



CAST NEWS



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Dear Sir/Madam,

At the beginning of the new year we are particularly happy to provide you with a new issue of our CAST newsletter - the last one, since the project will end in 2009. During the past 3 years, we have worked hard on the realisation of innovative tools in order to provide clear guidelines to design, implement and evaluate successful road safety campaigns. And now it is almost time to present our final results at the final CAST- conference in Belgium (26-27 January 2009 in Brussels).

Whereas the organisation of a final conference marks the end for CAST, we hope that the CAST project will not be forgotten and that the application of our guidelines will be encouraged on the field. We also wish that our manual will encourage the proper design, implementation and evaluation of future road safety campaigns, which in the longer term, will enhance road safety and help to decrease the number of road victims.

Future Events

- ◆ Final Conference - CAST results presentation
- ◆ CAST manual—PDF version free of charge

In this third and last newsletter of the CAST project we will inform you of the progress made over the last months. You will have an idea about the general contents of CAST results, concerning the effects of road safety campaigns, road user model and persuasion techniques, evaluation tool, CAST manual structure, how was tested the evaluation tool and CAST manual and a summary of dissemination activities.

Last but not least, we would like to thank all our readers, as well as the contributors to our newsletters. Hopefully we will meet in Brussels, and if not, I invite you to visit the CAST website (www.cast-eu.org) to consult our final project results.

Consortium

- ◆ 19 European research centres

Ankatrien Boulanger
Project Coordinator



News

Meta-analysis and Road User Model (WP1)

WP1 will provide two Deliverables from the CAST project:

- D1.3: Effects of Road Safety Campaigns
- D1.4: Road User Model and Persuasion Techniques

The D1.3 will comprise the following main topics:

- A discussion and conclusion on the definition of what should be regarded as “campaign” in the CAST context
- National campaign experiences: Representatives of the 15 countries comprised by CAST have provided short descriptions of the national campaign experiences according to type and themes of campaigns, when conducted, the use of accompanying measures added to mass media or other communication channels, scale of campaigns (local, regional, national) and evaluation characteristics
- Effects of campaigns, a “State-of-the-art”, as we knew it by year 2006, i.e. before the CAST project was kicked-off in 2006.
- Effects of campaigns from analysis of the CAST-data. Sub-sections are: Study retrieval and processing; Sample description; Overall effects of campaigns; Factors associated with variation in campaigns effect; Overall effects and associated factors of campaigns using mass media
- Models of factors influencing campaign effect: Results from meta-regression. Sub-section: Factors associated with effect on accidents; and Factors associated with effect on seatbelt use.

A search of literature identified 221 studies of which 173 were subject for subsequent meta-analysis and estimation of effects. One study may comprise more than one result and the total number of results is 433. The two main subgroups were

“seat belt use” (133 results) and “accidents” (115), which also constituted the data that were considered for analysis and reported in the deliverable. Other sub-groups that are large enough for meta-analysis were: “attitudes” (39 results), “speeding” (28), “risk perception” (24), drink-driving” (23), “recall” (23), “knowledge” (17) and “driver behaviour towards pedestrians (13).

16% of the results have been published in 2000 or after, 32% in the 1990s, 49% in the 1980s, and 3% before 1980. 37% of the results are published in refereed scientific articles, 36% from institute reports and the remaining 27% are categorized in 10 other types of publication.

The results stem from 15 different countries and the main three are USA (40%), Australia (19% - New Zealand not included) and Sweden (16%)

The D1.4 will comprise the following main topics:

- Kinds of road user behaviour to influence
- Models that can explain road user behaviour
- How to influence
- Key elements for evaluation

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.



News

Meta-analysis and Road User Model (WP1)

Seven models that are considered to have potentials of explaining road user behaviour are discussed to some detail:

- Protection Motivation Theory (PMT)
- The Health-Belief Model (HBM)
- The Problem-Behaviour Theory (PBT)
- The Theory of Planned Behaviour (TPB)
- The Theory of Interpersonal Behaviour (TIB)
- Hierarchical Driver Behaviour Models
- Eclectic Road User Model based on Risk Monitoring and Emotions

A section of “How to Influence Road User Behaviour” comprises the following:

- General Principles for Communication with Road Users
- Dual-Process Theories of Persuasion
- Cognitive Dissonance Theory
- Prospect Theory
- Causal Attribution and the Actor-Observer Bias
- Use of Personal Communication
- The Use of Emotions, including effects of fear appeals and the use of humour

The deliverables D1.3 and D1.4 will be completed in January 2009 and sent to the Commission for final approval before providing them to the public.

Evaluation tool (WP2)

The first part of this third year, WP2 activities were on hold. During this period, 2 CAST workshops were organised (see further in page 11) in order to discuss the intermediary version of the evaluation tool (Deliverable 2.3) with other campaign practitioners and experts. Moreover, this preliminary tool has been assessed to find out whether the suggested evaluation methodology is sensitive enough to detect the effect of different campaign types by WP4 (see page 7). Based on the WP4 suggestions and the comments received during both CAST workshops in Warsaw and Stockholm, WP2 partners discussed the texts to be changed accordingly on a technical meeting in October 2008. Thereafter the tool has been adjusted. In short the evaluation tool needed:

- clear minimum standards;
- a new structure according to the several steps to undertake when evaluating and some parts have been moved to annexes (as they were considered to be outside the interest field of a campaign practitioner);

- a new chapter about data analysis; and
- a fine-tuning based on other CAST deliverables.

The last deliverable of WP2 is called the reporting tool. The objective is to offer guidelines for field workers to report effects of a single road safety campaign in a standardized way. This fourth Deliverable is a template to write down the results of the campaign evaluation. This task has been performed mainly by DTU and followed up by BIVV. During the third and last CAST year, a constant exchange of information between the evaluation tool and the reporting tool has been set up. As a result the structure and the content of the template is again adapted.

The final version of Deliverable 2.3 and Deliverable 2.4 has been sent to the external reviewer on 10 December 2008. The drafts will be finalised in the first weeks of January 2009 in order to present the final results on the CAST final conference.





News

Manual to design, implement and evaluate campaigns (WP3)

During the last months, the draft of the manual was evaluated by internal (e.g., IBVV/ISBR) and external reviewers (from EU and Canada). After many discussions and modifications, the manual is finally finished.

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

The first part which is the theoretical one provides a background on road safety and communication campaigns; the second, which is more practical presents a step-by-step guide for designing, implementing, and evaluating a road safety communication campaign. If your main interest lies in practical issues, you may want to skip directly to the second part of the manual. Conversely, those who are looking for a theoretical background will find that the first part offers important discussions about human behaviour and how to influence it, which can in turn increase the chances of developing a successful campaign.

The practical recommendations given in the second part of the manual are based not only on interviews with practitioners, advertising agencies, and researchers in Europe and elsewhere, but also on a review of the literature and our own experience. This part outlines the fundamental six steps needed to complete the entire campaign process:

1. Getting started

Before designing the campaign, it is important to determine the nature of the problem and decide if it should be used on its own or in combination with

other supportive activities. Hence, the first step consists of identifying the problem based on statistics and database reports. In addition to this, the organisational, socioeconomic, legal, and political contexts in which the problem occurs should be analysed. The second step is to locate and engage potential partners and stakeholders in the campaign, determine how they will interact, and bring them together at a kick-off meeting. Some possible partners and stakeholders are public authorities and private organisations. After this step the campaign budget needs to be decided upon, which must include the cost of the evaluation. Then the creative brief presenting a general overview of the situation should be formulated. The creative brief acts as a link between the partners throughout the various stages of the campaign. Finally, any collaborating outside agencies should be carefully selected.

2. Analysing the situation

The previous step presented only a general overview of the situation. This next step is more detailed. It starts with an in-depth assessment of the problem and its possible solutions based on synthesized information from four sources: qualitative and quantitative studies, research on theoretical models and main predictors of the problem behaviour, previous campaigns and other actions, and marketing studies on the target audience. It is common to find that the available data are incomplete at least to fit with the target audience, so it might be necessary to conduct additional research. The data obtained will be useful in deciding on not, on what segments of the population to target and in determining the main predictors of the problem behaviour. At the end of this step and before examining the evaluation methodology (design and variables), the general aim defined at the onset should be converted into specific objectives.



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Manual to design, implement and evaluate campaigns (WP3)

3. Designing the campaign and the evaluation

After the situation has been analysed, the campaign strategy should be defined. This includes deciding upon the type of campaign (media-based only, combined with other action(s), integrated campaign) and its scale (national, regional, local). The strategy should be based on an overall social-marketing approach and theoretical models of change. When this has been achieved it is time to decide upon the style of the message (i.e., content and execution strategy), as stated in the creative brief. This is followed by the preparation of a media plan, which includes choosing media types, media vehicles (e.g., TV, radio and advertisements), mediators, possible supportive activities, and campaign identifiers (e.g., logo). When formulating the plan, the campaign budget, its timing and length, advertising costs for each medium, demographic statistics of coverage, media-placement openings, and so on need to be considered. Once the campaign's message and slogans have been designed, the messages should be pre-tested. Moreover, it is also necessary to pre-test the procedures, activities, and other materials before actually implementing the campaign. After designing the campaign, attention needs to be turned to how the evaluation should be conducted, whether by an in-house or outside organisation. In this manual three forms of evaluations are suggested: process, outcome and economic. To be able to draw clear conclusions about the outcome of the campaign, an evaluation design should be carried out with at least two measurement periods (before and after), and if possible using a comparison group. The tool used to evaluate the campaign could be a survey or observations, which should also be pre-tested to make sure they measure the right thing.

4. Carrying out the before-period evaluation and implementing the campaign

Once the campaign has been designed and the methods used to evaluate it have been decided upon, it is time for implementing the before-period evaluation. However, before this can be done, some practical aspects of the evaluation need to be considered, including checking the material against the evaluation design and constraints in the field. At the same time, the campaign material should be produced and media time and space should be booked, either in-house or through an outside agency. Producing the material requires several sub-steps: technical briefing, the pre-production and production phases, approval of the produced material by the campaign initiator, and the post-production phase. When this is done the campaign itself can be launched. The campaign's progress should be carefully monitored and quality-controlled so that any problem arising either during the campaign or the evaluation can be handled promptly.

5. Completing the evaluation and drawing conclusions

In this step, the evaluation measurements scheduled for during and/or after the campaign should be made, including data processing and data analysis. The results of the before-period measurement should be compared to those taken during and/or after the campaign, in order to find out whether the campaign worked and on which dimensions it did or did not have effects. When possible, making at least two after-period evaluations is recommended, shortly after the campaign ends and then after several months to assess any mid-term and long term effects. The overall results of the evaluation provide clear conclusions about the strengths and weaknesses of the campaign, as well as about its cost-effectiveness.



News

Manual to design, implement and evaluate campaigns (WP3)

6. Writing the final report

The final report ends the campaign process. It justifies the work and money spent on the campaign by the financiers, policymakers, authorities, partners, stakeholders, and the campaign team. The final report should provide an overview of each step carried out in preparing and conducting the campaign and its supportive activities, including essential elements such as the rationale of the campaign, the qualifications of the staff involved in the campaign and evaluation, and the campaign's basic design, including campaign strategy, how the messages and slogans were developed and the frequency and intensity at which they were presented. It should also state the methods used to evaluate the campaign (according to the process, the outcome and the economic evaluations) and its results. The report should end with a discussion and a final conclusion about the effectiveness and strengths/weaknesses of the campaign. Whatever the effects of the campaign, evaluation reports must be made available in a library and indexed in a valid database of facts and knowledge. An international on-line database that indexes the campaign reports and the quantitative results is useful for communication practitioners and safety researchers hoping to design, implement and evaluate effective and efficient road safety communication campaigns in the future.

Based on the material presented in CAST manual, we also make the following general recommendations:

- To base the campaign on a solid foundation: on statistics and research (observations, surveys, market studies, models for predicting and explaining behaviour, models of behaviour change) statistics and research.
- To select a specific target audience, in order to reach it and increase the likelihood of modifying its behaviour.
- To translate the overall goal into specific objectives, which must precisely identify the problem behaviour that needs to be changed into safe behaviour (the primary specific objective), as well as other factors (the secondary objectives) that might contribute to achieving this primary objective, i.e., to cause the target audience to adopt the safe behaviour.
- To devise the campaign strategy and plan the campaign, in order to refine the goal and the specific objectives in operational fashion, and to define how the target audience can be reached and influenced.
- To formulate an effective message: credible, trustworthy, consistent, clear, persuasive, relevant and attractive.
- To ensure rigorous evaluation, in order to find out if a campaign has been a success or not, and if the money was well spent.
- To disseminate the results for helping practitioners to build on past experiences when preparing, researching, and designing future campaigns. Moreover, International online databases that index campaign reports and quantitative results allow policymakers to develop effective road safety policies, and assist local, regional, and national authorities in making decisions regarding financial support for road safety campaigns.



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Campaigns Evaluation (WP4)

The main objective of WP4 is to determine if the evaluation tool developed in WP2 (see page 3) is sensitive enough to detect important changes, to assess his reliability and validity.

Seven partners from different countries were involved in this task including, Factum (Austria), IB-DiM (Poland), IMOB (Belgium), Ministry of Transport (Netherlands), ULFF (Slovenia), UTh (Greece), VTI (Sweden). (Partners-see page 12)

Several campaigns were evaluated with different scopes, 2 at a national level, 1 at regional and 5 at local level. The topic of campaigns covered speeding, seat-belt usage, drink-driving, child restraint systems and use of cycle helmets. Different communication means were used, as printed, media, internet and direct communication. The target groups were general as well as selective.

The evaluation design was based in a theoretical model and took in account 7 before and after studies, 1 after and 5 control groups.

The model used was an extended version of the Theory of Planned Behaviour including the following key elements:

- Behavioural beliefs
- Normative beliefs
- Control beliefs
- Intentions
- Perception of risk
- Descriptive norms
- Personal norms
- Past behaviour/Self reported behaviour

At the end of CAST project a final report will be presented gathering detailed information concerning evaluation process and results.

Below it is possible to consult all campaigns evaluated, listed by topic and partner and a general description of each one, methods used and main results achieved:

Speeding

ULFF

- National campaign combined with police enforcement, before and after study. N=1504 (before); 269 (after)
- TV, radio, posters
- Positive effect after the campaign on intention, risk-perception and personal norms

Seat belt usage

Ministry of Transport

- National campaign combined with police enforcement, N=965 (before) 1475 (after) observations, before and after study
- Media
- Seat-belts usage increased after the campaign but no change in indirect factors. Differences between users and non-users. Motivation for non user to avoid a fine

IMOB

- Local campaign. After study. Two experimental groups (N=575)
- Posters and projected campaign material
- Significant differences between attentive and pre-attentive groups. Attentive group more control and more likely to use seat-belt after the campaign. Experimental groups not different from control group.

UTh

- Local campaign. Before and after study. Posters. N=92 (before), 115 (after)
- Experiment group greater intentions to use the belt than control group, more likely to have done it in the past



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Campaigns Evaluation (WP4)

Drink driving

UTh

- Local campaign. Before and after study. Posters. N=108 (before), 85 (after)
- Experiment group less likely to feel safe if the driver is drunk and will persuade others at their place of work to not to DD than the same group in the before study

IBDiM

- Regional campaign. Before and after study. N=400 (before), N=400 (after)
- Posters, various media.
- After the campaign a larger proportion indicated they would prefer not to drive when they go to or come back from a party. *Selection of spots:* closer to reality and their own beliefs. Need to be emotional and clear about who is responsible

Use of child restraint systems

FACTUM

- Local campaign. Before and after study. N=313 (before) 287 (after) pupils and parent.
- One hour interactive lesson and distribution of information to parents.
- Children showed more awareness of the topic after the lesson. Parents social norms increased (greater pressure from partners) “fewer things would prevent them from buckle up.”

Use of cycle helmets

VTI

- Local campaign. Before and after study. Observations. Before study N=195 Control N=53; After study N=143, Control N=40. Age range 23-65
- Education at their workplace by Falck Ambulans AB Education. Signing of a bicycle helmet contract.
- More people use helmet when biking to work. Increased intention, norms in favour of the behaviour. Increased perceived risk.

Road Safety Campaigns (WP5)

Work Package 5 concerns the design and implementation of a road safety campaign according to the recommendations given in the CAST Manual. Its aim is to test and demonstrate the use of the Manual as a practical tool for designing and implementing campaigns.

After a representative survey on risk awareness and knowledge on distraction and driver fatigue in Denmark, Greece and Belgium, driver fatigue was chosen as the campaign theme. As a complement to the survey results, an extensive overview of research findings on driver fatigue published by the European Road Safety Observatory (ERSO—www.erso.eu) allowed to analyse the problem in more detail.

According to ERSO, fatigue leads to a deterioration of driving performance, manifesting itself in slower reaction time, diminished steering performance, lesser ability to keep distance to the car in front, and increased tendency to mentally withdraw from the driving task. Several studies suggest that fatigue is associated with increased crash risk, and that it is a major factor in a large proportion of road crashes (range 10-20%). Also, survey research world-wide suggests that over half of all private drivers drive while being fatigued or drowsy at least once a year. Young drivers, professional drivers, shift workers and people who suffer from a sleep disorder run a higher risk of experiencing drowsiness behind the steering wheel than others.

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Road Safety Campaigns (WP5)

Based on this problem analysis, it was decided to address specific target audiences in the countries that participate in the campaign: young drivers in Belgium, and professional drivers in Greece. In each case, the main, long term aim is to decrease the number of fatigue-related traffic accidents among the target group concerned. Between June and September 2008, a campaign strategy was developed per country, based on specific objectives that were defined for each situation, and referring to a theoretical model of behavioural change. During the development phase, additional research (qualitative pilot studies) allowed to gain more insight into the main beliefs and motivations of the target audience regarding the problem behaviour and the best solutions.

The *Belgian campaign* targets the problem of driving while too tired in young drivers - mainly late at night, for example after a night out - and the beliefs that are associated with it – the general assumption that the most important thing is to get home as soon as possible, that one can handle the situation, one is still able to drive even when very tired, that opening the window or listening to music will help to keep awake. As a first step in a longer-term strategy to reach its main aim, the campaign wants to install the knowledge that there is only one effective solution – a 15 minute nap (“power nap”), and promotes the adoption of this behaviour in the target audience by means of the “PITSTOP” concept (literally, a short stop to refuel with energy). It consists of a media campaign with small-size posters, leaflets, radio spots and a website directed to young car drivers, in combination with awareness-raising field actions and the distribution of gadgets, carried out by the Belgian Road Safety Volunteer network. The campaign ran from mid-November until mid-December 2008.





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Road Safety Campaigns (WP5)

The *Greek campaign* aims at awareness raising and information on fatigue while driving, with professional drivers as a primary target group. The problem analysis in Greece indicates that the problem of drowsy driving is non-intentional, since most of the drivers are not aware of the risks and the hazards of driving while being tired. There is a great need for people to start identifying the signs of fatigue in their daily driving, since drivers do not know or do not admit that they get tired by driving. The campaign is 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 provides the target audience with the appropriate informa-

tion about the right solutions for driver fatigue (power nap and planning trips in advance). It consists 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.

In accordance with the guidelines of the CAST manual, each campaign will be evaluated by means of 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 will be available in the course of 2009.



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News

Dissemination (WP6)

Work Package 6 objective is to disseminate the knowledge and technology produced within the CAST project among several target groups, the most important being field workers and policy makers.

Two important workshops for technical discussions were organised last year. 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 13 June, 2008. Important contributions, suggestions and recommendations were collected and taken in account to improve CAST manual new version.

The CAST project was also presented at a public level.

The University of Thessaly (UTH) participated in the 4th International Conference on Traffic & Transport Psychology, Washington, DC, USA, August 31.

The CAST partner from Poland, Road and Bridge Research Institute (IBDIM) presented CAST project results during FERSI, a seminar on road safety research projects (21.10.2008 in Thessaloniki). IBDIM also presented the results of the Polish public awareness campaign on drink-driving organized within the CAST project in Lublin. (29.10.08 in Warsaw during seminar organized by the Polish Road Safety Council within the Polish Transport Conference).

CAST Newsletter n°2 was launched and disseminated in July 2008.

The CAST website (www.cast-eu.org) continued to be updated with all relevant contents and deliverables produced by CAST Consortium.

Future Events

CAST Final Conference 26-27 January 2009 Brussels, Belgium

A final conference will be held in Brussels on 26-27 January 2009 to present CAST final results at a public level. More detailed information about the conference can be found on CAST website (www.cast-eu.org)

CAST manual PDF version free of charge

CAST project is coming to an end in February 2009. CAST final public results, including PDF version of CAST manual will be available in CAST website (www.cast-eu.org) and in a near future in European Commission website, free of charge.

Newsletter created by CAST

Dissemination Manager—Portuguese Road Safety Association
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CAST - Campaigns and Awareness-raising Strategies in Traffic Safety

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