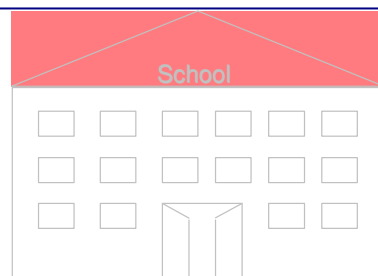
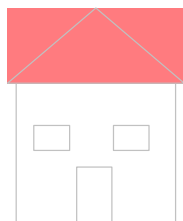


Road safety in school transport



Study by **TIS**.PT in collaboration with

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 Directorate-General Energy and Transport

ROAD SAFETY IN SCHOOL TRANSPORT

FINAL REPORT

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Version	1.3
Date	15-12-2004
File location	H:\TISpt\Projecto\577-Roadsafety\Final Report\RSST_finalreport_v1.3.doc

ROAD SAFETY IN SCHOOL TRANSPORT

FINAL REPORT

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1. INTRODUCTION

1.1 SOME FACTS

1. Every day millions of children need to displace themselves from home to school. Although this displacement could be made through different modes (private cars, school transport, public transport, walking and cycling), the number of children transported in private car is increasing.

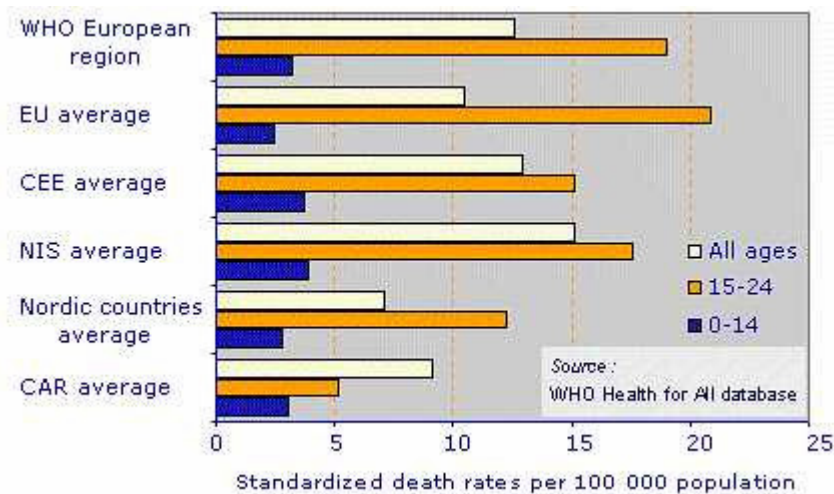
The national travel survey in the UK shows that over the last 20 years car use on the school journeys has doubled so that almost one in five cars on the road in morning peak is taking children to school. This does not only contribute to congestion and pollution, it also represents a considerable risk of accidents.

A survey carried out among French women aged between 25-49 years old, and despite the fact that 74% refer that the school is less than 5 km from home, 46% usually take their children by car.

In Luxembourg it has been found that 9.5% of all journeys made by adults fall into the "taking children to school" category.

2. Road traffic accidents are the main cause of mortality for children up to 15 years old. For the EU 15, almost 48% of child injury deaths are due to a road accident.

Figure 1 – Mortality from road traffic accidents in the WHO European region by geographical area and age group (1999)

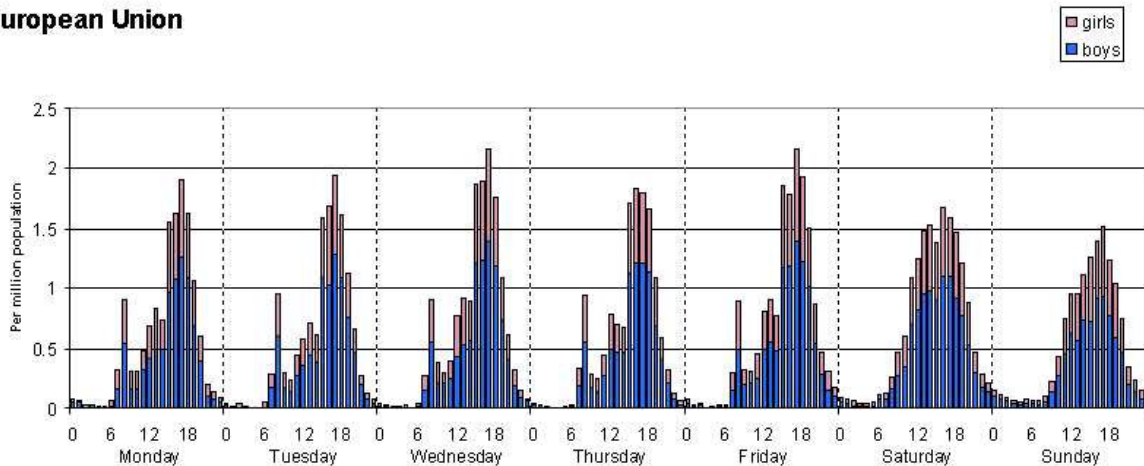


Source: WHO (http://www.euro.who.int/eprise/main/WHO/Progs/TRT/injuries/20030916_1)

- Whereas special EU-wide statistics on accidents during travelling to and from school are not available, considering the distribution of accidents of children over a normal work day¹, as presented in the figure below, it is clear that on their way to and from school, there is a risk for children to be involved in an accident. This is also related to their vulnerability either due to their size or lack of experience in traffic, as for instance in evaluating the distance and speed of a car.

Figure 2 – People aged 6-11 killed or seriously injured in road accidents, for each hour and day of the week rate by population in the age group (rate per million population), EC- CARE database (data from 1998 to 2003)

European Union



Source: http://europa.eu.int/comm/transport/care/statistics/other/6_11_hour_day_gender_en.htm

- To revert these trends, a review of transport and safety policies is needed.
- Public transport and particularly school transport represent high safety records when compared to private cars.

A research undertaken by the Scottish Executive Central Research Unit ² with the purpose of increasing the proportion of non-car travel to school, reveals that travelling by bus or coach appears to be by far the safest mode. Statistics suggest that a child travelling by car is seven times more likely to take part or be involved in a road traffic casualty than a child travelling by bus.

¹ CARE database. CARE is a Community database on road accidents resulting in death or injury (no statistics on damage - only accidents). The purpose of the CARE system is to provide a powerful tool which would make it possible to identify and quantify road safety problems throughout the European roads, evaluate the efficiency of road safety measures, determine the relevance of Community actions and facilitate the exchange of experience in this field

² Sue Granville et al, Why do parents drive their children to school?, available at <http://www.scotland.gov.uk/cru/kd01/blue/pdcs.pdf>

Statistics from USA, Canada and Australia also confirm that public transport (and school transport in particular) has a high level of safety, just as in Europe. For instance, the Australian College of Road Safety³ notes that bus travel is the safest form of road transport, at least 14 times safer than the private car, and that the record for school bus travel in particular is very good. Also the research undertaken by National Highway Traffic Safety Administration in USA notes that when comparing the number of fatalities of children aged 5 to 18 during normal school transportation hours, from 1989 to 1999 (school years), school buses are 87 times safer than private cars⁴.

6. Despite this evidence, parents tend to view the situation differently, with a more sceptical attitude. This can be explained by three distinct, yet complementary reasons:

- In countries outside Europe a standardised school transport system exists – the well-known “yellow buses” – however, in Europe such a common image for school transport vehicles is still lacking (though some first trials have been conducted in UK). This lack of a standard image leads to a lack of trust in the system⁵;
- The effect generated by a bus accident (and particularly in a dedicated school bus) is higher than with a private car. This can be explained by the high number of people involved, while in other accidents the number of people involved is less and dispersed over time ⁶;
- Additionally, in most of the countries a common definition of a school transport accident does not exist. Thus, when an accident occurs to a school bus the correlation with school transport is evident, however if the accident occurs between private cars on the route to school (even if the number of injuries and fatalities is higher) the same classification is not established and often the trip purpose is not included.

7. Consequently there is a need to address school transport by several means :

- a. Improving the image and quality of collective school transport;
- b. Encouraging parents to promote a modal shift towards collective school transport;
- c. Enlarging the scope of school transport to school routes.

³ www.acrs.org.au/collegepolicies/vehicles/schoolbuses.html (26-07-2004)

⁴ www.nhtsa.dot.gov/people/injury/buses/GTSS/factbus.html (26-07-2004)

⁵ This lack of standards do not mean that school transport is not safe. In fact, vehicles used for school transport require special licenses and are subject to strict rules of inspection. Equally drivers need additional certificates, pass regular checks and in several countries participate in dedicated training.

⁶ A similar situation occurs when an accident with a train or plane occurs, though the safety record of these modes is higher than other modes. Also a road accident is noticed when it involves several vehicles.

1.2 WHY THIS STUDY?

8. A significant reduction of road accidents is a core objective for the European Commission. As clearly announced in its White Paper “A European Transport Policy for 2010: Time to Decide”⁷, the Commission proposed the European Union to set itself the target to halve the number of road deaths by 2010.
9. While researches highlight school transport as a safe mode, parents still express their worries about this topic. Bearing in mind these two aspects, the EC already launched two studies in 1991 and 1998⁸ to analyse the European situation in school transport. These studies contributed significantly to the knowledge of road safety in EU, proposing a set of different measures and recommendations (technical, organisational, awareness, etc.).
10. A central objective of this study is to look at the recommended measures in the light of the existing and upcoming legislation on transport and safety issues. This review will enable the evaluation of the needs for legislation or other action to be taken at the Community or Member State level.

1.3 KEY QUESTIONS ON SCHOOL TRANSPORT

1.3.1 Scope of school transport

11. School transport must be provided for all pupils who live farther than a pre-specified distance from school, or if special circumstances apply (for example disabled pupils or dangerous school routes). The distance limits vary from one country to another, and in most countries the limits depend on the age of the pupils. In Denmark, for example, the distance limit increases stepwise from 2½ km in the three youngest classes up to 9 km for pupils in 10th class. In Finland, as another example, there is a general limit of 5 km or a total travel time (including waiting time) of more than 2½ hours. However, there is a large influence of other circumstances, such as the age of the pupils and the safety of the route.
12. School transport can be offered in several ways. In some cases the pupils can use the normal public transport system at a special fare, in other cases a specific school transport service must be offered.

⁷ European Transport Policy for 2010: Time to decide (Com (2001) 370 final, 12 September 2001)

⁸ CETUR/ ANATEEP/ CETE Méditerranée. La sécurité dans les transports d'enfants, four volumes, 1991, for the European Commission, Transportation Department and ANATEEP, La sécurité des transports scolaires en Europe – rapport de synthèse, 1998 for the European Commission, DG TREN.

This is normally a dedicated school bus, but in some cases - for example in rural areas - school transport can also be provided by taxi or mini-buses.

13. The schools are under the administration of the municipalities, and it is also the municipalities who are responsible for providing school transport to public schools. For private schools it is the school's own responsibility to provide school transport for its pupils.
14. Currently it is extremely difficult to assess the number of school transport users and/or school transport beneficiaries (the ones receiving transport subsidy) as this information, when available, only refers to public schools (although most of private schools have school transport).
15. In the majority of countries, the definition of school transport is linked to the designation of a vehicle identified by a pictogram.
16. Enlarging this definition to school routes, thus covering all movements from home to school independently of the transport mode, seems a good compromise for the correct assessment of school transport safety.
17. This has considerable impacts in terms of insurance costs. However this is already common practice in some EU countries, like Germany⁹. Equally transferability lessons might be taken from the labour insurance practices.
18. Enlarging the domain of application of insurance costs in order to cover school routes will imply readjustments to those costs, which must be balanced so that no child will be excluded. But, if on the one hand the insurance costs will increase, on the other this will represent a considerable added value from the statistical point of view.

1.3.2 School transport and public transport

19. A majority of countries advocate that school transport should be performed, whenever possible, in regular public transport modes. At the same time, several countries issued specific legislation on school transport, imposing a set of different safety requirements (safety belts, seats, drivers, etc.).
How to deal with this? Should public transport be obliged to fulfil all those requirements?

⁹ The German Social Security Code 7 includes a public insurance for all pupils on their way to and from school (door-to-door) regardless of what mode they are using.

The Spanish case provides a good example of this relation. According to the school transport legislation all the safety aspects considered should be applied not only by targeted school buses but also by other public and private transport modes whenever a third of the vehicle occupants are children below 16 years. This means that whenever demand for a certain route and in a certain time period is known to be typically constituted by children then the vehicle used for the service must be adapted. An obvious consequence is that the production costs in routes serving schools is higher than the others given the enforcement to implement special safety equipment.

Another good example of this relation is found in Leicester, UK. In order to increase parents' confidence and encouraging them to use public transport, the city council is co-funding the introduction of real-time passenger information with local bus operators. With IT terminals installed at schools, pupils could wait in the safety of the school grounds until the bus is approaching and only then walk to the bus stop.

1.3.3 School Transport safety

20. Although there is no requirement directly concerning school transport at European level, different legislative measures were issued over the last years with impacts on the safety of this mode. This concerns vehicle safety devices and drivers licences, among others. Additionally several countries have specific legal enforcements targeted to this mode.
21. Despite this overall positive perspective, some improvements can still be made. In particular we refer to additional devices during boarding and alighting from vehicles (i.e. lights, stopping arms), the installation of sound reversing indicators in all buses (this is already foreseen in heavy goods vehicles¹⁰); measures that have proven (i.e., Australia, USA) to reduce the incidence of accidents during boarding times. Improvements in the surrounding areas of schools (stops, routes, walking paths) also reveal positive results.
22. Emphasis should not only be put on the “hard” side but also on the “soft” side. Continuous awareness campaign and training or exchange of practices are examples of actions that can contribute significantly to improving safety in school transport.

¹⁰ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL relating to the use of frontal protection systems on motor vehicles and amending Council Directive 70/156/EEC COM(2003) 586 final

23. An integrated approach to school transport issues is necessary - Involving a set of different measures from vehicle characteristics (i.e. speed devices, windows and doors opening restrictions, safety equipment) to the promotion of other safety measures (e.g. traffic calming measures and arrangements in the vicinity of schools), to drivers' qualifications and training as well education, publicity and awareness actions aimed at all the stakeholders (children, parents, teachers, drivers, authorities)
24. Current information does not enable a correct assessment of school transport safety. Statistical vagueness is preventing a good knowledge of the problem.
25. Without a harmonisation of concepts, terminology and methodologies of analysis supported by an integrated information system, existing examples will remain at the level of illustrative cases, thus not contributing to the safety of children transport. It is worth noting that this problem is not limited to school transport as the same difficulties exist in other forms of transport.¹¹

1.3.4 Where can the EC act?

26. While school transport is a matter to be taken care of directly by the Member States, the EC can play an important role by:
 - Providing a common framework to organise, monitor and possibly influence policies, while leaving flexibility to local areas to decide what specific policies and measures best fit their needs. Thus local decision makers are expected to be responsible for the development and implementation of operational measures;
 - Identifying areas and domains where it can act as a catalyst (i.e. encouraging the exchange of practices and strategies).
27. Following this idea, a set of different regulations and legislation on public and private transport safety (therefore also applying to school transport) has been issued by the EC. Examples include the safety belts and children restraint systems, new vehicle type approval, driving licences and training.
28. EU actions have to be framed by the overall road safety strategy. Mechanisms to promote monitoring and enforcement have considerable positive benefit-cost results¹². Actions to make people aware of such enforcement actions and reasons why they are being held, contribute to a higher effectiveness of such actions.

¹¹ Ref Road Traffic Regulation study for DGTREN

¹² as also mentioned in the Commission Recommendation of 6 April 2004 on enforcement in the field of road safety (Official Journal L111, 17-4-2004)

29. Important activities in road safety could be taken more effectively if some basic aspects are promoted, such as data harmonisation and collection procedures, coordination mechanisms. The EC's role in terms of school transport safety lies in those areas. .

1.3.5 Actors and roles

30. Despite the fact that all stakeholders have some degree of responsibility, there is the need to clarify the different roles from the functional point of view. At different levels everyone is responsible to contribute to increase and promote safety in children transportation.

- The children, by putting into practice more sustainable patterns that they are taught at school, and consequently push their parents in the same direction as well by applying the safety concepts (i.e. seat belts, crossing streets, training different situations);
- Parents, by promoting a more rational use of private car and by observing traffic rules;
- Schools and teachers, through the promotion of travel plans, safety campaigns and education activities as well as by setting safety targets;
- Transport operators and drivers, by the observing safety rules, promotion of safe driving (i.e. self-defensive driving) and participation in dedicated actions (i.e. targeted courses or information days for the transport of children);
- Local authorities, by establishing the conditions for a safe environment around schools (i.e. traffic restrictions, bus stops, walking paths) as well as by adopting the upper level requirements in terms of school transport organisation (i.e. specifications for tendered operations, information data collection, etc.);
- Central governments, by defining the policies and the mechanisms for the monitoring and enforcement of those policies (including the budgetary aspects);
- The European Commission, by taking an overall perspective, contributing to the definition and harmonisation of concepts and definitions as well as by issuing regular studies to maintain a continuous knowledge on specific needs and launching whenever necessary legislative packages. Above all, and considering the actual conditions, it seems that the major contribution from EC is the efforts towards the harmonisation of concepts and terminology, supported by an integrated information system for road safety, a basic condition to enable comparisons of rules and enforcement between countries and to perform statistical analysis¹³.

¹³ We should mention that similar remarks were made in previous studies, in particular the comparative study on Road Traffic Rules. As mentioned in this study, an integrated information system should provide structured information to support policy making at EC level, in areas where the principle of subsidiarity does not apply, and support policy decision making at national/regional/local levels, namely by allowing pooling of comparable informative and benchmarking networks.

1.4 ORGANISATION AND STRUCTURE OF THIS REPORT

This report presents the final results of the study on road safety in school transport, which has been developed from January 1st to September 30th 2004. The presented data was collected during that period, however in most cases it refers to the year 2002.

The report is organised along five main chapters, which provide the global picture, complemented by a set of annexes presenting the detailed results per member state:

- The introductory chapter provides an overview of the key issues underlying the school transport questions;
- This is followed by the presentation of the project objectives and methodological approach followed;
- The third chapter is dedicated to the concertation of measures proposed in previous studies. This is done by assessing the current situation in terms of updated legislation, practices at EU or Member State level and progress including technological standards and priorities set by relevant institutions. Possible measures that could be taken and how to monitor and enforce their implementation, as well as the impacts levels that can result from the implementation of recommendations are here included;
- The fourth chapter provides some conclusions and recommendations aimed at the development of a work programme, including an assessment of the transition path management (i.e. tools that can be used to smoothen the process);
- The last chapter is fully devoted to the presentation of a draft work programme on road safety in school transport in the European Union, which focuses on the actions and measures to be taken at the EU level;

As already mentioned, this information is complemented by the following annexes:

- Country reports, showing the national approaches to school transport;
- Topic matrices, putting forward the complete set of information on legislation and practice in school transport;
- List of useful websites and institutions acting in the field of school transport.

2. BACKGROUND AND METHODOLOGY

2.1 PURPOSE OF THIS STUDY

As already said, a significant reduction of the road accidents is a core objective for the European Commission. As clearly announced in its White Paper “A European Transport Policy for 2010: Time to Decide”¹⁴, the Commission proposed the European Union to set itself the target to halve the number of road deaths by 2010. The following and recently published European Road Safety Action Programme¹⁵ stresses that an overall approach is needed to achieve a significant improvement. For this purpose several action plans were developed. The aim of all these measures is to:

- Encourage road users to improve their behaviour, that is what can be designated by a safe (or defensive) driving style;
- Make vehicles safer;
- Improve road infrastructure.

As children form one of the most vulnerable road user categories,, the European Commission has previously launched two studies in order to assess the situation of school transport, whose results provided an overall picture, as well as proposing a set of measures to promote safety in school transport.

Since then, a set of new or revised legislation has been released, aiming to improve safety, both in terms of vehicle safety equipment (i.e. safety belts, tachographs) and driving requirements (i.e. driving and resting times, driving licenses). Such requirements concern public and private transport modes, thus applying to school buses as well.

The objective of the current study - Road Safety in School Transport - is to analyse the legal and operational situation in the Member States concerning safety in school transport, evaluating the need for further legislation or other action at the Community or Member State level. And based on that assessment, to develop a work programme for the suggested actions. In particular the following objectives have been established in the EC specifications:

1. update the analysis of the legislative schemes on school transport in the member states as well as on their application, including relevant statistical data on market share, type and age of vehicles, age of users, etc.;

¹⁴ European Transport Policy for 2010: Time to decide (Com (2001) 370 final, 12 September 2001).

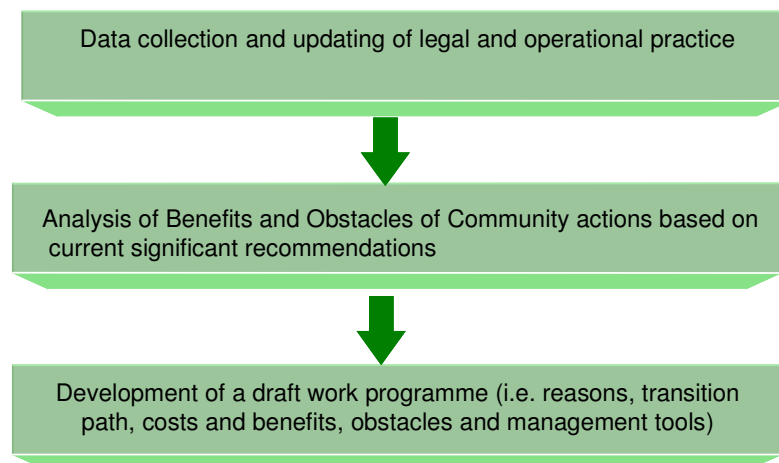
¹⁵ European Road Safety Action Programme: Halving the number of accident victims in the European Union by 2010: A shared responsibility (Com (2003) 311 final, 2 June 2003).

2. assess the recommendations outlined in the two previous studies in the light of today's existing and upcoming legislation on transport in general, and on buses - in particular in the EU Member States;
3. estimate the benefits of legal and other action at community level, by providing relevant statistical evidence;
4. for the maintained recommendations, clearly analyse the possible benefits and obstacles of corresponding actions at community level;
5. draft a work programme of actions to be taken by the Commission

2.2 METHODOLOGICAL APPROACH

The study is organised along three main phases, according to a logical sequence in order to match the technical criteria and objectives settled down for this tender as presented in Figure 3.

Figure 3 - Building blocks of the study

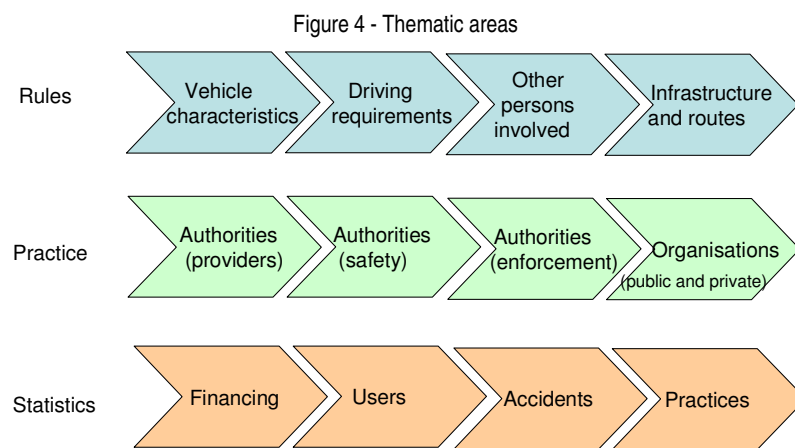


The relevant aspects considered within each block are discussed below:

- Data collection and updating of legal and operational practice - devoted to the identification of the state-of-the-art in school transport legislation and practice within Member States and at EU level, updating the knowledge already available from previous EU research. Statistical data such as market share, type and age of vehicle in use, age of the users, and funding levels have been collected.
- Analysis of benefits and obstacles of community actions - recommendations identified in previous research have been assessed and re-arranged. This means that for the different measures identified, an assessment has been made to determine which recommendation will have to be maintained in the middle or long term, in the light of existing or meanwhile introduced legislation in the EU and the Member States. Whenever proven necessary, additional recommendations have been developed and included. Recommendations that were still useful have been analysed in terms of the impacts of the corresponding actions at the Community level.

- Development of a work programme for actions to be carried on at the Community level, highlighting the reasons, expected transition path, obstacles and potential tools.

As mentioned, during the first phase of work an inventory of the actual situation (legislation and practice) on school transport has been carried out. The information collected enabled on the one hand the evaluation of the progress since 1998 (last study conducted) and on the other hand the identification of a set of new recommendations. To this end, a structured questionnaire covering a set of thematic aspects was prepared and answered in all 15 EU countries after establishing contacts with relevant entities in those countries. Areas covered, both for regular public transport and specific school transport, include:



The information collected in this phase is included as an annex to this report.

In the second stage we focused on the assessment of the recommendations coming from the previous studies (CETUR, ANATEEP) checking whether they were still relevant currently. New recommendations for actions and measures are proposed as well, to enable the fulfilment of the proposed objectives. According to these bundles of measures the impacts of the interactions are analysed as well, and their efficiency and effectiveness is described.

To do this, the following steps have been undertaken:

- a) for the final list of recommendations¹⁶ objectives are developed and required actions and measures set to reach the proposed objectives. These actions and measures are generated by:
 - The European Commission's policies (including planned changes of legislation)
 - Awareness on good practices undertaken by Member states
 - Awareness on good practices from Non-EU-Countries

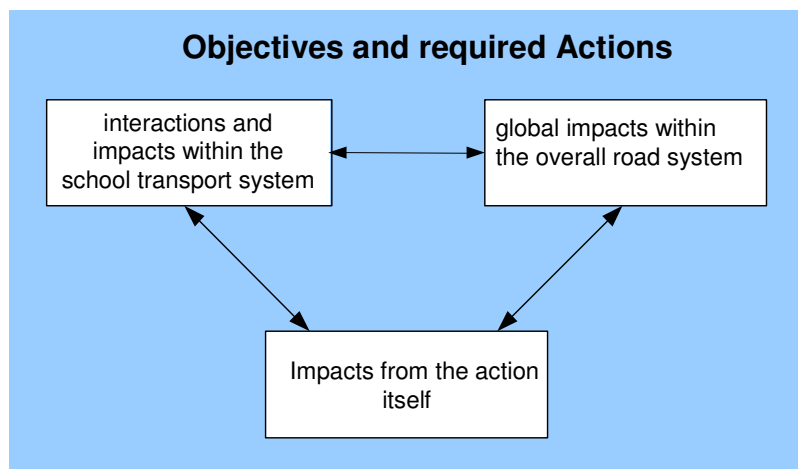
¹⁶ previous studies (CETUR, ANATEEP), state-of-the-art legislation and practice, EU- guidelines and proposed changes of legislation and best practice from non-EU countries

- b) definition of a new list of proposed recommendations including their objectives and actions required. Based on that list, the impacts of the proposed bundles of actions and measures are analysed.

As displayed in Figure 5 these impacts are generated at different levels – such as:

- impacts from the action itself;
- interactions and impacts within the system of school transport;
- global impacts within the overall road system.

Figure 5 - Impacts of objectives and required actions



The previous studies initiated by the European Commission DGTREN such as the projects SUNflower¹⁷, ESCAPE¹⁸ and GADGET¹⁹, constitute the starting point for this analysis. In addition, recommendations from the European Transport Safety Council²⁰, the CBA of road safety improvements²¹ of ICF Consulting and the Clifford Chance studies²² and the TIS.PT study on Road Traffic Rules²³ were analysed.

¹⁷ SUNflower: A comparative study of the development of road safety in Sweden, the United Kingdom, and the Netherlands, project lead SWOV, published in 2002, ISBN 90-801008-9-7

¹⁸ ESCAPE: Enhanced Safety Coming from Appropriate Police Enforcement, project lead VTT, <http://www.vtt.fi/rte/projects/escape/index.htm>

¹⁹ GADGET: Guarding Automobile Drivers through Guidance Education and Technology, project lead KfV, <http://www.kfv.or.at/gadget/Default.htm>

²⁰ <http://www.etsc.be>

²¹ ICF Consulting Ltd., Cost Benefit Analysis of road safety improvements, London 2003 <http://www.icfconsulting.com/default.asp>

²² Clifford Chance, Information gathering on speeding, drink driving and seat belt use in the member states, published at http://europa.eu.int/comm/transport/road/roadsafety/behaviour/index_en.htm

²³ TIS.pt, Study on Road Traffic Rules and Corresponding Enforcement Actions in the Member States of the European Union (EU 15), 2003, published at http://europa.eu.int/comm/transport/road/publications/trafficrules/reports/rtr_final_en.pdf

The third stage was dedicated to the development of a work programme of actions to be carried out for the European Commission.

Such development was based in the following assumptions:

- First the subsidiarity principle is applied, meaning that school transport is a subject to be dealt with at local level;
- The EU role should be to define a common framework to organise, monitor and possibly influence policies, while leaving flexibility for local areas to decide policies that best fit their needs;
- EU actions should be framed by the overall road safety strategy as defined in EU documents.

Thus, the development path was focused on the measures where EC could have a positive influence or act as an catalyst, and for those measures assess the transition path, that is to identify who will be affected (winners and losers), which obstacles can appear, which tools could be used to overcome or minimise those effects as well as how to monitor the progress.

3. CONCERTATION OF MEASURES PROPOSED BY PREVIOUS STUDIES

As already mentioned, previous studies have identified a set of various recommendations / measures to be promoted in the school transport field. Since then, the European Commission - but also Member States individually - launched different legislative packages and promoted actions in domains with direct influence on school transportation.

The objective of this chapter is to assess those measures in the light of actual situation and progress including the technological standards and the priorities set by the European Community (Road Safety Action Plan, European Traffic Safety Council, etc.). A total of 24 measures were analysed, as presented in the figure below.



Statistical

- Harmonisation of concepts and terminologies
- Database construction / integration



Organisational

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Definition of minimum instructions <input type="checkbox"/> Better definition of bus stops, pedestrian paths, school routes <input type="checkbox"/> Necessity of accompanying young children <input type="checkbox"/> Interdiction to carry stand up children outside urban agglomerations <input type="checkbox"/> Bus evacuation exercises at least once per year | <ul style="list-style-type: none"> <input type="checkbox"/> Vehicle control harmonisation <input type="checkbox"/> Medical control harmonisation <input type="checkbox"/> Driving and resting times random control <input type="checkbox"/> Collective transport driving permits for vehicles with more than 9 adult places |
|---|---|



Technical

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Ban or tyre retreads or repairs at least at the front of vehicles <input type="checkbox"/> Standardisation of coach dashboards <input type="checkbox"/> Improvement of coach visibility <input type="checkbox"/> Pictogram normalisation <input type="checkbox"/> Sound reversing indicators | <ul style="list-style-type: none"> <input type="checkbox"/> Mandatory emergency lights with sound advertisers for board and alight <input type="checkbox"/> Improvements in the area of upholstery <input type="checkbox"/> Restraint systems <input type="checkbox"/> Speed limitation and deceleration devices <input type="checkbox"/> Emergency equipment (radio / automatic fire extinguishers) |
|---|---|



Training and awareness

- Innovative continuous training
- Training of bus drivers in interaction with school children
- Safety education



Zero level of alcohol

- Zero level of alcohol for school transport professionals

Each of the measures was assessed in three main steps:

Step 1 – Screening of measures

- Reasons for the measures at the outset of the proposal, meaning what is the proposal's background;
- Progress till now, meaning legislative or related action taken by the EC or Member States;
- Good practices identified, meaning practices already implemented or planned in related fields.

Step 2 – Actors and actions

- Identification of actors that should take the responsibility, that is to evaluate if the measure refers to an action to be taken by the EC or directly by the Member States;
- Possible actions to be promoted to increase measures' efficiency and effectiveness

Step 3 – Current Relevance for EC action

- Is the measure still relevant, meaning is it still necessary to keep the measure or has the original problem at the outset already been solved

In the following pages the results of the analysis are presented.

In general, it can be said that future recommendations should shift from the former focus of technical regulation (already implemented in its majority or where additional aspects could be easily implemented) to the scopes of:


- human behaviour,
- training and information campaigns and
- organisational issues.

3.1 STATISTICAL MEASURES


Statistical vagueness is strongly preventing a good knowledge of accident rates for group transportation of children.

Measures included here refer to the necessity to harmonise concepts, terminologies and methodologies of analysis supported by an integrated information system so that comparisons could be made using reliable figures.

Without an integrated statistical system common to the whole European Union, exchanges and recurrences of experience remain illustrative examples that do not have the power to motivate or stimulate initiatives.

Type of Measure	 Statistical
Measure	Harmonisation of concepts and terminologies - Definition of School transport
Background	<p>Today definitions concerning school transport are very different in the EU member states – the most common definition is coupled with the application of the school transport pictogram. But what about public transport or private school transport (parents driving their and other children to school)?</p> <p>The lack of a school transport definition causes various difficulties in assessment of the benefits and drawbacks of this mode. In particular, the collection of statistical data (either accidents or merely market and modal shares) is presently extremely difficult.</p>
Objective	<p>The final objective is a minimum definition for school transport that is independent of the entity performing it, that is the focus should be on the <u>route to school</u> and not merely in the mode used. Such definitions are the basic input for an unified database which is mentioned as a sole measure next.</p>
Good Practice	<p>None of the cases assessed fully contemplates the definition of school transport. Most of the countries relate school transport only with the transport in school buses, leaving all the other modes used in the accesses to schools out of this concept.</p> <p>Good examples are given by the Spanish legislation that indicates a wider perspective of school transport (it enlarges the scope of the school transport regulations not only to school buses but to all transport modes where at least a third of the occupants are children on the way to school) and German Social Security Code that includes a public insurance for all pupils on their way to and from school (door-to-door) regardless of the mode they are using.</p>
EU Legislation (applied or foreseen)	None
Possible Measures	<p>The focus of this issue should be the entire route to school and not only the main part of the way (which is served by a vehicle), but also walking, cycling etc.</p> <p>Preliminary definition of school transport, independent of the entity performing it, including a catalogue of minimum requirements such as e.g.</p> <ul style="list-style-type: none"> - school children on board of a vehicle who are on their way to/ from school; - zero level alcohol rule for the driver; - restraint systems; - change of laws to guarantee the school transport status for these vehicles (yield, insurance etc.); - Information campaign and marketing (especially that bus transport to school is the best mode and private cars are much more dangerous to avoid an undesired modal shift). <p>These definitions should be developed in co-operation with the CARE database to have extended definitions which can be implemented in an existing and efficient system.</p>

Impacts	<ul style="list-style-type: none"> - a “comparable” benchmark between all Member States - identification of developments and trends in road safety in school transport (including timelines) - evaluation and assessment of impacts of other measures
Relevance	↑ High
Responsibility	European Commission Member States

Type of Measure	 Statistical
Measure	Development of an unified database
Background	<p>Statistical vagueness is particularly limitative to a good knowledge of accident rates in the children transport. In the majority of countries, information on accidents does not distinguish school transport. Even for accidents with children such distinction is only made taking into account the age group (most of the countries consider all incidents up to 15 or 18 years old an accident with children). As the trip purpose is normally not asked, the identification of school transport related accidents turns out to be very difficult. Additionally, due to the existing decentralisation of school transport, most of the data concerning school transport is collected by the municipalities (according to different procedures) and accumulated statistics on national level are not collected on regular basis.</p> <p>Without a common and integrated information system enabling the correct evaluation and knowledge of the problem, the (few) existing examples remain at the level of illustrative cases, thus not contributing to increase the safety of children transport.</p>
Objective	<p>Unified definition of terms, unified procedure of data collection and data provision to generate comparable data. The easiest way could be to develop an extension of the CARE-database by integrating issues relevant to “road safety in school transport” .</p> <p>For the European Commission, data is an very important issue to be able to verify and validate current practices (good and bad), the degree of implementation of EC guidelines and directives, the impact of measures and the insight of present situations and trends. In the “European Road Safety Action Programme” this issue is specified as follows:</p> <p><i>“It describes in particular specific measures for establishing a methodological framework to identify and disseminate best practice, 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.”²⁴</i></p>
Good Practice	Some good examples on data collection procedures were found in Austria, Germany and


²⁴ Commission of European Communities, “European Road Safety Action Programme Halving the number of road accident victims in the European Union by 2010: A shared responsibility”, COM(2003) 311 final, Brussels 2003


	<p>France, though comparisons between these cases are still not possible (in Austria and Germany data refers to accidents on the way to/from school while in France data is only collected for accidents with school buses).</p> <p>Both in Austria and Germany, data collection is done by “Governmental Insurance Companies” in co-operation with the federal boards of road safety and federal boards for statistics. Special software for data input is available in the different regional divisions. Special data is collected for school children per transport mode.</p> <p>These data collections have also a legal basis. In 1977 a law in the social legislation in Austria was amended and since then accidents in schools and on the way from/to school were defined and regulated by law. The definition can be found in the Austrian Social Insurance Act § 175 Addition 4 where all accidents at work/school/university are included. Similarly in Germany, data is collected at regional level and then subject to integration by the German Association of Health Funds. The German Association of Health Funds is collecting and generating the data autonomously. The responsibility of this issue lies with the Federal Ministry for Health and Social Security but there is a close co-operation with the Federal Ministry for Transport, Construction and Housing.</p> <p>In France, the ANATEEP has a special project where road safety data for school transport is collected. As already included in the previous studies, the work developed by the National Transport Council of France contains a list of statistics that could be used as example for the construction of an integrated database.</p>
<p>EU Legislation (applied or foreseen)</p>	<p>The Commission intends to set up an 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 analysis²⁴. School transport accidents data (accidents on route to school) can easily be incorporated in this framework.</p>
<p>Possible Measures</p>	<ol style="list-style-type: none"> 1. European Commission communication or regulation establishing the common basis and recommendations for the development and integration of school transport related issues into the statistical systems, including: <ul style="list-style-type: none"> - definition of used terms (e.g. accident, school transport, light/severe injuries etc.) - data to be collected (accident data of all modes, injuries and fatalities related to school transport etc.) with a proposed assessment and improvement of systems for linking hospital data and national road accident statistics. - appointed dates / deadlines - responsible authorities (there should be a centralised responsible authority which co-ordinates the data collection and makes first quality control etc.) - reporting periods (and dates) <p>This should be made in interaction with the coordinators of the CARE database</p>

	<ol style="list-style-type: none"> 2. Integration of the responsible authorities in the countries – there has to be an responsible authority within each member state of the EU (e.g. federal statistical bureaus or federal ministry) to be responsible for implementation and running of the collection. The collection itself can be provided by authorities on different levels, for example: insurance companies, police, hospitals/doctors, schools etc. 3. Launching an information campaign in schools and with all related stakeholders (parents, authorities, insurance companies, etc.) to make people aware of the system and its benefits 4. Additional measures that could include: <ul style="list-style-type: none"> - develop specifications for on-board accident recording devices, and examine the consequences of various alternatives for certain categories of vehicles - establish an European methodology for independent road accident investigations and set up a group of independent experts meeting within the Commission 5. possible co-operation with the International Road Traffic Accident Database (IRTAD) of the Organisation for European Economic and Development (OECD). Since 1990 IRTAD has operated within the framework of the OECD road transport research programme, and now includes data from all OECD countries. IRTAD includes fatality and hospitalised casualties broken down by road user type, age, and type of area.
Impacts	<ul style="list-style-type: none"> - a “comparable” benchmark between all Member States - identification of developments and trends in road safety in school transport (including timelines) - evaluation and assessment of impacts of other measures
Relevance	↑ High
Responsibility	European Commission, Member States (and local authorities)

3.2 ORGANISATIONAL MEASURES

The responsibility for developing and implementing road safety measures is normally split between different institutions acting at different government layers or departments within the same organisation, which often do not establish the necessary mechanisms to assure co-ordination and consequently make the implementation of those measures more difficult. Examples include the relations between different schools or between those and authorities (transport, education, safety). Organisational measures have the objective to ensure that adequate resources, based on targets and priorities defined, are available for school safety and to ensure at the same time that they are adequately used and monitored.


Type of Measure	 Organisational
Measure	Definition of Minimum Instructions
Background	Often, trip planning (i.e. for extra-curricular activities) does not take safety aspects into account and is particularly concentrated on price negotiations. From previous studies, issuing a summary in which minimum instructions to be applied are listed for preparation of children's trips involving two or more member countries (not "lowest bid", ...); during the trip (instructions to follow, driving and rest times to be respected, ...); in the case of an incident or an emergency (procedures to follow, people to contact, ...) were proposed.
Objective	Issuing a document stating all the procedures to be followed whenever a trip involves more than one country.
Good Practice	None
EU Legislation (applied or foreseen)	No changes planned. Directives on drivers training and qualifications (Directive 2003/59/EC), driving and resting times (Council regulation 3821/1985 on recording equipment in road transport), use of tachographs (Commission Regulation 1360/2002) partly covers the key objectives. Furthermore the emergency number is similar in whole EU.
Possible Measures	Periodic control and enforcement
Impacts	Increased safety perception
Relevance	↓ Low
Responsibility	Member States and Schools. This is an issue that falls directly under the competences of the schools which between them should arrange the exchange of necessary information.

Type of Measure	 Organisational
Measure	Better definition of bus stops, pedestrian paths, school routes and trips
Background	Not only the vehicle and the time of usage of the vehicle is an important factor for improving the road safety in school transport – also the redesign, definition, visibility for other users of the traffic system is important. Several accidents (including the more severe ones) do not occur inside the vehicle but in the vicinity of the stops. Most of the schools do not dispose of parking areas, so the conditions around the access points (both for public and private vehicles) should be (re)designed in order to increase visibility and safety
Objective	Based on the good practices identified in several countries, establish the requirements and conditions that should be observed in the areas nearby schools, including the stops, pedestrian paths, traffic signals and traffic calming measures, etc.


<p>Good Practice</p>	<p>The Swedish School Transport Ordinance (1970:340), as in the majority of the EU countries, stipulates that the municipalities are responsible for ensuring safety in the design and location of the bus stops. The TSVFS 1988:17 prescribe that the bus stop should have a direct connection with the school. If this is not possible, and if pupils therefore need to cross a busy road, a tunnel for pedestrians should be considered, or a bridge for pedestrians or a crossing with signals. If the bus stop is located on an exceptionally busy road, specially designed bus stops shall be used or special bus stop for school transport shall be established.</p> <p>In the Swedish cities of Borlänge, Lidköping, Lund, Eslöv and Umeå a three to four year trial for Intelligent Speed Adaption²⁵ (ISA) was carried out. The trial in Eslöv lasted two months and the one in Umeå a year. A total of 120 cars were involved and the results were highly promising. The percentage of drivers who kept to a maximum speed of 30 km/h increased from 20 to 80 percent. Nearly all the test drivers thought that this technology led to safer traffic, and most felt that both driving comfort and interaction with other road-users was better. Many wanted to keep the equipment in their cars after the end of the trial. Research on ISA is being conducted in several other European countries. Apart from Sweden, Holland and England are the countries that have come the furthest in this field.</p> <p>In Auckland (NZ) and Ontario (CAN), school routes are studied in order to increase road safety. The Safe School Bus Route Program in Auckland has determined several criteria for the routes of school buses, like speeds limits, dangerous crossings, etc. There are also a number of infrastructural measures proposed, like (Road Safe Auckland, 2004): a) Increasing width of crosswalk to give crossing pupils more space, b) increasing distance between stop line and crosswalk to enlarge the distance between cars and crossing pupils; c) children crossing flags near schools that warn drivers of an regularly used crosswalk by pupils.</p> <p>Legislation and regulation are also enforcing measures that are commonly used in countries outside the EU to increase safety. An example is the stopping law in Canada and the United States establishing that when a school bus stops to load or unload passengers, other vehicles must stop and keep a distance of at least 20 meters. Drivers risk high penalties when passing school buses during loading and unloading.</p> <p>Other good examples are given by the presence of school patrols and the presence of the police during the arrival and exit times, enabling a better control of traffic and the passage of children.</p> <p>An interesting case was found in UK where real time information systems have been installed inside the school grounds. With this measure pupils could wait safely in the school until the arrival of the bus and would only then go to the bus stop.</p>
<p>Possible Measures</p>	<p>- Promotion of crossings on the same level as the pedestrian paths are (ramps for</p>

²⁵ Vägverket - Swedish National Road Administration, ISA Intelligent Speed Adaptation, <http://www.isa.vv.se/index.en.htm>


	<p>cars)</p> <ul style="list-style-type: none"> - Safeguards for platforms and bus stops for the children’s protection against the “normal” traffic and the arriving and departing buses - Mandatory stopping of other vehicles approaching a school bus at a bus stop from both directions - Enforcing new “intelligent” systems (using mobile information and communication technologies) such as ISA, collision sensors etc.
EU Legislation (applied or foreseen)	None
Impacts	<p>Increased safety for children by reducing the number of accidents, fatalities and injuries on the way to and from bus stops and walking route to school.</p> <p>Research done by the ETSC confirms that the implementation of 30km/h zones nearby schools combined with other physical measures (such as road humps, elevated crossings) can have considerable impacts on safety: the probability of a pedestrian fatality reduces from 85% at 50km/h to less than 10% at 30 km/h.</p>
Relevance	↑ High
Responsibility	Member states, road administrations

Type of Measure	 Organisational
Measure	Necessity of accompanying young children
Background	<p>The presence of an adult in school vehicles, besides the driver, is not imposed in all countries. It is known that the simultaneous presence of a large number of kids in a close space without vigilance could facilitate confrontational behaviour. Simultaneously, and particularly in youngest groups, the boarding, alighting and crossing street movements is a potential danger. When the driver is alone and needs to help children in those movements, other pupils are left alone inside the vehicle and this also represents a potential danger (i.e. release of the brakes).</p>
Objective	<p>To encourage the presence of an adult, besides the driver, in school transport. This person should be responsible for the surveillance inside the vehicle and a facilitator for the boarding movements.</p>


Good Practice	<p>In most of the surveyed countries such presence is legally imposed. Besides acting as a dissuasive aspect (to discourage bad behaviour), such a person is responsible for the boarding movements. Equally he/she acts as a facilitator in case of problems.</p> <p>The presence of an additional adult besides the driver is also related with the age and number of pupils in vehicle.</p> <p>In Spain such presence is mandatory if 50% of seats are occupied by minors of 12 years old. In Portugal such presence will be mandatory in all vehicles (however in vehicles below 9 places and none of child below 8 years old, this rule is waived).</p> <p>An alternative good practice to the presence of an adult in the vehicles to discourage bad behaviour was found in UK. In the yellow bus trials CCTV systems have been installed with the aim to maintain discipline and reduce bullying. This measure was appreciated by operators, schools and pupils. The awareness that the system was working had impacts in students behaviour as demonstrated in the experience from Darland school.</p>
EU Legislation (applied or foreseen)	<p>None</p>
Possible Measures	<p>Possible measures include:</p> <ul style="list-style-type: none"> • Assessment of costs and benefits of CCTV imposition inside school vehicles; • Evaluate alternatives to reduce the cost of an accompanying person, such as by promoting this role to be done by parents • Establishment of code of conduct within vehicles and respective punitive aspects; • Include behaviour aspects, to be followed in boarding as well as during the journey, in the training activities; • Promoting safety exercises (i.e. aspects to take into account when leaving the bus and crossing the street) • Create mechanisms to oblige traffic stopping during boarding times (see measures towards a better definition of bus stops above)
Impacts	<p>Teaching children aged 5-12 the right way to cross a road can reduce the number of accidents by around 10%. The presence of school crossing patrols can contribute to a reduction of 3 km/h in car speed.</p>
Relevance	<p>↓ Low</p>
Responsibility	<p>Member states</p>


Type of Measure	 Organisational
Measure	Prohibition to carry stand up children outside urban agglomerations
Background	<p>Speed outside of urban agglomerations is much more higher than inside. Therefore the risk of injuries or even fatalities in the case of accidents is much higher (children catapulted to the front of vehicle). Overcrowded vehicles for school transport are daily practice, therefore an prohibition to carry standing children outside of urban agglomerations is necessary.</p>
Objective	Create awareness of the danger of standing in vehicles and establishment of conditions to assure that rules are accomplished (random control)
Good Practice	<p>Most countries legally prescribe the prohibition of standing in vehicles used for long distances (regional trips). In urban and short trips vehicles must use the total vehicle capacity and this can not be overcome.</p> <p>In school buses, some progress is already visible in some countries, in particular in what concerns the abolition of the 3 children in two seats rule and the obligation to use seat belts (so no one stands):</p> <ul style="list-style-type: none"> - In Austria, every child has to have its own seat including a restraint system in all small buses and coaches; - In Portugal, the new regulation (in discussion) for school transport obliges to the existence of safety belts in all seats and prohibit the rule of 3 in 2 seats; - In Ireland and UK the rule of 3 in 2 will be abolished by 2006 and new vehicles will need to be fitted with seat belts for all passengers; - In Sweden, school transport legislation is under revision and measures include the obligation of seat belts. <p>Besides, in case of tendering the service, responsible authorities can impose conditions.</p>
EU Legislation (applied or foreseen)	<p>Special legislation on seat belts usage and restraints systems for children – the Council Directive 2003/20/EC. The new legislation will ensure that:</p> <ul style="list-style-type: none"> - Children in cars and light vans shall be restrained by a child restraint system that conforms to the latest UN-ECE standard (Regulation 44.03) (its adaptation or equivalent) - Safety belts shall be used by drivers and seated passengers of lorries and coaches as well as in cars and vans.


Possible Measures	<p>The main objective is to raise the public awareness (especially that of parents) of the danger generated by the situation of standing children in school transport. Therefore public campaigns and additional information in schools will be the best way to develop the awareness for necessity of this measure.</p> <p>Raising the budget of school transport budget by public authorities will also be necessary to increase the number of transport opportunities to reduce the rate of occupancy per vehicle.</p>
Impacts	<p>The claim for every children's own seat in buses outside urban agglomerations will particularly prevent children from injuries as a consequence of hard breaking manoeuvres (emergency breaks etc.). Combined with the need of restraint systems in school buses these two actions are the most effective way to improve safety for school children during transport in the vehicle.</p> <p>This measure should be accompanied by the actions of raising the budget for school transport (to increase the number of opportunities/buses) and the enforcement by the police for the adherence to the safety rules.</p> <p>Within this measure the necessity of special school transport vehicles is additionally clarified and it will only be possible to be implemented in special school transport, but not in mixed or public transport</p>
Relevance	↓ Low
Responsibility	Member States

Type of Measure	 Organisational
Measure	Bus evacuation exercises
Background	The severeness of an accident can be minimised if rapid evacuations could be performed. Minimise the delays due to panic situations can contribute to that time reduction.
Objective	To perform regular training exercises to minimise the panic if a real accident occurs
Good Practice	<p>This type of exercises is already a practice in several countries. For instance in Netherlands bus evacuation exercises are the responsibility of the companies providing the school transport. Regulation on this is stated in the agreements between the company and the local authorities, but there are no mandatory annual exercises.</p> <p>This type of exercises should be part of the education /training activities (see below)</p>
EU Legislation (applied or foreseen)	None
Possible Measures	Integration of this type of exercises in the education /training activities (see below)

Impacts	Implementing this type of exercises together with other training activities will contribute to minimise the delays and panic in case of an emergency, and can thus contribute to minimising the consequences of accidents.
Relevance	↓ Low
Responsibility	Member states


Type of Measure	 Organisational
Measure	Vehicle control harmonisation
Background	Generally vehicle control is not harmonised as a separate issue within EU, but there are many technical specifications and inspection guidelines that cover the whole sphere of professional transport of persons and goods. Previous studies proposed to harmonise technical control on the vehicle safety devices to every six months, to be made at specialised stations.
Objective	Not applicable. EC directives already overcome the problems raised in previous studies
Good Practice	None
EU Legislation (applied or foreseen)	Directive 2000/30/EC that requires Member States to conduct random roadside inspections on heavy commercial vehicles in addition to annual checks. The Directive would cover all heavy commercial vehicles (over 3,5t also including buses) on a Member States' roads, irrespective of where they come from. If an inspection shows that a vehicle does not meet the mandatory standards and represents a danger to its occupants and other road users, it should be taken off the road immediately. The same goes for vehicles exceeding the limits on pollutant emissions. The Directive came into force in August 2002.
Possible Measures	Monitoring and enforcement through regular random controls
Relevance	↓ Low
Responsibility	Member states

Type of Measure	 Organisational
Measure	Medical check harmonisation
Background	By now there are a lot of countries which enforce medical checks (physical conditions) for the driving permit issue for elderly drivers. Nearly all Member states have special requirements for the health conditions of drivers of public and school transport. Therefore they specify certain medical inspections, on the one hand for obtaining driving licences and on the other hand for certain age groups (especially for older drivers). There are a variety of medical inspections for example: general practitioner, eye specialist, clinical psychological tests., etc.
Objective	Not applicable – this issue is covered by EC legislation
Good Practice	None
EU Legislation (applied or foreseen)	As part of European legislation on driving licences (Directive 2000/56/EC) bus and coach drivers must undergo medical checks in the future, at intervals set by the Member States.
Possible Measures	Control and enforcement
Relevance	↓ Low
Responsibility	Member states

Type of Measure	 Organisational
Measure	Driving and resting times random control
Background	Previous studies referred to the need of digital tachographs to control the driving and resting times as proposed by regulation 3820/1985
Objective	Not applicable – overcome by regulation 1360/2002
Good Practice	None
EU Legislation (applied or foreseen)	Random control of driving and resting times is already harmonised by the Regulation (EEC) 3820/1985. The main problem nowadays is the enforcement of these issues which will grow in the future – the European Community set two main steps to be able to improve the enforcement in the future: <ul style="list-style-type: none"> - Directive 2000/30/EC - random roadside inspections on heavy commercial vehicles in addition to annual checks - Regulation (EC) 1360/2002 – digital tachographs in new vehicles²⁶.


²⁶ digital tachographs will facilitate enforcement


Possible Measures	Regular random inspections, control and enforcement
Relevance	↓ Low
Responsibility	Member states


Type of Measure	 Organisational
Measure	Collective transport driving permits for vehicles with more than 9 adult places
Background	At the time of previous studies, two countries (Ireland and UK) only demand a collective driving permit for vehicles above 17 places. Currently this situation is no more valid.
EU Legislation (applied or foreseen)	<p>According to the new changes of the driving licenses which were released by Directive 2000/56/EC this issue is harmonised.</p> <p>Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers, amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC.</p>
Possible Measures	None
Relevance	↓ Low
Responsibility	Member states

3.3 TECHNICAL MEASURES

This refers to aspects that can be incorporated in technical specifications of vehicles to make them safer for child use. Major importance is placed on the technical features that could be implemented in vehicles used for children's transportation to make them more visible, creating more awareness in other road users.

Type of Measure	 Technical
Measure	Ban of tyre retreads or repair at least at the front axles of vehicles
Background	With less protective rubber, due to excessive repairs, the overheating of the metal structure inside the tyre can cause it to implode. There must be a ban on such practices. Although these are not dangerous if carried out with the proper knowledge, and without excess, they can be dangerous in the absence of effective controls. In order to avoid bursting tyres, which are highly destabilising for heavy vehicles, particularly double-deckers, the tyre retreads and repairs would need to be banned, especially at the front of the vehicles.
Objective	Do not allow the use of tyre retreads and repairs in the front of vehicles (in particular in double-deckers)
Good Practice	In Germany and Austria retread tyres are not allowed either in public or school transport. However in most of countries they are allowed if they comply with the technical and safety standards as prescribed in law and confirmed in regular inspections.
EU Legislation (applied or foreseen)	<ul style="list-style-type: none"> - Tyres are regulated in the Council Directive 92/23/EEC of 31 March 1992 relating to tyres for motor vehicles and their trailers and to their fitting. - 2001/509/EC: Council Decision of 26 June 2001 on the accession of the European Community to Regulation 108 of the United Nations Economic Commission for Europe concerning the approval for the production of retreaded pneumatic tyres for motor vehicles and their trailers and 2001/507/EC: Council Decision of 26 June 2001 on the accession of the European Community to Regulation 109 of the United Nations Economic Commission for Europe concerning the approval for the production of retreaded pneumatic tyres for commercial vehicles and their trailers - Directive 2000/30/EC that requires Member States to conduct random roadside inspections on heavy commercial vehicles in addition to annual checks, states that if an inspection shows that a vehicle does not meet the mandatory standards and represents a danger to its occupants and other road users, it should be taken off the road immediately.
Possible Measures	Control and enforcement
Relevance	<p>↓ Low</p> <p>This issue was already overcome by EC legislation. The main relevance is at Member State to perform regular checks and enforcement actions to assure that requirements are accomplished</p>
Responsibility	Member States

Type of Measure	 Technical
Measure	Standardisation of coach dashboards
Background	The dashboards are not normalised and differ from vehicle to vehicle (each vehicle-manufacturer produces their own dashboard and the placing of the relevant buttons often differs between vehicles).
Objective	For an efficient evacuation of the vehicle in case of immediate danger, dashboards should be standardised between different vehicle-manufacturers, as well as emergency exits and safety equipment. Both children and adult passengers can so be better informed and will be able to evacuate the vehicle quickly and without hesitation
Good Practice	None
EU Legislation (applied or foreseen)	None
Possible Measures	Possible measures lie in two main areas: <ul style="list-style-type: none"> • On the one hand through the technical specifications imposed by the authority in tender documents; • On the other hand, by promoting safety exercises in training sections.
Relevance	↓ Low Though the lack of harmonisation in dashboards (each manufacturer creates his own design) the minimum requirements (i.e. need of visual control for current speed, correctly closed doors, lighting devices, emergency doors and windows) are legally established. Furthermore, while manufacturers comply with minimum requirements, this issue is strictly a commercial aspect (as happens with private cars).
Responsibility	Member States

Type of Measure	 Technical
Measure	Improvement of coaches visibility Included under this heading we grouped the following related items: pictograms, sound reversing indicators and emergency lights with sound advertises for boarding and alighting
Background	In Europe there is no colour associated to school transport (such as the yellow buses). It is therefore necessary to create mechanisms enabling to improve visibility and create awareness to other drivers that the vehicle is transporting (or is boarding) children and that special attention must be taken.


<p>Objective</p>	<p>There are three main goals to be achieved with this issue:</p> <ul style="list-style-type: none"> - better visibility and awareness of other traffic participants - increase safety of buses in cases of reversing, increase of safety in blind spot areas around the vehicle - stopping of all other traffic participants in the surrounding of school when buses are boarding. <p>Though the characteristics (i.e. layout) of pictograms are normalised according to the settings defined by the United Nations Economic Commission for Europe (UN/ECE)²⁷, there are still differences among the different countries that reduce its impact (e.g. illumination). Through the adoption of complementary measures the visibility of school buses will increase</p>
<p>Good Practice</p>	<p>The Ministry of Transportation in Ontario (CAN) has set up a list with required vehicle characteristics that school buses should meet. Examples of these requirements are: (Ontario Ministry of Transport, 2004):</p> <ul style="list-style-type: none"> - Bright yellow colour of school buses to be very conspicuous and recognizable - Flashing upper lights to show other drivers that the bus has stopped and is loading or unloading passengers. It is a sign for other vehicles to stop. - Stop arm, that supports the flashing lights to make clear to other vehicles that they should not be passing the stopping school bus. <p>Sound reversing indicators devices are already compulsory for vehicles for goods transport over 3,5 tons in all member states of the European Union, so all the technology is available. The use of an additional mirror at the rear of a minivan to avoid blind spots is compulsory in Austria.</p> <p>In UK school buses (similar to yellow buses in USA) were introduced in some cities. It is too early to evaluate the impacts but it is expected that this will contribute to increasing the perception of safety and thus contribute to a modal shift away from cars.</p> <p>First results available suggest that the introduction of the “yellow bus package” can generate positive modal shift, improve the image of school transport and can result in improved behaviour/reduced vandalism where this objective was included. Overall the yellow image was a positive factor for parents of young people but less liked by secondary age pupils. However, whilst they did not rank colour as an important factor, they did perceive the yellow vehicles to be safer and of better quality than other buses²⁸</p>
<p>EU Legislation (applied or foreseen)</p>	<p>None, though it is recommended to extend the interpretation of the below regulations to implement these devices in all buses as well.</p> <ul style="list-style-type: none"> - 2001/506/EC: Council Decision of 26 June 2001 on the accession of the European

²⁷ <http://www.unece.org/> TRANS/SC.1/294/Rev.5, January 1998


²⁸ Evaluation of the First Yellow bus pilots schemes, study prepared by Steer Davies Gleave to the Department of Transport, October 2003

	<p>Community to United Nations Economic Commission for Europe Regulation No 104 on the approval of retro-reflecting markings for heavy and long vehicles and their trailers</p> <ul style="list-style-type: none"> - Additional proposal for a Directive of the European Parliament and of the Council relating to the use of frontal protection systems on motor vehicles and amending Council Directive 70/156/EEC COM(2003) 586 final. - COM/2001/0811 final: 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 (proposal to amend the existing directive related to the type-approval of mirrors and supplementary systems for indirect vision and of vehicles equipped with these devices). This directive would impose the special mirrors to all new trucks.
<p>Possible Measures</p>	<p>A different set of measures can be implemented such as:</p> <ul style="list-style-type: none"> - Improving the visibility of school buses through the adoption of additional (flash) lights or imposing the obligation to turn them on during the boarding times - Co-ordinating boarding times with traffic restriction measures (i.e. prohibition of overtaking and passing by in any direction); - Improve the bus stops areas (as presented above) - A study to assess the costs and benefits of the adoption of a single colour for school buses should also be initiated (the results from UK experiences could be used as a basis). - The extension of the interpretation of the above mentioned directives to all passenger vehicles.
<p>Impacts</p>	<p>The positive example of the implementation of <u>sound reversing indicators</u> in lorries and trucks in the whole European Community should also set the standard for buses and coaches. The most important impact is the warning of persons in the blind spot area at the rear of the vehicle. Due to the existing law for goods transport vehicles the technology for sound reversing indicators is available and the market also exists, so the devices are affordable.</p> <p>By <u>additional indicators and signals</u> there would be:</p> <ul style="list-style-type: none"> - a visual and audible warning for other road participants, - increase attention towards the school transport vehicle, - higher priority towards school transport, - decrease of accidents of school transport vehicles with other road participants when entering or leaving the bus stops .

	<p>The main impact should be increased safety for children at boarding and alighting at bus stops and at school to prevent them from accidents.</p> <p>Results from UK experiences with the standard buses for school transport (yellow buses) will contribute to assess the impact of this type of action. However, from the other countries experiences, the increase perceptibility and recognition of a school vehicle contributes significantly to speed reductions and more attention to movements when the vehicle is stopped.</p> <p>As a consequence of these enhancements many accidents of school buses with other road participants, but also accidents of children by boarding and alighting the bus with other road participants can be reduced.</p>
Relevance	↑ High
Responsibility	EC - extend the interpretation of the existent regulations for heavy vehicles to implement these devices in all buses as well Member States

Type of Measure	 Technical
Measure	Improvements in the area of upholstery
Background	<p>The increase use of safety belts and shock absorbent seats is an essential stage in increasing passenger safety, but these devices are incompatible with others still existent, as is the case of longitudinal seats (these seats make it impossible to guarantee optimum passenger safety, especially in the event of major crash and are incompatible with the use of safety belts).</p> <p>Additionally, previous research revealed complaints from children that vehicles do not enable them to place luggage and they are obliged to leave bags in the central aisle or on their knees. Besides the comfort aspect, these are obstacles that can contribute to slow down an emergency evacuation.</p>
Objective	<p>The majority of member states already imposes (or foresees to do so) age limitations in vehicles used in school transportation, so important aspects referred to in previous studies (i.e. windows opening, longitudinal seats, equipment in vehicle interior) have now less importance than before. However the imposition of a set of conditions (e.g. an appropriate luggage storage in buses) should be specified as part of the tender for school bus lines.</p>

Good Practice	None
EU Legislation (applied or foreseen)	None
Possible Measures	Specification of technical requirements in tender documents Control and enforcement
Relevance	↓ Low
Responsibility	Member States, Local authorities


Type of Measure	 Technical
Measure	Restraint systems
Background	<p>Currently the use of safety belts and restraint systems is not mandatory in school vehicles in several countries. Only in France, Greece, Sweden, Spain and partly in Austria and the UK the use of seat belts in school buses is mandatory. Other countries already consider this in school transport legislation.</p> <p>The use of restraint systems (especially seat belts) is very different in the specific member states – in Sweden for example 90% of all vehicle users are wearing a seat belt. In general there is a north-to-south decline in seat belt usage.</p>
Objective	Seat belts are mandatory in most of the EU-countries for users of vehicles <3,5tons. But the use of restraint systems in school transport is not (until 2010). Mandatory use of restraint systems in school transport ²⁹ will be recommended.
Good Practice	<p>In the USA and Canada every school child is able to go to school by special school transport buses including a restraint system. The USA has a law that defines stringent safety standards for manufacturing school buses, so all new buses have the same high safety standards.</p> <p>In Austria, a new legislation concerning school transport in small buses require additional driving mirrors (also in the rear of the vehicle), every passenger must have a safety belt, every passenger must have an own seat etc.</p> <p>Several countries already impose the mandatory use of seat belts and restraint systems.</p>

²⁹ exception: no restraint systems in public transport with mixed traffic

<p>EU Legislation (applied or foreseen)</p>	<p>Special legislation on seat belts usage and restraints systems for children – the Council Directive 2003/20/EC. The new legislation will ensure that:</p> <ul style="list-style-type: none"> - Children in cars and light vans shall be restrained by a child restraint system that conforms to the latest UN-ECE standard (Regulation 44.03) (its adaptation or equivalent) - Safety belts shall be used by drivers and seated passengers of lorries and coaches as well as in cars and vans. <p>School buses are exempt from the obligation to use seat belts until 2010, however in most countries the transition period is lower (i.e. UK, Ireland impose the obligation of seat belts until 2006).</p>
<p>Possible Measures</p>	<p>In the Road Safety Action Program³⁰ the Community proposes a common basic framework which consists of the measures:</p> <ul style="list-style-type: none"> - rules on the mandatory fitting and use of equipment, - rules to improve checks and the application of penalties to car drivers, - set 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. <p>Additionally, local authorities and NGOs should promote public awareness actions on the need and benefits from the use of safety belts and restraint systems:</p> <ul style="list-style-type: none"> - basic training for children, bus drivers, teachers and parents - continuous information campaigns and marketing - specific detailed information (e.g. internet information platform for child safety seats: http://www.autokindersitz.at/index.html) - continuous evaluation and monitoring of seat belt use. <p>The imposition to fit vehicles with seat belts is obviously a basic aspect, however important actions in the field of awareness together with continuous monitoring seem crucial for the real use of this device. In particular targeted actions towards the secondary age pupils demonstrating the need and benefits of seat belt use are needed. As demonstrated in the UK trials, the safety belts provision was ranked as highly important in surveys, however the focus group analysis revealed that seat belts are often not used (teachers also reported the difficulty in enforcing the use).</p>
<p>Impacts</p>	<p>On 8th April 2003, the Directive on seat belt and child restraint use (Directive</p>


³⁰ Commission of European Communities, “European Road Safety Action Programme Halving the number of road accident victims in the European Union by 2010: A shared responsibility”, COM(2003) 311 final, Brussels 2003, Page 11

	<p>2003/20/EC) was adopted by the Council and the Parliament. This means that after two years of negotiation in the Council and Parliament, the long awaited Directive comes into being. The new Directive extends the scope of application of Directive 91/671/EEC to require the use of seat belts where provided by all motor vehicle (M1, N1, M2, N2, M3, N3) occupants and for children to be restrained by an appropriate child restraint system when travelling in passenger cars and light vans (M1 and N1 vehicles).</p> <p>The new legislation will ensure that children in cars and light vans shall be restrained by a child restraint system that conforms to the latest UN-ECE standard (Regulation 44.03) (its adaptation or equivalent) and that safety belts shall be used by drivers and seated passengers of lorries and coaches as well as in cars and vans.</p> <p>The main safety benefit of the new Directive is that it recognises that children, like adults, have the right to be protected when travelling in cars and therefore gives adults the responsibility to ensure that the children are restrained by child restraints that are designed for their age and size. It also makes the use of seat belts by truck drivers mandatory: this measure alone has the potential for saving 200 truck drivers' lives a year. In addition to the new legislation the investments in safety belts improvement have also an positive macro-economical aspect – according to the cost benefit analysis of the ICF Consultants³¹ the cost benefit ratio is between 10:1 and 13:1.</p>
Relevance	↑ High
Responsibility	<p>Member States – control and enforcement</p> <p>The EC can also fulfil an important role with the clear indication of enforcement actions as proposed in its recommendation on law enforcement in road safety</p>

Type of Measure	 Technical
Measure	Emergency devices (radio equipment in vehicles, automatic fire extinguishers)
Background	<p>Time is crucial when an accident occurs. When that happens, drivers have to be able to inform the emergency services, however this is not always possible. A radio link provided for in the construction of coaches could overcome this. It is recommended to encourage vehicle manufacturers to provide for radio equipment in construction of vehicles allocated for passenger transport, especially to enable direct contact with emergency services.</p> <p>The use of fire extinguishers in the vehicles is mandatory (and has to be annually verified with the date in a visible place). However the emission period (12 to 16 seconds) is considered insufficient and the extinguisher is not efficient. It was therefore recommended to install an automatic fire extinguisher in the engine compartment.</p>

³¹ ICF Consulting 2003, Costs-Benefit analysis of Road Safety Improvements, June 2003

Objective	<p>Recommendations from previous studies focussed on providing radio equipment for emergency services and installing automatic fire extinguishers.</p> <p>With the high presence of mobile phones and with the 112 emergency number (free and common to whole community) the relevance of having radio equipment for emergency services has a reduced impact today.</p> <p>Fire extinguishers are mandatory for all countries, but there is no Member State where an automatic fire extinguisher in the engine compartment is required at the moment. In any case, and due to the high costs of such systems (and the rather infrequent need) it would be better to pursue other initiatives to protect the passengers, like evacuation exercises and trainings on emergency situations.</p>
Good Practice	None
EU Legislation (applied or foreseen)	None
Possible Measures	Measures that could be easily incorporated, without implying extra costs are mainly related with monitoring and training.
Relevance	↓ Low
Responsibility	Member States – control and enforcement (random control and regular inspections) Schools and operators – ensure that at least a communication device is on board


Type of Measure	 Technical
Measure	Speed limitation devices
Background	<p>Studies demonstrate that speed is a risk factor in road safety. In previous studies the introduction of speed restriction devices was recommended.</p> <p>Since then the EC has introduced legislation in the field and the devices are already mandatory in passenger vehicles with more than 3.5 tonnes.</p>
Objective	Not applicable
Good Practice	In Spain, school buses are also obliged to drive at 10 km/h less than the regular maximum speed on inter-urban roads

EU Legislation (applied or foreseen)	<p>Directive 2004/11/EC of the European Parliament and of the Council of 11 February 2004 amending Council Directive 92/24/EEC relating to speed limitation devices or similar speed limitation on-board systems of certain categories of motor vehicles.</p> <p>The Directive 92/6/CEE requires the introduction of speed limiters in vehicles of more than 12 tonnes (90 km/h) and passenger bus with more than 10 tonnes (100 Km/h). All vehicles registered from 1987 on should have been equipped with that limiter between 1994 and 1996. The directive 2002/85 extends the domain of application to all goods or passenger vehicles with more than 3,5 tonnes after 2005 for new vehicles and 2006 to vehicles in service since 2001.</p>
Possible Measures	Monitoring and control of rules accomplishment through random regular inspections
Relevance	<p>↓ Low</p> <p>This issue was already overcome by EC legislation in the field</p>
Responsibility	Member States – control and enforcement (random control and regular inspections)

3.4 TRAINING AND AWARENESS MEASURES

Training and awareness actions contribute to the increase of road safety in school transport and prevention of accidents. All over Europe the administration, institutions, private organisations and parents try to increase their activities and improve safety. These actions should be targeted at the different stakeholders but in particular towards children and drivers.

Besides the immediate effects on child safety, this type of measures must also be seen in a long term perspective of influencing behaviour and awareness of new drivers and modal shift in favour of public transport and other soft modes.

Type of Measure	 Training and awareness
Measure	Continuous training of bus drivers
Background	The transport of children calls for special personnel as well as professional capabilities. Even though in most of the countries special requirements are imposed to school transport drivers, the continuous training should be encouraged.


<p>Objective</p>	<p><i>“At the present no more than 10% of commercial drivers have received training beyond what is required for obtaining their driving licences [...]”³²</i></p> <p>The final objective has to be a continuous training program to remain up to date about the main issues of daily duties of a bus driver.</p>
<p>Good Practice</p>	<p>In Germany the automobile club ADAC is establishing the ADAC "quality program" (especially for coach) which is including:</p> <ul style="list-style-type: none"> - practical training for bus driving - bus-seminar: for bus driver, bus fleet manager and companions. <p>The participants have to comply with legal requirements, periodic inspections, a minimum tyre profile depth of 3mm, additional safety equipment: a warning vest, pylons and emergency telephone, etc. ADAC has also planned a special "quality program" for school bus-drivers and operators similar to the coach program, but with special focus on emergency situations in school transport.</p> <p>In addition, the German federal state of Baden-Württemberg has developed a computer-based training simulator for bus drivers which was subsidised by the European Community. Training modules are: physical impacts of driving, rest and driving times, economic driving, dealing with special situations and exceptional circumstances³³.</p> <p>In Portugal, targeted courses for school transport drivers are promoted (currently on a voluntary basis, mandatory from 2006) with the following objectives:</p> <ul style="list-style-type: none"> - create awareness among drivers concerning the specificities and exigencies of childrens' transport; - stimulate the transmission of theoretical and practical aspects of collective transport of children (psychology, pedagogy); - sharing experiences and difficulties in the activity; - promote the role of children transport and the role of the drivers as partners in the educational community; - promote the awareness on the school transport safety. <p>The course is composed of a theoretical and a practical session along three days. Theoretical parts cover the overview of relevant legislation, children development, psychology and pedagogical approach and theoretical approach to defensive and reactive driving. The practical sessions are devoted towards the simulation in different climatic situations, driving audits and safety devices. Besides that, different situations with children (i.e. conflict management) are also tested.</p> <p>In USA, the government in North Carolina has compiled a handbook for school bus</p>

³² Commission of European Communities, "European Road Safety Action Programme Halving the number of road accident victims in the European Union by 2010: A shared responsibility", COM(2003) 311 final, Brussels 2003, Page 31

³³ <http://www.busforum.de/COMBUS/default.htm>

	<p>drivers, with clear information about laws, guidelines on how to proceed, etc. This book gives school bus drivers an up-to-date view of road safety concerning school buses. Organised driving skills competitions are held to test the skills of school bus drivers and to stimulate them to know and practise the rules. Bus drivers will be tested on their knowledge about laws and regulation, school bus pre-trip inspections, and basic driving skill manoeuvres.</p> <p>Ontario (CAN) has developed a program called the First Rider Program. The First Rider Program is designed to promote school bus safety to young children and their parents. One of the aims of this program is cooperation between school bus drivers, parents, and schools and school boards. Correct behaviour of children and drivers is important for safety in school buses. The school bus is seen as an extension of the classroom. That is why parties involved should establish a “code of conduct” that is told to the children and contains clear sanctions for unacceptable behaviour. School bus drivers are responsible for the physical and emotional safety of children who ride on their bus, and have an obligation to maintain order and control.</p>
<p>EU Legislation (applied or foreseen)</p>	<p>Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers, amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC.</p>
<p>Possible Measures</p>	<p>The new regulation will consist of measures such as:</p> <ul style="list-style-type: none"> - quality assurance by implementing general qualification standards for the exertion of the job as a driver - basic qualification in road safety - harmonisation of professional requirements for a fair competition - proof of competence for basic qualification and random trainings - obligation for continuous random trainings (especially for safety issues and defensive driving) – which last at least 5 years - compulsory exams for passing the basic qualifications and the continuous random trainings.
	<p>Other measures extracted from good practices that could be enlarged:</p> <ul style="list-style-type: none"> - Target courses (i.e. ADAC in Germany and APSI in Portugal) - First day Rider (Ontario) with the interaction between drivers and children - Handbooks for school transport drivers - Guidelines and procedures.

Impacts	<p>There are various kinds of innovative trainings methods for drivers of school buses all over the European Community. Basically all of them are very effective, but there is a need for continuity and repetition. These training methods are necessary:</p> <ul style="list-style-type: none"> - to provide adequate knowledge and initiate reflection on driving - to increase awareness of the importance of psycho-physiological condition - for better hazard perception, risk assessment and risk management, - for advanced self evaluation in difficult situations, - for more professional acting in dangerous and emergency situations, - for post-accidental psychological counselling, - to develop a higher knowledge of technology and driving physics, - for better understanding for interaction with children and - for the avoidance of dangerous situations and an deliberately behaviour in the situation of accidents are the basis for improvement of school transport and the reduction of accidents and injuries.
Relevance	↑ High
Responsibility	<p>EC through the promotion of European actions for school transport drivers (see below the work programme)</p> <p>Member States</p>

Type of Measure	 Training and awareness
Measure	Safety education
Background	<p>Together with drivers training, also children, parents and teachers should promote safety education. Only through such a joint effort, safety could be improved. The education system should take on its role in this context, compensating any lack of motivation on parents' side. While bus companies should promote the drivers training, parents associations and schools should be responsible for addressing the safety theme (e.g. in the classes)</p>
Objective	<p>Main objectives include:</p> <ul style="list-style-type: none"> - early awareness raising adapted to the needs of children, - train the children for situations on their way to and from school and their daily "traffic-life" with and without the use of vehicles, - increase the awareness and perception of dangerous situations and - better public information on the issue of school transport

<p>Good Practice</p>	<p>There are a lot of good examples all over Europe:</p> <ul style="list-style-type: none"> - In the Netherlands, parents get a so called “Personal Budget” for “special education” This budget gives parents extra financial means for additional costs arising from an person accompanying the pupils on their way to school. - In France the ANATEEP “<i>Association NAtionale pour les Transports Educatifs de l'Enseignement Public</i>” is a non-profit organisation at improving quality and safety of road transport. It organises training sessions for parents and pupils through schools. Moreover the French Federal Ministry of Transport (Direction for Road Safety) launched various initiatives at national level (road safety education in schools). Local actions are also set up by the French “<i>Departements</i>”. Since 1993, it has been compulsory for all pupils aged 13 to 15 to pass the “<i>Attestation scolaire de sécurité routière</i>” (Road safety school certificate) which tests knowledge of pupils on basic road safety issues. Since March 2004 it has been compulsory to pass this certificate to be able to pass the driving licence exam. - There are various awareness campaigns run by national government targeted at different groups of users, for example the 'Hedgehogs' for small children and pedestrians and the 'Think!' campaign for other road users. The government also supplies various other work and activity sheets for teachers to work through at appropriate intervals throughout children's education (for example the Department for Transport produces a School Travel Resource Pack for use by parents and teachers). - Another example is a brochure of the German bus-lobby³⁴ "crisis management in cases of emergency". - In Spain, the road traffic directorate launched a campaign of road education targeted at students and teachers with the collaboration of parents. This activity is meant to increase the citizens values, through the establishment of habits and attitudes to improve environment and road safety. The campaign starts from the principle that to be efficient the education should start much earlier and be constant during every phase of people’s education. Thus, road education is included in the education system. Targeted documents and activities have been developed for the different education levels. A web site contains different didactic resources.
<p>EU Legislation (applied or foreseen)</p>	<p>Not applicable</p>
<p>Possible Measures</p>	<p>The measures and bundles of actions have to focus on:</p> <ul style="list-style-type: none"> - General Information campaigns - Information campaigns in schools, nursery schools and nursing facilities - modification and revision of the old traffic education material (e.g. increase access to road safety materials via the Internet)

³⁴ www.bdo.de


	<ul style="list-style-type: none"> - EU-wide school transport day³⁵ - Intensify co-operations - increase the participation of parents and non-governmental organisations (e.g. encourage community training schemes) - Intensify the co-operation between all responsible authorities (governmental/regional/local, schools, parents, NGOs) - Training itself <ul style="list-style-type: none"> o early awareness-raising of parents and children (child safety audits, guidelines on pedestrian training, improve school training resources, increase parent involvement, support school travel plans, encourage cycle training and use of cycle helmets, expanding traffic education to all obligatory school levels o special practical training in co-operation with police and NGOs (including theoretical and practical training of bus evacuation, right behaviour in certain situations etc.) o special mobility and safety training for disabled. <p>These measures can only be forced effectively by an increase of the budget for educational measures in school transport.</p>
Relevance	↑ High
Responsibility	EC – promotion of events on school transport (i.e. included in the safety charter actions) Member States, in particular education authorities in cooperation with transport and safety ones.

3.5 ZERO LEVEL OF ALCOHOL FOR SCHOOL TRANSPORT

Driving under influence of alcohol or driving while impaired by other narcotics is one of the main reasons for very severe accidents. According to the proposed 50% reduction of fatalities until 2010 the EU must enforce and encourage measures for alcohol reduction. Although this is valid for all, severe restrictions must be posed especially to professional drivers (and in particular drivers carrying children on board).

According to the studies conducted in this field, the cost benefit ratio for (macro-)economic for measures on a zero level alcohol is from 3.8:1 to 8:1

³⁵ analogue to the USA - <http://www.nhtsa.dot.gov/people/outreach/safesobr/OPlanner/ncpsw/schoolbus.html>

Type of Measure	 Zero level of alcohol
Measure	Zero alcohol level for school transport drivers
Background	According to the proposed 50% reduction of fatalities until 2010 the EU must enforce and encourage measures like this. Driving under influence of alcohol or driving while impaired by other narcotics is one of the main reasons for very severe accidents. With certain laws on zero level of alcohol and its enforcement will be necessary for the future – within this process the cost benefit ration for (macro-)economic savings and expenses for measures is from 3.8:1 to 8:1 ³⁶ .
Objective	In professional traffic in general, and school transport in particular, alcohol has to be banned completely
Good Practice	Some of the member states of the European Union do have already the zero level of alcohol in school transport – for example Sweden. In the city of Stockholm all cars owned by the municipality are equipped with a testing sensor for alcohol – the so called “alcolock”. The driver has to blow into the sensor to be able to start the car.
EU Legislation (applied or foreseen)	No legislation planned, but “alcolocks” are proposed by the Community ³⁷ . Commission Recommendation of 17 January 2001 on the maximum permitted blood alcohol content (BAC) for drivers of motorised vehicles (Text with EEA relevance). Although not legislative in nature, the explanatory memorandum has also been published in the Official Journal, "C" series (Official Journal C 048 , 14/02/2001 P. 0002 - 0010).
Possible Measures	In order to improve the effects of enforcement, the following supporting measures are necessary: <ul style="list-style-type: none"> - Information and public campaigns - combine media advocacy efforts with increased enforcement level. - Introduction of strategies to prevent alcohol abuse, such as the promotion of low-drinking attitudes. - Special trainings for drivers - Communication of the levels of traffic safety and potential enforcement. - High enforcement (including random breath testing and the use of quicktests) - Intensified frequency of checks (Council Directive ECC 88/599 introducing a minimum frequency of road checks and Council Regulation 3820/85 EEC working and rest periods). <p>There is ample evidence that reductions in BAC limits, supported by effective enforcement and publicity, can reduce inappropriate drinking and driving at all BAC</p>

³⁶ ICF Consulting 2003, Costs-Benefit analysis of Road Safety Improvements, June 2003

³⁷ Commission of European Communities, “European Road Safety Action Programme Halving the number of road accident victims in the European Union by 2010: A shared responsibility”, COM(2003) 311 final, Brussels 2003, Page 24

	<p>levels. It is estimated that at least a 10 % reduction in all fatalities in accidents involving drinking and driving is not unrealistic from a package of measures incorporating national enforcement and publicity based around reduced BAC limits, and that greater reductions are possible from more extensive enforcement.</p> <p>Driving while impaired is not only caused by alcohol – also other kinds of drugs have adverse effects. Studies say that the unreported drug related accidents are much more frequent than those caused by alcohol. It is necessary for the police to be able to identify such cases and the roadside enforcement should be intensified and target-oriented.</p>
<p>Impacts</p>	<p>Many campaigns have been launched all over the European community, although in the past years with different impacts – basically dependent on the public awareness which is very different in the Member States of the EU. Indeed there is an overall tendency of a slight decrease in accidents caused by drinking-driving and other drugs, but the important turnaround can only be made by the change of public awareness. Therefore information campaigns are most reasonable to improve this awareness.</p> <p>Accompanying the information activities the European Transport Safety Council supports the random breath testing³⁸ as the most proper measure for increasing the drivers perception of risk of detection. Random breath testing³⁹ (as proposed 1 test per 16 EU-inhabitant)s will improve road safety considerably (2000-2500 fatalities annually) in a very cost-effective way.</p> <p>According to the studies of ICF Consulting the cost benefit ratio for (macro-)economic for measures on a zero level alcohol is from 3.8:1 to 8:1⁴⁰.</p> <p>Important outputs of the measures and campaigns are</p> <ul style="list-style-type: none"> - self-responsibility and self-control - increase of public awareness (it is no more a peccadillo). <p>The final reasons for zero level alcohol are:</p> <ul style="list-style-type: none"> - increase of safety for all road users - reduction of drink-driving accidents (and accidents caused by other drugs) - reduction of fatalities and injuries. <p>As a long term vision one of the most effective measures could be the implementation of the so called “alco-lock” – this breath testing device has to be successfully passed (zero level alcohol) to be able to start the engine.</p>
<p>Relevance</p>	<p>↑ High</p>
<p>Responsibility</p>	<p>EC , Member States</p>

³⁸ ETSC 1999, Policy enforcement strategies to reduce traffic casualties in Europe, Brussels 1999, www.etsc.be

³⁹ ETSC 2003, cost effective EU transport safety measures, Brussels 2003, www.etsc.be

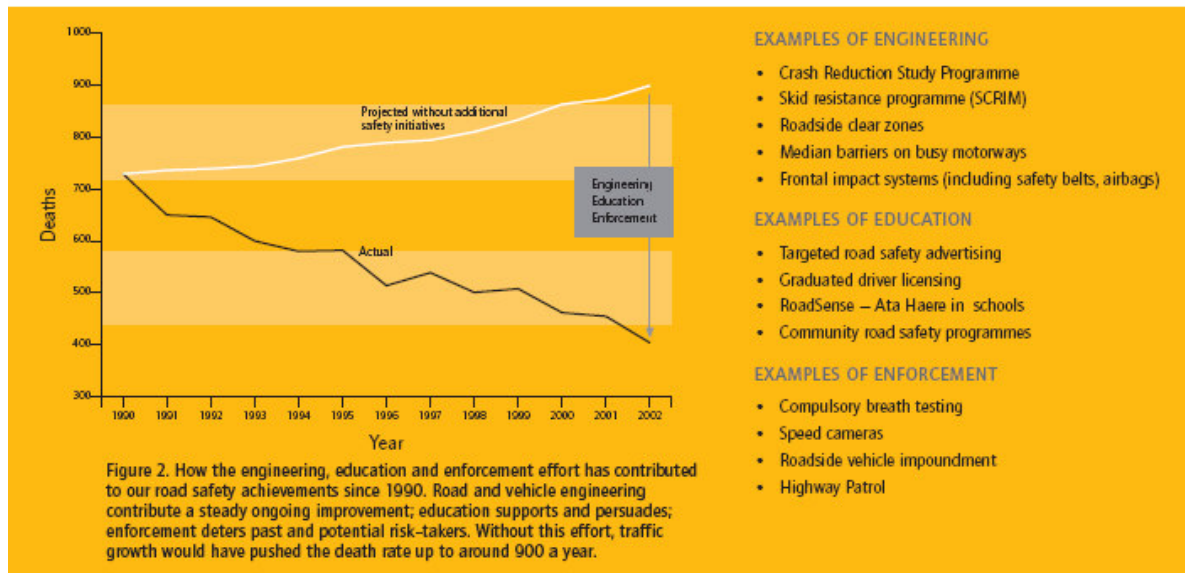
⁴⁰ ICF Consulting 2003, Costs-Benefit analysis of Road Safety Improvements, June 2003

3.6 OVERALL ASSESSMENT OF MEASURES

During the last decade a lot of activities to improve road safety in school transport have been implemented – from EU-level down to private initiatives in individual schools. All of these initiatives had the same final goal – reducing fatalities.

Continuity and long term strategies (and high goals) are necessary to have an impact on safety, especially in road transport. The achievement of a close co-operation between all public authorities (at all levels) and the private stakeholders (schools, parents, volunteers, NGOs etc.) are a preliminary basis to be able to reach the future targets.

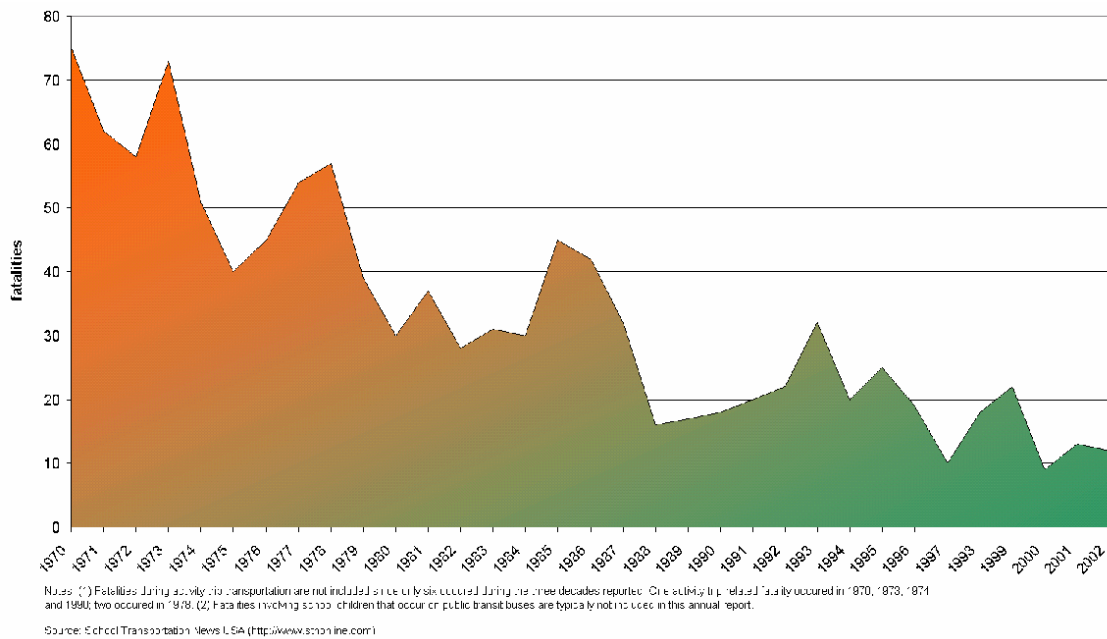
Figure 6 - Road safety achievements in Sweden since 1990



Sweden is one of the best-practice countries in the Community – pursuing the long term policy of improving engineering and education on the one hand and a strict enforcement by the police on the other hand. The positive effects are displayed in the figure above.

A good example in effectiveness of road safety in school transport is given in the United States – the outcome of the national policy on road safety in school transport, as result of a combination of different measures can be seen in the figure below.

Figure 7 -Fatalities in school transport in 50 States of the USA and Washington D.C. 1970-2002⁴¹



Infrastructure-related aspects as well as technical ones are of special importance for the promotion of safety conditions. However, and as previously highlighted, the combination of those aspects with soft domains such as education and awareness could result in long-term improvements.

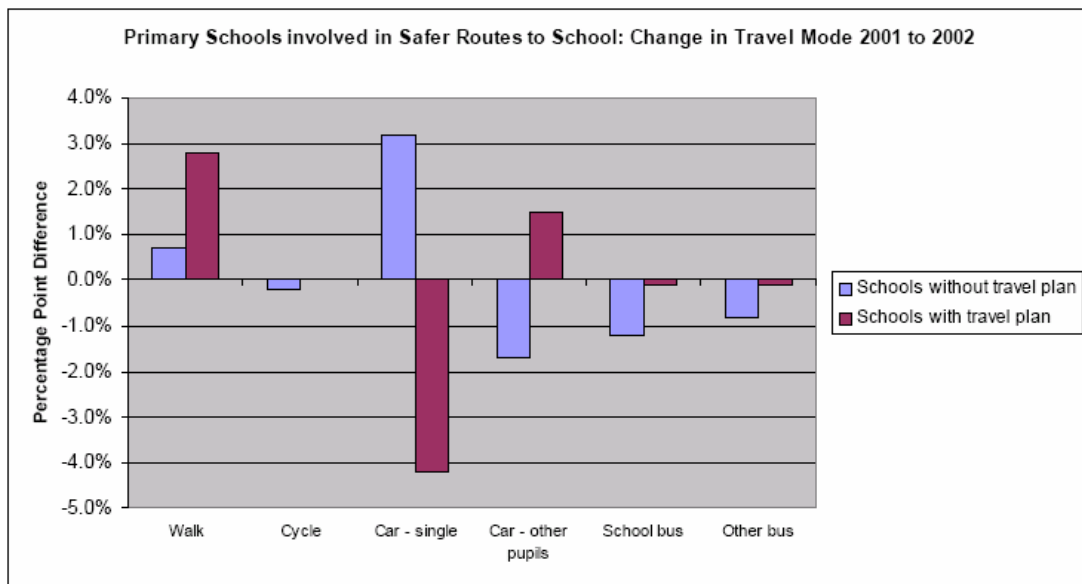
In particular, school children’s safety can not be seen from the restrictive perspective of school bus transportation, which as already mentioned represents a small percentage of child mobility. School safety needs to be framed by the overall school mobility issues, in particular through the promotion of targeted actions to children. The development of school travel plans in place in several EU countries highlight.

A good example of this type of action is given by the school travel plans in Worcestershire County Council⁴² (GB) where a modal shift from individual (private) car use to other modes (especially walking) could be set.

⁴¹ School Transportation News USA (<http://www.stnonline.com>)

⁴² School Travel Plan is a tool developed by specific schools to encourage sustainable travel, and to make the best use of the measures implemented through the Safer Routes to School programme.

Figure 8 - Impacts of travel plan for children



These plans are developed during the normal teaching times, meaning that programmes must be developed and orientated so that road safety and mobility are included in the school curriculum (several countries reported this issue and different plans are available in the web for different ages and thematic areas). This has proven to be one of the most effective ways of providing children with the knowledge and skills that allow them to deal with traffic environment and to influence their behaviour as citizens of tomorrow.

To produce better results, however, this training should be combined with a wide range of other actions on engineering side and also driver training (including self-defensive driving), safe pedestrian crossing areas etc. and be accompanied by informative and awareness campaigns.

3.6.1 Managing a transition path

Starting from the principle that there is no single best way to undertake the recommended measures, the assessment of a transition path is crucial. Such an assessment should be framed by some general aspects, namely:

- Identification of the different actors / stakeholders that can be affected by the implementation of measures (i.e. who are they, how will they be affected, will they loss or gain with such measure);
- Evaluation of measures/ tools that could be promoted to involve them in the process

As happens in any process of change, reactions from the different actors will occur. Despite the fact that such reactions could be passive or active and thus have different outcomes, the search for the best form

to minimise the impacts produced by those reactions is the objective of the entities engaged in its promotion.

From previous research it is known that two different reactions could occur:

- Passive reactions that can conduct to a low effectiveness of the proposed schemes (for instance the obligation to use seat belts, which do not raise particular obstacles, but without the adequate enforcement actions, do not become really effective);
- Active reactions that can also conduct to high political costs if they are not accompanied by the adequate managerial tools (an example of this can be the increase in insurance costs via the enlargement of its scope to include the school routes. Without the adequate assessment of impacts, mitigating measures and communication tools explaining the benefits, this measure could originate high reactions at the different levels).

While the different measures assessed in this study will contribute to increase road safety in child and school transportation (a winning situation for the whole society), in a short term perspective it is likely that at least some actors will raise obstacles:

- Transport operators – through the introduction of specific requirements for child transportation, the production costs in those routes will be higher given the enforcement to install special safety equipment. If compensation forms won't be included, operators could raise obstacles to maintain the service due to the non-profitability of this market segment;
- Urban communities – the imposition of some traffic calming measures in areas nearby schools, or circulation restrictions during boarding movements can raise some negative reactions from other road users;
- Parents will be obliged to change their travel patterns and daily routines in order to comply with restrictions above described;
- Authorities that will need to readjust personnel and budgets in order to comply with an increase monitoring and enforcement roles;
- Schools and teachers that must include mobility and safety aspects in the curriculum with the necessary training (and budget) that it implies.

Over the research some tools which application could smooth this process, have been presented:

- Promotion of school travel plans;
- Targeted campaigns on school transport benefits and focusing on child safety;
- Education and training activities for school transport drivers (as well as between them and schools);
- Active participation and involvement of the different stakeholders in the definition of strategies.

Innovative techniques to promote participation and involvement in decision making should be foreseen. Among those it is highlighted the promotion of child parliaments, workshops revolving around a concrete

project of urban planning for the school surroundings⁴³. Other actions such as action days to promote cycling, public transport or walking to school could also be promoted.

Good examples to promote such awareness actions, as well as targeted teaching material and exercises can also be found in a platform for school mobility – www.schoolway.net , a site developed within the PROVIDER⁴⁴ research project.

From current and previous research, general remarks to smooth this process can be made:

- Be aware that a combination of obstacles could be raised and take the initiative to find adequate and targeted solutions as a first step towards a more successful policy design and implementation;
- Adopting the principle of a progressive implementation, that is a step by step introduction, can prevent adverse reactions (i.e. it prevents stakeholders from being confronted with extensive projects that disrupt their common mobility patterns of and would therefore not threaten acceptance);
- Communicate the objectives and the overall strategic concept to the different stakeholders involving them in the development of the planning process;
- Stimulate the cooperation between the different entities engaged directly in the process avoiding contradictory actions.

To conclude, it can be said that from the surveys done in previous studies and the scientific literature available on this subject, we can generally identify three main streams of intervention to foster a change of behaviour and thus improve safety in school transport. These are:

- Awareness campaigns – dissemination action meant to improve the problem awareness and the understanding of the underlying causes;
- Training and education – actions directly focusing on improvement of procedural behaviours related to the causes of accidents and potential situation of safety risks;
- Harmonisation – targeting technical and procedural harmonisation focusing on child safety, setting the EU standards, yet allowing sufficient freedom for adjustment to national and local circumstances.

⁴³ An interesting case was found in Rome with the “laboratory de quartier”, where children in the school work together with urban planners in the design of school urban area (details can be found in the Transplus project - www.transplus.net)

⁴⁴ PROVIDER - Implementation of European on line services for mobility education to save energy, European Commission, DG TREN, 2002-2003

3.7 EXAMPLES OF GOOD PRACTICES

The research identified good practices in school transport in different spheres of action: legal, engineering, education, etc. To observe practices experienced elsewhere, analyse and adapt them to local circumstances is in itself a policy process that should be followed by the different entities with responsibility in the road safety process.

Such transferability process is not a simple copy-paste of measures adopted. Assessing its pertinence to local features (including legal, organisational, financial but also physical aspects) is a pre-condition for its development. But this process is desirable as risks and costs of non-success could be avoided by adopting proven practices.

,Above all however, a full monitoring and evaluation scheme should be in place to assess the impacts of practical implementation as well as to promote the necessary adjustments after the initial steps.

The UK case is here referred to in two different yet complementary issues. A first one refers to a good practice on guidance and the second one to the introduction of the “yellow bus” concept.

In 1999, The School Travel Advisory Group (STAG) was established by the Government's Department for Environment, Transport and the Regions (now Department for Transport), which wants to see a return by 2010 to the levels of walking, cycling and bus use which were in place during the mid-1980s. The Government has also issued guidance for local authorities for the production of Local Transport Plans (LTPs) to ensure that they include provision for school travel. In addition, schools are being encouraged to work with Local Education Authorities, pupils, parents, teachers and local residents to develop ‘School Travel Plans’ - packages of measures for reducing the number of car trips to a school (or group of schools) by parents and staff, and for improving safety on the school journey.

The second practice, with only preliminary results so far, refers to the pilot projects underway in the UK which are under experimentation the American ‘yellow bus’ approach to the provision of school transport. The pilot projects include purchasing and operating the ‘Bluebird yellow buses”, employing the same driver to drive the bus each day to build a stable and trustworthy relationship with children, checking passengers against a register of regular passengers, etc. The success of these pilot projects will determine whether the concept will be implemented on a wider basis in the UK to improve the image and quality of school transport and to encourage parents to allow their children to travel to school by bus rather than by car.

Relevant practices on the legal side were found in Spain, with an extremely detailed document, highlighting all the aspects that this mode of transport should fulfil, as a result of the different legal and

regulatory changes on traffic, public transport and safety. All safety conditions included in the regulation must be applied by all transport modes (public or private) whenever at least a third of vehicle occupants are children with less than 16 years old.

Examples on targeted actions for school transport drivers were found in Portugal as well as in Germany. The first case, as already mentioned, refers to courses focusing on the pedagogical, legal and practice of school transport. The German case highlighted the experience of a computer-based training for bus drivers in Baden-Württemberg subsidised by the European Community (training modules are: physical impacts of driving, resting and driving times, economic driving, dealing with special situations and exceptional circumstances (<http://www.busforum.de/COMBUS/default.htm>)).

Italy presents also a good example for walking to schools with a pilot scheme in several municipalities. The project consists in organising a walking bus (in Italian the "*Pedibus*"). It consists in group of students with accompanying people (2 grown-ups every ten pupils) walking together to their school with fixed routes, schedules and stops. The "walking bus" sometimes can be a "cycling bus", as in Reggio Emilia. The aim is to reduce road traffic and improve road safety in school transport. Similar practices were found in other countries with the school patrols. More global perspectives are given in the French and Sweden cases. The first case refers to the already mentioned organisation - ANATEEP- and particularly to the campaigns they launch yearly to improve road safety. The Sweden case showed the experience of the Swedish National Road and Transport Research Institute, VTI, which carried out a project in 2000 titled "Road safety and school transport - results of group discussions". The aim of the project was to generate hypotheses about public requirements and expectations concerning the issue of school transport and road safety. The project was based on group discussions in which the focus was the road safety aspects of school transport. Players involved in the area of school transport met to discuss this question. The group consisted of municipal representatives, contractors, drivers, children, parents and representatives from the school.

Several examples of education campaigns and targeted material on road safety to be used in the lessons were given. For instance in Spain, the road traffic directorate launched a campaign of road education targeted at students, teachers with the collaboration of parents. This activity is meant to increase the people's values, through the establishment of habits and attitudes to stimulate the environmental preservation and road safety. The campaign starts from the principle that, in order to be efficient, the education should start much earlier and be provided in continuous doses exposing the children to these values during all phases of their education. Road education is thus included in the education system. Targeted documents and activities have been developed for the different education levels, ensuring the consistency of the approach.

A web site (http://www.dgt.es/educacionvial/recursos_didacticos_Recursos_didacticos.html) contains different didactic resources.

Several other practices could be found. For a more complete overview please refer to the annexes to this report.

4. CONCLUSIONS AND RECOMMENDATIONS FOR THE DEVELOPMENT OF A WORK PROGRAMME

Overall findings from the analysis carried out in this study confirm the main conclusions and recommendations already indicated in previous studies (i.e. the CETUR and ANATEEP but also ECMT recommendations from 1984), which point to:

- Improvements in the coordination between the different authorities;
- Integration of school transport in the local and regional mobility processes;
- Increase awareness of children's safety during school journeys and promotion of periodic retraining for school transport drivers;
- Introduce procedures enabling a more detailed analysis of accidents, using actual ones with the view to improve accident prevention.

Putting the emphasis on the procedures towards more integration, coordination and education is clearly an indication of the actual levels of safety associated to school transport. This does not necessarily mean that efforts on the technical aspects are neglected. On the opposite, over the last years important features were implemented in EU countries: seat belts, tachographs, speed limiters represent examples of those efforts towards more safe vehicles.

But the recognition of safety needs in school transport depends largely to whom this is asked. The lack of clear statistical information enabling the correct assessment and comparability of safety levels (in particular school/public transport face to private modes) raises difficulties even in the promotion of change of travel patterns and stimulation of use of other modes

This is influenced by the fact that school transport is only considered as such whenever performed by dedicated bus services. While almost all countries advocate the use of regular public transport in school journeys (supporting those services financially as school transportation), accident data in general only considers a school transport accident when it takes place with a vehicle identified as such. The extension of the definition of school transport accident to all transport modes (public, private, walking and cycling) used in route to schools is therefore imperative for a clear assessment of advantages and disadvantages of this mode. Until a clear presentation of accident data in this wider perspective is achieved, private car use on these journeys will continue to be perceived as a safer mode (falsely, as by doing so, more traffic is generated in the school surroundings and consequently more accidents occur). Equally, a detailed identification of barriers to school transport is a pre condition to understand the mobility patterns and thus to design policies that best fit the needs of school children.

While examples from EU are rather poor and not harmonised, examples from USA, Canada and Australia showed that school transport is a safe mode-service:

- research in Australia concluded that bus travel is the safest form of road transport, at least 14 times safer than by private car (the record for school bus travel in particular is very good)
- research in USA (1989-1999) compared the number of fatalities and concluded that school buses are 87 times safer than passenger cars

In Europe a single image for the school transport like in other countries (the yellow buses), as presented in this report, does not exist. Nevertheless, school transport is subject to more strict regulations than other modes: in several countries special licences are needed (initial vehicle check attesting the adequacy of safety devices) and a strict inspection regime (vehicle inspections with additional requirements) is performed on annual basis and in some cases every 6 months. Moreover, drivers allocated to school transport need additional certificates and are submitted to regular health checks.

As assessed during this study, there is no specific European legislation on school transport. However, different measures have been adopted towards a safer transport environment, incorporating also this specific mode. In a similar way different member states have specific regulations on school transport. The question is to know whether this is enough or if additional measures should be taken and by whom, and if so assess its cost effectiveness, its efficiency and its impacts.

As mentioned in the EU recommendation on enforcement in the field of road safety⁴⁵, enforcement aimed at improving users' behaviour are most appropriate to achieve a rapid reduction of deaths and injuries, but measures in the field of vehicle technology and safer infrastructure may lead to improvements in road safety in the long term.

The balance between the type of measures proposed in previous studies and the assessment of its relevance, taking into account the progress already done was one of the key points performed in this study. Based on this assessment we reached a set of relevant measures to be followed, grouped under these main dimensions:

- Harmonisation of concepts and terminologies;
- Infrastructure (including vehicles);
- Training and awareness; and,
- Users' behaviour.

⁴⁵ C (2003) 3861 final, 21 October 2003

Dimensions	Domains	Responsibility
Harmonisation of concepts and terminologies	Development and construction of a database	EC, Member States, Local Authorities, Insurances, Police
Infrastructure	Better definition of bus stops, pedestrian paths, school routes and trips	Local authorities, road administrations
	Improvement of visibility of coaches	EC/Member States
Training and awareness	Innovative continuous training	Member States
	Training of bus-drivers in interaction with school children (pedagogic, driving techniques, first aid)	EC / Member States
	Safety education	Member States
Users behaviour	Zero level of alcohol for school transport	EC / Member States

As already mention, while school transport is a matter to be operationally dealt with at member state level, the EU can play an important role in its road safety programme by encouraging information exchange on effective strategies, disseminating research based on EU programmes as well as by carrying new research for a better understanding of barriers to school transport.

5. DRAFT WORK PROGRAMME ON ROAD SAFETY FOR SCHOOLS

5.1 INTRODUCTION

Studies conducted on behalf of DG TREN as well as at Member States level indicate that school transport represents a small share in the school mobility patterns of European children and that the share of private car is actually increasing. A UK survey highlights that 20% of morning peak traffic is due to child transport to schools.

Within its road safety strategy the EC aims to halve the number of road deaths until 2010. Knowing that road traffic accidents represent the majority of children fatalities in Europe, urgent actions to shift this tendency both in terms of transport and safety policies are needed.

Different studies show that public transport in general, and school transport in particular present higher safety levels than private cars, but this evidence has not been sufficient to promote a modal shift. Actions are therefore needed in order to improve the image and quality of school transport, encouraging parents to allow children to travel by bus rather than by car.

Over the last years the European Commission issued a set of documents defining the legal framework for professional transport, covering almost all aspects where legal actions are needed. This framework is also applied to school transport.

This draft work programme is developed out of the results from the project road safety in school transport and is aimed to promote a set of actions, falling in the sphere of EC domains, orientated towards the achievement of the above mentioned objective.

5.2 OBJECTIVES AND OVERALL APPROACH

Objective

The objective underlying the Road Safety for Schools work programme is: ***to improve the children road safety with the view to reduce the number of child accidents by promoting the use and safety conditions in school transportation.***

From research carried out in projects promoted by DG TREN⁴⁶, the Commission is aware that many important activities in road safety could be taken more effectively if some basic systems work at a minimum level. In particular:

- data harmonisation, procedures and reporting
- co-ordination mechanisms
- demonstration activities, including training in different domains

Scope

Actions identified should be framed by the overall road safety strategy as defined in the European Road Safety Action Programme⁴⁷ and fall under the following main categories:

- Information systems;
- Organisational issues;
- Training;
- Practices exchange in the EU25

Fields of intervention

The development of this work programme should be done through the following fields of intervention:

- **Research to support policy implementation**
Refer to research projects aimed to underpin the formulation and implementation of community policies. Research within this area will be mainly carried out by means of pure RTD or Specific Targeted Research Projects⁴⁸
- **Dissemination activities**
Refer to projects aiming to improve awareness of school safety issues and the potential for innovation, as well as to assess relevance and potential for improvement. Projects should be mainly developed through co-ordination actions or specific support actions.
- **Training activities for capacitating of schools and professionals in school transport**
Actions should be targeted to the transfer of knowledge from practices and techniques that could increase the awareness of safety issues in school transport professionals. Projects should be developed mainly through co-ordination actions or specific support actions.

⁴⁶ CETUR and ANATEEP studies on school transport, Road Safety in School Transport, Comparative study on road traffic rules, ESCAPE, GADGET, ECBOS as well as the work being developed by the European traffic safety council and ECMT

⁴⁷ European Road Safety Action Programme: Halving the number of accident victims in the European Union by 2010: A shared responsibility (Com (2003) 311 final, 2 June 2003

⁴⁸ for further information on instruments see www.cordis.lu

5.3 CONTENTS AND IMPLEMENTATION PLAN

As mentioned previously, the subsidiarity principle must be observed, that is the main domains of action within school transport should fall under the jurisdiction of Member States and it is at that level that concrete applications have to be promoted. However, the EC also have an important role to fulfil in providing guidelines and orientations at an upper level.

Based on this general principle, the following actions are defined.

5.3.1 Research to support policy implementation

Action 1 – Harmonisation of concepts and terminologies

Rationale

Currently the definitions of school transport are very different in the Member States, being the most common definition associated to the use of dedicated vehicle identified by a common pictogram. This definition left the other modes (public and private) out of the scope, which leads to difficulties in assessing the safety of school transportation.

Research previously carried out indicates that the final objective should be the enlargement of the school transport concept to routes to school, that is consider all movements on the way to school regardless of the entity and modes used, as already practiced in some countries (i.e. Germany).

This development must be carried out in parallel with the work already initiated by the CARE, IRTAD and other related initiatives, by integrating school transportation relevant issues into an existing and efficient system.

Action 2 - Database integration for information feedback on policy implementation

Rationale

Statistical vagueness, resulting from the problems mentioned above, is particularly limitative to a good knowledge of accident rates in school transport. Additionally, due to the existing decentralisation of school transport to local authorities, data concerning this particular group is collected according to different procedures and aggregated statistics at national level are not regularly assessed.

Without a common and integrated information system allowing correct evaluation and knowledge of the problem, the (few) existing examples and good practices will remain at the level of illustrative cases, providing no effective contribution to increase the safety of children transport

Scope of actions 1 and 2

The work consists of three parts. The first two are inter-related and could be developed jointly or separately.

1. Research to establish the common basis and recommendations for the development and integration of school transport related issues into the statistical systems, including:
 - ❖ definition of used terms (e.g. accident, school transport, light/severe injuries etc.)
 - ❖ data to be collected (accident data of all modes, injuries and fatalities related to school transport etc.) with a proposed assessment and improvement of systems for linking hospital data and national road accident statistics.
 - ❖ appointed dates / deadlines
 - ❖ responsible authorities (there should be a centralised responsible authority which co-ordinates the data collection and makes first quality control etc.)
 - ❖ reporting periods (and dates)
2. Design / Adaptation of existing road safety database to include school transportation relevant issues.
3. Establishment of a European methodology for independent road safety evaluation for regular monitoring and reporting to the EC. This is strongly related with the need to integrate school transport in the European Road Safety Observatory, which is in process of establishment.

Action 3 - Improvements in coach visibility, efficiency of symbols (configuration, placement)

Rationale

In most of the Member States of the European Community vehicles for school transport are not painted in a unique colour (as the yellow in the USA) and they do not have special devices (visual, audio) which indicates the movement of approach or leaving of a bus stop. By adding indicators and signals there would be:

- a visual and audible warning for other road participants,
- increase attention towards the school transport vehicle,
- higher priority towards school transport,

- reduction of accidents of school transport vehicles with other road participants when entering or leaving the bus stops .

The positive example of the implementation of sound reversing indicators in lorries and trucks in the whole European Community should also set the standard for buses and coaches. The most important impact is the warning of persons in the blind spot area at the rear of the vehicle.

Scope

The work to be developed consists of assessing the cost of extending the implementation of these devices to all passenger buses (including all vehicles used for school transport and licensed as such)

Action 4 - Promoting the exchange of practices among EU 25

Rationale

Research on school transport already done by the EC enabled the identification of the state of the art in school transportation issues for the EU 15. But currently there is a lack of information on the actual patterns for school transport for the EU 25. This information is an important requirement for the development and promotion of adequate and targeted policies in the field of children safety.

Scope

The work to be developed is based on the extension of studies developed to gather the state of the art in school transport in the EU 25.

Action 5 - Survey on practices and barriers to school transport

Rationale

Promoting a shift from private car to school transport is a major condition for increasing safety in children's transport in order to reduce accidents in this specific group. As in any process of change, resistance and barriers exist. Understanding the causes of low bus use and overcoming the potential barriers to its growth is a necessary step to establish the adequate tools.

Scope

The work will consist of an extensive survey on practices related to school transportation and the assessment of barriers to school transport.

5.3.2 Dissemination activities

Action 6 – Implementation of Zero level of tolerance to alcohol and other narcotics

Rationale

Driving under influence of alcohol or driving while impaired by other narcotics is one of the main reasons for very severe accidents. In professional traffic in general, and school transport in particular, the use of alcohol should be completely banned.

Many campaigns have been launched all over the European community on this issue, but with mixed results in the past years. Although there is an overall tendency to a slight decrease in accidents caused by drinking-driving and other drugs, important turnaround can only be done made through the change of public awareness. Information campaigns are the most effective form to improve this awareness.

Scope

The work to be developed will consist of the development of an European campaign to promote zero alcohol practice for professional drivers, which must be integrated into general road safety campaigns or events.

Action 7 - School transport drivers exchange days

Rationale

Organisation of dedicated events for school transport drivers, which is already current practice in several member states, reveals positive results both for new and experienced drivers. Besides the exchange of experiences and practices, such events provide opportunities to review procedures and provide information on the reasons and benefits of these procedures (education and awareness events for new drivers, refresher for experienced drivers)

Additionally, the exchange of good practices has been identified as an efficient means of creating synergies and improving road safety.

Scope

Work to be developed should be orientated to the promotion of the European school transport day, with a set of activities involving drivers, schools, parents, children (similar to the car free day).

5.3.3 Training activities for capacitating schools and professionals in school transport

Action 8 – Training activities for school transport drivers

Rationale

“At the present no more than 10% of commercial drivers have received training beyond what is required for obtaining their driving licences [...]” (European road safety action programme). The implementation of Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers will contribute to change this situation, as drivers will have the obligation to undergo periodic training every five years.

The final objective has to be a continuous training program that is keeping drivers up dated about the main issues of the daily duties of a bus driver, and also covering prevention procedures for cases when the vehicle is stopped.

Research carried out by a Norwegian institute confirmed that formal training for professional drivers, in particular training in defensive driving, combined with other incentive systems, can reduce the accident rate by around 20%.

Scope

The European Commission already provides support to the organisation and realisation of training sessions for public transport actors.

New efforts should be aimed at the extension of such events for school transport drivers at European level, complementing the actions already promoted at national level. Incorporating those experiences as well as the training material available should be the initial step for the development of this action.

This action must also be complemented with the development of a targeted campaign in the different member states encouraging the promotion and participation in these courses.

5.3.4 Summary of proposed actions

Action	Contents	Preferred Instrument
1	Harmonisation of concepts and terminologies	Research to support policy implementation
2	Database integration for information feedback on policy implementation	
3	Improvements in impacts of coach visibility, efficiency of symbols (configuration, placement)	
4	Promoting the exchange of practices among EU 25	

5	Survey on practices and barriers to school transport	
6	Zero level of alcohol for professional drivers	Dissemination activities
7	School transport drivers exchange days	
8	Training activities for school transport drivers	Training activities

5.4 EXPECTED OUTCOMES AND EUROPEAN ADDED VALUE

Research should lead to an improved expertise and an extended knowledge base to support the development, implementation and assessment of policies in school transport road safety.

The above-mentioned actions should contribute to the development of a continuous benchmark between all Member States, including the identification of developments and trends in road safety in school transport and evaluation and assessment of impacts of other measures.

Furthermore it is expected that complementary actions will be developed through the implementation path, as a consequence of a detailed steering of the all programme. In particular workshop programmes at schools to promote road safety education for children and teachers, and teaching children about the use of public transport will contribute to creating awareness in the different actors on the benefits of public and school transport - which in a long-term perspective will benefit all citizens by the adoption of safer mobility practices . One example is the possibility to develop, through education methods, experiments and trials to use public transport as a form of influencing their behaviour as future citizens.

Furthermore by carrying out activities at a pan-European level, complementing the activities developed internally, additional advantages can be achieved from the experiences of the different countries. Besides the contacts and links established between participants, sharing experiences and benchmarking practices will also contribute to promoting and strengthening local initiatives as well as to introducing new ideas and approaches. In particular, the feeling of taking part in a wider context is particularly relevant for the segment represented by the school transport drivers (who will be more motivated due to a better recognition of the importance of their role).

5.5 LINKS TO RELATED ACTIVITIES

This work programme falls within the overall road safety strategy and transport policy. Its development will benefit from a strong and cooperative relation with other entities acting either under the heading of the European Union or effectively established.

In particular efforts should be promoted towards the establishment of links at least with:

- The work being developed in the CARE (EC) and IRTAD (OECD) database projects;
- OECD work on children safety;
- DG Environment;
- DG TREN mobility management research;
- National children safety promotion associations;
- European Road Safety Observatory;
- Road Traffic Rule Observatory;
- Red Cross Road Safety Campaign
- TISPOL

5.6 RECOMMENDATIONS

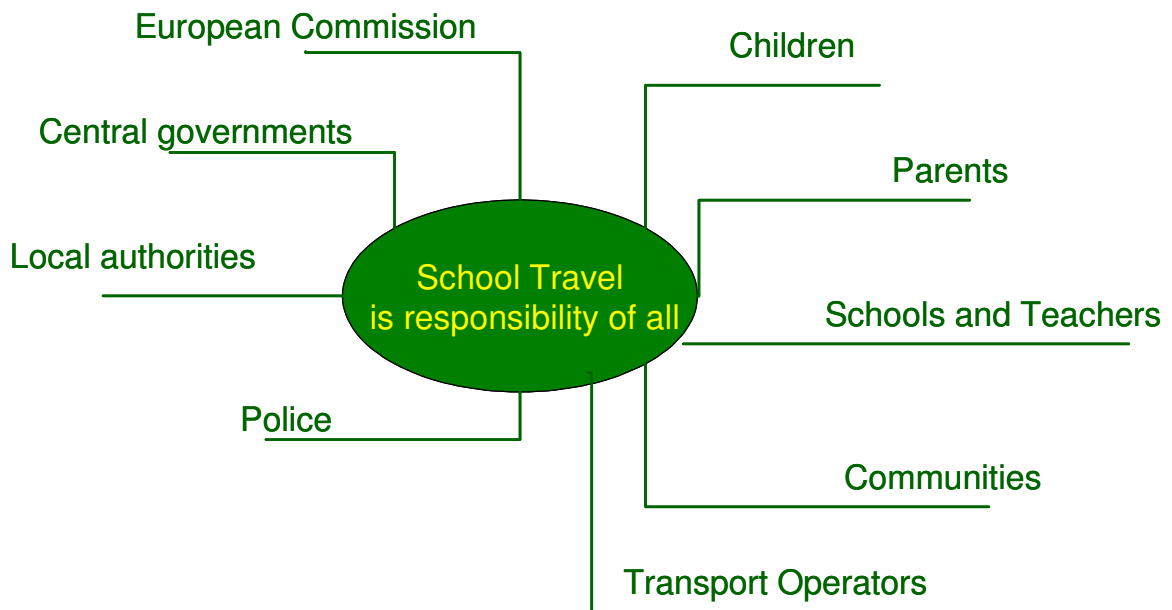
5.6.1 General recommendations

Child transport is a shared responsibility and all actors should be aware of the different roles that they can play to promote safety in school transportation.

However, and despite the fact that all stakeholders have some degree of responsibility, there is the need to clarify the different roles from the functional view point:

- Children, by implementing safer practices that they are taught at school, and consequently influencing their parents in the same direction as well, by applying the safety concepts (i.e. seat belts, crossing streets, training different situations);
- Parents by promoting a more rational use of private car and by obeying traffic rules;
- Schools and teachers through the promotion of travel plans, safety campaigns and education activities as well as by setting safety targets;
- Transport operators and drivers by observing safety rules, promotion of improvement in safety driving (i.e. self-defensive driving) and participation in dedicated actions (i.e. targeted courses or information days for the transport of children);
- Local authorities by providing the conditions for a safe environment around schools (i.e. traffic restrictions, bus stops, walking paths) as well as by adopting the upper level requirements in terms of school transport organisation (i.e. specifications for tendered operations, information data collection, etc.);
- Central governments by defining the policies and the mechanisms for the monitoring and enforcement of those policies (including the budgetary aspects);

- The European Commission by taking an overall perspective, contributing to the definition and harmonisation of concepts and definitions as well as by issuing regular studies to keep track of specific needs and launching legislative packages whenever necessary. Above all, and considering the current conditions, it seems that the major contribution the from EC is the effort towards the harmonisation of concepts and terminology, supported by an integrated information system for road safety, a basic condition to enable comparisons of rules and enforcement between countries and to perform statistical analysis



School transportation can not be thought as an isolated programme needs to be framed by an overall approach to mobility management. This includes:

- Promotion of sustainable patterns (i.e. school travel plans);
- Integration of safety education into regular education activities;
- Overall participation / involvement in the decision-making (i.e. Innovative techniques including Childrens' Parliaments that promote youth involvement in the decision making process, workshops revolving around a concrete project of urban planning);
- Action days to promote cycling, public transport and reduced car usage through several campaigns for instance involvement of schools, citizen's organisations (i.e. Bike to school day, walking bus day, Car Free Day).

Be aware that successful measures in child safety result from the combination of hard measures targeted at the road / urban environment and vehicle design with soft measures aimed at addressing the behaviour of road users. This requires orientating actions through the following parallel intervention axes :

- **E**ducation = Education / information
- **E**ngineering = Environmental planning / mobility planning
- **E**ncouragement = motivation / positive discrimination
- **E**nforcement = controls / regulations

As already mentioned, the EC promoted a set of different directives, regulations and communications over the last years, targeted at regulating professional transport with a view to promoting safety, which have been transposed into national legislation.

This means that currently, with the exception of some minor aspects, the efforts need to shift from regulation to the enforcement (as proposed in EC communication on road safety enforcement) and continuous awareness and training actions or exchange of practices.

5.6.2 Recommendations for Member State Actions

In addition to the EC actions as proposed in this draft work programme, Member States should be encouraged to establish / promote actions concerning the application / monitoring of actions falling under their area of competency. In special we refer to:

- An overall definition of requirements for school transportation (including the presence of an accompanying person, instructions to be followed in trips, etc.);
- The establishment of requirements and conditions that should be observed in the areas nearby schools (i.e. stops, pedestrian paths);
- A definition of minimum requirements for school transport tendering;
- An active engagement in control / enforcement of road safety measures (already legislated), including the realisation of safety audits from a child's perspective;
- Accomplishment of EC orientations towards the enforcement of road safety measures.

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December 2004

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