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CAST

CAMPAIGNS AND AWARENESS RAISING STRATEGIES IN TRAFFIC SAFETY

Instrument STREP

Thematic Priority Sustainable Surface Transport

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Project coordinator organisation name: BIVV/IBSR Final

TABLE OF CONTENTS

SECTION 1 – PROJECT EXECUTION

Project objectives

There is a large body of research on the effect of communication media campaigns available that allows formulating best practices for designing and evaluating campaigns. Several studies have focussed on road crashes as outcome measure but the majority is aiming at measuring perception, acceptation and notoriety of campaigns. However, there seems to be an urgent need for clear scientific information both on the effectiveness and cost-effectiveness of the effect of campaigns. This is a prerequisite to design future campaigns in the most effective and optimal fashion as possible. An evaluation tool aiming at producing such information was lacking while it could in turn contribute to another useful supporting tool to design campaigns in the best possible way.

In its White paper[1] on the transport policy, the EC adopted an ambitious target to reduce the number of persons killed on the roads by 50% by the year 2010. This target means supporting many projects and placing a much higher priority on implementing the most effective measures at the European, national, and local levels. The White Paper stresses the critical role played by road safety campaigns in attaining this objective. After all, public-awareness media campaigns are aimed at changing behaviour, either directly, or by providing information that will influence people's knowledge, and/or beliefs and in turn, change their behaviour. The European Commission's goal is to provide powerful and innovative guidelines for designing, implementing, and evaluating (more) successful road safety campaigns.

The CAST project is assembled to meet this demand and its results can be used by the Member States, by the EC for its own campaigns (or campaigns financed by the EC) and by other campaign stakeholders. The main goal of CAST is to provide practical tools to encourage the proper design and evaluation of road safety campaigns in all EU countries (and beyond). More precisely, CAST developed three such tools to help campaign designers and evaluators. The *design tool* or the manual (Delhomme, P. et al, 2009) contains detailed guidelines for designing, implementing, and evaluating a road safety communication campaign, based on both existing research and new results produced by the CAST project. The *evaluation tool* (Boulanger, A. et al, 2009) aims at guiding the users to the best evaluation practice depending on the characteristics of the road safety campaign to enable a thorough effectiveness evaluation. Finally the *reporting tool* (Boulanger, A. et al, 2009) provides precise guidelines for reporting the evaluation results of a (single) campaign and its complete campaign process in a standardised way. These 3 tools will ensure that new campaigns can be planned and executed in a way that they will have the optimal effect.

The specific objectives of CAST are:

[1] EC, 2001. White paper – European Transport Policy for 2010 – Time to Decide. EC, Luxembourg.

- State of the art of the psychology of drivers and acceptability of measures aimed at enhancing road safety, i.e. studying and summarizing the underlying theoretical road user models;
- Proposals for variables to be measured as integrating parts of campaign evaluation;
- Inventory of evaluation methodologies for road safety campaigns in the EU and beyond;
- A powerful and innovative tool for fieldworkers and policy makers to evaluate the effectiveness of a single road safety campaign. The quality of the evaluation tool will be assessed on a real campaign;
- A powerful and innovative manual for fieldworkers and policy makers to design and to implement effective and cost-effective road safety campaigns.
- Designing and implementing a complete pan-European campaign to support the implementation of a new measure to improve road safety.
- Provision of an information system to serve as a gateway for the information gathered together within the project (CAST-website).

The CAST project was carried out by a consortium of 19 partners and coordinated by the Belgian Road Safety Institute (IBSR-BIVV). It included all of the major European organisations with skills and experience in the area of road safety campaigns, bringing together expertise from throughout the EU.

Contractors list

The contractors involved in the project are shown in the following list:

Partic. Role[2]	Partner N°	Participant name	Participant short name	Country	Date enter project	Date exit project
CO	1	Institut Belge pour la Sécurité Routière asbl	IBSR/BIVV	Belgium	1	42
CR	2	Transportøkonomisk institutt	TØI	Norway	1	42
CR	3	Institut National de Recherche sur les Transports et leur Sécurité	INRETS	France	1	42
CR	4	Statens väg- och transportforskningsinstitut	VTI	Sweden	1	42
CR	5	Bundesanstalt für Straßenwesen	BASt	Germany	1	42
CR	6	Danish Transport Research Institute	DTU	Denmark	1	42
CR	7	FACTUM Chaloupka & Risser OHG	FACTUM	Austria	1	42
CR	8	Limburgs Universitair Centrum, Transportation Research Institute	IMOB	Belgium	1	42
CR	9	of Transport, Public Works and Water Management	Min. of Transport NL	Netherlands	1	42
CR	10	Prevenção Rodoviária Portuguesa	PRP	Portugal	1	42
CR	11	Instytut Badawczy Dróg I mostów	IBDiM	Poland	1	42

[2] CO = Coordinator / CR = Contractor

CR	12	Stichting Wetenschappelijk Onderzoek Verkeersveiligheid	SWOV	Netherlands	1	42
CR	13	Swiss Council for Accident Prevention	Bfu	Switzerland	1	42
CR	14	Centrum dopravního výzkumu	CDV	Czech Republic	1	42
CR	15	University of Thessaly	UTh	Greece	1	42
CR	16	University of Ljubljana Faculty of Arts	ULFF	Slovenia	1	42
CR	17	Instituto Superior de Educação e Ciências	ISEC	Portugal	1	42
CR	18	Raadet for Stoerre Faerdselssikkerhed	RfSF	Denmark	1	42
CR	19	SIPSiVi Road Safety Institute	SIPSiVi	Italy	1	42

The project is led by the Belgian Road Safety Institute. The contact details of the coordinator of the project are the following:

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Work performed and end results

The project has been led by the Belgian Road Safety Institute and included all of the major EU groups with skills and experience of the subject of road safety campaigns. The broad objective of this project was to establish a temporary structure that will bring together relevant expertise within the EU. This formation has been fundamentally oriented to support the policy needs of the EC, i.e. the need for effective road safety campaigns aimed at enhancing traffic safety and the need for ready-to-use evaluation and design tools for fieldworkers. This is achieved by applying the research results through validation and demonstration activities in several Work Packages. It was the specific intention that results from the activities encompassed within the network are publicly accessible using the CAST-website. Dissemination forums and workshops are also a key feature of the activity, addressing policy makers and field workers as the main target group.

In order to achieve the above mentioned objectives, the workload was distributed in seven work packages that group the project tasks:

WP0: Overall coordination and Quality Assurance
WP1: Road user model
WP2: Evaluation tool
WP3: Manual to design and implement road safety campaigns
WP4: Assessing the evaluation tool

WP5: Pan-European road safety campaign
WP6: Dissemination

Work package 1 (WP1) comprises both a theoretical and an empirical perspective.

The focus of the empirical perspective of WP1 is heavily based on the results from the EU-project GADGET completed in 1999 and the succeeding project INFOEFFEKT completed in 2004. The results formed the basis with regard to methodology, analytic tools, and knowledge of factors that contribute to the effects of campaigns. A brief description of the results from these projects is provided as we regard these efforts as a knowledgebase and "State-of-the-art" when CAST was kick-off in February 2006. An important corner-stone of the knowledgebase is the use of meta-analysis, a formal analytic tool that facilitates and structures analyses of large numbers of data being extracted from individual evaluation studies. Estimates of effects of campaigns on behaviour and accidents will be calculated by meta-analysis. Since the GADGET project, meta-analysis has been further developed and refined. The tool as we know it today, includes tests for publication bias, correction of estimates by "trim-and-fill-procedures" if publication bias is identified, tests for homogeneity, choosing between fixed and random-effect models, correction for systematic variance if necessary, and finally also meta-regression. In meta-regression the partial effects of the predictors are analysed and established in order to identify the key elements of campaigns, i.e. the predictors that seem to contribute to the effect, if any. The application of these methods enhances the reliability of the effects considerably compared to previous methods of estimation of effects (GADGET only used bivariate tests). Building on the GADGET and INFOEFFEKT projects, an expanded database containing 433 individual campaign effects has been developed in the CAST project by conducting a literature search in all accessible and relevant databases and selecting studies which have a satisfactory evaluation design suitable for meta-analysis. Moreover, studies from partners' countries have been further expanded the CAST database. In the CAST-project individual campaigns are coded according to campaign characteristics that have been identified across all campaigns in the database, i.e. common characteristics. In turn, these characteristics will be used as predictors in a regression model suited for subsequent meta-regression. In addition to the quantitative approach described above, evaluation studies should also be investigated qualitatively, aimed at identifying the key elements of campaigns, and describing best practices.

Based on a conservative meta-analytical summary of this extensive database, we can say that not only do road safety campaigns work, but they work well. This assertion is based on a number of different outcome measures, including risk comprehension (16 per cent increase), yielding behaviours (37 per cent increase), speeding (16 per cent reduction), seatbelt use (25 per cent increase) and accident reduction (9 per cent decrease). Bivariate (subgroup) analyses give crude indications that effects on both accident counts and seatbelt use are better for those campaigns identifying a target group, using personal communication, combining emotional and rational content, and addressing subjective social norms. There is no evidence from bivariate analyses of a link between campaign effect and campaign scale, or the use of humour. Testing of the models for more sophisticated multivariate analyses (meta-regression) suggests several factors are associated with improved effect of

campaigns on accident levels. Those that are amenable to manipulation by campaign designers are on-road delivery, personal communication and accompanying enforcement.

The theoretical perspective is needed to understand and properly model the road user and road user behaviour. When the future aim is to influence the road user and road user behaviour in directions that benefit traffic safety, one must know which psychological or social factors determine road user behaviour and which factors can be influenced by road safety campaigns and persuasion techniques. A sound theoretical basis should aim at giving valid predictions about the partial effect of campaigns and valid predictions of the effect of any road safety measure are needed in order to avoid waste of money.
When the ultimate goal of any road safety campaign is to reduce the number of accidents, it is essential that campaigns address behaviour that is confirmed to be validly linked to accidents. Currently, associations between behaviour and accidents have been documented empirically for drink driving, speeding, red light crossing, yielding violations, and violations of driving-and-resting regulations for drivers of heavy vehicles (Elvik and Vaa 2004). An overwhelming number of studies have confirmed the link between use of personal protection equipment (seat belt wearing, child restraint systems, helmets) and reductions in the degree of personal injuries. In total eleven categories of road user behaviour are identified as suitable for influence because of their documented association with the frequency of accidents and levels of injury: speeding, drink-driving, failing to yield, tailgating, dangerous overtaking, red-light running, fatigue and drowsiness, driving-and-resting-time regulations, mobile phone use, seat-belt wearing, lack of helmet use. The challenge however is to change these behaviours by influencing the key factors. On a deeper level, factors such as motivation, attitudes, and personality traits have also been linked to accidents (Ulleberg, 2002). WP1 reviewed and discussed models aimed at predicting/explaining road user behaviour. Both general behavioural models and models specifically aimed at understanding driving behaviour/road user behaviour are considered. Seven models that are considered to have potentials of explaining road user behaviour are discussed to some detail. The ultimate aim was a synthesis of factors believed to influence road user behaviour, which together made up an eclectic road user model. In sum, these factors constitute a model of driver behaviour, how drivers think and feel in their processing of information and decision-making in traffic, which in turn could serve as routes of influence from road safety campaigns to the minds of drivers. A general recommendation of WP1 is that road safety campaigns should aim to influence the road users both inside and outside the context in which the target behaviour occurs. This is especially true if the behaviour one tries to influence can be regarded as a habit. It should be noted that this suggestion needs to be further tested before any firm recommendation can be given. However, the relevance of applying “In-context” measures is also supported by the results of the meta-analysis of campaign effects, which suggests that measures like feedback upon drivers’ speed, billboards along the roadside etc. are effective in reducing accidents and increasing seatbelt wearing rate among drivers and passengers.

After internal and external review, the deliverables D1.3 and D1.4 of WP1 were amended and completed in January 2009 and subsequently sent to the Commission for final approval.

The second Work Package of the CAST-project aims at developing two practical tools for policy makers, researchers and field workers in the domain of campaign evaluation. WP2 is about how to effectively measure and report the effects of campaigns. The research activities regarding campaign evaluation in this WP aim at dressing up an inventory of evaluation methodologies for road safety media campaigns and at the development of an evaluation tool for (cost)-effectiveness of a single media campaign. This development has been achieved on the basis of a theoretical and practical analysis of a large number of road safety campaigns, based on an exhaustive literature review.

WP2 listed an exhaustive typology of road safety campaigns (Boulanger, A. et al, 2007b). Road safety campaigns differ among other things with regards to their main focus and goals. The appropriate choice for an evaluation method is dependent, among other things, on the goal of the concerned road safety campaign. To identify these determinative attributes of a campaign, an inventory of different media campaigns and the applied evaluation methodology in (and beyond) the EU have been made. The report answers the question: 'what has been done in practice'. The more theoretical aspects of 'what possible evaluation methodologies could be applied' are treated in another WP2 report (Boulanger, A. et al, 2007a). This report lists all possible evaluation designs, measurement variables and data collection methods and techniques that are at least theoretically possible to use for a campaign evaluation. These evaluation components are compared, both from a theoretical and practical viewpoint in so far relevant for the CAST evaluation tool, with regard to their merits and weaknesses, to measure the effect of a road safety campaign or to isolate the effect of an integrated media campaign. As a result it is possible to identify the appropriate evaluation methodology. The conclusions of these two reports (sent to the European Commission in 2007) contributed to the realisation of the evaluation tool.

WP2 elaborated a tool that will guide users to the best evaluation practice depending on the characteristics of their campaigns. The evaluation tool is very practical and straightforward for practitioners. First, it is important to define the success criteria of the road safety campaign and formulate the right evaluation questions. The goal of the evaluation study is thus inseparable linked with the campaign objectives which need to be very clearly defined. Appropriate and answerable evaluation questions facilitate the correct decision of which variables to assess in order to measure the campaign effect. Typical three types of measurement variables are used in road safety evaluation studies namely: self-report measures, observed behaviour and accident statistics. The choice will influence the data collection method. Simultaneously, you need to choose the proper research for producing the required and reliable evaluation data. The practical translation of these important decisions is given in a specific chapter. If you don't know which measurement variables, evaluation design, or data collection technique to apply for your evaluation study, you will find the solution or some recommendations in this part of the evaluation tool. The best and most appropriate evaluation methodology is not always feasible in practice.

The given recommendations are not rules obligated to follow, you may deviate from them but only if you have a good reason to do so. To ensure still a satisfactory level of evaluation data, the CAST consortium decided on some minimum standards for evaluation. The ultimate purpose of these standards is to raise both the validity of evaluation findings and the comparability of the results throughout Europe (and beyond). If you have the skills, the knowledge and extra budget, it is highly recommended to upgrade the minimum standards with the more sophisticated evaluation methodology. The tool was finalised in the first week of January 2009 so that the WP leader of WP2 was able to present the final results and recommendations on the CAST final conference in Brussels (26-27 January 2009).

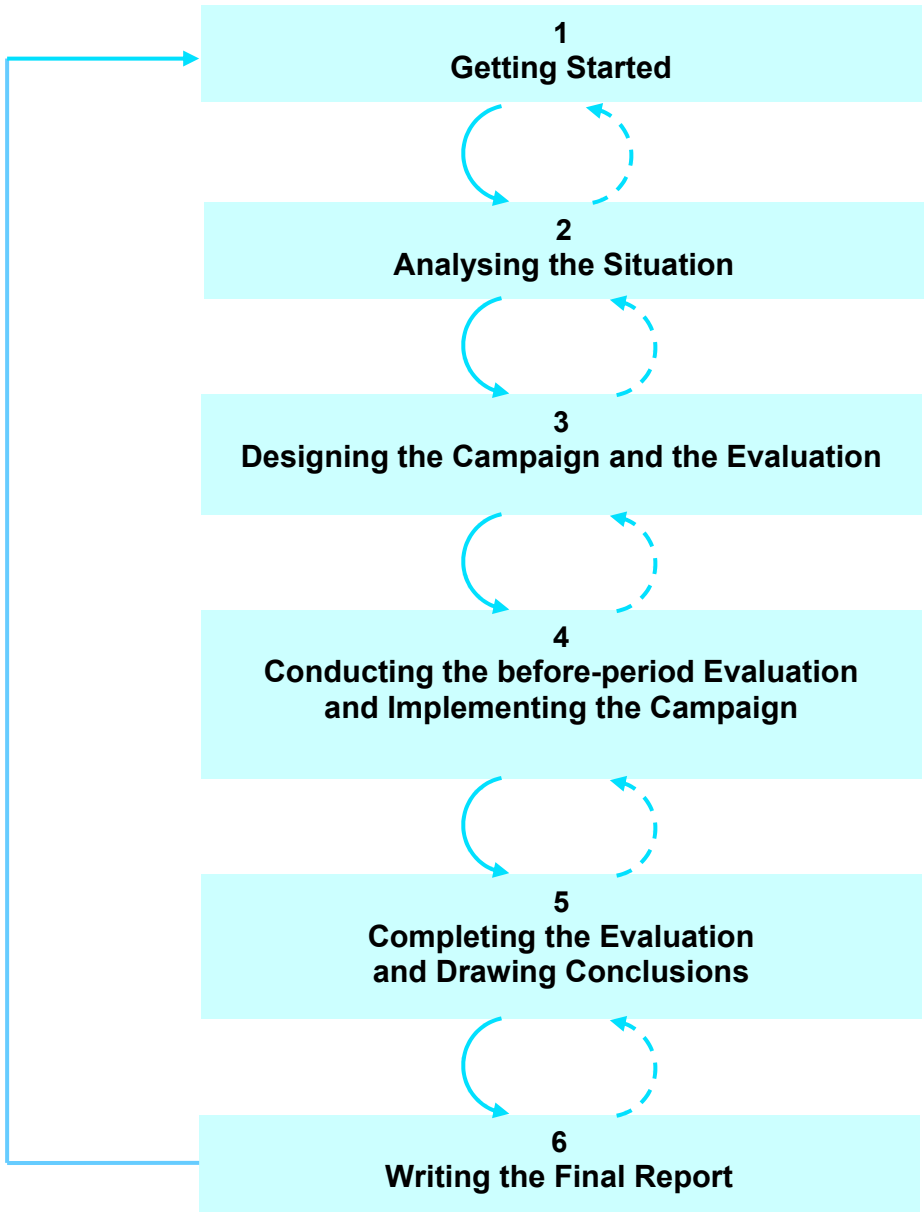
Furthermore, it is important that campaign makers and researchers can learn from previous experiences with campaigns and campaign evaluations. Therefore it is essential to write detailed and structured campaign (evaluation) reports where the information as well as the order in which this information is presented is standardised. The aim is to enable practitioners to report all relevant aspects of their campaigns and the results of the evaluation study in a standardised way. This way it is easy for the reader to find the exact information he or she needs, and it ensures that all essential information is included in the report. Therefore the reporting tool was developed as part of the CAST project. Because the evaluation study is a fundamental part of the campaign process and dependent of the campaign type, this reporting tool treats the whole campaign process. The tool exists out of a step by step guide on how to write a campaign report. This reporting tool has been based on the content of the CAST manual (Delhomme, P. et al, 2009) on one hand, and the evaluation tool (Boulanger, A. et al, 2009) on the other hand. As the final version of the reporting tool had to be adapted to the final version of the manual and evaluation tool, the final reporting tool was ready in the beginning of the fourth CAST year.

The aim of WP3 is to provide a detailed and practical tool (the CAST manual) that can be used to design, implement and evaluate road safety communication campaigns. It contains both a theoretical background and a practical guideline how to carry out campaigns on a national and international level. It is aimed at both researchers and practitioners involved in designing and implementing road safety communication campaigns all over Europe.

The starting point of any intervention aimed at improving road safety is usually the identification of the problem. You can often do this by looking at available statistics (e.g., road crashes, offences). The problem should then be analysed further to decide if a road safety communication campaign can help solve the particular problem identified. If you decide that it can, consider then whether a communication campaign by itself will be sufficient to achieve the change you want, or whether it needs to be supported and integrated with other activities. Future road safety communication campaigns can benefit from lessons learned from previous research. Descriptive studies and meta-analyses have shown that campaigns are more likely to succeed if they tackle only one, well-defined theme and select a specific target audience. Moreover, it is essential that the campaign is based on extensive research and relevant theoretical models, which help not only in identifying the main predictors of the problem behaviour but also in designing the campaign message. A social marketing framework should be used to integrate these elements into a broader

strategy for influencing road users' behaviour. A major requirement is that practitioners, researchers, and decision-makers will work closely together to make the campaign a success. Each of these actors must be able to step into the shoes of the others. Whether or not the campaign has positive effects, the results should be published and presented to a large audience by means of a final report. Systematic reporting on past campaigns can provide valuable input for future initiatives. The six basic steps (see Figure 1) will guide you through the process of designing, implementing, and evaluating your road safety communication campaign.

Figure 1 ■ Steps in designing, implementing, and evaluating a road safety communication campaign



Source: Delhomme, P. et al, 2009

1. Getting started. The first step involves identifying the problem; analysing the organisational and socio-economic context of road safety; determining the budget including the cost for research and campaign evaluation; selecting partners and stakeholders who could be involved in the campaign process; developing the creative brief; and looking into possible contributions of outside agencies and their interactions with the initiator.
2. Analysing the situation. This involves performing an in-depth analysis of the problem and its possible solutions based on research and past initiatives, identifying the target audience, conducting research on how to reach and influence it, and translating the overall goal of the campaign into specific objectives.
3. Designing the campaign and the evaluation. This step involves defining the campaign strategy, designing the message content and style, choosing the media vehicles and media plan, developing and pre-testing the message and slogans in their full context, and planning and pre-testing the campaign evaluation.
4. Conducting the before-period evaluation and implementing the campaign. This step includes outlining the before-phase of the evaluation, the production of campaign materials, and the actual launch of the campaign.
5. Completing the evaluation and drawing conclusions. The fifth step involves implementing the chosen method for the during- and/or after-period evaluations, including quality control of each evaluation, data processing and analysis, cost-benefit and cost-effectiveness assessments; this allows practitioners to draw valid conclusions and assess the limitations of the campaign.
6. Writing the final report. The last step involves using a standard report outline and reviewing all information needed by the reader to arrive at a good understanding of the campaign and its results.

Once the six steps have been carried out, the cycle is complete. The conclusions that you have drawn from the campaign and its evaluation will give you the necessary input for the next campaign cycle. Based on the material presented in the CAST manual WP3 would like to make the following general recommendations:

- Base the campaign on statistics and research
- Select a specific target audience
- Translate the overall goal into specific objectives
- Devise the campaign strategy and plan the campaign
- Formulate the message
- Conduct a proper implementation of the campaign
- Ensure rigorous evaluation
- Disseminate the results

In July 2008 a draft version of the manual has been sent for reviewing to all the WP3 partners, the Steering Committee members and to external reviewers (practitioners volunteers found during the workshops, but also academics and researchers). Once the whole of the comments was taken into account, the four editors did the last internal review before sending it to an English-speaking professional. The manual was printed in the proper layout in order to disseminate it on the final CAST conference in January 2009. All the participants received a printed copy.

The aim of WP4 was to evaluate and report road safety campaigns using the guidelines presented by WP2. A draft of the evaluation and reporting tool was sent to WP4 to be assessed by application on real campaigns. The goal was to find out whether the suggested evaluation and reporting methodology was sensitive enough to detect the effect of different types of campaigns. In addition, WP4 considered the various key elements identified in WP1. The result of their work during the last 2 years of the CAST project is the presentation of the evaluation results from seven different campaigns assessed according to the guidelines presented in the other CAST tools. The overall aim of these evaluation studies was to compare and contrast different research designs, different sources of information (data collection methods) and different types of campaigns (media and/or integrated). This means that campaigns are evaluated differently in each country although some of the procedure will be the same namely the use of: quantitative research, a questionnaire measuring self-reported attitudes, norms, intentions and behaviour, more or less the same questions, a representative sample, attention for external events which might have an impact on the results and when a local or regional campaign is evaluated, a design using control areas or control groups (non-exposed) was strongly recommended.
The campaigns were carried out in seven different countries (Austria, Belgium, Greece, the Netherlands, Poland, Slovenia and Sweden) and the topic of the campaigns covered a broad area; speeding, seat-belts usage, drinking and driving, child restraints and the use of bicycle helmets. The target groups were general and selected and the activity itself used several sources such as printed material, the media, internet, direct communication and combined actions with the police. The campaigns were local, regional and national and in most cases the evaluations were carried out before and after the event(s). The theoretical framework used to evaluate the campaigns was an extended and sometimes modified version of the Theory of Planned Behaviour and in one instance the Transtheoretical model. Briefly, the TPB model predicts that a person's intention to perform certain behaviour is determined by attitude, subjective norm and perceived behavioural control. Behaviour refers to an observable act and intention as a willingness to try. Attitude is the individual's evaluation of performing a particular behaviour. Subjective norm describes a person's perception of the social pressure put on him/her to perform, or not perform the behaviour. Perceived behavioural control measures perceived rather than actual capability and have been found to predict behaviours which are not completely under a person's control. The Transtheoretical model, on the other hand, is a theory explaining the process of change. It argues that a person would go through six different stages before a new behaviour is established. One of the advantages with this approach is that the intervention can be matched to the different needs of the individuals which in turn can provide valuable information when evaluating the campaign. For instance, if the target group is to be people in the pre-contemplation stage (have no intention to change their behaviour, resist change), then we should not expect that one campaign only should result in behavioural changes. Instead a change in attitudes, indicating that they have become more aware of the problem, should be considered as an effective intervention.

Based on the results from the seven different evaluations the followings conclusions and recommendations can be made with regard to future campaigns:

- By including both primary (e.g. behaviour) and secondary objectives (e.g. attitudes) the evaluation is able to assess change with greater accuracy.
- The use of a well established theory helps in selecting and assessing a range of different constructs known to predict behaviour.
- Differences in output variables between treatment group and a control group can be due to systematic differences between the two groups and not as a consequence of the intervention itself. Hence, the results from an evaluation using a before and after study is more valid and easier to interpret.
- Direct contact with the target group is an effective method when communicating the use of cycle helmets amongst a group of employees.
- Combined actions including both campaigns and enforcement appear to be effective as indicated by the results from Slovenia and The Netherlands.
- To be exposed to a campaign stimulus is no guarantee that it will have an effect. More attention needs to be given to its location and how it is being presented (e.g., the Belgian study: no differences were found between the pre-attentive and the control group).
- All types of car occupants (i.e., passengers and drivers) have to be informed about the risks (e.g., the Greek study: knowing about the upper permissible limit of alcohol use).
- Combine quantitative (questionnaires) with qualitative strategies (in-depth interviews, e.g., the Polish study). It helps designing the campaigns in ways that target groups can identify with and as a result recall better.
- Effects of verbal vs. written communication/information differ (e.g., the Austrian study).
- The need to consider the effects of external events happening during the campaign as was the case in the Slovenian study [a new law imposing higher penalties for major traffic offences].
- Small effects can also be important (e.g., the Dutch study: 1% more seat belt usage makes a difference of saving 3 lives and preventing 20 severely injured each year).
- Availability of external resources makes the behaviour easier to perform (e.g., the Swedish study, campaign participants were offered bicycle helmets for free when signing a contract).

WP5 tested and demonstrated the practical use of the manual by designing and implementing a pan-European road safety campaign on driver fatigue in two EU member states - Belgium and Greece -, in cooperation with the European Commission services. In March and April 2008, a representative survey on risk awareness and knowledge on distraction and driver fatigue was organised in Greece and Belgium, based on the questionnaire of the Danish project partner (the same survey was performed in Denmark in 2007, but not as part of the CAST project). Based on the survey results for Belgium, Denmark (2007) and Greece, it was concluded that driver fatigue was a more prominent problem than driver distraction in all three countries, and therefore driver fatigue was chosen as the general theme for the CAST campaign. The main aim of both campaigns was to reduce the number of accidents due to driver fatigue by awareness-raising and information of road users on the risks of fatigue and the promotion of effective countermeasures.

In accordance with the guidelines of the CAST manual, each campaign was evaluated by means of (at least) a pre- and post-measurement of the target audience's knowledge, beliefs and self-reported behaviour regarding the problem behaviour (outcome evaluation), in addition to data on campaign reach, awareness, recall and appreciation (process evaluation). Full evaluation reports are published in the summer of 2009.

The *Belgian PITSTOP campaign* concentrates on the problem of fatigue among young drivers (18-25 years of age). As a first step in a longer-term strategy to reach its overall goal, the campaign wants to install the knowledge that there is only one effective solution – a 15 minute nap ("powernap"), and promotes the adoption of this behaviour in the target audience. As no statistics are available on the prevalence of fatigue as a main cause or contributing factor to road accidents in Belgium, the background of the problem and its possible solutions was further investigated by means of a literature review and a large-scale survey on fatigue and driver distraction among Belgian drivers. Young drivers of the 18-25 age group, mainly men, were identified as the target audience. A qualitative pilot study to determine the main behaviour predictors for this target audience showed that the problem is concentrated on short distance trips between 3.00 AM and 5.00 AM, generally after a night out. The main motivation to keep driving even when very tired is to get home as soon as possible in order to sleep. There is also a social threshold to perform the safe behaviour, which could be removed by means of a facilitating tool that could make it easier to take a powernap. The theoretical model underlying the campaign strategy and design is the Protection Motivation Theory (PMT)[3]. The specific objectives for the campaign were determined in terms of knowledge on the effective countermeasure, beliefs on non-effective measures and the opinions of friends and relatives, risk apprehension, behavioural intentions and self-reported behaviour. The campaign wanted to install the knowledge that there is only one effective solution – a 15 minute nap ("powernap"), and promoted the adoption of this behaviour in the target audience by means of the "PITSTOP" concept (literally, a short stop to refuel with energy). The media plan consisted of radio spots (on youngster's stations, concentrated in weekend nights), an internet website (www.pitstop.be), small-size posters in public buildings, schools and youth clubs, and a leaflet with background information. The media campaign was supported by field actions, involving the distribution of a PITSTOP gift package near large petrol stations, clubs and bars. The campaign ran on a national level in Belgium, from 12 November until 15 December 2008.
The evaluation study consisted out of a process and outcome evaluation. The outcome evaluation measured if the campaign has led to any effects in terms of knowledge, attitudes and self-reported behaviour. Therefore, the factors according to the theoretical framework (PMT model) are compared before and after the campaign. The campaign evaluation was based on a quasi-experimental design with a comparison group. The drivers aged 18 to 25 were the experimental group and the drivers of other age groups were used as a comparison group. An online questionnaire survey was used to collect the subjective exposure data for the

[3] The Protection Motivation Theory (PMT) states that appraisal of a threat and appraisal of a coping response to the threat result in the intention to give adaptive responses (protection motivation), or may lead to maladaptive responses that place an individual at risk.

process evaluation and all data for the outcome evaluation. The before measurement counted 1216 participants and took place from 24 October until 10 November 2008 (18 days), the after measurement ran from 15 until 29 December 2008 (15 days) and had 1203 participants. The process evaluation results show that the campaign was implemented according to schedule as planned, and all campaign materials were disseminated on time. The outcome evaluation results show that the campaign has led to an increase in knowledge of the powernap as the best solution against driver fatigue, especially in the target audience but also in the other age groups. The campaign was not able to challenge the belief that getting home as soon as possible is most important; this belief remains especially present in the 18-25 years old target audience. For self-reported behaviour, there was a slight increase of people in the 18-25 years old target group who declared having taken a powernap after the campaign. A similar increase after the campaign was observed in the other age groups. However, over half of the respondents say that this question does not apply to them because they did not feel sleepy at the wheel, whatever the age group or the moment (before or after the campaign).

The *Greek EYES ON THE ROAD campaign* also had as a main goal the awareness raising and information of road users on fatigue while driving. The situation analysis helped to decide to choose professional drivers as the primary target group for the campaign, and non-professional drivers as a secondary target audience, since fatigue concerns almost all drivers. The problem behaviour is explained through two behaviour theoretical models, the “Health Belief Model” (HBM) and “Transtheoretical Model of Change” (TMC). Drivers seem to act in the problem of fatigue in a non intentional way, since research and experience show that most of them are not aware of the risks and the hazards of driving while being tired. The campaign was built around the main idea that the desire to avoid a negative health consequence (accident) is the key motivator for taking a positive health action (stop driving and take a rest when tired). It provided the target audience with the appropriate information about the right solutions for driver fatigue (powernap and planning trips in advance). It consisted of a media campaign with posters and leaflets, TV and radio spots, web broadcasting, and gadgets. The campaign ran for four weeks, starting in December 2008.
Self reported data were gathered to measure the factors according to the theoretical framework for the outcome evaluation study. These factors were distinguished in five categories: *knowledge*, *behavioural beliefs, risk comprehension, intentions and self-reported behaviour*. In order to collect the data of the evaluation study, a face-to-face questionnaire survey was conducted before (2 weeks), during (after Christmas) and after (June 2009) the campaign implementation. The participants were distinguished into non-professional drivers and professional drivers. Results showed that the campaign in general terms ran successfully, and the appreciation level was high enough, with a report mark at 5.5 on a scale from 1 to 7. Also, the most effective media channel was the distribution of the campaign leaflets (63.3% for non-professional drivers and 74.1% for professional drivers), while the broadcasting of the TV spot was also successful (28.3% for non-professional drivers and 18.8% for professional drivers). As far as the knowledge is concerned, results showed that there was not a great increase in the percentages of the knowledge parameters tested (varying from 0.3% to 5.1%), but these percentages were already in very high levels before the campaign implementation. Therefore, it is remarkable that the

highest increase was registered in the knowledge of the best solutions for driving fatigue, in the non-professional drivers group. The results of the comparison between the group of non-professional drivers and the group of professional drivers before the campaign implementation showed that there were significant differences among the two groups. The results of the comparison between the group of non-professional drivers before and during the campaign implementation showed that in a great number of variables, there were significant differences, confirming in this way the success of the campaign. It is remarkable that there was a statistically significant increase in the mean values of the answers of non-professional drivers, in the questions concerning the main solutions to fatigue, proposed by the campaign, and concerning stopping driving when being tired and the planning of trips. These results seem to confirm the successful implementation of the campaign. On the other hand, the results of the group of professional drivers, before and during the campaign, showed a statistically significant increase in the mean values of the answers of the professional drivers, as far as the solutions that the campaign proposed. Finally, the "Health Belief Model" (HBM) was tested in the framework of the evaluation study. Results showed that the percentage of the variance in behaviour to avoid fatigue while driving explained by the "HBM" increased from 70.5% to 75.2%, when intention was added to the predictors.

WP6 is solely devoted to disseminate the knowledge and technology produced within the CAST project among several target groups, the most important one being field workers and policy makers. In December 2008 the Steering Committee realised that there could be a problem in disseminating the CAST results as more than half of the Deliverables produced by the CAST consortium were only final at the end of the project (as foreseen). As a consequence, if a partner would like to organise a CAST conference in his own country, write an article about his work done in CAST, present the CAST guidelines and results on other conferences…it cannot be done in the lifetime of CAST. This is a pity considering the importance of the dissemination activities. Because of this the CAST project was extended with 6 months for the purpose of dissemination.
In summary WP6 comprises the following activities: organizing CAST-workshops and a CAST-conference, printing hard copies of the manual and other main deliverables, maintaining a CAST-website, presentation of CAST on conferences, submitting papers to specialized journals, producing and distributing newsletters and designing, producing and distributing a CAST-logo, poster and leaflets. Most of these activities were organised after the final conference in January 2009 as all Deliverables will be available then. In the last 6 months of the project, most of the partners will organise one or more national congresses in their own countries for example in France, Greece, Italy, the Netherlands and so on.

Organizing 2 workshops for technical discussion of interim results
Two important workshops for technical discussions were organised in 2008. The main objective was to discuss the first drafts of the CAST manual and evaluation tool and to collect new inputs from experts and practitioners outside of the consortium with a great deal of experience in developing campaigns. Campaign practitioners and experts from several organisations from different countries participated in workshops, in Warsaw on 30 May and in Stockholm in 13June, 2008. In Warsaw the following countries were invited: Greece, Belgium, Portugal, Cyprus, Germany, Netherlands,

Belgium, Poland, Czech Republic, Hungary, Austria, Switzerland, Luxemburg and Slovakia, Malta, Spain, Italy, Slovenia and France. In Stockholm the following countries received an invitation: Sweden, Denmark, Finland, Norway, Estonia, Latonia, Lithuania, UK and Ireland. Important contributions, suggestions and recommendations were collected and taken in account to improve the CAST manual and the CAST evaluation tool.

Presenting and distributing in public the main deliverables of all WP's (with a public dissemination level), with special attention to the CAST manual, CAST evaluation tool and reporting tool

First of all it was decided to print 1500 copies of the manual (including evaluation) in English. At the end of the third year of the CAST project it became clear that there was an urgent need for a summary (short version) of the CAST manual in order to facilitate the dissemination. The European Commission suggested translating this abridged version in all EU languages so that non-English campaign practitioners or decision makers could read the CAST recommendations as well.

As the Steering Committee organised a final CAST conference in Brussels for public presentation of the manual and other deliverables (with a public dissemination level), the SC decided to give every participant a paper copy of the CAST manual. Furthermore all the other main deliverables and results of the CAST project were presented and disseminated at a public level at a Conference in Brussels on 26 and 27 of January 2009. This event counted with the presence of several organisations from different countries inside an outside of Europe. The dissemination process started with a first announcement published on the second newsletter in July 2008. At the same time an e-mail was sent to several international organizations, governmental and private institutions related, on a regular basis, with road safety matters and specifically with road safety campaigns. An electronically form was prepared by IBSR and published on-line on the CAST website (www.cast-eu.org) to guarantee the efficiency of the registration process. In total around 150 persons attended the conference. A booklet containing all information about the conference (including the presentations) was also prepared to be distributed to all participants at the conference. Moreover, a questionnaire was developed to evaluate the conference and to get some feedback concerning the organisation, contents and reading of CAST website and newsletter. The results of the small evaluation questionnaire and the feedback from participants were very good. From 65 questionnaires, the average of the overall conference rating was 4,19 in a scale of 5.

Placing the main deliverables of all WP's (with a public dissemination level) on the Internet

Regarding the dissemination of the project results, the CAST website was launched the fifth project month (www.cast-eu.org). The website explains the project, disseminates the results, provides deliverables and gave news updates about the progress and activities of the CAST consortium/partners. Most of the CAST Deliverables were only available at the end of the CAST project. Since the final conference in January 2009 all reports (that are available for the public) were added on the website. The 3 CAST tools (CAST manual, CAST evaluation tool and CAST reporting tool) transformed from Word-document to real publications. The layout was professionally adapted. It is possible to download freely these publications (also available in paper copies) from the CAST website (www.cast-eu.org).

Homepage CAST website: www.cast-eu.org

Presenting of midterm and final results on conferences

The real dissemination of the final CAST results started after the final conference in January 2009. The CAST project combined the skills and the experiences of campaign practitioners and researchers. Furthermore, the research results were assessed and validated within the CAST project by applying them on real campaigns. This working method implied that the final reports and recommendations were only available in the last 6 months of the CAST project. The project has led to a large number of presentations at local/national/internals conferences. An overview will be given in the section 2.

Submitting papers based on finalized material to the editorial board of scientific journals

The CAST project has led to a number of publications in (scientific) journals. Details concerning all publications made in the framework of this project will available on the CAST website in the next months as some of the articles are not published yet.

Producing 3 newsletters

The objective was to write one electronic newsletter per year as a follow-up of the project progress and to distribute midterm and final results will be published. CAST Newsletters were effectively launched at a public level and disseminated for several organisations around the world. The CAST newsletter was created to inform and keep people up to date with project activities. The first one was disseminated in May 2007, the second in July 2008 and the third in January 2009. The newsletter has been putted on the CAST-website and sent by mail to contacts of all consortium partners.

Producing a project logo, poster and leaflets

In the beginning of the project a logo was designed and distributed among the consortium partners. Dissemination materials like posters and leaflets have been printed and distributed among all the CAST partners. The leaflet will present the project concept and objectives in detail as well as useful information concerning Consortium partners, co-ordinator contact information and website address. Posters

will be primarily displayed at events (e.g.: Workshops; conference, etc.) and the design will be made in correlation with the leaflet.

POSTER

PROJECT LOGO

Impact of the CAST project

At present-day estimates, the road safety problem causes thousands of deaths and millions of casualties and costs the EU approximately 250 billion euros on a yearly basis. Therefore, the value of any European integrated safety system that can substantially reduce these costs is beyond doubt. Governments and authorities at different levels invest a great deal of money and effort in changing the behaviour of road users. Road safety communication campaigns are one of the most important means of persuading road users to adopt safe behaviours. Together with enforcement and road engineering, they constitute a crucial resource.

Future road safety communication campaigns can benefit from lessons learned from previous research. The use of descriptive reviews and meta-analyses, which provide information about several related studies, can help in identifying key elements likely to lay the foundation for future success. But without rigorous evaluation and reporting, it is very difficult to know whether a campaign is successful or not. The CAST project states that implementing a road safety campaign without an evaluation plan is unacceptable. Evaluations also tell us whether the investment was worthwhile, a fact which in turn may affect future funding. Systematic reporting on past campaigns can provide valuable input for future initiatives. Therefore it is essential to write detailed and structured campaign (evaluation) reports where the information as well as the order in which this information is presented is standardised.

As a whole, it is a stated intention that CAST will revolutionise the evaluation and design of road safety communication campaigns within the EU (and beyond) by

providing 3 practical tools for campaign practitioners and by disseminating new insights into key elements of successful campaigns.

SECTION 2 – DISSEMINATE AND USE

Introduction

The plan for using and disseminating the knowledge is designed to present in a detailed and verifiable manner the terms of use and disseminate the research results and knowledge generated in the project, in accordance with the interest of the partners who own them.

All the intellectual rights arising from CAST will be the property of the participating partners, according to the provisions regarding IPR laid down in the Guide to Intellectual Property Rights for FP6 projects. A more detailed set of provisions has been set out in the Consortium Agreement signed by all partners. All publications, communications, etc will acknowledge partner's contribution and European Commission funding. The copyrights of all information material shall be retained by the project partners.

A comprehensive CAST final dissemination plan has been established to promote and facilitate the dissemination, transfer, exploitation and assessment of the results derived from this collaboration. The principal objective to be reached through the dissemination plan is to disseminate and promote the manual, the evaluation tool and the reporting tool as the standard when designing, implementing and evaluating road safety campaigns.

WP6 was solely devoted to disseminate the knowledge and technology produced within the CAST project among several target groups, the most important one being field workers and policy makers. In summary WP6 comprised the following activities: organizing CAST-workshops and the final CAST conference, printing hard copies of the manual and other main deliverables, maintaining the CAST-website, presentation of CAST on conferences, submitting papers to specialized journals, producing and distributing newsletters and designing, producing and distributing a CAST-logo, poster and leaflets. Most of these dissemination activities were organised after the final conference in January 2009 as all Deliverables were available.

Exploitable knowledge and its use

This section presents only exploitable results, defined as knowledge having a potential for industrial or commercial application in research activities or for developing, creating or marketing a product or process or for creating or providing a service.

Overview table:

Exploitable Knowledge (description)	**Exploitable product(s) or measure(s)**	**Sector(s)** of application	Timetable for commercial use	Patents or other IPR protection	**Owner** & Other Partner(s) involved
Guidelines and recommendations to design, implement and evaluate an (effective) road safety campaign	*Manual for designing, implementing and evaluating road safety communication campaigns*	*Road safety fieldworkers, researchers, policy makers of the Member States and other stakeholders*	*2009*	*No protection*	*Partner 3 (WP leader) + CAST consortium*
Guidelines to evaluate the (outcome) effect of a single road safety campaign	*Evaluation tool*	*Road safety fieldworkers, researchers, policy makers of the Member States and other stakeholders*	*2009*	*No protection*	*Partner 1 (WP leader) + CAST consortium*
Guidelines to write a complete campaign (evaluation) report in a standardised way	*Reporting tool*	*Road safety fieldworkers, researchers, policy makers of the Member States and other stakeholders*	*2009*	*No protection*	*Partner 1 (WP leader) + CAST consortium*

1. *Manual for designing, implementing and evaluating road safety communication campaigns*

The aim of this manual is to provide a detailed and practical tool for designing, implementing, and evaluating road safety communication campaigns. It contains both a statistical and theoretical background on road safety and communication campaigns, and a wealth of practical recommendations for conducting campaigns at the local, regional, national, and international scales. It is aimed at decision-makers, practitioners, researchers, students, and any organisation involved in designing and implementing road safety communication campaigns in Europe and abroad. Why write a manual? To our knowledge, there are very few manuals on road safety communication campaigns. Thus, only limited information is available on how road safety communication campaigns are designed, implemented, and evaluated, and on the best practices to do so. Yet it is important to have a manual specifically focusing on this topic, because such a manual can help individuals involved in road safety campaigns to improve the effectiveness of any future campaigns they conduct.
All CAST partners are in the possession of several paper copies of the manual in order to disseminate them as much as possible among their contacts. To facilitate the dissemination and the use of the manual, a short version (summary) has been developed containing the main recommendations and guidelines. The EC suggested translating this abridged version into all different EU languages.

The CAST manual is freely available and can be downloaded from the CAST website by anybody.

2. Evaluation tool

The CAST project states that implementing a road safety campaign without an evaluation plan is unacceptable. Evaluation is a fundamental part of a campaign. In practice, campaign evaluation is mentioned for the first time in the third step of the CAST manual (Delhomme, P. et al, 2009). Three types of evaluation are distinguished in the manual namely: process, outcome and economic evaluation. This evaluation tool will help you trough the decisions that you need to make about the *outcome evaluation*. To offer campaign practitioners a clear overview of the different steps to undertake in order to implement a proper evaluation study the evaluation tool has been developed.

The choice for the appropriate evaluation methodology is dependent on the specific characteristics of the concerned campaign. Road safety campaigns differ among other things with regards to their main focus (campaign theme) and goals. The CAST project (Boulanger, A. et al, 2007b) defined a typology of campaigns based on relevant attributes and environmental aspects of road safety campaigns that have the most determinative implications for the evaluation study. These attributes all have different implications for evaluation – some of them are more detrimental while the others are less important for the choice of proper evaluation methodology – evaluation design, measurement variables and data collection techniques. Combining the implications which derive from relevant attributes determines a proper evaluation methodology for that particular campaign.

All CAST partners are aware of the purpose and functionality of this evaluation tool. Therefore, they are all jointly responsible for the distribution and the exploitation of these guidelines and recommendations. Furthermore, the CAST manual refers to the evaluation tool.

The CAST evaluation tool is freely available and can be downloaded from the CAST website by anybody.

3. Reporting tool

The objective of the reporting tool is to provide practitioners with guidelines for reporting the whole campaign process and its evaluation in a standardised way. It is important that campaign makers and researchers can learn from previous experiences with campaigns and campaign evaluations. Therefore it is essential to write detailed and structured campaign (evaluation) reports where the information as well as the order in which this information is presented is standardised. This way it is easy for the reader to find the exact information he or she needs, and it ensures that all essential information is included in the report. For that reason the reporting tool was developed as part of the CAST project. The final campaign report should present a clear and concise overview of all the steps carried out in the campaign. Therefore the reporting tool has become a template to write down the campaign process, including the evaluation study, in a standardised way. The tool exists out of a step by step guide on how to write a campaign report. By following these guidelines, it is ensured that all important information will be included in the report. In addition, the campaign details will be provided in a standardised order which makes it easier for the reader to find the requested information. The standardisation of the future campaign reports will:

1. increase the accessibility and adequateness of relevant information in the domain of road safety media campaigns;
2. lead to more complete evaluation reports and thus more relevant, high quality campaign evaluation data;
3. facilitate the (scientific) evaluation of road safety campaigns, for example by means of meta-analyses;
4. help to identify effective criteria or develop new campaign strategies; and thus will increase the general knowledge about road safety campaigns.

All CAST partners are aware of the purpose and functionality of this reporting tool. Therefore, they are all jointly responsible for the distribution and the exploitation of these guidelines and recommendations. Furthermore, the CAST manual refers to the reporting tool.
The CAST reporting tool is freely available and can be downloaded from the CAST website by anybody.

Dissemination of knowledge

One of the major dissemination activities carried out from the beginning of the project has been the establishment and management of the website (www.cast-eu.org). This website included a document database for all public reports produced by the CAST consortium in order to be available for the external interested parties. Besides, it is possible to download freely the manual, evaluation and reporting tool in the layout as it is published.

Other dissemination activities are those carried out by most of the CAST partners through the attendance to local/national/international conferences. In this field the consortium has finalised a project poster, which has been used along with the project leaflets as a direct dissemination tool for a broad public. At the end of the project a poster has been developed giving an overview of the major CAST results. Most presentations on conferences took place in the last 6 months of the project as all final CAST results were available.

At least one electronic newsletter per year as a follow-up of the project progress and to distribute the midterm and final results has been published (May 2007, July 2008 and January 2009). The newsletters are also putted on the CAST website and were sent by mail to contacts of all consortium partners.

In 2008, 2 Workshops are organised for all stakeholder groups to discuss the interim results of the CAST project in 2 different European zones. The venue, dates, action check-list and programme was presented and discussed with the members of the Steering Committee on beforehand. The activity gathered researchers, practitioners and policy makers from the field of road safety (not involved in the CAST project) in order to discuss the midterm results from a theoretical and practical viewpoint. After the workshops their comments and suggestions have been taken into account when finalising the 3 practical tools.

The contacts among all stakeholder groups (fieldworkers, researchers, policymakers…) fostered during the workshops in 2008 and the final conference in 2009, gave the starting step to further cooperation and use of the 3 CAST tools.

The dissemination activities carried out during the lifetime of the whole CAST project (and some of the activities programmed for the near future) are detailed below:

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
17-19 May 2006	*Conference in Gdansk*	*Gambit 2006*	*Poland (and others)*		*IBDIM*
14 July 2006	*CAST website uploaded*	*Consortium, General Public*	*All*	*All*	*BIVV*
4-6 October 2006	*Congress in Warsaw*	*Road safety experts*	*Poland (and others)*		*IBDIM*
25-27 October 2006	*VI Transport Systems Tematics*	*Road safety experts*	*Poland (and others)*		*IBDIM*
11 November 2006	*UTH Workshop*	*Road Safety Campaign actors*	*Greece*		*UTH*
01 April 2007	*Newsletter dissemination*	*Road safety, communication experts, general public*	*Consortium, EU and outside EU road safety institutions and general public*		*PRP*
01 April 2007	*Poster and leaflet dissemination*	*Road safety, communication experts, general public*	*Consortium, EU and outside EU road safety institutions and general public*		*PRP and BIVV*
3-6 July 2007	*European Congress of Psychology, Prague*	*Mainly Psychologists*	*European and non-European*	*50 - 100*	*UL FF*
04 December 2007	*Seminar on road safety campaigns*	*Regional road administration*	*Poland, Olsztyn*	*20*	*IBDiM*
17-18 December 2007	*Palacky University - Presentation of the CAST project*	*University students*	*Czech Republic*		*CDV*
7 January 2008	*Scientific study group*	*Traffic safety experts and students*	*Denmark*	*8*	*DTU transport*
31 January 2008	*RODRIGUE project seminar*	*Consortium members*	*France, Paris*	*20*	*IBDiM*
01 February 2008	*Newsletter dissemination*	*Road safety, communication experts, general public*	*Consortium, EU and outside EU road safety institutions and general public*		*PRP*
25 February 2008	*Auto Club seminar*	*Journalists and road safety experts*	*Poland, Warsaw*	*40*	*IBDiM*
March 2008	*Traffic development workshop of Road Safety department of Army Academy in Vyskov city, organised by Czech Army Traffic dpt.*	*Czech Army members*	*Czech Republic*		*CDV*
26 March 2008	*National Road Safety Council conference*	*Road safety experts*	*Poland, Warsaw*	*60*	*IBDiM*
April 2008	*Information on Polish campaign for ETSC monthly*	*General public*			*IBDiM*

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
17 April 2008	*Conference "Not drinking on Polish roads"*	*Road safety and communication experts*	*Poland, Lublin*	*50*	*IBDiM*
8 May 2008	*Union of Polish Metropolitan Areas conference*	*Local government officials*	*Poland, Warsaw*	*50*	*IBDiM*
14 May 2008	*Road Safety Workshop, University of Thessaly, School of Civil Engineering, Volos, Greece*	*Road Safety Experts, Students, General Public*	*Greece, Belgium*	*50*	*UTh*
27 May 2008	*Turin, Workshop of the Regional Board of Psychology of Piedmont*	*Psychologists working in Traffic Safety*	*Italy*	*about 100*	*SIPSiVi*
28-30 May 2008	*4th International Congress on Transport Research in Greece, Athens, Greece. Organised by Hellenic Institute of Transportation Engineers, Hellenic Institute of Transport, National Technical University of Athens*	*Transportation Experts, Transportation Actors, General Public*	*All*	*800*	*UTH*
30 May 2008	*Cast Workshop in Poland*	*Road safety experts*	*Germany, Netherlands, Belgium, Poland, Czech Republic, Hungary, Austria, Switzerland, Luxemburg and Slovakia, Romania, Bulgaria*		*PRP and IBDIM*
15 June 2008	*Newsletter n°1 dissemination on PRI General Meeting*	*Road safety experts*	*U.A.E.; Netherlands; Tunisia; Emirates; Switzerland; France; Finland; Canada; Sweden; Slovenia; Morocco; Jordan; Spain; Portugal; Czech republic; Belgium*		*PRP*
16 June 2008	*Cast Workshop in Sweden*	*Road safety experts*	*Sweden, Denmark, Finland, Norway, Estonia, Latonia, Lithuania, UK and Ireland.*		*PRP, VTI*
31 August -4 September 2008	*4th International Congress on Traffic & Transport Psychology, Washington, DC, USA*	*Transportation & Traffic Experts, Transportation & Traffic Actors, Psychologists, General Public*	*All*	*500*	*UTH*
01 September 2008	*CAST Project webpage uploaded in the website of the Transportation Engineering Laboratory of University of Thessaly (www.este.civ.uth.gr)*	*All*	*Greece + others*	*infinite*	*UTH*

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
8-9 September 2008	*INTERNATIONAL CONFERENCE ON THE OCCASION OF CDV 15th ANNIVERSARY, Brno*	*Road safety, communication experts, general public*	*EU road safety institutions and general public*		*CDV*
23 October 2008	*plenary session of the association of driving schools professionals, Driving Schools Association of Czech Republic*	*Road safety experts*	*Czech road safety institutions, driving schools*		*CDV*
28 October 2008	*Meeting with the Belgian provinces*	*Local mobility experts*	*Belgian provinces*	*20*	*BIVV*
29 Oct 2008	*Polish Transport Conference*	*Road safety experts*	*Poland, Warsaw*	*50*	*IBDiM*
20 November 2008	*Road Safety Workshop, Road Traffic Police, Drama, Greece. Organised by Road Traffic Police of Drama, Greece*	*Road Safety Actors, Road Safety Experts, General Public*	*Greece*	*1000*	*UTH*
17 December 2008	*Presentation CAST project and results on High Level Group - EC*	*High Level Group members*	*EU countries*	*40*	*IBSR*
26-27 January 2009	*CAST final conference*	*Road safety expert, road safety campaign actors, general public*	*EU-countries + international institutes*	*EU-countries + international institutes*	*BIVV, SWOV, TOI, VTI, INRETS, PRP*
01 February 2009	*Newsletter dissemination*	*Road safety, communication experts, general public*	*Consortium, EU and outside EU institutions and general public*		*PRP*
5 February 2009	*Seminar of The Road Traffic Aggression in Czech Republic, influence on drivers, Palacky University,*	*Road safety experts*	*Czech Republic, Slovakia*		*CDV*
12 February 2009	*CAST presentation on 'Landelijke studiedag' in Leiden, NL*	*traffic experts, decision-makers*	*the Netherlands*	*80-90*	*BIVV*
18-19 February 2009	*Congress in Rabat, Morocco*	*Road safety experts*	*Northern Africa*	*75-100*	*VTI*
19 February 2009	*CAST presentation - Seminar Enforcement - How to control road safety? Brussels, BE*	*policy makers, police responsibles and experts*	*Belgium*	*200*	*BIVV*
25-26 February 2009	*CAST presentation - Dresdner Forum Prävention „Kampagnenwechsel", Dresden, DE*	*accident insurers*	*Germany*	*500*	*BIVV*
26 February 2009	*Novara, Workshop for Local Police Authority, Local Police Authority of Regione Piedmont*	*Local Police Officers*	*Italy*	*about 300*	*SIPSiVi*

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
16 March 2009	*Lecture on CAST recommendations for successful road safety campaigns, social marketing and fear appeals, Ghent, Belgium*	*Students Department of Communication, University of Ghent*	*Belgium*		*BIVV*
19 March 2009	*Seminar, Linköping, Sweden*	*Librarians*	*Sweden*	*15*	*VTI*
21 March 2009	*1ª Motorcycles seminary*	*practitioners and general public*	*Portugal*		*PRP*
25 March 2009	*CAST presentation - Meeting of the "Awareness day at level crossings" Task Force, UIC Brussels*	*Rail way communication experts*	*Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden*	*40*	*BIVV*
1 April 2009	*Conference, Örebro, Sweden*	*Traffic safety experts*	*Sweden*	*50-100*	*VTI*
1 April 2009	*Presentation of CAST at the COST 358 "pedestrian quality needs" meeting*	*road planners, psychologist, architects, sociologists, engineers*	*COST 358 is a consortium from countries all over Europe and Israel*		*FACTUM*
22 April 2009	*CAST presentation - ETSC, the ShLOW Camp - Show me How Slow! Brussels, BE*	*students who will run a local campaign or concrete action to reduce speeding*	*Germany, Austria, Czech Republic, Greece, Spain, UK, Poland, Netherlands, Belgium, Sweden*	*30*	*BIVV*
22 April 2009	*Tranquilidade Conference*	*Practitioners*	*Portugal*		*PRP*
24 April 2009	*CAST presentation at BIVV, Belgium*	*Belgian road safety experts*	*Belgium*	*30*	*BIVV*
5 May 2009	*Conference in Norrköping, Sweden*	*Staff within the health sector*	*Sweden*	*50*	*VTI*
5 May 2009	*Lecture on CAST recommendations for successful road safety campaigns, Kortrijk, BE*	*Students Bachelor Social Safety*	*Belgium*	*25*	*BIVV*
6 May 2009	*CAST presentation - ETSC, the ShLOW Camp - Show me How Slow! Brussels, BE*	*students who will run a local campaign or concrete action to reduce speeding*	*Germany, Austria, Czech Republic, Greece, Spain, UK, Poland, Netherlands, Belgium, Sweden*	*30*	*BIVV*
11 – 15 May 2009	*European Transport Research and Innovation Week*	*Road safety experts*	*EU road safety institutions and general public*		*CDV*
14 May 2009	*Seminar, Linköping, Sweden*	*Staff at Linköping university*	*Sweden*	*25*	*VTI*
14 -15 May 2009	*Poster CAST recommendations for successful road*	*Representatives of the academic world, NGOs, research*	*European and non-European countries*	*>500*	*BIVV*

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
	safety campaigns - Velocity Recycling Cities, Brussels	*institutes, the bicycle industry, public institutions, governments and citizens*			
19 May 2009	*Seminar, Stockholm, Sweden*	*Politicians responsible for traffic safety*	*Sweden*	*15*	*VTI*
22 May 2009	*Cast Workshop Awareness – Raising Road Safety Campaigns, Organised by UTh, Technical Chamber of Greece - Magnesia Chapter, Volos GR*	*Road Safety Actors, Road Safety Experts, Communication experts, General Public*	*Greece, Belgium*	*100*	*UTh (BIVV)*
29 May 2009	*Palermo, Congress on Road Safety (ACI)*	*Road Safety Experts, campaign practitioners, decision makers*	*Italy*	*Congress participants: about 300*	*SIPSiVi*
3 June 2009	*Seminar, Borlänge, Sweden*	*The Swedish Road Administration*	*Sweden*	*20*	*VTI*
4 June 2009	*Symposium 'Effectief campagne voeren, hoe bereik je dat? In Rotterdam, The Netherlands*	*Road safety and communication campaign experts, publicity agencies...*	*the Netherlands, Belgium*	*100*	*SWOV, Min. Of Transport NL, BIVV, IMOB*
4 June 2009	*Conference (non-scientific)*	*Traffic safety workers from all of the country*	*Denmark*	*ca. 200*	*DTU transport*
4 June 2009	*INIR - Road safety behaviour*	*Road Safety experts and practitioners*	*Portugal*		*PRP*
5 June 2009	*BRNOSAFETY 2009, an International Conference on Road Traffic Safety, BVV Trade Fairs Brno, in cooperation with the "Innovation in Transport" cluster*	*Road safety experts*	*EU road safety institutions and general public*		*CDV*
12 June 2009	*Conference, Okinawa, Japan*	*Traffic psychologists*	*Japan, Norway, Denmark, Finland*	*50-100*	*VTI*
15 June 2009	*CAST final dissemination conference in Italy, La Valutazione dell'efficacia delle campagne per la sicurezza stradale, CAST convegno Roma, IT*	*Road Safety Experts, campaign practitioners, decision makers*	*Italy*	*200*	*SipSiVi (BIVV)*
16 June 2009	*CAST presentation "Effectief campagnevoeren" on Provincial meeting, Brussels, BE*	*Provincial traffic officers*	*Belgium*	*15*	*BIVV*

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
24-26 June 2009	*PRI World Congress 2009 "Young people and innovative road safety solutions" in Rotterdam, the Netherlands*	*WHO and EU, politicians and policy makers, researchers, representatives from road safety organizations, youth organizations, communication specialists and many more*	*All*	*300*	*BIVV*
25 June 2009	*PRI Congress, Rotterdam. The Netherlands*	*Road safety experts*	*All*	*150-200*	*VTI*
25 June 2009	*Presentation for Stichting Marketing*	*professionals in the social marketing field (NGO expert group on non-commercial marketing)*	*Belgium*	*10*	*IBSR*
30 June 2009	*CAST presentation on Meeting Expert group "Alcohol, drugs, medicines and driving", EU Commission, Brussels, BE*	*physicians or medical researchers*	*EU countries*	*30*	*BIVV*
June 2009	*French abridged version of the CAST manual*	*Road safety, communication experts, general public*	*France, Belgium, Switzerland (and all countries where French is read)*		*INRETS*
6 July 2009	*Prague, EFPA Congress*	*Road safety experts/ mainly psychologists plus publication on Minutes of the Congress*	*All*	*Congress participants: about 5000 attending the workshop: about 200*	*SIPSiVi*
9 July 2009	*CAST presentation on European Youth conference on Road Safety, Brussels, BE*	*Young people working in road safety NGOs*	*EU countries*	*50*	*BIVV*
9 July 2009	*CAST Workshop in France, Paris*	*Road Safety Campaign actors*	*France, Belgium, Switzerland*	*50-100*	*INRETS (PRP, ISEC, BIVV)*
14 July 2009	*Presentation of CAST to Government, Road Safety authorities and other practitioners, Lisbon, Portugal*	*Practitioners, road safety experts*	*Portugal*		*PRP and ISEC*
17 July 2009	*Conference, Barcelona, Spain*	*Road safety experts, Local and regional councils*	*Spain*	*50-75*	*VTI*
10 October 2009	*Matera, Congress of National Police Corps*	*Road Safety Experts and Practitioners*	*Italy*	*about 500*	*SIPSiVi*

Actual dates	type (conference, exhibition…)	type of audience	countries addressed	size of audience	partner responsible or involved
13 November 2009	*International Symposium on "Management Systems of Traffic Safety" in Abu Dhabi U.A.E.;*	*Road Safety experts and practitioners*	*the Netherlands; Tunisia; Emirates; Switzerland; Syria; USA; France; Finland; Canada; Sweden; Slovenia; Morocco; Jordan; Spain; Portugal; Egypt; Argelia; Saudi Arabia, Oman, Bahrain*		*PRP*
January 2010	*Annual meeting of the Transportation Research Board, Washington DC, USA*	*Transportation professionals*	*All*	*approx. 100*	*IMOB*

CAST final conference

The 3 practical tools, developed by the CAST consortium to meet the needs of safety policy makers, campaign practitioners and researchers, were launched fully at the final conference taking place in Brussels. The conference has been held on Monday 26 January 2009 and Tuesday 27 January 2009 in the Thon Hotel Brussels City Centre (Belgium). This was an event of key speakers in the field of road safety research and road safety campaigns from across Europe. The participation of this event was free. The final CAST conference provided an opportunity for anyone with an interest in road safety campaigns to find out more about the design, the implementation and the evaluation of successful campaigns. The conference marked the end of the three-year research activities of the CAST consortium. This conference gathered together campaign designers, road safety campaign practitioners and experts, researchers, evaluation experts, communication experts, international organisations, local authorities… in order to disseminate the CAST results and recommendations at a European level. In total around 150 persons attended the conference.

References of journal publications, articles, conference papers, etc

Adamos, G, Nathanail, E. & Eliou, N. (2008). *Design and evaluation of road safety campaigns. The CAST Project.* Proceedings of the 4th International Congress on Transport Research in Greece, May 28-30, 2008, Athens, Greece.

Adamos, G. & Nathanail, (2009). *Evaluation of the effectiveness of the Greek fatigue road safety campaign.* Proceedings of the 4th Hellenic Road Safety Conference, November 5-6, 2009, Athens, Greece.

Boulanger, A. (2009) Hoe successvolle campagnes ontwerpen en evalueren? Europees onderzoek CAST geeft duidelijke richtlijnen. *Verkeersspecialist*, 17 (156), 28-30

Boulanger, A. & De Dobbeleer, W. (2009) CAST: onderzoek naar effectiviteit van campagnes. In Dergent, S.(Ed.), *Jaarboek Verkeersveiligheid 2009* (pp.114-118) Mechelen: Vlaamse Stichting Verkeerskunde.

Brijs, K., Daniels, S., Brijs, T., & Wets, G. (n.d.). An experimental approach towards the evaluation of a seat belt campaign with an inside view on the psychology behind seat belt use. (Submitted to Transportation Research Record)

Brijs, K., Karlis, D., Daniels, S., Brijs, T., & Wets, G. (n.d.). Cross-validation of a structural framework for the explanation of seatbelt behaviour with implications for policy interventions. (In preparation)

De Dobbeleer W. (2009) Mediacampagne, handhaven én publiek aanspreken: Handboek voor verkeersveiligheidscampagnes. *Verkeerskunde*, 60 nr 5, 6.

De Dobbeleer, W. (2009) CAST améliore les campagnes de sécurité routière : l'IBSR coordonne un vaste projet de recherche européen. *Via Secura*, 79, 18-19.

De Dobbeleer, W. (2009) CAST verbetert verkeersveiligheidscampagnes : BIVV coordineert grootschalig Europees onderzoeksproject. *Via Secura*, 79, 18-19.

Divjak, M. & Zabukovec, V. (2009). Priročnik za evalvacijo medijskih kampanj v prometu. (A tool for evaluation of road safety media campaigns.). *Horizons of Psychology* (in press).

Divjak, M & Zabukovec, V. (2009). *The role of media campaigns in traffic safety prevention - outcomes of the CAST project.* Presentation in the conference Global Safety 12-13 November 2009. Bled, Slovenia.

Malasek, J. (2009). *Polska specyfika w zakresie zagadnien brd* (road safety issues in Poland). IBDiM.

Nathanail, E. & Eliou N. (2008). *Road user attitude and behaviour: evaluation of the effectiveness of a mass media campaign on road safety*. Proceedings of the 4th International Conference on Traffic & Transport Psychology, August 31 - September 4, 2008, Washington, DC, USA.

Phillips, R.O., Ulleberg, P. Vaa, T. (2009). *Meta-analysis of the effect of road safety campaigns on accidents*. (To be submitted in October)

Ulleberg, P., Moan I.S (2009). *Efficacy of the Theory of Planned behaviour to explain driving violations: A meta-analysis* (to be submitted in December)

Vaa, T., Delhomme, P., Meyer, T. (2009): *Effects of road safety campaigns on accidents: A meta-analysis* (to be submitted in November)

Wacowska-Slezak, J. (2009). Konferencja CAST, Bruksela 26-27 January 2009 (CAST conference in Brussels). BRD.

SECTION 3 - PUBLISHABLE RESULTS

This section provides the publishable summaries of the exploitable results the project has generated.

1. Manual for designing, implementing and evaluating road safety communication campaigns

Result description
The aim of this manual is to provide a detailed and practical tool for designing, implementing, and evaluating road safety campaigns. It contains both a statistical and theoretical background on road safety and communication campaigns, and a wealth of practical recommendations for conducting campaigns at local, regional, national, and international scales. The content is based on existing research and new results produced by the CAST project. It is aimed at decision makers, practitioners, researchers, students and any organisations involved in designing and implementing road safety communication campaigns in Europe and abroad. The CAST manual is complemented by an Evaluation tool and a Reporting tool (see below).

Possible market applications
Why write a manual? To our knowledge, there are very few manuals on road safety communication campaigns. Thus, only limited information is available on how road safety communication campaigns are designed, implemented, and evaluated, and on the best practices to do so. Yet it is important to have a manual specifically focusing on this topic, because such a manual can help individuals involved in road safety campaigns to improve the effectiveness of any future campaigns they conduct.
Governments and authorities at different levels invest a great deal of money and effort in changing the behaviour of road users. Together with enforcement and road engineering, road safety campaigns are an important tool considered for use by those managing safety on the roads. But how much do we really know about road safety campaigns, beyond specific national characteristics? Can we really say that they are successful when proper evaluation of campaigns is relatively uncommon? Without rigorous evaluation and reporting it is very difficult for us to learn the lessons that will help us design better campaigns in the future.

Stage of development
The publication is published and freely available on the internet.

Collaboration sought or offered
Decision makers, practitioners, researchers, and any organisations involved in designing and implementing road safety communication campaigns are part of the campaign team and are invited to follow the CAST recommendations for successful campaigns. By following the six basic steps, the manual guides you through the process of designing, implementing, and evaluating your road safety communication campaign.

Collaboration details
No specific collaboration is sought.

Intellectual property rights
The manual is free of any intellectual property rights and can be used by anybody. When used, reference to the manual is of course expected.

Contact details
The manual is published and freely available on the internet (www.cast-eu.org).
A paper version of the manual can also be ordered by one of the CAST partners.
For questions or more details contact can be made with the CAST project coordinator or one of the editors

Reference:
Delhomme, P., De Dobbeleer, W., Forward, S., Simões, A. (Eds.) Adamos, G., Areal, A., Chappé, J., Eyssartier, C., Loukopoulos, P., Nathanail, T., Nordbakke, S., Peters, H., Phillips, R., Pinto, M., Ranucci, M. -F., Sardi, G. M., Trigoso, J., Vaa, T., Veisten, K., Walter, E. (2009). *Manual for designing, implementing and evaluating road safety communication campaigns*. Brussels: IBSR-BIVV.

2. Evaluation tool for road safety campaigns

Result description
There is an urgent need for clear guidelines and recommendations to enable a thorough outcome assessment of the effects of a road safety campaign. Why should you evaluate? How to conduct a proper effectiveness evaluation study? What are the minimum standards? Which recommendations are applicable for my campaign? The evaluation tool is a practical tool for measuring the effect of a campaign in a proper way. Dependent on the characteristics of the campaign that needs to be evaluated, several best practices are clarified. To ensure some satisfactory level of evaluation procedures throughout Europe, this tool states minimum standards for an evaluation study.

Possible market applications
The evaluation tool is aimed at everybody who is concerned with the evaluation of road safety campaigns. By applying the proposed guidelines, more appropriate, profound, and standardised evaluation reports will be available in Europe and beyond. Rigorous evaluation helps us to learn designing (even) better campaigns in the future. Campaign evaluations will increase our knowledge about which campaigns are effective and which campaigns are not.

Stage of development
The tool is published and freely available on the internet.

Collaboration sought or offered
Campaign practitioners and researchers are invited to follow at least the CAST evaluation minimum standards and recommendations for executing a profound evaluation study for their campaign. As a consequence more proper evaluation studies will be executed throughout Europe (and beyond).

Collaboration details

No specific collaboration is sought.

Intellectual property rights
The evaluation tool is free of any intellectual property rights and can be used by anybody. When used, reference to the evaluation tool is of course expected.

Contact details
The evaluation tool is published and freely available on the internet (www.cast-eu.org).
A paper version of the tool can also be ordered by the CAST project coordinator (until available).
For questions or more details contact can be made with the CAST project coordinator:

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1130 Brussels, BELGIUM

Reference
Boulanger, A., Daniels, S., Divjak, M., Goncalves, I., Meng, A., Moan, I., Nathanail, E., Orozova-Bekkevold, I., Schepers, P., Tamis, K., Van den Bossche, F. & Zabukovec, V. (2009). Evaluation tool for road safety campaigns (A. Boulanger, Ed.), CAST project, Brussels: IBSR-BIVV.

3. Reporting tool for effects of a single campaign

Result description
It is essential to write a detailed and structured campaign (evaluation) report in order to increase the accessibility and adequateness of relevant information in the domain of road safety campaigns. A campaign report should present a clear and concise overview of the whole campaign process and the evaluation study. The reporting tool is a practical tool for composing a standardised and complete campaign report.

Possible market applications
The reporting tool is aimed at fieldworkers, researchers and other professionals involved in road safety campaigns. By following the proposed template, more appropriate, profound, and standardised reports will be available in Europe and beyond.

Stage of development
The tool is published and freely available on the internet.

Collaboration sought or offered
All stakeholders involved in the campaign process are invited to use the template of the reporting tool in order to write complete and standardised campaign reports. Standardising ways of reporting will increase the accessibility of relevant information regarding road safety campaigns and will facilitate the evaluation of several campaigns jointly by running meta-analyses in Europe (and beyond).

Collaboration details
No specific collaboration is sought.

Intellectual property rights
The reporting tool is free of any intellectual property rights and can be used by anybody. When used, reference to the reporting tool is of course expected.

Contact details
The reporting tool is published and freely available on the internet (www.cast-eu.org). A paper version of the tool can also be ordered by the CAST project coordinator (until available).
For questions or more details contact can be made with the CAST project coordinator:

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Reference
Boulanger, A., Hels, T., Larsen, L., Meng, A., Orozova-Bekkevold, I. (2009). *Reporting tool for effects of a single campaign* (A. Boulanger & A. Meng, Eds.). Brussels: IBSR-BIVV.