



The Eurocouncil of the Fédération Internationale de l'Automobile
European Bureau

FIA Eurocouncil answer to the public consultation on the stock taking document
“Towards a new Energy Strategy for Europe 2011-2020”

The Eurocouncil of the Fédération Internationale de l'Automobile (FIA) contributed to the debate leading to the Green Paper on Energy Efficiency and the first EU Energy Action Plan as well as the following energy reviews, specifically addressing the objective of increasing the efficient use of energy in the transport of people and reducing the emission of greenhouse gases as part of its remit to make mobility more sustainable.

Since then many initiatives have been taken by the European Union. The Eurocouncil of the FIA would like to use the opportunity of this consultation to give its views on initiatives to be taken into account when preparing a new Action Plan for the post 2010 period.

The Eurocouncil of the Fédération Internationale de l'Automobile (FIA), Europe's leading mobility organisation, represents via its 71 national clubs in 47 European countries 35 million European motorists. Europe's motoring and touring organisations have as their highest priority to put their members' interests at the centre of Europe's policy in making mobility more sustainable, i.e. more comfortable and reliable, better integrated, cleaner, more efficient and safer while keeping it affordable for all.

The motoring and touring clubs in Europe draw on a great depth of experience and knowledge gained as a result of dealing daily with the mobility concerns of their members. This extensive know-how and expertise is used to tackle new mobility challenges as they arise. They are involved in a wide range of technical and educational development programmes, product and infrastructure testing, field research, the operation of a technical testing laboratory as well as driver training centres. Thanks to this they operate at the cutting edge where innovative solutions can be found for the benefit of consumers. The clubs long experience means that they have the knowledge of how to best address mobility related challenges all over Europe while through the FIA they network with other regions in the world exchanging best practices on consumer issues.

Representing the interests of mobile consumers the Eurocouncil of the FIA would like to stress the importance of efforts done at European level to make mobility more efficient in terms of energy use. We see the initiatives taken by the European Union encouraging energy efficiency as a vital part of the European Union's strategy to improve its citizens' welfare and to strengthen its competitiveness.

Regulation to accelerate the introduction of cleaner fuels and engine technologies has already shown a beneficial impact on both the environmental sustainability and the long-term reduction in the cost of motoring. CO₂ limits have been imposed on the performance of new car fleets and a similar proposal is under discussion for vans. Those initiatives still need to be complemented by advances in overall system



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efficiency through better integration of transport modes and traffic management and by further improvements in fuels and vehicle technology such as second generation biofuels as well as low carbon energy sources linked to new propulsion technologies.

Besides advocating for cleaner, low carbon and more energy efficient mobility the clubs inform consumers about ways to improve their mobility by making it more sustainable. For instance they test advanced traffic management systems, public transport schemes, park-and-ride facilities and cycling-friendly infrastructure. It is the close contact to road users and local, regional and national authorities that ensures practical, financially viable and user-oriented solutions.

As the voice of Europe's motoring consumers the Eurocouncil of the FIA believes that European policy should be solid, reality-tested and long-term oriented in order to successfully tackle present and future challenges with regard to energy use. In response to the challenges outlined in the stock taking document "Towards a new Energy Strategy for Europe 2011-2020" the present answer to the consultation aims at providing ideas on how to translate the outlined objectives and priorities into concrete policy measures in the field of personal transport.

We support an integrated approach: Technological innovations, infrastructure improvement and behavioural changes contribute together to higher energy efficiency and emission reduction of greenhouse gases.

Our answer to the European Commission's public consultation is structured in the following way.

1. Raising consumer awareness
2. Improving vehicle energy efficiency
3. Supplying an efficient road infrastructure
4. Creating financial incentives
5. Driving more energy efficiently
6. Transport policy
7. Transport integration
8. Green procurement
9. International perspective

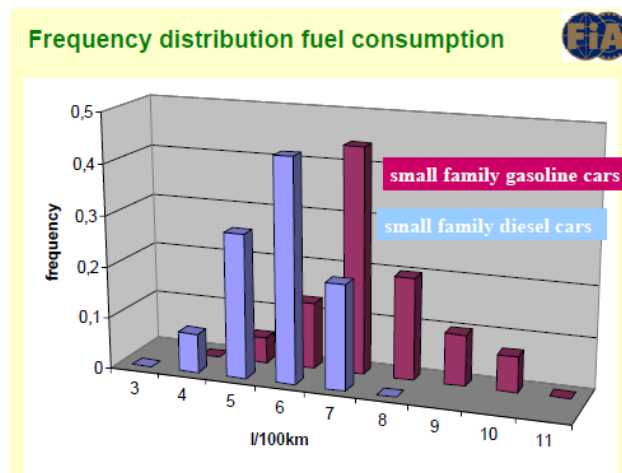
We hope that it is a useful contribution to the ongoing policy debate on this important topic and that it can help the European Commission to determine its policy on improving energy efficiency.



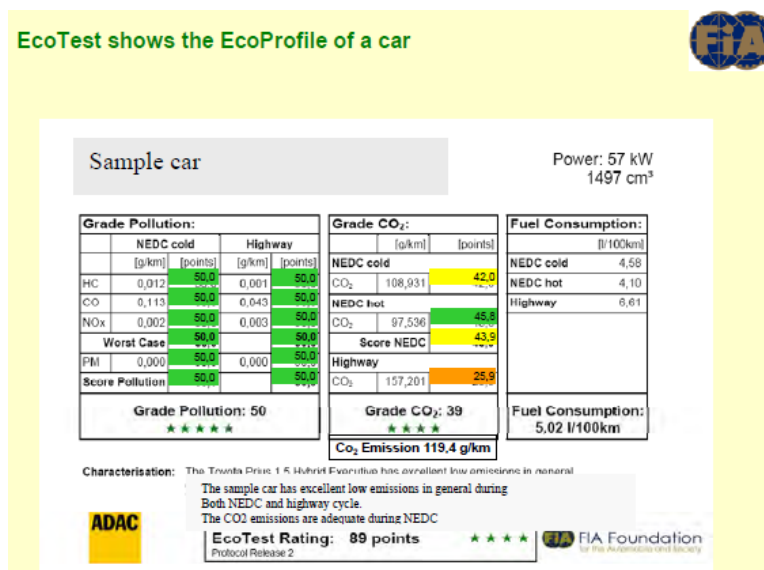
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1. Raising consumer awareness

Public information campaigns on energy efficiency should get more attention. Information on eco-driving helps consumers to drive more energy efficiently. Clear information on fuel economy is needed to influence the motorist's purchase decisions. The publication of the EcoTest results and a point-of-sale labelling are some examples of how motoring clubs are raising the awareness of mobile consumers to energy efficiency of passenger cars.



In order to inform motorists better about the environmental impact of their cars, our German member club the ADAC has developed the EcoTest commissioned by the FIA Foundation for the Automobile and Society. Using an advanced methodology the emissions and fuel consumption of currently produced cars are measured, calculated and rated. The results are made available on to consumers through various publications, member magazines and on the internet.

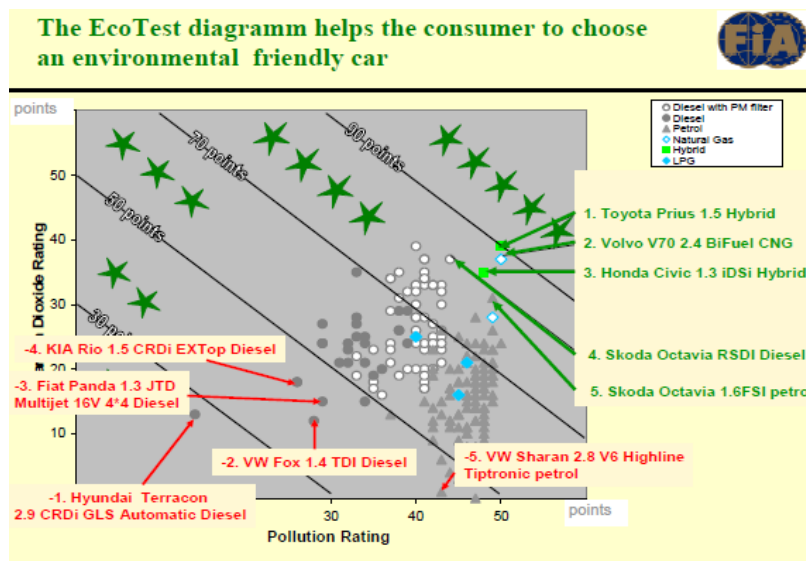




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Based on the experience gained in past years we believe that testing and benchmarking contributes significantly to fostering sustainable mobility. Those programmes provide mobile consumers with tips and recommendations so they can safeguard their own mobility and stimulate public debate about identified failings and if necessary call for regulations.

The EcoTest and a harmonised emission labelling for new vehicles combined with strong information and marketing activities help the consumers to choose energy efficient vehicles and so give incentives to the car manufacturers to improve the energy efficiency of their vehicles.

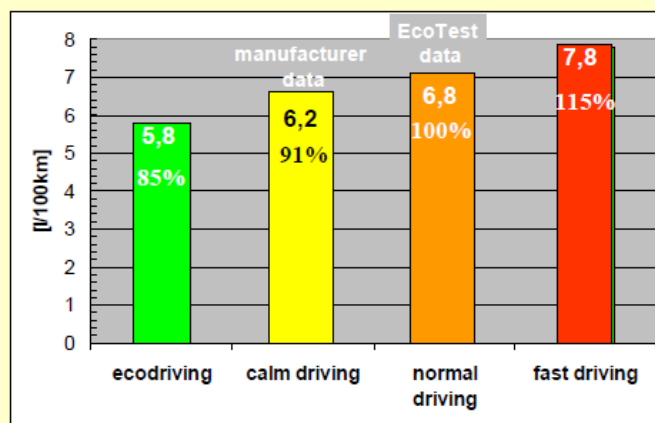


An additional means of campaigning for eco-driving and for cars with low fuel consumption and CO₂ emissions is the EcoTour of Europe. The idea behind this is to select the most successful car drivers from the clubs' eco-driving courses, but also the top performing car models in the EcoTest programme for a rally across Europe. The performance criteria are the lowest possible fuel consumption and CO₂ emissions within a given average speed. Awards are distributed to the most fuel-efficient car driver, to the most successful national driver team and to the manufacturers of the most economical car and to the car with the lowest CO₂ emissions.



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Influence of driving behaviour on fuel consumption



When this car is driven in a normal driving style, it consumes 6.8 l/100km. Following the rules of eco-driving learned at the clubs' training courses, drivers can reduce fuel consumption to 5.8 l/100km. This corresponds to a reduction of 15%. With a fast driving style, consumption increases to 7.8 l/100km. This is an increase of 15%. These figures clearly underline that driving behaviour has a great impact on the average consumption of a vehicle and its related (linear) CO₂ emissions. Due to this fact many automobile clubs are offering eco-driving courses. Participants learn the "golden rules of eco-driving" under practical conditions and with the guidance of experienced trainers. The objective is to accelerate the car on time, to shift gears as soon as possible and then to maintain the chosen speed with lowest possible rpm. Even in an urban environment one can go with the flow in the 5th gear.

Proposed action

The European Commission should set consumer information and awareness activities as one of its key actions in its strategy to foster the efficient use of energy. Consumer testing and benchmarking programmes such as EcoTest should be promoted by the European Union to play an important role in informing consumers and fostering a sustainable mobility. The FIA would welcome to get the support by the European Commission in order to further develop and promote the EcoTest.

2. Improving vehicle energy efficiency

Increasing the energy efficiency of passenger cars and small delivery vans is a key lever to reduce energy consumption in transport. The FIA also sees a strong link between energy efficiency and economic competitiveness. In the car market the development of the fuel prices is giving a competitive edge to manufacturers of fuel efficient vehicles and an image boost to manufacturers that propose innovative technologies in their product portfolio.



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Low rolling-resistance tyres ensure lower fuel consumption and less noise emission. The benefit could be some 0.5 l/100km. Due to the fact that tyres have to fulfil many different functions – supporting and tracking, accelerating and dampening, cushioning and damping – a harmonised quality profile is essential. Within the automobile clubs' tyre testing programme all quality requirements are tested comprehensively.

Further substantial increase in fuel efficiency ultimately depends on a new generation of ultra clean and highly efficient vehicles. A further development of energy efficient diesel and petrol engines, on board diagnostics, improved aerodynamics, reduced rolling resistance of tyres and light-weight materials are some of the technological developments that will improve fuel economy. Moreover alternative fuels and engine systems, including hybrid engines, battery-powered electric vehicles and fuel cell power sources need to be further developed.

Proposed action

A permanent display of current fuel consumption and GSI (gear shift indicator) would assist in developing eco-driving habits. Therefore manufacturers – at a request from the automobile clubs – should equip all new car models with such a fuel-saving device or offer such devices as a factory option. This also applies to start & stop devices.

Consumer information on low-emission cars and components plays an increasingly large role in purchasing behaviour. This will also create further competition among manufacturers to develop products with the highest possible energy efficiency. In 2020 the estimated reduction figures resulting from eco-driving and a changed purchasing behaviour will be around 30 % per car. With the introduction of the hybrid electrical vehicle (HEV) technology the importance of eco-driving will continue. Tests by the automobile clubs show that hybrids need even more but different eco-driving experience than do conventional cars to achieve good results in practical driving.

Future TPMS (tyre pressure monitoring systems) should assist the driver to avoid driving with insufficient energy-consuming tyre pressure. Future on-board navigation systems should display driving time as well as estimated fuel consumption and overall travel costs, and this for two options: the route with the shortest driving time and the route with the lowest fuel consumption, respectively with the lowest travel costs.

Putting into the car specific consumption data for urban roads, extra-urban roads and highways should also be considered. In this context it is essential that future navigation systems must have access to information on the current traffic situation. Today's traffic information is not always really reliable and can even be misleading for the driver. Further requests from the automobile clubs concern regulation. Here, the introduction of a new driving cycle, taking into account "air conditioning on" and also highway driving is essential. Today's regulation does not cover these items. The "bonus-malus" system based on CO₂ emissions as well as the labelling on cars, tyres and other energy-relevant products should be further developed. Due to oncoming



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new technologies, well-to-wheel consumption and CO₂ emission values should be considered instead of today's tank-to-wheel values. Also the car taxation systems must be based on consumption, respectively CO₂ emissions throughout EU 27.

The time beyond 2020 will show a technology mix on the car market. In addition to further improved conventional ICEs (internal combustion engine) based propulsion systems, the future will show hybrid electric vehicles, plug-in hybrids and – smaller in number – also pure electrical vehicles. The infrastructure for fuelling will be quite similar as it is today, but fuel will have at least 20 % renewable components such as 2nd generation biofuels. In addition, the filling stations – next to petrol - will offer fast-charging (heat issues still need to be solved) for electrical batteries using a standardised European plug-in system. Charging will also be possible for employees at company parking places, at shopping centres, in residential parking areas and at private parking spots and garages. The last options in particular lead to fundamental problems. Today's national tax on fuel generates a huge income for the national governments, revenue that governments cannot easily dispense with. When household electricity at a very low price can be used to recharge a car, then most customers will avoid public filling stations (at higher prices) and governments will increasingly lose tax revenues. The challenge therefore for the governments is to maintain a similar high tax income level as exists today for energy for mobility.

Due to all the diversity, the importance of consumer tests and consumer information on fuel consumption, sustainability and costs remain key criteria and will even increase. The corresponding activities of the automobile clubs will contribute to accelerate the development of energy saving and sustainable mobility.

3. Supplying an efficient road infrastructure

As a part of Europe's road infrastructure regularly reaches the point of saturation developing a good road infrastructure is an indispensable condition for sustainable mobility, ensuring a smooth traffic flow while increasing energy efficiency. The road infrastructure (general design, traffic lights, circulation planning, variable message signs, traffic and incident detection systems, etc.) should allow an optimal traffic flow. For example badly adjusted traffic lights can have as negative an effect as congestion.

The enlargement of the European Union has led to a significant increase of road freight traffic in Europe. For instance foreign road freight transport has more than doubled in Germany since the East border opening in 1991. As Europe embarks on transport infrastructure development projects road infrastructure needs, in particular in Central and Eastern Europe, urgently to be upgraded and extended in order to match the requirements of a growing traffic and avoid a rising congestion problem.

The financial contribution of the car users through taxation and road charges is sufficient to allow the provision of an appropriate road infrastructure. This income



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needs therefore to be earmarked for construction and maintenance of the road infrastructure.

Proposed action

European FIA member clubs have been testing and benchmarking mobility infrastructure for several years, both at national and European level. The aim of programmes such as EuroTest, EuroTAP and EuroRAP is to benchmark the quality, the safety and the efficiency of mobility in Europe (e.g. road infrastructure, public transport, pedestrian crossings, park-and-ride schemes). Motoring clubs are therefore in a good position to develop this kind of benchmarking or assessment on the aspects of infrastructure efficiency (congestion; fuel consumption on different routes) from the viewpoint of the consumer all over Europe. The FIA would welcome support from the European Commission in order to further develop and promote those activities.

4. Creating financial incentives

A reform of car taxation, introducing a compulsory CO₂ element in the calculation base without increasing the overall tax burden, is a strong encouragement for consumers to consider fuel efficiency as an important purchasing argument when buying a car. The tax system should be used positively to reward the purchase of low emission vehicles. The FIA therefore welcomed the proposal from the Commission in 2005 to abandon registration taxes and include a CO₂ element in the annual circulation tax.

Proposed action

The introduction of the new euro 6 emission limit values for passenger cars should allow EU member states to give financial incentives until the implementation date in order to roll-out state-of-the-art standards as quickly as possible.

5. Driving more energy efficiently

While efficiency improvements through engine technology tend to be cost intensive, promoting energy efficient driving can help to save energy at a significantly lower cost.

Fuel efficient driving can be promoted by specific driver information and training. Long-term analysis has shown that the promotion of such driver information and education schemes increases overall fuel efficiency of passenger cars by five to ten percent, a significant contribution to increasing energy efficiency and so reducing the emission of greenhouse gases. A major role is played by the automobile clubs which help motorists reducing their fuel consumption by offering fuel efficient driving courses. This offer should be supported by public information campaigns on energy efficiency stressing the benefits of such initiatives to the general public.

With its calculated 20% CO₂/fuel reduction by 2020 eco-driving has been identified as a very effective means for more sustainability. This, however, requires that the low



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number of drivers (<10%) who now apply the golden rules has to be increased to 70%. This can be done with the help of campaigns, advertisement for eco-driving training courses and the consistent integration of eco-driving elements into driving licence education. For campaigning, the FIA EcoTour of Europe concept should be further developed.

At the same time, on board diagnostics inform drivers about the current performance of their vehicle and the consequences of driving habits and maintenance. The gear shift indicators help the driver to shift gears at the right moment, optimise the engine performance and lead to a more efficient use of fuel.

Organisations should be encouraged to provide appropriate information and training to their members of staff about energy efficient driving, for instance by sending them to fuel efficient driving courses. Such initiatives show a positive return on investment.

Proposed action

The European Union should further promote fuel efficient driving, for instance through including efficiency aspects into initial driver training, promoting advanced driver training and co-funding European projects addressing eco-driving such as ECOWILL. Fuel efficient driving should be a mandatory element of driver training throughout the European Union. Candidate drivers should learn right from the beginning of their driving life how to drive in energy efficient way. Moreover an important step in improving driver education should be taken by implementing the second stage of driver training. Some Member States have already successfully implemented it. The European Commission should use the experience gained to implement it on the European level. Second stage driver education and training should include fuel efficiency aspects besides road safety.

6. Transport integration

Public transport offers in many places a poor service in terms of total travel time, security, comfort, links between transport modes, not presenting an alternative to individual transport. Public transport therefore still needs to become a lot more efficient and better integrated in order to offer a competitive transport service to the mobile consumer. The efforts of the European Union to open-up the public transport markets with a view to increase the quality of the offered services had limited success. As a consequence public transport remains often little efficient and offers poor services to consumers. Public transport would however be attractive if it could offer a partly equivalent and effective alternative to individual transport. Moreover, a better inter-modal integration would give public transport a significant competitive advantage (e.g. park-and-ride, bike-and-ride, car hire and car sharing). This is especially important in urban areas, where public transport plays an important role as an alternative to the private car. Car pooling, car sharing and (company) mobility management can also make daily mobility more efficient. Walking and cycling could be real alternatives to motorised transport for short distances if the environment allows an easy, safe and secure trip. Barrier-less road environment for the mobility of



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impaired people, bicycle hire points, bike-and-ride systems and anti-theft bicycle sheds, cycling safe road infrastructure as well as bicycle access to public transport are some examples of good practices.

Land-use planning also must be a key element of any energy efficiency strategy. Policies for urban renewal can halt the development of urban sprawl and increased car dependence. The European Union should share best practices on land planning issues, in particular urban transport management, an area in which European cities dispose of a substantial know-how. Integrated approaches to urban management can optimise the use of energy while improving the quality of life and the city's economic performance, which in turn can attract new residents and businesses.

Proposed action

Based on their experience working in the field of mobility management the motoring and touring clubs have analysed the mobility patterns following the mobile consumers' needs as well the actual offer. Through specific projects they have developed qualitative criteria, tested transport offers and highlighted best practices. The European Union should in the framework of co-funded projects further promote such activities. The European Union should on the other hand pursue its efforts to open-up the markets for public transport services and make sure that the respective European legislation is applied in all Member States. Also better integration of transport modes through land planning and through information services to mobile citizens should be stimulated through EU funded projects.

7. Intelligent transport systems

ICT based transport applications can help increasing the efficiency of transport and the use of limited infrastructure, so reducing congestion and improving transport safety and security. A large number of ICT based transport applications have been successfully developed and demonstrated in collaborative research projects throughout Europe. Today, there is a growing need to deploy them on a large scale while making sure that user needs are taken into account, that field tests confirm the proper functioning and that liability issues are addressed.

For instance, real time traffic information can improve traffic flow and reduce congestion on Europe's busiest routes. On board telematic systems, in particular navigation aids, adaptive cruise control, route guidance, congestion warning systems and parking information systems, will improve the efficiency of road transport.

Proposed action

The European Commission should set a framework for the deployment of the most market-ripe and affordable technologies. Motorists should be convinced of the utility of the systems and better informed on their use. Tax incentives should be put in place to help speeding up their penetration. The ITS Action Plan published in 2008 gives a number of priorities in this area.



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The potential for eco-driving for commercial drivers (meaning busses, coaches, trucks) are on the long term 10% but it could be possible to increase this all the way up to 20%. To reach this the drivers' needs to undergo courses, the vehicles needs to be equipped with ITS/ICT equipment and the command centre needs to upgrade the software system to include these new sources of information and communication. This new technology will make it possible to maintain the full potential of eco-driving. Rather simple ITS/ICT solutions, which exist today, such as gearshift indicators, should be implemented over the coming years in the entire vehicle fleet. After that, vehicle systems that communicate with the vehicle such as accident notices, etc. should be implemented after this and finally, and furthest into the future, vehicle system that communicates with the surroundings, i.e. e-horizon systems. This is applicable for both busses and trucks. The ideal roadmap is that the long term energy efficiency of 10% can be maintained with ITS solutions and that further energy efficient potentials are implemented with ITS support to reach even further all up to the full potential of 20%. The goal is that this should be achieved by 2020 throughout the vehicle fleets, both busses and trucks.

8. Green procurement

The FIA in principle favours market based instruments. However the European Commission's proposals to support the creation of a market for "clean" vehicles by requiring public bodies to purchase low emission vehicles can be an appropriate instrument to trigger innovation as it gives an incentive to the market to further develop new technologies and to make them more affordable for the consumer. Enhanced environmentally friendly vehicles have been defined in the European Performance Standard (EEV) in Directive 2005/55/EC from 20.10.2005. This category of vehicles covers for example clean diesel, hybrid technology, electric vehicles, hydrogen and fuel cell.

Proposed action

Public transport fleet owners should be encouraged to purchase equipment for existing vehicle fleet and for all new vehicles incorporate this technique, educate all drivers, purchase equipment for command centres. Beyond 2020 we believe that the public transport sector will be to a higher extent driven by electricity, either through fuel cell techniques that perhaps finally will have reached a series production level or through the introduction of conductive or convective charging in any way. The importance of eco-driving tips will of course stay valid but as mentioned in the roadmap above the relative impact from them in percent needs to be clarified. This is not in so distance future but is expected to happen before 2030. The other part of the heavy-duty transport sector, the trucks, is also considered to have a potential on "becoming electrified" to a greater extent, leading to energy efficiency potential. This will however be in place at a later time than for the public transport fleets. The liquid fuels will be predominant for the transport sector for a long time. A long-term vision is that if the vehicles are to a higher extent driven by computers then they will be more uniform. There are some new sensors and adaptive control technologies that need to be developed before this can even be tested.



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Public transport fleet manufacturers and suppliers should be encouraged to include this equipment in base offer of all new vehicles, offer retrofit functionality for the electric control units on old vehicles while private fleet owners should be encouraged to purchase equipment for existing vehicle fleet and for all new vehicles to incorporate this technique, educate all drivers – continuously – and purchase equipment for command centres. Driving schools should be encouraged to include eco-driving in their courses.

Organisations operating large fleets should be encouraged to make optimal use of fuel and engine technologies to reduce energy consumption. At the same time procurers should also instruct their vehicle-users on energy efficient driving through eco-driving courses.

9. International perspective

Advances in energy efficiency in Europe should be put to effective use outside the European Union. An obvious method to help countries to increase the energy efficiency is to share know-how on technology and processes. This will in turn help Europe to further establish its worldwide competitiveness.

Proposed action

The EcoTest and a harmonised emission labelling for new vehicles are good practices that should be shared with countries outside the European Union helping also the consumers in these countries to choose energy efficient vehicles. Information and education about fuel efficient driving is another good practice that should be shared.

We hope that these comments and suggestions will be taken into account when defining future policy and remain available for further comment on all subsequent steps in this debate. We remain at your disposal for any further discussion should you so wish.

The Fédération Internationale de l'Automobile is registered in the Commission's Register for Interest Representatives set up in the framework of the European Transparency Initiative under the PIC number 999590724.

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