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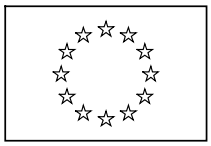

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 2.6.2003
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COMMUNICATION FROM THE COMMISSION

European Road Safety Action Programme

Halving the number of road accident victims in the European Union by 2010: A shared responsibility

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SUMMARY

– Road safety directly affects all of the territory of the European Union and all its inhabitants: in the 15-member European Union, 375 million road users, 200 million of them driving licence holders, use 200 million vehicles on 4 million km of roads.

  Ever greater mobility comes at a high price: 1 300 000 accidents a year cause 40 000 deaths and 1 700 000 injuries on the roads. The direct and indirect cost of this carnage has been estimated at €160 billion, i.e. 2% of EU GNP.

– Although there has been a slow but regular improvement in safety overall (during the last 30 years, the overall volume of road traffic in the countries which today make up the EU has tripled, while the number of road deaths has fallen by half), the situation is still socially unacceptable and difficult to justify to the citizen.

– In its White Paper on European transport policy,[1] the Commission has therefore proposed that the European Union should set itself the target of **halving the number of road deaths by 2010.** Although the Community has contributed to road safety over very many years, in particular through more than 50 technical standardisation directives, and despite the fact that the Maastricht Treaty clarified the legal means available to the Community to establish a framework and to act,[2] the Member States have been highly reluctant to take action at Community level, witness the harmonisation of blood alcohol limits which has been under discussion for twelve years.

– The Commission will propose standardising the rules on **checks** concerning the road traffic offences which cause the most deaths and concerning compliance with social regulations.

– In the context of a proposal on road infrastructure, the Commission propose action to deal with **particularly hazardous places.** Another proposal will concern the recasting of the Directive on driving licences.

– This communication also describes a number of direct and accompanying measures which the Commission plans to implement to enhance the benefit of the activities undertaken by the European Union, in particular the development of **new safety technologies** under the Research Framework Programmes to add value to the efforts made by the Member States.

  This action programmes aims to:

  – encourage **road users** to improve their behaviour, in particular through better compliance with the existing legislation, basic and continuous training for private and professional drivers and by pursuing efforts to combat dangerous practices,

  – make **vehicles** safer, in particular through technical harmonisation and support for technical progress; the aspects concerning electronic technologies ("*e*Safety") will

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1 European transport policy for 2010: Time to decide (COM(2001) 370 final, 12 September 2001).

2 Article 71 of the Treaty establishing the European Community.

be covered by a forthcoming Commission communication on information and communication technologies for intelligent vehicles".

– improve **road infrastructure,** in particular by defining best practices and disseminating them at the local level and by eliminating accident black spots.

– It describes in particular specific measures for establishing a methodological framework to identify and disseminate best practices, through the **drafting of technical guides,** improving the **collection and analysis of data on accidents and physical injuries,** and pursuing research and development to find solutions for the future.

– The Commission hopes that everyone concerned will sign up to and cooperate in the programme in question. To this end, it proposes that everyone in authority, with decision-making powers, or acting in an economic, social or representative function should give a solemn undertakings and subscribe to a **European Road Safety Charter.** Apart from complying with universal principles, each signatory would undertake to implement specific actions. The commitments given will be publicised and compliance with them monitored.

1. THE CHALLENGES TO BE MET

Each year, more than 40 000 people die in the European Union (EUR-15) as a result of road accidents and 1 700 000 are injured. These accidents are the main cause of death in the under-45 age group and cause more deaths than heart disease or cancer in that group. The total cost to society has been estimated at more than €160 billion a year, which corresponds to 2% of EU GNP - an exorbitant price to pay given that relatively straightforward solutions which would be acceptable to the public are not used.

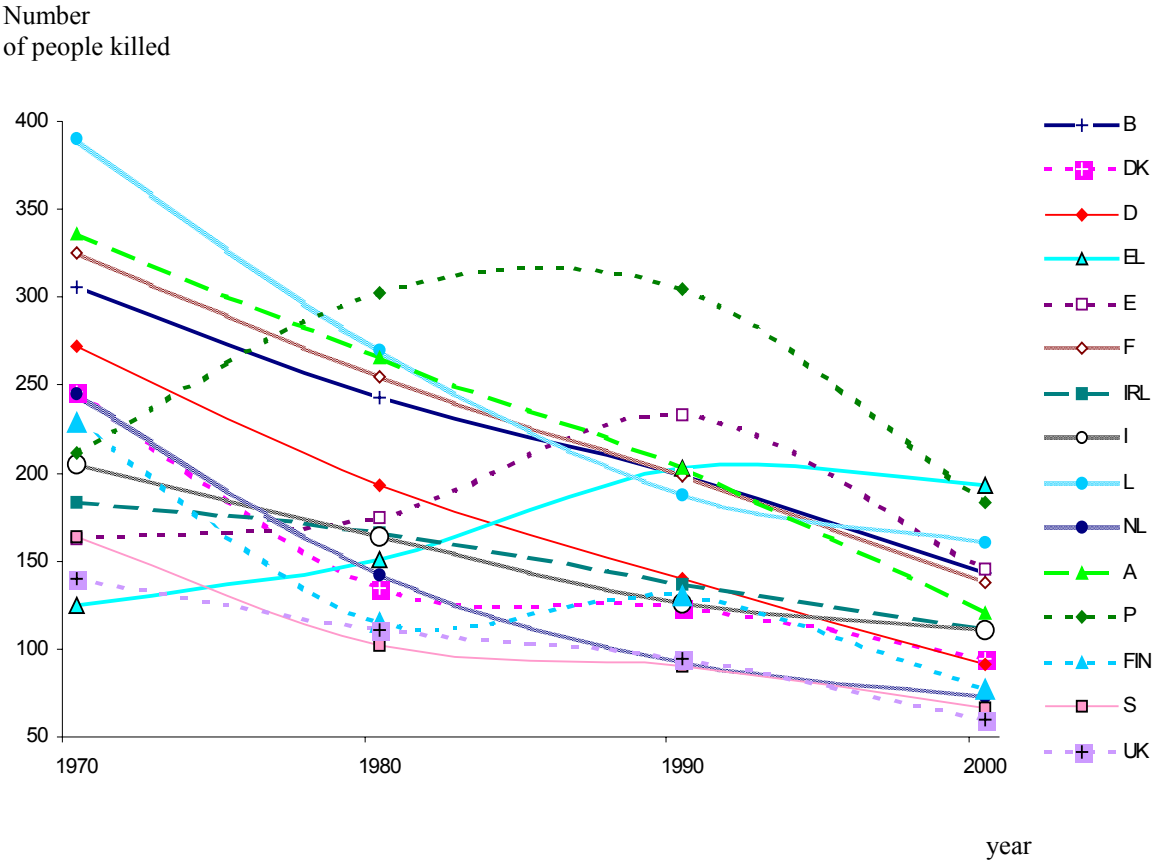

Figure 1a: Road accidents: Number of people killed per million inhabitants in each Member State, 1970-2000

(More detailed data, covering the last decade, are given in Annex 1)
Sources: CARE and national data

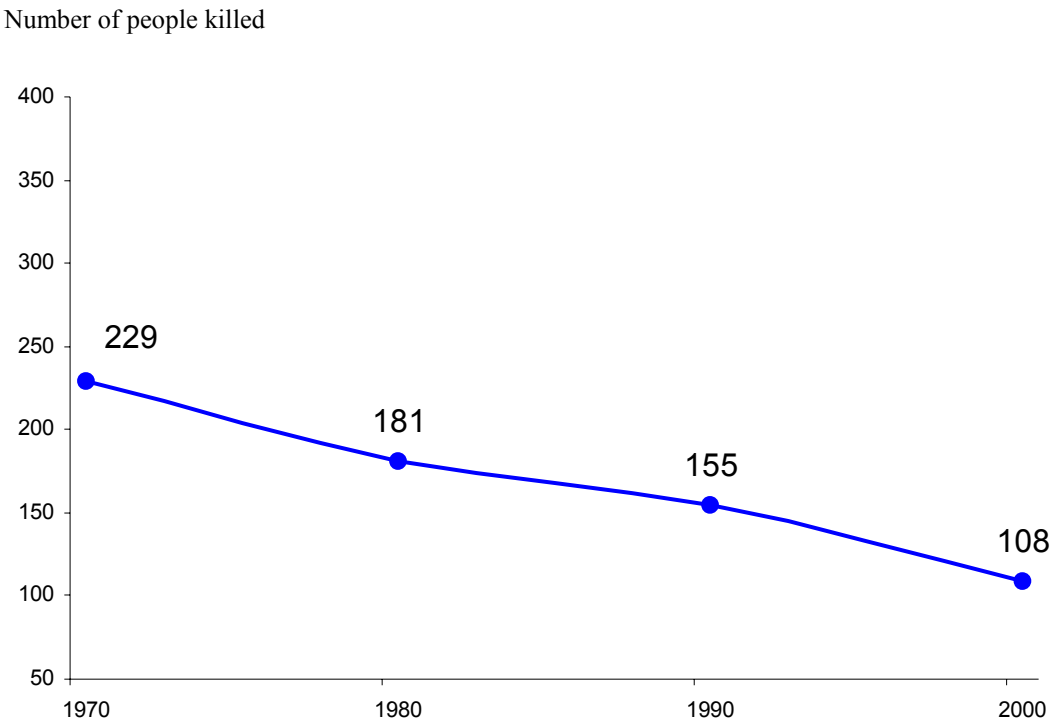

Figure 1b : Road accidents number of people killed per million inhabitants, EUR-15, trend 1970-2000

Improvements in road safety are understandably therefore one of the European citizen's greatest expectations. In order to meet this expectation, the Commission announced in its White Paper of 12 September 2001[3] that it would establish a targeted action programme containing a set of measures to be implemented by 2010.

In order to be effective, these measures need to be coherent and coordinated with measures taken at other levels of responsibility. The Commission has consulted the parties concerned to identify the measures which are likely to produce the best results. These consultations show that there is a broad trend in favour of developing a European action programme. In Resolutions adopted in 2000 and 2001,[4] the Council and the European Parliament have also confirmed the importance of adopting ambitious measures at European level to combat the scourge of road accidents.

In the past, there has been an enormous gap between the Member States' ambitious declarations of intent and the very modest provisions actually adopted, the principle of subsidiarity too often being invoked as a means of avoiding the adoption of specific measures at EU level. The Commission intends to apply the principle of subsidiarity in a strict manner so that everyone concerned, at all levels, can have a clearly identified framework of action in order to be able to play a full part.

All the Member States are faced with the same road safety problems. The main causes of accidents have been clearly defined:

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[3] European transport policy for 2010: Time to decide (COM(2001) 370 final, 12 September 2001).

[4] Council Resolution of 26 June 2000 on the improvement of road safety (OJ C 218, 31.7.2000, p.1); European Parliament Resolution of 18 January 2001 on road safety (Hedkvist-Petersen Report, OJ C 262, 18.9.2001, p.236).

– Excessive and improper speed, the cause of about a third of fatal and serious accidents and a major factor in determining the severity of injuries.

– The consumption of alcohol and drugs or fatigue. Drinking and driving is responsible for about 10 000 deaths each year. The problems of driving under the influence of drugs and fatigue are also increasing.

– Failure to wear a seat belt or crash helmet is a major aggravating factor in accidents. If the rate of seat-belt use could be increased everywhere to the best international rate, more than 7 000 lives would be saved each year.

– The lack of sufficient protection provided by vehicles in the event of an impact. Analysis of accidents shows that, if all cars were designed to provide protection equivalent to that of the best cars in the same class in the event of an accident, half of fatal and disabling injuries could be avoided.

– High-risk accident sites (black spots). Roadside design and street furniture can also play an essential part in reducing injuries in the event of a collision and may have a positive impact on behaviour.

– Non-compliance with driving and rest times by professional drivers.

– Poor visibility of other users or an insufficient field of vision for the driver. The lack of visibility in the blind spot towards the rear of vehicles alone causes 500 deaths a year.

Consequently, many of the road safety improvements proposed by the Commission could be achieved simply by complying with existing rules.[5]

It should also be mentioned that certain groups are particularly affected by road safety issues: young people between 15 and 24;[6] vulnerable users;[7] and the elderly[8], in particular pedestrians.

There are also the challenges which arise as the result of the **forthcoming enlargement** of the EU. In most of the new Member States road safety has evolved atypically on account, in particular, of the political, social and economic upheavals at the beginning of the last decade. As a general rule, the road safety situation at present is not as good as in the present EUR-15. Adjusted to the population level, the number of people killed and injured is not higher, but the respective ratios are deceptive since they do not take account of the number of vehicles on the road or the volume of traffic, both of which are much lower. The risk exposure factors are therefore much greater. It will therefore be necessary to monitor the situation carefully, and the likelihood of the number of vehicles on the road and traffic levels increasing in these countries over the next few years will create a need for drastic measures to avoid an automatic increase in the number of road victims.

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5 See paragraph 2.1 below.

6 About 10 000 killed each year - fatal injuries on the roads are the main cause of death in this age group.

7 In the European Union, pedestrians, cyclists, and moped and motorcycle riders account for more than a third of people killed on the roads: 7061 pedestrians, 3673 motorcycle riders, 2477 moped riders and 1818 cyclists in 2000 (Sources: CARE and national publications). The number of motorcycle riders killed is increasing in some Member States.

8 The risk of serious or fatal injuries in the event of an accident in particularly high in the case of the elderly, and the ageing population over the next decade needs to be considered.

2. SETTING THE TARGET OF REDUCING THE NUMBER OF ROAD ACCIDENT VICTIMS

2.1. A mobilising target

In its White Paper on European Transport Policy, the Commission proposed that the European Union should set itself the ambitious target of **halving the number of road deaths by 2010.** The Commission is fully aware that this means giving much greater priority to implementing the most effective measures at Community, national and local level.

However, only the European Parliament has so far endorsed this objective, and the Council has not committed itself.

Such an objective constitutes a serious collective undertaking to reduce the number of deaths rather than a legal requirement. Given that responsibilities for road safety are shared between different levels of government, it is not possible to rely solely on activities carried out by the European Union to achieve this target. The main aim is to provide the motivation for launching shared activities and to stimulate these activities at all levels of action.

The Member States with the best road safety records, such as Sweden, the United Kingdom and the Netherlands, were the first to set quantified targets to reduce the number of victims to derive maximum benefit from potential improvements in road safety from increased knowledge, accumulated experience and technical progress. It is broadly accepted that targeted road safety programmes are more beneficial in terms of effectiveness of action, the rational use of public resources and reductions in the number of people killed and injured than non-targeted programmes.

2.2. Monitoring the target

2.2.1. Establishing performance indicators

The target will have to be monitored periodically to verify the progress made, and will have to be reviewed when the new Member States join.

The use of performance indicators makes it possible to target actions in key areas systematically and to monitor implementation. These may concern particular groups of road users, such as children, new drivers and professional drivers, or compliance with important safety rules such as the wearing of a seat belt, or cover specific areas such as the urban road network, country roads or the trans-European network. Performance indicators for speed, drinking and driving, the use of restraint systems and safety devices, and numbers of roadside checks are already used in some Member States, and these could therefore be used in the first instance. The following stage would require the adoption of indicators in areas relating to the management of road network standards, the number of vehicles on the road and the emergency services in order to monitor progress made.

2.2.2. A mid-term review

A statistical report will be produced at regular intervals for the European Institutions and the public based on the statistics and performance indicators, which will make it possible to monitor the progress made in implementing this action programme and to analyse the trends with regard to safety levels.

The Commission will carry out a mid-term review in 2005 on the basis of the conclusions of its monitoring group. On that occasion it will assess the implications of the enlargement of

European Union on road safety. The Commission reserves the right, on the basis of the review, to propose regulatory measures.

- Reduce the number of road deaths by 50% by 2010.
- Evaluate the progress made, compared with the target, by means of appropriate performance indicators at Community and national level.
- Provide a report in 2005 on monitoring of the target, action carried out and modifications needed as a result of enlargement and, where appropriate, propose new measures.

3. A COMMITMENT AT ALL LEVELS TO IMPROVING ROAD SAFETY

3.1. The role of the European Union

With a single transport market and road travel rapidly expanding, a systematic approach is needed to reduce the high costs of road accidents and the inequalities between Member States. This approach will call for coordinated action, focused on common objectives, covering the local, regional, national and Community levels. Joint action is warranted to deal with common road safety issues, to raise greater awareness and to implement the most effective measures at the different levels.

Most accidents are due to human error, failure to observe driving rules, and poor understanding or insufficient control of the vehicle. Since human beings frequently and inevitably make mistakes, the system of infrastructure, vehicles and drivers should be gradually adapted to protect users more effectively against their own shortcomings. This is the approach in other modes of transport and safety at work. Failure to comply with driving rules should be dealt with both by introducing measures to improve checks and the enforcement of effective, proportionate and dissuasive penalties at EU level and by developing technologies which make it difficult or impossible to commit the most serious driving offences.

The White Paper referred to above stresses two essential points as regards the Community's role in the field of road safety:

– firstly, its long-standing contribution in the context of the establishment of an internal EU market without unfair competition,

– the legal means provided by the Maastricht Treaty which enables the Commission to establish a framework and to take measures.

Improving the safety of the movement of passengers and goods is one of the European Union's key tasks. An EU road safety programme complying with the principle of subsidiarity will provide a clear framework of action for all parties concerned and will guide the European Union's activities in fields in which it can provide a high level of added value.

Promoting greater awareness and understanding among the general public, policy makers and the media about how to make safer use of roads and the transport system must be at the heart of the Community's road safety policy.

3.2. All stakeholders in the transport system are concerned

Meeting the challenge of increasing road safety will necessitate a shift in thinking amongst both those with responsibility for the traffic system and users about how people use the roads and how they can be used safely.

Action to boost the wearing of seat belts provides a good illustration of the interdependence of different road safety measures and stakeholders and the need for interaction at all levels of government, whether local, regional, national or EU, as well as the private sector, to ensure effective protection (see Table 1 below).

European Union	- rules on the mandatory fitting and use of equipment - rules to improve checks and the application of penalties to car drivers - performance standards for safety belts and restraints - support for the launching of an EU programme to evaluate the restraint systems on the market - a framework and support for campaigns to promote seat belt use - monitoring of the incorporation of Community legislation by the Member States into their national law
National level	- implementation of EU rules - setting exemptions - setting national compliance objectives - securing compliance through resources for police enforcement - targeted national information - monitoring of seat belt use - encouraging seat belt use policies in the public and private sectors - support for child restraint loan schemes
Regional/local level	- police enforcement and publicity - seat belt information in schools - encouraging child restraint loan schemes in the local health sector - seat belt use surveys - seat belt use survivor clubs
Private sector	- innovation and initiatives - development and marketing of more efficient restraint systems, in response to evaluation campaigns - installation of non-compulsory restraint devices - reduced insurance premiums for users of equipped vehicles - campaigns at company level for the workforce

Table 1: Action needed to increase seat belt use

It will take time and will need a stepwise approach to motivate everyone concerned with road safety in the framework of an ambitious plan. Concerted action will continue to be necessary well beyond 2010. It will have to include well-tried measures and be capable of providing new momentum for all parties concerned.

3.3. Mobilising stakeholders through the establishment of a European Road Safety Charter

Going beyond subsidiarity and to boost political action, make it coherent and stimulate the emergence of projects, all stakeholders (transport companies, vehicle and parts manufacturers, insurance companies and infrastructure operators, local and regional authorities) should give a

formal undertaking that they will cooperate and try, collectively and individually, to obtain maximum effectiveness by subscribing to a European Road Safety Charter.[9]

The Charter contains a common part, but will also have to include specific commitments for each signatory. Each signatory's name and the specific commitments it has made under the Charter will be made public.[10] It will initially be valid for three years, after which it can be renewed.

Commitments given will have to be complied with strictly and continuously. Signatories will have to report how they have fulfilled their commitments and will agree to be monitored for this purpose during the period of validity of the Charter.

- Invite all parties concerned to sign a European Road Safety Charter.
- Monitor compliance with the commitments given by signatories.

4. THE MEANS OF ACTION AVAILABLE TO THE EUROPEAN UNION

The European Union has a number of ways in which it can act on road safety.

- Article 71 of the EC Treaty allows the European Union to **legislate** to adopt measures to improve transport safety, within the limitations of subsidiarity. It has established competence in several areas such as seat belt use in cars, the periodic technical inspection of motor vehicles, roadside checks, tachographs, speed governors, the weights and dimensions of vehicles, the transportation of hazardous goods, driving licences and certain aspects of driver training. It has more than one competence in some areas, such as the technical harmonisation of vehicle standards where it is required to ensure a high level of protection (Article 95 of the Treaty). It may lay down safety requirements for the trans-European road network.[11] The legislation will have to be adjusted to achieve the Community's road safety objective and to take account of the technical progress made in the areas covered.[12] Articles 151 and 152 (health and consumer protection) also allow the EU to take action in this connection.

The establishment of the internal market has made it possible, in particular through technical standardisation, to develop safer car parts thanks to a total of more than 50 directives: provisions requiring the fitting of laminated-glass windscreens to all vehicles, the installation of safety belts for all passengers, standardised side and front protection, the standardisation of braking systems.

In addition, the EU has legislated on compulsory seat belt use, the transportation of hazardous goods, the use of speed governors in lorries, standardised driving licences and the technical inspection of all vehicles.

- The European Union has **financial means** which enable it, through targeted calls for proposals, to support initiatives to generate a higher sense of awareness among policy

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9 The text of the European Road Safety Charter is given in Annex 2.

10 On the "Europa" website.

11 In accordance with European Parliament and Council Decision 1692/96/EC of the of 23 July 1996 on Community guidelines for the development of the trans-European transport network (OJ L 228, 9.9.1996, p.1).

12 See Chapter 5 below.

makers, professionals and the public at large about the main safety issues and the solutions required. It can, for example, grant financial support to consumer information programmes such as the EuroNCAP programme.[13]

- The European Union has so far played an important part in **the establishment and dissemination of best practices** (for example, as regards the introduction of reflective number plates and the development of crash barriers which are safer for motorcyclists), and it is planned to extend this activity further still. For the systematic introduction of these activities in all fields, the Commission will establish a reference framework to promote best practices among safety professionals. The aim will be to identify and summarise these best practices and to present them in the form of guidelines drawn up by professionals for professionals, to be used on a voluntary basis, together with detailed case studies. Guidelines could be drawn up on road safety planning, infrastructure safety and the reliability of information, the securing of heavy loads and roadside checks. Following this, the Community will support demonstration projects which will put into practice the methods developed during the preparation of the guidelines.

- The **collection and analysis of data on accidents** and physical injuries is essential to be able to make an objective evaluation of road safety problems, to identify the priority fields of action and to monitor the effects of the measures. At a later stage, the data should make it possible to quantify the benefits achieved through the new technologies. The European Union has played an active part in the definition of accident investigation methods (STAIRS project) and the creation of the CARE database.[14] These activities now need to be expanded and entered into in more detail to meet the various expectations (see paragraph 5.6).

- The definition and evaluation of future policy requires considerable and sustained **research and technological development**, against a background of on-going technological and social change. At the same time, it is essential to translate knowledge derived from previous research into action which will save human lives. It will be necessary to strengthen research activities in the field of road safety, in particular in the context of the Sixth Research Framework Programme, as well as **the basic studies, including socio-economic studies, and demonstration projects**.

- The Commission believes that **fiscal incentives** could be an important way of encouraging private and business investment and promoting the design of safer infrastructure and vehicles. The incentives should relate to certain categories of equipment with proven effectiveness in terms of safety for which it would be difficult to find outlets without incentives. As with pollution emission standards for vehicles, the Commission will examine the question of introducing a harmonised framework to clarify the conditions under which requirements can be introduced by the Member States. At all events, fiscal incentives must comply with the rules governing the internal market.

- By analysing experience at national level, the Commission will consider how to encourage the introduction of **safety requirements in public service contracts**. The Commission will propose harmonised criteria in calls for tender for public procurement.

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[13] See paragraph 5.2.2 below.

[14] Council Decision No 93/704/EC of 30 November 1993 on the creation of a Community database on road accidents (OJ L 329, 30.12.1993, p. 63).

In 1997 Sweden adopted a road safety programme to combine the efforts of the State, the regions, the towns, the private sector and individuals to aim to achieve zero deaths and serious injuries on the road.

In this context, several towns in Sweden have incorporated safety requirements in public service contracts, in particular for purchases of government vehicles and the provision of transport services.

- Last, but by no means least, collaboration is needed with the European insurance sector to try to find new ways of improving road safety, in particular by **spreading the costs of risks associated with accidents causing bodily injuries** more fairly, through the adjustment of insurance premiums.

The importance of the socio-economic aspects of road safety should be stressed. In purely accounting terms, it is clear that the measures do not all have the same cost-effectiveness ratio, but even the most expensive ones do have a favourable ratio. A systematic analysis will help to show the effectiveness of a broad range of measures to improve road safety and increase investment. The European Union's measures will be based on a quantitative analysis of **their impact in terms of costs and benefits**.

- Propose the introduction of harmonised road safety criteria in public service contracts.
- Study, together with the European haulage industry, additional measures which insurers could take to pass the cost of accident risks on more directly.

5. THE MAIN AREAS OF ACTION

5.1. Encouraging road users to improve their behaviour

5.1.1. Complying with basic road safety rules

- Dangerous driving is a scourge on a par with crime, and the Commission plans, as part of the Community's justice policy, to take initiatives aimed not just at lorry drivers but at all motorists.

  The failure of drivers to comply with basic road safety legislation (relating to drinking and driving, wearing a seat belt or crash helmet, and speeding) is the main cause of serious accidents. Action focusing on these three factors could help to meet more than half the target of halving the number of people killed on the roads. Another appreciable consequence is that calmer driving can help bring about a significant reduction in fuel consumption and exhaust emissions.

  Studies and research on this subject[15] have shown that, to achieve a significant improvement in compliance with the rules by road users, an overall approach is needed which combines **police checks** with **education and awareness campaigns for users**.

  In the short to medium term, technological innovation relating to vehicles and control equipment will also help to secure better application of safety rules. The relevant research

[15] For example, the GADGET and ESCAPE projects.

on the technological and institutional aspects is supported under the EU's Sixth Research Framework Programme.

According to a study by the UK Transport Research Laboratory, a reduction in average speed of 3 km/h would save 5 000 to 6 000 lives each year in Europe, and would avoid 120 000 to 140 000 accidents, producing a saving of €20 billion. According to the UK's observations, the installation of automatic surveillance cameras reduces average speeds by 9 km/h. If such cameras were fitted everywhere throughout the European Union, it would be possible to avoid a third of accidents and halve the number of people killed.

Seminar on "Killing speeds, Saving lives" organised by the Belgian Presidency of the European Union, 8 November 2001 in Brussels.

- The best performing Member States in terms of road safety also have the most efficient **checking** systems. The situation in the other Member States is all the more regrettable, therefore, especially given the public's expectations in this connection.

  Checks vary considerably from one Member State to another. Car and lorry drivers know that they must slow down in some countries, but that they can drive in others almost without impunity. This is shocking since it is easy to drive from one country to another, and this situation creates distortions of competition in the commercial haulage sector.

  To remedy this situation, the Commission will, in 2003, initially propose measures to increase enforcement of the rules governing the road traffic offences which cause the most fatalities and the social regulations applicable to the haulage industry.16

  In order to estimate the impact of the above proposals, the Commission recently launched studies to gather basic information on road traffic regulations and their checking and enforcement in the European Union, and to analyse the costs and benefits of the proposals. For some measures cost-benefit ratios of 10:1 have been identified.

  In this context, the Commission has also established the necessary cooperation with the Member States, the police authorities (such as TISPOL, the European Road Police Network) and the inspection authorities (in particular Euro Contrôle Route, the European transport inspectors' organisation).

  As regards matters already dealt with in Community legislation, indictments and the **penalties** imposed for infringement of driving rules covered by European Union legislation, especially regarding the withdrawal of driving licences, differ considerably from one Member State to another. The Commission believes the Member States should speed up the application of the 1998 Vienna Convention on decisions relating to the disqualification of drivers.[17] To contribute to this, the Commission intends to encourage the establishment of an information network between the competent national driving licence authorities. More generally, it would be useful to compare the different penalty mechanisms in force, how they are applied and their effectiveness (*benchmarking*).

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16 The latter proposal will concern the amendment of Council Directive 88/599/EEC on standard checking procedures for the application of Regulation (EEC) No 3820/85 on the harmonisation of certain social legislation relating to road transport and Regulation (EEC) No 3821/85 on recording equipment in road transport.

17 Council Act of 17 June 1998 drawing up the Convention on Driving Disqualifications (OJ C 216, 10.7.1998, p.1). To date, only one Member State (Spain) has signed and ratified the Convention.

As regards **education and awareness campaigns**, like the support given in 2001 and 2002 to extend Belgium's "Bob" or "designated driver" campaign to other Member States, the European Union could support EU information campaigns to raise a sense of awareness about the consequences of not complying with road safety regulations and about enforcement. To ensure added value, the Commission will give priority to pan-European campaigns which fit in with the objectives of this programme and which are integrated into an existing national activity by police and other authorities. These actions will be aimed in particular at vulnerable users, young drivers and the elderly.

Belgium has for some years been running a campaign to encourage party-goers to designate one person, "Bob", to remain sober and to drive everyone home safely. This campaign has caught the public imagination and more and more people have joined in, with volunteers offering to drive people home, bars offering non-alcoholic drinks to the person designated as "Bob", special public services, etc. In 2002, seven countries obtained Commission support to carry out a joint campaign based on the specifications laid down for the Belgian campaign. This shows the growing interest of the Member States in applying practices which have been shown to be successful in other Member States, if necessary adapting them to their own needs.

To underpin the above package of controls, the Commission will also support specific campaigns to create a heightened sense of awareness among road users about the three main causes of road deaths (speeding, drinking and driving and not wearing a seat belt).

The European Office of the Red Cross, an organisation made up of the national Red Cross societies of the Member States, carried out a road safety awareness campaign in 2002, with financial support from the Community, targeted at young people in the 15-24 age group. The independent assessment at the end of the campaign considered it to have been effective and a success.

- The use of **illicit drugs** and some **medicines**, is an increasingly worrying factor in road accidents, as is the more recent trend towards combining drug-taking with drinking. If nothing is done urgently, there could soon be more accidents due to drugs than to alcohol. Different measures will have to be taken to combat this scourge, such as the establishment of a harmonised procedure to detect illicit drugs in drivers involved in lethal accidents, the development of detection equipment, adequate training for road traffic police, and the sharing of results of studies on prevalence, checks and rehabilitation. In 2002 the Commission launched a joint study[18] with the US Administration to assess the performance and use of roadside drug-testing equipment. The findings of this study are expected to be available before 2005. In addition, doctors and pharmacists will also have to be called upon to play a part by informing patients about the effects of their treatment on driving ability. The Commission will consider the advisability of the general introduction of appropriate, harmonised pictograms on medical packagings, based on the European classification of drugs according to their effects.

Young drivers between 15 and 24 pay a heavy toll in terms of road accidents. Several unfavourable factors come together in this respect: insufficient experience of driving, a greater appetite for risk, and an attitude which is less respectful of the rules of the road. Other factors (fatigue, night-time driving, the use of legal and illegal psychotropic drugs, and

[18] ROSITA project – *Evaluation of roadside oral fluid tests for the detection of drivers under the influence of drugs*

group behaviour) mean that in some Member States car accidents on Friday and Saturday evenings have become the main cause of death of young people (see Figure 2 below).

As a result of this carnage, more than 2 000 people are killed each year (EUR-15). However, the example of the United Kingdom shows that this is not inevitable.

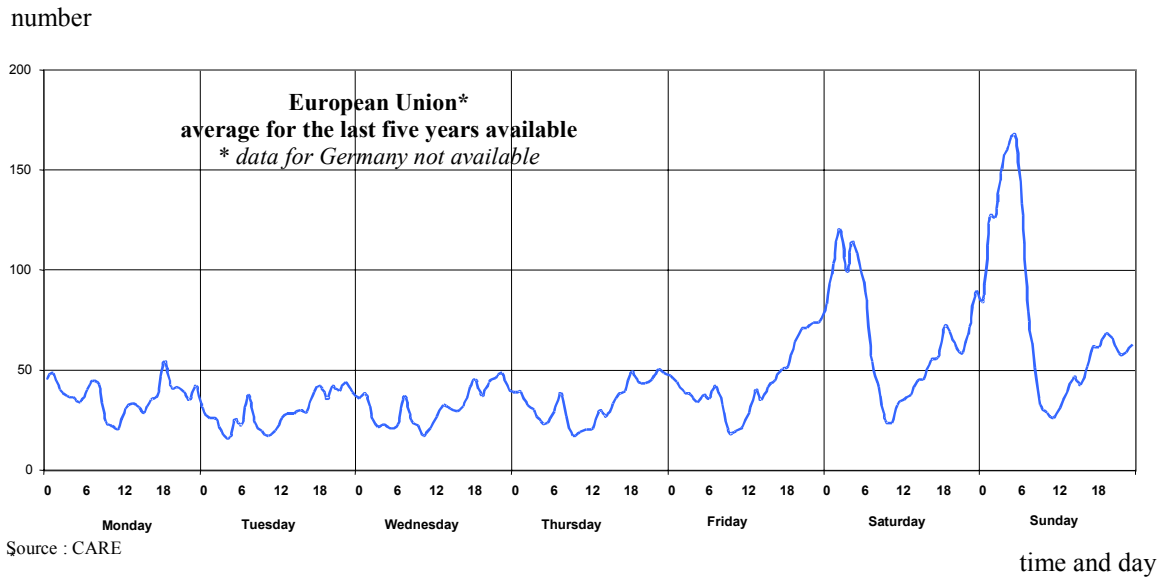

Figure 2: Road deaths among young adults

(Number of people between 18 and 25 killed in road accidents, by time and day – annual average)

- Propose measures to strengthen checks and ensure the proper enforcement of the most important safety rules.
- Develop best practice guidelines as regards police checks; collect, compare and publish information on national highway codes, and on infringements established and penalties imposed in the various countries.
- Participate in awareness campaigns about drinking and driving, seat belts, speed and fatigue, if possible combined with national police activities.
- Encourage the take up of the recommendation on the blood alcohol limit, continuation of work on the effects of drugs and medicines.
- Establish appropriate classification and labelling of medicines which affect driving ability.
- Harmonise, over time, the penalties for the main infringements of the rules of the road for international hauliers.

5.1.2. Driver licensing and training

Ensuring the safety of all road users is a key objective of driver licensing policies in Europe. Life-long road user training and information to raise awareness about the risk of road accidents, the consequences of unsafe behaviour, enforcement legislation and compliance

with key safety rules as well as the need for a sympathetic attitude to effective countermeasures is a key strand of road safety work.

Driving licence legislation facilitates people's freedom of movement and permits targeted improvements in driver behaviour, in particular through the driving tests to obtain a driving licence, the minimum requirements for which have been made much more stringent.[19] The Commission will consider how to improve the system of stepwise access to different categories of licences, to avoid the overly flagrant scope for fraud due to the very high number of licence models which are valid in the EU, and to check that driving ability is maintained.

The Commission will also take action to set minimum requirements as regards physical and mental fitness to drive and harmonise ways to enable the competent authorities to apply tolerances or restrictions to drivers undergoing long-term treatment which may impair their driving ability.

In Spain and the Netherlands, medical checks show that one driver in ten aged 50, and one driver in six aged 70, drives with their eyesight not properly corrected.

Greater account also needs to be taken of the specific problems of young drivers and the elderly as regards driver licensing and road education. Several Member States have successfully introduced stepwise access, from school age, to different categories of licence, combining it with specific provisions and continued training. The Commission will consider ways of emulating this in the EU framework, particularly in an effort to reduce the excessively high accident risks among young and inexperienced drivers. Several studies have been carried out in this field with the support of the Commission.[20] The results will enable the Commission in the near future to draft a recommendation on how to make provisional licences effective as well as guidelines in these fields.

It is important to continue at the same time with work on rehabilitating people who commit serious driving offences and on the issues raised by the 1998 Convention on the mutual recognition of decisions to disqualify drivers (mentioned above). A study on the rehabilitation programmes which exist in some Member States[21] shows that some of them are remarkably effective, achieving a 50% reduction in the number of re-offenders. It would therefore seem promising to link a probationary or points-based licensing scheme to the rehabilitation courses whereby offenders may seek to have their licences returned after withdrawal. In addition, the creation of a computerised communications network between authorities responsible for national driving licence registers should help to reduce the possibility of fraud and to implement the 1998 Convention.

The lack of monitoring of driver licensing is clearly leading to different types of individual fraud, in particular involving demands for duplicates and repeating the driving test in another Member State, as well as organised fraud, especially involving the counterfeiting or copying of models of driving licence which are very old but are still in circulation and are unprotected. Apart from the latter aspect of organised fraud, which will also have to be evaluated from the angle of road safety, the most frequent perpetrators of fraud are also the drivers who commit most driving offences.

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19 Commission Directive 2000/56/EC of 14 September 2000 amending Council Directive 91/439/EEC on driving licences (OJ L 237, 21.9.2000, p.45).

20 DAN, ADVANCED and NOV-EN projects.

21 ANDREA project.

The Commission also intends to come forward in due course with a proposal setting out EU-wide standards for instructor and examiner qualifications, which will improve safety as well as aiding free movement of services in education and training.

Lastly, the benefits of the promising developments now taking place as regards electronic driving licences and the use of simulators to learn how to drive and to improve driving will also be assessed.

- Amend Directive 91/439/EEC on driving licences in order to introduce in particular minimum standards for car driving examiners and a graduated licensing system to reduce accident risks among inexperienced drivers.
- Continue work on reviewing, in the light of scientific progress, minimum standards for physical and mental fitness to drive and study of the impact of medical examinations on road safety.
- Work towards establishing a scientific approach to learning how to drive and to road safety training, from school age.
- Continue specific work on young drivers and rehabilitation methods to reduce re-offending.

5.1.3. Use of crash helmets

Research shows that the use of crash helmets by two-wheel motor vehicle users reduces the risk of fatal or serious head injury by half. Figures suggest that compliance with legislation on crash helmet use would save up to about 1 000 lives across the EU. The Commission will support national initiatives to increase the rate of helmet use.

Crash helmet use by the high-risk group of cyclists is also being encouraged in many Member States. The Commission intends to compile figures on the use of helmets by cyclists in the EU and the effectiveness of cycle helmet use in reducing the risks of head injury, in particular amongst 10-14 year olds, the high-risk group.

Crash helmet use among moped riders is still a serious problem, whether because of weak regulations, poor compliance or ineffective penalties. A comparative study of driving rules and their enforcement was launched at the end of 2002. In the light of the conclusions, the Commission will be able to take an initiative on this specific point.

- Encourage the general use of crash helmets by all two-wheel motor vehicle users.
- Study the effectiveness of crash helmet use by cyclists in different age groups, as well as the impact on bicycle use and the measures to be taken, where appropriate, at EU level.

5.2. Using technical progress to make vehicles safer

5.2.1. Progress made on vehicle design

Vehicle design rules enable minimum protection levels to be set to avoid accidents and provide protection against injury. Significant improvements in the protection available to vehicle occupants in every Member State continue thanks to technological progress.

The EU currently has exclusive competence for whole vehicle type-approval for cars and two-wheel motor vehicles. This procedure, which is a very important means of improving road safety will soon be extended to commercial vehicles and their trailers, as well as coaches and buses. The continuous improvement of vehicles is ensured through the progressive adaptation of the technical requirements in the directives which form part of the type-approval procedures. In particular the directives on front and side impact[22] and consumer information from the European New Car Assessment Programme (see following paragraph) have led to the most rapid developments in car occupant protection that Europe has experienced. In addition, by acceding to the 1958 and 1998 Geneva Agreements[23] , the European Union could play a leading role in this matter at the world level.

As car occupants account for 57% of fatal accident victims, it is essential that progress is maintained. Given that most pedestrians and cyclists killed and injured have been struck by a motor vehicle, protection is also necessary to reduce the high risks of injury to which these vulnerable users are exposed. At the same time, the substantial risks associated with motorcycle and moped use and the high social cost of disabling injuries warrant new efforts to understand what action is required on the design of these categories of vehicles in order to increase crash protection.

A great deal more can be achieved, e.g. by rapidly implementing research and development results, which will make it possible to improve other aspects of passive vehicle safety. The Sixth Research Framework Programme will continue to encourage the setting up of multidisciplinary teams of researchers, including doctors and biomechanists, engineers, statisticians and psychologists from universities and industry.

At the same time, there is a revolution taking place in automotive technology which can open up large benefits as far as active safety and accident avoidance is concerned. Vehicles are developing into platforms for advanced electronic systems which can control a vehicle's safety functions. This technology offers great potential for a quantum leap in the field of road safety, thanks to smart active and passive safety systems which can improve compliance with driving rules, in particular regarding speeding and impaired driving ability, as well as providing intelligent protection in the event of an accident. It is however rather unlikely that these technologies will be able to correct all behavioural faults, which are likely, during the reference period, to remain the main cause of accidents.

Without awaiting future technologies, it would suffice to implement at the present time, through harmonised action, the technologies already available for vehicle safety and protective equipment to deliver a substantial proportion of the targeted reduction, in particular for commercial vehicles.

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22 European Parliament and Council Directive 96/27/EC and Directive 96/79/EC of 20 May 1996 and 16 December 1996 on the protection of occupants of motor vehicles in the event of a side and front impact and amending Directive 70/156/EEC (OJ L 169, 8.7.1996, p.1 and OJ L 18, 21.1.1997, p.7).

23 Agreement concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions [formerly Agreement concerning the adoption of uniform conditions of approval and reciprocal recognition of approval for motor vehicle equipment and parts, done at Geneva on 20 March 1958] (United Nations Economic Commission for Europe, 5 October 1995); Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles, done at Geneva on 25 June 1998).

5.2.2. Consumer information: the European New Car Assessment Programme (EuroNCAP)

People buying a new car need objective information on safety performance. The information available has an effect on buying decisions and encourages car manufacturers to innovate in safety and to put safety designs on the market in advance of the entry into force of legislative standards.

Going beyond the EU's vehicle type-approval scheme, the European New Car Assessment Programme (EuroNCAP) tests the safety of the most popular categories of new cars in accordance with harmonised testing protocols under conditions representative of different types of crashes which cause serious injuries to occupants, and possibly with a pedestrian being hit. This programme adds value to the industry's own action by publishing the test results to inform consumers about the safety performance of new cars, and has made Europe a leading market for safety. The European Commission provides financial support and takes part in the technical decisions.

A study carried out with the support of the Commission[24] has concluded that each star awarded according to the criteria of the EuroNCAP programme can be associated with a reduction of almost 10% in fatal accident risks to occupants. It has shown that cars awarded five stars (one model in 2001, six models in 2002) have a 36% lower intrinsic fatal accident risk than vehicles which are simply designed to meet the legal standard.

Recently, it has been seen that "five EuroNCAP stars" is tending to become a commercial argument which the car industry is putting to good advantage.

Future development of the EuroNCAP programme will make it possible to incorporate other passive safety aspects, such as whiplash protection and the compatibility of vehicles in the event of car-on-car impact.

- The Commission will continue to support EuroNCAP to enable further progress to be made, to raise awareness among and inform consumers and to strengthen the representation of the Member States.

5.2.3. Accident protection or passive safety

Work is currently under way on a specification for audible or visual reminder systems for **seat belt use**. These devices already form part of vehicle assessment under the EuroNCAP programme, and the EEVC[25] will draw up a standard to evaluate performance. This type of equipment could provide a relatively cheap and efficient means of increasing seat belt use, if fitted universally. Swedish estimates indicate that effective seat belt reminders could reduce car occupant deaths by about 20%. For the EU as a whole this would save more than 4 000 lives each year. Community legislation on child restraint systems was recently tightened up[26]Agreement is also expected in the United Nations Economic Committee for Europe on a universal child restraint anchorage system. This agreement should facilitate and increase the

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24 "Quality Criteria for the Safety Assessment of Cars Based on Real-World Crashes" (SARAC).

25 European Enhanced Vehicle Safety Committee, which receives Community funding.

26 European Parliament and Council Directive 2003/20/EC of 8 April 2003, amending European Parliament and Council Directive 91/671/EEC on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 3.5 tonnes (OJ L 115, 9.5.2003, p.63). The title of Directive 91/671/CEE as amended now reads as follows "on the approximation of the laws of the Member States relating to compulsory use of safety belts and child restraint systems in vehicles".

safety of fitting children's seats in vehicles and help to resolve a problem widely reported by parents.

Sweden has the highest rate of seat belt use in Europe (95%), but half the people killed in accidents there were not wearing their seat belts. This shows the high potential of any measure which will further increase seat belt use, in particular seat belt reminder systems for all occupants.

Safer car fronts for pedestrians and cyclists are a priority for EU action. The Commission recently adopted a legislative proposal on the subject.[27] When implemented in full, designs which meet the four EEVC performance tests could save up to 2 000 pedestrians' and cyclists' lives each year.

With regard to **collisions between lorries and cars**, Community legislation already lays down requirements for the rear end, side guard and front of heavy goods vehicles in order to limit underrun by cars,[28] and greater protection of occupants can be obtained by introducing energy absorption criteria. As regards **collisions between cars**, there is also potential for improving vehicle compatibility. Over time, the legislation will have to be amended to introduce such criteria.

In addition, the passive safety of **motorcycles** and the **interaction between road vehicles and the infrastructure** could be substantially improved.

All of these aspects are short-term priorities. The Commission will continue to use all instruments which are likely to improve the passive safety of vehicles. It will examine, in particular, the effects on road safety of the proliferation of 4x4s and SUV and MPV (*sports utility vehicles* and *multipurpose vehicles*) which, as in the USA, are causing increasing concern.

- Develop a harmonised specification for the installation of audible or visual seat belt reminder systems and promote their universal use by voluntary agreement.
- Introduce universal anchorage systems for child restraint devices.
- Improve cars to reduce the severity of accidents involving pedestrians and cyclists.
- Study the causes of and ways of preventing whiplash injuries.
- Support the development of smart restraint systems.

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27 Proposal for a European Parliament and Council Directive relating to the protection of pedestrians and other vulnerable road users in the event of a collision with a motor vehicle and amending Directive 70/156/EEC (COM(2003) 67 final, 19.2.2003).

28 Council Directive 70/221/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to liquid fuel tanks and rear protective devices for motor vehicles and their trailers (OJ L 76, 6.4.1970, p.23), as last amended by European Parliament and Council Directive 2000/8/EC of 20 March 2000 (OJ L 106, 3.5.2000, p.23); Council Directive 89/297/EEC of 13 April 1989 on the approximation of the laws of the Member States relating to the lateral protection (side guards) of certain motor vehicles and their trailers (OJ L 124, 5.5.1989, p.1); European Parliament and Council Directive 2000/40/EC of 26 June 2000 on the approximation of the laws of the Member States relating to the front underrun protection of motor vehicles and amending Council Directive 70/156/EEC (OJ L 203, 10.8.2000, p.9).

- Adapt to technical progress the front, side and rear-end impact directives for lorries to limit vehicle underrun, and introduce energy absorption criteria.
- Make vehicles more compatible.
- Examine the impact on road safety of the proliferation of 4x4s, *sports utility vehicles* and *multipurpose vehicles*

5.2.4 Accident prevention or active safety

The new on-board information and communication technologies (*Intelligent Transport Systems,* or ITS*)* offer considerable potential for reducing the number of victims. On-board radars, for example, are able to detect an accident situation and activate safety equipment even before impact, thus avoiding an accident or considerable reducing the consequences. The development of sensors, actuators and computers has already made possible the widespread introduction of ABS devices and systems to enhance vehicle stability, such as ESP (*Electronic Stability Programme*) devices which help drivers to keep control of their vehicles in extreme conditions. New generations of active safety and driver-assistance equipment (*Advanced Driver-Assistance Systems*, or ADS) should be available shortly. The systems involved are, on the one hand, autonomous safety systems capable of incorporating not only vehicle-related and driver-related parameters but also data related to the vehicle's environment and, on the other hand, interactive systems allowing vehicle-to-vehicle exchange of safety information.

By analysing information from the vehicle's environment, these systems can evaluate the risk of an accident occurring. They can warn the driver and initiate the appropriate urgent avoidance action. If an accident is inevitable, the system can optimise the operation of the passive protection devices. Other systems will automatically warn the emergency services.

The EU, the Member States and the industry need to establish an integrated approach to improve the effectiveness of these new safety technologies. The ***e*Safety initiative** launched in 2002 by the Commission and the motor vehicle industry[29] as part of the *e*Europe plan launched by the Heads of State at the Feira European Council in June 2001 has resulted in the formulation of recommendations and a number of actions at Community level which will shortly be presented by the Commission in a communication on information and communication technologies for intelligent vehicles. These actions may be regarded as a particularly important component of this action programme.

In addition to the actions to be carried out primarily by the motor vehicle industry, as set out in this communication, the EU will adopt a plan concerning intelligent traffic-management systems drawn up by the government authorities in the interest of road safety, so as to derive maximum benefits for society as a whole.

Among the long-term development activities, priority should be given to the systems with the best prospects[30]. With the increase in the volume of traffic, improving vehicle speed management is a safety requirement which should make it possible to combat congestion. In

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[29] For further information, please consult the following website. www.eu.int/information_society/programmes/esafety/index_en.htm

[30] Such as speed limiting and warning devices, including *Intelligent Speed Adaptation* (ISA) systems; collision alert devices and lane support systems; *Adaptive Cruise Control* (ACC); intersection detection devices.

addition to the road safety benefits, compliance with speed limits will also have a significant impact in terms of reducing greenhouse gas emissions. To evaluate the conditions needed for the operation of speed adaptation systems, the experiments in several countries, eg Sweden, the Netherlands, the UK, Belgium, France and Germany should be examined.

In compliance with the data protection legislation and the right to mobility, promising technologies such as the following should also continue to be examined:

– systems to prevent the starting of vehicles in the event of excessive drinking ("*alcolocks"*). Ultimately, such systems could be included among the range of measures applicable to drink-driving offenders;

– speed management devices for dynamic vehicle control in order to reduce stopping distances, increase stability and prevent roll-over accidents, in particular in the case of heavy duty vehicles;

– (non-intrusive) detection of driver fatigue or of a worsening of driver performance so as to alert the driver;

– specific devices capable of alerting the driver of a risk of collision with a pedestrian or another vulnerable user. Although only at the research stage, this type of device is very promising, in particular to improve safety in urban areas, and research efforts should be pursued and supported;

– *Electronic Vehicle Identification* (EVI).

The Commission will present a detailed activity framework in the abovementioned communication on information and communication technologies for intelligent vehicles.

Since the technologies are evolving, the EU should, on a permanent basis, systematically monitor the safety of such systems and establish quality standards. In particular, the interface of on-board information and communication systems in vehicles should be designed in such a way as to neither jeopardise the safe operation of the vehicles nor unnecessarily restrict the use of these systems. As a first step, in December 1999 the Commission adopted a Recommendation inviting the industry to accept a statement of principles on the man-machine interface[31]. The means of ensuring compliance with these principles still need to be established.

In addition, research has shown that active safety measures are not always used by drivers in the way they were intended to, so behavioural research is required before the wide-scale implementation of measures of this type can be envisaged. For example, the use of systems such as speed stabilisation systems (*Automatic Cruise Control* or ACC), *Stop-and-Go Control* systems, and trajectory control systems involve a learning process. Since driving is entirely the responsibility of the driver, the use of these technologies may, in addition, require appropriate information. Additional research is also needed in order to study driver behaviour and the psychological limits entailed by the new technologies.

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[31] Commission Recommendation 2000/53/EC of 21 December 1999 on safe and efficient in-vehicle information and communication systems: A European statement of principles on human machine interface [notified under document number C(1999)4786] (OJ L 19, 25.1.2000, p.64).

The impact of the new technologies on safety may be both positive and negative. While mobile phones are not, strictly speaking, vehicle equipment as such, their widespread emergence constitutes a new risk to which a suitable response needs to be found, since their use by drivers significantly increases the risk of a fatal accident.[32] *On the other hand, they can improve safety by making it possible to telephone the emergency services more quickly (see paragraph 5.5 below).*

That is why it is necessary to come up with an appropriate framework to encourage the use of effective technologies while avoiding new risks.

Improved **vehicle visibility, night vision and vision in difficult conditions** are the prevention factors which offer the most encouraging prospects. The fitting and use of daytime running lights are now regarded as very beneficial in terms of vehicle visibility. In view of the fact that some Member States remain sceptical about the benefits of the measure, taking into account the energy cost, the Commission will re-examine the issue before coming forward with any proposal.

In February 2002 the Commission submitted a legislative proposal aimed at **eliminating blind spots** towards the rear of new vehicles[33] which also has great potential for reducing the number of victims. In the light of the findings of a study, it will consider making a legislative proposal aimed at retrofitting heavy vehicles already in circulation.

Technological developments with regard to **tyres** (reduced amount of water projection by heavy duty vehicles' tyres, improved road holding in slippery conditions, alert system in the event of under-inflation) should in the short term make for reduced fuel consumption and road noise while maintaining a high level of safety. This could produce a 10% reduction in fuel consumption and around one thousand fewer deaths per annum. The Commission will assess the measures needed to derive rapid benefit from this progress.

Motorcycling is the mode of transport involving by far the greatest risks. However, there are techniques that can reduce the risk of accidents, e.g. the widespread introduction of wheel *Anti-lock Braking Systems* (ABS). The Commission will continue to examine the technical aspects of motorcycle safety in consultation with the competent organisations with a view to improving the regulatory requirements.

Another aspect concerns access to driving for **persons with reduced mobility.** Since 1989 the Commission has initiated a series of studies leading to the adoption of a list of Community codes to be included on driving licences[34] designed to facilitate the free movement of such persons driving vehicles which have often been adapted in very sophisticated ways. The QUAVADIS study is at present analysing the quantitative, procedural and safety aspects of adaptations. The results of the work in question should make it possible to adopt guidelines in the medium term and promote the mobility of persons requiring adapted vehicles.

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32 See, for example the study "*Telefonieren am Steuer und Verkehrssicherheit*" (Telephoning at the wheel and traffic safety) (Bundesanstalt für Strassenwesen [BAST], Bergisch Gladbach, Germany, November 1997).

33 Proposal for a European Parliament and Council Directive on the approximation of the laws of the Member States relating to the type-approval of mirrors and supplementary systems for indirect vision and of vehicles equipped with these devices and amending Directive 71/156/EEC [COM(2001)811 final, 7.1.2002, OJ C 126 E, 28.5.2002, p.125].

34 Council Directive 97/26/EC of 2 June 1997 amending Directive 91/439/EEC on the driving licence (OJ L 150, 7.6.1997, p.41). The list in question was amended by Commission Directive 2000/56/EC of 14 September 2000 (OJ L 237, 21.9.2000, p.45).

In addition, research has shown that active safety measures are not always used by drivers in the way they were intended to, so **behavioural research** is required before the wide-scale implementation of measures of this type can be envisaged.

- Examine the wide-scale use of daytime running lights on all vehicles.
- Improve the visibility of heavy duty vehicles.
- Eliminate blind spots towards the rear for drivers of heavy duty vehicles.
- Assess measures to reduce tyre-related accidents.
- Examine driver impairment detection devices, e.g. alcohol ignition interlocks (*alcolocks*) and driver fatigue detectors.
- Examine national trials of *Intelligent Speed Adaptation* devices and assess their acceptability to the public.
- Improved motorcycle safety through legislation or voluntary agreements with the industry.
- Examine the benefits of harmonising the approval of adaptations to vehicles for persons with reduced mobility.
- Adopt a long-term plan concerning information and communication systems and road safety and establish the necessary regulatory framework for implementing such systems, including licensing procedures, performance requirements and the existence of adequate radio frequencies.
- Identify priority areas for the development and implementation of performance standards to optimise the man-machine interface and the road safety potential of telematics applications. Ensure compliance with the declaration of principles concerning the human-machine interface.

5.2.5. Periodic technical inspection

Mechanical defects are a minor contributory factor in road accidents thanks to the widespread introduction of roadworthiness testing and inspection which, for all vehicles from private cars to heavy duty vehicles, have to be carried out in accordance with Community legislation[35]. However, the inspections carried out will need to keep pace with the growing complexity of on-board technologies and the way they operate, to ensure that they function properly throughout the lifetime of the vehicle.

The Commission will examine the advisability of including other categories of vehicles in roadworthiness testing and the promotion of alternative methods guaranteeing an equivalent result.

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[35] Council Directive 96/96/EC of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicles and their trailers (OJ L 46, 17.2.1997, p.1) last adapted to technical progress by Commission Directive 2001/9/EC of 12 February 2001 (OJ L 48, 17.2.2001, p. 18); European Parliament and Council Directive 2000/30/EC of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community (OJ L 203,10.8.2000, p.1).

It also examines its accession to the 1997 international agreement [36] with a view to the harmonisation - at an international level of minimum testing standards.

- Examine, together with the Member States, the need to include new on-board electronics systems in roadworthiness testing.
- Determine and encourage best practices so as to improve the efficiency of periodic compulsory inspections at the lowest cost.

5.3. Encouraging the improvement of road infrastructure

5.3.1. Background

Road infrastructure improvements and the introduction of procedures can make a significant contribution towards reducing the frequency and seriousness of road traffic accidents. By giving roads an explicit configuration, designers can influence road user behaviour. The "self-explaining roads" concept makes it possible to improve driver behaviour through better information about appropriate speeds. Furthermore, the creation of a forgiving road environment (e.g. side barriers and roadside verges) so that human error does not necessarily end in death or serious injury should make for safer roads.

The European Parliament has, on several occasions, called for systematic safety impact assessments to be carried out for new infrastructure financed by European funds, and for guidelines to be drawn up at European level for the implementation of low-cost road safety measures and the carrying-out of safety audits.

As indicated in the White Paper already mentioned, when new road projects are examined a safety impact assessment should be carried out to make sure that the projects will not have adverse effects on safety in the area in question. A Community methodology for carrying out such impact assessments should be established. Safety audits should also be carried out to check the actual design at the different stages of the road project.

Road improvements save lives, and the Community has an important role to play in encouraging them. It has two principal means: drawing up technical guidelines at EU level for voluntary use by safety professionals, and harmonising safety engineering procedures, standards and equipment for the trans-European road network.

Pending the achievement of the improvements needed to the existing network, the Commission has undertaken work aimed at harmonising the criteria for identifying black spots, and the means of making their presence known to users who are not familiar with the areas in question. On the basis of this work, and as announced in the White Paper, in 2003 the Commission intends, as part of a legislative proposal concerning road infrastructure safety, to introduce a harmonised definition of black spots, Community signs, motorist information, and countermeasures.

European road assessment programmes aimed at providing users with better information about the risks involved and raising awareness about the need to invest in road improvements are also an interesting idea. Roads where there is insufficient shock protection or the speed

[36] Agreement concerning the adoption of uniform conditions for periodical technical inspections of wheeled vehicles and the reciprocal recognition of such inspections, done at Vienna on 13 November 1997 (United Nations Economic Commission for Europe)

limits are inappropriate receive bad marks. This mechanism, combined with a star system to indicate the accident risks connected with a particular road, should prompt users to drive more carefully. The ultimate objective is to reduce the proportion of high-risk European roads and tunnels.

Motorist associations have launched a road assessment programme known as EuroRAP (European Road Assessment Programme). The idea is to give motorists across Europe information based on objective criteria about the level of safety on the main roads they use. The Commission is supporting this new project.

5.3.2. Drawing-up of technical guidelines concerning infrastructure safety

In the same way as national guidelines in certain Member States have been helpful, technical guidelines concerning infrastructure safety setting out universal principles illustrated by case studies could assist professionals at local and regional level involved in the specification and implementation of road safety measures. The Commission has already stressed in the White Paper the importance of actions such as the approximation of the technical characteristics of infrastructure and the basic harmonisation of road signs, including variable message signals.

In the context of the abovementioned proposal for a Directive, the Commission will propose the drawing-up of guidelines for infrastructure safety and driver information. The priority areas include: low-cost measures whether at high-risk sites, along certain stretches of road or on an area-wide basis, safety audits, urban safety management, speed reduction and forgiving infrastructure. These guidelines could evolve and be part of the standard European specifications used for invitations to tender for the construction and maintenance of road infrastructure. This will facilitate an increase in transnational competition by approving bids in terms of quality and price. It would also have effects in terms of simplification and administrative standardisation.

The Commission will facilitate the gathering and dissemination of information on best road-impact-assessment and audit practices. It will support demonstration projects applying the Community guidelines with regard to infrastructure safety, in particular in the context of the Sixth Research Framework Programme and, in due course, in areas such as safety audits, urban safety management and safety impact assessment, will make funding for all infrastructure projects financed by the EU, including the trans-European road network, subject to the application of these guidelines.

Each year, over 330 people are killed at level crossings in the EU as a result of ignorance of, or failure to comply with, traffic rules. Unaware of the consequences of their actions, certain drivers behave irresponsibly. The institutional problems between road and rail operators and the lack of standardisation of signalling make matters worse.

In consultation with the road and rail operators, the Commission intends to work out good conduct guidelines to identify effective solutions to substantially reduce this carnage.

5.3.3. Trans-European road network

In 1996 the Council gave the EU the task of guaranteeing a high uniform level of service, comfort and safety for users of the trans-European networks[37]. This legal obligation, together

[37] European Parliament and Council Decision 1692/96/EC of 23 July 1996 on Community guidelines for the development of the trans-European transport network (OJ L 228, 9.9.1996, p.1).

with the considerable growth in international transport in recent years, makes it necessary to improve the safety of the trans-European road network.

A study will be launched to determine the casualty reduction potential of better harmonisation of safety rules, road signs and engineering standards for roads and road equipment (taking account of other international work, such as that carried out by the UN Economic Commission for Europe).

Several European standards have already been adopted, notably on road safety equipment. These should be gradually improved and based on performance criteria.

Road safety actions on this portion of the road network will assume particular importance in the context of **enlargement** since the countries concerned will need to invest massively to improve their part of the trans-European road network, much more so than in the 15 current Member States.

The Commission will lay down guidelines with a view to establishing a link between Community funding of this network and safety improvements.

5.3.4. Safety of tunnels

Many road infrastructures, including tunnels, were built several decades ago when traffic density and vehicle characteristics were different from what they are today. As a result of recent tunnel accidents, in December 2002 the Commission submitted a proposal for a Directive aimed at ensuring a minimum level of safety in road tunnels on the trans-European network[38].

The proposed measures concern organisation and technical equipment. To take account of the diversity of tunnels, both in functional terms and in terms of their safety, they should enter into force gradually. High-risk tunnels, i.e. some of the oldest ones or tunnel designed for a lower volume of traffic than present or forecast traffic levels should be the subject of remedial work as a matter of priority.

The Commission will also be vigilant with regard to safety measures planned for infrastructure projects which include sections in tunnels and which receive Community funding, particularly under the budget for the trans-European network.

As in 2002, it intends to continue to support projects concerning user information on tunnel safety.

5.3.5. The new "intelligent road" concept and GALILEO

The early detection of abnormal traffic conditions and the transmission of relevant data to drivers will make a significant contribution to improving road safety.

The detection of abnormal traffic situations can be improved in the years to come by using vehicles themselves as sensors and by centralising data in road traffic control centres thanks to the variety of means of communication available. More extensive cooperation between the public and private sectors in this area should make it possible to introduce more efficient, low-cost, harmonised procedures, e.g. by giving the private sector access to traffic data and

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[38] COM(2002) 769 final, 30.12.2002.

establishing a strict legal and operating framework for the development of traffic information services.[39]

Information about any abnormal situation can be transmitted to drivers using the various means available, e.g. variable-message signs, radio road information services, etc.

The introduction of harmonised electronic toll systems on which the Commission recently submitted a proposal for a Directive[40] will reduce congestion and hence the risk of accidents at toll stations.

The coming into service of the GALILEO European satellite positioning system will play an important role as from 2008 as a result of the accuracy that will be provided by the system and the greater reliability of the information that will be transmitted. More accurate and more efficient systems will be made available to motorists and the authorities in the following areas:

– navigation and guidance systems based on digital mapping enhanced by safety information transmitted to drivers on static hazards (black spots, etc.) and dynamic hazards (black ice, dense traffic, etc.) that they are likely to encounter

– traffic information which can be filtered so as to respond precisely to the needs and situation of drivers

– accident alert system for the automatic transmission of essential information to the nearest emergency service unit

– "tracking", eg monitoring vehicles used for the carriage of hazardous goods, stolen vehicles or vehicles used for criminal activities.

These aspects will also be expanded upon in the Commission communication already mentioned concerning the *e*Safety programme aimed at the deployment of new on-board safety technologies.

- Submit a proposal for a framework Directive on road infrastructure safety with a view to introducing a system for the harmonised management of black spots and road safety audits for roads on the trans-European network.
- Draw up technical guidelines concerning infrastructure, notably for low-cost measures, audit methods, urban safety management, speed-moderation techniques and forgiving roadsides.
- Draw up good practice guidelines for level-crossing safety.
- Assess the safety impact of projects receiving Community funding and concerning an entire area.
- Adapt to technical progress the Community standards applicable to road equipment and ensure a high level of protection, notably by making roadsides less hazardous in the event of an accident.
- Carry out research and demonstration projects on "intelligent roads".

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[39] Commission Recommendation of 4 July 2001 on the development of a legal and business framework for participation of the private sector in deploying telematics-based traffic and travel information (TTI) services in Europe (OJ L 199, 24.7.2001, p. 20).

[40] Proposition for a European Parliament and Council Directive on the widespread introduction and interoperability of electronic road toll systems in the Community (COM(2003) 132 final, 23.4.2003)

- Achieve a high level of safety in tunnels, notably through standards and user information.

5.4. Safe commercial goods and passenger transport

Over the last decade the number of heavy duty vehicles travelling on European roads has increased substantially. Reversing the trend in the number of accidents involving heavy duty vehicles is a challenge both for society and more directly for the road haulage sector. Truck driving is one of the most dangerous professions, and commercial drivers also have a right to a safe working environment in line with the most recent standards concerning working conditions.

In this context, the European Parliament and the Council adopted for all vehicles over 3.5 tonnes and all vehicles carrying eight or more passengers:

– in November 2002 a Directive on the widespread introduction of **speed-limiting devices** from 2005 for new vehicles and 2008 for vehicles registered after 1 October 2001[41]. The Commission will assess the impact of this Directive, notably for lighter vehicles below 7.5 tonnes and, where appropriate, will submit proposals.

– in April 2003 a Directive requiring **seat belts to be worn** by drivers and passengers sitting in seats equipped with them[42]. To make this measure more effective, in 2003 the Commission will propose the wide-scale fitting of safety belts on all seats in coaches[43]. The Commission has in addition launched work aimed at identifying the specific problems arising concerning the **transport of** children with a view, where appropriate, to introducing protection rules for school transport vehicles.

The Commission has also submitted a proposal for a Directive on the **initial and continuous training of commercial drivers**[44]; what is at stake is crucial since it is a question of reversing the current situation: at present no more than 10% of commercial drivers have received training beyond what is required for obtaining their driving licences. Implementing the Directive will help to raise the level of road safety, stationary safety and the quality of service, help drivers taking up the occupation and remedy distortions of competition in this area.

In addition, a legislative proposal aimed at improving and tightening up the rules in force concerning the monitoring of and compliance with **driving rest periods**[45] is at present being examined in Parliament and in the Council. The purpose of this initiative is to promote the effectiveness and uniform interpretation of the existing rules in this area. The proposal also contains provisions aimed at determining employers' liability in respect of certain offences committed by their drivers and harmonising the conditions in which vehicles may be immobilised. Another legislative proposal is in preparation, namely a Directive which is part of the package of controls (see Section 5.1.1 above) aimed at improving the application of the

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41 European Parliament and Council Directive 2002/85/EC of 5 November 2002 amending Council Directive 92/6/EEC on the installation and use of speed-limitation devices for certain categories of motor vehicles in the Community (OJ L 327, 4.12.2002, p.8). The earlier Directive only concerned heavy goods vehicles over 12 tonnes and coaches over 10 tonnes.

42 European Parliament and Council Directive 2003/20/EC (already mentioned in paragraph 5.2.3).

43 Not urban buses.

44 Proposal for a European Parliament and Council Directive on the training of professional drivers for the carriage of goods or passengers by road [COM(2001) 56 final, 2.2.2001, OJ C 154E, 29.5.2001, p.258].

45 Proposal for a European Parliament and Council Regulation on the harmonisation of certain social legislation relating to road transport [COM(2001)573 final, 12.10.2001, OJ C 51E, 26.2.2002, p. 234]

social provisions dealing with driving and rest periods and working hours[46]. This Directive, which will amend the abovementioned Directive 88/599/EC, will entail, among other measures, a considerable increase in the number of controls to be carried out to verify compliance with driving and rest periods (at present 1% of working days are subject to controls). Other provisions of this proposal for a Directive are aimed at encouraging systematic exchanges of information, the coordination of control activities, especially as regards cross-border transport, periodic consultations between the national administrations and the training of inspectors to ensure better compliance with the various pieces of legislation.

The introduction of the **digital tachograph**[47], which can record data over a longer period than the mechanical tachograph can at present, e.g. data concerning speed and driving time, will represent substantial progress in terms of the performance of control means.

Table 2 below is another example of the sharing of responsibilities between the various levels concerned.

European Union	- Regulation 3820/85 harmonising working and rest periods - Regulation 3821/85 requiring tachographs on heavy duty vehicles - Directive 88/599 introducing a minimum frequency for road checks - Initiation of cooperation between national police forces for controls on international transport - Monitoring of the incorporation of Community legislation by the Member States into their national law
National level	- Approval of tachographs and vehicles fitted with them - Organisation of controls and penalties for exceeding working hours - Application of penalties
Regional /local level	- Issue of drivers' cards - Roadside and in-firm checks concerning tachographs disks - Motorway rest areas
Private sector	- Driver information and awareness-raising by employers and appropriate transport planning - Taking compliance with the rules into account in wages - Insurance discounts for proper application of the legislation - Compliance with the regulations by drivers

Table 2: Compliance with working and rest period legislation by commercial drivers

Load shedding by heavy goods vehicles because of inadequate **load securing** is a source of road accidents which are often very serious. Some member States have complete legislation on this, but the lack of harmonisation at Community level is a serious problem for

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46 Working time is governed by Council Directive 93/104/EC of 23 November 1993 (OJ L 307, 13.12.1993) as amended by Directive 2000/34/EC of 22 June 2000 (OJ L 195, 1.8.2000, p.41), and supplemented by the European Parliament and Council sectoral Directive 2002/15/EC of 11 March 2002 (OJ L 80, 23.3.2002, p. 35

47 Council Regulation (EC) No 2135/98 of 24 September 1998 amending Regulation (EEC) No 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No 3820/85 and (EEC) No 3821/85 (OJ L 274, 9.10.98, p. 1); Commission Regulation (EC) No 1360/2002 of 13 June 2002 adapting to technical progress for the seventh time Council Regulation (EEC) No 3821/85 on recording equipment in road transport (OJ L 207, 5.8.2002, p. 1)

international carriers. To remedy this situation, in 2002 the Commission undertook the drawing up of a best practice guide.

The **transport of exceptional loads,**[48] which can constitute a road safety hazard, is another source of problems because of the lack of harmonisation of the rules in question, sometimes even between the different regions in the same Member State. Here too, the Commission has undertaken the drawing up of a best practice guide.

The legislation governing the technical conditions concerning the **carriage of hazardous goods** by road is also an important part of the existing body of Community road safety legislation. These rules are regularly reviewed in the light of international work, in particular in the context of the European Agreement on the international carriage of goods by road (ADR). The need to take better account of the hazards related to the growing safety concerns (protection against the use of vehicles with the intention of causing harm) will result in a reassessment of the provisions of this legislation.

The EU will assign special important to the application of the measures described above to the commercial transport sector, notably the technical and training measures and the development of new traffic safety/management technologies.

In the near future, it will also be necessary to address the possible consequences of the growing use of **small commercial vehicles and company vehicles.** The lack of regulation as regards training, driving and rest periods, and speed-limiting devices may have an impact in terms of road safety.

- Adoption and incorporation in national legislation of a European Parliament and Council Directive on the training of commercial drivers.
- Tighter legislation (and enforcement) of driving and rest periods for commercial road haulage.
- Installation of digital tachographs in commercial vehicles.
- Best practice guidelines concerning company policies to reduce accident and injury risks and encouragement for the inclusion of safety as a key provision in road transport contracts.
- Best practice guidelines concerning the securing of loads and the carriage of exceptional loads.
- Adapting to technical progress the Community legislation concerning the carriage of hazardous goods.
- Making the wearing of seatbelts mandatory in coaches and heavy goods vehicles.
- Introducing protection rules for vehicles regularly used for the carriage of children.

[48] Namely transport operations derogating from the obligations arising from Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weights in international traffic (OJ L 235, 17.9.1996 p.59)

- Examining the impact on road safety of the growing use of small commercial vehicles and company vehicles.

5.5. Emergency services and care for road accident victims

Several thousands of lives could be saved in the EU by improving the response times of the emergency services and post-impact care in the event of road traffic accidents. Conversely, poor post-impact care could lead to avoidable injury and disability. A study conducted in the UK has estimated that 12% of accident victims sustaining serious skeletal trauma go on to have significant preventable disabilities.

Detailed information on injury severity is needed for a better understanding of the potential for reducing damages through post-accident care. Data needs to be collected at national level to measure the performance of the emergency medical services.

Increasingly, new cars will be fitted with automatic "mayday" systems and position locators. To maximise their utility, it is important that the distress message is sent directly to the emergency services. This type of system should be tested as part of a pilot project, initially on heavy goods vehicles carrying out international transport operations.

Parliament and the Council recently decided to require telephone network operators to provide the emergency services with information making it possible to locate emergency calls using the **emergency number 112**[49]. In 2003 the Commission will adopt a recommendation setting out guidelines for the implementation of this decision. Automatic alert systems are also offered by motor vehicle manufacturers on recent vehicle models. At this stage, it is important to ensure that the information gathered and transmitted by the various systems reaches, without delay, the emergency services called upon to deal with accidents. These systems will covered in the abovementioned communication on information and communication systems for intelligent vehicles.

- Examine best practice with regard to post-accident medical care.
- Draw up specifications for satellite-positioning accident-warning systems and carry out demonstration projects involving the whole chain of emergency service provision.

5.6. Accident data collection, analysis and dissemination

5.6.1. Background

Setting a common target for improving road safety means giving priority to the most effective measures. While accidents are random events, they are not "Acts of God", and it is necessary to understand their causes, circumstances and consequences, so that they can be managed, prevented or at least mitigated.

Consequently, accident and injury databases are essential for an objective assessment of road safety problems. Similarly, the installation in road vehicles, as in other forms of transport, of

[49] New electronic communication package made up of European Parliament and Council Directive 2002/21/EC of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) and European Parliament and Council Directive 2002/22/EC of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) (OJ L 108, 24.4.2002, p.33).

on-board devices (black boxes) to record parameters which can explain the causes of accidents will make motorists more responsible, speed up court proceedings following accidents, lower the cost of court proceedings, and enable more effective preventive measures to be taken.

5.6.2. The causes of accidents

There are plans to develop independent road accident investigations along the lines of the existing European civil aviation regulations. However, it would not be possible to conduct a detailed investigation of each road traffic accident given that there are so many of them. It is more realistic to focus on the most serious accidents and on a representative sample of "run-of-the-mill" accidents. Such investigations, independent from those conducted by the judicial authorities or insurance companies should be geared to the causes of accidents rather than the question of who is responsible and should make it possible to improve the current legislation and practices. They should be carried out at national level on the basis of a European methodology and their findings should be communicated for assessment by a group of experts meeting within the Commission. These investigations, relating to a limited number of accidents will supplement the general road accident statistics and the detailed accident case studies carried out by multidisciplinary teams. The databases built up in this way will be made available to researchers.

A special problem arises concerning post-accident investigations. At present, the investigations carried out by the judicial authorities or insurance companies are primarily intended to ensure reparation for damage caused by accidents and determine who is responsible under the provisions adopted by the legislator. However, these investigations are no substitute for the growing perceived need in Europe and the USA to have independent technical investigations the findings of which are targeted on the causes of accidents and how to improve the legislation.

European legislation on this type of investigations has been in force for several years concerning civil aviation[50]. A similar obligation has been proposed for the railways[51]. The Commission is now considering proposing that similar investigations should be carried out concerning maritime transport[52] and in the longer term concerning road

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50 Council Directive 94/56/EC of 21 November 1994 establishing the fundamental principles governing the investigation of civil aviation accidents and incidents (OJ L 319, 12.12.1994, p.14) is a model for other modes of transport. It lays down the fundamental principles governing civil aviation accident and incident investigations. In addition, in December 2000 the Commission adopted a proposal for a Directive on civil aviation occurrence reporting. Supplementing the current Community legislation, this proposal concerns the analysis of incidents, occurrences which are generally precursors of accidents.

51 European Parliament and Council Directive 2001/12/EC of 26 February 2001 amending Council Directive 91/440/EEC on the development of the Community's railways, which is part of the rail package adopted in December 2000, requires the Member States to take steps to ensure that investigations are systematically carried out in the event of accidents. In 2001 the Commission submitted a proposal for a Directive on railway safety (COM(2002)21 final, OJ C 126E, 28.5.2002, p.332) requiring the Member States to establish, at national level, completely independent bodies responsible for carrying out accident investigations. A cooperation mechanism at Community level will be established, possibly in the context of the future Railway Safety Agency.

52 Council Directive 1999/35/EC of 29 April 1999 on a system of mandatory surveys for the safe operation of regular ro-ro ferries and high-speed passenger craft services (OJ L 138, 1.6.1999, p.1)requires, from 1 December 2000, the carrying-out of an objective accident survey for all such ferries and craft operating to or from Community ports. By 2004 the Commission intends to propose a harmonised system for all accidents at sea.

accidents.

These independent investigations should be carried out at national level but in accordance with a European methodology. The results should be communicated to a group of independent experts meeting within the Commission which will be responsible for improving the legislation in force and adapting the methodology to technical developments in particular.

As indicated at the 3rd Accident Investigation Conference organised by the European Transport Safety Council (ETSC) "a permanent independent organisation not only guarantees independence of investigation; it also ensures that its recommendations are followed up by action."

Since any new technology is liable to generate offsetting action by drivers, it will be necessary to assess their impact, e.g. as regards driver fatigue alert devices, rehabilitation measures, and progressive access-to-driving methods.

The installation of **recording devices** (black boxes) in certain categories of road vehicles, as in other forms of transport, will make it possible to understand the technical causes of accidents, make motorists more responsible, speed up court proceedings following accidents, lower the cost of court proceedings and enable more effective prevention measures to be taken. It will be useful to collect centrally the information recorded once there is a critical mass of equipment in service. In the meantime, in order to avoid any possible technical incompatibilities, it will be worthwhile drawing up technical specifications.

5.6.3. The circumstances of accidents

As already mentioned, the EU has set up the CARE data system for which disaggregated data is supplied by the Member States and managed by the Commission's departments[53]. Since July 2002 various tables and graphs are accessible to the public on the Europa website[54] and it is planned to increase this service regularly. In addition, a limited number of users (two per Member State) have direct access to all the CARE data. A group of bodies specialising in road safety will complete a study on the practical operation of CARE before the end of 2003[55]. Data correlation studies should also be carried out to regularly estimate victim reporting errors. To this end, it will be necessary to compare hospital data with national statistics.

To ensure comparability between Member States, it will be necessary for various socio-economic variables, i.e. **hazard exposure variables,** such as vehicle fleet, length of networks and traffic volumes to be applied to the CARE data. The variables in question will need to be known at a level of detail compatible with the CARE typology and measured in a comparable manner.

In the medium term, CARE offers considerable potential as regards information and aid to decision-making and monitoring for the public at large, researchers and politicians.

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53 There is also the BICAR data base managed by the OCDE, but only aggregated data is available.

54 http://europa.eu.int/comm/transport/home/care/index_en.htm

55 ASTERYX project.

5.6.4. The consequences of accidents

Blood samples, radiological studies and other clinical analyses are essential for an understanding of the consequences of accidents resulting in injuries, and the way in which they are carried out should be codified or harmonised throughout the EU. Successful experiments, often carried out at local level by multidisciplinary teams of road trauma clinicians should be put to good use at EU level by encouraging exchanges of information between specialists and drawing up best practice guidelines.

In the context of the 5th Research Framework Programme a major project to analyse road accident trauma was launched in 2002[56]. It takes over the recommendations formulated in an earlier project[57] on the codification of trauma. This action should be pursued and developed, and accidentology is one of the priority action themes of the 6th Framework Programme.

5.6.5. European Road Safety Observatory

The Commission intends to set up a European Road Safety Observatory within the Commission as a pilot project funded from the EU budget. This Observatory will coordinate all Community activities in the fields of road accident and injury data collection and analysis. Accommodating the CARE information system, it will be the focus in the EU for the exchange of information on best practice and, ultimately, organise and manage Community best practice guidelines. It could also take on the task of improving the dissemination of the findings of road-safety research projects funded by the EU and those carried out under other programmes, and ensure the dissemination of information.

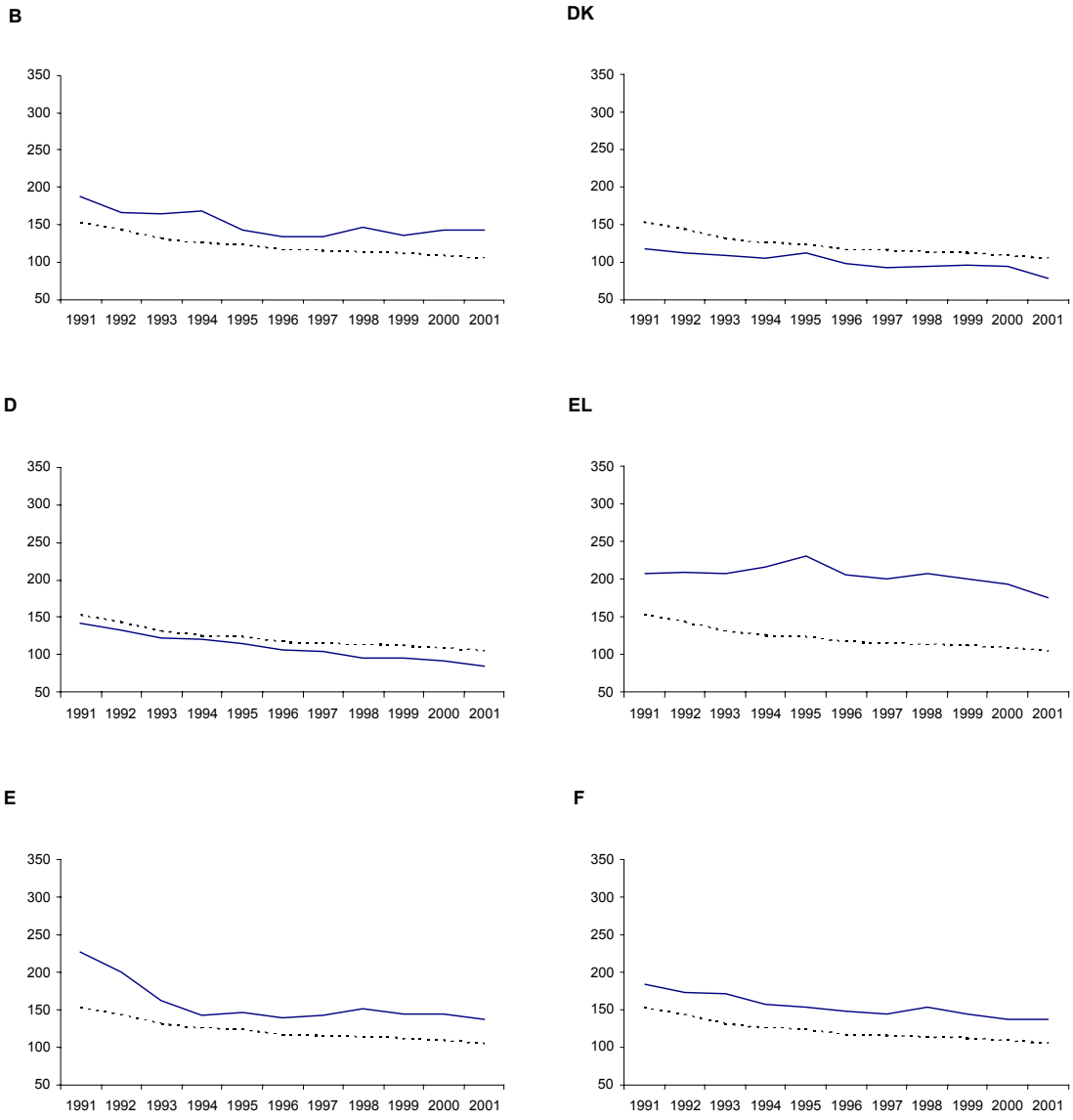
- Develop the CARE database and widen access to it, in the interests of achieving greater transparency and encouraging its use;
- Expand CARE to include hazard exposure variables and the causes of accidents.
- Assess and improve systems for linking hospital data and national road accident statistics.
- Develop specifications for on-board accident recording devices, and examine the consequences of various alternatives for certain categories of vehicles.
- Set up a European road safety observatory within the Commission.
- Establish a European methodology for independent road accident investigations and set up a group of independent experts meeting within the Commission.

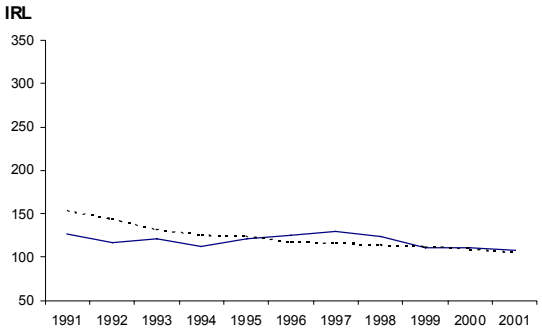
[56] PENDANT project.
[57] STAIRS (4th Framework Programme).

ANNEX 1

Road traffic accidents - Trend in the number of deaths per million inhabitants, 1991-2001

Situation in each Member State (+ EUR-15 average)

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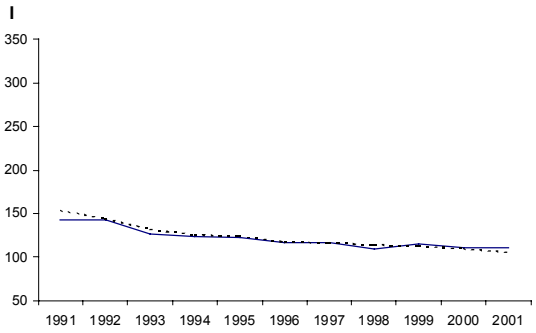
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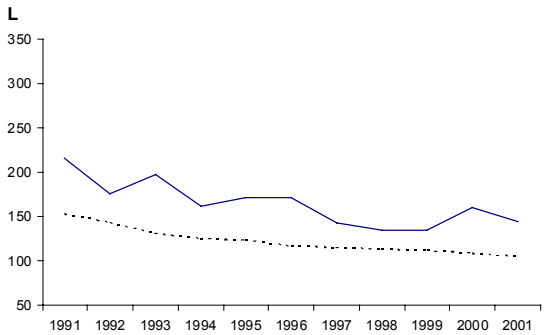
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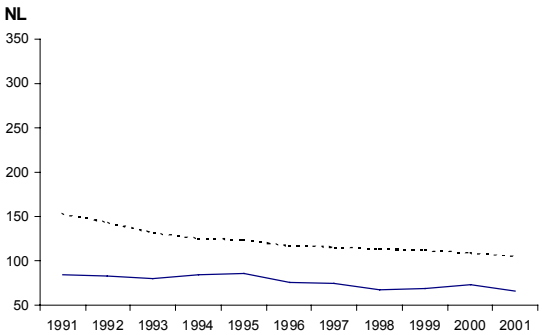
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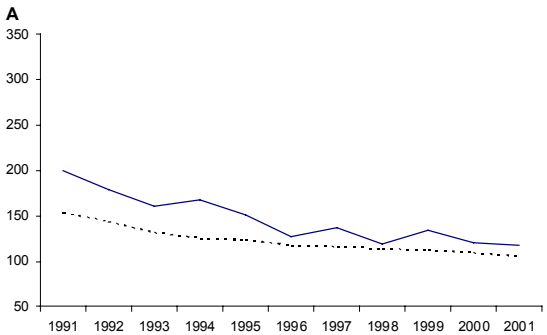
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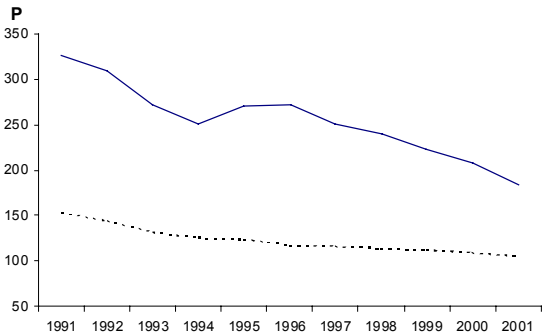
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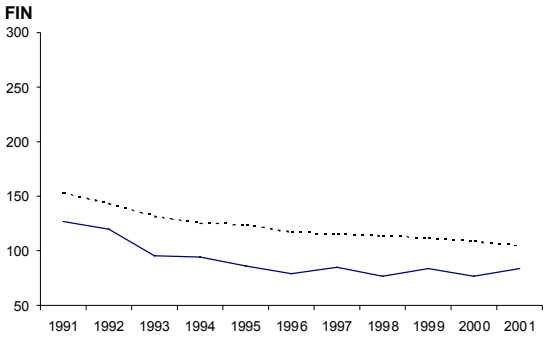
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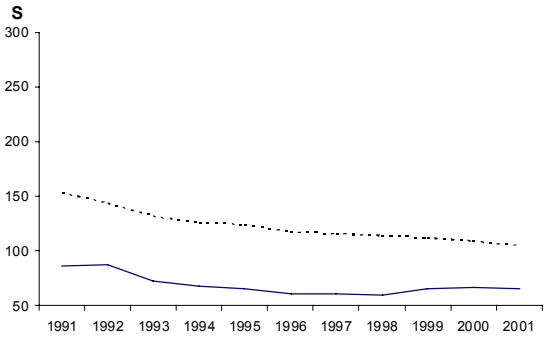
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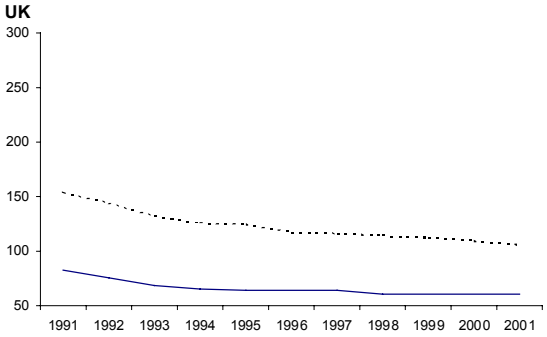
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	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
B	1.873	1.671	1.660	1.692	1.449	1.356	1.364	1.500	1.397	1.470	1.486	16.918
DK	606	577	559	546	582	514	489	499	514	498	431	5.815
D	11.300	10.631	9.949	9.814	9.454	8.758	8.549	7.792	7.772	7.503	6.977	98.499
EL	2.112	2.158	2.159	2.253	2.411	2.157	2.105	2.182	2.116	2.037	*1.895*	23.585
E	8.836	7.818	6.376	5.614	5.749	5.482	5.604	5.957	5.738	5.777	5.516	68.467
F	10.483	9.900	9.867	9.019	8.891	8.541	8.444	8.918	8.487	8.079	8.160	98.789
IRL	445	415	431	404	437	453	473	458	414	418	412	4.760
I	8.109	8.053	7.188	7.091	7.020	6.676	6.713	6.314	6.633	6.410	*6.410*	76.617
L	83	69	78	65	70	71	60	57	58	70	69	750
NL	1.281	1.253	1.235	1.298	1.334	1.180	1.163	1.066	1.090	1.082	1.085	13.067
A	1.551	1.403	1.283	1.338	1.210	1.027	1.105	963	1.079	976	958	12.893
P	3.218	3.084	2.700	2.504	2.711	2.730	2.521	2.126	2.028	1.874	1.671	27.167
FIN	632	601	484	480	441	404	438	400	431	396	433	5.140
S	745	759	632	589	572	537	541	531	580	591	583	6.660
UK	4.753	4.379	3.957	3.807	3.765	3.740	3.743	3.581	3.564	3.580	3.598	42.467
EU-15	56.027	52.771	48.558	46.514	46.096	43.626	43.312	42.344	41.901	40.761	39.684	501.594

Road traffic accidents - Trend 1991-2001 - Number of deaths

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
B	188	167	165	168	143	134	134	147	137	144	145
DK	118	112	108	105	112	98	93	94	97	93	81
D	142	132	123	121	116	107	104	95	95	91	85
EL	207	210	209	216	231	206	201	208	201	193	*180*
E	227	201	163	143	147	140	143	151	145	145	137
F	184	173	172	157	154	147	145	153	145	138	138
IRL	126	117	121	113	121	125	130	124	111	111	108
I	143	142	126	124	123	116	117	110	115	111	*111*
L	216	177	197	162	172	172	143	135	135	161	156
NL	85	83	81	85	86	76	75	68	69	68	68
A	200	178	161	167	151	128	137	119	133	120	118
P	326	310	271	251	271	272	250	210	200	184	163
FIN	126	120	96	95	86	79	85	78	84	77	84
S	87	88	73	67	65	61	61	60	66	67	66
UK	82	76	68	65	64	64	64	61	60	60	60
EU-15	153	144	132	126	124	117	116	113	112	108	105

Road traffic accidents - Trend 1991-2001 - Number of deaths per million inhabitants

Sources: CARE, and national data. Estimates in italics

ANNEX 2

European Road Safety Charter

I, the undersigned [name, address], represented by [name and position of person signing]

Having authority, decision-making, economic or social powers or a mandate to represent,

And, in this capacity having a share of the responsibility for road safety in the European Union,

(PREAMBLE)

Whereas the number of road accident victims in Europe at present is unacceptable, and the most effective possible measures need to be taken to reduce this number in the shortest possible time,

Whereas coordinated action between the many parties having responsibility, in one capacity or another, is more likely to achieve the intended results,

Believing that there are effective measures available to encourage road users to apply safety rules and even to take further measures, for example in order to reduce the exposure of users to the risks of accidents; and believing that the scope of such measures will be all the greater if a critical number of stakeholders commit themselves to them,

Subscribing to the objective of reducing the number of deaths on the roads by at least 50% by 2010,

Confident in the sense of responsibility of the individuals and organisations concerned,

Aware that actions to promote road safety entail extremely low costs compared with the human, social and economic cost of unsafe roads,

(OBJECTIVE)

UNDERTAKE TO IMPLEMENT, PROACTIVELY, THE MEASURES WITHIN THE SPHERE OF MY RESPONSIBILITY AND ACTIVITIES SO AS TO SPEED UP PROGRESS ON ROAD SAFETY.

UNDERTAKE IN PARTICULAR, WITHIN THE BOUNDS OF MY RESPONSIBILITY AND SPECIFICITIES, AND WHERE NECESSARY, IN ACCORDANCE WITH THE ANNEX TO THIS CHARTER, TO IMPLEMENT THE FOLLOWING PRINCIPLES AND MEASURES:

1. To take the measures within my sphere of responsibility to contribute to the abovementioned objective of reducing the number of road deaths.

2. To include road safety actions and safety performance measurement among my major objectives and principal decision-making criteria, in particular in the context of research activities, organisation and investment and in the more general framework of the organisation of professional activities, so as to draw up a veritable road safety plan.

3. To share with the competent bodies responsible for road safety technical and statistical information making for a better understanding of the causes of accidents,

the injuries caused by accidents and the effectiveness of preventive and palliative measures.

4. To contribute to preventing road traffic accidents by pursuing high-quality actions in one or more of the following areas:

   - initial and continuous driving training and information,
   - motor-vehicle equipment and ergonomics,
   - infrastructure designed to minimise the risks of accidents and their gravity and to encourage safe driving.

5. To develop and implement technologies for reducing the consequences of road traffic accidents.

6. To contribute towards the development of means of uniform, continuous and appropriate monitoring of compliance with traffic rules by persons acting in my name or under my authority and penalising any offenders in a uniform, rapid and proportionate way.

7. To create a framework encouraging the introduction of continuous education actions and the rehabilitation of high-risk drivers.

8. To endeavour to contribute, wherever possible, to a better understanding of the causes, circumstances and consequences of accidents in order to draw lessons from them in order to avoid their repetition.

9. To contribute towards ensuring that effective and high-quality, medical, psychological and legal assistance is available for road accident victims.

10. To accept post-evaluations by peers, in accordance with appropriate confidentiality rules, of the measures taken to improve road safety and, where necessary, to draw lessons from them to review the measures.

AND LASTLY

11. To deliberately take the initiative of implementing measures going beyond the regulatory requirements in force, namely …….. [to be completed by the signatory].

Done at …,

(signature)