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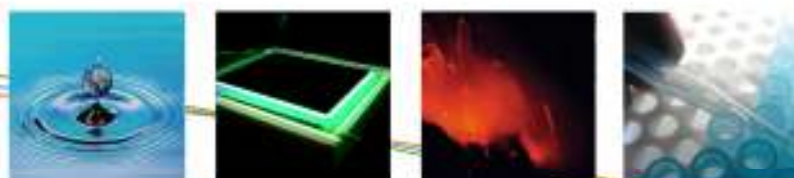
REPORT

CLEVER (Task 5, Deliverable 5.2):
**Stakeholder support for proposed
policy measures**

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Study accomplished under the authority of Belgian Science Policy
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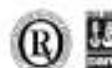
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SUMMARY

This report is the result of the stakeholder meetings organized in November and December 2008. Several stakeholders (industry, users, policy makers...) met to discuss possible policy measures that could ease the introduction of cleaner vehicles and – as a result – green the whole fleet.

In a first part an overview is given of the discussions themselves. In the following chapter the evaluation forms that were handed out at the end of each sessions are analysed and in the last chapter some policy scenario's are initiated. These are to be elaborated in a next report, where also the consequences of those policy sets on the whole fleet will be calculated.

Almost all stakeholders agree on the fact that an environmental basis for car taxes is needed and that a well-to-wheel-approach is necessary to compare all kinds of vehicles and fuels. Modulating on the running costs, which is possible with a kilometre charge, may be a very effective solution, but will be hard to implement in the near future.

In each case all partners feel the urgent need for a coherent mobility policy. Stakeholders from the industry ask for a stable market and clear views for the future to be able to develop their products.

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LIST OF ABBREVIATIONS

CV Euro	Definition clean vehicle based on Euro emission standard
CV CO ₂	Definition clean vehicle based on CO ₂ -emission
CV combi	Definition clean vehicle based on combination of CO ₂ -emission and Euro emission standard
CV techn	Definition clean vehicle based on drive technology
CV ecoscore	Definition clean vehicle base don the Ecoscore
RT abolish	Abolition of the registration tax
RT env perf	Registration tax dependent on environmental performance of the car
ACT abolish	Abolition the annual circulation tax
ACT env perf	Annual circulation tax dependent on environmental performance
RP km	Road pricing: kilometre charge
RP congestion	Road pricing: congestion charge
CM incentive	Incentives for car manufacturers to make and sell clean cars
CM mandating	Mandate car manufacturers to make and sell clean cars
Adv. EURO5/6	Advantages for Euro 5/6 cars
CF low excise	Lower excise duties for clean fuels
CF stdz	Standardization of clean fuels
CF incentive	Incentives to supply clean fuels
CF mandating	Mandatory quota for clean fuels
parking fee	Variable parking fees (lower for clean vehicles)
limited access	Environmental city zones with limited access
SUBS retrofitting	Subsidies for retrofitting older cars with (diesel) filters or cleaner fuel systems (LPG, CNG...)
SUBS replace fleet	Subsidies to replace older cars by new ones in order to speed up the fleet renewal
GPF voluntary	Voluntary green public fleet quota
GPF mandatory	Mandatory green public fleet quota
GPF private	Also quota for private fleets?

CHAPTER 1 INTRODUCTION AND ORGANIZATION

1.1 Introduction

Sustainable mobility is a very important issue for the future. On the one hand mobility demand most probably will keep rising, due to several social and economical factors, but on the other hand fossil fuel resources are limited, space and road capacity is limited and there is a ever growing – and appropriate – awareness for the quality of the environment. Besides mobility management and modal shift (towards more public transport, bicycles...), there is also a need for cleaner vehicles. The CLEVER-study (CLEan VEhicle Research) focuses on conventional and alternative passenger cars. After a state-of-the-art on (clean) vehicles has been made up, Life Cycle Environmental Assessments and Life Cycle Costs Assessments will be worked out within the CLEVER-study and barriers that exist towards the introduction of those vehicles will be listed up in a first stage.

From a user perspective, life cycle cost is often an important factor to choose a new vehicle. Insight in the real cost for the complete life cycle of the car is important, as well for the consumer as for the policy makers in order to influence the purchase and car use behaviour. That's why task 5 of the CLEVER-study focuses on policy measures that may ease the introduction of cleaner vehicles for companies, individuals and public authorities, by modulating those costs.

The CLEVER work package 5 has the inventory of existing measures (work package 1.3) as a starting point. This overview was presented and discussed in a series of stakeholder meetings, in order to see which measures are supported by which stakeholders. This document is the report of the stakeholder meetings: the different opinions are described and support for and agreement on the proposed measures (according to the concerned stakeholders) are statistically analyzed.

The analysis of the support of this policy measures by the different stakeholders will lead to the elaboration of different policy scenarios (from rather conservative to frankly progressive), of which the impact on the fleet composition and environmental burden will be investigated in a further stage. Of course, the purpose of this all will be that total emissions decrease.

1.2 Organization of the stakeholder meetings

1.2.1 Sessions and participants

The stakeholder meetings were held at the end of 2008 in the buildings of Belgian Science Policy, in Brussels. Several (Belgian) stakeholders from different concerned groups (industry, users, non-governmental organisations, policy makers) were contacted by e-mail or by telephone a few weeks before and received a discussion

paper resuming the measures in advance. For each meeting 10 to 15 participants would be present, which was a good number to have varied but still manageable discussions.

Eventually, four stakeholder meetings have been organized:

- 27 November 2008: stakeholders from the industry (car manufacturers, fuel suppliers...)
- 28 November 2008: users and non-governmental organisations (environmental, automotive, lease companies...)
- 1 December 2008: French spoken session with mixed stakeholder groups (industry, users, ngo's and policy)
- 3 December 2008: policy makers

Table 1: List of participants on the 4 stakeholder meetings

Stakeholder meeting 1 (27 November 2008): INDUSTRY	
Name	Company / organisation
Erwin Vandenberg	Hydrotane
Hendrik Lemahieu	Alco Bio Fuel
Alfons Maes	Belgian Biodiesel Board
Jo Declercq & Hugo Clysters	Ford
Jean Wibaut	General Motors
Erik Vandenheuvel & Wim Rommel	Mercedes-Benz
René Aerts jr. & Peter Van Leuven	Volvo Cars
Ewoud Van Der Heyden	BMW
Joeri De Ridder	AVERE (ASBE)
Pol Michiels	FEBIAC
Daniel Labours	FEDERAUTO
Stakeholder meeting 2 (28 November 2008): USERS AND NON-GOVERNMENTAL ORGANIZATIONS	
Name	Company / organisation
Patrick Auwerx	Mobiel 21
Joeri Thijs	Greenpeace
Jeroen Verhoeven	Friends of the Earth
Floris Ampe & Bart Vanham	PriceWaterhouseCoopers
Lieven Beyl	Athlon Car Lease
Moniek Denhaen	Touring
Marc Lebrun	Fleet & Business
Tony Verhelle	Autogids
Stakeholder meeting 3 (1 December 2008): FRENCH SPEAKING (mixed group)	
Name	Company / organisation
Paul Verwilghen & Alexander Schmertz	Primagaz
Marc Maes	BioWanze
Luk Duerinck	Belgian Petroleum Federation
Marc Bocqué	PSA (Peugeot - Citroën)
Koen Dekoning	Toyota
Jacques de Selliers	Reva
Frédéric Chemay	Federal Cabinet of the Minister of Climate and Energy (P. Magnette)
Michel Degailier & Sébastien Grogna	FPS Health and Environment
Pascal Théate	Walloon environmental administration
Laurent Bodarwé	Brussels Institute for the Environment

Julien Vandeburie	Walloon Environmental Council for Sustainable Development
Colette Pirlot	Fiscal Cell of the Walloon Region
Marc Lebrun	Fleet & Business
Stakeholder meeting 4 (3 December 2008): POLICY MAKERS	
Marc Roman	Federal Cabinet of the Minister of Mobility (E. Schouppe)
Marc Kwanten	FPS Transport and Mobility
Johan Malcorps	Groen! (Flemish environmental party)
Roland Straetmans	sp.a (Flemish socialist party)
Marleen Govaerts	Flemish Administration, Mobility and Public Works
Yves Dupont & Guido Moermans	City of Hasselt

1.2.2 Discussion and issues

The three meetings in Dutch have been led by VITO (L. Govaerts, T. Denys and M. Vanderschaeghe), the meeting in French (on the 1st of December) by professor W. Hecq, Marion Englert and Fanny Lecrombs of the ULB (Université Libre de Bruxelles). At the beginning of the meeting the objectives of the CLEVER-project have been explained and afterwards the possible policy measures were discussed one by one. This was done by presenting them first with a slightly provocative proposition on a PowerPoint-slide (see Figure 1), which immediately clarified the nature of the measure. The following slide gave a more thoughtful overview of the issues to be discussed concerning that certain measure. Participants were free to speak about all aspects of the measure and those opinions were noted down by the research partners, to be digested in a summarizing report (Chapter 2).



Figure 1. Example of provocative proposition

Issues discussed during the stakeholder meetings, were:

- Definition of a clean vehicle: based on the Euro emission standard, the CO₂-emission, a combination of both, on the Ecoscore¹ or on vehicle technology?
- Registration tax: abolish, base on environmental performance, reduction for older cars?
- Annual circulation tax: abolish (and shift to road pricing?), base on environmental performance?
- Road pricing: congestion tax (zones, prices...?), road pricing (kilometre charge, differentiation, technology and time horizon...?)
- Availability of clean vehicles and fuels: mandating, incentives, standardizing?
- User (dis)advantages: like variable parking fees, environmental zones in cities...
- Subsidies: for replacing older cars, for retrofitting cars with diesel filters, LPG/CNG-systems...?
- Green public fleet: mandatory or voluntary, also for private fleets...?

1.2.3 Evaluation form

After the actual discussion session, an evaluation form was handed out to the attendants. The purpose of this form was to have a simple, summarizing overview of the stakeholders' opinions on all proposed measures. They were asked to fill it in during the last quarter of an hour of the session and to scale each measure from 1 to 3 (from low to high) on the respective factors effectiveness, feasibility and priority. An example of such an evaluation form can be found in Annex A. The forms were collected at the end of the meeting, in order to be processed statistically afterwards. More explication will be given in paragraph 3.1.

¹ The Ecoscore is a comprehensive well-to-wheel emission tool, developed by VITO, VUB and ULB on behalf of the Flemish government. It takes both direct and indirect emissions of passenger cars into account and this for greenhouse gasses, pollutants (like CO, HC, NO_x, PM...) and noise.

CHAPTER 2 REPORT OF THE STAKEHOLDER DISCUSSIONS

Hereunder we will present the different opinions of the different stakeholders, as expressed verbally during the meetings. Of course not every single statement will be dealt with, but we have aimed at giving a global overview of all standpoints and positions.

First, we discuss them per measure group. Later on the essence of the position of each different stakeholder group will be summarized in the conclusions.

2.1 Definition of a clean car

Industry:

- Following the majority of the 'industry' group (car manufacturers and fuel suppliers, both conventional and alternative) European rules should be followed as much as possible, since every definition is arbitrary in a way. Moreover, the industry needs a stable framework – for example on a European scale – in order to be able to define a development strategy for (alternative) technologies. However, definitions should be adapted also to the context (e.g. availability of energy sources) and to the objectives they are intended to achieve.
- Whether a car is a clean car depends very much on how the car is used (e.g.: "a car that doesn't drive, doesn't pollute"...) and from a similar point of view it is clear that a segmentation may be necessary (as a multi people carrier will never be as frugal as a small city car).
Electric car dealers think that we should make more use of small, electric driven cars (for only two persons for example) for our daily (and mostly individual) movements in often urban districts.
- Mainstream car manufacturers said that the definition should not be technology based, since all technological possibilities must be kept open to solve the mobility issue and such a definition can completely take away the chances of a certain technology.
- Some clearly take the polluting emissions of fine particles, nitrogen oxides et cetera into account, others say that bad air quality is a reversible (and almost solved) problem and that we should focus on greenhouse gases, that form a global and long-term challenge.
- An alternative fuel supplier still underlined that not only tank-to-wheel emissions have to be considered, but the whole well-to-wheel cycle.

Users / ngo:

- Environmental organizations said that cars will never be 100% clean, and that immediate action is necessary. They should not base the definition on CO₂ alone since this is only part of the story, nor solely on the Euro emission standards, since these are lobbied conventions, but base it on the Ecoscore, which is a comprehensive well-to-wheel indicator.
- Consultants on the other hand stated that is better to go step by step, with very clear definitions that are easy to communicate. Therefore, CO₂ may be a good

criterion, since everybody is very familiar with the concept nowadays. The Ecoscore is too unknown as a concept.

- Also for the motorcar organisation the Ecoscore is unacceptable, since the car (and the individual mobility) is once again too harshly judged. We should just follow European rules, based on CO₂ and emission standards.

Policy:

- For policy makers it is clear that CO₂ isn't the only criterion, but also local pollutants like tropospheric ozone, particulate matter and nitrogen oxides. The latter two are even likely to become the biggest problem in the near future, as European standards for local air quality won't be met. Moreover the whole LCA (Life Cycle Analysis) of car and fuels must be considered.
- Politicians are however aware of the fact that Belgium is a small country and that the industry wants to align with European standards as much as possible. On the other hand definitions should take the available energy vectors in a certain country into account and they should be dynamic in function of time (more stringent as technology improves) and purpose of the measure.
- After all the environmental impact of a vehicle depends strongly on the number of kilometres driven.

2.2 Policy measures

2.2.1 Registration tax – annual circulation tax

Industry:

- More than one representative of the car industry would be happy to see the registration tax abolished, since it forms a threshold for the purchase of a new car and hence for the renewal of the fleet towards cleaner cars. For the same reasons they wouldn't apply reductions for older and second hand cars.
- The existing taxation rules, based on engine capacity and power are, still according to them, completely outdated, since engines have become ever more efficient, delivering more power with less emissions and a lower fuel consumption. Anyhow, the rules have to be – once again – very clear, transparent and socially correct.
- Alternative car manufacturers have the opinion that the registration tax nor the circulation tax should be abolished since these are good instruments to steer the purchase. On the contrary, they would even increase it or make it for example car size dependent. Road pricing may be an even better taxation system, but it is quite complicated compared to the circulation tax.

Users / ngo:

- A member of the press agreed on the fact that the actual taxation system is totally outdated as it is barely linked to the environmental impact of a car.
- Since the purchase cost is a bad predictor (buyers rather take the running costs into account, see the success of diesel cars because of the less expensive fuel), the accountancy side would modulate more on the running costs and therefore abolish the registration tax, which forms a threshold to the break-through of new technologies, because less new cars are being bought.
- Environmental organizations didn't agree with that, because they state that there are already enough cars on the road and that both the ownership as the use of the car should be discouraged. Owning a car (and having made the big investment) means using the car, not owning a car doesn't mean that the user doesn't have access to individual mobility (there are alternatives like the bicycle, the Cambio car sharing system, public transport...).

- The car users organization found that the focus is too much on the car taxation and too less on a comprehensive view on co-mobility (in which all means of transport are involved). This time environmentalists and cars users did agree, and thought it is a real pity that there is no mobility policy at all in Belgium and that mobility is hardly taken into account in spatial planning and land use decisions. Indeed, firstly there have to be valuable alternatives (integrated in a consistent mobility policy) before car users can be taxed more heavily.
- Another difficult issue concerning taxation is the social aspect: everybody has the right on mobility, so everybody has to be able to pay the taxes due.

Policy:

- Policy makers say that the registration tax is a direct incentive and as such one of the best tools to steer the purchase towards cleaner cars, but nevertheless taxation should be oriented more on the actual use of the car.
- The change in car taxation should happen gradually since the government has been promoting diesel cars (that are more polluting than petrol cars) and as a consequence a lot of people own a diesel car nowadays. This dieselification proves also that fuel prices play an important role, and that cleaner cars and fuels can be promoted by giving advantages (e.g. lower excise duties) to clean fuels.
- To make a kind of social correction the car taxation may be linked to the family size (bigger families need bigger cars), and taxes for really big or extremely powerful cars should then increase exponentially instead of linearly.
- A member of the green party said we have to think very well about social corrections in the form of lower taxes for second hand cars, because the pollution by those older cars (sometimes used as a second car by well-off families) causes most trouble in the cities, where relatively much poorer people are living.
- Policy makers are also aware of the fact that the industry wants to gear their strategy on European standards, and that one (small) country shouldn't deviate too much.

2.2.2 Road pricing

Industry:

- In the case of a congestion tax (e.g. in a city) there is much agreement about the fact that there have to be alternatives first, like extended common transport, parking lots outside and shuttles to the city, e-working... since nobody drives around in a jammed city for his or her pleasure. The revenues of such a tax should also be used to improve the mobility services in and around the city.
- Road pricing on the other hand may be a valuable but complicated taxation system. Therefore some suggest to simply rise the taxes on fuels as a kind of "non-intelligent" road pricing. Road pricing might be a long-term solution as it should be organized on a European scale (difficult to install only in a transit country like Belgium), but this shouldn't stop short-term initiatives for a green car taxation.

Users / ngo:

- The car users organization is not willing to pay a congestion charge, since no coherent mobility policy exists and there are no valuable transport alternatives. The environmental organizations remarked that the seat occupancy is an important issue in this. A fleet operator added that often respectable commuters are the victim and that employers keep demanding more flexibility.
- For the environmental organizations, a kilometre charge is an important issue and technological barriers must not be used as an alibi to retard the introduction of it – there is rather a lack of political guts... Maybe there is still little support for smart kilometre charges nowadays, but this support will grow as people see the benefits of it, according to them. Still: taxes on vehicles and traffic still may be raised, since

there are too much cars and too much congestion, but the tax rise can be mitigated for clean vehicles.

- Consultants stated that a kilometre charge must be in function of a better mobility (e.g. time based) and the car users organization are opposed to a kilometre charge as long as there is no coherent mobility policy.

Policy:

- Also policy makers thought about raising the fuel excise duties as a simple form of kilometre charge, but then it is impossible to differentiate on the basis of time or place. On the other hand, variable prices will only have an effect if price differences are big enough. According to them, GPS is the best suited technology.
- For some, congestion tax in cities is unacceptable from a social point of view, because the rich will simply pay it and the poor will have difficulties to find alternatives. Others said that investing massively in common transport to improve urban mobility is on the other hand a very social measure. Anyhow these taxes should be used not only to mitigate the congestion of the cities, but also to develop common transports, taxis services, cycle tracks... and to change the mentality, because the car is often chosen too easily as a 'solution'.

2.2.3 Availability of clean vehicles and fuels

Industry:

This was an issue on which the stakeholders from the industry of course had a strong view.

- Car manufacturers claim they have invested massively in the development of alternative drive trains. The technology exists, but the costumers are not willing to buy those vehicles because the appropriate fuels aren't available. This is the so-called "chicken or the egg"-problem. Therefore all stakeholders (car manufacturers, fuel suppliers and costumers) need each other and the government should regulate this market, in order to force a breakthrough.
- The government should create a stable framework so that suppliers can draw up business plans and that they have the security that investments will pay. Nowadays, there is no policy at all and the chicken-and-egg problem will stay.
- One should concentrate on what exists already (e.g. electricity, natural gas, LPG, biofuels, hybrid vehicles...) and don't wait for the exactly right thing that may be coming in the far future. Policy makers should support this existing alternatives, like LPG as a starting point.
- Today due to the failing distribution (caused by a lack of rules²) the biofuel industry doesn't get the opportunities to develop. Also the development of second generation biofuels (more energy efficient and not longer produced on the basis of agricultural products that could serve also as food) isn't stimulated at all in this way.
- Also conventional fuel suppliers found that biofuels should have a fiscal advantage on the European level.

Another interesting idea was to tax the fuels on the basis of their carbon-content. As such diesel should be more expensive than petrol, also for reasons of public health. Moreover, due to the disproportional demand in diesel fuel in Europe, diesel has to be imported from Russia and the surplus of petrol to be exported to the States nowadays. This isn't an efficient way of working at all.

- If the government fails to cope with this issue, private partners may cooperate to set up a (local) fleet with alternative fuels. You don't always have to wait for the government. In Berlin e.g. a cooperation between electricity suppliers and manufacturers of EV's introduced 300 EV's in Berlin.

² The situation at the beginning of 2009 in Belgium was like this: an excise-free biofuel production quatum was attributed to 7 producers, but there are no incentives or rules at all for the distribution sector to distribute this biofuel fraction, so it hardly happens...

- Mandating the manufacturers won't work at all, because firstly there has to be a stable market. Of course car manufacturers are willing to meet the demand. The voluntary approach for lowering CO₂-emissions did not work either because the other pillars of the CO₂-strategy were not implemented (e.g. fiscal measures) so consumers did not follow the offer of the manufacturers.
- Dealers also have a responsibility in promoting cleaner vehicles to consumers

Users / ngo:

- Also consultants and fleet managers stated that both the government and the manufacturers/suppliers have to take responsibility. The government should play an activating role and create a market. Supply and demand should be regulated by the government.
- Environmental organizations threw in that manufacturers and suppliers like to play the victim, but they are the first to lobby. Since these are huge companies, they have an immense power to keep things just as they want.
- Often, the energy consumption and energy efficiency of a car matters far more than what fuel is used. Internal combustion engines are very energy inefficient as they lose 70% of the energy in heat, compared to electric engines which lose only 20% of their energy in heat and have an energy efficiency of 80%.
- Don't just choose alternative fuels, but look critically at the well-to-wheel impact. Also, use the right fuels for the right application.

Policy:

- Policy makers thought that mandating the manufacturers indeed could be too severe, but that nevertheless strong incentives should be given to them and that the government has a role to play in the creation and stimulation of a market for clean vehicles.
- They admitted that concerning alternative fuels, a lot still has to happen in Belgium, but asked the question if a small country like Belgium, with a limited number of energy vectors should stake on all possible fuels or drive trains. Choices have to be made in function of the needs and the available sources. Choices also depend on the considered term.
- Still regarding alternative fuels, the whole LCA must be considered, from well to wheel, and then, some (but not all) biofuels are a good thing.
- Not only clean vehicles should be promoted (and older vehicles replaced), above all clean fuels (with a low carbon content and less polluting) should be introduced as soon as possible thanks to a lower price at the pump. In a first step these fuels should be compatible with the existing cars. In a next step other alternative fuels should be developed on a European scale in order that car manufacturers can make dedicated models.
- Anyhow, the physical rules of refinery should be followed. If one uses too much diesel, the refinery is more expensive and will emit more CO₂. LPG may be a particularly good instant solution for older (petrol) vehicles, to make them less polluting.
- Again, it would be better to have a visionary European strategy, but maybe it won't be bad to have a kind of ambitious Belgian 5- or 10-year plan - within the European context.

2.2.4 User (dis)advantages

A general remark about these user advantages and disadvantages (like variable parking fees, limited access in urban zones for less or more polluting vehicles...) is that such measures can't work on their own. They have to be embedded in a comprehensive mobility policy, otherwise they don't make sense or can be perceived as not being valid or even unfair.

Industry:

- Without all-embracing mobility policy those measures will have a low impact and besides, there have to be alternatives.

Users / ngo:

- Consultancy people remarked that one has to take care of the implementation costs compared with the benefits.
- Environmental organizations said it's never a good idea to provide free parking space for cars in the city, even for clean cars, as the city isn't a place for cars. At the most, they should benefit a reduced fee.
- People shouldn't only be punished, they have to get something in return too. Therefore: sticks at macro-level and carrots at micro-level, like these (dis)advantages.
- Another idea: special traffic lanes for cars with more than 1, 2... occupants?

Policy:

- In the cities the biggest problem are the fine particles and thus environmental zones can be planned, with scrap premiums as a social correction factor, for less wealthy people with an older and more polluting car.
- Another good alternative is a well organized public transport. The problem is that people only take the fuel costs into account when choosing between their car and bus/tram/train and that is another reason why car driving costs should reflect the total cost.

2.2.5 Subsidies

Industry:

- Subsidies are often a good instrument to make social corrections to a green car taxation, but on the other hand everybody has right to it (a cleaner car is good for everybody), just like there should not only be a premium for retrofitting filters or alternative fuel systems, but also new cars equipped with it in a standard way, should receive such a premium.
- Even though a long term vision may be a better thing, measures should have an effect on the short term (also because terms of office last 4 year in Belgium...). So subsidies may be better than fiscal incentives, as the former have direct financial effects.
- Subsidies are a good tool if older vehicles are replaced by environmental friendly ones. This replacement is a good thing both from an ecological and from an economical point of view (as recently has been proven in e.g. Germany).
- The renewal or adaptation of the fleet has to be durable. Therefore subsidies shouldn't be just temporary, this will only destabilize the market.

Users / ngo:

- Subsidies may be good measures to give incentives before start punishing.
- Why only subsidies for cleaner cars and not for bikes?

Policy:

- Subsidies are a direct measure, whereas it takes about 2 year to feel the effects of fiscal advantages. The effect of a subsidy also strongly depends on the height of the premium.
- 12.000 people die prematurely each year because of particulate matter. Therefore a subsidy for retrofitting diesel particle filters is an urgent case, even for older diesel cars. But on the other hand, if subsidies are given for retrofitting filters, these cars will keep driving on our roads.
- Why should we only give subsidies to the less rich to hand in their old car for a newer, cleaner one? Some families really need two cars and a clean car instead of

on old car is always good. Therefore, subsidies may be linked to the size of the family and be inversely proportional with the income.

- If the government attributes subsidies, there must be taxes to pay it too. The durability of a measure is something difficult to predict. Measures are evaluated each year: is it still needed and are the books balanced?

2.2.6 Green public fleets

Industry:

- Advanced green fleets may be possible in and around cities, because in that case vehicles are never far away from their special refuelling infrastructure.
- Even more important than making an example, is the possibility to familiarize people with the alternative vehicles.

Users / ngo:

- In the end it's the tax payer who pays for it.
- Green public fleets are already being realized by means of public contracting.

Policy:

- Of course this is a strong signal from the government, but the green cars also have to be available. For normal passenger cars, there are already some alternatives, but for special purpose vehicles there aren't. Moreover, there have to be a certain number of possible suppliers to make a public tender valid.
- The use of cleaner vehicle in public fleets would create small market segments, that would lower the costs and give opportunities to alternative fuels.
- Not only the federal and regional level should use green fleet, but also municipalities can buy more green vehicles.

2.2.7 Note on company cars

Some discussion partners also mentioned the company cars and the often associated fuel card. These cars are often seen as the root of all evil concerning the mobility and environmental issue. Though they can be used as levers also, since they introduce the latest technologies and are renewed every three or four years.

The unlimited use of a fuel card and the following improper use of company cars at the other hand, is a problem. Therefore setting an upper limit on fuel may be part of the solutions. Anyway, some collective agreements contain tools for efficient driving (green driving sessions...).

2.3 Conclusions of the stakeholder discussions

Almost all stakeholders agree on the fact that the current tax system – based on fiscal horsepower – is outdated as there is barely a link with the environmental impact of the car. They also state that it is better to have a comprehensive mobility policy with coherent measures and valuable alternatives for the car, instead of loose measures. Another point of agreement is the urgent need for a stable market for clean vehicles and clean fuels, with well-defined rules so that manufacturers and suppliers can align their development and sales strategy.

Evidently, there are also diverging opinions. According to the 'industry'-side we should follow the European rules in defining a clean vehicle (like the combination of CO₂ and Euro emission standards) and a segmentation of car types is necessary for the

application of this definition. They realize that a well-to-wheel approach is necessary to compare fuels.

Conventional car manufacturers would like to abolish the registration tax to fasten up the renewal of the fleet and would make the annual circulation tax dependent on the environmental performances of the car. Alternative car makers would not abolish the registration tax, but make it a powerful instrument to steer the purchase. A kilometre charge may be a solution, but it will be a long-term solution and will have to happen on a European scale. Still according to them, clean technologies are available, but a stable framework is needed to fully develop them. Subsidies are a good idea, but they have to be durable in order not to destabilize the market. This group of stakeholders don't want more stringent rules for the car only, but see more good in a comprehensive mobility policy with valuable alternatives.

The group of 'users / ngo' is a somewhat heterogeneous group. They emphasize that a well-to-wheel approach is needed in order to define what is a clean car and underline the importance of the seat occupancy and the number of kilometres driven as well. They think the registration tax is a particularly good instrument to steer the purchase of cars, but there has to be modulated also on the actual running costs. For the environmental organizations, kilometre charging is a very important point.

For the policy makers it is clear that not only the CO₂-emissions define a clean car, but also the emissions of CO, NO_x, PM, HC... and that it would be easier to follow the European rules in this respect. In order to define a clean car, one has to take the availability of energy sources in a certain country into account too. Next to the maintenance of the registration tax, they also would like to modulate on the running costs and know the importance of the fuel prices (diesel versus petrol or biofuels!). Kilometre charge is indeed a solution, but for the longer term. What is working well on the short term, are subsidies, which have a direct effect. They realize that the fuel card that comes with a lot of company cars is a real problem.

CHAPTER 3 ANALYSIS OF THE EVALUATION FORMS

3.1 Purpose of the evaluation form

The stakeholders were asked to fill in the evaluation form at the end of the discussion session (during the last quarter of an hour). An example of this form can be found in Annex A. In this form an overview was given of all considered measures and this measures had to be scaled on:

- effectiveness: 'Will this measure really facilitate the introduction of clean vehicles?'
- feasibility: 'Will it really be possible to put this measure into practice?'
- priority: 'Should this measure be introduced urgently or rather on the long term?'

Each factor had to be scaled with 1 (= low), 2 (= medium) or 3 (= high).

The purpose of this concluding document was to get the vision of every participant, even of those who had not had the opportunity or did not like to explain his or her stand point during the discussion. Moreover, in the course of the whole session all participants had the opportunity to hear the vision of every party and had the time to think about the whole problem, which may have confirmed, improved or changed the visions.

A possible minus of the evaluation form is the simple set-up, by which it was not possible to give an opinion on policy mixes (as several participants said that some measures only make sense if they are embedded in a comprehensive policy), but only on the separately mentioned measures. On the other hand, the form was meant to be filled in in a quarter of an hour, at the end of the meeting. The evaluation of several policy mixes, or the cross-checking of different measures in one evaluation form would have made it too complicated and too troublesome for the stakeholders and they could have given up after an already intensive discussion session.

3.2 Respondents

In total 40 forms have been filled in and handed in. Table 2 shows the distribution of the respondents.

Table 2: Distribution of the respondents on the evaluation form

TOTAL = 40			
INDUSTRY (19)		Conventional cars/fuels	Alternative cars/fuels
	Car manufacturing and sales	10	2
	Fuel supply	1	6
USERS / NGO (9)	Consultancy		2
	Automobile club		1
	Fleet owner/manager		1
	Environmental organization		3
	Press		2
POLICY MAKERS (12)			12

3.3 Statistical analysis of the forms

3.3.1 Mean scores

A first and evident step in analyzing the filled in forms, is to look at the mean scores attributed at the 'effectiveness', 'feasibility' and 'priority' of the proposed measures. We will make a distinction between different stakeholder groups in order not to blur all distinct opinions, because from Chapter 2 it is clear that different stakeholders often have different concerns and thus different opinions.

Remember that a score of 1 means low (effectiveness, feasibility or priority), 2 is medium and 3 is high. In the graphs the value of 2 is marked by a bold line by way of cut-off. If the mean score is above this line, thus above 2, one can say that the proposed measure is supported.

→ **INDUSTRY, CONVENTIONAL:**

The mean scores of the representatives of conventional car manufacturers and suppliers of conventional fuels are depicted in Figure 2.

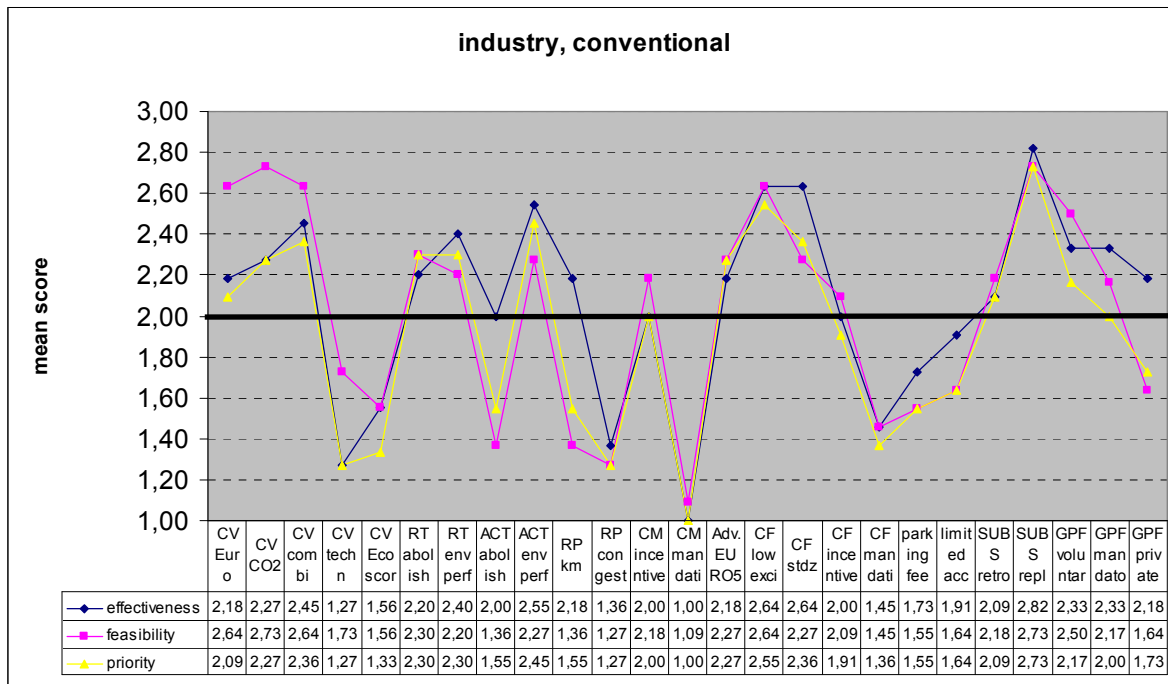


Figure 2: Mean scores of stakeholders from the industry (conventional) on effectiveness, feasibility and priority

Definition of clean vehicles (CV):

The representatives of the conventional car manufacturers and suppliers of conventional fuels think it is best to use well-known criteria like Euro emission standards or the CO₂-emissions to define clean cars. Even better seems to be a combination of both, as the effectiveness is still judged higher.

A definition on basis of the used technology or the Ecoscore is not supported.

Policy measures:

These stakeholders are an advocate of the abolition of the registration tax (RT). However if it persists to exist, they should make it dependent on the environmental performances of the car. Making the annual circulation tax (ACT) dependent on the environmental performances in order to steer the fleet towards cleaner cars even gets more support. Leaving that circulation tax in favour of a kilometre charge (RP, road pricing) has to deal with a low feasibility and as such with a low priority, although the effectiveness of a kilometre charge could be high. A congestion charge as a measure is rejected.

Mandating manufacturers (CM) or fuel suppliers (CF) is not the favourite measure of these stakeholders, giving incentives can count on more support. For them it is much better to advantage the purchase of a Euro 5/6 car, lower the excise duties on clean fuels and having standardized them.

User advantages or disadvantages like variable parking fees or environmental zones with limited access get low scores. Subsidies (SUBS) for retrofitting older cars with filters or alternative fuel systems and especially subsidies for buying new, clean cars (e.g. a scrap premium) get more support.

Quota for green public fleet (GPF) seem to be a good idea, but doing the same for private fleets too will be harder to implement, still according this stakeholder group.

→ **INDUSTRY, ALTERNATIVE:**

The same analysis is done for suppliers of alternative cars (like electric cars) or alternative fuels (LPG, CNG, biofuels...). This is depicted in Figure 3.

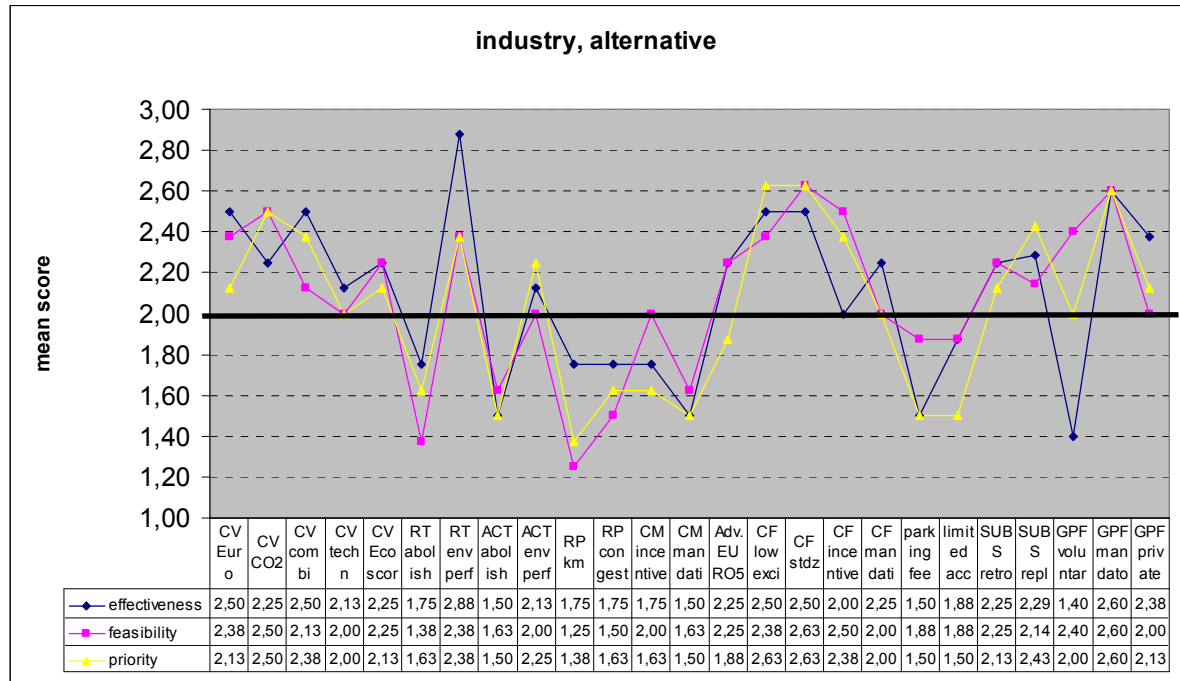


Figure 3: Mean scores of stakeholders from the industry (alternative) on effectiveness, feasibility and priority

Definition of clean vehicles (CV):

Representatives of alternative car or fuel makers are in favour of almost all proposed definitions. Although a CO₂-based definition may be the most feasible, it would not be the most effective. That role is granted to a definition on the basis of the Euro standard or a combination of CO₂-emissions and the Euro standard. Also the Ecoscore gets good points and even a technology based definition scores more than 2 on all aspects, although it is rated lower than other definitions.

Policy measures:

In contrary to the conventional industry side, there is absolutely no support here to abolish the registration tax (RT) and all the more to give it an environmental impact. The annual circulation tax (ACT) should not be abolished too, and made dependent on the environmental performances.

Propositions on road pricing schemes (RP), like a kilometre charge or congestion charge, get only a lukewarm response, just like incentives or mandates for car manufacturers (CM), although the aversion is not that big here like in the above case. For these stakeholders it is clear also that clean fuels (CF) have to be standardized, excise duties lowered and cleaner cars, like Euro 5 or 6 cars, advantaged. There is even support to give incentives to clean fuel suppliers, or even to mandate them. The latter may be more effective, but less feasible.

Users (dis)advantages are not seen to be that good, subsidies (SUBS) may have positive effects.

If green fleet quota are being installed, they should be mandatory to be effective and also private fleets should be concerned.

→ **USERS AND NGO's:**

Although the group 'users and ngo's' (non governmental organizations) is a very heterogeneous group, with e.g. environmental organizations next to a car users organization, the data are treated as a whole (in Figure 4) because there is no objective ready-to-use criterion to divide them in separate categories.

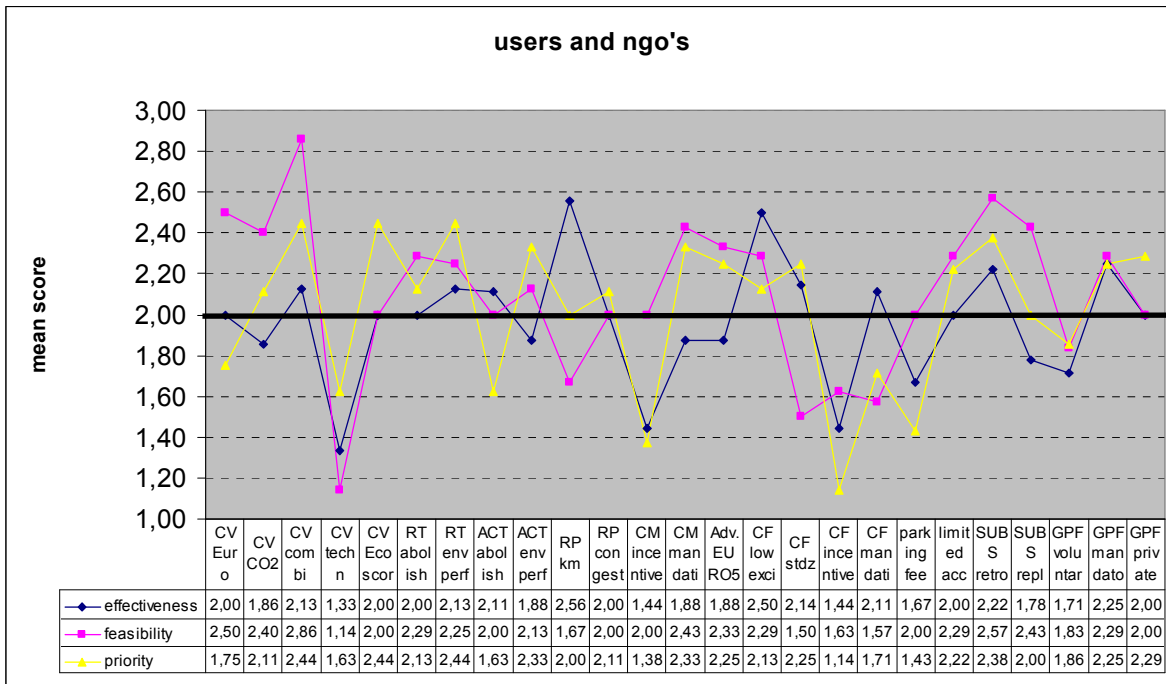


Figure 4: Mean scores of stakeholders from users and NGO's on effectiveness, feasibility and priority

Definition of clean vehicles (CV):

CO₂-emissions as the only criterion is perceived as less effective than the Euro emission standard or a combination of both. This last definition gets the highest priority and is also seen as easily feasible. The introduction of the Ecoscore to define clean vehicles also gets high priority, but the feasibility of this measures should be lower. As in the case of the stakeholders from the conventional industry, a technology based definition is not thought to do the job.

Policy measures:

As the considered stakeholder group is quite heterogeneous here the opinions from the evaluation forms are not that pronounced. However it is remarkable that the 'feasibility'- and 'priority'-scores don't follow the 'effectiveness'-score that good as in the two graphs above. In general those scores are situated higher than the 'effectiveness'-score here, meaning that these stakeholders feel some urge. "Don't waste no more time, just let's do something about it!" There is a tendency to abolish the registration tax (RT) and the annual circulation tax (ACT) and to replace them by a kilometre charge (RP). These stakeholders also realize that this quite effective measure will be a bit hard to implement. The effect of making the registration tax dependent on the environmental performances is seen as somewhat bigger than doing the same with the circulation tax. In contrast with the other stakeholder groups talked about above, a congestion charge gets any support here. Especially environmental organizations would like to reduce the car use with such road pricing schemes.

Car manufacturers (CM) and suppliers of (clean) fuels (CF) rather should be mandated to bring cleaner products on the market than given incentives. Anyhow there is not much support to advantage the purchase of vehicles, even if these are cleaner Euro 5/6 cars. See also the 'effectiveness'-score for subsidies (SUBS) to replace older cars by new ones. Clean fuels (CF) on the other should be standardized and supported with lower excise duties.

Variable parking fees won't do it, but limited access environmental zones would make more sense. Also subsidies to retrofit clean systems get good scores.

Quota for green public fleet (GPF) will be most effective when they are mandatory and private fleet should be included also in such measure.

→ **POLICY MAKERS:**

In a last graph (Figure 5) the opinions of policy makers (from cabinets, political parties, governmental organizations and city councils) are analyzed.

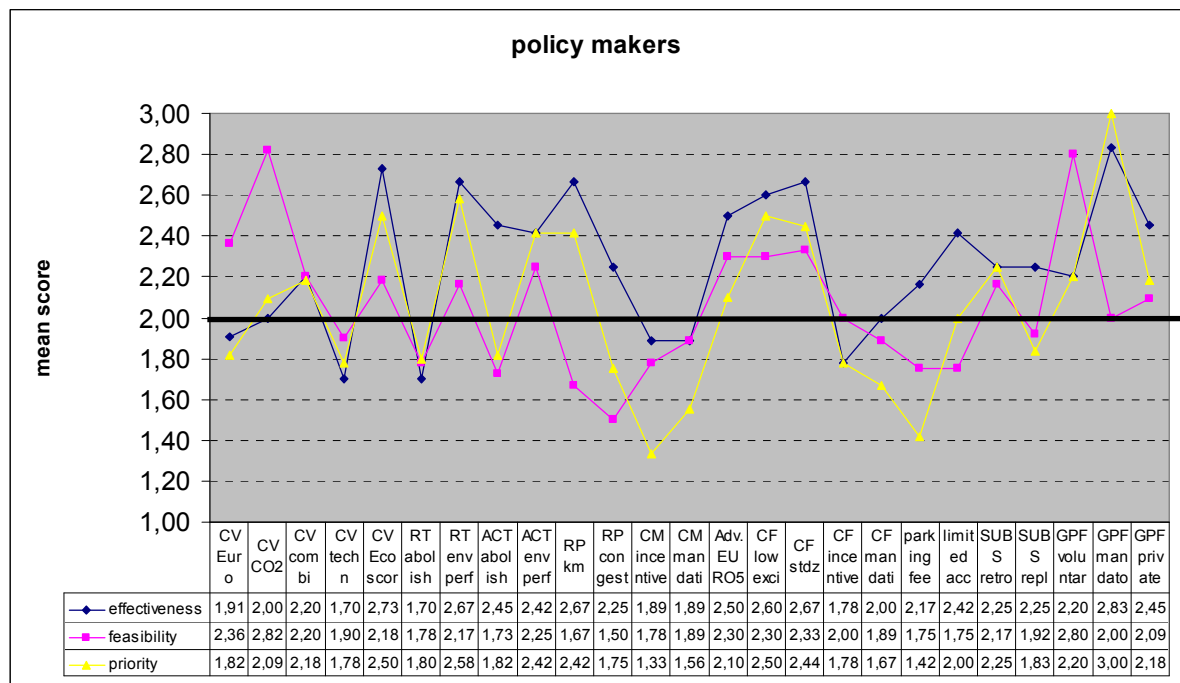


Figure 5: Mean scores of policy makers on effectiveness, feasibility and priority

Definition of clean vehicles (CV):

Although CO₂-emissions would be by far the most easy definition to implement, a combination with the Euro emission standards would have more effect. The criterion of choice however is the Ecoscore, which is perceived as very effective as well as feasible.

Policy measures:

The present policy makers are not likely to abolish the registration tax (RT) but to give it an environmental component instead. Doing the same with the annual registration tax (ACT) is an urgent matter, but abolish it and replace it by a kilometre charge (RP) could be even more effective. Because of the estimated lower feasibility however this type of measure gets a lower priority.

The stakeholders from the policy side are not inclined to give incentives to the car manufacturers or fuel suppliers, nor to mandate them, but the advantages should

rather go to the products themselves: advantages for cleaner Euro 5/6 cars, standardization and lower excise duties for clean fuels.

User (dis)advantages like variable parking fees or limited access zones get high 'effectiveness'-scores but lower 'feasibility'-scores. Subsidy-regulations (SUBS) also would be successful, but a scrap premium (or put in other words, a subsidy to accelerate the renewal of the fleet) could be harder to implement.

These stakeholders are strongly in favour of (mandatory) quota to green public fleets (GPF), and also the fleet composition of private fleets should be regulated.

3.3.2 Highest and lowest rated measures per stakeholder group

We will investigate the most important 'do's' and 'don'ts' of the different stakeholders, in order to get further insight in the various interests and sensitivities, and as a kind of summary. We split up the stakeholders in the same groups 'industry' (conventional / alternative), 'users/ngo' and 'policy makers'.

Only the scores on 'effectiveness' are investigated, because primo this was the first aspect to be scored and this reflects best the global idea of a stakeholder about the measure and secondly because the effectiveness is closely connected to the willingness of a stakeholder to support a certain measure. Ultimately the effectiveness of a measure is also the most important aspect of it – feasibility is something that can and must be overcome and priority is an assessment of the urgency.

The scores are sorted descending for each stakeholder group and a horizontal bar shows the central score of 2 (= moderate). In each case we just list up the most and the least effective measures according to the different stakeholder groups. We are confining to the five highest and lowest scores.

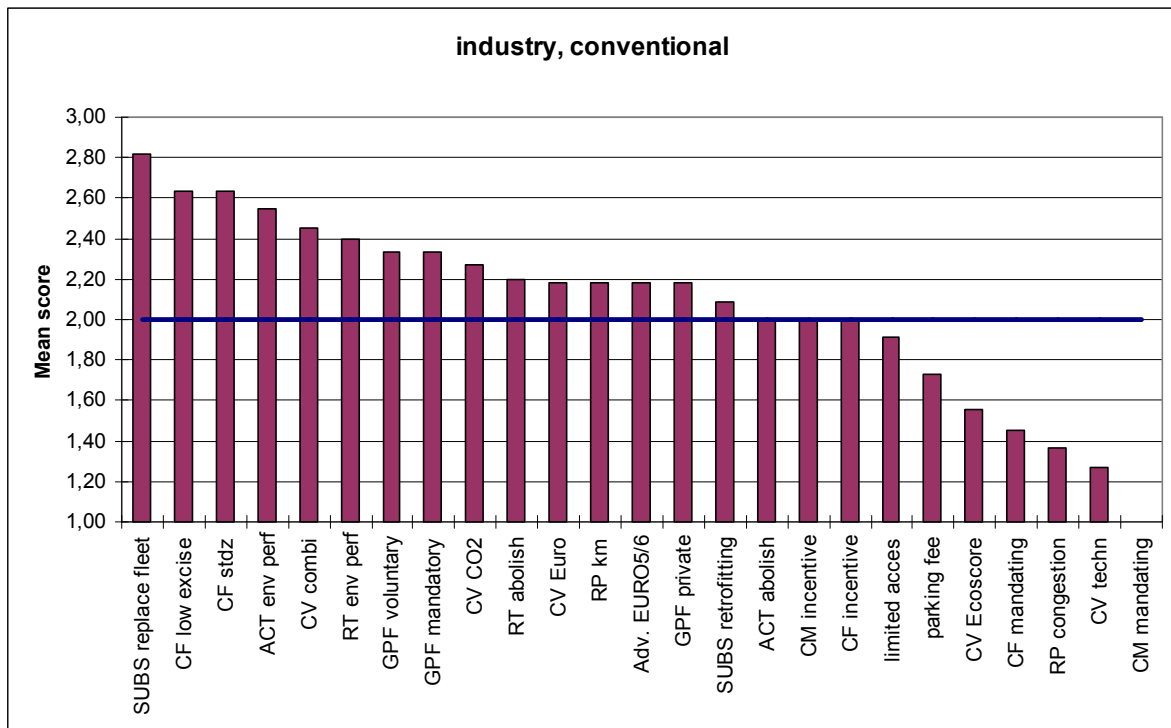
→ **INDUSTRY, CONVENTIONAL:**

Figure 6: Ordered mean scores on effectiveness (industry, conventional)

INDUSTRY, conventional	
Most effective	Least effective
Subsidies to replace the fleet	Mandating car manufacturers
Lower excise duties for clean fuels	Definition clean vehicle: technology based
Standardization of clean fuels	Road pricing: congestion charge
Annual circulation tax ~ environm. perf.	Mandating (clean) fuel suppliers
Definition clean vehicle: Euro + CO ₂	Definition clean vehicle: Ecoscore

The conventional car manufacturers and suppliers of conventional fuels are won over to subsidies to fasten up the replacement of the fleet by newer and cleaner cars (which is quite logical, this would stimulate the sales) and to measures to promote clean fuels, like lower excise duties and standardization. The annual circulation tax should also be linked to the environmental performances of the car (like also the registration tax (RT) does!). As a definition for clean vehicles, the conventional industry side wants to have a combination of the Euro emission standard and the CO₂-emissions.

Quite logically, they don't like the idea of mandating the car manufacturers or fuel suppliers. Neither don't they like measures that would mitigate the unlimited mobility, like a congestion charge or limited access zones. The definition of a clean car shouldn't be based on the used technology nor on the Ecoscore.

→ **INDUSTRY, ALTERNATIVE:**

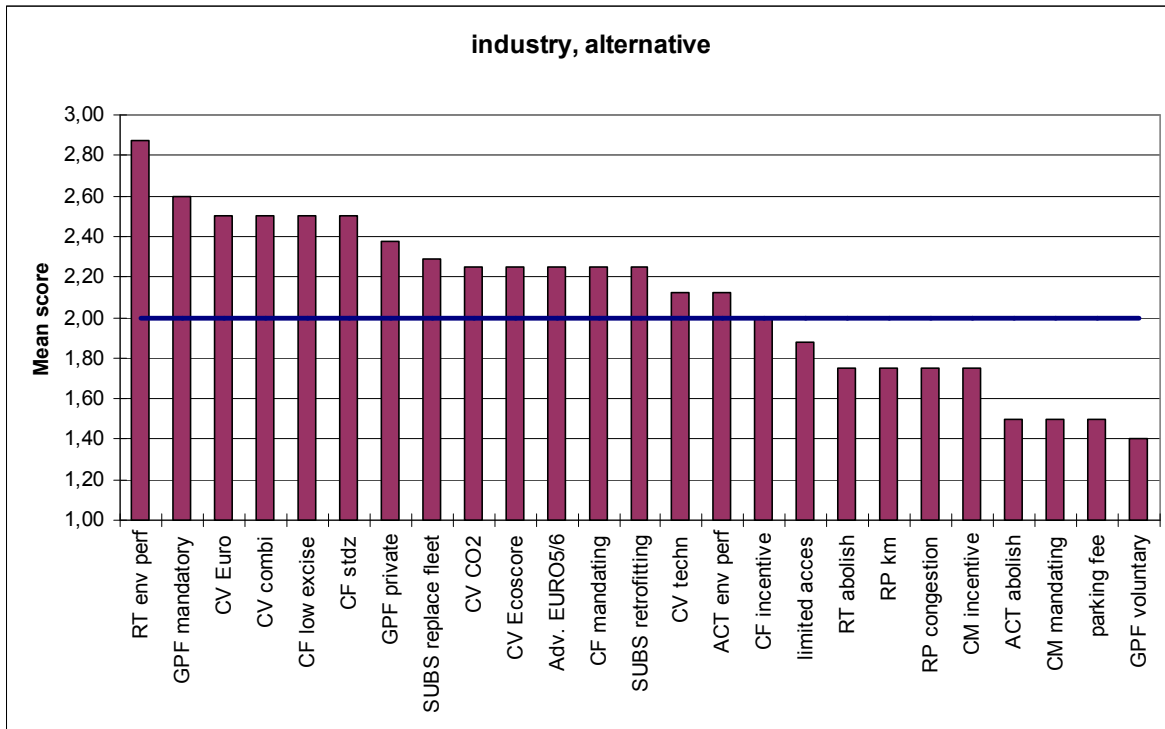


Figure 7: Ordered mean scores on effectiveness (industry, alternative)

INDUSTRY, alternative	
Most effective	Least effective
Registration tax ~environm. performance	Voluntary quota for green public fleet
Mandatory quota for green public fleet	Variable parking fees
Definition clean vehicle: Euro standards	Mandating car manufacturers
Definition clean vehicle: Euro + CO ₂	Abolition of the annual circulation tax
Lower excise duties for (standardized) clean fuels	----

According to alternative car makers and alternative fuel suppliers, most effective measures may be a registration tax (which should thus not be abolished!) based on the environmental performance of the car. A clean car should be defined on the basis of the Euro emission standards or a combination with the CO₂-emission. Also the alternative industry stakeholders think that lower excise duties for and the standardization of clean fuels may be very effective, which is logical since a lot of fuel suppliers were between them. Quota for more clean cars in public fleets must be mandatory, as voluntary quota won't have much effect. Also this stakeholder group doesn't believe in mandating the car manufacturers to make and sell more clean cars. The application of variable parking fees on itself won't be effective, as also the abolition of the annual circulation tax won't.

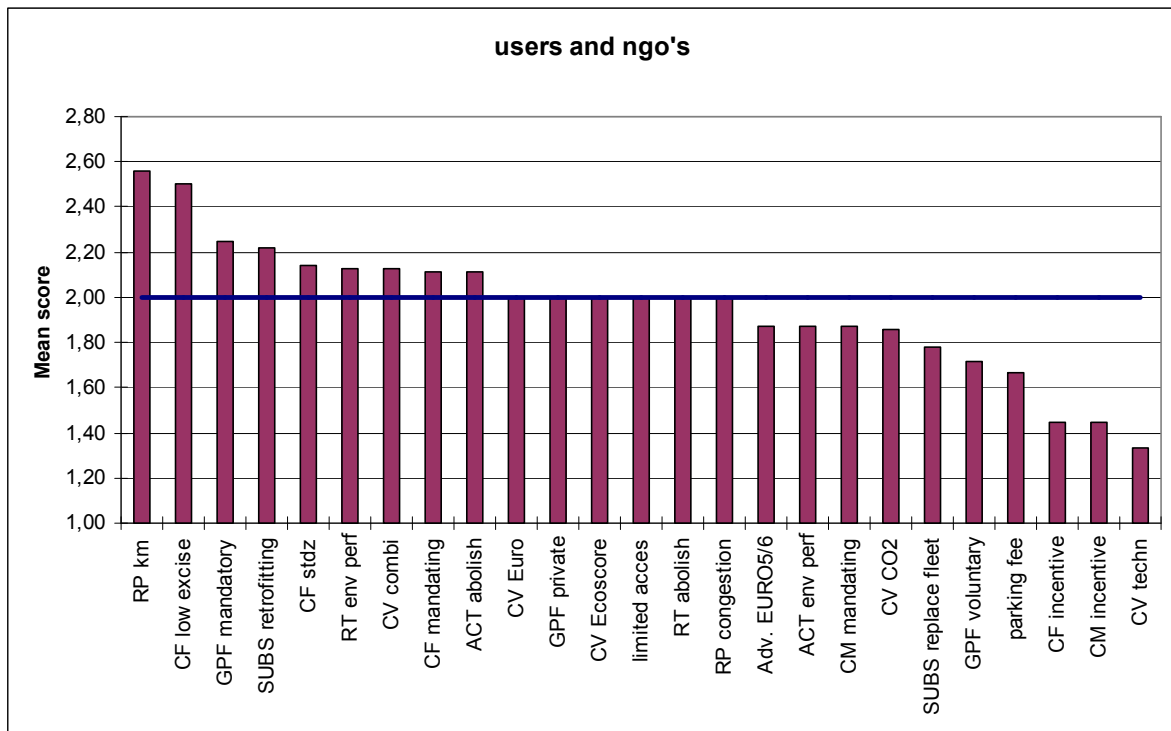
→ **USERS AND NGO's:**

Figure 8: Ordered mean scores on effectiveness (users and ngo's)

USERS and NGO	
Most effective	Least effective
Road pricing: kilometre charge	Definition clean vehicle: technology based
Lower excise duties clean fuels	Incentives for car manufacturers
Mandatory quota for green public fleet	Incentives for (clean) fuel suppliers
Subsidies for retrofitting	Variable parking fees
Standardization of clean fuels	Voluntary quota for green public fleet

A lot of stakeholders in this category think that a (smart) kilometre charge will be the most effective solution, in combination with a registration tax that depends on the environmental performances. Clean fuels have to be promoted with lower excise duties and clear regulations about them. For these stakeholders it is an obviousness that public bodies should must the example with mandatory green fleet quota.

A definition based on the used technology won't do – they rather choose for a combination of Euro emission standards and CO₂-emissions – nor won't incentives to incite manufacturers and suppliers to sell clean vehicles and fuels. Variable parking fees are not seen as effective and as written above fleet quota should not be voluntary, but mandatory.

→ **POLICY MAKERS:**

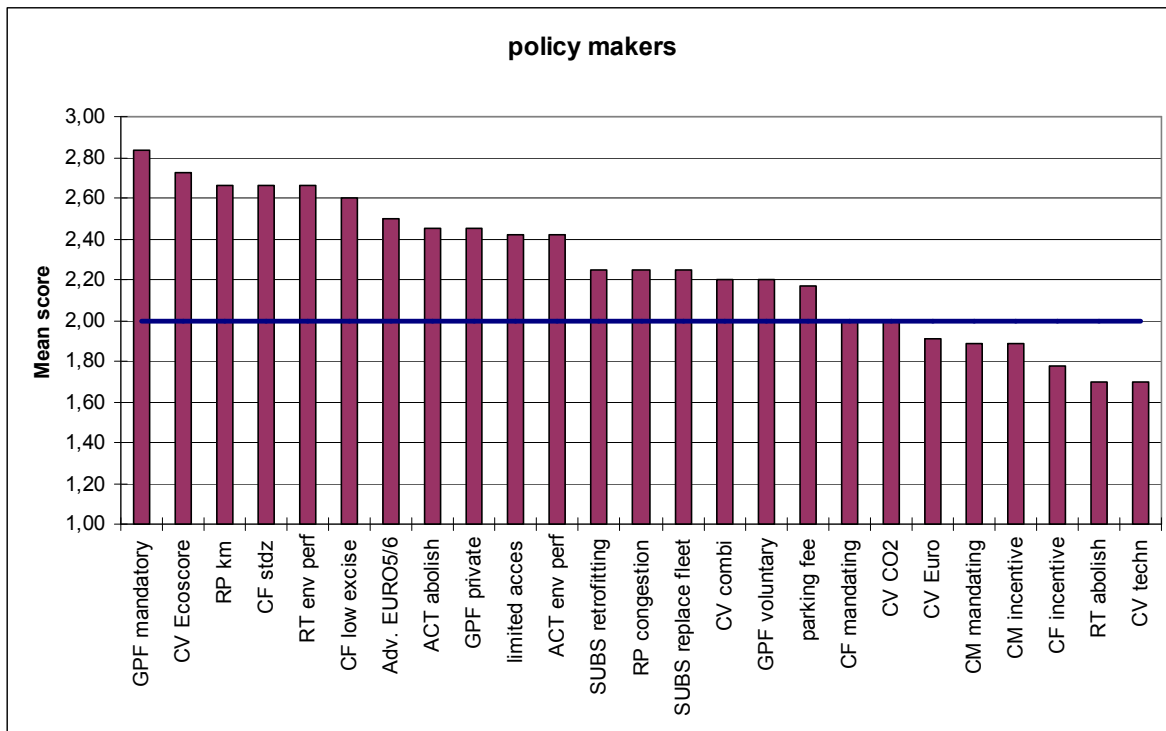


Figure 9: Ordered mean scores on effectiveness (policy makers)

POLICY MAKERS	
Most effective	Least effective
Mandatory quota for green public fleet	Definition clean vehicle: technology based
Definition clean vehicle: Ecoscore	Abolition of the registration tax
Road pricing: kilometre charge	Incentives for (clean) fuel suppliers
Standardization of clean fuels	Incentives for car manufacturers
Registration tax ~ environm. performance	Mandating car manufacturers

Policy makers realize they have to give the good example by making their own fleets as green as possible, by means of mandatory quota. Furthermore, they estimate a kilometre charge as one of the most effective measures coupled to an environmental dependent registration tax. The definition that is necessary for this, should be based on the Ecoscore of cars. For them, it is clear too that alternative fuels have to be standardized.

No much good is seen by this stakeholder group in a definition of clean vehicles based on the technology that is used. They wouldn't like to give up the registration tax. Just giving incentives to manufacturers and suppliers won't have much effect neither.

CHAPTER 4 POLICY SCENARIO DEVELOPMENT

Individual policy measures only won't be enough to ease the introduction of clean vehicles, there will have to be a consistent policy mix for the promotion of clean cars. The composition of such a set of measures will be based on the study of the real effectiveness of them, on the barriers to the purchase and use of clean cars, life cost analyses (LCA), the price elasticities et cetera. Another important item that has to be considered in this context is the support of the stakeholders, which is dealt with in this report.

Hereunder we will initiate the composition of the policy scenarios based on the perceived effectiveness, feasibility and priority of the consulted stakeholders. Two scenarios will be proposed at first:

- a realistic scenario (REAL) with measures that get quite unanimous support on most aspects;
- a progressive scenario (PRO) with measures that may be very effective but that are harder to implement (feasibility) or get less support by all stakeholders.

In task 5.3 (Scenario development) these scenarios will be fully worked out and a third, downright visionary scenario will be composed and analysed too.

4.1 Realistic policy scenario (REAL)

Ideal measures to be taken are measures that get a high score on both effectiveness, feasibility and priority (all scores higher than 2, or all but one scores higher than 2). It means that these measures are seen as potentially having a big impact, while they are relatively easy to implement. As such it shouldn't take much time to install those measures.

Nevertheless, there are also measures that could have a high impact, but are difficult to implement, and therefore not adequate to include in a realistic, short-term policy mix scenario. These will be taken up in the progressive scenario.

In Table 3 all mean scores of the different stakeholder groups are shown together and values greater or equal to 2 are marked in green. Policy measures supported by virtually all stakeholders on all aspect are marked in dark green.

Table 3: Overview of all mean scores on effectiveness, feasibility and priority by stakeholder group (green scores: $\geq 2,00$)

Policy measure	Industry, conv.			Industry, alt.			Users & ngo's			Policy makers		
	Eff	Fea	Prio	Eff	Fea	Prio	Eff	Fea	Prio	Eff	Fea	Prio
CV Euro	2,18	2,64	2,09	2,50	2,38	2,13	2,00	2,50	1,75	1,91	2,36	1,82
CV CO2	2,27	2,73	2,27	2,25	2,50	2,50	1,86	2,40	2,11	2,00	2,82	2,09
CV combi	2,45	2,64	2,36	2,50	2,13	2,38	2,13	2,86	2,44	2,20	2,20	2,18
CV techn	1,27	1,73	1,27	2,13	2,00	2,00	1,33	1,14	1,63	1,70	1,90	1,78
CV Ecoscore	1,56	1,56	1,33	2,25	2,25	2,13	2,00	2,00	2,44	2,73	2,18	2,50
RT abolish	2,20	2,30	2,30	1,75	1,38	1,63	2,00	2,29	2,13	1,70	1,78	1,80
RT env perf	2,40	2,20	2,30	2,88	2,38	2,38	2,13	2,25	2,44	2,67	2,17	2,58
ACT abolish	2,00	1,36	1,55	1,50	1,63	1,50	2,11	2,00	1,63	2,45	1,73	1,82
ACT env perf	2,55	2,27	2,45	2,13	2,00	2,25	1,88	2,13	2,33	2,42	2,25	2,42
RP km	2,18	1,36	1,55	1,75	1,25	1,38	2,56	1,67	2,00	2,67	1,67	2,42
RP congestion	1,36	1,27	1,27	1,75	1,50	1,63	2,00	2,00	2,11	2,25	1,50	1,75
CM incentive	2,00	2,18	2,00	1,75	2,00	1,63	1,44	2,00	1,38	1,89	1,78	1,33
CM mandating	1,00	1,09	1,00	1,50	1,63	1,50	1,88	2,43	2,33	1,89	1,89	1,56
Adv. EURO5/6	2,18	2,27	2,27	2,25	2,25	1,88	1,88	2,33	2,25	2,50	2,30	2,10
CF low excise	2,64	2,64	2,55	2,50	2,38	2,63	2,50	2,29	2,13	2,60	2,30	2,50
CF stdz	2,64	2,27	2,36	2,50	2,63	2,63	2,14	1,50	2,25	2,67	2,33	2,44
CF incentive	2,00	2,09	1,91	2,00	2,50	2,38	1,44	1,63	1,14	1,78	2,00	1,78
CF mandating	1,45	1,45	1,36	2,25	2,00	2,00	2,11	1,57	1,71	2,00	1,89	1,67
parking fee	1,73	1,55	1,55	1,50	1,88	1,50	1,67	2,00	1,43	2,17	1,75	1,42
limited access	1,91	1,64	1,64	1,88	1,88	1,50	2,00	2,29	2,22	2,42	1,75	2,00
SUBS retrofitting	2,09	2,18	2,09	2,25	2,25	2,13	2,22	2,57	2,38	2,25	2,17	2,25
SUBS replace fleet	2,82	2,73	2,73	2,29	2,14	2,43	1,78	2,43	2,00	2,25	1,92	1,83
GPF voluntary	2,33	2,50	2,17	1,40	2,40	2,00	1,71	1,83	1,86	2,20	2,80	2,20
GPF mandatory	2,33	2,17	2,00	2,60	2,60	2,60	2,25	2,29	2,25	2,83	2,00	3,00
GPF private	2,18	1,64	1,73	2,38	2,00	2,13	2,00	2,00	2,29	2,45	2,09	2,18

In accordance with this analysis a realistic scenario should contain at the least these measures (highlighted in dark green):

- A definition of clean vehicles (CV) based on a combination of the CO₂-emission and the Euro emission standard;
- A registration tax (RT) that is based on the environmental performances of the vehicle (thus CO₂ + Euro);
- An annual circulation tax (ACT) based on the environmental performance of the vehicle;
- (Out of the two above mentioned measures advantages are given automatically for Euro 5 or 6 cars);
- Standardization of the clean fuels (CF);
- Lower excise duties in order to promote the use of clean fuels (CF);
- Subsidies (SUBS) for retrofitting older, more polluting cars with clean fuel systems or diesel filters;
- Mandatory quota for green public fleets.

It's also important to look back at the verbally expressed opinions during the stakeholders' discussions, summarized in paragraph 2.3. There the wish was expressed for a stable market in order to be able to deploy a development and sales strategy. Thus, the government should urgently make work of the above mentioned standardization of the clean fuels, the extended supply of them (and with that the decision which are going to be supplied) and the promotion by lower excise duties. Since the demand for a consistent mobility clearly exists, the government should work on alternatives for the individual (car) mobility and therefore the revenues coming from the green car taxation should be used to promote those alternatives.

4.2 Progressive policy scenario (PRO)

For the made-up of a progressive, long-term scenario (PRO), we have to look mainly at measures that are perceived as being very effective (high scores on effectiveness), but that possibly score lower on feasibility and/or priority.

In a progressive scenario we may think of the following measures to be pushed forward:

- The definition of clean vehicles based on the Ecoscore. This tool may be better to make the distinction between more and less polluting cars and takes to whole well-to-wheel emissions into account (which is important if alternative fuels like biofuels or electricity are being used). As the Ecoscore is not that know like e.g. CO₂-emissions it is perceived as more difficult to implement.
- The replacement of the annual circulation tax with a kilometre charge. A lot of stakeholders think this would be (very) effective, but they also agree on the fact that the implementation won't be that easy (infrastructure, on a interregional (European?) scale?). Therefore this is a typical measure to be taken up in the progressive scenario.
- Subsidies to speed up the renewal of the fleet (or scrap premiums) in order to remove the more polluting and give incentives and some financial aid to people who need a new, cleaner car because of the costs of the intelligent kilometre charge.
- The introduction of quota for the number of clean cars in private fleets.

Of course the measures proposed in the REAL-scenario shouldn't be omitted in this PRO-scenario, but have to be added up. So, it is evident that the standardization and lower excise duties for clean fuels should be kept, just like the subsidies for retrofitting older vehicles or the mandatory green public fleet quota.

ANNEX A

CLEVER stakeholder meeting - FINAL EVALUATION FORM

Name:	Organization:
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(1=low 2=medium 3=high)

Item	Effectiveness*	Feasibility"	Priority°
CLEAN VEHICLE , defined on basis of:			
* Euro emission standard			
* CO2-emission			
* combination of Euro-standard and CO2-emission			
* technology			
* Ecoscore			
Comments:			
POLICY PATHWAYS			
1. Registration tax:			
* abolish			
* base on environmental performance			
Comments:			
2. Circulation tax:			
* abolish and shift to road pricing			
* base on environmental performance			
Comments:			
3. Road pricing:			
* kilometer charge			
* congestion charge (zones)			
Comments:			

(1=low 2=medium 3=high)

Item	Effectiveness*	Feasibility"	Priority°
4. Availability of clean vehicles / fuels:			
CARS * incentives for car manufacturers			
* mandating car manufacturers			
* advantages for Euro 5/6-vehicles			
FUEL * lower excise duties for clean fuels			
* standardizing fuels/facilitate expansion of infrastructure			
* incentives for fuel distribution sector			
* mandating fuel distribution sector			
Comments:			
5. User (dis)advantages:			
* parking fees depending on environmental performance			
* environmental zones/limited access in cities			
Comments:			
6. Subsidies:			
* for retrofitting filters, LPG/CNG-systems...			
* to replace old cars			
Comments:			
7. Green public fleet:			
* voluntary quota for public fleet			
* mandatory quota for public fleet			
* also for private fleet?			
Comments			

* Effectiveness = will this measure really facilitate the introduction of clean vehicles?

" Feasibility = will it really be possible to put this measure into practice?

° Priority = 1 = lowest priority; 3 = highest priority