



**SUMMARY AND PUBLICATION OF BEST PRACTICES  
IN ROAD SAFETY IN THE MEMBER STATES**

**THEMATIC REPORT:  
EDUCATION AND CAMPAIGNS**


**THE FINAL REPORT OF SUPREME CONSISTS OF 14 PARTS:**

<b>PART A</b>	METHODOLOGY
<b>PART B</b>	LIST OF MEASURES COLLECTED AND ANALYSED
<b>PART C</b>	BEST PRACTICES IN ROAD SAFETY HANDBOOK FOR MEASURES AT THE COUNTRY LEVEL
<b>PART D</b>	BEST PRACTICES IN ROAD SAFETY HANDBOOK FOR MEASURES AT THE EUROPEAN LEVEL
<b>PART E</b>	REVIEW OF IMPLEMENTATION AT THE COUNTRY LEVEL
<b>PART F1</b>	<b>THEMATIC REPORT: EDUCATION AND CAMPAIGNS</b>
<b>PART F2</b>	THEMATIC REPORT: DRIVER EDUCATION, TRAINING & LICENSING
<b>PART F3</b>	THEMATIC REPORT: REHABILITATION AND DIAGNOSTICS
<b>PART F4</b>	THEMATIC REPORT: VEHICLES
<b>PART F5</b>	THEMATIC REPORT: INFRASTRUCTURE
<b>PART F6</b>	THEMATIC REPORT: ENFORCEMENT
<b>PART F7</b>	THEMATIC REPORT: STATISTICS & IN-DEPTH ANALYSIS
<b>PART F8</b>	THEMATIC REPORT: INSTITUTIONAL ORGANISATION OF ROAD SAFETY
<b>PART F9</b>	THEMATIC REPORT: POST ACCIDENT CARE

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	CDV Transport Research Centre	CZ		DHV Group	NL
	DTF Danish Transport Research Institute	DK		TØI Institute of Transport Economics	NO
	DVR Deutscher Verkehrssicherheitsrat e.V.	DE		IBDIM Road and Bridge Research Institute	PL
	CERTH/HIT Hellenic Institute of Transport	EL		PRP Prevenção Rodoviária Portuguesa	PT
	FITSA Foundation Technological Institute for Automobile Safety	ES		SPV Slovene Road Safety Council	SI
	INRETS Institut National de Recherche sur les Transports et leur Sécurité	FR		VÚD Transport Research Institute Inc.	SK
	NRA National Roads Authority	IE		bfu Schweizerische Beratungsstelle für Unfallverhütung	CH
	SIPSiVi Italian Society of Road Safety Psychology	IT		VTT Technical Research Centre of Finland	FI
	ETEK Cyprus Scientific and Technical Chamber	CY		VTI Swedish National Road and Transport Research Institute	SE
	Celu satiksmes izpete, SIA (Road Traffic Research Ltd)	LV		TRL Limited	UK
	TRRI Transport and Road Research Institute	LT		CIECA Commission Internationale des Examens de Conduite Automobile	INT
	KTI Institute for Transport Sciences	HU		ETSC European Transport Safety Council	INT
	WHO Europe World Health Organization - Regional Office for Europe				

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# **Introduction**

# 1 The SUPREME project

The objective of the SUPREME project is to collect, analyse, summarise and publish best practices in road safety in the Member States of the European Union as well as in Switzerland and Norway, with a view to implementation in as many partner states as possible. By making the study results available to a broad target audience across Europe – and thereby encouraging the take-up of successful strategies – the project wants to contribute to reaching the 50% reduction target of road fatalities, which the European Commission set in its White Paper "European transport policy for 2010: time to decide" (2001).

Analysis, synthesis and further selection of collected data were carried out along nine categories of measures and covers all areas of road safety work.

1. Education & Campaigns
2. Driver Education, Training & Licensing
3. Rehabilitation and Re-Licensing
4. Vehicles (incl. ITS)
5. Infrastructure (incl. ITS)
6. Enforcement
7. Statistics & In-depth Analysis
8. Institutional Organisation of Road Safety
9. Post Accident Care

In order to avoid overlapping between these categories, a detailed list of subcategories and – in some cases including even sub-subcategories - has been provided.

Accordingly, nine "Thematic Reports" (of which one is the volume in front of you) shall give a detailed description of best available practices for each of these categories, featuring basic characteristics such as target groups, quantitative and qualitative goals, key issues, duration of implementation and effects, coverage, costs, actors involved, implementation procedures as well as **key success factors** and potential **implementation barriers** in other countries or at the European level.

The crucial task of the project lies within the sound **identification of best practice** from the vast amount of available measures. In order to facilitate this process, a set of tools for collection, classification, selection and ranking of measures has been developed, along with guidelines for the assessment process at country level. As the common basis of all further activities, a list of eight best practice criteria was developed and transferred into a questionnaire. While the major part of this questionnaire consisted of a common set of core elements, some questions also addressed key features for each category.

On this basis, the SUPREME network of "Country Experts" has provided information from various stakeholders in cooperation with the respective Analysis Group members. Although 227 questionnaires have been completed, not all subcategories of road safety measures have been addressed. So this is the first step of data collection.

As an additional step, a list of road safety measures that had not been covered by questionnaires but were considered potential best practices by the SUPREME consortium, was compiled. Additional

information was gathered from available scientific literature and earlier European projects. This extended list of potential best practices was the starting point for the second step of selection and analysis within each of the nine Thematic Reports.

#### **Further SUPREME activities**

Based upon these findings, 27 country surveys will be produced. The current status of implementation of best practice measures as well as implementation barriers shall be addressed and necessary steps shall be outlined.

Further, two separate handbooks will be provided, one for the European level (European institutions, international organisations, global industries) and one for the Country level (Ministries, regions, local level: stakeholders, policy makers, practitioners and the interested public).

For more information about the SUPREME project and latest results, please visit the SUPREME website, which is [http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm).

## **2 Thematic report Education and campaigns**

The present thematic report describes the selection process and the analysis of the potential best practice measures in the category of Education and campaigns. In chapter two a brief overview of existing studies on best practice educational measures and campaigns is given together with a detailed overview of the different types of measures that were taken into account. The third chapter describes the selection process of best practices in the present category. Finally, in the fourth chapter a detailed description is given of several examples of promising measures. This result is amply commented in the final fifth chapter with discussions and recommendations.

# **Overview of submitted measures**

### 3 EU-studies targeting best practice

#### 3.1 EU-studies on best practices in the area of educational measures

##### Rose25

The most known European study on best practices in the area of educational measures is the Rose25 project. In this project, which was finalized in 2005, good practice measures were collected and a European guideline for best practices was published<sup>1</sup>. After a selection of 193 actions and 114 media by the Rose25 experts, a large selection of best practices were analysed and described. As it is impossible to summarize this list of best practices, we refer to the final report of Rose25 for further details. From this short description of the contents of the Rose25 project, it may be clear that there is a very big overlap between the Rose25 project and the attempt within the present framework to select and describe best practices in the field of road safety education. The main objective of the Supreme project regarding educational measures was therefore modest and focussed on the question whether it would be possible to complement and update the work of the Rose25 project by applying a common methodology for the selection and evaluation of best practices for all sorts of road safety measures.

##### Handbook of road safety measures<sup>2</sup>

Although Elvik & Vaa's handbook of road safety measures is strictly speaking not a EU study, and neither restricted to European measures, it is considered as such a standard work of reference in the area of road safety, that one cannot study best practice without taking into account what is reported about this type of measures in the handbook. The chapter on "public education and information" is rather limited in size (23 pages, out of which 10 on campaigns). An important conclusion from these chapters, however, is that in the field of educational measures only very few studies evaluated the effect of the educational measures on accidents. All together only seven educational measures for which an effect on accidents or behaviour were studied were included in the meta-analysis. The results are difficult to interpret. An important conclusion for the present research, however, was that it was impossible to perform meaningful cost-benefit analyses for educational measures.

#### 3.2 EU-studies on best practices in the area of road safety campaigns

##### GADGET

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<sup>1</sup> KfV (2005). ROSE25. Inventory and compiling of a European good practice guide on road safety education targeted at young people. [http://ec.europa.eu/transport/rose25/documents/deliverables/final\\_report.pdf](http://ec.europa.eu/transport/rose25/documents/deliverables/final_report.pdf)

<sup>2</sup> Elvik, R., & Vaa, T. (2004). The handbook of road safety measures. Oxford, UK: Elsevier Ltd.

In 1999, the final results of the European Commission funded GADGET-project (Guarding Automobile Drivers through Guidance Education and Technology<sup>3</sup>) were published. The main task of GADGET consisted of the "Assessment of changes in driver behaviour resulting from the introduction of in-vehicle safety devices, visual modifications to the road environment, educational, training and legal measures, and safety campaigns." In the GADGET project, the influence of education and training programs as well as the influence of road safety campaigns were studied. Although Education is explicitly referred to in the project's title, the GADGET project focussed exclusively on driver education and licensing, so no relevant results with regard to educational measures were available.

The general conclusion of the project was that for all measures "empirical evidence on safety effects is relatively poor" (p. 79). Furthermore, the general conclusions stress the fact that the mechanisms which determine the success of a measure are rarely considered and that there was no sufficient basis available for a cost-benefit analysis. With regard to campaigns<sup>4</sup>, the authors noted that "accident change is not the only success criterion, for instance, media campaigns can be successful in changing attitudes and knowledge without directly influencing accidents." (p. 50). In the project 265 campaigns from 18 countries (EU and non-EU) were analysed. For these campaigns, the effects were mostly documented in terms of the effect on self-reported dimensions. Only half the campaigns evaluated the effect on overt behaviour, and only a quarter took accident data into account. The main conclusion about campaigns seems to be that campaigns should always include a detailed report of the results based upon a sound methodology for the evaluation of the effects. With regard to the actual effects of campaigns or on the factors that correlate with the success of campaigns, the GADGET report does not offer concrete conclusions. Apart from methodological recommendations for future campaigns, the project did not formulate recommendations with regard to what can be considered as good practice.

## CAST

The European Commission is currently funding a Specific Targeted Research Project aimed at developing an evaluation tool and a design tool for road safety mass media campaigns. These tools should enable the European Commission to design and to implement such campaigns and to evaluate their (isolated) effect on traffic accidents and other performance indicators in the future. The CAST<sup>5</sup> project (Campaigns and Awareness-raising Strategies in Traffic Safety: Designing and implementing mass media campaigns and evaluating their (isolated) effect on traffic accidents and

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<sup>3</sup> cf. <http://www.kfv.at/index.php?id=829>

and [http://ec.europa.eu/transport/roadsafety/publications/projectfiles/GADGET\\_en.htm](http://ec.europa.eu/transport/roadsafety/publications/projectfiles/GADGET_en.htm)

<sup>4</sup> The definition of a campaign used in the GADGET-project was: "Public communication campaigns can be defined as: purposive attempts to inform, persuade, or motivate attitude and(or) behaviour changes in a safe manner, a relatively well-defined and more or less wide audience, generally for non-commercial benefits to the individuals and/or society at large, typically within a given time period, by means of organised communication activities involving media, often complemented by interpersonal support, campaigns are very often combined with other actions or they can be viewed as an integral support element for other countermeasures (enforcement, education, legislation, commitment, rewards, etc.)." (p. 49).

<sup>5</sup> cf. <http://www.cast-eu.org/index.html> and [http://ec.europa.eu/transport/roadsafety/publications/projectfiles/cast\\_en.htm](http://ec.europa.eu/transport/roadsafety/publications/projectfiles/cast_en.htm)

other performance indicators) started in February 2006, but the complete results will only be available in 2009.

### **Handbook of Road Safety Measures**

Elvik & Vaa (2004) also dedicated a part of their handbook to "road user information and campaigns" (pp. 949-954). In this chapter they refer to an estimation of Elvik (1997) that if road users respected road traffic legislation perfectly, the number of injured road users could be reduced by 27±18 percent and the number of fatalities by 48±30 percent. According to Elvik & Vaa, this shows that the current amount of police enforcement is not sufficient to ensure a complete respect for road traffic legislation and that it is useful to complement enforcement activities with campaigns intended to improve road users' knowledge and attitudes. Moreover, the authors remark that campaigns may also increase understanding of restrictive measures which are introduced to increase safety. Altogether thirteen studies about campaigns were analysed. From these results it appeared that campaigns targeted at road accidents in general do not lead to a significant change in the number of accidents. More specifically targeted campaigns can lead to a significant reduction of the number of targeted accidents. From the analysis of the effects of campaigns on behaviour it appeared however clearly that "it is possible to change road user behaviour by means of information and campaigns".

On the basis of a meta-analysis by Elliott<sup>6</sup> (1993), it could also be concluded that (cf. Elvik & Vaa, pp. 952-953):

- ◆ greater changes in behaviour are achieved when the initial proportion of road users exhibiting the desired behaviour is low
- ◆ greater changes in behaviour are achieved when campaigns are combined with increased enforcement
- ◆ campaigns clearly stating which type of behavioural change is desired and why it is important to change behaviour lead to greater behavioural changes than campaigns encouraging people to be careful in general terms
- ◆ television appears to lead to greater changes than other media, but this might be due to the fact that television campaigns reach a wider public

As for educational measures, Elvik & Vaa conclude that it is presently not possible to analyse costs and benefits of information campaigns.

### **Rosebud**

In the framework of the Rosebud project (Road Safety and Environmental Benefit-Cost and Cost-Effectiveness Analysis for Use in Decision-Making<sup>7</sup>), several campaigns were evaluated as examples of user-related measures. For several drink-driving campaigns excellent cost-benefit ratio's are reported (B/C ratio's ranging from 4.7 to 20), although it is emphasized that these analyses do not take the general evolution of road safety or the overlap with simultaneously running enforcement measures or changes of the law into account (Deliverable 5, p. 65). For three selected combinations of

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<sup>6</sup> Elliott, B. (1993). Road Safety Mass Media Campaigns: A Meta Analysis. Report CR 118. Department of Transport and Communications, Federal Office of Road Safety, Canberra, Australia.

<sup>7</sup> cf. <http://partnet.vtt.fi/rosebud/> and [http://ec.europa.eu/transport/roadsafety/publications/projectfiles/rosebud\\_en.htm](http://ec.europa.eu/transport/roadsafety/publications/projectfiles/rosebud_en.htm)

enforcement with information campaigns benefit/cost ratios ranging from 3.9 to 20 are reported (p. 83).

### Other

Although strictly speaking not being a EU study, TØI published the summary of an interesting study on the effects of information campaigns on behaviour and road accidents (Vaa et al., 2004)<sup>8</sup>. In the first part of the study, the effects of campaigns on road traffic accidents were analysed. Based upon an analysis of 30 evaluation studies - with 72 results estimating the effects during the campaign period, and 14 in the after-period - Vaa et al. conclude that the weighted average effect of the campaigns under study was a reduction of the number of accidents with 8.9 percent during the campaign and of 14.8 percent in the after-period. Moreover, single-theme campaigns do better than multi-theme campaigns. For the latter no significant effect could be demonstrated. Furthermore, mass media campaigns alone, i.e. without accompanying measures, did not have an effect at all. The analysis also identified several factors that seem to correlate with effective campaigns: campaigns combined with enhanced enforcement, personal face-to-face communication and a duration of less than 200 days seem to correlate positively with the effect of the campaign. The effects also seem to depend upon the theme of the campaign. In the second part of the study, the effect of 99 campaigns in other areas than road user behaviour (e.g. sun protection, HIV/AIDS, etc...) were studied. A meta-analysis showed that information campaigns have an effect on behaviour, although this effect is not very strong. Furthermore, the analysis revealed that campaigns targeted at large populations seem to do better than campaigns targeted at only few people (which may be contaminated by a lot of other factors), campaigns directed towards specified target groups also do better provided that the target group is sufficiently large, campaigns lasting more than a year seem to do worse and campaigns using some form of personal influence also do better than other campaigns.

### Literature

More information on the evaluation of (road safety) campaigns can be found in:

Delaney, A., Lough, B., Whelan, M., Cameron, M., 2004. A review of mass media campaigns in road safety. Monash University, Accident Research Centre, Victoria, Australia.

Delhomme, P., Vaa, T., Meyer, T., Harland, G., Goldenbeld, C., Järmark, S., Christie, N., Rhenova, V., 2000. Evaluated road safety media campaigns: an overview of 265 evaluated campaigns and some meta-analysis on accidents. GADGET Project, INRETS, France.

Elder, R.W., Shults, R.A., Sleet, D.A., Nichols, J.L., Thompson, R.S., Rajab, W., 2004. Effectiveness of Mass Media Campaigns for Reducing Drinking and Driving and Alcohol-Involved Crashes. A systematic Review. *American Journal of Preventive Medicine* 27 (1), 57-65.

Elliott, B. (1993). Road Safety Mass Media Campaigns: A Meta Analysis (CR 118). Canberra: Federal Office of Road Safety.

Fry, T. R. L. (1996). Advertising wearout in the transport accident commission road safety campaigns. *Accident Analysis & Prevention*, 28(1).

Linderholm, I. B. (2000). Drink and drive. Can media campaigns solve the problem? Paper presented at the proceedings of T2000 15th Conference On Alcohol, Drugs and Traffic Safety, Stockholm, Sweden.

OECD. (1994). Improving road safety by attitude modification. Paris: OECD Publications and Information Centre.

Snyder, L. B., & Hamilton, M. A. (2002). A meta-analysis of U.S. health campaign effects on behaviour: Emphasize enforcement, exposure, and new information, and beware of the secular trend. In R. Hornik (Ed.), *Public health communication: Evidence for behaviour change*. Mahwah.

Finally, an inventory of European campaigns can be found on the RoadSafetyWeb pages: <http://www.roadsafetyweb.net>.

## 4 Overview of submitted measures

### 4.1 Submission process and submission criteria

No specific or formal definition of what constitutes an educational measure in the field of road safety or of a road safety campaign was used in the data collection phase. This implies that any measure submitted in this category was taken into consideration. Except for measures that could be more appropriately handled as institutional measures than as specific educational measures or campaigns, the general common sense definition proved sufficient for the present research purposes.

For the subcategory of the educational measures, the national experts were instructed to consider any possible best practice educational measure. As a frame of reference the national experts were referred to the final report of Rose25<sup>9</sup> and were encouraged to submit measures fitting within this framework as well as analogous measures aimed at middle aged or older people and aimed at specific target groups. The definition of road safety education provided in Rose25 could also be taken as a starting point for identifying possible best practice educational measures. In Rose25 "road safety education" was defined as:

"The totality of measures, which aim at positively influencing traffic behaviour patterns<sup>10</sup>. Road safety education emphasises three pillars:

1. Promotion of knowledge and understanding of traffic rules and situations,
2. Improvement of skills through training and experience, and

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<sup>8</sup> Vaa, T., Assum, T., Ulleberg, P., & Veisten, K. (2004). Summary: Effects of information campaigns on behaviour and road accidents - conditions, evaluation and cost effectiveness. TØI report 727/2004. Oslo, Norway. cf. also <http://www.toi.no/article17826-29.html>

<sup>9</sup> KfV (2005). ROSE25. Inventory and compiling of a European good practice guide on road safety education targeted at young people. [http://ec.europa.eu/transport/rose25/documents/deliverables/final\\_report.pdf](http://ec.europa.eu/transport/rose25/documents/deliverables/final_report.pdf)

<sup>10</sup> Böcher, W. (1995). Verkehrsaufklärung und Verkehrserziehung/Traffic Safety Campaigns and Traffic Safety Education. In Hilse, H.-G. & Schneider, W (Ed): *Verkehrssicherheit. Handbuch zur Entwicklung von Konzepten/Traffic Safety. Manual for Development of Concepts*. Stuttgart u.a.: Boorberg, pages 248-299.

3. Strengthening and/or changing attitudes towards risk awareness, personal safety and the safety of other road users. "(p. 8).

From the Rose25 project only interventions including a face-to-face contact with the target group were to be considered in the Supreme project. Both measures implemented within and measures implemented outside the school system were taken into consideration. Within the Supreme project, it was decided to reconsider all these measures together with all the measures that could qualify as educational measures falling beyond the boundaries of the scope of Rose25.

Two types of educational measures were however excluded from analysis in the Supreme subcategory of educational measures. First of all, educational measures aimed at obtaining or reinstating drivers licenses were to be submitted in the Supreme category of "rehabilitation and re-licensing". Secondly, educational measures using only one single medium were to be submitted as campaigns.

For ease of comparison and selection, the submitted measures had to be categorized into one of eight sub-subcategories, according to the target group of the educational measure:

1. Actions/Programmes for pedestrians
2. Actions/Programmes for cyclists
3. Actions/Programmes for car passengers
4. Actions/Programmes for car drivers
5. Actions/Programmes for pre drivers
6. Actions/Programmes for motorised 2-wheelers
7. Actions/Programmes for users of public transport
8. General road safety education

For the subcategory of campaigns, the national experts were instructed to consider all possible campaigns in the field of road safety without any particular constraints. The campaigns had to be categorized into one of 18 sub-subcategories according to the main theme of the campaign:

1. Driving under influence
2. Seatbelt
3. Protection equipment
4. Speed
5. Safety distance
6. Vulnerable road users
7. Motorised 2-wheelers
8. Lightning and visibility
9. Traffic regulation
10. Driving license
11. Courtesy/ Aggression

12. Lorries, trucks and special transports
13. Fatigue
14. Mobile phone
15. Driving circumstances (weather conditions, night-time driving etc.)
16. Infrastructure and road works
17. Technical conditions
18. Other

The data collection ran from March to October 2006.

## 4.2 Overview of suggested potential best practice measures

In the category of Education and campaigns a total of 76 measures were submitted by November 2006, the final deadline for the submission of potential best practices: 39 in the sub-category educational measures and 37 in the sub-category campaigns. Table 1 gives an overview of the suggested measures in each of the target-group sub-subcategories of educational measures and campaigns:

Category	Sub-Category	Country	Measure
Education	1. Actions/Programmes for pedestrians	Slovenia	Be careful, be seen <sup>11</sup>
	2. Actions/Programmes for cyclists	Belgium	Watch out, dead angle!
		Czech Republic	On bike just with helmet
		Latvia	The Young Bicyclists' Event
		Slovakia	Safely on bicycle
		Slovenia	Smart head wears helmet
		Slovenia	Cycle training for children
		Slovenia	Safe bike
		Slovenia	What do you know about traffic - competition for cyclists
	3. Actions/Programmes for car passengers	Belgium	Information stands about child restraint seats at baby fairs for future parents
		Slovenia	Armadillo recommends: Always wear your seatbelt!
		Slovenia	First driving - safe driving
	4. Actions/Programmes for car drivers	Belgium	Flash! A multimedia theatre monologue
		Germany	safety training for car drivers
		Greece	Informed
	5. Actions/Programmes for	Germany	Got everything under control?

<sup>11</sup> Although this measure was submitted as an educational measure for pedestrians this measure consists actually of a campaign for the promotion of reflectors for pedestrians.



	pre drivers	Spain	Campaign "It can happen to you"
	6. Actions/Programmes for motorised 2-wheelers	Denmark	Education for moped drivers
		The Netherlands	Moped driver training
	7. Actions/Programmes for users of public transport	Slovenia	Free transport to school for children
	8. General road safety education	Belgium	Continued training for teachers
		Czech Republic	Safe Way to School
		Denmark	Children's Traffic Club
		France	Educative Continuum
		Germany	Child and Traffic
		Germany	safe crossing
		Germany	Safety Programme for Elderly Drivers
		Germany	U-Turn - spots for young driver
		Greece	ADHRITO
		Lithuania	Mandatory traffic safety lessons for younger pupils in schools
		Malta	Child Restraint Campaign
		Portugal	Road safety actions for pupils in schools
		Slovakia	Police and schools cooperation
		Slovakia	School of young rescuers
		Slovenia	A youth to youth
		Slovenia	Road safety workshops - youth should be joyful
		Slovenia	Safety for all
Sweden	Self Safe		
The Netherlands	RSE Label for Schools in Brabant		

Table 1: Overview of submitted measures.

Category	Sub-Category	Country	Measure
Campaigns	1. Driving under influence	Belgium	Bob campaign
		Belgium	European Night Without Accident
		Denmark	Campaigns towards drink driving
		Denmark	Stop a drunken driver - give him the red card
		France	Operation "Evening Captain" (Bob)
		Germany	Peer project
		Greece	Bob campaign
		Ireland	Just One – Anti Drink Driving TV Advertising Campaign
		Ireland	Shame – Anti Drink Driving TV Advertisement
		Latvia	Alcohol related publicity campaign "Save your friend, prevent him from drunk-driving!"
		Slovenia	Parties You can choose, win or loose
		Switzerland	50 mg per 100 ml – 1 glass is o.k.
	2. Seatbelt	Austria	"Seat belts save lives" campaign
		Belgium	Armadillo campaign
		Denmark	Seat Belt Campaign 2002
		Germany	Did it click (in your mind)?
		Germany	Safe in the car
		Hungary	Safety belt campaign
		Ireland	Damage - Seatbelt Wearing Front & Rear
		Poland	Last bash
		The Netherlands	Goochem - Seat belt campaign
	3. Protection equipment	Spain	Child restraint system loan programme "The child travels safely"
	4. Speed	Czech Republic	We are driving with smile
		Denmark	Speed hurts
		Ireland	"Thump" - Anti Speeding TV advertisement
	5. Safety distance		
	6. Vulnerable road users	Ireland	Texting and Home – Vulnerable Road Users - TV Advertising Campaign
		Slovenia	Start of the school year
	7. Motorised 2-wheelers	Belgium	Motorcyclist campaign
	8. Lightning and visibility	Estonia	Be visible
		Latvia	Informative campaign for safety of pedestrians "The sign of light"
	9. Traffic regulation		
	10. Driving license		

	11. Courtesy / Aggression		
	12. Lorries, trucks and special transports		
	13. Fatigue		
	14. Mobile phone		
	15. Driving circumstances (weather conditions, night-time driving etc.)		
	16. Infrastructure and road works		
	17. Technical conditions		
	18. Other	Germany	Auto Bild searches for the best German car driver
		Germany	Yearly road safety campaign for employees
		Hungary	"Do not risk!" – campaign for increasing the security of railway crossings
		Norway	Speak out!
		Spain	Advertising campaign about the new penalty point system
		United Kingdom	Think! campaign

The following table depicts the number of measures submitted in each of the subcategories.

Category		Number of measures in subcategory	Sub-Category
Education	39	1	1. Actions/Programmes for pedestrians
		8	2. Actions/Programmes for cyclists
		3	3. Actions/Programmes for car passengers
		3	4. Actions/Programmes for car drivers
		2	5. Actions/Programmes for pre drivers
		2	6. Actions/Programmes for motorised 2-wheelers
		1	7. Actions/Programmes for users of public transport
		19	8. General road safety education
Campaigns	37	12	1. Driving under influence
		9	2. Seatbelt
		1	3. Protection equipment
		3	4. Speed
			5. Safety distance
		2	6. Vulnerable road users
		1	7. Motorised 2-wheelers
		2	8. Lightning and visibility
			9. Traffic regulation
			10. Driving license
			11. Courtesy / Aggression
			12. Lorries, trucks and special transports
			13. Fatigue
			14. Mobile phone
			15. Driving circumstances (weather conditions, night-time driving etc.)
			16. Infrastructure and road works
			17. Technical conditions
		6	18. Other

Table 2: Number of measures in each sub-category (for empty cells the number is zero - in highlighted cells no or only one measure was submitted).

In the following table, the number of measures submitted for each of the participating countries is summarised.

Table 3: Number of educational measures and campaigns submitted for each of the participating countries (for empty cells the number is zero).

Country	Educational measures	Campaigns	Total
Austria		1	1
Belgium	4	4	8
Czech Republic	2	1	3
Denmark	2	4	6
Estonia		1	1
France	1	1	2
Finland			
Germany	6	5	11
Greece	2	1	3
Hungary		2	2
Ireland		5	5
Italy			
Latvia	1	2	3
Lithuania	1		1
Luxemburg			
Malta	1		1
Norway		1	1
Poland	1	1	2
Portugal	1		1
Slovakia	3		3
Slovenia	11	2	13
Spain	1	2	3
Sweden	1		1
Switzerland		1	1
The Netherlands	2	1	3
United Kingdom		1	1
TOTAL	39	37	76

In comparison with the number of measures submitted in the other categories of the Supreme project, the response rate for the category Education and campaigns was very high. With a total of 76 potential best practice measures, from which 39 in the subcategory educational measures and 37 in the subcategory campaigns, our category obtained by far the highest number of suggested measures. Notwithstanding this general high response rate, the overviews revealed at the same time that for some countries and measures there were (way) less measures submitted than expected. For instance, for some very well performing countries such as Sweden, the United Kingdom and The Netherlands,

- the so-called SUN countries <sup>12</sup> - only a few measures were submitted. In sharp contrast with this lack of response from the SUN-countries, other countries submitted a relatively high number of measures. This was for instance the case for Slovenia (13 measures), Germany (11 measures) and Belgium (8 measures).

Regarding the themes of the educational measures and campaigns, it is obvious that - apart from a few counterexamples - the most common themes are well represented. For educational measures, the exception seems to be that for specific programmes for pedestrians, only one measure was submitted. This contrasts sharply with the subjective assessment of the coverage of major topics in the Rose25 project, where pedestrians together with seatbelts and bicycles are the best covered topics (cf. Rose25, p. 41). Apart from the general actions, the actions towards pedestrians were also numerically the best represented subcategory in the Rose25 project. There is no straightforward explanation for this difference. A reason for the difference may be that the national experts submitted a lot of "General road safety education" programs. About half of the submitted educational measures were categorized in the sub-subcategory of General road safety education. Since most of these measures address pedestrians as well as other road users, the submission of these general measures and frameworks may have led to the relative absence of specifically targeted measures for pedestrians.

Regarding campaigns, the three most addressed themes are very well covered: driving under influence (12 measures), seatbelt use (9) and speeding (3). The reason why so many sub-subcategories did not attract attention may very well be that the sub-subcategories' themes are very narrowly defined (e.g. lightning and visibility or driving circumstances being specific categories). Just like for educational measures, some of the submitted campaigns did not address specific behaviours or problems, but focused on the entire range of at risk behaviours in traffic.

More specific reasons for the under- or over-representations of specific measures and/or countries were closely related to the selection process used in the present project. Instead of performing an in-depth literature search on the availability of potential best practice examples in European countries, the selection process relied mainly on the expert opinion of the national experts of the Supreme project (cf. below).

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<sup>12</sup> cf. [http://ec.europa.eu/transport/roadsafety/publications/projectfiles/sunflower\\_en.htm](http://ec.europa.eu/transport/roadsafety/publications/projectfiles/sunflower_en.htm) and <http://sunflower.swov.nl/>

# **Description of the selection process**

The selection and analysis of best practices for Education and campaigns was performed according to the common procedure of the Supreme project. In a first phase, the country experts suggested potential or possible best practices by submitting questionnaires. In the next phase the suggested measures were analysed by evaluating them on the common Supreme criteria and on the additional criteria for the subcategory of Education and campaigns. In paragraph 3.1 we describe the submission process (step 1: evaluation of national best practices by country experts). The analysis of the measures according to the Supreme criteria for best practice is described in chapter 3.2 (step 2: assessment and analysis of submitted measures).

## 5 Step 1: Evaluation of national best practices by country experts

As for the measures in the other Supreme categories (e.g. enforcement, vehicle technology, etc.), the country experts were invited to submit any educational measure or campaign they thought could qualify as best practice through filling in the questionnaire. The body of the questionnaire was the same as for all the other measures. To this common part, an additional set of questions were added that were specific for educational measures and/or campaigns. The complete questionnaire can be found on the Supreme website. The specific questions for educational measures and campaigns were:

For educational measures:

Does the measure focus on theoretical or on practical knowledge?

If both, please indicate the focus ratio for both elements. (ex. 40/60 or 20/80 etc.)

To what degree is there a balanced focus on knowledge, skills, and attitudes?

Are there additional key success factors for the measure?

For campaigns:

Has the campaign been repeated in the past or will it be repeated in the future? If yes, how many times?

Which partners (public, private, ...) are involved in the campaign (please list)?

Are there any derived actions / campaigns (e.g. on a regional level) which came about as a result of this campaign?

Which media did you use? Please also indicate the number of items that were produced for each medium (ex. number of leaflets, number of television spots broadcasted, number of posters etc).

For how long did the campaign run (running time in weeks)?

The national experts were instructed to complete the questionnaires as completely and as detailed as possible. The data collection period ran from March to November 2006. In a first phase, the

suggested measures were collected passively, meaning that no supplementary pressure was put on the experts to submit more measures. In a second phase, the experts that submitted less than two measures in the category Education and campaigns were urged to reconsider submitting more measures. The result of this procedure was described above in chapter 2.2 Overview of suggested potential best practice measures, and resulted in the submission of 39 educational measures and of 37 campaigns.

For each measure, we evaluated whether the questionnaires contained a sufficiently detailed and accurate description of the suggested measures. Unfortunately, this was not always the case. For questionnaires that contained insufficient detail, the task leaders evaluated on the basis of the available information whether the measure could potentially qualify as a best practice after further completion of the questionnaire. If this was the case, further information was obtained from the country experts. If this was not the case, the suggested measure was not taken into consideration any further.

## **6 Step 2:**

### **Assessment and analysis of submitted measures**

#### **6.1 Assessment phase 1:**

##### **Evaluation according to common Supreme criteria**

In a first phase of the assessment of the measures, the suggested measures were evaluated along the eight common selection criteria of the Supreme project. Following the common methodology of the Supreme project, this evaluation was made by evaluating each of the criteria according to an ad hoc rating system for the category of Education and campaigns. The evaluation-values were specifically tailored to the evaluation of educational measures and campaigns. Since almost no educational measures and very few campaigns could demonstrate an objective effect on the incidence of traffic accidents or of traffic severity, and since almost no sound cost-benefit studies were carried out in the area of Education and campaigns, it was decided to avoid negative ratings on these criteria by allowing only neutral or positive scores for the criteria "evaluation of effects" and "cost and benefits". This is shown in the table below. In this table, for each criterion a definition and a description is given, together with the possible values of the assessments of each measure on each criterion.

All the submitted educational measures and campaigns were evaluated according to a "-1, 0 or 1" rating system. Apart from the fact that it was decided not to give negative scores on the "effectiveness" and "cost benefit" criteria, a second adaptation was introduced for the category of Education and campaigns. Since almost no studies show a clear cut effect of educational measures and campaigns on traffic accident data, it was decided to be more lenient in the evaluation of this

criterion. This was done by allowing measures that could prove an effect of the measure on observed behaviour or on self-reported dimensions a score of 1 on the effectiveness criterion<sup>13</sup>.

NR	Short name of criterion	Description	Operationalisation	Evaluation		
				-1	0	1
1	Definition of target group	A clear definition of the road safety problem a measure is intended to help solve.	Is the target group, or target groups, for this road safety measure clearly defined (is it clear what road safety problem the measure is intended to solve)?	Target group not clearly described	Basic description	Detailed description of target group
2	Size of road safety problem	A quantitative assessment of the number of accidents or accident victims a road safety measure can be expected to influence.	Has the contribution of accidents or injuries within the target group to the total number of accidents or injuries been estimated?	No definition	Small number of accidents targeted	High number of accidents targeted
3	Expected effects on safety	An assessment of the likely impact of a road safety measure, preferably based on previous evaluation studies or known relationships between risk factors and accidents or injuries.	Were the expected effects on road safety of introducing the measure estimated (in quantitative terms) when planning the measure and justifying its use? What was the basis for the estimated effects of the measure (evaluation studies, known risk factors, or another basis)? Were estimates of expected effects based on explicitly acknowledged sources of knowledge?		Not estimated	Estimated
4	Evaluation of effects	An evaluation of the actual impacts of a measure after implementation and publication of the findings of the evaluation.	Have the actual effects of the measure in road safety been evaluated, or is an evaluation study planned for?		Not evaluated	Some evaluation (eg post-measurement) available

<sup>13</sup> The meta-analysis performed in the framework of the GADGET project on 265 international (not only European) road safety campaigns showed that most of these evaluations were limited to self-reported dimensions (75.8 % of the studies) or overt behaviours (52.4% of the studies). Only a minority of the analysed campaigns evaluated the effects on accident data (24.9%) or offence statistics (16.2%). Moreover, it appeared often impossible to evaluate the effect of the campaign in itself, regardless of the measures accompanying the campaign (e.g. enhanced enforcement or other educational measures). From the 265 evaluation studies in the GADGET study, for instance, about half (49.8%) of the studies combined communication activities and enforcement.

NR	Short name of criterion	Description	Operationalisation	Evaluation		
5	Costs and benefits	An assessment of the costs and benefits of a measure and a comparison to costs and benefits of alternative measures.	Have the costs and benefits of the measure been estimated? Were such estimates made before or after introduction of the measure, or both before and after?		Not calculated	Calculated
6	Public acceptance	A monitoring of public and policy maker acceptance of the measure.	Was any information collected regarding public acceptance of the measure? If known, what is the level of public acceptance of the measure?	Bad acceptance	No information or not assessed	Documented positive acceptance
7	Sustainable effects	A commitment to the continued use of measures that have been found to be cost-effective.	Are the effects of the measure expected to be permanent or transient? If effects are expected to be transient, what steps have been taken to ensure a lasting commitment to use of the measure in order to maintain its impacts as long as possible?	Expected to be unsustainable	No info	Documented sustainability or expected to be sustainable
8	Transferable effects	An assessment of the applicability of the measure on a wider scale, both within and across countries.	Can this measure be implemented on a wider scale or are the effects expected to be local only?	Not transferable to other countries	Not documented	Argumented or proven transferability

Table 4: Assessment criteria for educational measures and campaigns.

From this first assessment phase, it appeared that only one of the suggested measures qualified as best practice since it was the only measure that obtained the maximum score; namely the Norwegian "Speak out!" campaign. This was the only suggested measure for which a significantly positive cost-benefit ratio could be shown. For none of the other measures sufficiently detailed cost-benefit studies were available.

Hence, it was decided to continue the evaluation of the remaining measures by evaluating whether they could qualify as most promising practice. Contrary to the concept of best practice, which only takes measures into account that fulfil all the best practice criteria, promising practices were defined relatively. This means that we selected the measures that obtained the highest scores on the common criteria (relative to the other suggested measures) and evaluated in a next step whether they also fulfilled the specific additional criteria for educational measures and campaigns. The final selection of most promising measures resulted from a qualitative weighing of the scores of the measures on

the common criteria and on the supplementary criteria for the category of educational measures and campaigns.

## 6.2 Assessment phase 2: Evaluation of most promising practices according to additional criteria for Education and campaigns

Apart from the common criteria which comprise the major part of the questionnaire, the specific questions regarding educational measures and campaigns served to evaluate the submitted measures in our category on crucial criteria for educational measures and campaigns. As reflected in the questionnaire discussed above, the category of "educational measures and campaigns" is comprised of two sub-categories for which specific criteria are necessary. We therefore, developed different additional criteria for educational measures and for campaigns.

The additional criteria for educational measures were based on the final report of the Rose25 project<sup>14</sup>. The best practice criteria used in the Rose25 project were:

An action labelled as good practice should ideally:

- Include theoretical and practical elements,
- Focus on knowledge, skills and attitudes,
- Be attractive and innovative for the target group, i.e raise their interest and create fun,
- Be embedded in other road safety measures, referring to the 3 E's, (Enforcement, Engineering and Education),
- Be embedded in a wider context in school (if it is an action within the school system),
- Be based on broad partnerships, create a network and be attached to, or establish, a broader platform.

We therefore evaluated all the educational measures on two additional criteria: balance and embeddedness. Balance refers to the degree to which the educational measure has an adequate focus on the three main elements of any educational measure: knowledge, attitudes and skills. In general, educational measures that address all these elements are considered better than measures that focus exclusively on one of the three components. This is however, only a general guideline. The appropriateness of the emphasis on the three elements depends on the specific goals of the educational measure. The most important aspect in evaluating the balance of the three elements was whether the relative weights of all three components were adapted to the goal of the measure. For the second criterion, summarized under the term "embeddedness", the way in which the measure takes the entire social context in which the measure is implemented into account is evaluated. This

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<sup>14</sup> Rose25, p. 55-56

evaluation implies that isolated educational measures were excluded from further analysis. Only measures that involve all the stakeholders relating to the implementation and the goal of the measure were taken into further consideration. The table below describes how the two additional criteria for educational measures were evaluated.

Short name of criterion	Description	Questionnaire	Operationalisation	Evaluation		
				-1	0	1
Balance	Include theoretical and practical elements, focus on knowledge, skills and attitudes	To what degree is there a balanced focus on knowledge, skills, and attitudes? Does the measure focus on theoretical or on practical knowledge?	Adequate focus on knowledge, attitudes and skills according to goals of measure	Poor balance	Moderate balance	Good balance
Embeddedness	Be embedded in other road safety measures, referring to the 3 E's, (Enforcement, Engineering and Education), be embedded in a wider context	Which partners (public, private, ...) are involved in the campaign (please list)? Are there additional key success factors for the measure? Are there any derived actions / campaigns (e.g. on a regional level) which came about as a result of this campaign?	Addresses and attracts all stakeholders, depending on goal of the measure	Not embedded, unconnected single measure or not described	Weakly embedded	Embedded in other measures and context

Table 5: Additional criteria for the evaluation of promising educational measures

The additional criteria for the evaluation of campaigns were based on the recommendations formulated in the Rosebud handbook<sup>15</sup> and on the recommendations for best practices<sup>16</sup> of the global road safety partnership. Obviously, it is difficult to define only a few criteria to evaluate the crucial characteristics of a good campaign. The global road safety partnership, for instance, identified the following characteristics as of a particular importance (p. 7):

- ◆ The use of an underlying theoretical model;
- ◆ The consideration of prior quantitative or qualitative research on the issue(s) addressed in the campaign;

<sup>15</sup> cf. <http://partnet.vtt.fi/rosebud/>

<sup>16</sup> cf. Elsenaar, P., & Abourraad, S. (2005). Road Safety Best Practices: Examples and recommendations. And also the global road safety partnership focus note on road safety publicity campaigns. Respectively <http://www.grsproadsafety.org/themes/default/pdfs/Road%20Safety%20Best%20Practices.pdf> and <http://www.grsproadsafety.org/themes/default/pdfs/road%20safety%20publicity%20campaigns.pdf> respectively.

- ◆ The use of campaign supports such as legislation, enforcement and public relations or associated publicity;
- ◆ The type of appeal approach adopted in the campaign and the media mix used to transmit the message; and
- ◆ The intensity, duration, timing and exposure of the campaign.
- ◆ Guidelines for effective campaign management include recommending a responsible key agency, a limited number of messages, development decisions based on research and community support.

Furthermore, the global road safety partnership recommends for the planning and execution of road safety campaigns:

- ◆ a. Use an underlying theoretical model or evidence from crash databases,
- ◆ b. Plan an evaluation to measure the effect of the campaign for future improvements,
- ◆ c. Define the problem and a well-chosen motto and message. For instance: reduce your speed and keep distance during fog is too general, A message like: During fog: halve your speed and double the distance” is much more effective.
- ◆ d. Define your target group and find means of communication to reach them, (TV spot, handouts, radio interviews, school activities, disco activities for teenagers, fuel stations, school area’s etc depending on your target group)
- ◆ e. Involve all stakeholders in the campaign activities, of which the police and other enforcement agencies are crucial,
- ◆ f. After an information period of for instance 2 weeks, it is crucial that enforcement on the campaign item is executed.
- ◆ g. Most countries with a campaign tradition have a year program, with 4 or 6 messages per year and an enforcement planning inclusive,
- ◆ h. As government has many messages to the public a large number of countries have chosen for an independent campaigning organisation that is financially supported by government (example Morocco, see also the PRI website).
- ◆ i. Some countries have national road victim organisations; these organisations have members with specific experience that can illustrate stories in a campaign.
- ◆ j. It is recommended to organise a try out, also to test if cultural elements are addressed appropriately.

Apart from the particular emphasis on communication strategies and the importance of combining communication strategies with enforcement, these recommendations were to a large extent already evaluated by the common criteria of the Supreme project. We therefore focused particularly on these two additional elements in our analysis of the suggested road safety campaigns. Since a campaign is a strategy to communicate a message, it is obvious that the quality of communication should necessarily be outstanding.

The table below depicts the way these additional criteria were evaluated:

Short name of criterion	Description	Operationalisation	Interpretation for Education and Campaigns	Evaluation		
				-1	0	1
Quality of communication	Intelligent and innovative communication strategy: high quality of information or instructions, high quality of the communication skills of the instructor, good accessibility of information for the persons implementing the action, adequate exposure of the target group to the information and good timing of this exposure.	Has the campaign been repeated in the past or will it be repeated in the future? If yes, how many times? For how long did the campaign run (running time in weeks)?  Which media were used?	Good quality of communication and information (e.g. skills of communicators, accessibility of information, exposure to information and timing of exposure.  Extent to which multiple media and communication channels are used.  Innovative character of communication.	Bad quality of communication	Moderate quality of communication	Good quality of communication
Combination with enforcement	strategy to combine awareness rising communication with enhanced enforcement	Which partners (public, private, ...) are involved in the campaign (please list)? Are there additional key success factors for the measure? Are there any derived actions / campaigns (e.g. on a regional level) which came about as a result of this campaign?	Development of a specific strategy to combine awareness raising information with enhanced enforcement	No enforcement	combination with enforcement without clear strategy	specific strategy to combine communication and enforcement

Table 6 : Additional criteria for the evaluation of promising road safety campaigns

### 6.3 Assessment phase 3: Final assessment of most promising measures

In the first assessment phase all the suggested measures were evaluated according to the eight common Supreme criteria. The most promising measures resulting from this first phase were reevaluated according to the additional criteria for educational measures and campaigns in the second phase. In the third and final phase of our assessment procedure, a final selection of the most promising measures was made by comparing the results of the first and the second phase for the most promising measures. After a discussion of this comparison among the communication professionals at the Belgian Road Safety Institute and the project leaders of the Supreme consortium and after further discussion within the Supreme consortium, a final list of promising measures was established. Because the objective of the project was also to illustrate the most promising measures in as many areas as possible, we included maximum one promising measure in each thematic sub-



subcategory (cf. 2.2. overview of submitted measures). In order to keep the thematic report as concise as possible, we limited our description of the most promising measures to 3 educational measures and 4 campaigns.

# **Description and analysis of most promising educational measures and campaigns**

In this chapter, we describe the most promising measures according to both the common Supreme criteria and the additional criteria for the evaluation of educational measures and campaigns. As explained above, apart from the Speak Out! Campaign, no perfect best practices could be identified. We therefore conclude the report with a detailed description of the most promising measures suggested in the course of the Supreme process. It needs to be emphasized that the analysis of the submitted measures as "less" or "more" promising led to a relative ranking of measures and sometimes the difference between measures that made the final selection and measures that nearly made it was very small, and always a matter of degree and not of categorical difference. Since the main aim of the Supreme project was to discuss and to illustrate good examples of measures, only the selected promising and best practice measures are discussed in this report. More information on the suggested measures that did not make the final selection can be found on the Supreme-website. The submitted questionnaires for all the measures suggested by the country experts can be downloaded from the website.

Some of the thematic reports of the Supreme project looked way beyond the list of potential measures suggested by the country experts and complemented this selection with a selection based on literature study and expert knowledge. Given the very vast amount of measures submitted in our subcategory, such a complementary analysis was practically impossible to realize within the scope of this project. Our selection of most promising measures was therefore almost entirely determined by the original input from the country experts. As a result of this, some very promising existing measures and even best practice measures may not be included in the present description. For more examples of other promising and best practice educational measures we refer to the final report of the Rose25 project. More examples of other promising and best practice campaigns are given in the final reports of the GADGET and Rosebud projects, and in the literature on (European and international) campaigns that was cited above.

Apart from the fact that we start our description of the selected campaigns with the best practice "Speak Out!" campaign, the order in which the measures are described is purely random.

## 7 Key Examples<sup>17</sup>: Education

### 7.1 Educative Continuum (Ministère des Transports - Directorat Sécurité Routière, France)

#### Description of the Measure

Building behaviour and developing competences is a life-long activity. The educative continuum extends from kindergarten to the post driving licence period and aims at the progressive acquisition of competences through successive programmes adapted to the biological age of the "student". Each programme or step in the continuum uses knowledge and competences acquired through previous steps. Some themes are first taught in one of the steps and returned back to later, viewed from a different angle or with some information added. At the moment, the educative continuum includes the following steps :

- ◆ APER or "attestation of first level road education" (kindergarten and primary school)
- ◆ ASSR or School Road Safety attestation, first level (college, age 11-14)
- ◆ BSR or Road Safety Certificate (age 14, exam giving access to moped riding)
- ◆ ASSR second level (gymnasium, age 14-16), needed to be able to register for the driving license exam
- ◆ AAC, Anticipated Accompanied Driving (driving schools, age 16-18)
- ◆ driving exam (from the age of 18) and probatory driving licence with a point demerit system (6 points) for 2 years with AAC and 3 years if AAC has not been used
- ◆ final driving licence with a point demerit system (12 points)
- ◆ rehabilitation sessions for multi-offenders.

Further steps are being considered, but are still under study, including continuing training for all drivers (experiments tend to show that this is an expensive step, difficult to organize), special training to help elderly road users retain their competences as long as possible, and psychological support for accident victims.

The educative continuum's design has been based on task analysis, following mostly Keskinen's model (1996). It also involves good knowledge of the successive target populations, up-to-date educational processes (what content for which public, when and how to teach), and complementarity and coordination of formal education actors in different sectors. The influence of parents and families has been taken into account as parental influence is a major factor in developing behaviour, attitudes to risk and gender differences. The educative continuum aims at developing skills for

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<sup>17</sup> The information used to describe the selected measures was taken from the respective questionnaires on the action. The questionnaires can be found on the Supreme website.

successive road usage (walking, bicycling, moped riding, driving), and ultimately at developing positive attitudes and behaviour with regards to road safety for all road users.

#### **Focus of the Measure**

All types of accidents are concerned by the educative continuum. Some steps particularly address accidents involving mopeds.

The main beneficiaries should however be the young drivers (18-25) whose risk level is the highest. However, not all of them register for AAC and thus make use of the whole continuum.

#### **Size of the Road Safety Problem**

The educative continuum addresses all aspects and domains of road safety. It can therefore be said that the scope of the measure is the total, French road safety issue.

#### **Expected Effects**

Ultimately, all road users should benefit from the educative continuum. Earlier effects are expected on inexperienced drivers. Expected effects of the educative continuum were not quantified in terms of accidents or victims. Developing competences through the educative continuum means that drivers manipulate their machines better and are more skilled to adapt to traffic conditions. Road users submitted to the continuum also have better knowledge of the most important accident factors and how and why to avoid them (speeding, drinking, etc.). It is expected that the educative continuum will contribute to the emergence of a more responsible generation of road users.

#### **Evaluation of Effects**

It is rather difficult to quantify effects on accidents and injuries of such a measure as the educative continuum is expected to work in the long term and has been gradually set up. Each step of the continuum has been individually evaluated through process evaluation. Moreover, Anticipated Accompanied driving has been submitted to several product evaluation studies, but results are not consistent and the design of the evaluations raises questions. At this moment, process evaluations show that practical improvements should be brought to the organisation of the educative continuum before full benefits can be obtained. Progress should mainly be expected from continuing training of the networks of actors involved, which requires additional resources.

The educative continuum is not a "corrective" measure whose impact on accidents and injuries can be isolated and quantified. It is however based on a sound educational theory; it provides continuity, goes with life, and uses the time factor to refocus on key issues at various stages of development. Moreover, it involves the cooperation of most educational actors (health education specialists being the next ones to enrol) and thus ensures consistency of the safety message and provides different ways to pass it on.

As this is a foundation measure to build behaviour and competences on, the effects on safety are difficult to separate from those of other measures influencing behaviour (speed limits and enforcement, drinking and driving laws, etc.).

#### **Cost-Benefit Analysis**

No specific cost-benefit analysis has been carried out for this measure.

#### **Acceptance**

The first steps of the educative continuum seem to be well accepted by recipients as they appear to be helpful for future access to motorized two-wheelers or cars. Obviously, the approbatory driver's license is a constraint that has to be accepted (no choice!). The rehabilitation courses are not mandatory, but give a chance to multi-offenders to regain points on their license. Post driving licence could be better accepted if road users could have access to their own data file and know accurately how many points they have left on their license (at the moment, this is difficult in France due to privacy legislation).

Acceptance of the measure is also shown by the fact that it has been running for about ten years now, and that it will continue to run in the next years.

### **Sustainability**

The educative continuum is meant to be permanent, although improvements in content have and will take place. The measure is in place since 1996 and still on-going. Time is an essential factor in this measure: traffic education is part of all different phases in life. Returning to items already taught in earlier steps makes it possible to deepen knowledge about key issues and raise their importance. The educative continuum also makes the "students" look into the future.

### **Transferability**

The educative continuum is a complex measure that involves the cooperation of different actors, the training of actors and the monitoring of the whole process. It relies on measures such as approbatory driving license for new drivers, and a point demerit system. The educative continuum also requires computer data bases on drivers and vehicles, with appropriate processes to cross files without violating individual liberties. European projects on education have moreover shown that a synergy was built with other measures influencing behaviour such as speed limits and enforcement, drinking and driving laws, or specific measures aimed at young drivers.

The French experience with the educative continuum can be adapted and implemented in other countries, building on the theoretical and empirical research results found in France.

### **Balance between Knowledge, Attitudes and Skills**

There is an overall, balanced focus. The actual focus may vary from step to step.

Developing competences through the educative continuum means that drivers manipulate their machines better and are more skilled to adapt to traffic conditions. Road users submitted to the continuum also have better knowledge of the most important accident factors and how and why to avoid them (speeding, drinking, etc.). It is expected that the educative continuum should contribute to the emergence of a more responsible generation of road users.

The focus on knowledge, attitude or skills may vary from step to step throughout the Educative Continuum.

The effectiveness of the educative continuum (as compared to separate traffic education and driver training) is in the use of the time factor to develop competences and knowledge, each successive step comforting the previous ones.

### **Embedded in wider context**

The coordination of the educative continuum is performed by DSCR that is responsible for the whole programme and its content. Kindergarten and primary schools are responsible for teaching APER, colleges for teaching ASSR first level and BSR, gymnasiums for teaching ASSR second level. AAC is piloted by DSCR and involves driving schools and insurance companies. The ministries of Transport and Interior are responsible for the licensing exam and registration of the driving licence. The ministries of Interior and Defense (Police and Gendarmerie) are responsible for the point demerit system. Rehabilitation courses are organized by DSCR through a network of lecturers, with the cooperation of the ministries of Interior and Defense.

The educative continuum is integrated in the school curricula. Laws were enacted to introduce AAC, the approbatory driving licence, the point demerit system, and the rehabilitation courses for multi-offenders (who recuperate two points on their licence for attending such a course).

## 7.2 Road Safety Education label for schools in the province of Noord-Brabant (The Netherlands)

### Description of the Measure

The province of Noord-Brabant has developed an innovative setting: schools embed continuous Road Safety Education (RSE) in their educational programme. These schools receive a certificate and a label (badge with a zebra called Seef). Schools are invited to promote the action and to make it visible for all potential and actual stakeholders. An independent commission visits the school to support the certification and to check the quality of its effectiveness. In Noord-Brabant a team of six persons implements and manages this project and seeks to widen the coverage throughout the province. All 68 municipalities of Noord-Brabant are involved in the process. Schools that work on this project receive financial support from national sources. Four main priority axes lead to points on the score for certification. Topic 1: Integration of RSE from various angles (RSE teachers, part of the education programme, specific events like traffic safety weeks etc.). Topic 2: Safe surroundings (accessibility of the school to environmentally friendly modes of transport, cycle stands, safe routes in the surrounding areas, etc.). Topic 3: Involvement of parents – ‘traffic parents’ (schools develop and establish a well functioning information system for parents; in addition parents act as crossing patrols and they are encouraged to reflect on the mode of traffic transportation for daily way to school.). Topic 4: Practical training and practical projects are part of the programme. Schools can score points and stars in these categories. They decide for themselves the pace and emphasis within the education. For all topics, guidance, proposals and material exist in various forms (books, booklets, films, CD-ROMs). At the moment, the RSE Label to be applied in secondary schools and schools for special education is under development.

### Focus of the Measure

This measure is a facilitating project aiming on embedding road safety education within school programmes and stimulating a safer school-environment. The RSE Label approaches road safety for young traffic participants on all fronts: from local policy to traffic education in the classroom, from traffic behaviour in and around school grounds to support by police and traffic safety organisations.

### **Size of the Road Safety Problem**

Compared with the average for all ages, relatively few children are killed in traffic. The annual numbers of road deaths of children (0-14 years) are related to the numbers of inhabitants in that age group. The mortality (annual number of deaths/100.000 inh.) of children in the age group 0-14 years in the period 1999-2002 is 6.5. Still, each year 53 children of up to 14 years old are killed in The Netherlands, and 906 in-patients were registered (the average of 1998-2002). The actual number of in-patients is considerably higher. It is estimated that, during 1998-2002, the police registered only 44% of all in-patients among children of (in this case) 0-15 years. The average registration rate for all in-patients is about 60%.

### **Expected Effects**

For soft measures like permanent traffic education, the rule of thumb in the Netherlands is that it may lead to a 20% reduction in victims. This fall a study will be conducted into the actual effects of the RSE Label. At a young age good (traffic) behaviour can be learned and with older children behavioural changes can be obtained. Permanent traffic education is therefore a prerequisite for safe behaviour. The permanent nature of traffic education implies that activities for a certain age or target group will often only later bear fruit.

### **Evaluation of Effects**

At the end of 2006 results of an evaluation study are expected.

### **Cost-Benefit Analysis**

No specific cost-benefit analysis has been carried out for this measure.

### **Acceptance**

Participation in the project is on a voluntary basis. At this moment it is implemented in about 25% of the primary schools in the province of Noord-Brabant. In addition, the RSE Label is being implemented within a permanently growing number of regions in the Netherlands. The RSE Label already spread to seven of the twelve provinces in The Netherlands. There are currently 625 schools in The Netherlands (556 primary schools, 55 secondary schools, 14 schools for special education) that are certified with an RSE Label.

### **Sustainability**

At the moment, it is not possible to assess the sustainability of the RSE Label action. But as the RSE Label concerns an educational measure, it is expected that the effects on the children's behaviour will at least partially be sustainable.

### **Transferability**

In Belgium the province of Antwerp (bordering to The Netherlands) and the Vlaamse Stichting Verkeerskunde have partially adopted this project under the title '10 out of 10'. This action aims at improving road safety for children in a similar manner and with similar objectives. In the '10 out of 10' project, a school can earn a label too, demonstrating the efforts in road safety to the outside world.

As in many other projects, one needs well-developed management and organisation to get this type of initiative up and running. Furthermore, it requires sponsorship from several sources. The organisation has to effectively manage several tasks:

- To launch development and production of adequate media for pupils, teachers, parents
- Promotion of the project
- Continuous support of

teachers/schools actively participating in the project • First contacts to schools and municipalities to stimulate the development of a broad network from a regional to local level • Quality control. Six experts are working full time on this project for the community of Brabant.

#### **Balance between Knowledge, Attitudes and Skills**

Within the RSE-activities, conducted within the RSE Label, the aim is to focus on all three elements: knowledge, skills and attitude.

The RSE Label approaches road safety for young traffic participants on all fronts: from local policy to traffic education in the classroom. From traffic behaviour in and around school grounds to support by police and traffic safety organisations. By integrating both practical, theoretical elements of RSE-projects and the more network related aspects provides an integral networking approach of RSE, stressing also the (political) importance of this item among all parties.

This project has a 'facilitating' character. It provides schools with a structure, in which RSE can be carried out. The RSE elements that the label certifies for are both theoretical, practical and process related.

#### **Embedded in Wider Context**

One of the most important success factors of the RSE Label is its strong "embeddedness" in the school curricula. This guarantees a continuous and consistent approach to RSE over a long period. For the RSE Label to be really successful, a strong involvement of parents, a well-developed and designed network from a regional to local level and professional support for the schools from experts is necessary.

### **7.3 Flits! A multi-media theatre monologue (Ouders van Verongelukte Kinderen, Belgium)**

#### **Description of the Measure**

Flits! is a multimedia monologue with life performances for young people and adults (16+). The monologue is accompanied by a DVD. The initiative for the project was taken by a non-profit association of parents of children killed in road accidents.

A professional actor (in this case Wim Geysen) tells the story of a group of friends, going out on a weekend night. But what begins as fun ends in a drama. Animated movies, videogames and pop music give this monologue the looks of a trendy video clip. Flits! is performed on demand, in Dutch, in schools and cultural centres since 2002.

Flits! sensitises young people, using images and a language that are very recognisable for them. The communication is animated and in no way moralizing. During the discussions after the performance, it is possible to express lots of personal experiences and emotions. This increases the level of realism. Flits! therefore works very well in schools.

Flits! media include a theatre monologue, a DVD, a leaflet and two websites: [www.wimgeysen.be](http://www.wimgeysen.be) and [www.ovk.be](http://www.ovk.be).

#### **Focus of the Measure**

The focus of the measure lies on accidents involving young people (18-24 years old) and on accidents during weekend nights.

### **Size of the Road Safety Problem**

11% of the Belgian adult population is between 18 and 24 years old. This group represents 26% of drivers and passengers that are killed or seriously injured in road accidents. 33% of car drivers, involved in serious accidents during weekend nights, are between 18 and 24 years old. During weekend days (from Friday 10 pm until Monday 6 am) there are relatively (per time unit) 50% more fatal accidents in Belgium, compared to working days.

### **Expected Effects**

The measure is expected to have a direct impact on the attitude of young people towards road safety, resulting in a safer behaviour and less killed and seriously injured. How many road victims can be prevented is however not measurable.

### **Evaluation of Effects**

At the moment, no detailed assessment of the effects of the action was carried out yet.

### **Cost-Benefit Analysis**

There was no specific cost-benefit ratio calculated for this measure. However, the cost for the action is small and the responses are very positive, also since this action fills a gap in the educational measures, that tend to focus on actions for children.

### **Acceptance**

The theatre monologue is mainly booked by schools. The DVD is ordered by police forces and used in awareness raising actions. Reactions are generally very positive. This approach is very well received by the primary target group (youngsters) and the secondary target groups (teachers and schools). After more than 250 performances, the demand for plays and DVDs is still very high. The show is running on demand since 2002 and there are no plans to stop. On the contrary, the play will be translated into French and performed in the French speaking part of Belgium as well. Since 2002, the monologue was performed 230 times with an average of 200 spectators per show, and has reached a total of 46.000 people who saw the play. Next to that, nearly 2000 DVDs have already been sold. Some municipalities offer the DVD for free together with a new driving licence.

### **Sustainability**

The action has been running with success since several years. It clearly fills a gap in the educational school programmes where little is available for road safety education targeted at pupils between 16 and 19 years old. It is expected that the action will continue to be successful with this target group in the future.

### **Transferability**

The issue of young drivers causing severe accidents during weekend nights is a general problem that is unfortunately also well known in other countries. Flits! is a low-cost, small scale production that does not require a very complicated organisational structure to be effective.

### **Balance between Knowledge, Attitudes and Skills**

Regarding the balance between theoretical knowledge and practical knowledge, it is clear that Flits!'s main focus lies on theory; understanding the dangers, how it arises, the possible consequences of risky behaviour etc.



The principle aim of the play is to raise awareness and to have an influence on the attitudes of the audience. The play's focus is less on knowledge and practically not on skills. However, this does not mean that knowledge and skills are disregarded. By means of the group discussions and the pack for teachers developed to this end, quite some knowledge can be transmitted to the target group. Additionally, the activities of the police services in the framework of this measure can focus on the necessary safe skills.

#### **Embedded in Wider Context**

After the performance, teachers can use the message of the play to organize a group discussion on road safety. To this end, teachers receive an information package about weekend accidents giving them background information, possible suggestions to bring up themes etc. In this way, Flits! is easy to integrate the school program.

## 8 Key Examples: Campaigns

### 8.1 Speak out! (Vegdirektoratet, Norway)

#### Description of the measure

Speak out! encourages young people who are passengers in cars to speak out if the driver is driving unsafe. Often, young people are not doing so because of group pressure supporting the unsafe driving. Research has shown that passenger restrictions can lead to accident reductions, especially those accidents that can be attributed to lessened group dynamics (which often are leading to unsafe driving). The target group of Speak out! are young people between 16-19 who are travelling as passengers in cars on evenings, at night and on weekends. The goal is to encourage young people to tell the driver to drive more carefully, for example when he/she is driving too fast or under the influence of alcohol or drugs. It is assumed that most young people know what safe and risky driving is and that they do not like dangerous driving. Group pressure often discourages addressing unsafe driving and thus indirectly increases the risk of (severe) accidents. Speak out! wants to counteract this group pressure and convert it into a positive pressure in the direction of safe and responsible driving as the socially accepted norm. The dissemination of information is based on the principles of sales and marketing, addressing existing needs and wishes. It is mainly aimed at communicating the positive message that it is OK to speak out. Moralizing and fear-inducing messages are avoided. The information and awareness raising messages are spread through school visits and information desks at control posts and by video films and T-shirts. Participation at the information desks is voluntary.

Enforcement supplements information. The aim is both to support young people with an existing positive attitude to speak out, and to control and sanctions for those who are not likely to be influenced by the information part of the campaign.

The Speak out! campaign has a clearly defined target group and objective, combines communication and enforcement and addresses an aspect of social life that is susceptible for influence by communication.

#### Focus of the Measure

The campaign's primary target group is young people between 16 and 19 years who are travelling as passengers in cars, especially on weekends. In Norway there are ca. 300.000 people in the age group 15-19, this is ca. 6% of all people living in Norway, and 8% of all people aged 15 or older in Norway.

The types of unsafe driving addressed by the campaign are mainly speeding and driving under influence of alcohol or drugs (DUI). These behaviours account for a large part of severe accidents.

#### Size of the Road Safety Problem

The number of personal injury accidents is higher on working days (Monday to Thursday; about 15% of all personal injury accident per day), then on weekends (13% per day). The number of fatal accidents is higher on weekends (16% per day) than on working days (13% per day). Therefore, it can

be assumed that the risk to be killed in a road accident, given an accident, is higher on weekends than on working days, in other words, accidents on weekends seem to be more severe than accidents on other days (Fridays have been excluded from working days because Friday evenings are the beginning of the weekend, and therefore likely to produce “weekend-type” accidents). The proportion of killed and injured passengers (compared to all killed or injured car occupants) is also higher on weekends (ca. 43%) than on working days (ca. 30%). There is no information available about killed or injured car passengers by day and age.

In Norway, there were 677 killed or injured car passengers in the 16-19 age group in 2004. This is 21% of all killed or injured car passengers, 7% of all killed and injured car occupants (drivers and passengers), and 5% of all fatalities and personal injuries in road accidents in Norway. Of these 677 killed or injured, 9 were fatalities, this is 15% of all killed car passengers, 5% of all killed car occupants, and 4% of all fatalities in road accidents.

### **Expected Effects**

The goal is to support social norms for safe and responsible driving among teenagers. Social norms are important for behaviour, therefore it is expected that a social norm for safe driving will increase the proportion of young people that drive safely, especially when they are driving with passengers.

### **Evaluation of Effects**

In the county Sogn og Fjordane, the number of killed or injured car passengers in the 16-19 age group was reduced by 27% in the first year of the campaign, by 31% in the second year and by 36% in the third year (all results are statistically significant at the 10% level). The total number of fatalities and personal injuries in road accidents among people aged 16-19 was reduced by respectively 10%, 11%, and 12% in year 1, 2, and 3. It is therefore believed that the effects of Speak out! are increasing over time. The reductions refer to accidents in the periods 1993-1998, 1994-1998 and 1995-1998, compared to accidents in the before-period 1987-1992. It is controlled for traffic density, the number of young people between 16-19, and the long-term trend in accident risk. The number of fatalities or personal injuries among car drivers in the 16-19 age group was not affected by the campaign. However, in the Telemark county (first phase of the campaign in 1999-2001) no significant reduction in the number of accidents, or killed or injured in the 16-19 age group were found.

A study in the Telemark county showed that Speak out! has a positive influence on self-confidence and the motivation to address dangerous driving. In this study, a questionnaire survey was conducted in the second phase of the campaign. Speak out! was generally evaluated positively, especially by women and those who wished to speak out more often. About 50% were more aware of the risks associated with being a car passenger, and felt it was more acceptable to speak out. About two third believed that they would address unsafe driving more often, about one third said that they would more often choose other means of transport. These figures are somewhat higher for women than for men. Women are also more often passengers when the driver is a man, men are less often passengers. These results refer to behavioural intentions, not to actual behaviour. The campaign may also have influenced accidents by discouraging passengers from driving with unsafe drivers or by discouraging drivers from speeding or DUI as an effect of enforcement. These factors have not been examined empirically.

### **Cost-Benefit Analysis**

Based on the results of Amundsen et al. (1999), several cost-benefit ratios were computed, which take into account different types of costs and effects: - costs including development, best estimate of effect: 9,6 - costs including development, lower limit of confidence interval for effect: 1,9 - costs without development, best estimate of effect: 16,8 - costs without development, lower limit of confidence interval for effect: 3,4.

The benefit-cost ratios are based on the evaluation study of Amundsen et al. (1999). The direct costs of the campaign and the financial benefits from the safety effects are included. Development-costs are mostly relevant for the first implementation of the campaign. If the same campaign is repeated later or in other counties (or countries), development costs can be assumed to be lower.

### Acceptance

A study conducted in Telemark (Norway) has shown positive attitudes towards the campaign among teenagers of the target group.

Earlier research has shown that intentions increase the probability for the intended behaviour, and that self-assurance (which has increased as a result of Speak out!) is an important contributing factor for speaking out.

Encouraging adolescents to resist group pressure towards unsafe driving may have other positive effects for the adolescents, like for example increased self-confidence or more safety awareness for other activities. The study in Telemark showed that about 2/3 of the students reported they felt more self-assured to influence a driver who is driving unsafely, and that they thought more about the risk of being injured in road traffic (Ulleberg et al., 2004).

### Sustainability

The study in Sogn og Fjordane has shown increasing effects on accidents over several years. The effects are assumed to be, at least partly, due to changes in attitude and in social norms. Attitudes and social norms are often quite stable over time. There might also be a self-enforcing effect, when increased self-confidence leads to more speaking out and more speaking out leads to more self-confidence. This applies to effects which are attributable to attitude / norm changes, but not to effects of the accompanying enforcement. Enforcement is probably necessary to sustain the effects at the attained level. These assumptions have not been empirically validated.

### Transferability

Speak out! was first introduced in the Norwegian county of Sogn og Fjordane, where large reductions in accidents were found. In the Telemark county, no comparable effects on accidents were witnessed. This is probably due to the short time period of the campaign in this county (2,5 years vs. 6 years in Sogn og Fjordane, where effects started to get visible after three years).

Additionally, there seems to be more young people in Telemark who think that it is acceptable to speak out, and that they could influence an unsafe driver, than in the rest of the country, therefore, the potential of the campaign is probably less in Telemark than in other countries.

Enforcement is a part of the measure. Based on research on other traffic safety campaigns, it can be assumed, that Speak out! would be less effective if it were not combined with enforcement.

The success of Speak out!, when transferred to other regions or countries, will depend on the degree of expressivity of the young people in that area, the number of times the campaign will be repeated and whether it is combined with efficient enforcement measures.

### Quality of Communication

Speak out! has been running for several years: it was conducted six times over six years in the Norwegian county Sogn og Fjordane, and has been repeated twice in the county of Telemark.

The media used to spread the message were mainly video films, personal communication and t-shirts and other campaign items.

Speak out! is an information and awareness raising campaign that addresses the group pressure that often leads to dangerous driving. It encourages young people who are travelling as passengers to speak out and tell the driver to drive more carefully. Therefore, Speak out! can be classified as innovative. Most road safety campaigns do indeed address the target group directly. Trying to influence possible influencers of the target group might seem needlessly complicated, but Speak out! proves that if this approach succeeds, it is very powerful. A message from peers is indeed perceived differently than a message from (road safety) authorities. It is clear that they have a different, more powerful impact with the target group.

The innovative character of the Speak out! campaign lies in the way the target group is reached; i.e. not directly but via advocates of the message.

Moreover, the campaign is cheap and uses commercial marketing principles; it addresses existing needs (for safe driving). The message is clear and univocal, is directed towards a specific type of behaviour (speaking out), and is not moralizing. Speak out has been running for several years and last but not least, combines communication with enforcement efforts.

### Combination with Enforcement

Speak out! combines information and enforcement. Enforcement supplements the communication activities. The aim is both to support young people with an existing positive attitude to speak out and control and sanction those who are not likely to be influenced by the campaign. Controls are carried out at visible control posts by policemen in uniform.

## 8.2 Goochem, the Armadillo (Ministerie van Verkeer en Waterstaat, The Netherlands)

### Description of the Measure

Goochem, the Armadillo is the name for the public awareness raising campaigns on the use of seatbelts and child restraint systems that were held in The Netherlands between 2004 and 2006. Two separate campaigns were organized: a first campaign during March-May 2004 and during March-May 2005, intended to enhance compliance with existing regulation on seat belts, with an emphasis on car occupants in the back seats, i.e. mainly children between 4 and 12 years old. The 2005 campaign was a repetition of the 2004 campaign; the creative concept, communication materials and core message stayed the same, with only slight differences in design features. The second campaign

ran during January-March 2006 and aimed to familiarize the target group audience with the new regulation on child restraints, accompanying the national implementation of European directive 2003/20/CE. Next to informing, this campaign also wanted to stimulate proper use of approved child restraints.

The Goochem campaign is based on an incentive programme and was first used in 2004, aiming to lead to an important increase of the use of the seat belt among children. “Goochem the Armadillo” is especially developed for the age group between 4 and 12 years. A rubber gadget in the shape of an Armadillo is offered to 1-12 year old children that are fastened correctly. This little animal makes it attractive for children to wear their seat belts. Attached to the seat belt with Velcro, the soft latex toy is the cheerful little children’s mate for safety on the backseat. In case of danger, the real armadillo rolls up to protect itself. The toy too can be folded.

The toy’s message is not about the risks of not wearing your seat belt, but emphasizes that it’s fun to wear your seat belt.

The primary target groups of both first campaign waves (2004 & 2005) were children aged 4 to 12 years and parents. The campaigns were intended to improve and confirm:

- ◆ knowledge of seat belt regulation,
- ◆ positive attitudes towards correct use of seat belts
- ◆ proper use of seat belts, especially by rear passengers

The central target of the child restraints campaign 2006 was information transfer, meant to influence knowledge and attitudes concerning the subject. First of all it intended to inform young parents (and other people who frequently carry children by car) about the new national regulation for the transport of children by car, following directive 2003/20/CE. Secondly the campaign informed the target audience about safe ways to carry children by car and which child restraints are available.

The development and execution of both public awareness campaigns was embedded within the Long-term Programme on Road Safety Campaigns (LPRSC), which is in place in The Netherlands since 2003. The LPRSC contains a strategic and operational framework for all road safety campaigns implemented during the period 2003-2007. In order to improve effectiveness, efficiency and consistence, these campaigns are conducted in close cooperation with regional and local government authorities, enforcement agencies and relevant social interest organisations. This is known as the integrated campaign approach, using simultaneously the ‘stick and carrot’ to influence behaviour of road users.

#### **Focus of the Measure**

The central target of the campaigns was to transfer information on the subject of child restraint systems (new legal obligations) and to influence knowledge and attitudes concerning the subject.

#### **Size of the Road Safety Problem**

In 2004, 4 fatal injuries and 83 serious injuries were registered in The Netherlands among rear passengers in the age group 4-12 years. About 2/3 of all rear passengers are children between 4 and

12 years old. The secondary target groups were the general public (18 years and older: both campaigns) and adolescents (13-17 years; only for the first seat belt campaign).

### Expected Effects

Influencing knowledge and attitudes is considered instrumental for behaviour change (adoption of preferred behaviour, i.e. seat belt use) and consolidation of existing good behaviour (continuation of seat belt use).

### Evaluation of Effects

The effects of the campaigns were evaluated by means of a representative public survey, using pre- and post-testing. The following results were found:

At the end of the first campaign, 90% of adults had been reached by the campaign; among parents this was 95%. The campaign was well appreciated. On a 1-10 scale, adults (18+) gave an average of 7,1 and parents of young children rated it 7,6. Children of 4-12 years old gave the highest score: 8,0. At the end of the second campaign period, 74% of parents of children between 0 and 12 years old had been reached by the campaign. This is a remarkably high score for a campaign without tv-commercials and roadside billboards. The campaign was also well appreciated. On a 1-10 scale parents gave an average of 7,0.

A large majority of the target group now knows that the use of seat belts in the back seats is mandatory. The knowledge level about this is higher among parents and adults than among adolescents (respectively 97% and 94% versus 89%). 93% of children in the age group 4-12 years know that the police can give a fine for not using the seat belt by car occupants in the back seats. In comparison to 2004 the level of knowledge about seatbelt use has stabilised on a high level.

The objective that 65% of the target group knows that new regulation for the transport of children by car will come into force per March 1<sup>st</sup> of 2006, was largely achieved. Before the campaign started only 28% of parents of children in the age of 4-12 years knew this; afterwards 90% of them were familiar with the fact that the regulation changed per March 1<sup>st</sup> 2006. Furthermore after the campaign 87% of the target group knew that children below 135 cm have to use an approved child restraint (before the campaign this was 60%). After the campaign 97% of the target group knows that only approved child restraints are allowed; the objective for this aspect was 90%.

After the campaign 74% of adults and 82% of parents think that the use of seat belts in the back seats is always necessary (both within and outside built-up areas).

The objective that 75% of parents with children of 0-12 years old thinks the benefits of child restraints compensate for the disadvantages (primarily costs), has been achieved. After the campaign 78% of the target group fully agrees with the statement that it is necessary to carry children below 135 cm in an approved child restraint. In the group of parents of children between 0 and 3 years old even 86% fully agrees with the statement. The objective that 80% of parents agrees with stricter government regulation on transport of children by car has nearly been achieved. After the campaign 79% of the target group fully agrees with that statement.

The previous history of general seatbelt campaigns in The Netherlands since the mid 80s, the Armadillo campaigns 2004-2006 and continuous police enforcement have resulted in an increase of

the share of children being transported with a protective device (child restraint or seat belt only) from 75% in 2004 to 90% in 2006 (2005: 82%). The use of child restraints increased from 25% in 2004 to 56% in 2006.

The combined effect of public communication and enforcement in terms of victims can be calculated from the estimated reduction of injury change by seat belt and child restraint use (seat belt statistics based on Evans, 1986 and 1991; child restraint statistics based on Schoon & Van Kampen, 1992).

Type of injury	Seat belts in front seats	Seat belts in back seats	Child restraints
Serious injury	25%	20%	30%
Fatal injury	40%	30%	50%

Table 7: Reduction of injury by seat belt and child restraint use

Estimated reduction of injury change by seatbelt and child restraint use

The increase in child restraint use between 2004 and 2006 resulted in an estimated reduction of almost 1 fatality and about 15 serious injured victims a year.

The increase in the use of seat belts in the back seats between 2002 and 2005 (from 52% to 64%) resulted in an estimated reduction of about 2 fatalities and almost 20 serious injured victims a year.

The actual use of seat belts and child restraints is measured by annual road side surveys. These surveys are held by the Transport Research Centre of the Ministry of Transport. Specific attention is paid to use of seat belts and child restraints by children of 0 to 12 years old. The main research result of the 2006 measurement is that the share of children being transported with a protective device (child restraint or seat belt only) has increased from 75% in 2004 to 90% in 2006 (2005: 82%). The use of child restraints increased from 25% in 2004 to 56% in 2006.

### Cost-Benefit Analysis

No specific cost-benefit analysis was calculated for these campaigns.

### Acceptance

Not only did the campaign receive high appreciation scores, the results on knowledge and behaviour were more than satisfying (see also above: Evaluation of Effects). It's fair to say that the campaign was a huge success with children, teachers, parents and police services.

The "Goochem the armadillo" campaign is well embedded in a larger, over-all communication strategy and involves all relevant authorities and organisations (integrated approach).

### Sustainability

It is expected that, as one of the results of the campaign, children that have learned to fasten their seatbelt through this campaign will continue to do so in their later lives as passengers or drivers. This might also be the case for the parents, as one of the positive side effects of the campaign was that children who got convinced of wearing their seatbelt (through the funny gadget), would remind

and urge their parents to also fasten their seatbelts. In this way, the campaign also helped raising seatbelt wearing among parents.

### Transferability

In 2005, the European Commission decided to launch the EUCHIRES-project. The general objective of this project is to promote the use of seat belts and child restraint systems, with emphasis on car occupants in the back seats - mainly children from 4 to 12 years old - and to bring about a permanent change of behaviour.

The Dutch armadillo-concept was adopted as key element in the communication strategy for the European EUCHIRES-campaign.

In 2005, 9 EU member states held their proper armadillo campaign; in 2006, this number climbed to 14. Armadillo campaigns were organized in Austria, Belgium, the Czech Republic, Finland, France, Germany, Italy, Latvia, Luxembourg, Poland, Portugal, Slovenia and Spain. Just as in the Netherlands, the armadillo campaigns organized in other European member states revealed to be a tremendous success with its target group in terms of people having heard of the campaign and children wanting the latex armadillo gadget. So, it is clearly a very successful way of promoting seatbelt wearing among children.

The appeal of the campaign lies in the attractiveness of the armadillo gadget, which makes it funny and cool for children to wear their seatbelt. This mechanism of making an obligation more acceptable and even pleasant by offering a gadget is a universal mechanism that could probably work anywhere.

### Quality of Communication

The communication strategy of the campaign uses the theory of Social Marketing; it wants to promote the desired behaviour in a positive way, by emphasizing the advantages of the desired behaviour. The Armadillo campaign does this in a pleasant way using a funny gadget children adore, thus having a direct and immediate impact on the children's behaviour.



One of the most typical aspects of the "Goochem, the Armadillo" campaign was of course the distribution of the rubber armadillo gadgets. Partly, this was done in close cooperation with retail trade of child restraints, where armadillo toys were offered as a give-away when people purchased

an approved child restraint. Also visitors of the website [www.kinderzitjes.nl](http://www.kinderzitjes.nl), who placed a photograph of their child in a child restraint, received an armadillo toy as a reward. Additionally, many local authorities carried out actions with primary schools and spread armadillo toys to stimulate children and their parents to buy and use child restraints.

Besides the gadget itself, a wide range of different media were used to spread the campaign message.

For the first campaign wave (2004 and 2005), the national communication media included:

- ◆ TV-commercial; “Goochem the Armadillo” is the main character in this commercial and encourages children to wear their seat belt (with a popular song) and to always ‘buckle up’ themselves.
- ◆ Radio commercial; the same song was used as in the tv-commercial. Five different versions were broadcasted, each with an-other musical style (hip hop, funk, rock, original and house). The text is the same in each different version.
- ◆ 185 billboards alongside the highways and national roads (see illustration). The bill-board has a short and simple message which encourages everybody to wear their seat belt.
- ◆ Website [www.gordeldier.nl](http://www.gordeldier.nl); The interactive website offers children (and their parents) an opportunity to watch and listen to the commercials, to read a story written by Goochem the Armadillo, to download a colouring picture, and to write a message to Goochem.

During the second campaign (2006), the following national media were used:

- ◆ Radio commercials; three different radio commercials were used. In each commercial a young child is speaking in a manner which belongs to adults. The real message is brought at the end of the spot by a voice-over, being that children might be able to act like adults, under 135 cm length they still need to be transported in an approved child restraint.
- ◆ Advertisements; in several parenthood magazines an advertisement about the European directive 2003/20/CE was included. The text gave the highlights of the new regulation on safe transport of children, using the same illustration as in the poster. This illustration featured a back seat of a car and a Goochem toy attached to the seat belt.
- ◆ Banners (Internet); on several websites banners were placed to generate traffic to the website.
- ◆ Website ([www.kinderzitjes.nl](http://www.kinderzitjes.nl)); this website contains information about the new regulation, answers to frequently asked questions about the new regulation and a tool to find out which child restraint is needed or suited for a specific child. Several fun elements such as a game were available. Furthermore parents could place a photograph of their child in a child restraint on the website. Everyone who placed a photo on the website received an Armadillo toy. In total over 400 photos were placed during the running period of the campaign.

During the two campaign waves, additional attention for the message was generated by several local actions, for instance distribution of leaflets, spreading and posting of posters, information sessions in schools etc. These actions were often organised with support of 3VO, the Dutch PRI-member. In close cooperation with regional government authorities, a special study package was developed

during the second campaign wave (2006) for use during lessons in primary schools. This educational kit was distributed to schools all over the country. The attractive study package helps children to learn about the reasons for the use of seat belts and child restraints and how to use these in a correct way themselves.

### **Combination with Enforcement**

Enforcement contributes to the change in the actual use of seat belts and child restraints. The amount of enforcement by special traffic enforcement teams increased from 84.900 hours in 2004 to 89.000 hours in 2005 (source: Justice Department). In addition to these hours, the regular police forces also dedicate time to seat belt enforcement, but this effort is not adequately registered.

In 2005, the number of fines for not wearing seat belts or child restraints in the back seats increased compared to 2004 (adults: from 4.526 to 5.257 and children: from 8.819 to 9.035), whereas the total number of fines slightly decreased (from 379.834 to 368.234). An explanation for this might be that the enforcement activities focussed more on the use of seatbelts in the back seat, following the attention paid to this subject in the campaigns.

## 8.3 Bob (BIVV-IBSR, Belgium)

### Description of the Measure

Bob is the name of the Belgian designated driver and of the public awareness campaign with the same name. The Bob campaigns have been organized in Belgium since 1995. Bob is the name of the person who does not drink when he/she has to drive and brings home his/her friends safely. The aim of the campaign is to convince people not to combine drinking and driving and to make drink-driving socially unacceptable. The strategy used to achieve this goal is a positive, valorising communication approach and the combination of awareness raising and enforcement. Another, important element is the participation to the campaign of social aspects organisations of the alcohol industry. The Bob campaigns are always combined with enhanced enforcement during the campaign period, which is necessary to strengthen the message and to make it credible.

The Bob campaign works on three different levels and uses the theoretical background of the Social Marketing theory.

The Bob campaign works on three different levels and uses the theoretical background of the Social Marketing theory:

- 1) Knowledge (people should now what the legal limit for drinking and driving is and should know that the combination of drinking and driving is dangerous)
- 2) Attitude (people should be auto-convinced that drinking and driving is not acceptable and not done)
- 3) Behaviour (people should act accordingly and designate a sober driver before going out)

For the last part (3), the combination of awareness raising and enforcement is essential.

### Focus of the Measure

The campaign is aimed at drivers (male and female) of all ages and deals with the problem of driving under the influence of alcohol and alcohol related road accidents.

### Size of the Road Safety Problem

In 2002, alcohol played a role in 9,2% of all road accidents in Belgium, and in 10,4% of accidents with deaths and/or injured.

Given that the proportion of alcohol related accidents in accidents with injured and deaths is higher than the proportion of alcohol related accidents in accidents in general, one can conclude that alcohol related accidents are more dangerous and a key focus area for the improvement of road safety.

### Expected Effects

In Belgium and The Netherlands, countries in which the campaign has run separately and on different moments, full results were reached already after the second year of running the campaign.

### Evaluation of Effects

After each Bob campaign, post-test have been carried out systematically to measure the impact of the campaign and its appreciation by the public. Already after the second year, very high appreciation scores were found: 96% of all respondents said they thought the Bob campaign is a good initiative

and that they like the approach (post-test campaign 1996). In the years to follow, this score would stay at this very high level and even increase to 97% in 1998.

Regarding being Bob, around 35 % of the respondents say they have already been Bob (post-test campaign 2000). Over the years, this percentage has slowly increased and continues to do so. Around two third of the people say they know someone who has already been Bob.

During the campaign period, drivers really adapt their behaviour. This can be seen from the fact that the number of alcohol intoxicated drivers drops to around 4% during the campaign running period, whereas during the year (outside the campaign period) it is about 9%.

The Bob campaign is completely accepted, both by the public, the police services and policy makers.

In Belgium and The Netherlands, countries in which the campaign has run separately and on different moments, full results were already reached after the second year of running the campaign.

During the past ten years, Bob has really contributed to making drinking and driving socially unacceptable in Belgium and The Netherlands.

In fact, it is now believed that the majority of the drivers that still combine drinking and driving have a larger, general alcohol problem that is causing them troubles in other areas of their social lives as well. This finding is also being observed in The Netherlands, where the Bob campaign has been running for several years and where there are more research data available on this issue.

### **Cost-Benefit Analysis**

There is no tradition of cost-benefit analysis's for awareness raising campaigns in Belgium, so no specific cost-benefit analysis is available for the Bob campaigns.

### **Acceptance**

The Belgian Bob campaign is a joint project of the Belgian Road Safety Institute (non-profit organisation) and the Arnoldus Group of the Federation of Belgian Brewers (industry SAO). On top of that, the police support the campaign with extra road side breath tests. As mentioned above (see Evaluation of Effects), all concerned actors and the public accept and support the campaign.

The choice for the Bob name and for the campaign concept as a whole, was taken with the likely high public acceptance in mind.

### **Sustainability**

Influencing knowledge and attitudes is considered instrumental for behaviour change (adoption of preferred behaviour, i.e. not combine drinking and driving) and consolidation of already good behaviour. It is however very difficult to determine to which degree the newly adopted behaviour will be sustainable. It is highly likely that the campaign needs to continue being repeated in order to remain successful - the expectation being that, otherwise, the effects might fade out.

### **Transferability**

The Bob campaign was mentioned as best practice in the White Book of the European Commission on the Transport Policy until 2010. It is in this light that in 2005, 15 campaigns from as much

European countries, have obtained a grant from the EC for inspiring their campaign on the Belgian Bob example. In the Netherlands, a Bob campaign that is highly similar to the Belgian one has been running since 2001. Other European countries and organisations have copied the concept of the designated driver but not the Bob name. They used either another name, either a slogan. Campaigns in the following countries received granting by the EC, for using Bob as a source of inspiration in their designated driver campaigns: Ireland, Denmark, Poland, Austria, France, Spain, Portugal, United Kingdom, Czech Republic, Greece, Italy, Malta and Sweden.

Organisations in 15 EU member states have copied the Bob campaign or have adapted it to their specific situation. They have done this on a voluntary basis.

Although the campaigns may differ from one country to another, the key elements making up the essence of the campaign should be respected. These key elements are: - combination of awareness raising and enforcement - support for the campaign from social aspects organisations (SAO's) of the alcohol industry and from the police - positive valorisation of the person that does not drink - stressing the importance of taking turn - choosing a name for the designated driver - repetition of the same, consistent message over time.

So, one can conclude that the concept and strategy and probably the campaign as a whole are very much "transfer friendly".

#### Quality of Communication

The campaign was first introduced in December 1995. Since then, it has run yearly during the Christmas period (December - January) and in some years also during the summer holiday period (July - August). The Bob communication strategy works on three different levels (Knowledge, attitude and behaviour – see above) and uses the theoretical background of the Social Marketing theory. The communication approach itself, is extremely positive: the good, desired behaviour is valorised. It is in no way fear inductive.



The campaign has both permanent and periodical elements. Permanent elements include the Bob website, the Bob van, leaflets, key hangers, t-shirt, hats etc. Periodical elements are mostly mass media channels such as: billboards along road sides, TV and/or radio advertisements etc.

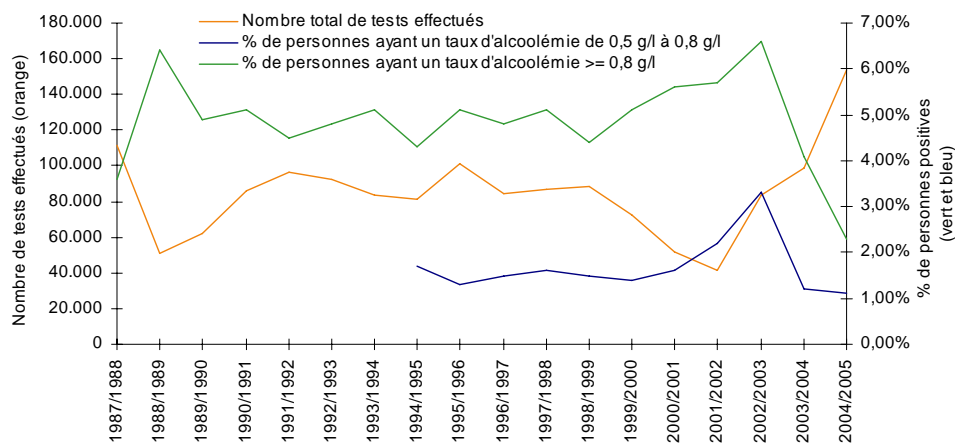
The communication approach itself, is extremely positive: the good, desired behaviour is valorised. It is in no way fear inductive.

One of the most important elements of the permanent communication items is the Bob key hanger. This key hanger is distributed by the police services to sober drivers during alcohol controls during the running period of the campaign. In this way, the key hanger is a reminder of the campaign at a crucial moment (police breath testing) and the campaigns becomes tangible. All this increases the impact of the Bob message, since it allows people to identify themselves as a Bob, i.e. someone who behaves himself in a responsible way and who takes care of his friends.

### Combination with Enforcement

From the beginning of the Bob campaigns in 1995, enforcement has been a central element of the campaign. The enforcement activities during the campaign running time were facilitated by the Bob key-hanger, that made it more attractive to police forces to carry out breath tests. This phenomenon even increased as the key-hanger became more and more popular.

The fact that enforcement is essential to bring about a behaviour change is illustrated by the graphic below. It shows that the number of breath tests\* is inversely proportional to the number of positive breath tests, with a delay of one year.



\*The orange line indicates the number of breath tests during the running time of the campaign.

## 8.4 The Sign of Light (Ceļu satiksmes drošības direkcija (CSDD), Latvia)

### Description of the Measure

The first awareness raising campaign for safety of pedestrians walking in the dark was carried out in 2004, from 1st to 15th of December. The Sign of Light campaign ran in 2004 and 2005 during November and December, when the duration of daylight is the shortest. The campaign's main task

was to inform pedestrians about the risks of walking along roads without reflectors during darkness and twilight and about the possible consequences of walking without reflectors. The campaign's goal was to reach all road users and to enter the message "Don't be light-minded, use the reflector!" into everybody's mind. The slogan of the campaign was "The pedestrian without reflector is a dead body!" A lot of different media were used in the campaigns. Big billboards were installed on main roads around the biggest cities of Latvia.

The Sign of Light campaign is implemented nationally, in the whole of Latvia. Besides the Road Traffic Safety Directorate several organizations (also private companies) are involved in the campaign.

The Sign of Light campaign runs in November and December, when the duration of daylight is the shortest.

After the campaign, a public fund named after the campaign - "The sign of light"- was established. The fund organised two actions - "The safe waistcoat" and "Light jacket" - in collaboration with sponsors. The safe waistcoats with reflectors were given to pupils of several schools in rural areas. The light jacket's idea was the following: - people were invited to donate warm jackets to Red Cross departments; - reflectors were put onto the jackets; - the Red Cross departments then distributed the warm jackets with reflectors to persons with low income. The fund "The sign of light" will work for so long until everybody will accept a reflector as a self-evident thing.

The Road Traffic Safety Council, which manages 2% of the money from third party insurance, bears the financial costs of creating and realizing the campaigns. The costs of reflectors are borne by pedestrians and partly by sponsors of the campaign (mainly for children and for pedestrians with low-income).

#### **Focus of the Measure**

The campaign aims at improving the safety of pedestrians, especially those who are walking in the dark or during twilight. It also wants to reduce the number of accidents involving a pedestrian and a motorised vehicle.

#### **Size of the Road Safety Problem**

Crashes between a vehicle and a pedestrian account for about 37% of all injury accidents per year in Latvia. In average 36% of all killed and 28% of all injured are pedestrians. In average 45% of the crashes between a vehicle and a pedestrian occurred in darkness or twilight. 69% of all killed pedestrians were registered in darkness or twilight. On state roads this percentage was even 82%.

Pedestrians are the most vulnerable road users in Latvia, especially in darkness. Decreasing the number of pedestrian casualties would lead to an important increase in road safety in Latvia

#### **Expected Effects**

It is hoped that the campaign stimulates the use of reflectors by pedestrians while walking in the dark or during twilight, thus resulting in fewer accidents between a car and a pedestrian due to bad visibility.

#### **Evaluation of Effects**

A series of studies conducted between 1998 and 2004 show that in average only 4% of adult pedestrians in Latvia use reflectors in darkness. This is a much lower rate in comparison with Finland and Estonia where respectively 39,6% and 29,7% of the adult pedestrians use them.

After the campaign, the acceptance for the use of reflectors had increased:

- all reflectors in post offices (the main sales point) were sold out 10 days after the beginning of the campaign in 2004;
- 20% of pedestrians started to use reflectors in darkness and twilight in 2005.

After two Sign of Light campaigns, the average rate of pedestrians wearing reflectors in the dark, climbed from 4% to 20%.

### **Cost-Benefit Analysis**

At the moment, no specific cost-benefit analysis is available for this campaign.

### **Acceptance**

Next to the adoption of reflectors as safety device by the target group, the creation after the campaign of a public fund named after the campaign - "The sign of light" - is a sign of the acceptance of the measure. The fund was set up with the support of third parties such as schools, the Red Cross departments and sponsors. The costs of the reflectors are borne by pedestrians and partly by sponsors of the campaign (mainly for children and for pedestrians with low-income).

### **Sustainability**

It is expected that once a pedestrian adopts the habit to wear reflectors in the dark and during twilight, he will continue to do so ever after.

### **Transferability**

Campaigns similar to the Sign of Light campaign exist already in Sweden, Norway and Estonia. They are run annually. The problem is always the reduced visibility of pedestrians, due to darkness. And the solution to the problem in these different countries is also highly similar; the promotion of reflectors in order to increase pedestrian's visibility to obtain a significant decrease of accidents involving a badly visible pedestrian.

### **Quality of Communication**

The Sign of Light campaign was first organised in 2004 and was repeated at the end of 2005. Since then, it has become a regular annual event.

The main national TV and radio channels and newspapers were used to promote the campaign. Besides that, special leaflets and billboard posters were produced to draw attention to the problem and explain the aims of the campaign.

### **Combination with Enforcement**

Pedestrians caught walking without safety reflectors or jaywalking can be fined up to 5 lats in Latvia. This maximum amount will soon raise to 20 lats (29 euros), in order to convince those who are hard to influence by preventive measures such as communication campaigns.

# **Discussion and recommendations**

## 9 Discussion

The application of our adaptation of the common Supreme methodology to the category of educational measures and campaigns allowed us to select several examples of promising practices. These practices were defined as measures that conformed best to both the common Supreme criteria and to the additional Supreme criteria for educational measures and campaigns. In order to keep the present thematic report concise, only three promising educational measures and four promising campaigns were finally described. As has been emphasized in the description of the present methodology for the identification of best and promising practices, this final selection is by no means absolute. Neither does it imply that all the measures that were not selected and described would all be unpromising. We finally underline once more that the concept of "promising measure" is a relative concept, and some measures just did not make the final selection. A less concise report would have identified more promising measures. The final sample of measures illustrates several promising measures, which can be taken as an example to follow. By describing the arguments and criteria why these examples are worthwhile following according to the common and additional criteria, the final selection clearly reflects what is considered crucial for good practice.

At the same time, the methodological limitations of the Supreme selection and analysis process need to be taken into account in the interpretation of the final results. First of all, the methodology we followed did not allow to select the ultimate best practices in European road safety. To this end, a complete and representative sample of all existing and past measures in European road safety education and road safety campaigns would have had to be selected. As this would have implied an exhaustive in-depth literature study of the entire domain, this was far beyond the scope of the present project. As an alternative for such a study, we relied mainly on the selection of possible best practices by the country experts of all the participating European countries. Although this procedure led to the suggestion of 39 potential best practice educational measures and of 37 potential best practice campaigns, the overview in table 3 clearly showed that this still led to a relatively small and very select initial sample of possible measures. The most clear-cut illustration was the fact that all the SUN-countries together only submitted 5 measures and this despite the fact that it is a well-known fact that they have many more potential best practices. This bias in the initial sample obviously co-determined the final outcome of this report. For a more comprehensive account of the entire field of road safety education, we refer to the final report of the Rose25 project. For a meta-analysis of the effects of road safety campaigns, we refer to the final report of the GADGET-project and to the future reports of the CAST project. A second important methodological element was that for some potential good measures sometimes only a mediocre questionnaire was submitted. Although we did our best to re-contact the country experts or to search for information in the existing literature, when the available information suggested that the measure may be a potential candidate for promising practice, we can not exclude that the lack of basic information may have sometimes led to the exclusion of potential promising practices.

A comparison between the best practice criteria used in the Rose25 project and the common and additional criteria we used in the Supreme project, revealed that contrary to the focus of the common

Supreme criteria on effect measurement, the Rose25 criteria did not directly take the effect of the measures on accidents, overt behaviour or self-reported variables into account. The Rose25 criteria were entirely focussed on the content and implementation of the measure. In the recommendations of the Rose25 project, however, evaluation and quality control are emphasized as a crucial step towards the successful implementation of road safety education. Rose25 also recommends the application of both quantitative and qualitative evaluation methods, and the execution of both process and outcome evaluations. A more rigorous application of this recommendation may ultimately close the gap between the criteria for best practice applied in areas such as infrastructure and enforcement and the criteria used in the field of educational measures and campaigns.

Regarding campaigns, the GADGET-report concluded that "(...) authorities should no longer spend taxation if a campaign presents no or a weak methodology of evaluation (p. 61)". The common Supreme criteria took this recommendation into account. The selected most promising campaigns always included an evaluation of the effects of the campaign. In this respect, it was easier to reconcile the common criteria for evaluating measures in other areas of road safety with the specific criteria used to select best practice campaigns. A thorough evaluation of the methodological strength of the evaluations described in the submitted questionnaires for campaigns lies however beyond the scope of the present project, which was highly dependent upon the information available in the submitted questionnaires. Further research into the methodologies used to evaluate the effects in the best practice campaigns we selected is still necessary. Especially since the combination of enforcement and awareness rising communication rarely allows to evaluate the isolated effect of the campaign. The development of a methodology for the evaluation of the effects of campaigns is one of the main objectives of the CAST project. We therefore refer to the reports of the CAST project for a detailed discussion of these issues.

# **Recommendations**

## 10 Educational measures

### 10.1 Evaluation of best practice

Since the Rose25 project went far beyond the present project in the study of best practice educational measures in Europe, we refer once more to the Rose25 handbook for a summary of the necessary conditions for each good educational measure. In Rose25 a much larger and more representative sample of possible good/best practice measures was studied. The criteria used for the evaluation of these measures differed however from the criteria used in the Supreme project. These differences are mainly reflected in the common Supreme criteria that were not explicitly emphasized by Rose25. Factors like a clear definition of the road safety problem and an assessment of the size of the road safety problem are also taken into account by Rose25. This is also true for aspects such as public acceptance, sustainability and transferability. The three most crucial common criteria in Supreme: an a priori evaluation of the expected effects of the educational measure, an evaluation of the actual effects on accident statistics and a positive benefit-cost ratio were not taken into account in Rose25. As explained in the introduction of this report, this is quite understandable for the category of educational measures. In this area the measure addresses so many potential risk factors that it is almost impossible to quantify the (expected) effects. One of the conclusions of Rose25 is that "only a diminishing minority of actions is well evaluated" (p. 251). From the vast and more or less representative sample of actions studied in Rose25, only 70 of 193 actions reported "some kind of evaluation". Moreover, most of these only evaluated the effect through standardised questionnaires about user opinions, and only 28 of the 71 (sic) evaluations were published.

For future road safety education measures, Rose25 recommends - among a multitude of other recommendations - a stronger emphasis on research, evaluation and quality control (cf. pp. 23 -25). Our comparison of the suggested best practices with the common Supreme criteria strongly supports the importance of this often neglected aspect. Moreover, traditional road safety education seems to rely strongly on qualitative evaluations and process evaluations. In comparison with other areas in road safety, we observed a general lack of outcome evaluations by means of clearly described quantifiable indicators. Since the scope of the present project did not allow to formulate general conclusions by itself, we bring the most relevant recommendations of Rose25 (p. 23) once more in mind:

- ◆ A set of quantified goals that indicate inputs, outputs, and intended impacts of the policy interventions, is helpful to strengthen visibility of RSE. Furthermore this helps to enter into an honest debate about funding since it is impossible to define outcomes of interventions without corresponding information about inputs in terms of budgets, for example.
- ◆ Evaluation should be part of the overall programme design. It is much easier to reserve a small part of programme or intervention funds when designing and raising the funds instead of seeking ex-post for financial sources.

- ◆ Programmes cannot be considered properly tested if based solely on ‘approval ratings’ and/or on the usage of self-reported behaviour.

## 10.2 Policy recommendations

As the main aim of the Supreme project was to describe a selection of best and promising educational measures, we did not focus on the framework within which these measures are implemented. Our selection of two General road safety education programs (the Dutch RSE label and the French educative continuum), however, implicitly emphasizes the need for a coordinated and integrated approach to RSE and the need for the integration of road safety education in the general school system. This emphasis follows directly from the common Supreme criteria as well as from the additional criteria used for the evaluation of educational measures. In the common criteria a clear definition of the road safety problem and of the size of the problem and aspects such as sustainability and transferability all depend upon the integration of the educational measures into a well defined General road safety education plan. The emphasis on an adequate balance between the different components of the measure (theoretical and practical elements) and the way the measure is embedded in the wider educational and socio-cultural system also prioritise measures that explicitly define the role of each measure in the entire road safety and mobility education system.

## 11 Campaigns

### 11.1 Evaluation of best practice

The key element of the evaluation of measures in the Supreme project was an evaluation of the available evidence for the effect of measures on accident statistics and on other performance indicators. Hence, the common criteria focussed strongly on a quantitative demonstration of the effect and the cost-benefit ratio of the measures. Despite the fact that in the area of awareness raising campaigns this objective evidence is not always available and often incomplete, this criterion should still be considered the most essential element in the evaluation of campaigns.

The effectiveness criterion should be evaluated with caution, however. Firstly<sup>18</sup> because it is difficult to assess the quality of the designs and the methodology used to evaluate the effects<sup>19</sup>. In this respect it should be recommended to prefer a small effect proven by a sound methodology over a large effect demonstrated by a weak methodology. Secondly, at the moment it is impossible to separate the effect of the awareness raising campaigns from the effect of the (enhanced) enforcement that almost always accompanies the road safety campaign (and which it always should). The Rosebud handbook already acknowledged this fact:

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<sup>18</sup>

<sup>19</sup> Cf. GADGET (1999). pp. 50-55 for a detailed discussion of this issue.

In many cases it is difficult to estimate the impact of the campaign itself, especially if the campaign is combined with elements of enforcement or other road safety targeted measures whose effects possibly overlap. Furthermore, the effects of a campaign have to be separated from general developments in road safety (p. 14).

Due to this confounding factor, it might be possible that the complete strategy of enforcement plus the campaign results in a positive net effect, despite the fact that it is possible that the results may have been even better or the same without the campaign. Since the estimation of the isolated effect of road safety campaigns is the subject of the currently ongoing CAST project, we refer to the results of the CAST project for recommendations regarding the interpretation and implications of net effects.

Because of these methodological complications, effectiveness and effect estimation cannot be considered the only criterion to be taken into account. Moreover, the presence of an effect does not give any recommendations on how to conceive, implement and evaluate a road safety campaign in practice. Years of experience with road safety campaigning have however revealed several key success factors for campaigns. A complete and detailed overview of these factors is resumed in the best practice recommendations of the global road safety partnership cited above.

## 11.2 Policy recommendations

Just like educational measures, road safety campaigns should be part of an integrated strategy that involves all the stakeholders. As acknowledged by the fact that the development of a specific strategy to combine awareness raising information with enhanced enforcement was defined as a key criterion for best practice (second additional criterion), the collaboration with the partners responsible for the enforcement of specific behaviours is in this respect a crucial element. Other elements are strategies to assure political support for the campaign and community support<sup>20</sup>.

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<sup>20</sup> Cf. Global Road Safety Partnership (2002). Focus road safety publicity campaigns, p. 2



# Summary

In this report a selection of most promising best practice educational measures and campaigns in Europe is described. These examples were selected according to the common procedure developed in the Supreme project. This procedure relied on a first selection of potential best practices by European country experts and the application of a common set of best practice criteria to this selection. These common criteria were complemented by a set of additional criteria tailored to the demands of the specific subcategories of educational measures and campaigns. A stringent application of the common criteria, which focussed mainly on the quantitative effects of the measures, allowed only identifying one best practice that met all the criteria. In order to allow describing a sample of exemplary good practices in the area of road safety education and road safety campaigns, we described a limited set of measures that best fulfilled both the common and the additional best practice criteria. In the subcategory of educational campaigns the most promising measures were the Dutch "road safety education label" initiative, the French "educative continuum" and the Belgian "Flits!" theatre performance. The most promising road safety campaigns we described were the Norwegian "Speak Out!" campaign (best practice), the Belgian (and pan-European) "Bob" campaign, the Dutch (and also pan-European) "Armadillo" seat belt campaign and the Latvian "sign of light" campaign. In the discussion, the limits and implications of the present approach to best and most promising practices are described together with recommendations for future European road safety Education and campaigns.

# **Annex**

## 12 Annex 1:

### Questions for the country surveys

Based on our analysis of promising practices in the field of educational measures and campaigns, we think the answers to the following questions may give an idea on the state of the art in this field in a particular country.

- ◆ To which degree are educational measures and campaigns based on a theoretical model on how the measure affects safe behaviour?
- ◆ To which degree is there a clear description of the target group(s) and to which degree is this combined with insight in the motivations for the problematic behaviour of this group and possible eligible sensitivities to change this behaviour?
- ◆ To which degree are the objectives of the educational measures and campaigns clearly described and embedded in a larger communication strategy or road safety policy?
- ◆ To which degree are educational measures and campaigns accepted by all possible (direct and indirect) stakeholders?
- ◆ Have empirical evaluations and post-tests been used for the evaluation of the educational measures and campaigns?
- ◆ To which degree are the communication strategies used in educational measures and campaigns innovative and adequate?
- ◆ To which degree have educational measures and campaigns originating in your country been exported to other EU and non-EU countries?
- ◆ To which degree are educational measures focussing on both theoretical and practical elements and to which degree do they keep an adequate balance between knowledge, attitudes and behaviour?
- ◆ To which degree is road safety education included in the regular educational system (primary and secondary school programs)? Are the parents involved in the measures?

## 13 Annex 2:

### Coordinates for selected promising practices

More information about the finally selected best practices can be obtained from the organisations that are responsible for the implementation of the actions.

#### 13.1 Promising European road safety educational measures

- ◆ RSE Label: Provincie Noord-Brabant, BVL-team, The Netherlands, [www.bvlbrabant.nl](http://www.bvlbrabant.nl) and [www.verkeersveiligheidslabel.nl](http://www.verkeersveiligheidslabel.nl).
- ◆ Educative Continuum: Ministère des Transports - Direktorat Sécurité Routière, France: DSCR, Ministry of Transport, La Grande Arche, La Défense, France.
- ◆ Flits!: Ouders van Verongelukte Kinderen, Belgium, [www.ovk.be](http://www.ovk.be)

#### 13.2 Promising European road safety campaigns

- ◆ Speak out!: Vegdirektoratet, Norway: Public Roads Administration (Vegdirektoratet), region west, [www.vegvesen.no](http://www.vegvesen.no) <sup>21</sup>
- ◆ Goochem, the Armadillo: Ministerie van Verkeer en Waterstaat, The Netherlands: [www.verkeerenwaterstaat.nl](http://www.verkeerenwaterstaat.nl)
- ◆ Bob: BIVV-IBSR, Belgium: [www.bivv.be](http://www.bivv.be), [www.bob.be](http://www.bob.be)
- ◆ The Sign of Light (Ceļu satiksmes drošības direkcija): CSDD), Latvia: Road Traffic Safety Direction, [www.csdd.lv](http://www.csdd.lv) (in Latvian), [office@csdd.gov.lv](mailto:office@csdd.gov.lv) in cooperation with the Road Traffic Safety Council of Latvia.

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<sup>21</sup> Best practice, the other measures were qualified as promising measures, cf. infra



## **14 Annex 3:**

# **Supreme-questionnaire for Education and campaigns**

# SUPREME: Best Practice Questionnaire

## Category “Education and Campaigns”

⇒ IBSR / BIVV Pieter Deneve

### Step 1: Selection of measure

Please select road safety measures from your country that are examples for very good - and possibly best - practice in road safety in Europe. **Best practice** refers to a road safety policy that is successful. A successful road safety measure is one that brings about a sustained **reduction in the number of road accidents and accident victims**, in particular fatalities and serious injuries.

Evaluation of measures and selection of best practice will be based on a list of criteria. Each measure you select will be assessed with an individual questionnaire, i.e. you fill out one questionnaire for each measure.

As different measures require different criteria, the questionnaire you fill out depends on the type of measure. At the end of this chapter you will find an overview of **categories** of safety measures, with examples of measures included in each of the categories. To open a questionnaire, please select the category for the measure you want to assess, and click on the link provided in the overview. There are two types of criteria: General description criteria (to be assessed for all measures, except for those in the categories “Statistics and In-depth analysis” and “Institutional Organization of Road Safety”), and specific description criteria (specific for measures in each category).

The questionnaire is organised as follows:

**Part 1:** The first part of each questionnaire contains questions on **background** information about the selected measure.

**Part 2: General description criteria** are assessed in the second part of the questionnaire. This part is identical for all measures in all categories. In some cases, not all criteria are applicable. In these cases, the criteria are marked “not relevant”, or may be marked as such by the respondent. General description criteria are:

- **Focus of the measure:** A clearly defined **road safety problem** that the measure is intended to solve.
- **Size of the road safety problem:** Quantitative assessment of the number of accidents, fatalities and severe injuries that the measure is expected to influence.
- **Expected effects on safety:** Quantitative assessment of the likely impact of the measure on accidents or accident-contributing risk factors.
- **Evaluation of effects:** Actual impact of the measure on accidents or accident-contributing risk factors.
- **Costs and benefits:** Assessment and comparison to alternative measures.
- **Acceptance:** Public, policy maker, and user / driver acceptance.
- **Sustainable effects:** Commitment to the continued use of the measure, long-term effects.

- **Transferability:** Applicability on a wider scale, within and across countries.

**Part 3: Specific description criteria** are assessed in part 3 of the questionnaire. This part is specific for each category, you will find more detailed information in the questionnaires.

**Resume:** Summary of why the measure is proposed as Best Practice.

## **Categories**

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### 1.1 Education

1.1.1 Actions/Programmes for pedestrians

1.1.2 Actions/Programmes for cyclists

1.1.3 Actions/Programmes for car passengers

1.1.4 Actions/Programmes for car drivers

1.1.5 Actions/Programmes for pre drivers

1.1.6 Actions/Programmes for motorised 2-wheelers

1.1.7 Actions/Programmes for users of public transport

1.1.8 General Road Safety Education

### 1.2 Campaigns

1.2. 1 Driving under influence

1.2. 2 Seatbelt

1.2. 3 Protection equipment

1.2. 4 Speed

1.2. 5 Safety distance

1.2. 6 Vulnerable road users

1.2. 7 Motorised 2-wheelers

1.2. 8 Lightning and visibility

1.2. 9 Traffic regulation

1.2.10 Driving license

1.2.11 Courtesy/ Agression

1.2.12 Lorries, trucks and special transports

1.2.13 Fatigue

1.2.14 Mobile phone

1.2.15 Driving circumstances (weather conditions, nighttime driving etc.)

1.2.16 Infrastructure and road works

1.2.17 Technical conditions

1.2.18 Other



- When can (90% of the) effects be expected (e.g. immediately, in 5 years, long term)?

**In which other European countries is the measure currently in use or available?**

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- Please give information, if available.

**Who is responsible for the measure?**

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- Responsibility refers to implementation, enforcement, incentives to use the measure, and activities related to the measure.

*E.g.: Legal form of implementing body/bodies, international organisation, authority, industry, NGOs, others.*

**What is the legal background for implementation of the measure?**

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- Legal background includes laws, directives, norms, certificates, incentives, voluntary measures.

## Part 2: General description criteria

In this part of the questionnaire, the safety measure will be assessed by 8 general description criteria. This part is identical for all categories.

If a criterion is not applicable to your measure, please answer "not relevant", and give a short explanation why the criterion is not applicable.

### 1. Focus of the measure

The focus of a safety measure is the **road safety problem** the measure is intended to solve. It may be a specific type of accident, a type or group of road users, or a type of accident location. Some measures may be more general.

**What is the focus of the measure?**

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Please specify the focus of the measure in terms of **at least one** of the following aspects.

If the focus is a **combination** of factors (e.g. group of road users with specific type of accident), you can describe the focus under both aspects, or under the aspect that seems most important. (*If you are uncertain, it may be helpful to look at question "2. Size of the road safety problem"*).

- **Accident types**, specified by type of collision, condition under which the accident occurs, or type of vehicle involved in the accident:

*E.g.: Single accidents, side collisions, animal collisions, head-on-collisions, night time-accidents, accidents on wet roads, accidents involving heavy trucks, accidents in working zones.*

- **Road users**, specified by personal or demographic characteristics (e.g. age, sex, length of licence ownership, car- or truck driver) or by certain types of behaviour (e.g. speeding, driving under influence, traffic violations):

*E.g.: Children, inexperienced drivers, old people, drunk drivers, drivers not using seat belts, speeding drivers.*

- **Accident locations:** Specified by road category, type of intersection, driving conditions, or other characteristics of accident locations.

*E.g.: highways, acceleration lanes, rural roads, urban areas, roundabouts, pedestrian crossings, roads or location with specific characteristics, slippery roads.*

- **Vehicles:** Specified by adaptations to vehicles, prevention of unsafe participation in traffic, other modes/vehicle category, etc.

*E.g. adaptations to (the use of) heavy vehicles, passenger cars, mopeds, bicycles.*

- **Unspecified / all accidents:** If a specific focus cannot be defined, please give a short explanation.

### **How does the measure affect accidents?**

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- Please describe the **mechanism** by which the measure has an impact on the specified focus. If available, please refer to relevant **theoretical background** or empirical **studies**.

*E.g.: Avoidance of skidding due to improvement of vehicle dynamics, reduction of exposure, improvement of skills, change of attitudes, decrease of impact (air bag).*

- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

## **2. Size of the road safety problem**

In a first step we would like to know how large the focus of the measure is. In a second step we would like you to describe the risk of accidents, fatalities, and severe injuries within the focus of the measure.

### **How large is the focus of the measure?**

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Please give your assessment according to the specified focus of the measure. If a quantitative assessment is not possible, please give an estimation and explain the rationale.

- **Accidents:** If a type of accident is the focus of the measure, what is the **proportion** of the specified type of accident, relative to all accidents?

*E.g.: "X% of all accidents are head-on-collisions."*

*E.g.: "X% of accidents occur on slippery roads."*

- **Source/s (Accidents):** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

- **Road users:** If a type or group of road users is the focus of the measure, what is the **proportion** of the specified type of road users, relative to all road users. If possible, also include **exposure** data in your answer.

*E.g.: "X% of all driving license holders are over Y years old."*

*E.g.: "X% of all vehicle kilometres travelled (VKT) are driven by professional drivers of trucks over 20t."*

*E.g. "X% of road users do not use seat belts, exceed speed limits, are fined more than twice a year...."*

- **Source/s** (Road users): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Locations:** If a type or group of accident location is the focus of the measure, what is the **proportion** of this type of location relative to the whole road net (in terms of km or vehicle kilometres travelled), or relative to other variants of this type of location.  
*E.g.: "X% of all roads in this country are rural roads."*  
*E.g.: "X% of all VKT are travelled on rural roads."*  
*E.g.: "X% of all motorway crossings are designed as cloverleaves."*
- **Source/s** (Locations): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Vehicles:** If the measure focuses on a specific group of vehicles (or how these vehicles are used), what is the proportion of the specified type of vehicle, relative to all vehicles. If possible, also include exposure data in your answer.  
*E.g.: "in X% of all accidents, a heavy vehicle is involved."*  
*E.g. "the share of moped kilometres is X% of all kilometres travelled, while the share of moped accidents with fatalities/injuries is Y%"*  
*E.g. "X% of heavy vehicles is not equipped with blind spot mirror."*
- **Source/s** (Vehicles): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Unspecified focus / all accidents as focus of the measure:**
- **Source/s** (Unspecified focus): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **What is the accident risk within the focus of the measure?**

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The definition of accident risk varies, depending on the specified **focus**:

- **Accidents:** If a specific type of accidents is the focus of the measure, please give information about
  - the probability of the accident being **fatal**
  - the probability of the accident having **serious injuries** as a consequence.
  - If possible, relate these risks to **other** types of accidents.

*E.g.: "X% of all side-collisions are fatal, Y% of all side-collisions result in serious injuries. The risk of being fatal is Z times higher for side-collisions than it is for frontal collisions."*

*E.g.: "Night-time accidents have X times higher risk of being fatal than daytime accidents."*

- **Source/s** (Accidents): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Road users**: If a group of road users is the focus of the measure, please give information about
  - the probability of an **accident** within this group of road users,
  - the probability of a **fatal** accident within this group of road users,
  - the probability of a **severe injury** accident within this group of road users.
  - If possible, relate these risks to **other** groups of road users.

*E.g.: "The risk of being involved in a fatal accident for inexperienced drivers is X."*

*E.g.: "Young and inexperienced drivers have X times higher risk of being involved in an accident than experienced drivers, who are aged over 20 and have minimum 2 years unrestricted driving licence."*

*E.g.: "Professional drivers have X times higher risk of being involved in an accident due to sleepiness than non-professional drivers."*

*E.g.: "Drivers not using hands free mobile phones have X times higher risk of being involved in an accident than drivers using hands free mobile phone."*

- **Source/s** (Road users): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Locations**: If a specific type accident location is the focus of the measure, please give information about
  - the probability of an **accident** at this type of accident location,
  - the probability of a **fatal** accident at this type of accident location,
  - the probability of a **severe injury** accident at this type of accident location.
  - If possible, relate these risks to **other** types of accident location.

*E.g.: "On ramps of grade-separated junctions without an acceleration lane, the accident risk is X accidents per million vehicle km travelled. The risk of a fatal accident is Y, and the risk of a severe injury accident is Z accidents per million vehicle km travelled."*

*E.g.: "X% of all fatal accidents happen on rural roads in areas with low population density."*

- **Source/s** (Locations): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Vehicles**: If a group of vehicles is the focus of the measure, please give information about
  - the probability of an **accident** for this group of vehicles,

- the probability of a **fatal** accident for this group of vehicles,
- the probability of a **severe injury** accident for this group of vehicles.
- If possible, relate these risks to **other** groups of vehicles.

*E.g.: "The risk of being involved in a fatal accident for trucks is X."*

*E.g.: "The risk of being involved in accidents is X times higher for moped riders than for cyclists."*

- **Source/s** (Vehicles): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Unspecified focus / all accidents as focus of the measure:**
- **Source/s** (Unspecified focus): Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### 3. Expected effects

#### **Were the effects of the measure estimated before it was implemented?**

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- Yes or No? If yes, how and by whom where the effects estimated?
- **If yes**, what were the expected effects?
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- If effects were estimated, was this assessment **taken into account in decisions** concerning the measure?

### 4. Evaluation of effects

Evaluation of effects refers to the effects on numbers, types or proportions of **accidents, fatalities or severe injuries**, on **risk factors** that are known to contribute to accidents, and on **side effects** of the measure.

#### **How does the measure affect accidents in terms of reduced numbers of accidents, fatalities or severe injuries?**

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- Please give information about the effects of the measure, preferably from **empirical studies**. If a quantitative assessment is not possible, please give an estimation and explain the rationale or the source of the estimation.
- Please give **background information** about the evaluation of effects of the measure on accidents, fatalities, and severe injuries. The summary should include
  - a description of how the effect has been **calculated** (e.g. accident counts, indirect measure),

- information about the **type of study** (e.g. accident analysis, accident statistics, observational studies, survey)
- information about the **design of the study** (e.g. control group, duration of before and after periods),
- If the measure is a **part of a larger measure**, if road safety effects were evaluated separately.
- Please also make a short comment on the **quality** of the study, especially about possible confounding factors.

*E.g.: "Study X estimated a reduction of the total number of accidents in urban areas by Y%"*

*E.g.: "Based on the evaluation, X% of all accident fatalities are expected to be avoided by the measure. Y% of all fatal accidents will not be avoided but have less serious consequences (severe or light injuries), due to (...)"*

- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **How does the measure affect accidents in terms of reduced accident-contributing risk-factors?**

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- Please give information about effects of the measure on accident-contributing factors (e.g. changes in behaviour or attitudes, traffic offences, exposure, traffic conditions), preferably from **empirical studies**. The summary should include information about
  - the type of **contributing factor**, and why, how, and to what degree it contributes to accidents,
  - the **design** of the study (e.g. control group) and how the effect has been calculated, and a comment on the **quality** of the study, especially about possible confounding factors.
- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **Are any positive or negative side effects of the measure expected or witnessed?**

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- Side-effects can be expected or unintended. Unintended side effects include positive and negative effects on accidents or behaviour which are not specifically within the focus of the measure. Side effects also include those not directly related to traffic safety (i.e. health, environment). Please describe the side-effects and whether they were expected or not.
- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

## **5. Costs and benefits**

Please give a summary of the costs and benefits of the measure in your country.

The analysis may be based on empirical results or on estimations. If a quantitative assessment is not possible, please give an estimation and explain the rationale or the source of the estimation.

Please describe precisely, what types of costs / benefits you are referring to, how they are related to the measure, and how they have been computed.

### **What cost are associated with the measure?**

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- Costs in **financial** terms: e.g. investments, maintenance costs, enforcement costs, reward systems, administration costs, long-term costs (ecological or social costs). Please specify **type** and **amount** of financial costs associated with the measure.
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- **Who** bears the financial costs of the measure (e.g. user group, state government)?
- What **other types of costs** are there, for example ecological or social consequences, mobility, etc.?
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **What benefits are associated with the measure?**

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- Benefits in **financial** terms, e.g. cost savings. Benefits include financial effects of reduced accident costs. Please specify **type** and **amount** of financial benefits, and specify the exact figures used in the analysis (e.g. the economic value attached to a saved live).
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.
- What **other types of benefits** are there, for example environmental or social effects, and traffic performance?
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **What is the benefit-cost-ratio for the measure in your country?**

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- What **benefit-cost ratio** is associated with the measure? Please specify if the computed ratio is a benefit-cost-ratio or a cost- benefit-ratio.
- How has the benefit-cost ratio been **calculated**: Based on which types of costs, types of benefits, relevant actors, timeframe etc. has it been computed?
- At which **stage of the implementation** of the measure has the benefit-cost analysis been conducted (before, during or after implementation)?

- How do you judge the **quality** of the benefit-cost analysis (e.g. if the effect is likely to be over- or underestimated, consideration of confounding factors)?
- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

**Has the benefit-cost-ratio of this measure been compared to the benefit-cost-ratio for other measures aiming at reducing accidents within the same focus?**

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- If so, please give the benefit-cost-ratio for these measures.
- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

## 6. Acceptance

Acceptance of the measure includes **public acceptance, acceptance by road users, policy makers, and other stakeholders (e.g. automotive industry)**. It is related to attitudes and behavioural consequences of the measure, especially to willingness to apply the measure, or to comply. Other relevant issues can be political, legal, financial, technical and administrative aspects.

**To what degree is there acceptance for the measure?**

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- If possible refer to empirical quantitative or qualitative **studies**. Information about public acceptance may be based on surveys, media, consumer and / or behaviour studies, decision-making processes (e.g. in parliament). Please include information about the type and design of the study. In the absence of such a study, what is the perceived level of acceptance of the measure?
- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

**Has acceptance been taken into account in the planning and implementation process?**

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- At which stages of implementation (before, during or after) has acceptance been measured? Has there been public participation in the planning / implementation process?

## 7. Sustainability

Sustainability includes **long-term effects** and **changes of effects** over time. Effects are considered to be sustainable when the effect is permanent and does not decrease over time.

### **To what degree are the effects of the measure expected to be sustainable?**

- The assessment can be quantitative or stated in qualitative terms. It can be based on
  - a **study** of earlier similar measures: if so, please provide a short description and source,
  - a scientific **analysis**: if so, please provide a short description of the scientific basis, or
  - an assessment of **contributing factors** (factors necessary to achieve and maintain the effectiveness) to its effectiveness (e.g. commitment to make use of the measure, requirement of police enforcement, skill improvement, risk compensation, exposure effects, public support, quality assurance, continuous monitoring).
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

## **8. Transferability**

Transferability includes prospects for using the measure successfully in other **countries** or **regions**, or on a **larger scale**.

### **To what degree is the measure transferable?**

- If available, refer to studies of the measure in other countries, explicit comparison with other countries, and publications about the measure in other countries.
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **Which factors contribute to the transferability of the measure?**

- Contributing factors include **conditions for the effectiveness** of the measure in other countries or regions, or on a larger scale, and **specific requirements** necessary which may be difficult to fulfil elsewhere.  
*E.g.: "The measure can only be expected to be effective if it is combined with enforcement"*  
*E.g.: "The effects of the measure within the focus are expected to be larger if measure Y is also implemented"*
- **Source/s**: Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **Which factors limit the transferability of the measure?**

- Limiting factors include potential **obstacles** for the effectiveness of the measure in other countries or regions, or on a larger scale.

- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

**To what degree can the measure be effective for types of accidents, groups of road users, or accident locations, other than those specified as the focus of the measure?**

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- **Source/s:** Please make clear whether the information is based on: empirical evidence (published / unpublished), expert opinion, own considerations etc. In case of published studies, please give full reference.

### **Part 3: Specific part (Education and Campaigns)**

#### **Campaigns**

**Has the campaign been repeated in the past or will it be repeated in the future? If yes, how many times?**

**Which partners (public, private, ...) are involved in the campaign (please list)?**

**Are there any derived actions / campaigns (e.g. on a regional level) which came about as a result of this campaign?**

**Which media did you use?**

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- Please also indicate the number of items that were produced for each medium (ex. number of leaflets, number of television spots broadcasted, number of posters etc).

**For how long did the campaign run (running time in weeks)?**

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#### **Education**

**Does the measure focus on theoretical or on practical knowledge?**

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- If both, please indicate the focus ratio for both elements. (ex. 40/60 or 20/80 etc.)

**To what degree is there a balanced focus on knowledge, skills, and attitudes?**

**Are there additional key success factors for the measure?**

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## **Resume**

### **Why should the measure be included in the list of best-practice road safety measures in Europe?**

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- Please give a short statement about what qualifies the measure as “Best Practice” in Europe.