

CARS 21

A Competitive Automotive Regulatory System for the 21st century

Final Report



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European Commission
Enterprise and Industry Directorate-General

CARS 21 Final Report

The CARS 21 final report reflects the deliberations, opinions and agreements within the CARS 21 High Level Group, which was set up by Vice-President Verheugen in January 2005 to chart the way towards sustainable development of a competitive European automotive industry. Specifically, the High Level Group was mandated to make recommendations for the short, medium and the long term public policy and regulatory framework for the European automotive industry that enhances global competitiveness and employment while sustaining further progress in safety and environmental performance at a price affordable to the consumer.

For further information, please contact:

European Commission
Enterprise and Industry Directorate-General
Automotive Industry unit
B-1049 Brussels

E-mail: entr-automotive-industry@cec.eu.int

Fax: (32-2) 296 9637

http://europa.eu.int/comm/enterprise/automotive/index_en.htm

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EXECUTIVE SUMMARY

The CARS 21 High Level Group has examined the major policy areas which impact the competitiveness of the European automotive industry and has agreed on a number of recommendations which aim to enhance the industry's global competitiveness and employment while sustaining further progress in safety and environmental performance at a price affordable to the consumer.

In the area of **simplification** the group recommends **replacing** 38 EC directives by UNECE⁽¹⁾ regulations and introducing **self- or virtual testing** for 25 directives and UNECE regulations. One directive is recommended for repeal. The group proposes a set of **better regulation** principles which should apply to the regulatory process in the automotive sector⁽²⁾. The application of these should enable the legislator to improve the quality of regulations while minimising costs for economic operators. The group recommends that efforts to increase the **international harmonisation** of motor vehicle regulations should be maintained with a view to involving key vehicle markets and to extend harmonisation to areas not yet covered⁽³⁾.

In the field of **environment**, the group discussed proposals to reduce pollutant emissions from light duty vehicles (Euro 5) and heavy duty vehicles (Euro VI). The Commission will put forward proposals in 2005 and 2007 respectively. To maximise the potential for road transport CO₂ emissions' reduction, the group strongly endorses applying an **integrated approach** involving vehicle manufacturers, oil/fuel suppliers, repairers, customers/drivers and public authorities. The integrated approach should aim at producing clear and quantifiable reductions in CO₂ along the lines of the Community target through a range of options (e.g. vehicle technology, alternative fuels, taxation, eco-driving, gear shift indicators, consumer information and labelling, consumer behaviour and congestion avoidance). Specific attention should be given to the potential of 2nd generation biofuels in the reduction of CO₂ emissions. The High Level Group welcomes the creation by the Commission of a stakeholder "working group on the integrated approach to reduce CO₂ emissions from light-duty vehicles" under the European Climate Change Programme.

CARS 21 members agree that a holistic, integrated approach involving vehicle technology, infrastructure and the road user is the best means for increasing **road safety**. The group recommends that the Commission should come forward with proposals on Electronic Stability Control, seatbelt reminders, brake assist systems, improvement of heavy duty vehicles' blind spots and conspicuity, Isofix child seats and daytime running lights. The group also notes that several active safety technologies, such as obstacle recognition systems, are at an advanced development stage and encourages their development and market introduction to be pursued as fast as possible.

For infrastructure, the group recommends measures regarding road safety audits, impact assessments and inspections, the implementation of corrective measures and improved cross-border infringement enforcement in 2006 as well as acceleration of the adoption of the directive on driving licenses. The group also suggests the stricter conditionality of Community financing to projects which follow road safety best practice. Furthermore, while the group acknowledges that much of the responsibility for implementation in infrastructure

⁽¹⁾ United Nations Economic Commission for Europe.

⁽²⁾ Without prejudice to the general cross-sector guidelines of better regulation applied in the EU.

⁽³⁾ Notably in the framework of the 1958 and the 1998 Agreements of the UNECE.

and road-user pillars rests with the Member States, the CARS 21 High Level Group agreed to include in the roadmap measures to improve the enforcement of bans on drink-driving, the enforcement of speed limits and the promotion and enforcement of seat-belt use and motor-cycle helmet use. The group recommends that monitoring and evaluation of road safety activities in individual Member States should take place regularly and its results should be communicated to the stakeholders.

In the area of **trade**, the group believes that the Doha Development Agenda is an opportunity that should not be missed to increase the competitiveness of EU industry and market access to third countries. The group considers it important that the EU multilateral trade approach be complemented by a parallel bilateral approach as appropriate. Where necessary, bilateral approaches should be undertaken at regional level (or country level with the largest trade partners) so that the automobile industry can compete on fair terms. Proposed EU policy measures should also be assessed in terms of their external impact. The Commission should continue its close monitoring of **Chinese** business and regulatory developments with a view to assessing the possibility of success at an eventual WTO dispute settlement panel if the situation does not improve. The group recommends that the EU should promote and enforce intellectual property rights globally.

The group welcomes the strong **R&D** co-operation between the EU and industry and encourages this to continue and develop further. CARS 21 members welcome all instruments for R&D support (including collaborative research and public-private partnerships). The group recommends that more detailed discussions on the feasibility and scope of setting up Joint Technology Initiatives in the two priority areas of clean fuels and vehicles (e.g. hydrogen and fuel cells) and intelligent vehicles and roads should also continue.

In the area of **taxation** the majority of CARS 21 stakeholders welcome the Commission proposal for a Council directive on passenger car-related taxes⁽⁴⁾, which proposes the gradual abolition of registration taxes, the establishment of a tax refund system to avoid the double payment of taxes and the introduction of a CO₂-based element in the tax base⁽⁵⁾.

Finally the group proposes a **roadmap** identifying measures to be taken together with a process to regularly monitor progress. The High Level Group suggests to the Commission that a mid-term review is performed in 2009 to review the roadmap in view of the progress made and technological developments.

It is hoped that the experience of the CARS 21 High Level Group will contribute to the shaping of the culture and methodology of future policy-making. It has tried to hold policy discussions in a transparent, inclusive and consensual way. These principles should be central to the manner in which policy is made in the future. CARS 21 has been one of the first such sectoral initiatives launched by the Commission and it is hoped that the method of its deliberations can act as an example for similar future initiatives in other sectors.

⁽⁴⁾ COM (2005) 261 final.

⁽⁵⁾ Ms. Beckett indicated that the UK feels that issues of Taxation or Fiscal Policy should be decided at Member State level.

INTRODUCTION

The CARS 21 High Level Group and its objectives in many ways symbolise the European Commission's main policy aims: the central strategic objective of the European institutions is to work towards creating long-term prosperity in Europe through the restoration of sustainable and dynamic growth and jobs. The CARS 21 initiative is an attempt to translate this "mission statement" into reality through an in-depth approach to one of the key sectors of the European economy: the automotive industry.

It is primarily the private sector which creates the growth and jobs necessary for the continued well-being of the European continent. The main role of the industrial policy developed by the public sector is to provide the right framework conditions for enterprise development and innovation so as to make the EU an attractive place for industrial investment and job creation. In order to ensure that regulatory construction in the European Union acts as an enabler for private enterprise, Vice-President Verheugen has launched a comprehensive review of Community legislation with the aim of increasing the dynamism of the European economy and ensuring that the regulatory framework is supportive of 21st century business needs.

The following objectives have been identified as being of particular relevance to the productivity and competitiveness of European industry⁽⁶⁾:

- ensuring an open and competitive Single Market, including competition
- knowledge, such as research, innovation, and skills
- better regulation
- ensuring synergies between competitiveness, energy and environmental policies
- ensuring full and fair participation in global markets
- facilitating social and economic cohesion

On the other hand, for industrial policy to be effective, account needs to be taken of the specific context of individual sectors. Policies need to be combined on the basis of the concrete characteristics of the specific sectors and the particular opportunities and challenges which they face.

This is the context in which CARS 21 - "**Competitive Automotive Regulatory System for the 21st Century**" - should be seen.

The CARS 21 High Level Group, launched on 13 January 2005 by Vice-President Verheugen, has examined the major European policy areas which have a potential impact on the competitiveness of the European automotive industry. In particular, it has focused on areas where specific initiatives relevant to the automotive sector have recently been launched or are foreseen in the near future.

The automotive industry, which represents 3% of Europe's gross domestic product, 7% of employment in the manufacturing sector and 8% of EU governments' total revenue, is a pillar of the European economy. However, the automotive industry is also facing the much-discussed globalisation challenge head-on as well as being subject to significant societal demands, particularly in terms of the environment and road safety.

⁽⁶⁾ COM (2005) 474 final.

For decades, the automotive industry has responded to a multitude of regulatory initiatives (e.g. in areas of taxation, safety and the environment) while at the same time seeking to improve its competitiveness. CARS 21 was set the challenge of contributing to designing a regulatory framework which takes into account the industry's competitiveness on the one hand and the requirements of public policy on the other.

The formal objective of the Group was to **make recommendations for the short-, medium-, and long-term public policy and regulatory framework for the European automotive industry, which enhance global competitiveness and employment while sustaining further progress in safety and environmental performance at a price affordable to the consumer.** It was agreed by the High Level Group members that these goals should be achieved by economic, taxation and internal market policies that encourage investment in profitable manufacturing, review the regulatory burden and compliance cost, and stimulate research and innovation in world leading automotive technologies.

The group has been expected to identify complementary and consistent policies that enhance the economic competitiveness, road safety and the environmental performance of vehicles, charting the way towards the sustainable development of a competitive European automotive industry.

The CARS 21 High Level Group has aimed at an **integrated approach**, so as to avoid negative interaction and adverse cumulative effects of the various policies. It has looked at ways of reducing the cost of existing and new legislation where possible. The result is a **roadmap**, which identifies the measures that should be taken over the next 10 years.

The automotive industry is also a truly global player. Hence the Group has also **explored the possibilities for stronger internationalisation of the regulatory environment** (in particular towards the UN Economic Commission for Europe's international automotive regulations) without relinquishing the Community's instruments for achieving its goals in certain priority areas.

The very existence of the CARS 21 group is evidence of the Commission's desire to improve the regulatory framework and to deliver on its commitment to **better regulation**. This includes issues such as the regulatory process, the instruments used and the implementation methods. More particularly, the group discussed issues such as lead times, use of the appropriate legal base, impact assessments, alternative instruments to legislation and alternatives to the current type approval system (e.g. possibilities for self-testing and self-certification).

Although the primary responsibility for the global competitiveness of the automotive industry rests with the individual companies operating in the sector, it is hoped that the conclusions and recommendations of CARS 21 will contribute towards this end. The members of the High Level Group therefore now look to the parties best positioned to give effect to the Group's recommendations – industry, the Member States and Community institutions – to ensure that the energy and effort which has been spent on this process is translated into concrete actions.

COMPETITIVENESS OF THE EUROPEAN AUTOMOTIVE INDUSTRY

The automotive industry and its products play an essential role in European life and can justifiably be considered to be among its main pillars. The automotive industry makes a central contribution to providing the European public and economy with increased mobility, which has increased significantly over the last few decades: in 1970, the average European travelled 17 km daily, while today the corresponding figure is 35 km.

In addition to mobility and flexibility in general, the automotive industry underpins the lifestyle Europeans enjoy by facilitating secure social interaction and access as well as the reliable distribution of goods across the continent. In the light of the industry's supply chain, the importance of the automotive industry derives to a large extent from its linkages within the domestic and international economy. Evidence suggests that domestic upstream inputs into the production of the automotive industry amount to twice the value added in the industry itself. It is therefore unsurprising that the automotive sector is at the heart of Europe's debate on industrial competitiveness. The setting up of CARS 21 was a clear recognition and expression of the necessity to have a coherent, predictable and well-defined policy framework for the European automotive industry to operate in.

The role of the automotive industry in the European economy

The automotive industry's contribution to the European economy has been well documented⁽⁷⁾:

- A major **contributor to value-added**: the automotive industry accounts for about 3% of the European Union's GDP and for about 7% of the Union's total manufacturing output, which makes the automotive industry a major wealth generator in Europe. The total value added produced of the motor vehicle industry in the EU-15 was about €114 billion in 2002.
- A significant **source of employment**: the automotive industry (vehicle and equipment manufacturers) provides work for more than 2 million Europeans and supports an additional 10 million indirect jobs in both large companies and SMEs (7% of total European manufacturing employment). The generation of employment within an increasingly research-intensive sector means that a large part of the jobs it provides draw on a highly skilled workforce and contribute to the development and implementation of modern education and training systems as well as new organisational methods.
- A leading **investor in innovative research and development (R&D)**: with an annual investment of around € 20 billion in R&D, the automotive sector is the largest R&D investor in Europe (20% of total European manufacturing R&D) and constitutes a major driver for the development and diffusion of new technologies and innovations throughout the economy. The industry's R&D intensity is a sign of the fact that the European automotive industry remains a future-oriented industry and sees innovation as being at the heart of its future competitive position. The industry's research efforts

⁽⁷⁾ Factual information in this section is based on the 2004 European competitiveness report and industry sources.

also point to the major contribution it is making to the aims of the Lisbon Agenda. While the industry's investments are a source of high economic value, they also reflect its efforts to contribute to meeting the challenges of sustainable development, in particular in terms of mobility, environmental protection and road safety.

- An **investment-intensive industry**: the automotive industry has consistently sustained high levels of investment in fixed capital, plant and equipment. In comparison to other manufacturing sectors, its capital intensity is inferior only to mining, oil refining, chemicals, paper and basic metals.
- An important **source of fiscal revenues**: in 2003, the combined total income from the road sector reached €346 billion, representing 8% of European Union's total general government revenues.
- A significant contributor to **trade**: the automotive industry generates a €35 billion trade surplus per year and represents 5% of total EU manufacturing exports.

The automotive industry's contribution to European policy objectives

The automotive sector's underlying role within the European economic structure also implies that its activities have a considerable interaction with other aspects of European society, and hence European policy-making. Over the years the automotive industry has made a sizeable contribution to the achievement of European policy goals:

- In the field of **environmental policy** progress has been impressive. Emissions of local atmospheric pollutants from new cars are now considerably lower than those from cars produced in the 1970s. The industry has been a key partner in continued efforts to reduce greenhouse gas emissions from the transport sector. The signing of the voluntary agreement between the automotive industry and the European Commission to reduce new car CO₂ emissions to 140 grams per kilometre in 2008⁽⁸⁾, the EU objective for 2012 being 120 grams per kilometre, is testimony to this. There is a clear trend towards adopting tighter emissions standards and the ongoing discussions on the Euro 5 directive underline the importance of continued co-operation between the automotive industry and the European institutions in this area. The economic evaluation of sectoral emission reduction objectives for climate change performed in 2001⁽⁹⁾ indicated that energy efficiency improvement measures in the transport system are one of the six most important ways for the EU to reach its Kyoto targets in the most cost-efficient manner.

⁽⁸⁾ The commitment made by the European Automobile Manufacturers Association (ACEA) has been recognised by the European Commission in the Recommendation of 5 February 1999 on the reduction of CO₂ emissions from passenger cars (1999/125/EC). Similar commitments have been signed by the Japanese and Korean automobile associations (JAMA and KAMA) with the objective of reducing new car emissions to 140 grams per kilometre in 2009.

⁽⁹⁾ "Economic Evaluation of Sectoral Emission Reduction Objectives for Climate Change", March 2001, study for the European Commission, available at:

http://europa.eu.int/comm/environment/enveco/climate_change/sectoral_objectives.htm

- **Road safety** remains a high priority for Europeans as the human and economic costs of road fatalities and injuries remain significant (road accidents remain the main cause of death in the under-45 age group). Again, much progress has been made in this area by the automotive industry and cars have never been safer than today. While European road-traffic has tripled over the last 30 years, the number of casualties has decreased by 50%. The 2001 European Commission White Paper on Transport Policy⁽¹⁰⁾ has set an ambitious objective of halving the number of road deaths by 2010. The automotive industry is again expected to continue playing a significant role in achieving casualty reductions by enhancing the safety of its vehicles within an integrated approach involving road-users and public authorities.
- **International trade:** A healthy trade balance is a vital component in protecting Europe's position in the global economic and political landscape. Characterised by large internationally-owned manufacturers and suppliers as well as a number of small and medium sized companies located in Europe and outside, the automotive industry is a reflection of this increasingly globalised economic environment. The automotive industry's global competitiveness has been underlined by the fact that it is one of Europe's driving forces for international trade. Over 20% of European motor vehicle production is exported outside the EU, representing 5% of total EU manufacturing exports and a €35 billion external trade balance surplus. Together with the industry's presence in key markets, this contributes to fostering the position of Europe's industry as a key economic actor worldwide. Only through the effective interaction between public policy and industry efforts can Europe remain competitive internationally.
- In the confines of **industrial policy**, the automotive sector strongly interacts with several other key industries. This is a result of the fact that the automotive industry acts as a major system integrator and consequently generates significant economic and innovation activity in a large number of other important industries, both in the manufacturing sector (e.g. steel, chemical, electronics, glass, rubber, metals, logistics, information and telecommunication systems, logistics) and the service sector (e.g. sales, maintenance, insurance, finance).
- The automotive industry contributes to Europe's **regional policy** objectives. Given its presence in all Member States, the automotive industry contributes to reducing economic and social disparities between countries and regions in Europe. This is borne out by the fact that most of the sector's new industrial investment in Europe has been channelled into the new Member States and has helped to revive the motor industry in Central and Eastern Europe.

The automotive industry has a close interaction with **transport policy**. An efficiently functioning transport system is important to the European automobile industry both as a consumer, needing to get components and finished vehicles into and out of plants and as a supplier of vehicles. The transport system is also important for the competitiveness of the whole European economy. The Commission is currently working on a mid-term review of the current transport policy as defined in the 2001 White Paper. The results of this review, which will be concluded beyond the timeframe of the CARS 21 initiative, will contribute to strengthening the competitiveness agenda.

⁽¹⁰⁾ European transport policy for 2010: time to decide. COM (2001) 370 final.

Consequently, the automotive industry forms part of a wider European policy-making framework, particularly where trade, environmental, and transport policy are concerned. This in turn has led the industry to be one of the most highly regulated in Europe.

Challenges facing the European automotive industry

Although the Competitiveness Report published by the European Commission in 2004 showed that the automotive industry possesses a number of important strengths in a rapidly changing economic environment, it is clear that significant challenges remain, which, if not addressed, could seriously compromise the industry's global competitive position. The industry must compete globally as well as locally against manufacturers who sell most of their products in regions that yield higher operating margins than Europe. If European car manufacturers are to continue making investments that are world-leading in terms of high performance, clean and safe cars they must overcome a number of challenges.

- **Globalisation of economic activities**

Europe is the second largest producer of motor vehicles after the Asia-Pacific area, in terms of passenger vehicles, light and heavy trucks. A look at various market segments shows that Europe is the world's largest producer of passenger cars for the world market (market share of 42%), followed by Asia-Oceania (35%) and America (21%). America produces the largest share of trucks for the world market (56% market share), followed by Asia-Oceania (30%) and Europe (14%). China dominates the bus sector, producing 70.3% of the world market, followed by South Korea.

Over the past decade, competition in the automotive industry has intensified on a worldwide scale. Competitors must be able to compete in virtually any market against competitors from every market. As a major player in international markets, the European automotive industry has established stable channels, which position it well to be among the beneficiaries from the opening of new markets and the strengthening of existing relationships. Nonetheless, competition from abroad is being increasingly felt by the European automotive industry in particular from emerging and lower-cost economies in Asia. In this context, developments in China and India present a particularly serious challenge.

Given that most of the global demand increase for the automotive industry's products over the next decade is likely to come from rapidly developing economies, it is very important for the automotive industry to be able to adapt to the challenge of mass motorisation in emerging markets. For example, China is expected to become the world's main automotive market by 2020 and all the major car manufacturers have already established joint ventures and assembly plants there. On the other hand, there exists the possibility that the rapid building up of new production sites may lead to a significant increase in overcapacity, which will seek outlets in traditional markets (e.g. the use of overseas production plants for automotive exports into the European home market).

- **A rapidly changing operating environment and innovation competition**

Over time, the European automotive sector has developed into an increasingly high-tech knowledge-based industry and European automotive firms are leading the world in some drive-train and fuel technologies. The conditions of the sector have radically changed due to technological advances, production automation, legislation and regulation, increased raw

material prices and increasing competition from abroad. From being a low-skilled sector, the industry is rapidly changing to a more highly skilled labour force, especially with regard to increased emphasis on research and development and engineering. Companies have sought to achieve economies of scale by standardising parts across their model ranges and by producing more models from fewer platforms.

R&D activities in the automotive industry have become all the more important as major technological breakthroughs could permanently alter the processes employed by industry. In light of the fact that the industry's international competitors have stepped up their innovative efforts and are making substantial technological advances in certain technologies, it is of crucial importance that European manufacturers are able to retain high investment levels in R&D as well as to rationalise and pool the use of R&D resources. It should also be pointed out that in some countries, notably China, the industry is effectively encountering a knowledge loss in return for market share, which further necessitates rigorous protection of intellectual property.

The optimization of production efficiency and costs remains a challenge for the European industry which individual companies have started to tackle. Combined with the dangers of production overcapacity, high non-direct wages due to costly welfare systems, and unfavourable exchange rates and high energy prices, it is imperative that reforms continue. The efficient production locations, favourable investment climates and affordable, qualified labour of the new Member States, and elsewhere, become highly relevant in the context of new industrial investments by the industry.

- **Greater environmental and health concerns and the regulatory environment**

The modern car also has to meet the demand of EU citizens who typically expect ever-increasing levels of customisation, comfort, and safety features in increasingly fuel-efficient vehicles. Automotive products must compete on the basis of features and price while simultaneously helping to meet a host of societal goals. There are stringent requirements in areas such as safety (Pedestrian Protection⁽¹¹⁾), clean air (Euro 4⁽¹²⁾), reduced greenhouse gas emissions (industry CO₂ commitment), reduced dependence on imported fossil fuels, and recycling (End-of-Life Vehicles⁽¹³⁾). These requirements do not always correspond to those in other major markets. For the industry this implies the development of new (and often costly) environment and safety features on vehicles.

In addition, developments in the technology and the characteristics of vehicles (such as increasing power and acceleration) have led to a situation where the emission values as measured under the regulated standard tests may not adequately represent the actual emissions in real driving, while electronic engine control has enabled tampering by the user (notably, chip tuning). This situation will require action in the future in order to ensure that regulatory efforts are carried through into actual improvements of the environmental performance of cars when driven on the road as opposed to under the test-cycle.

On the one hand, the European automotive industry is one of the most regulated in its home market. Industry encounters rules and procedures that it believes to have an impact on its overall competitiveness (cumulative cost impact of legislation, the effect of inter-play between various policy objectives and priorities, lead times, etc.). On the other hand, industry

⁽¹¹⁾ Directive 2003/102/EC.

⁽¹²⁾ Directive 98/69/EC.

⁽¹³⁾ Directive 2000/53/EC.

has also pointed to different interpretations and implementations of the rules in different Member States and the incomplete harmonisation of the internal market, which leads to market fragmentation and negative consequences for making the single European market a reality.

The automotive industry has been seeking a review of the regulatory environment in which the business operates for some time and CARS 21 was set up to address this question in particular.

- **Market environment**

Each of the above challenges needs to be dealt with in a home market characterised by limited and decelerating potential economic growth and limited price flexibility. The existence of a large home market is currently a major competitive advantage for European manufacturers although some obstacles still remain to the smooth functioning of the internal market. The characteristics described above combined with faster growth trends in overseas markets are likely to further diminish the effect of this advantage.

The future competitiveness of the European automotive industry

An analysis of the European automotive industry should lead to three main conclusions:

1. The automotive industry makes a significant contribution to the European economy and society;
2. It has played, and will continue to play, an important role in enhancing societal welfare and helping to achieve European policy goals;
3. It faces a number of significant challenges to the way in which it operates.

Considering the importance of the automotive industry for the European Union, it is vital that the automotive industry retains and improves its competitive and innovative position. Key to this is ensuring that manufacturers are financially sound and globally competitive so that they can continue to:

- enhance economic growth and prosperity;
- maintain Europe as a high volume automobile production location;
- safeguard existing jobs and create new ones;
- contribute to broader societal goals (particularly in terms of environment and safety);
- make the necessary R&D investments to face the challenge of innovation competition and technological development; and
- allow for a greater mobility of people and goods within the internal market.

The responsibility for retaining and enhancing competitiveness rests mainly with the individual companies. Policy can contribute by creating an industry-friendly framework for its home market, strive for global harmonisation and help in trying to ensure that the interests of European manufacturers are taken into account on the global level (e.g. trade policy).

Creating such a framework is not easy: the automotive industry has pointed to the high levels of regulatory requirements it has to face due to its interaction with a number of policy areas and which on a cumulative basis can directly translate into added costs. While this can place

an added strain on the ability of the industry to compete on an equal footing with its global competitors, it needs to be borne in mind that such costs would otherwise have to be carried by society at large through higher costs for car accidents and environmental damage.

In terms of the costs the industry has to bear in order to satisfy increasingly stringent environmental and safety requirements, CARS 21 members strongly believe that there is a need to follow an **integrated approach**, which combines the efforts of all stakeholders to achieve common societal aims in a cost-effective manner and so that the costs of achieving these aims can be shared across appropriate sectors of the economy. This idea is also elaborated further in this report.

In the words of an industry representative, policy should aim to avoid “non-value added cost.” CARS 21 has hopefully contributed towards this. The broader aims of European policy-making, not least of which is to help define the values which prevail within the EU, also have to be borne in mind. In terms of societal, economic and quality of life considerations, issues such as the environment and the protection of road users clearly do constitute a significant “value added” for European society. As is so often the case with policy, the challenge of CARS 21 has been to attain a balance that would contribute to the enhancement of all areas related to the use of road vehicles.

Fleet renewal and market perspectives

From the market perspective, despite relatively flat demand in Western Europe over the last couple of years, the overall demand for motor vehicles is showing signs of recovery although it might take some time to reach the levels of 1999 again. However, the Western European market is mature and mainly a replacement market with a limited growth potential in comparison to emerging markets. This in turn implies that the rate at which European consumers renew their vehicles is a key factor affecting the performance of the Western European market. The issue of fleet renewal should also be given consideration by policy-makers as it can have important environmental and safety implications. A vehicle fleet with a high average age of vehicles tends to have a negative effect on road safety and the environment and if vehicle owners retain their old vehicles for longer periods the market penetration of new better performing vehicles is slowed down.

On the other hand, in the new Members States and globally (particularly in the fast-growing, emerging economies), demand for the automotive industry’s products is set to grow. The European automotive industry is well-placed to take advantage of this demand increase. Trade policy in particular can be of help to the industry here given the international dimension of the automotive industry’s activities.

In the light of global growth expectations, CARS 21 members also believe that there exists a window of opportunity to achieve a good policy balance in the context of the European market. High oil prices and increased environmental and safety concerns of European citizens together with the industry’s efforts to optimise its cost-base and production processes can combine to create a strong competitive position for the European automotive industry. There has been much discussion over the interaction of supply-side and market-driven demand-side measures in CARS 21. Pre-conditions exist to combine the two effectively. Policy-making in Europe should address both sides with the understanding that a strong signal in terms of world-leading safety and environmental performance can play an important role in shaping

demand-side perceptions of the products purchased by consumers. It is clearly important that the industry's products address consumer expectations. "Clean, lean and safe" cars are not only societally desirable but they also have the potential to create a competitive advantage for the industry, insofar as they meet these consumer expectations, are affordable and address needs which are applicable to, and have to be addressed by, the global community as a whole. CARS 21 stakeholders therefore find it important that European standards are being adopted in other markets and would encourage this trend. Policy should therefore continue to actively promote international harmonisation.

The intensity of research in the global automotive industry indicates that the global industry believes in innovation being a pre-requisite for competitiveness. The Kok Report of 2004⁽¹⁴⁾ also identified the automotive industry as one where technological advances can translate into a competitive advantage. While regulatory standards can create impetus for technological progress, the automotive industry should also be provided with predictability and sufficient lead times regarding such regulatory measures. This report has attempted to identify the principles of better regulation which should provide industry with a coherent and transparent policy process.

The future competitiveness of the European automotive industry will largely be linked to the industry's ability to manage production processes effectively, to compete flexibly and to tailor its products to the global marketplace. European policy-making should help contribute to these processes by limiting the cost of regulation and creating a framework for industry to participate on external markets. In the European market place efforts should continuously be made to ensure that "clean, lean and safe" remains the product description, while safeguarding the competitiveness of the industry and the affordability of its products.

⁽¹⁴⁾ "Facing the challenge: the Lisbon strategy for growth and employment", November 2004.

RECOMMENDATIONS FOR A COMPETITIVE REGULATORY FRAMEWORK FOR THE EUROPEAN AUTOMOTIVE INDUSTRY

The CARS 21 High Level Group has examined the major European policy areas which have a potential impact on the competitiveness of the European automotive industry. Although arguably all policy areas covered by the CARS 21 exercise have a potential link to competitiveness, the High Level Group has found it worthwhile to single out a number of areas to which particular attention should be drawn either because of their importance from a regulatory process point of view and their horizontal effects across all legislation (better regulation), or because of their specific relevance in the automotive regulatory framework (environment and road safety). These fields have been given more detailed consideration together with areas where specific initiatives relevant to the automotive industry have recently been launched or are foreseen in the near future.

The various policy areas examined have been grouped into the following chapters:

- Better regulation
- Environment
- Road safety
- Trade
- Research and development
- Taxation and fiscal incentives
- Intellectual property
- Competition

1. BETTER REGULATION IN THE AUTOMOTIVE INDUSTRY

1.1. General principles of better regulation

There is a general agreement among the stakeholders of CARS 21 about the important role that better regulation can play in enhancing the competitiveness of the European economy. As stated in the Commission's Communication on "Better Regulation for Growth and Jobs in the European Union"⁽¹⁵⁾, "*the EU and Member States need to further develop their approach to regulation to ensure that the defence of public interests is achieved in a way that supports and does not hinder the development of economic activity*".

In the context of the general principles of better regulation already agreed at EU level, the CARS 21 High Level Group has focused on the key areas which it considers to be of specific importance to the automotive regulatory framework. These concern mainly the quality of regulations, the need to simplify legislation, the use of impact assessments, the recourse to stakeholder consultation, the lead-time provided in new regulations and the choice of the most appropriate instrument.

⁽¹⁵⁾ COM (2005) 97.

By agreeing on a set of better regulation principles for the automotive industry, the decision-making process in this area will benefit from reference guidelines that should enable the legislator to improve the quality of regulations and achieve the protection of the public interest sought while at the same time minimising the costs entailed for economic operators.

Recommendation n° 1:

Without prejudice to the general guidelines of better regulation applied in the EU across the sectors, the following principles should apply to the regulatory process in the automotive sector.

i) Principles concerning the quality of legislation:

- *Clear and unambiguous policy objectives should be defined and priorities should be set at an early stage and with a long-term view. Proposals should remain in the framework of the objectives set.*
 - *A clearer method of setting priorities for motor vehicle regulation should be established. The proposal of a roadmap that identifies mutually consistent priorities over the next ten years is/can be a useful instrument for this purpose.*
- *The EU regulatory process should be coherent and provide for predictability (incl. the timing of rules).*
 - *Generally, the EU should refrain from adopting technical legislation directly affecting the vehicle construction and functioning outside the type approval framework and at the same time consistency of type approval legislations should be improved.*
 - *Product-related automotive legislation should be adopted on the basis of Article 95 of the EC Treaty and thus contribute to the better functioning of the internal market.*
 - *Close dialogue and co-ordination should be maintained at all stages between different parts of the European Commission and other policy makers or regulators (in particular Member States) responsible for different regulations with potential cross-impacts. This is particularly important where trade-offs have to be made between different policy objectives.*
- *A more holistic approach to regulation should be taken, maximising convergence between the policy aims of different regulation in the competitiveness, environment and safety field.*
 - *The objectives of growth and competitiveness should be combined with the objectives of developing employment and safeguarding high social and environmental standards.*
- *All automotive legislation should be performance-oriented, technology-neutral, and over-prescriptive regulations should be avoided.*
 - *The principle that regulations should only fix objectives in terms of measurable performances, not solutions, should be strictly respected. If there are exceptions, the criteria to accept them should be given.*
- *To ensure the coherence of legislation, the Competitiveness Council should be involved in the consideration of proposals that are likely to have substantial effects on competitiveness.*

ii) Principles concerning simplification:

- *EU legislation should be simplified (superfluous, obsolete or inapplicable rules should be eliminated or modified).*

- *EU legislation should be simplified by strengthening the links between the European regulatory system and the framework of the United Nations 1958 and 1998 Agreements.*
 - *The recent Commission orientation to progressively replacing part of EU type approval legislation with the corresponding UN Regulations is strongly supported.*

iii) Principles concerning impact assessments:

- *High quality (sound analytical approach) and comprehensive impact assessments should be undertaken at an early stage of policy development and should accompany all legislative proposals, forming a key part of the policy debate in the European Parliament and Council formations, and enabling clearer evidenced-based decision making.*
- *Based on the Commission Impact Assessment Guidelines of 15 June 2005⁽¹⁶⁾, the following are the impact assessment elements most relevant to the automotive sector:*
 - *a cost/benefit analysis of the specific measure (economic costs, affordability test, environmental, road safety and social costs and benefits, in particular its impact on employment, which should be quantified whenever possible); additional costs of forthcoming regulations should go hand in hand with an adequate welfare and consumer benefit . It is essential for European industry to have a profitable home market;*
 - *a cost-effectiveness analysis of the various policy options proposed to meet the policy objectives. Each measure should be assessed with respect to:*
 - *its effective capacity to solve a problem of concern;*
 - *its feasibility (including costs, lead-time);*
 - *its implications with regard to other policy areas.*
 - *impact on competitiveness with regard to the following factors:*
 - *entire legislative framework (assess new policy proposals in terms of their consistency with existing and other pending measures);*
 - *cumulative cost;*
 - *any potential “first mover” advantage resulting from a European initiative in the field of automotive regulation;*
 - *international benchmarks, both in terms of competitiveness and regulation pressure and trends (in particular, include comparisons with regulations in the USA and Japan).*
- *The impact of an adopted regulation should be evaluated also some years after its implementation.*
- *Stakeholder consultation should be an integral part of the impact assessment.*

iv) Principles concerning stakeholder consultation:

- *All stakeholders should be involved at an early stage in the preparation of proposals relevant to industrial policy, taking into account possible cross-impact (and sometimes contradictions) between different regulations affecting the automotive industry.*
 - *It is essential that all stakeholders are consulted and that the legislator understands where a specific expertise is to be found and where the major impact will be.*

⁽¹⁶⁾ SEC(2005) 791.

- *The methodology of electronic consultations from the Commission should be clarified, so as to avoid duplicating the process.*
- *Stakeholders should be engaged throughout the legislative process.*

v) Principles concerning lead-time:

- *Consistency between the lead-time foreseen by the proposed legislative measures and the needs of the industry in terms of investments and activities planning should be ensured.*
- *Better predictability on future regulations (with better planning and timetabling) should be provided, to allow enough time in order to make well-planned and cost-effective investments in development and in manufacturing.*
- *Where it is expected that a N+2 stage is needed, as good an indication as possible should be given at the N+1 stage on what such legislation should be. That could help going towards a “long term program” of regulatory work, with more transparent methods.*
- *Implementation dates should be linked to the date of entry into force of the regulation.*
- *If new requirements are made mandatory for existing vehicle types, the lead time for their application should be established in accordance with the product cycle of the vehicle, system or component concerned.*

In laying down the implementation dates of new regulations, the potential effects of the new requirements on spare parts should be taken into consideration.

vi) Principles concerning the choice of instruments:

- *Alternatives to regulations should be considered, including market-driven solutions and voluntary agreements. After fully assessing their effectiveness (performed at the same time as impact assessments), the full range of instruments (e.g. agreements, labelling, incentives, mandatory standards etc) that could be used to achieve the required objectives should be considered. A better balance should be struck between traditional ‘regulatory push’ policies (by which the Community forces higher standards by means of legislation imposed on industry) and new ‘demand pull’ policies (by which Member States stimulate consumer willingness to pay for new technologies), while ensuring the integrity of the internal market. Choosing the right instrument should include considering whether to regulate at all.*
- *Well-designed voluntary agreements, particularly those that encourage changes in consumer behaviour, can in some cases deliver public interest objectives in a quick and effective way.*
- *The Commission should systematically explore whether developing global regulations is preferable to taking regulatory initiatives within the EU alone. Only where there is need for earlier or more stringent action should EU regulation be generated. Subsequent adoption by the UN should then be sought.*
 - *Better harmonisation of measures (e.g. test procedures) should be striven for worldwide to improve market access and reduce costs. Global test methods should be adopted wherever feasible.*

1.2. International harmonisation

International harmonisation of regulations concerning the construction and functioning of motor vehicles is an essential factor in reducing the regulatory costs for manufacturers and

enhancing their competitiveness, as it allows building the same vehicles and components for different markets, and thus maximising the economies of scale.

Harmonisation of motor vehicle regulations is an ongoing process, conducted under the auspices of the UNECE, and in the framework of the 1958 and 1998 Agreements.

Recommendation n° 2:

Efforts with a view to increasing international harmonisation of motor vehicle regulations should be maintained where appropriate, with a view to involve the key vehicle markets and to extend harmonisation to areas not yet covered, notably both in the framework of the 1958 and the 1998 Agreements of the UNECE.

1.3. Simplification of automotive regulations

As part of its better regulation policy, the European Commission has launched a simplification exercise in order to reduce the amount of legal texts currently in force in the Community. The *acquis communautaire* concerning the type-approval of motor vehicles, which is one of the most sizeable bodies of legislation in the Community, covering some 56 different directives, was an obvious candidate for this exercise.

In addition to the large volume of Community law in this area, close to 100 regulations adopted under the auspices of the United Nations Economic Commission for Europe (UNECE)⁽¹⁷⁾ are also applicable in the Community as alternatives to the corresponding Community legislation. While this provides for certain flexibility to the manufacturer, it creates legal uncertainty, since the EC directives and the UNECE regulations are not always kept up to date with the technical progress quickly enough.

In view of the above, the CARS 21 High Level Group has assessed the potential for simplification of Community legislation in the area of motor vehicle type-approval⁽¹⁸⁾. This exercise has not covered legislation applicable to two- and three-wheeled vehicles nor to agricultural tractors, for which further simplification initiatives could take place at a later stage, building on the experience gained from the present exercise.

The CARS 21 High Level Group welcomes the review launched by the Commission of the framework directive on the type-approval of motor vehicles (Directive 70/156/EEC), currently under examination by Council and the European Parliament. The adoption of a new framework directive will complete the introduction of the internal market for light commercial vehicles, buses and trucks, and therefore its prompt adoption and entry into force is a matter of priority for the competitiveness of the industry.

⁽¹⁷⁾ Regulations adopted in the framework of the Agreement concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions.

⁽¹⁸⁾ The following vehicle categories are concerned: passenger cars, buses, light commercial vehicles, trucks and trailers.

Recommendation n° 3:

- **Replacement of EC directives by UNECE regulations⁽¹⁹⁾:**

In all those areas where the Community has acceded to a UNECE regulation for which in parallel an EC directive exists, and where the latter does not provide a higher level of safety or environmental protection, the UNECE regulation should replace the corresponding directive. Where a UNECE regulation imposes more stringent requirements than the Directives being replaced, appropriate lead-times should be provided that take full account of the product cycle (new vehicle types vs. new vehicles).

The process of repealing and replacing EC by UNECE regulations will take place in two stages. First, a Council decision will be proposed, which makes one or a group of UNECE regulations mandatory in the Community (and which provides that such regulations will replace Community legislation). Second, the corresponding EC directives will be repealed and the necessary adaptations of the annexes to the framework directive will be made in order to reflect the new legal situation.

The European directives recommended for repeal and replacement by UNECE regulations are listed in Annex I.

- **Repeal of EC directives considered obsolete:**

It is recommended to repeal Directive 72/306/EEC (diesel smoke).

- **Introduction of self-testing⁽²⁰⁾:**

A general provision should be included in the framework directive which provides for the possibility that manufacturers are appointed as testing laboratories at their request and after the type-approval authority has determined that the manufacturer has the necessary competence. It should be clarified that self-testing (which is already foreseen in Directive 92/23/EC for tyres) should for the time being be introduced in areas where the tests involved are relatively simple. In particular, it is recommended, as a first step, to introduce self-testing in the directives and UNECE regulations listed in Annex I.

- **Introduction of virtual testing⁽²¹⁾:**

Virtual test procedures are computer simulations and computer calculations with which it can be demonstrated that a vehicle or vehicle component presented for testing will meet the requirements of a regulatory act, without use of a real vehicle or a real vehicle component. Its introduction would provide more flexibility and reduce costs. However, because of the lack of experience in this area, which is still under development, it is recommended to follow a step-by-step approach.

In particular it is recommended to introduce virtual testing in the directives and UNECE regulations listed in Annex I.

- **Labelling requirements under UNECE regulations:** a potential cost of moving towards a wider application of UNECE regulations for industry would derive from the labelling

⁽¹⁹⁾ Annex II indicates in detail the actions recommended for each regulatory act.

⁽²⁰⁾ Annex II indicates in detail the actions recommended for each regulatory act.

⁽²¹⁾ Annex II indicates in detail the actions recommended for each regulatory act.

system applicable under UNECE regulations, which require marking not only on components and separate technical units, but also on vehicle systems. This requirement, which is not foreseen in the Community directives, would entail an additional cost burden for the manufacturers. It is therefore recommended to examine, in the framework of the UNECE, the possibilities for simplifying this aspect of type-approval under that system.

- **Further simplification recommendations:**

Further simplification on Directives 71/127/EEC (R46 - rear visibility), 74/297/EEC (protective steering), 76/115/EEC (seat belt anchorages) and 78/932/EEC (head restraints), as well as on UNECE Regulation 122 (heating systems) as can be seen in Annex II, should be introduced. Discussions on further improvements to the regulatory framework should continue as appropriate.

1.4. Implementation

Motor vehicle regulations in the Community are based on the type-approval system, whereby vehicles and components can only be placed on the market if they have been produced in accordance with a type which has been approved beforehand by the competent authorities of a Member State. With the introduction of the EC whole vehicle type-approval procedure for passenger cars in 1996, a vehicle can be type-approved in one Member State, and automatically gain access to the markets of the rest of the Community.

Recommendation n° 4:

The current whole vehicle type-approval system has proven to be effective in ensuring compliance with the legal requirements, while at the same time providing industry with legal certainty as to the compliance of their products with the relevant legislation. This system should be maintained in the future but provide for self-testing and virtual testing. The system should be extended to non-M1 vehicles from the earliest possible moment on a voluntary basis.

2. ENVIRONMENT

2.1. Pollutant emissions

2.1.1. Light duty vehicles (Euro 5)

According to the Clean Air for Europe (CAFE) programme the pollutants of most concern for human health from road transport are airborne particulates (PM) and ozone (formed by the reaction between HC and NO_x, both of which are also emitted from road transport).

In this context, and based on CAFE, the Commission is in the process of drafting a proposal on pollutant emissions from light duty vehicles (“Euro 5”), which should lay down the next

stage of emission requirements for gasoline and diesel vehicles. A preliminary draft has recently been submitted for public consultation.

The main priorities of the draft are further reducing emissions of particulate matter (PM) and nitrogen oxide (NO_x) with the introduction of a limit value of 5 milligram per kilometre for PM and a NO_x limit value of 200 mg for **diesel cars**.

The Commission is also considering proposing reductions in the emission limits for **petrol cars** (a 25% reduction in NO_x to 60mg/km and a 25% reduction in hydrocarbons to 75mg/km).

The Commission is also considering extending the durability requirements for emissions control devices from 80,000 km to 160,000 km and the removal of the exemption which enabled the heaviest passenger vehicles (over 2.5 tonnes) to be type approved as light commercial vehicles.

Industry expressed disagreement with certain aspects of the Commission proposal and has provided comments in the context of the public consultation.

Recommendation n° 5:

While the preliminary draft proposal contains a number of important elements, which are welcomed by the members of CARS 21, the High Level Group makes no recommendation as to the detailed aspects of the text, which is currently subject to examination based on the results of the stakeholder consultation. A thorough impact assessment taking into account the results of the Thematic Strategy on Air Pollution and its ambition level should be conducted in accordance with the agreed better regulation principles.

2.1.2. Heavy duty vehicles (Euro VI)

Preparatory work is ongoing for the next stage of legal requirements of pollutant emissions from heavy-duty vehicles (Euro VI).

This work is going on in parallel with the drafting of global technical regulations under the auspices of the UNECE, on OBD⁽²²⁾ systems for heavy-duty vehicles, on the test cycle and on off-cycle emissions. Euro VI emissions standards should reflect the results of the CAFE programme. CARS 21 also supports the promotion of worldwide harmonisation of the testing requirements and, in this context, supports long-term work aiming at the adoption of worldwide emission standards.

Recommendation n° 6:

The Commission proposal on Euro VI emissions standards should take into consideration the results of the CAFE programme.

Regulation on heavy-duty vehicle emissions is a potential area for global harmonisation. While the preparatory work for the next stage requirements in the Community should go on, the possibility of reaching international harmonisation in this area is recommended, in particular with regard to the development of global technical regulations on emission test cycles (both steady and transient cycles), off-cycle emissions and on-board diagnostic systems. International emission limit values should be agreed on the basis of the above test procedures. The long-term aim should be the adoption of worldwide emission standards.

⁽²²⁾ On-board diagnostics.

2.2. CO₂ emissions

Integrated approach to CO₂ emissions

The CARS 21 High Level Group has agreed to recommend an “**integrated approach**” to the reduction of CO₂ emissions. This would mean the adoption of a **comprehensive strategy to tackle CO₂ emissions from motor vehicles involving all relevant stakeholders** (*i.e.* vehicle manufacturers, oil/fuel suppliers, customers, drivers, public authorities, etc.). The underlying assumption in support of such an approach is that CO₂ reductions can be achieved more efficiently by exploiting the synergies of complementary measures and optimising their respective contributions rather than by focusing on improvements in car technology alone.

The main arguments put forward to support the integrated approach are as follows:

- Greater potential for CO₂ reductions when more elements of the system are covered;
- Greater potential for the identification of the most-cost effective options;
- Policy coherence giving more scope for synergies and avoidance of perverse effects;
- A fair distribution of the burden between different stakeholders.

The integrated approach implies building links with other policy areas. Some of the measures which would contribute to the reduction of CO₂ emissions also have the potential to enhance road safety. Such synergies should be exploited.

Activities, which could contribute to the integrated approach

The group noted that the Commission has launched the impact assessment of the future strategy on CO₂ emissions from light duty vehicles. With a view to supplying information to this process, the group has identified a number of technical and policy measures with the potential to contribute to the reduction of CO₂ emissions. The discussions focused on measures to reduce CO₂ emissions from passenger cars, although measures to reduce CO₂ emissions from other types of vehicles were also considered.

Without prejudice to the detailed impact assessment, the measures identified by the group are the following:

- **Alternative Fuels:** Directive 2003/30/EC aims at promoting the use of bio fuel and other alternative and renewable fuels for transport and sets substitution reference targets, increasing gradually from 2% to 5.75% over the period 2005 to 2010. Compliance with these targets, the impact on costs and CO₂ emission abatement, and the feasibility of achieving even higher substitution rates were discussed by a dedicated CARS 21 working party on fuels, which came to the following conclusions:
 - All alternative fuels carry a cost, which needs to be evaluated against other CO₂ abatement measures.
 - First generation bio fuels & CNG offer some benefits, and have been made available in a number of Member States through economic incentives.

- Advanced bio fuels are the most promising option for the medium term and need R&D effort to be successful.
- Hydrogen is a promising opportunity as an energy carrier for the longer-term, and needs a major research and development effort.
- CNG and high blend first generation bio fuels require specialized vehicles and a separate supply infra-structure.
- Low percentage first generation bio fuel blends in conventional fuels and certain second generation bio fuels can be used in existing vehicles and can use the existing supply infrastructure.

The working party also looked at various scenarios with the potential for CO₂ reduction for the years 2010, 2015 and 2020. It was estimated that for the year 2010, CO₂ avoidance could be in the range of 20 to 30 Mt/year under the assumption that the indicative Community targets for alternative fuels are reached.

These assessments confirm that the potential contribution of alternative fuels to the integrated approach is a particularly important one as it brings immediate benefit to both new and in-use vehicles. Its potential impact could therefore be considerably higher than that of measures taken with regard to new vehicles alone. The Group was made aware of the fact that an increased use of alternative fuels would come at a cost but this would also be the case for other CO₂ abatement measures relating to vehicle technology. On the other hand some costs are likely to decrease with increased market penetration and the exploitation of economies of scale. Greater savings in CO₂ emissions could be achieved through more rapid market introduction of advanced bio fuels (second generation) where the oil industry should play a major role.

- **Vehicle technology:** While it was agreed that CO₂ emissions reductions along the lines of the Community targets should be reached by a combination of measures and not by vehicle technology alone, the automotive industry confirmed its commitment of going beyond the levels of the current voluntary commitment.
- The group agreed that **CO₂ based taxation of vehicles⁽²³⁾ and fuels** can have a positive impact on CO₂ abatement. Harmonised fiscal measures are strongly preferred by a large majority of stakeholders in order to avoid any market distortions between Member States.
- **Eco-driving and gear shift indicators:** Drawing on the positive experience of the Spanish eco-driving programme, it was agreed that the launch of an EU campaign on eco-driving (associating relevant stakeholders, notably the Member States, drivers' associations and car manufacturers) could be examined in the context of the impact assessment of the future EU strategy. The group agreed to consider the introduction of in-car equipment, such as gear shift indicators in order to support eco-driving activities.
- **Consumer information:** The group agreed that the existing directive on fuel efficiency **labelling** could be improved, in order to clarify the information provided to consumers, notably regarding harmonisation of the label and the introduction of energy efficiency schemes.

⁽²³⁾ See the Commission proposal for a Directive on vehicle taxation, COM (2005) 261.

– **Measures to avoid congestion, e.g. Traffic Control and Management Systems**

The CARS 21 High Level Group agreed that a detailed analysis of the costs and CO₂ reduction potential of each option will have to be undertaken in the **impact assessment of the future EU strategy**, due in 2006. The impact assessment will aim at designing scenarios which combine the most cost-effective options. In this context, difficulties in the implementation of the different individual measures, concerns regarding the measurability and monitorability of certain measures in terms of actual CO₂ benefits, and the accountability of stakeholders responsible for their implementation, as well as factors likely to undermine their effectiveness, should be specifically considered. In line with the Commission guidelines on impact assessments, this process will allow for extensive **stakeholder involvement**. The European Commission will present in mid-2006 a Communication to the European Parliament and Council on a revised Community strategy to reduce CO₂ emissions from light-duty vehicles. In a longer term perspective, the potential for a progressive upward convergence of car fuel efficiency standards at a global level, including in emerging markets, should be investigated.

Concerning the Commission's initiative to put forward a proposal on the **promotion of clean and energy-efficient vehicles**, the CARS 21 High Level Group supported such an initiative, on the condition that a technology-neutral and performance based approach is taken.

Recommendation n° 7:

The High Level Group strongly endorses an integrated approach aimed at producing clear and quantifiable reductions in CO₂ along the lines of the Community target from a range of policies. Work towards a further reduction of CO₂ emissions from road vehicles should be part of such an approach.

All relevant options to reduce CO₂ emissions should be examined within the integrated approach. These options should be clearly measurable, with timetables for delivery, and identify the stakeholder responsible for delivering them. There should be a mechanism for monitoring progress and ensuring accountability.

The principles of better regulation should apply to the whole process. The High Level Group welcomes the creation by the Commission of a stakeholder "working group on the integrated approach to reduce CO₂ emissions from light-duty vehicles" under the European Climate Change Programme.

Recommendation n° 8⁽²⁴⁾:

The High Level Group acknowledges that the use of alternative fuels provides one of the main options for reducing road transport sector CO₂ emissions in the framework of the integrated approach. It is therefore recommended that the Commission should pursue a constructive dialogue with the oil industry and ensure the market availability of "low fossil carbon fuels". The Group recommends that the increased use of bio fuels should be promoted in the EU. Furthermore, the High Level Group has identified 2nd generation bio fuels as particularly

⁽²⁴⁾ This recommendation is supported by all members of the CARS 21 High Level Group with the exception of EUROPIA. EUROPIA recommends awaiting the results of the Impact Assessment under ECCPII due in 2006, to determine the most cost effective options to reduce CO₂ emissions from light duty vehicles.

promising and recommends that research and development efforts into 2nd generation bio fuels should be given maximum support and encouragement and that further policy developments take account of the differing climate change benefits from bio fuel technologies. Hydrogen should receive major research and development effort as a promising opportunity for the longer-term. Alternative fuels should always be assessed on a comprehensive well-to-wheel basis, looking at cost-effectiveness and at all environmental consequences.

2.3. Mobile Air Conditioning Systems (“MACs”)

In August 2003 the Commission proposed a regulation on certain fluorinated greenhouse gases. Subsequently the Council, taking into account the opinion of the European Parliament split the proposal into two instruments, one of which is a type-approval directive dealing specifically with the issue of hydrofluorocarbons (HFCs) in mobile air conditioning systems (MACs). After the adoption of the Common Position in June 2005⁽²⁵⁾, the proposal was discussed in the 2nd reading in the European Parliament.

The proposal aims to reduce emissions of specific fluorinated greenhouse gases in the air conditioning systems fitted to motor vehicles. This contributes towards the European Community’s Kyoto Protocol target. It is even more important for the EU to adopt and to implement legislation swiftly to reduce its greenhouse gas emissions with the Kyoto Protocol’s entry into force on 16 February 2005. Moreover, the proposals will prevent the distortion of the internal market that could result from differing Member States’ existing or planned measures taken in order to meet their Kyoto objectives.

The main objective of the proposed directive relating to emissions from air conditioning systems in motor vehicles is:

- the control of leakage of hydrofluorocarbons in MACs and
- the prohibition from a certain date of MACs using fluorinated gases with a global warming potential higher than 150.

The main discussions concentrate on the threshold of Global Warming Potential (GWP) of refrigerants to be phased-out and the dates for the start and end of the phase out of HFCs in MACs.

Industry warned against EU regulatory isolation, in particular given decisions by the US, Japan and key emerging markets not to follow the EU proposal for a ban of HFC-134a. Instead, other strategies that aim at improving the leakage and energy efficiency of existing air-conditioning systems are being promoted (e.g. in the US).

Recommendation n° 9:

This dossier is well advanced in the decision-making process. It is important to ensure that, while maintaining the environmental objectives pursued by the proposal, sufficient lead-time is provided to industry in order to be able to adjust to the new requirements. Moreover, a technology-prescriptive approach should be rejected. The Council Common position is supported. The stakeholders concerned should co-operate so as to avoid or minimise the potential effect of regulatory isolation.

⁽²⁵⁾ OJ C183 E, 26.07.2005, p. 17.

2.4. End-of-Life Vehicles (“ELVs”)

Directive 2000/53/EC on end-of-life vehicles has been implemented by most Member States. However the levels of implementation of different product-or system related measures (such as the ban on materials, the take-back system or the calculation systems to monitor compliance with the targets) vary largely among Member States. There are differences in the national waste policy schemes and, given that the legal basis is Article 175 of the EC Treaty, Member States are allowed to maintain or introduce more stringent protective measures, within the limits of Article 176.

Recommendation n° 10:

On the occasion of the next revision of the ELV Directive, and taking into account information provided by the car industry, the issue of the non-harmonised implementation of the Directive should be revisited, and in particular those issues that relate to the movement of goods between Member States. It should then be considered to deal with this latter aspect under Article 95, as it is already the case with the other legal acts in the area of EU product-related waste legislation. The impact of the ban on substances in the ELV Directive should be assessed on the basis of the general EU chemicals policy as soon as it is in place and could, if appropriate, be revised accordingly.

2.5. Noise

Further to its 1996 Green Paper (COM(96)540), the European Commission developed a new framework for noise policy, based on shared responsibility between the EU, national and local level. This document led to a comprehensive set of measures, including the Directive on Environmental Noise aimed at requiring competent authorities in Member States to produce strategic noise maps on the basis of harmonised indicators, to inform the public about noise exposure and its effects, and to draw up action plans to address noise issues.

Recommendation n° 11:

As in other policy areas, it is recommended that actions on noise policy should be proportionate and take appropriate account of the functioning of the internal market. A holistic approach should be pursued to tackle noise issues, involving all relevant stakeholders and systems (e.g. traffic management, driver behaviour, vehicle and tyre technology, road surfaces).

3. ROAD SAFETY

While the automotive industry plays a vitally important role in road safety, other aspects such as driver behaviour and suitable infrastructure also have a central contribution to make. It is generally accepted that an effective approach to road safety has to be an integrated one, taking into account not only the vehicle but also the factors, which interact with it. Responsibility for road safety therefore rests with several key stakeholders: the road users, public authorities and vehicle manufacturers. In practical terms processes such as vehicle approval, the financing of

infrastructure projects, law enforcement and research and development all have to play their part in ensuring that losses on Europe's roads are reduced.

The attainment of an ever-higher safety level on European roads is a long-term and ongoing process, which has seen significant progress already. The last 30 years have seen a tripling of traffic on European roads while the number of casualties has halved during the same period. Industry has contributed significantly to this progress, in particular, through improved occupant protection (passive safety). For example, the combination of EU legislation for crash test standards and improved consumer information through the Euro NCAP programme⁽²⁶⁾ has substantially raised the survivability of vehicle occupants in a crash.

For the future significant gains in casualty reduction from a combination of vehicle and road infrastructure engineering are expected to come from crash avoidance technologies (active safety). For example, systems such as the Electronic Stability Control (ESC) have already demonstrated a powerful crash reduction potential.

To encourage development and deployment of these systems, more work is required to validate the positive impact of given technologies through evidence-based research and the development of relevant performance-related standards.

It is expected that initiatives such as the Road Safety Action Programme⁽²⁷⁾ and the eSafety initiative⁽²⁸⁾ will contribute to the continuation of the downward trend. It is important that this happens as the ever greater mobility enjoyed by Europeans comes at a high price: 1,400,000 accidents a year cause 43,000 deaths and 1,900,000 injuries on the roads. The direct and indirect cost of this has been estimated at €180 billion, *i.e.* 2% of EU GNP (EU-25)⁽²⁹⁾.

The European policy approach to road safety has for many years been in an embryonic state. The limits to the Union's ability to act and the subsidiarity principle have often made it difficult to translate long discussions on road safety into concrete actions at the European level. The Community is encouraging the exchange of best practices among Member States and ensuring their dissemination at local level. The levels of road safety achieved in different Member States vary significantly. This is particularly important in the light of the accession of the new Member States. In commercial transport several measures to enforce driving and rest times⁽³⁰⁾ have been taken and the requirement of a digital tachograph on new vehicles⁽³¹⁾ will enter into force as of 1st January 2006. In addition, the directive making the use of special restraint devices for children in cars and the wearing of existing safety belts for all passengers in all vehicles compulsory⁽³²⁾ has been adopted, while in 2004 the directive on tunnel safety⁽³³⁾ also became law. Financing offered for infrastructure projects in the Community framework also takes road safety considerations into account.

⁽²⁶⁾ The European New Car Assessment Programme.

⁽²⁷⁾ COM (2003) 311 final.

⁽²⁸⁾ http://europa.eu.int/information_society/activities/esafety/index_en.htm

⁽²⁹⁾ Source: European Parliament resolution on the European Road Safety Action Programme: Halving the number of road accident victims in the European Union by 2010: A shared responsibility (2004/2162(INI)).

⁽³⁰⁾ 2002/15/EC.

⁽³¹⁾ Regulation 1360/2002.

⁽³²⁾ Directive 2003/20/EC.

⁽³³⁾ Directive 2004/54/EC.

The eSafety initiative was established in 2002 as a co-operative multi-sector public-private partnership initiative between all the relevant stakeholders (Commission, Member States, infrastructure operators, telecommunication industry, vehicle manufacturers) aiming to accelerate the development, deployment and use of Intelligent Integrated Road Safety Systems, which use information and communication technologies to increase road safety. The eSafety action plan is seeking to encourage an integrated approach to road safety to address the pre-crash, crash, and the post-crash phases. With this approach active and passive safety measures, traffic regulations, information technologies and innovations will play a significant role.

As can be seen, the **eSafety** initiative is working to achieve the casualty reduction target through an integrated approach combining actions by different stakeholders and several specific co-operative measures are being put forward to reduce the number of road deaths. These include an automatic emergency call (eCall regarding the implementation of which a Memorandum of Understanding has been signed by the stakeholders⁽³⁴⁾) to make better use of the post crash “golden hour” through reduced response times, as well as road traffic and travel information to reduce the risk of accidents. eSafety is also promoting potentially promising autonomous vehicle technologies, which include collision and lane departure warning systems, and is contributing to the speeding up of the deployment of such innovative technologies.

In the 2001 White Paper on Transport Policy, the Commission set the ambitious objective of halving the number of fatalities on European roads by 2010. In 2003, the Commission adopted a forward-looking **European Road Safety Action Programme**, which developed Community policy on road safety on the basis of an integrated approach. The Action Programme identified a combination of actions by public authorities, drivers and industry, which were considered to be the most effective way of achieving that objective.

Setting an ambitious target has also aimed at acting as a catalyst and a mobilising force for a renewed approach to road safety which is being developed in the Member States. Europeans are also becoming more alert to the danger posed by road traffic (road accidents are the main cause of death in the under-45 age group), while increased and improved safety features can be a commercial argument to the automotive industry.

Given the relatively straightforward answers which are available to increase the safety of road transport, it is surprising that current progress (2004) does not appear sufficient to reach the Community’s 2010 target. The total number of road fatalities in the enlarged EU has only decreased by 20% in four years. Nearly one-fourth of the road users killed are below the age of 25. 17% of people killed are pedestrians and cyclists and no progress has been achieved in the reduction of motorcyclist fatalities.

The Commission is currently conducting a review into the European Road Safety Action Programme and will, at the beginning of 2006, draw up an assessment of measures which have been taken at the European and Member State levels. Without pre-empting the conclusions of this assessment, it seems clear that the main causes of accidents remain speeding, the non-wearing of seat belts and helmets and alcohol/ drugs/ fatigue:

- Excessive and improper **speed** is a factor in about one-third of fatal and serious accidents;

⁽³⁴⁾ http://europa.eu.int/information_society/activities/esafety/doc/esafety_library/mou/invehicle_ecall_mou.pdf

- **Drinking and driving** is responsible for about 10,000 deaths every year;
- Failure to wear a **seat belt** or a **crash helmet** is a serious aggravating factor in accidents and approximately 7,000 lives could be saved through improved use (to the best international rate).

Other major contributing factors are high-risk accident sites (**black spots**), non-compliance with **driving and rest times** by professional drivers and **poor visibility**. Road safety audits (such as the European Road Assessment Programme) constitute an important first step so that drivers can be informed about ‘black spots’ and that corrective infrastructure measures can be taken. Increased protection offered by vehicles has also been identified as an important means for reducing fatalities and serious injuries.

Main challenge: enforcement

Most accidents are caused by drivers. Hence driver education and continuous information campaigns complemented by enforcement of the rules are key instruments to arrive at a safer road environment. The summary of the main accident causes points clearly to the fact that much of the safety improvement, which the Community is striving for, **could be achieved simply by a rigorous enforcement of existing rules**. The Member States who have put in place credible policies regarding driver education, enforcement and sanctions have recorded impressive results. Focused enforcement campaigns have also indicated a significant improvement in the road safety record. Therefore the main issue which has to be addressed with regard to road safety is that of implementation and there is often a gap between the intent of Member States and action taken in practice.

CARS 21 contribution to road safety

At the outset the CARS 21 stakeholders confirmed that the best means of achieving the aims set by the European Road Safety Action Programme would be to adopt a **holistic, integrated approach involving vehicle technology, infrastructure and the driver**. It was universally agreed that only by working within an integrated, holistic framework can the full potential of each individual element be realised and arising synergies exploited.

It was also agreed by all members that any opportunities to further promote the scope of international agreements in road safety should be pursued with vigour.

CARS 21 discussed **establishing specific road safety-related measures in the three pillars of the integrated approach, which offer the most promise in terms of their expected impact, cost and ease of implementation**. The aim was to create a **10-year “roadmap”** of concrete measures, which would cover all three pillars and hence enable high impact measures to be focused on first while providing industry with a degree of planning certainty and predictability. Industry and other stakeholders also pointed out that costlier measures could have a negative impact on fleet renewal and encouraged cost-effectiveness as the main criterion for assessment.

As the CARS 21 timeframe did not allow for a full impact assessment of the measures and the effects of their full interaction, it was agreed that a more comprehensive analysis should be

carried out after CARS 21 so as to enable for more factors to be taken into account. The group also discussed the possible methodology of such an analysis.

Following the identification of a series of priority measures (see recommendation 12), CARS 21 turned to discussing the effective implementation of the measures. The automotive industry outlined the importance of the measures in different pillars progressing in parallel so as to maximise the impact of the integrated approach. Several stakeholders suggested the establishment of an effective public benchmarking and evaluation process for monitoring Member States' progress in the fields of infrastructure and enforcement. It was felt that this could serve as a useful way of reducing the risk that steps taken by the industry would not be matched by corresponding progress in other parts of the integrated approach.

Recommendation n° 12:

The Group recommends that within a holistic, integrated approach involving vehicle technology, infrastructure and the road user, the following should be included in the CARS 21 road safety roadmap:

Vehicle technology measures:

- *Electronic Stability Control*
- *Seatbelt reminders*
- *Brake Assist Systems*
- *Heavy Duty Vehicles' rear view vision (avoid blind spots) and conspicuity*
- *Isofix child seats*
- *Daytime running lights*

The Group recognises that some of these vehicle technologies have to be further defined and that different deployment timeframes and strategies may be necessary for different vehicle types. Therefore, the Group recommends that such definitions are agreed among the relevant stakeholders and that an impact assessment on the basis of the principles described in Recommendation n° 1 is carried out to assess the possible implementation of these measures and their time-frame.

The Group also notes that several technologies, such as collision avoidance systems (obstacle recognition), are at an advanced development stage and could potentially offer significant road safety gains. While the Group believes that it would be premature to include them in the roadmap, it encourages their development and market introduction to be pursued as fast as possible.

Infrastructure measures:

- *The conduct of road safety audits, impact assessments and inspections (including safety mapping, prioritisation and communication of high risk routes and locations)*
- *The implementation of corrective measures*
- *The stricter conditioning of Community financing in the road sector on support to projects which follow road safety best practice*

Road user-related measures:

- *Accelerate the adoption and application of the directive on driving licences to reduce fraud and reduce the casualty levels among motor-cyclists*
- *Organise and facilitate increased co-operation among Member States to ensure improved cross-border infringement enforcement*
- *Improve the enforcement of alcohol and possibly introduce a maximum alcohol level for novice- and professional drivers*
- *Improve the enforcement of speed limits*
- *Promote and improve the enforcement of seat-belt use and motor-cycle helmet use.*

The Group, while stressing the possible EU role in promoting better enforcement, education and infrastructure planning, acknowledges that responsibility for the implementation of several infrastructure and user-related measures rests with the Member States. The Group recommends that a monitoring and evaluation of road safety activities in individual Member States should take place regularly and its results communicated to the stakeholders.

Pedestrian Protection:

The stakeholders of CARS 21 were informed of the Commission's draft proposal on phase II of the Pedestrian Protection Directive. The Group expressed its preliminary support for the approach envisaged in the directive, welcomed the Commission's initiative to consult before submitting the formal proposal, and expressed hope that this would ensure that Phase II measures are implemented quickly.

Recommendation n° 13:

It is recommended that the Commission adapts phase II of the directive as soon as possible.

4. TRADE

Four main issues have been identified as being of crucial importance for the competitiveness of the European automotive industry in the trade policy area:

- Doha Development Agenda (DDA) negotiations/Multilateral Approach;
 - The rise of bilateral approaches to trade relations in third countries, particularly in Southeast Asia;
 - Market access to China;
 - External dimension of EU domestic policy.
- **DDA negotiations/Multilateral Approach**

The CARS 21 group stressed that better trade conditions achieved within the framework of a multilateral approach played a key role in strengthening the competitiveness of the European automobile industry. In this context, a positive outcome of the Hong Kong ministerial conference of the Doha Development Agenda (DDA) is an essential pre-requisite for success

that can only be achieved if the principles of a horizontal formula (“*all countries and all sectors*”) are respected.

The group stressed that the DDA is an opportunity that should not be missed to increase the competitiveness of EU industry. Several members warned against any initiative that may lead to the automotive industry being used as a bargaining chip for other sectors. They consider that there should be no reduction in EU import duties on automobile products unless it is fully compensated by:

1. Ambitious tariff reductions and elimination of peak tariffs exceeding 25%: this should go along with the binding of all automobile tariffs;
2. Tariffs and non-tariffs barriers should be dealt with at the same time with equal importance and it should be ensured that tariff cuts will not be offset by other non-tariff measures such as domestic taxes and charges;
3. Special and differential treatment for more advanced developing countries should only consist of longer transition periods;
4. Ambitious agreement on trade facilitation should significantly improve the transparency and predictability of customs procedures.

- **Bilateral Approach**

Concerning Southeast Asia, the approach particularly of Japan to developing a series of bilateral agreements with Malaysia, the Philippines, Singapore, and Thailand over the last two years was examined. It was agreed that this might be a concern insofar as this has negative effects on EU industry competitiveness, especially given the peak tariffs in some of the Asian growth markets. The situation should be closely monitored, followed by a decision on appropriate courses of action. Against this background, the Commission informed the group about the work of the high-level Vision Group of EU and Asean senior economic officials established by Commissioner Mandelson and Asean Economic Ministers in April 2005 to investigate the feasibility of new initiatives, including a free trade agreement (FTA), to improve economic ties. The Vision Group held its first meeting on 21-22 July, where it agreed on joint terms of reference for studies to carry out an economic assessment of a potential FTA and established a programme to determine the scope and modalities for future negotiations.

- **Market Access to China**

Industry encounters significant difficulties with the regulatory and business framework in China, which is the most promising emerging market for European automotive manufacturers and has attracted a high level of European investment.

Obstacles encountered by industry in China take many forms, including important Non Tariff Barriers (NTBs).. The main ones are:

- serious favouritism in China towards domestic producers;
- lack of management control in joint ventures (e.g. through ownership restrictions);
- discrimination against whole vehicle imports (local content constraints/key component regulation);

- lack of consultation with European industry, despite its being a major sectoral investor, over draft legislation;
- lack of co-operation on the part of the Chinese at UNECE level; and
- serious problems with the protection of intellectual property rights.

In addition, pending legislation also leaves open the possibility of problems with normal distribution channels and other commercial arrangements.

- **External dimension of EU policy**

With increasing globalization in the automotive industry, it is key that EU rules and regulations are designed taking into account their impact on global competitiveness.

Recommendation n° 14

The DDA is an opportunity that should not be missed to increase the competitiveness of EU industry and market access to third countries.

It is important that the EU multilateral trade approach be complemented by a parallel bilateral approach as appropriate. In this context, the Commission should take appropriate action and adapt current policy based on a thorough assessment of the impact of new bilateral trade agreements on the competitiveness of the European automobile industry. Continuing up-to-date supporting information will be necessary from industry for the Commission to do this.

Where necessary, bilateral approaches should be undertaken at regional level (or country level with the largest trade partners) so that the automobile industry can compete on fair terms.

The Commission should continue its close monitoring of Chinese business and regulatory developments with a view to assessing the possibility of success at an eventual WTO dispute settlement panel if the situation does not improve.

The Commission and industry should engage in a continuing dialogue on market access issues as they develop worldwide.

Proposed EU policy measures should also be assessed in terms of their external impact.

5. RESEARCH AND DEVELOPMENT

The competitiveness of the European automotive industry is intimately intertwined with the success and continuity of its research and development efforts, which form an important part of industry's competitive position. This is reflected in the volume of investments, which the industry channels into R&D: the automotive industry accounts for approximately 20% of the manufacturing R&D investment in Europe, totalling about €20 billion a year. As such, the automotive industry is one of the main R&D investors in Europe.

The current global competitive environment is also witnessing a significant R&D effort by manufacturers from other parts of the world. In particular, there has been a stronger shift by

the European automotive industry's main competitors towards intensifying R&D in areas such as a hybrid technology and hydrogen. The fiercely competitive global market necessitates an efficient use of limited research resources and an effective partnership between the public and the private sector in the field of R&D.

R&D investments are a key factor to maintain and enhance the competitiveness of the industry and provide the basis for integrated technical solutions addressing concerns associated with the road transport system. Of particular relevance are issues related to safety and security as well as the perceived impact of the road transportation system on the environment. In addition, R&D investment is essential to maintain and increase the level and quality of employment in Europe.

The CARS 21 discussion on research and development has been approached from two main angles:

- determining (in the context of the 7th Framework Programme for Research and Development) how Community-specific research programmes could better serve the needs of the industry and the public, and increase the competitiveness of industry;
- exchanging information and discussing new areas of research that will support the CARS 21 Terms of Reference. The industry looks forward to creating a detailed research, development and demonstration programme in two main areas: "Clean Fuels and Vehicles" and "Intelligent Roads and Vehicles". There was also a discussion on the appropriate framework and instruments for the automotive industry to participate at European and Member State levels (e.g. at European level through FP7 with Collaborative Research, European Technology Platforms and Joint Technology Initiatives, etc.).

7th Framework Programme for R&D (FP7)

CARS 21 representatives welcomed the dedicated priority theme for "Transport" in FP7 and suggested that future research programmes:

- should ensure continuity with previous programmes;
- should avoid the atomisation of research into splintered areas;
- should focus on mission-oriented thematic priorities (e.g. future transport systems);
- should be implemented through simplified instruments and financial and governance procedures.

Industry indicated that efficiency in the field of automotive R&D and innovation was directly linked to the **framework conditions** for R&D and innovation. In this context, support was expressed for the proposed increase in research funding in the framework of ongoing discussions on the future financial perspective. Industry also stressed the importance of adequate incentives for private R&D investment (through the improvement of the regulatory environment, innovation impact assessment, state aid, financial tax incentives, etc.) and called for the simplification of the project application process and governance procedures. Regarding basic research (European Research Council), industry noted that funding in this area should be complementary to industrial research.

Some stakeholders also drew attention to the fact that given the regular research overlap between transport and energy research it might be more efficient to bundle them together where appropriate. They further indicated that FP7, national and structural funds should be considered together in tackling the transport challenges.

It was also pointed out that the US research policy model might be worth closer investigation, as the administrative cost of implementation there is lower than in Europe due to industry managing most of the programmes. The Commission informed the stakeholders that the "Joint Technology Initiatives" (JTIs) provide a new instrument, which should be implemented according to specific rules, through public-private partnerships. The Commission indicated that some JTIs, for example on "Hydrogen and Fuel Cells", which had been earmarked for research, could be of interest to the automotive industry. The Commission also indicated that it is committed to simplifying the administrative procedures for the implementation of FP7. However, the Commission also pointed out that such simplification will have to be compatible with the Community Financial Regulation.

Joint Technology Initiatives

During CARS 21 the Commission presented the outlines of the JTIs to industry. In particular, it was pointed out that the main pre-requisites for implementing a JTI have been defined by the Commission as follows:

- strategic importance of the topic and presence of a clear deliverable;
- existence of market failure;
- concrete evidence of Community value added;
- evidence of substantial long-term industry commitment;
- inadequacy of existing Community instruments.

Such initiatives should combine the common goals and commitment of resources from industry, governments, and relevant stakeholders to pursuing and achieving results in an action led by industry ("project of common European interest").

Industry indicated an interest in being involved in the JTIs process. It is now expected that more detailed discussions on JTIs, their scope and their implementation will take place in the near future.

Regarding clean fuels and vehicles and the potential JTI on "Hydrogen and Fuel Cells", industry indicated that it considers hydrogen to be a promising option as an energy carrier for the longer-term, which needs a major research and development effort. Several car manufacturers have sent formal letters of interest regarding such a JTI. In the light of the potential environmental benefits offered by other alternative fuels, the Commission and industry also discussed the issue of biomass to liquid fuels to complement this JTI on "Hydrogen and Fuel Cells".

In the area of "Intelligent Vehicles and Roads" the appropriate framework for consolidating the R&D efforts should be defined by the Commission and the automotive Industry. Considerable progress in this area has been made in ERTRAC, the eSafety Forum and the technology platform ARTEMIS. The proposed flagship initiative "Intelligent CAR" planned

under the i2010 strategy could be an appropriate vehicle to support research in the area of intelligent vehicles and roads.

Recommendation n° 15:

It is recommended that R&D co-operation between the EU and the industry should continue and further develop, and that research programmes should focus on strategic areas for the future competitiveness of the industry. R&D efforts should focus on making the road transport system more efficient while enhancing environmental compatibility and safety. CARS 21 members welcome all instruments for R&D support (including collaborative research, flagship initiatives and public-private partnerships) for research. It is also recommended that more detailed discussions on the feasibility and scope of setting up consolidated research initiatives in the two priority areas of clean, renewable fuels and vehicles (e.g. hydrogen and fuel cells) and intelligent vehicles and roads should continue. Furthermore, it is recommended that the EU should strive for the continuous improvement of the framework conditions for EU R&D and innovation.

6. TAXATION AND FISCAL INCENTIVES⁽³⁵⁾

In July 2005 the Commission tabled a proposal for a Council directive on passenger car-related taxes⁽³⁶⁾. Since taxes on passenger cars are currently diversified in terms of their structure and levels there is a need for a certain degree of harmonisation in this area.

The purpose of this proposal is:

- to improve the functioning of the internal market and;
- to implement the Community's strategy to reduce CO₂ emissions from passenger cars.

The proposal deals only with registration taxes and annual circulation taxes. It introduces three main measures:

- the gradual abolition of registration taxes over a five to ten year long transitional period,
- the establishment of a registration tax and annual circulation tax refund system to avoid the double payment of these taxes,
- the introduction of a CO₂-based element in the tax base of both the registration tax (pending its abolition) and the annual circulation taxes.

Registration taxes are often considered a clear obstacle to the freedom of movement of cars in the internal market, which negatively affect the competitiveness of the European car industry. The abolition of this tax would be applied gradually.

The registration tax refund system aims to avoid double taxation of registration taxes and it seeks to charge registration taxes according to the use of the car in every Member State. A similar refund system is introduced for the annual circulation tax.

Third pillar measures (fiscal measures) foreseen by the Community's strategy to reduce CO₂ emissions from passenger cars are considered to be a strong incentive to influence consumer's behaviour towards more environmentally friendly passenger cars. As a result, the proposal

⁽³⁵⁾ Ms. Beckett indicated that the UK feels that issues of Taxation or Fiscal Policy should be decided at Member State level, for this reason the UK does not sign up to the chapter and recommendations.

⁽³⁶⁾ COM(2005) 261 final.

requires annual circulation taxes to be differentiated on the basis of the number of grams of CO₂ emitted per kilometre by each particular passenger car. Also, for registration taxes, during a transitional period a similar tax differentiation would apply.

ACEA and several other stakeholders stressed that for all CO₂-based taxes to be effective in reducing energy consumption and in producing a more rational and harmonised form of taxation, the following conditions should be taken into account:

- being part of the overall EU strategy to reduce CO₂ emissions from passenger cars;
- leading to greater harmonisation;
- direct and linear correlation between taxes and CO₂ emissions;
- proportionality: a maximum tax level should be set;
- technology-neutrality;
- no discrimination against specific types, classes or segments of cars;
- revenue-neutrality;
- no negative impact on competitiveness of the industry.

Recommendation n° 16:

The Commission proposal is welcomed by a large majority of CARS 21 High Level Group members.

Fiscal Incentives

While some stakeholders warned against the introduction of national fiscal incentives, in particular if not harmonised, and thus leading to the fragmentation of the internal market, others considered that fiscal incentives have proved to be effective in stimulating consumer demand for innovative automotive technologies. For example, targeted reductions in fuel duties in a number of Member States (e.g. Germany and the UK) have successfully accelerated improvements in fuel quality envisaged by Directive 98/70/EC. The Euro 4 vehicle emissions legislation (Directive 98/69/EC) also specifically allowed the use of fiscal incentives by Member States for vehicles that could meet the required emissions limit values before the date of their mandatory introduction. In addition to these environmental applications some Member States are also using fiscal incentives to encourage the use of more advanced safety technologies. For example, Denmark gives an incentive to cars equipped with a combination of ABS⁽³⁷⁾, airbags and ESP⁽³⁸⁾.

As an alternative to traditional forms of regulation, fiscal incentives may offer a way of accelerating market penetration of new technologies. However, industry remains concerned that, in absence of their harmonization across the EU, fiscal incentives risk causing fragmentation of the single market and disrupt their anticipated supply requirements to any given Member State. Industry is also concerned that national fiscal incentives will distort competition, with some manufacturers benefiting more than others due to different national market shares. To avoid this risk, fiscal incentives, where appropriate, should be introduced

⁽³⁷⁾ Antilock Braking System.

⁽³⁸⁾ Electronic Stability Programme.

by Member States in a coordinated manner across the EU. To facilitate a more harmonised implementation, a common framework to ensure the co-ordinated application of fiscal incentives could be developed. Such a framework should ensure transparency and predictability and require that the proposed incentives demonstrably contribute to agreed EU goals, for example in areas of environment and safety.

Fiscal incentives should not prescribe technologies but be performance-oriented.

Recommendation n° 17:

Fiscal incentives, which fragment the internal market should be avoided. Where applied, they should be technology-neutral and harmonised as far as possible. In order to avoid possible market distortions, the European Commission should consider developing a common framework for the co-ordinated application of fiscal incentives designed to stimulate consumer demand for innovative environmental and safety technologies.

7. INTELLECTUAL PROPERTY: DESIGN PROTECTION

A Commission proposal to create a consistently liberalised open market for visible spare parts by removing design protection from them across the EU is currently being examined under the co-decision procedure⁽³⁹⁾. Positions of stakeholders (Member States, manufacturers, after-market and consumer representatives) are deeply conflicting.

Industry and some Member States note the importance of this issue for the competitiveness of the European automotive industry, and are concerned that it would deprive manufacturers of legitimate intellectual property rights, offer no proven benefit to consumers, might have negative safety implications and create unfair competition from low-cost producers who will not have to bear development costs. Industry also expressed concern that the proposal to abolish design protection would contravene EU efforts to strengthen intellectual property rights worldwide.

After-market representatives and other Member States, on the other hand, find no relationship between safety and design protection and feel that market liberalisation will have strong societal benefits.

The proposal is at present being discussed within the European Parliament and the Council. The possibility of compromise solutions at those levels should not be excluded.

On design protection, discussions demonstrated the complexity of the matter, the wide divergence of views, and the resulting minimal likelihood of any agreement being reached.

Stakeholders will continue to make their views known to the European Parliament and the Council.

Recommendation n° 18:

The EU should promote and enforce intellectual property rights globally.

⁽³⁹⁾ COM (2004) 582 final.

8. COMPETITION: ACCESS TO TECHNICAL INFORMATION FOR INDEPENDENT OPERATORS

The general obligation to provide repair information to independent operators is contained in DG Competition's block exemption regulation⁽⁴⁰⁾ and the Euro 4 directive indicates that the Commission is to make a legislative proposal which would ensure that independent operators have access to the technical information they require. Efforts to develop a common standard for making such information available were largely technically successful but have not yet been adopted. In the meantime, DG Competition has started investigations to check several manufacturers' compliance with the block exemption regulation requirements.

Replies to the public consultation on the draft Euro 5 proposal showed that stakeholders are expecting a legislative solution by including this issue in the emissions legislation, in view of the fact that already Directive 98/69/EC (which laid down the Euro 4 requirements) required the Commission to provide for additional requirements concerning the standardised provision of repair information to independent operators. After having negotiated with all stakeholders a set of specifications in the framework of OASIS⁽⁴¹⁾, the time has now come to move forward and to ensure that these specifications will be implemented.

The Commission intends to come forward with proposals to ensure standardised access to technical information. Industry requested that any proposal be accompanied by an impact assessment.

⁽⁴⁰⁾ Regulation N°1400/2002.

⁽⁴¹⁾ Organisation for the Advancement of Structured Information Standards: <http://www.oasis-open.org>

TEN-YEAR ROADMAP OF KEY INITIATIVES AND THE MONITORING PROCEDURE**MONITORING**

The members of CARS 21 have underlined the need to have a follow up of the CARS 21 process in order to ensure the actual implementation of a competitive regulatory framework for the automotive sector, in line with the aims of the CARS 21 High Level Group. In other words, it is necessary to set up a monitoring system to verify that the recommendations that have been agreed upon by the CARS 21 High Level Group are translated into concrete actions. Such a follow-up system should be simple and lean and should not create an unnecessary administrative burden. It must guarantee continuous engagement by each stakeholder concerned towards the achievement of European policy goals and it will provide the general framework in which each individual measure will have to be assessed, in line with the spirit of an integrated approach. The follow up system will also help keeping the political attention on the car sector high and it will contribute to maintain the culture of dialogue, consensus and transparency which has characterised the CARS 21 process.

The monitoring process should be based on the final report's recommendations as well as a roadmap that lists all recommendations and actions on which the Group agrees, although members of the Group might have a particular response to individual proposals.

The Commission announced its intention to submit to the European Parliament and the Council a **communication** on the results of CARS 21 so as to gain maximum political support. The communication will refer to the final report's recommendations and the **roadmap** produced by the CARS 21 High Level Group, which identifies the measures that should be taken over the next 10 years. While the objective of the roadmap is to give planning certainty to industry, it can not, by its very nature, stifle discussions on new developments. The automotive industry and interested stakeholders should be actively involved in the evolution of new and future policy measures. A **mid-term revision of the final recommendations and the roadmap in the course of 2009** could be envisaged.

Drawing on the positive experience of the hearings organised by the European institutions to inform the general public of the mission and results of the CARS 21 High Level Group, it was suggested that the Commission could organise an **appropriate consultation with stakeholders** and the European Parliament could hold an **annual hearing**, covering all aspects of automotive regulation. It was also underlined that Member states' continuous and active support towards the realisation of the objectives set by the CARS 21 High Level Group is of the utmost importance. It is necessary that individual initiatives taken at national level are coordinated with the evolving regulatory framework at the EU level.

The European Parliament has raised the issue of more information on the activities in the context of the UN Economic Commission for Europe's international automotive regulations. It was suggested that the Commission, in its communication on the outcome of CARS 21, could set out its priorities and identify those areas where it should propose starting negotiations on new international technical regulations. Moreover, an **annual working paper** on the state of play of the negotiation of new UN-ECE regulations could be issued by the Commission.

TEN-YEAR ROADMAP OF KEY INITIATIVES

I. Better Regulation

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 1</u>	Better regulation	Apply systematically the agreed CARS 21 principles to the decision-making process	With immediate effect	EU institutions, Member States and stakeholders
<u>Recommendation n. 2</u>	International harmonisation	Maintain efforts with a view to increasing international harmonisation of motor vehicle regulations, where appropriate, with a view to involve the key vehicle markets and to extend harmonisation to areas not yet covered, notably in the framework of both the 1958 and the 1998 Agreements of the UNECE	With immediate effect	EU institutions
<u>Recommendation n. 3</u>	Simplify the automotive <i>acquis</i>	1. Replacement of 38 EC directives by UNECE regulations (see detailed list in Annex I)	As from 2007	Commission (proposal) Council and European Parliament (adoption)
		2. Repeal of Directive 72/306/EEC on diesel smoke	2007	Commission (proposal) Council and European Parliament (adoption)

This roadmap is based on the recommendations contained in the CARS 21 final report. It does not replace the content of the report nor its recommendations.

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 3</u>	Simplify the automotive <i>acquis</i>	3. Include a general provision in the framework directive which provides for the possibility that manufacturers are appointed as testing laboratories at their request and after the type-approval authority has determined that the manufacturer has the necessary competence 4. Introduce self-testing and virtual testing in the relevant separate directives/UNECE regulations (see Annex I)	2006	Council and European Parliament (adoption)
		5. Simplify labelling requirements under UNECE regulations	From 2007 onwards: introduce necessary technical provisions	Commission (adoption by comitology)
		6. Consider simplifying Directives 71/127/EEC, 74/297/EEC, 76/115/EEC and 78/932/EEC as well as UNECE Regulation 122	2007	Commission and Member States (through UNECE)
<u>Recommendation n. 4</u>	Internal Market	Extend the EC Whole Vehicle Type Approval procedure to all vehicle categories from the earliest possible moment on a voluntary basis	From 2007	Commission (adoption by comitology)
			Adoption in 2006 Entry into force in 2007	Council and European Parliament

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II. Environment

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 5</u>	Reduce pollutant emissions from light duty vehicles in line with the Thematic Strategy on Air Pollution	Adopt a proposal for Euro 5	Commission proposal end 2005 (co-decision)	Commission (proposal) Council and European Parliament (adoption)
<u>Recommendation n. 6</u>	Reduce pollutant emissions from heavy duty vehicles in line with the Thematic Strategy on Air Pollution	<ol style="list-style-type: none"> Adopt a proposal for Euro VI International harmonisation: <ul style="list-style-type: none"> development of global technical regulations on emission test cycles, off-cycle emissions and on-board diagnostic systems Promotion of international harmonisation of emission limit values 	Commission proposal in 2007 GTRs to be adopted in 2006 After agreement on the test procedures	Commission (proposal) Council and European Parliament (adoption) Commission and Member States Commission and Member States

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 7</u>	Reduce CO₂ emissions from light-duty vehicles through an integrated approach	1. Revise the Community strategy to reduce CO ₂ emissions on the basis of an integrated approach	Review to be finalised in the 3 rd quarter of 2006	Commission (proposal on the future strategy) Each stakeholder contribution to the strategy to be decided as part of the review EU institutions
<u>Recommendation n. 8</u>		2. Support the increased use of biofuels ⁽⁴²⁾	Ongoing. EU Biomass Action Plan due by end of 2005. Member States to submit annual reports on implementation of Directive 2003/30 on renewable transport fuels, including by July 2007 their targets for 2010. Commission to complete the review of Directive 2003/30 in 2006 with further proposals where appropriate.	EU institutions, Member States and industry

⁽⁴²⁾ This recommendation is supported by all members of the CARS21 High Level Group with the exception of EUROPIA. EUROPIA recommends awaiting the results of the Impact Assessment under ECCP II due in 2006, to determine the most cost effective options to reduce CO₂ emissions from light duty vehicles.

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
		<p>3. Develop policy to encourage use of biofuels which offer greater greenhouse gas savings and support research and development efforts into 2nd generation biofuels</p>	<p>Ongoing. Development of new Framework Programme for research and development during 2006.</p>	<p>EU institutions, Member States and stakeholders involved in the implementation of the research programmes</p>
		<p>4. Consider the adoption of a regulation on motor vehicles using liquid or compressed gaseous hydrogen as fuel</p>	<p>Commission proposal to be adopted in 2006</p>	<p>Commission (proposal) Council and European Parliament (adoption)</p>

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 9</u>	Make mobile air conditioning systems (MACs) more environmentally friendly	<ol style="list-style-type: none"> 1. Adopt the directive on MACs 2. Co-operate on the international level so as to avoid or minimise the potential effects of regulatory isolation. 	<p>Adoption in 2006</p> <p>With immediate effect</p>	<p>Council and European Parliament</p> <p>Commission</p>
<u>Recommendation n. 10</u>	Revise the End of Life Vehicles Directive	Revisit the directive according to the principles set out in the recommendation	On the occasion of the next revision of the ELV Directive	<p>EU institutions</p> <p>Automotive industry to provide relevant information</p>
<u>Recommendation n. 11</u>	Reduce environmental noise emissions	Apply the principle set out in the recommendation to any action on noise policy	Ongoing	EU institutions

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III. Road safety

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 12</u>	Pursue an Integrated Approach to road safety		Ongoing	Commission, EP, Member States, Industry, road users and other relevant stakeholders
<u>Recommendation n. 12</u>	Improve vehicle safety	<ol style="list-style-type: none"> 3. Isofix child restraint systems (M1 vehicles) 4. Seat belt reminders 5. Equipment of cars with daytime running lights (DRL) (M1 vehicles) 6. Electronic Stability Control (heavy-duty and light-duty vehicles) 7. Consideration of an obligation to retrofit in-use heavy-duty vehicles with devices to avoid blind spots in the rear field of vision 	<p>2006 (adoption)</p> <p>2007 (proposal)</p> <p>2007 (proposal)⁽⁴³⁾</p> <p>2006 (proposal)</p>	<p>Commission (adoption by comitology)</p> <p>Commission (proposal)</p> <p>Council and European Parliament (adoption)</p> <p>Commission (proposal)</p> <p>Council and European Parliament (adoption)</p> <p>Commission (proposal)</p> <p>Council and European Parliament (adoption)</p>

⁽⁴³⁾ Different implementation dates could be foreseen for heavy-duty vehicles, light-duty vehicles and for different categories of vehicles.

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
		8. Consider measures to improve the conspicuity of heavy-duty vehicles	2007	Commission, UNECE
		9. Consideration of an obligation to use Daytime running lights (DRL)	2006 (proposal)	Commission (proposal) Council and European Parliament (adoption)

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 12</u>	Improve safety of road infrastructures	<ol style="list-style-type: none"> Road safety audit, impact assessments, inspections (including safety mapping, prioritisation and communication of high risk routes and locations) and implementation of corrective measures. Stricter conditioning of Community financing in the road sector on support to projects which follow road safety best practice 	2006 (proposal)	Commission (proposal) Council and European Parliament (adoption) Member States Commission
<u>Recommendation n. 12</u>	Improve safety of road use	<ol style="list-style-type: none"> Accelerate adoption of Directive on driving licenses Improved cross-border infringement enforcement Improved enforcement of bans on drunk driving 	Ongoing 2006 (proposal)	Council and European Parliament Commission (proposal) Council and European Parliament (adoption) Member States Member States

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
		4. Improved enforcement of speed limits	With immediate effect	Member States
		5. Promotion and enforcement of seat-belt use	With immediate effect	Member States
		6. Motor-cycle helmet enforcement	With immediate effect	Member States
		7. Monitoring and evaluation of road safety activities in Member States	With immediate effect	Commission and Member States
<u>Recommendation n. 13</u>	Pedestrian protection	Commission to adapt phase II of the Pedestrian Protection Directive.	2005 (proposal)	Commission (proposal) Council and European Parliament (adoption)

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IV. Trade

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 14</u>	Enhance the competitiveness of the European automotive industry in the trade policy area	<ol style="list-style-type: none"> <li data-bbox="403 1028 655 1453">1. Ensure that in the international trade negotiations due account is taken of the need to increase the competitiveness of EU industry and market access <li data-bbox="655 1028 818 1453">2. Complement the multilateral approach by a bilateral approach as appropriate. <li data-bbox="818 1028 1107 1453">3. Continue close monitoring of Chinese business and regulatory developments with a view to assessing the possibility of success at an eventual WTO dispute settlement panel if the situation does not improve <li data-bbox="1107 1028 1286 1453">4. Continue dialogue between Commission and automotive industry on market access 	With immediate effect	Commission

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Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
		5. Assess EU policy measures in terms of their external impacts	With immediate effect	Commission

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V. Research and development

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 15</u>	Enhance the competitiveness of the industry through EU research and development efforts	<ol style="list-style-type: none"> 1. Continue and further develop R&D co-operation between the EU and the industry 2. Focus research programmes on making the road transport system more efficient while enhancing environmental compatibility and safety 3. Use all instruments for R&D support (including collaborative research and public-private partnerships) and continue discussions on the setting up of a JTI in the area of clean renewable fuels and vehicles (e.g. hydrogen and fuel cells) 4. Strive for the continuous improvement of the framework conditions for EU R&D and innovation 	<p>With immediate effect</p> <p>With immediate effect</p> <p>With immediate effect</p> <p>With immediate effect</p>	<p>Commission and stakeholders</p> <p>EU institutions</p> <p>Commission, Member States and industry</p> <p>Commission</p>

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VI. Taxation and fiscal incentives ⁽⁴⁴⁾

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 16</u>	Approximation of Member States' taxation systems on passenger cars and introduction of a CO ₂ based element	Adopt the directive on passenger cars related taxes	Ongoing	Council and European Parliament
<u>Recommendation n. 17</u>	Co-ordination of fiscal incentives to avoid potential adverse impacts on the internal market	Consider the possibility of developing a common framework for the co-ordinated application of technology-neutral fiscal incentives	Ongoing	Commission

⁽⁴⁴⁾ Ms. Beckett indicated that the UK feels that issues of Taxation or Fiscal Policy should be decided at Member State level, for this reason the UK does not sign up to the recommendations.

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VI. Intellectual property: design protection

Recommendation	Objective	Implementation actions	Timetable	Responsible stakeholders/institutions
<u>Recommendation n. 18</u>	Promote and enforce intellectual property rights globally	Ensure that intellectual property rights are promoted and enforced globally through existing international trade mechanisms.	Ongoing	Commission

ANNEXES

- I. Simplification of EC legislation (EC type-approval of motor vehicles)
- II. Detailed assessment of the simplification of EC legislation
- III. Methodology followed by the CARS 21 High Level Group
- IV. Terms of reference of High Level Group for a Competitive Automotive Regulatory System for the 21st century
- V. Membership of the CARS 21 High Level Group
- VI. Membership of the Sherpa Group

SIMPLIFICATION OF EC LEGISLATION**• Replacement of EC directives by UNECE regulations:**

The following European directives should be repealed and replaced by their corresponding UNECE regulations. (the ones requiring lead-time are marked with an asterisk):

70/157/EEC (sound levels)
70/221/EEC (fuel tanks) *
70/311/EEC (steering effort)
70/387/EEC (door latches & hinges) *
70/388/EEC (audible warning)
71/127/EEC (rear visibility)
71/320/EEC (braking)
72/245/EEC (radio suppression)
74/60/EEC (interior fittings)
74/61/EEC (anti-theft and immobiliser)
74/297/EEC (protective steering)
74/408/EEC (seat strength) *
74/483/EEC (exterior projections)
75/443/EEC (speedometer/reverse gear)
76/756/EEC (installation of lighting)
76/757/EEC (retro-reflectors)
76/758/EEC (lamps)
76/759/EEC (direction indicators)
76/60/EEC (rear registration plate lamps)
76/761/EEC (headlamps)
76/762/EEC (front fog lamps)
77/538/EEC (rear fog lamps)
77/539/EEC (reversing lamps)
77/540/EEC (parking lamps)
77/541/EEC (seat belts) *
78/316/EEC (identification of controls) *
2001/56/EC (heating systems)
80/1269/EEC (engine power)
89/297/EEC (lateral protection)
92/22/EC (safety glass)
92/23/EC (tyres)
94/20/EC (couplings)
95/28/EC (flammability)
2001/85/EC (buses and coaches)
96/79/EC (frontal impact) *
96/27/EC (side impact)
98/91/EC (transport of dangerous goods)
2000/40/EC (front underrun protection).

- **Introduction of self-testing:**

Directives:

70/222/EEC (rear registration plate)
77/389/EEC (towing hooks)
78/316/EEC (identification of controls)
78/317/EEC (defrost/demist)
78/318/EEC (wash/wipe)
78/549/EEC (wheel guards)
92/21/EEC (masses & dimensions, cars)
97/27/EC (masses and dimensions)
92/114/EC (external projections of cabs)

UNECE Regulations:

28 (audible warning)
48 (installation of lighting)
121 (identification of controls)
122 (heating systems)
43 (part on installation of safety glass)
55 (couplings; only for geometric requirements)

The possibility of introducing self-testing in Directive 76/114/EEC (statutory plates) and UNECE Regulation 39 (speedometer and reverse gear should be considered).

- **Introduction of virtual testing:**

Directives:

77/389/EEC (towing hooks)
77/649/EEC (forward vision)
78/318/EEC (wash/wipe, for geometric requirements)
78/549/EEC (wheel guards)
92/114/EC (external projections of cabs;)

UNECE Regulations:

46 (for the field of rear vision)
21 (for the geometric requirements of interior fittings)
26 (exterior projections)
48 (installation of lighting)
55 (couplings; only with regard to geometric requirements)

ANNEX II

DETAILED ASSESSMENT OF THE SIMPLIFICATION OF EC LEGISLATION

Subject	Directive number	Official journal reference	Applicability										Recommendation			Remarks			
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion	Replacement by Reference to ECE	Simplification				
1. Sound levels	70/157/EEC	L 42, 23.2.1970, p. 16	X	X	X	X	X	X						X	R-51		New Test method in progress		
2. Emissions	70/220/EEC	L 76, 6.4.1970, p. 1	X	X	X	X	X	X									Regulation for Euro 5 will replace this Directive plus 20 other legal acts.		
3. Fuel tanks/rear protective devices	70/221/EEC	L 76, 6.4.1970, p. 23	X ⁽⁵⁾	X ⁽⁵⁾	X ⁽⁵⁾	X ⁽⁵⁾	X ⁽⁵⁾	X ⁽⁵⁾				X		X	R-34 R-67 (LPG) R-110 (CNG)	Rear protective devices requirements to be replaced by ECE R-58			
4. Rear registration plate space	70/222/EEC	L 76, 6.4.1970, p. 25	X	X	X	X	X	X				X					Self testing	ECE Regulation to be developed	
5. Steering effort	70/311/EEC	L 133, 18.6.1970, p. 10	X	X	X	X	X	X				X			X	R-79			
6. Door latches and hinges	70/387/EEC	L 176, 10.8.1970, p. 5	X													Consider replacing by GTR no. 1 and R-11, provided the scope of the Directive is not compromised			
7. Audible warning	70/388/EEC	L 176, 10.8.1970, p. 12	X	X	X	X	X	X							X	R-28	Self testing		

Subject	Directive number	Official journal reference	Applicability										Recommendation			Remarks	
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion	Replacement by Reference to ECE	Simplification		
8. Rear visibility	71/127/EEC	L 68, 22.3.1971, p. 1	X	X	X	X	X	X	X	X	X				X R-46 Review the requirements for interior mirrors	Virtual testing (for the field of rear vision)	
9. Braking	71/320/EEC	L 202, 6.9.1971, p. 37	X	X	X	X	X	X	X	X	X	X	X	X	X R-13, R-13H		R-13H for M1+N1 ⁽⁴⁵⁾ R-13 for other categories and NI
10. Suppression (radio)	72/245/EEC 95/54/EEC	L 152, 6.7.1972, p. 15	X	X	X	X	X	X	X	X	X	X	X	X	X R-10		Self testing already in place. Await adaptation of R-10
11. Diesel smoke	72/306/EEC	L 190, 20.8.1972, p. 1	X	X	X	X	X	X	X	X	X	X	X	X		X	Free acceleration requirements could be integrated into Directives 70/220/EC and 88/77.
12. Interior fittings	74/60/EEC	L 38, 11.2.1974, p. 2	X											X R-21 Review radii of curvature	Virtual testing		There are no similar requirements in the rest of the world

⁽⁴⁵⁾ Allow approval for NI vehicles under R-13H.

Subject	Directive number	Official journal reference	Applicability										Recommendation			Remarks	
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion	Replacement by Reference to ECE	Simplification		
13. Anti-theft and immobiliser	74/61/EEC	L 38, 11.2.1974, p. 22	X	X	X	X	X	X	X						X R-18 R-116		
14. Protective steering	74/297/EEC	L 165, 20.6.1974, p. 16	X			X									X R-12 (where needed)		For M1 covered by 96/79/EC Review overlap between the Directive and R-12
15. Seat strength	74/408/EEC	L 221, 12.8.1974, p. 1	X	X	X	X	X			X					Consider replacing by R-17 and R-80		
16. Exterior projections	74/483/EEC	L 256, 2.10.1974, p. 4	X												X R-26	Virtual testing	
17. Speedometer and reverse gear	75/443/EEC	L 196, 26.7.1975, p. 1	X	X	X	X	X			X					X R-39	Consider self testing	
18. Plates (statutory)	76/114/EEC	L 24, 30.1.1976, p. 1	X	X	X	X	X	X	X	X						Consider self testing	
19. Seat belt anchorages	76/115/EEC	L 24, 30.1.1976, p. 6	X	X	X	X	X			X						Consider deleting the requirements on the position of anchorage points for front seats	Covered by the applicable frontal impact test of Directive 96/79/EC
20. Installation of lighting and light signalling devices	76/756/EEC	L 262, 27.9.1976, p. 1	X	X	X	X	X	X	X	X					X R-48	Self testing and/or virtual testing	
21. Retro reflectors	76/757/EEC	L 262, 27.9.1976, p. 32	X	X	X	X	X	X	X	X					X R-3		

Subject	Directive number	Official journal reference	Applicability										Recommendation			Remarks				
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion	Replacement by Reference to ECE	Simplification					
22. End-outline, front-position (side), rear-position (side), stop, side marker, daytime running lamps	76/758/EEC	L 262, 27.9.1976, p. 54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	By the applicable ECE R 7,87,91			
23. Direction indicators	76/759/EEC	L 262, 27.9.1976, p. 71	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-6			
24. Rear registration plate lamps	76/760/EEC	L 262, 27.9.1976, p. 85	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-4			
25. Headlamps (including bulbs)	76/761/EEC	L 262, 27.9.1976, p. 96	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	By the applicable ECE i.e. R-112	Check for other applicable regulations	
26. Front fog lamps	76/762/EEC	L 262, 27.9.1976, p. 122	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-19			
27. Towing hooks	77/389/EEC	L 145, 13.6.1977, p. 41	X	X	X	X	X	X	X	X	X	X	X	X	X	X			Self and/or virtual testing	
28. Rear fog lamps	77/538/EEC	L 220, 29.8.1977, p. 60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-38			
29. Reversing lamps	77/539/EEC	L 220, 29.8.1977, p. 72	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-23			
30. Parking lamps	77/540/EEC	L 220, 29.8.1977, p. 83	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-77			
31. Seat belts	77/541/EEC	L 220, 29.8.1977, p. 95	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R-16 and R-44		R-16 includes Isofix	
32. Forward vision	77/649/EEC	L 267, 19.10.1977, p. 1	X															Virtual testing	Virtual testing	
33. Identification of controls	78/316/EEC	L 81, 28.3.1978, p. 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Consider moving to R-121	Self testing	Consider linking self testing with the European Statement of Principles

Subject	Directive number	Official journal reference	Applicability										Recommendation			Remarks			
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion	Replacement by Reference to ECE	Simplification				
34. Defrost/demist	78/317/EEC	L 81, 28.3.1978, p. 27	X	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)						Self testing			
35. Wash/wipe	78/318/EEC	L 81, 28.3.1978, p. 49	X	(²)	(²)	(²)	(²)	(²)	(²)	(²)						Self testing / Virtual testing			
36. Heating systems	2001/56/EC 2004/78	L 292, 9.11.2001, p. 21	X	X	X	X	X	X	X	X	X	X	X	X	X	R-122	Self testing	Consider modifying the scope of R-122 in order to keep it only for auxiliary heating systems and air cooled engines	
37. Wheel guards (see item 43)	78/549/EEC	L 168, 26.6.1978, p. 45	X														Self testing and/or virtual testing		
38. Head restraints	78/932/EEC	L 325, 20.11.1978, p. 1	X											X	Remove from Annex IV, part 1			Not necessary, covered by 74/408/EEC	
39. CO ₂ emissions/fuel consumption	80/1268/EEC 93/116	L 375, 31.12.1980, p. 36	X				X												
40. Engine power	80/1269/EEC	L 375, 31.12.1980, p. 46	X	X	X	X	X	X	X	X	X	X	X	X	X	R-85		The scope of R-85 may need some adaptation; vehicles currently not covered, only engines	
41. Diesel emissions	88/77/EEC	L 36, 9.2.1988, p. 33	X	X	X	X	X	X	X	X	X	X	X						
42. Lateral protection	89/297/EEC	L 124, 5.5.1989, p. 1														X	R-73		

Subject	Directive number	Official journal reference	Applicability										Recommendation			Remarks	
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion	Replacement by Reference to ECE	Simplification		
43. Spray-suppression systems (see item 37)	91/226/EEC	L 103, 23.4.1991, p. 5					X	X									Await outcome of research from the U.K.
44. Masses and dimensions (cars)	92/21/EEC	L 129, 14.5.1992, p. 1	X														Self testing
45. Safety glass	92/22/EEC	L 129, 14.5.1992, p. 11	X	X	X	X	X	X	X	X	X	X	X	X	R-43	Self testing (for part of directive referring to installation on vehicle)	Reference to R43 already in place for some parts of the directive. GTR under preparation.
46. Tyres	92/23/EEC	L 129, 14.5.1992, p. 95	X	X	X	X	X	X	X	X	X	X	X	X	By the applicable ECE R-30, R-54, R-64, R-117	Self testing already in place	No corresponding regulation for installation on vehicle. GTR under preparation.
47. Speed limiters	92/24/EEC	L 129, 14.5.1992, p. 154		X						X							Consider merging with Directive 92/6.
48. Masses and dimensions (other than vehicles referred to in item 44)	97/27/EC	L 233, 28.8.1997, p. 1		X	X	X	X	X	X	X	X	X	X	X		Self testing	
49. External projections of cabs	92/114/EEC	L 409, 31.12.1992, p. 17				X	X	X	X	X	X	X	X	X		Self testing and/or virtual testing	

Subject	Directive number	Official journal reference	Applicability								Recommendation			Remarks			
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	Deletion		Replacement by Reference to ECE	Simplification	
50. Couplings	94/20/EC	L 195, 29.7.1994, p. 1	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X ⁽³⁾	X	X	R-55 (for components)	Self testing and/or virtual testing		
51. Flammability	95/28/EC	L 281, 23.11.1995, p. 1			X									X	R-118		
52. Buses and coaches	2001/85/EC	L 42, 13.2.2002, p. 1		X	X									X	R-107		
53. Frontal impact	96/79/EC	L 18, 21.1.1997, p. 7	X											X	R-94		
54. Side impact	96/27/EC	L 169, 8.7.1996, p. 1	X			X								X	R-95		
56. Vehicles intended for the transport of dangerous goods	98/91/EC	L 11, 16.1.1999, p. 25				X ⁽⁴⁾	X ⁽⁴⁾	X ⁽⁴⁾	X ⁽⁴⁾	X ⁽⁴⁾	X ⁽⁴⁾			X	R-105		
57. Front underrun protection	2000/40/EC	L 203, 10.8.2000, p. 9								X				X	ECE R-93	Review of phase 2	
58. Pedestrian Protection	2003/102/EC		X			X											GTR under development

METHODOLOGY FOLLOWED BY THE CARS 21 HIGH LEVEL GROUP

The CARS 21 High Level Group was set up at the beginning of 2005 with the task to deliver its recommendations by the end of the year. In order to achieve its objectives, the group was assisted by a Sherpa group. In addition, three subject-specific working parties were set up below the Sherpa group, concerning existing legislation, fuels, and the integrated approach, respectively.

Because of the limited time frame of its mandate, from the start the group defined the policy areas it would focus its discussions on, and grouped them into four main blocks, namely:

1) **Better regulation**

The following issues were debated under this chapter: general principles of better regulation and their application in automotive regulations, simplification of existing legislation and implementation issues (EC type-approval system).

2) **Competitiveness**

This chapter covered the most important policy areas affecting the competitiveness of the automotive industry, other than environmental policy and road safety, to which separate chapters were devoted. It included research and development, taxation, intellectual property, trade and competition.

3) **Environment**

The following environmental policy issues were covered in this chapter: pollutant emissions (for light and heavy duty vehicles, respectively), CO₂ emissions (follow-up to the Community strategy on CO₂ emissions from passenger cars, as well as alternative fuels and public procurement), mobile air conditioning systems and end-of-life vehicles directive.

4) **Road safety**

This chapter was built on the European Road Safety Action Programme.

Specifically for the CO₂ emissions and the road safety sections, the discussions were structured on the basis of an integrated approach, in which a number of actions aimed at reaching the policy goals and coming from vehicle technology, infrastructure and the driver were identified and assessed. The conclusions reached in these two areas reflect the approach followed.

Last but not least, in parallel with the work of CARS 21 the Commission organised a wider public consultation of stakeholders, with the aim of gathering the opinion of interested parties on the best regulatory framework for the European automotive industry. The public consultation was followed by a hearing of senior level industry and civil society representatives at the end of April⁽⁴⁶⁾. The results of these consultation exercises were fed back into the discussions of the High Level Group.

⁽⁴⁶⁾ Further information on the public consultation and the hearing are available at:
<http://europa.eu.int/comm/enterprise/automotive/pagesbackground/competitiveness/CARS 21.htm>

**TERMS OF REFERENCE OF THE HIGH LEVEL GROUP
FOR A COMPETITIVE AUTOMOTIVE REGULATORY SYSTEM
FOR THE 21st CENTURY**

OBJECTIVES & STRATEGY

To make recommendations for the short, medium and the long term public policy and regulatory framework for the European automotive industry, that enhances global competitiveness and employment while sustaining further progress in safety and environmental performance at a price affordable to the consumer.

These goals should be achieved by economic, taxation and internal market policies that encourage investment in profitable manufacturing, reviews the regulatory burden and compliance cost, and stimulates research and innovation in world leading automotive technologies.

DELIVERABLES

The group is expected to identify complementary and consistent policies that enhance economic competitiveness, road safety and the environmental performance of vehicles. It will have to chart the way towards **sustainable development** of a competitive European automotive industry.

It will aim at an integrated approach, so as to avoid negative interaction and cumulative effects of the various policies. It will look at ways on how to reduce the cost of existing and new legislation where possible. The result should be a **roadmap** that identifies the measures that should be taken over the next 10 years.

ISSUES

Policy and legislative framework

For decades, the industry has responded to a multitude of regulatory initiatives, in the areas of taxation, safety and the environment. At the same time, industry seeks an improvement of its competitiveness. The challenge will be to design a regulatory framework that takes account of both the public policy requirements on the one hand and the industry's competitiveness on the other.

The very existence of the CARS 21 group is evidence of the Commission's desire to improve the regulatory framework and to deliver on its commitment towards **better regulation**. This includes issues such as the regulatory process, the instruments used and the implementation methods. More particularly, the group will discuss issues such as lead times, use of the appropriate legal base, impact assessments, alternative instruments to legislation and alternatives to the current type approval system (*e.g.* possibilities for self-testing and self-certification).

There is a **need to explore a stronger internationalisation of the regulatory environment** (i.e. moving the EU legislative *acquis* towards the UN Economic Commission for Europe's international automotive regulations) without relinquishing the Community's instruments for achieving its goals in certain priority areas.

WORKING ARRANGEMENTS

The group shall discuss on the basis of a **short, focused agenda**. The group may choose to issue a joint statement following each meeting, outlining decisions taken and progress made.

The work will be oriented towards **the group's final outcome – a report containing recommendations** to be addressed to policy makers on a European and national level, the wider automotive industry community, civil society organisations and the public at large.

All preparatory work will be done in a **Sherpa group** in close co-operation between the Commission services and the personal representatives nominated to that effect by the other participants of the group. The Sherpa group will discuss subjects of main concern and prepare proposals for concrete actions/policy measures which serve as a basis for decisions to be taken by the group. The Sherpa group may decide to set up **working groups** on specific issues.

A **secretariat** will be provided by the European Commission, DG Enterprise & Industry.

The services of all Commissioners involved will actively contribute to the work. All participants will be encouraged to maintain close communications with one another. Outside views will be sought where appropriate.

MEMBERSHIP

The group aims to bring together **key stakeholders** in the automotive field. Representation will be at the highest level. The group will be chaired by Commission Vice-President Verheugen.

INDICATIVE TIMETABLE

It is proposed that the group meets in **April, July and November 2005**. If considered necessary, a fourth meeting will be organised in **December 2005**. The group will prepare a report with its recommendations before the end of 2005 which will be adopted and presented to the Commission.

Before each meeting of the group one or more meetings of the Sherpa group will take place.

MEMBERSHIP OF THE CARS 21 HIGH LEVEL GROUP

Commission

▪ Günter Verheugen, Chairman	Vice-President of the Commission, Commissioner for Enterprise and Industry
▪ Jacques Barrot	Vice-President of the Commission, Commissioner for Transport
▪ Stavros Dimas	Commissioner for Environment

Member States

▪ Wolfgang Clement	Federal Minister for Economy and Employment, Germany
▪ Margaret Beckett	Secretary of State for Environment, Food and Rural Affairs, United Kingdom
▪ François Loos	Minister-delegate for Industry, France
▪ Martin Jahn	Deputy Prime Minister, Czech Republic
▪ Pietro Lunardi	Minister for Infrastructure and Transport, Italy

European Parliament

▪ Garrelt Duin	Member of the European Parliament (PSE/DE), Joint Chairman Forum for the Automobile and Society
▪ Malcolm Harbour	Member of the European Parliament (EPP/UK), Joint Chairman Forum for the Automobile and Society

Industry

▪ Armand Batteux	President of the European Association of Automotive Suppliers
▪ Lewis Booth	Chairman Ford of Europe and Executive Vice President Ford of Europe and Premier Automotive Group
▪ Wilhelm Bonse-Geuking	President of the European Petroleum Industry Association
▪ Louis Schweitzer	Chairman Renault SA
▪ Leif Johansson	President of AB Volvo and Chief Executive Officer Volvo Group
▪ Sergio Marchionne	Chief Executive Officer Fiat S.p.A.
▪ Bernd Pischetsrieder	President of the European Automobile Manufacturers Association and Chief Executive Officer Volkswagen AG

Trade Unions, NGOs and Users

▪ David Baldock	Director of the Institute for European Environmental Policy
▪ Peter Scherrer	Secretary General of the European Metalworker's Federation
▪ Max Mosley	President of the Fédération Internationale de l'Automobile

The following persons joined the Group at a later stage

▪ Joan Trullén	Deputy Minister for Industry, Spain
▪ Jürgen Creutzig	President of the European Council for Motor Trades and Repairs

MEMBERSHIP OF THE SHERPA GROUP

Commission

▪ Georgette Lalis	DG Enterprise and Industry
▪ Jos Delbeke	DG Environment
▪ Enrico Grillo Pasquarelli	DG Transport and Energy

Member States

▪ Andreas Schuseil	Federal Ministry for Economy and Technology, Germany
▪ Bill Stow	Department for Environment, Food and Rural Affairs, United Kingdom
▪ Jean-Pierre Le-Pesteur	Ministry for Industry, France
▪ Vratislav Kulháněk	Skoda Auto a.s. (Sherpa for the Deputy Prime Minister, Czech Republic)
▪ Sergio Dondolini / Antonio Erario	Ministry for Infrastructure and Transport, Italy

European Parliament

▪ Helge Jordan	Assistant to G. Duin
▪ Nick Seale	Special Adviser to M. Harbour

Industry

▪ Lars Holmqvist	European Association of Automotive Suppliers
▪ Wolfgang G. Schneider	Ford
▪ Peter Tjan	European Petroleum Industry Association
▪ Jean-Marc Lepeu	Renault SA
▪ Anders Johannesson	AB Volvo
▪ Guido Rossignoli	Fiat S.p.A.
▪ Ivan Hodac	European Automobile Manufacturers Association
▪ Reinhold Kopp	Volkswagen AG

Trade Unions, NGOs and Users

▪ Malcolm Fergusson	Institute for European Environmental Policy
▪ Siegfried Roth	European Metalworker's Federation
▪ David Ward	FIA Foundation for the Automobile & Society

The following persons joined the Group at a later stage

▪ David Martínez Hornillos	Ministry for Industry, Spain
▪ Jacopo Moccia	European Council for Motor Trades and Repairs

The Secretariat

▪ Reinhard Schulte-Braucks	DG Enterprise and Industry
▪ Anna Borrás Herrero	DG Enterprise and Industry
▪ Barbara Bonvissuto	DG Enterprise and Industry
▪ Andreas Veispak	DG Enterprise and Industry

European Commission

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