrels

oil/day in 2000). Dramatic increase in average fuel economy, esp cars and light trucks. Prevented deterioration that otherwise would have occurred. (US's CAFÉ programme)

What didn't work with CAFÉ (US version) – agrees with Ms Lepage's assessment on lack of political will to maintain this programme once oil prices started to fall in mid-80s. "SUV loophole" – SUVs not regulated as cars.

The flexible fuel vehicles credit is another loophole – there is no requirement to actually use the flexible or renewable fuels, nor that these fuels would actually have CO2 benefits. Manufacturers got credits for producing vehicles enabled, but these may not ever use renewable fuels.

California has a unique authority under federal clean air act to set own motor vehicle pollution standards and is world leader in using vehicle technologies. California hopes to bring about 30% reductions in CO2 emissions by around 2015.

Other important greenhouse gases. HFCs, NOx, black carbon, methane and low level tropospheric ozone (vehicles are dominant source). "CO2 is not the whole story" (aerosol effects not known accurately). KG of black carbon about as potent as ca. 2.5t of CO2. esp important when looking at diesel vehicles, not just CO2 emissions!

Then there is the European Voluntary Agreement on CO2 g/km – this is not enforceable and not going to meet targets. It is "not a very transparent agreement" in terms of what each manufacturer has agreed to – it's hard to see who's doing a more or less of a good job.

Impressed with Danish tax policy –focus on low emission clean vehicles and intelligent differentiation between petrol and diesel vehicles. Not encouraging "inappropriate" diesel vehicles which would damage urban environment.

Japan has the "top runner approach" – take best performing vehicle, and oblige all others to catch up by certain date; modest approach in that it is not technology forcing. It entails the risk of manufacturers just moving up weight categories and leading to overall increase in fuel consumptions. Already achieving 2010 regulations this year! – There is an unusual review this year to tighten standards. Japan is also the first country in the world to mandate requirements for HDV's – trucks and buses - by 2015 on fuel economy improvement.

Japanese standards already tighter than EURO5 and EURO6 as planned and they're already tightening them again. The technologies are present to have cleaner and more fuel efficient vehicles at the same time; other instruments in Japan: r&d programme, taxes, etc (see slide)

China – rapid economic growth, and of car sales! Sales projected over 3mio this year. Serious congestion problems in major cities. Serious implications for oil consumption. China was still self-sufficient for oil as recently as 1993.

Chinese motor vehicle fuel consumption standards: tighter on heavier than lighter vehicles – to avoid US situation and encourage small cars. Modified tax policy – reduced for light vehicles comp to heavy duty.

China – diesel vs petrol vs hybrids. Big pushes from EU manufacturers for dieselisation! Beijing can only enforce EURO4 from next year - but environmental quality most effected by PM10, urban air pollution, etc. importance of not switching to diesel! (could put some EU manufacturers as comp disadvantage – will have to sell cleaner vehicles in China as in USA – California standards)

Technologies available – tend to be evolutionary not revolutionary. As seen in Japan. Some technologies already in use in some vehicles – just need to apply across the board. Cost will be covered by fuel savings to the consumer. Does not require performance in vehicle safety, performance of vehicle emission regulations. Importance of bringing freight sector into this in much more aggressive way (as in Japan).

Complement instruments by fuel economy incentives -= greater incentives for industry to invest in technologies.

Hoping that EU could be leader and overtake Japan by 2010 – recent evidence shows that wil not be the case. Need to get Europe back on track for 120g/km. Europe’s technologies will have a big influence on rapidly industrializing countries in the world.

Questions:

Simon Worthington, BP Brussels office:

Re. final remarks on fuel consumption, lack of customer information on fuel consumption in showrooms. How much can I save on efficient vehicle compared to average in its class? Customer uptake is vital. Why not more aggressive sales pitches regarding money drivers can save from buying more efficient vehicles?

Answer: Japan – great deal of advertising on fuel economy. Also in US – long history of labeling system, but problems of real world vs lab measurements. Agree that this is of vital importance – booklets to inform potential customers of savings.

Comment: ACEA, Herman Meier – EU already has a labeling programme, but one that really needs to be harmonized. Need to look at demand side more – 3 pillars: commitment, taxation and consumer information labeling. ACEA proposes strengthening these pillars. Let’s base taxation of cars and fuels on CO2 emissions. Tax gives continuous incentive for improvement. Ensure technology neutral, tax effective and not damage to EU market diversity for cars.

Response: fundamental deviation – taxation must not be used as excuse not to push for vehicle standards. CO2based taxation should be complementary to improved vehicle standards as much as harmonizing labeling programmes and improving tax policies. Europe has advantage of higher fuel prices – payback of fuel efficiency would be much quicker in Europe than USA. Tax policies of many European countries give diesel advantages. Other measures must not be excuse not to progress on industrial standards approach as well.

Economic incentives for low carbon cars – Mr Malcolm Fendick, Cleaner fuels and vehicles division, UK department for transport

- Reducing new car CO2 emissions, UK perspective.

Concerns shared across UK government, must be addressed from all sides to make more progress than we have so far.

UK government today publishing mini-consultation paper (copies available) – on what comes after current voluntary agreement.

UK perspective: importance of transport CO2 emissions as proportion of total – around 25%. Achieving CO2 savings in other sectors has had much to do with switch from coal to gas in power generation. In transport the rate of increase is slowing down, but nevertheless still increasing!

How to encourage transport users to use less carbon intensive modes? How to change travel patterns and behaviours? Inform people of implications. Walking and cycling promotion. Reducing fossil carbon content of fuels via fiscal incentives. Duty incentives at the pump to encourage biofuels. Government have now regulated on biofuel content in petrol and diesel – blending increasing percentages to 2010 and beyond. Move to more carbon-based policy rather than volume metric in the future.

Vehicle labeling in the UK, mention of annual average cost of motoring. Directly linked to tax bands, annual vehicle tax. Keen to see further EU developments on vehicle. Concern that labels cut chancellor's freedom to set taxes.

Existing VA performance – country comparison. The UK level is substantially higher than average in terms of new car fleet sales, about the same as Germany. Sweden has the highest level. France, Italy may reach 140g by 2008. Improvements are tailing off a bit in recent years. We would need 2.5%/yr improvement every year for next 50 years to meet targets.

Options for policy instruments:

Either; new VA's / mandatory targets (vehicle class standards, sales weighted avg targets, etc.) / car manufacturers in EU ETS.

Options:

- New VA: UK always championed better regulation and alternatives to regulation. Set targets to be met collectively at industry association level as weighted avg of sales. Governments turn out powerless to act when targets are missed! Not certain to achieve targeted savings.
- Standards related to vehicle class: strong industry incentives. Certainty on improvements. But no incentive to go beyond standard. Difficulty of structuring.
- Sales-weighted average targets: for each manufacturer. Flexibility within co's model range. Possibly competitiveness impacts.
- Sales weighted average targets with trading: between manufacturers – to incentivise continued improvements beyond standard. Build in trading

- mechanisms. Carry-over to reward for over-achievement. Trading route taken for biofuels policy – UK government keen on trading approaches. Could be price transparency in trading. EU-level agreement could be difficult to achieve.
- Car manufacturers in EU ETS: allow trading across sectors. Either fully link manufacturers in scheme or set ETS-linked mandatory target. Significant carbon savings potential at low cost. Personal view- would lead to buying credits from outside transport sector and could destabilize whole EU ETS scheme. And probably not possible to include road transport in ETS until phase 3 in 2012. There is a danger of double-counting, double-charging. No incentive for users to drive less or economically.
 - (UK committed to getting aviation transport fuels into EU ETS)

UK government is consulting with stakeholders and industry – begin mini-consultation as of today (paper on presentation on dft website). Hopefully prepare ground with EC on what will succeed VA from end 2006.

(www.dft.gov.uk – roads & vehicles link, then consultation papers)

Questions:

CE NL: Possibility to use cap and trade system at fuel producers rather than car manufacturers' level. Purposely left out of options considered?

Yes, deliberately not included. The UK government is encouraging the European Commission to include surface transport emissions in EU cap and trade scheme. Agreement that this could be more interesting solution.

Drew Kojak (International Council for clean transportation): 2.5%/yr increase needed must be recognized. Has UK considered how to integrate these long term targets into policy?

UK declared target reduction of 60% by 2050.

Herman Meier: Economist article comparing emissions trading with taxation, and concluding that taxation is better – to avoid price fluctuations. CO₂-based taxation is the better approach.

Mr Fendick says that the Department for Transport can't comment on tax matters, but he knows that road transport sector already has high levels of tax on vehicles and fuels. It appears that behaviour is resistant to these kind of price signals.

Blake Ludwig, Alliance against urban 4x4s: what can UK do to regulate advertising of large vehicles and encourage low-carbon vehicle advertising?

The UK has a code of practice on advertising vehicles, but no regulation. Keen to get core message across where most clear, that outcomes CO₂ emissions are more important than types of vehicles.

Feasibility of low carbon cars – Mr Axel Friedrich, Head of transport division, German Environmental Protection Agency (UBA)

Germany reduced road transport emissions for the last 5 years in a row. Disappointed by biofuels policies – pesticides, herbicides and pollution impacts. Efficiency is the most important thing. In fact, it is more so than hydrogen, biofuels, etc.

Costs of reductions (graphs)

UBA (German Federal Environment Agency) bought a VW Golf as demonstration car with 173g – and tried to bring it down to 120g by retrofitting. Changed gear box, reduce weight, include start-stop and warm start – all technologies currently available. Each measure improved substantially. Ended up with 116.5g/km! (still 170hp, still just as fast)

VA – “if technically possible” – UBA has proved that it is!

VW 1litre car – state of the art. Attempt to simulate on-road results. Inline with what VW also found. Then simulated to scaled up 4-seater: (equiv to Mercedes study bionic car)-result 1.78t/100km = we can produce this with today’s technologies! 2nd simulation found same results.

Would support r&d programme in EU to produce such a vehicle.

Main message: Energy consumption must first be reduced, then we can go further with new technologies.

Reduction potential through technical measures: getting down to ca 80g. 48g/km is state of the art today. Technologies available at quite low cost.

Loxone designed a 4 seater vehicle – 2 versions presented at Geneva motor show. It should be on the market by 2009. (sitting back to back in 4 seater)

Comparing petrol vs. diesel: petrol vehicles could be dramatically improved.

Effect of limiting max speed to 160km/h: smaller engine, lower speed tyres, reduce vehicle weight, etc. total effects took from standard vehicle 156g to low-speed vehicle to 105g = reduction potential of 33%.

Don’t believe that manufacturers cannot reduce their CO₂ emissions – very cost effective for customers. Certainly case of lack in political will. Need to open our minds – measures to encourage demand for lower emissions vehicles.

Possible to have reduction in consumption of 3l/100km by 2050 = GHG emissions reduction to 70g. due to reduced vehicle weight. Much lower running costs of these vehicles, relative to additional vehicle production costs. Easily compensated by fuel savings.

If we don't improve efficiency, other solutions will not solve our problems – other solutions don't have a chance at decent market penetration. Efficiency gains must be priority. Low carbon fuels come later.

Discussion:

Jos: invite comments on discrepancy between UBA and TNO impact assessment.

Axel Friedrich: According to VW, TSI petrol is clearly cheaper than diesel engine car, because of its very low revolution.

Harald Diaz, Climate Change Secretariat:

Similar message in 1996 from Greenpeace: 'smile' car developed from Twingo – halved energy consumption of standard model. What are the barriers stopping progress on this?

Axel: Back to question of labeling. Only the 'losers' make noise, winners don't exist! Have to have some frontrunners – advantage of Japanese programme. Mike's example showed that measures would not damage European manufacturer's competitiveness in Asia.

Harald: Michael's presentation, which countries are addressing issue globally, overall notion that Europe is dieselization, Japan working on hybrids and US doing nothing.

Given that car production if globalised, what can be done? Who will be the frontrunner?

Michael: characterize USA nationally as doing nothing, but Cal is taking leadership – if succeed in courts, will turn US policy around. Japan has used combination of measures (tax, regulation, political climate –politicians and publicity), vehicle manufacturers in Japan genuinely competing on producing cleaner vehicles. Whatever the driver will be – oil shocks, shortages, global warming – Japanese manufacturers want to be ready to gain comp advantage with cleaner and efficient vehicles. They are positioning themselves to be ready for this change in market demand. They'll be in the best position to capitalize.

Axel: in EU, around EUR1bn (500mio in Germany) has been spent on hydrogen fuel cells. We only need around 50mio EUR for efficiency measures – gains in emissions, resistance to external oil market shocks, reduce dependency – environmental and social advantages. Can't we set long-term option as UK has done? Mandatory, not voluntary, goal.

Drew Cojak: Co2 mandatory long-term regulation should be part of this discussion. Cost effectiveness – trading – if consumer payback is included in terms of fuel cost savings, "low hanging fruit" when paybacks are included. This has dramatic policy implications.

Guenter Hoermann, DG ENV: clean cars strategy being put together, largely based on TNO study. Very different costs in this presentation – if credible, UBA's information undermines data input which strategy being based on. Clarification?

Herman Meier: TNO strategy not only based on manufacturer inputs. Disputes need for r&d money to produce low emissions prototype – also needs to meet safety and other regulations. ACEA would prefer to see political framework which ensures sales of co2 efficient cars becomes profitable on the market without regulation.

Axel: Safety requirements are unchanged from the production car standard in the efficiency adapted vehicle. VW is a partner in UBA project - not working alone. Objective was to design a market viable vehicle. Would like further research projects to also include

manufacturer to reach 50g range. Eg. UniCar in Germany, made by universities, failed due to no manufacturer involvement. This is not a research, scientific project.

Efficiency gains not “sexy” enough for politicians!?

Michael: cornerstone of moving forward needs to be standards. Setting long-term targets with milestones would be good. Legislation can make budgets available for r&d within manufacturers. Europe was forerunner in seeing climate change as high priority – the fact that Europe is now wavering and going slower than US and Japan in terms of conventional pollutants, risks undermining competitiveness of European producers in global market. We can build on worldwide experience – huge technology improvements, safety, cleaner in last 30 years, got there by sticking to stringent requirements.

Malcolm: good challenge to look at costs again. There is a terrific opportunity to make real reductions without difficult transition period to new technologies. Historically seen, once targets are set, industry is superbly competent in delivering and getting product to consumer. Set targets and then a mechanism that allows industry to operate. But firstly, change consumer demand to stimulate market.

14:00 Why low carbon cars are important – Mr Hans Bolscher, director climate change and industry, Dutch environment ministry (VROM)

Urgent need to decrease GHG emissions. Current ability to stabilize GHG emissions, with the exception of the transport sector. Context of limiting global temperature rise. Difficult to achieve, but not to achieve is not possible! Need global decrease of 50% by 2100 (1990 base year). 80% decrease needed in Western Europe!

WE goal: -40-60% by 2030. instruments: joint implementation or CDM.

How much will this cost? Can achieve 15% reduction relatively easily – efficiency improvements, CC& storage, non-fossil fuels; alternative energies. Next 15% is harder-absolute MUST to include transport sector. For the long-term goal, absolutely need low carbon transport, including car industry. Right now, emissions from car industry are larger than climate can possibly sustain. Responsibility of car industry is very clear.

Availability of fuel supplies – dependence on foreign oil. On top of climate argument – need to act!

Message: we do need low carbon transport.

Do we need fuel-efficient cars? Is low carbon transport enough alone? – business as usual vs technologically achievable scenario, including alternative fuels, transport savings, etc. would bring only in general direction of 1990 level, but no more. It’s clear that additional measures on fuel side are not enough;

Examples of fuel efficient cars (Smile, Lupo, Prius – established technologies) compared to average fleet. Need to act or nothing will change. ACEA targets are missed – need stronger action.

We need fuel efficient cars. What is the best policy? How to stimulate consumer demand? Emissions trading is the rational; efficient, market-based answer. NL keen on trading solutions, CO₂, NO_x, etc. but, minimal CO₂ reduction for passenger cars, no change of consumer preferences, consumers won't pay for fuel-efficient cars. We need all measures, we need the car industry to contribute. Even if car emissions cost more to decrease than other emissions. Consumers don't consider future fuel savings when deciding to buy cars.

Apparently, the higher the fuel price, the bigger the car! (recent trends) higher end, most expensive cars – buyers don't care about fuel efficiency. The consumer won't demand efficient cars!

Payback period ca. 7 years to payback additional costs of 120g car. (Axel maintains this is much shorter) but still people don't buy them – evidence that they don't consider efficiency.

Europe paving the way, setting the standards that developing countries, China, India will certainly follow.

Conclusions: policies are needed to FORCE manufacturers to produce fuel-efficient cars. Voluntary agreements and waiting for industry to take the lead are not feasible, will not work. Plus stimulate consumers to demand fuel-efficient cars. Cannot keep waiting for the other parties to act – must act on all fronts.

Not enough progress on VA's. Producers cannot take the lead on their own. Government needs to step in to make it work. Technology is there, companies are willing. Governments need to step in to create level playing field with very clear targets – downward trend.

Why do VA's fail? No penalty for not meeting targets! No financial incentive for manufacturers – no prospect of profits. Reason for good fuel efficient cars being dropped from product ranges; financial incentive for consumers is too small. How much incentive needed to switch preferences??

Need CO₂ standards for new cars. Plus closed trading – to give flexibility betw manufacturers – to limit costs and economic impact. “baseline and credit” scheme.

Need low carbon and fuel efficient cars, force manufacturers and seduce the consumers.

Proposal; CO₂ emissions standard with closed trading system for manufacturers.

14:45 The CARS21 Road Map: The right tools for the job? – Mr Anders Wijkman, MEP (EPP-ED, Sweden)

(voting on EURO5 in EP Environment committee today)

Tandem concerns: Energy security and climate security. We must combine both objectives, not treat them as separate issues. Policy for both must be coherent and consistent. In Parliament the Industry Committee deals with energy issues, the environment committee deals with climate.

In Helsinki a conference (early sept) with climate experts was held, in conjunction with the EU-Asia summit. Rising levels are much more of a serious threat than previously realized. Lower margin of estimate at least 90cm rise over next (??) years. Much new research of CO₂ emissions on the oceans was presented. Changing pH levels as real threat to marine ecology. Have to address climate change more seriously than before!

Glacier research show that melting is more rapid than forecast.

EU and Kyoto protocol – cannot be certain to meet targets. Way behind at the moment! Time horizon is becoming shorter! Transport is the sector where we fail most dramatically. Need several parallel measures – biofuels (risks of inefficient biofuels production), fuel efficiency without a doubt, incentives for low carbon technology and low CO₂ emissions via tax system – political system should have done more (Sweden fairly far on this – tax rebates, free parking, no congestion charges- has effectively created demand for green cars – 20% of all new cars sold in Sweden in recent months! – up from 0.5% before), etc.

Mr Wijkman drives an ethanol car in Sweden. But energy conversion rate of grain ethanol is low. So biofuels are not the silver bullet.

Parallel with household appliances – if you show energy savings plus small rebate on purchase, this has been shown to be effective in stimulating demand.

None of the measures can be a stand-alone measure. VA will clearly not deliver. Criticism of this failure is valid – we had been counting on it as part of climate action plan, etc. - but we need a constructive discussion of future action. Mr Wijkman's personal preference is to avoid legislation, he likes VA's. But he has come to the conclusion that mandatory targets and incentives are needed in this case. He finds the idea to include transport in EU ETS very attractive. He sees the inclusion of aviation as a first step. He doesn't see it possible to include transport as a whole before 2012, so we need other measures in the meantime. Possibility of 2 parallel systems for energy intensive industries and transport sector – merge later perhaps, but start separate.

It is important to link actions for CO₂ reduction to the context of the Lisbon strategy. Can be an engine or level in process – in Sweden, environmental technologies market is growing 3x faster than rest of economy. An active climate policy is definitely compatible with growth and jobs. Mr Wijkman is pushing to link the ECs Sustainable Development and Lisbon Strategies.

Questions:

Axel: Instruments – should include US-style “gas-guzzler” tax, effective penalty.

Revenues could compensate buyers of cleaner vehicles.

Hans Bolscher: carrot / stick is a basic premise, could include incentives, emissions trading, etc. the main idea is set a clear target, frontrunners can make extra money and laggards have to pay up. NL good faith in emissions trading.

Michael: Gas-guzzler tax is separate from corporate avg fuel economy of fleet. Even if comply with avg fleet fuel efficiency, certain large vehicles will still be charged extra very highly.

Uli Kaepfner from Heidelberg: purchasing a car is not a rational decision – status symbol, and becoming more so as the price of cars and fuel increase.

Bank Sarasin, sustainable investment: Why do policy makers prefer company performance measures rather than product performance measures?

Hans: Accept need for diversity and freedom of choice – what people use their cars for.

Wide spread of models leads us to look at company standards in relation to their ranges.

The problem with cars is you compare to your neighbours – want a bigger car than your neighbour! How to make people feel proud to drive environmentally friendly cars?

Tension between consumer influences and desirable behaviour.

Harald Diaz – Update on Swedish plans to phase out use of mineral oil by 2020.

AW: (US ex-vice-president) Gore’s film should open people’s eyes, change some minds.

Education helps understanding of what’s at stake. Swedish Prime Minister’s oil commission: identified energy efficiency actions, research programme for 2nd generation biofuels, etc. Criticism – oil dependency is not the biggest problem for Sweden – it’s electricity use, which is above EU average. Present energy system of national quotas does not allow Sweden to export CO2 free electricity to other EU countries. Need to have a more European outlook.

Herman Meier: ACEA strongly against closed ETS. Only an open scheme makes sense in terms of cost-effectiveness. Believes in well-to-wheel approach.

Drew Kojak: On cost-effectiveness, if consumer payback is not included, costs are very high. From a social perspective, including paybacks is not the best result. From a policy perspective, it is most viable to keep sectors separate.

Axel Friedrich: role of leasing companies needs to be looked at more carefully – buying 50% of all new cars.

AW: Many aspects of ETS need to be looked at, not working well at the moment. In Sweden, energy intensive companies with energy use as high proportion of costs, very concerned by proposals to include transport. We must ensure that we don’t drive energy intensive industries out of Europe.

Panel discussion

Luc Bastard (LB), Hans Bolscher (HB), Malcolm Fendick (MF), Jos Dings (JD), Stefan Herbst (Toyota), Selles (DG Entr).

Q: How realistic is it to achieve change and harmonization of taxation in European policy?

MF: UK perspective typically against tax harmonization. I don't see a barrier towards harmonisation of labeling requirements. Each state should be able to tailor it to its own circumstances.

HB: however attractive it might be, it is unlikely in the next 10 years. It's desirable but not realistic for the moment.

SH: the VC has worked in some cases, good performance in the UK. Could have been better if it had acted also on the demand level. It's time to tackle the demand level.

Another aspect is the global nature of the issue. Europe is only 1/3 of global production and market. We have to address the whole production and market.

JD: surprise at this statement, Comm Verheugen's statement that this is unsatisfactory performance

LB: Fiscal harmonization is a real problem, but it must happen eventually. Otherwise our policies are not optimal. We cannot abandon this.

SH: We need harmonized labeling system, and CO2 based taxation in the EU. This would also push the demand.

Q: to the manufacturers. Renault makes fuel-efficient cars, how do you see the strengths and weaknesses of the different systems we are discussing? (compared to China, Japan, California)

LB: One strength of European industry is the diversity of models. Systems like China do not allow this. The system must be flexible enough to allow for consumer choice. We must look at how policy package would distribute all the efforts of manufacturers and other actors in the production chain. Importance of flexibility, product diversity and how we can find a good package for the customers.

Q: Toyota has good performance in EU context, but globally does not stand out so much. How can you differentiate your products and brand globally in terms of CO2?

SH: Message from Toyota president: recognition of negative aspects of mobility, responding to energy and climate change is big challenge, recognition of sust mobility society, priority to env and safety product development. By 2020, will be 1.2bn cars worldwide, increase of 70% on today. Toyota are concerned with sustainable, energy efficient way – their core business. Studying energy constraints worldwide to come up with hybrid technology – now considered their core technology, to combine with diesel, petrol, biofuels or electric power. One day – fuel cell hybrid car.

HB: if that's true, why isn't Toyota already more efficient than the others?

SH: In Europe, concentrate on clean diesel technology. We will improve and introduce other hybrid technologies in future.

LB: Toyota and Renault share those 4 key messages. Our common business too. Difference for Renault, Europe is our core market, very strong comp pressure. We have to differentiate by technologies. Hybrid technologies destroy value in Europe according to Renault boss. Need right political signals in different markets.

JP: Industry asks for long term targets but at the same time appeal for proven cost-effectiveness, how to follow these two together?

MF: When binding long term targets are set to industry in a clear way, experience shows that they can deliver solutions with a good control overall costs.

HB: Need to set a long term target, very ambitious, because it is what you need for climate change and then the industry will deliver because it is a very innovative industry and they will deliver.

DG ENTR: Technology neutral targets are being studied with DG ENV and the results from cost-effectiveness are very different from those of AF (there is no cost-effectiveness)

JP: There is this tension between the objectives?

LB: Clearly long term targets is something that leads to efficiency. We need clear targets to deal with transport emissions (that are not only from cars) in a technology neutral basis.

JP: Should we have new labels for mixing technologies?

JD: Agree with Mton target for transport, as we are now a bit in the dark about what transport should do. Even this way don't know if it would deliver the clear targets that the industry is willing. It could be better for industry to subscribe targets in g/km. regarding technology agrees that it is performance that counts.

SH: Japan approach creates innovation and competition and it is based on what current technologies can provide.

LB: If we have a system with long term targets we can have a stable evolution instead of a revolution; have to focus on the market view of the vehicles, and the need to make sure people will replace inefficient cars by new ones.

DG ENTR: We have to compare the various schemes without predefined ideas to decide with the stakeholders which one is the best.

HB: Governments also may have a role regarding the cars they buy. Also with such an agreement leasing companies may join. NL toying with idea of a buyers consortium for interested governments – not waiting for everyone, some go on ahead.

Questions:

Axel Friedrich: Dilemma – costs always hugely overestimated in advance, and innovation under-estimated. So cost estimates should not be cause for not starting or delaying any scheme. We have seen what is already possible with existing technology. How does the EC take this past experience into account? (eg. Sulphur emissions reduction projected to cost EUR8bn, costs less than 1bn. Can't foresee engineering solutions that will come forward)

DG Entr: agree that cannot check estimates beforehand; however past experiences, eg with smart, VW Lupo, Audi A2 – producers couldn't sell with a profit. DG Entr in charge of both Kyoto and Lisbon.

John Cracknell, JMG Foundation: How can Toyota also challenge the CARB regulations in California, driving emissions down? Possibility of banning adverts for most polluting vehicles? Governments regulate advertising on cigarettes and alcohol – why not also for vehicles causing social and environmental damage?

Michael Jakob: What is industry's perspective on regulations and standards and whether they have played a role in technology advances? E.g., common rail diesel technology. Secondly, vehicle sales seem to have little connection with incremental price impacts of various regulations, however closely linked to disposable income. So, sales seem more linked to general state of the economy than to the price of the car. There has been a constant steady growth in the market for vehicles. Build and sell about 1mio more vehicles annually since around 1950 in the global marketplace. Lecture from Ford VP, pricing a vehicle is determined by the market place and is very different from the costs! Price and costs are very different.

Herman Meier: regarding Axel's comment on overestimation of costs. ECCP estimates were accurate for price per ton.

FIA: Message to consumer is important. FIA prepared to help industry and environmentalists bring message across to consumers.

SH: Challenging legislation in California is more of a legal issue.

LB: Price of the car indeed depends on the state of economy. Producers adapt to this. Highly competitive markets in Europe – focus of CARS21. In that context, producers have to be very careful. Need to sustain competitiveness and profitability for future investments.

16:00 European Environment Commissioner, Stavros Dimas – After the standards, time to develop tools?

Facts on recent evolution of passenger cars in EU: Average fuel consumption decreased by 12%, while power and weight have increased substantially. Airbags and other safety features now standard. Car prices have increased by less than consumer price index. Conclude that fuel efficiency has not been expensive.

EC cannot tell consumers what to buy, but can encourage cleaner vehicles for us and for future generations.

Clear reductions in air pollutants and emissions from passenger cars. Climate change remains a grave challenge and emissions continue to have serious health impacts. Trends are worrying, especially CO₂ emissions from road transport, which has increased by 26%. In other words, road transport is offsetting emissions reductions from almost all other sectors.

Community objective to 120g. The EC has delivered on all 3 pillars: VA's with manufacturers; EC proposed Council directive on taxation of CO₂ emissions;

VA's success or failure will determine EC's use of similar agreements with other sectors in future.

Some progress but the situation is certainly not satisfactory! If carmakers fail to deliver, EC will not hesitate to ensure necessary reductions are reached – options include legislation.

EC is now reviewing the car CO2 strategy, with view to making revisions. There is the intention to outline another oil strategy at end 2006. Plus specific initiatives for passenger cars and LGVs (trucks) next year. EC will certainly consider using legislative route. Initiatives could include ETS. Other options are the Californian programme for light vehicles, followed by some other States. Call from Senate to include efficiency. Using “toprunner” approach, and BATs in Japan. China using energy efficiency classes for new cars. So Europe must keep up to maintain competitiveness with other global producers.

Guiding principles which EC will consider in new strategy: move to low carbon society is a must, not an option; remain at heart of future policy. Consumer demands for better and safer cars. Need to better inform on fuel consumption impact on environment and their wallet. Keep in mind differences between car segments. Need clean and efficient technologies to win battle against climate change, and European producers must be among them.

(Download copy of speech from EC Rapid database!)

Car industry should contribute accordingly to efforts to reduce CO2, hopes that industry will deliver. DG Env is going to consider legislation with DG Entr if necessary. Preferable if industry would deliver on its promises.

Concluding remarks from the chairman:

Debate proves that all stakeholders have added responsibility.

Role of technology proven – but there is no holy grail on its way, we see evolutionary, not revolutionary development.

Contradiction: we know that we can do it, but argue about expense, cost-effectiveness, cost-pricing, etc. Carmakers admit they can do it, but they don't sell it.

Consumer's interest – they seem to be buying cars on characteristics other than emissions or fuel efficiency.

We have to push for proper policy mix – good labeling, good taxation...

We are not rational – we have bounded rationality, whatever we buy. We cannot hope for perfect rationality from consumers, we have to work with bounded rationality. How to mix the labeling and taxation to appeal to consumers. Try to create tools that all consumers could use easily and quickly.

Standards are fully justified in terms of protecting the car makers and their own interests. It's in their interest to have stringent standards, which will ultimately help them in the marketplace.