4th EC Road Safety Action Programme Consultation Process

Comments
from the Project Management of the

VERONICA I & II Projects

Vehicle Event recording based on Intelligent Crash Assessment

November 11th, 2009

A. From VERONICA to the 4th Road Safety Action Programme

The questionnaire for the 4th EC Road Safety Action Programme (R.S.A.P.) has been answered on the experience as the project manager of the two public-private *VERONICA Projects* which were drafted, conducted and reported between mid 2004 and mid 2009. Following DG Tren activities on event data recording since the early 1990s and its policy on EDR as laid down in the *The White Paper of 2001* and the 3rd *Road Safety Action Programme of 2003* EDR projects were called for by the EC Commission in spring 2004. The projects became known as the VERONICA projects meaning *Vehicle event recording based on intelligent crash assessment*. The VERONICA I Project was effective from Jan. 1st, 2005 to Dec. 31st, 2006, VERONICA II from May 1st, 2007 to July 31st, 2009. The present consultation process for the up-coming 4th R.S.A.P. is the logical instrument to be used for feeding the projects' findings into the political decision making process.

The projects' objectives were laid down in the Grant Agreements concluded between DG Tren and the project consortium, respectively its project management. The projects were granted to collect the knowledge and experience in the fields of accident causation and investigation, data recording and quality, data extraction, data use and interpretation, target groups and impact on road safety. The investigations were conducted on a global and multi-disciplinary level in order to draw appropriate conclusions for Europe. The projects involved experts from accident investigation and research, insurance, enforcement, road safety policies, vehicle manufacturers and suppliers as well as from the legal and data privacy fields. The answers to the questionnaire for consultation were therefore given under a general or European point of view.

The project final reports are available under:

http://ec.europa.eu/transport/road_safety/projects/projects_domain_en.htm#accidentology

or under "Documents" on the project website: http://veronica-project.net

B. Recommendations for the design and content of the 4th R.S.A.P.

1. Accident reduction objectives: The starting point for the new road safety action programme should be to set clear accident reduction objectives. We need a real challenge here in order to take the necessary measures on all levels, among them also institutional issues to better coordinate road safety measures with ITS project objectives and technical standardization.

2. Accident causation understanding: The next conclusion is with regard to the methodology of implementing road safety measures: Before countermeasures for accident prevention can be focused on we need a better understanding of accident causation. To improve road safety quality one needs to know what to do and why to do it. One needs better information in which fields quality has to be improved in order to avoid accidents or mitigate their consequences. In other words, accident causation research (real-life and in-depth data) is lacking; it has the first priority (qualification 1.)

3. Research data bases: As an integrative part of accident research we also need better data bases, either as a new chapter to the *CARE Database* or as a network of respective national research data bases. This was also the clear message of the *ERSO Congress in Rome, April, 2008*.

4. Private prevention measures: Even Commercial Vehicle fleet operators who are explicitly dedicated to road safety can base their prevention measures presently only on "suspected" accident causes and have difficulties in drawing conclusions (see the *DB Schenker example* in the *ETSC PRAISE Fact Sheet No. 1*, in particular the answer to question 5). ETSC therefore calls in their *Blueprint for the EU's 4th Road Safety Action Programme* and in the *PRAISE Report* itself (Sept. 2009) the EU to encourage the wider user of EDRs (*Blueprint: p. 20 and 43; PRAISE Report: p. 8 seq., 13 and 17; for all PRAISE publications see: http://www.etsc.eu*). In other words, giving well based answers for accident prevention measures as the questionnaire requires is presently difficult.

5. Establishing the safety effects, priorities and promotion of new technologies: Because of the priority for accident information which made us to give in the questionnaire a '1' to '*event data recorder (black box)*', qualifications 2 and 3 were given to *'establishing the safety effects of new technologies*' and the *'promotion of new safety technologies'* because such data would provide the

necessary support for the assessment of safety effects. Such assessment would also have to be done on the relevance of technical failures in vehicles or their components.

6. Establishing the impact from habituation and compensation: A new field for research and assessment is increasingly found in the concern about compensation and habituation as well as distraction effects following the introduction of new vehicle technologies (various examples in: "*Behavioral adaptation and in-vehicle ITS", Traffic Technology International, October/November 2009, p. 46/47*).

7. Target group - Vulnerable road users: A major finding from VERONICA refers to the most affected road users: Powered two wheelers, pedestrians, cyclists, elderly road users, children, in fact all vulnerable road users have road safety problems in the sense that they do not benefit from passive vehicle measures. Accidents with vulnerable road users involved fall even shorter of information and evidence for research and legal proceedings than vehicle occupants. But also among this group there is need for action: Young novice drivers as well as buyers of cheaper cars can only benefit from improved active or passive vehicle safety once such measures can be found not only in new or high-end vehicles but also in older or less expensive new ones usually preferred by such consumer groups.

8. Driver warning systems, E-Call: Systems that do not intervene with the vehicle technology but assist the driver passively by warning him in dangerous driving situations (qualification 5) could be derived from EDR data interpretation as well as the triggering of E-Call (qualification 4) would benefit from it. In fact many sources of data can be used by different "users" in the vehicle. So far the discussion focuses on active ADAS systems. There are only self-commitment basis guide lines for information presentation, depending on which organization drafted them. For warnings there are no rules or guidelines at all. But they are necessary and activities in this field should be supported. For more information we refer to the work being carried out by the *International Harmonized Research Activities (IHRA) working group on Intelligent Transport Systems (ITS), Statement of Principles on the Design of High-Priority Warning Signals for In-Vehicle Intelligent Transport Systems – Draft as of October 2008*

Additionally we propose to follow the ETSC recommendations on a number of systems like alcolock or restraint remembering systems as shown in the PRAISE Report (p.13).

C. Summary:

What we expect from the next road safety programme therefore is that after almost 20 years of having accident or event data recording on the EC political agenda, after having available now the necessary information on the technical, legal and political necessity and feasibility of a design-neutral EDR implementation and since vehicle manufacturers equip modern vehicles already with a large number of sensors and modules which cover the EDR requirements to an important extent, we now need three major steps forward:

1. A road map for the mandatory implementation of EDR technology into motor vehicles. The road map has to be in line with the development cycles of the vehicle manufacturers, e.g. CV integrated solution 10-12 years, add-on (e.g. TCO) 5-6 years; PC integrated 5-8 years, add-on 2-4 years

2. An ITS project to develop demonstrator vehicles (different categories) to demonstrate the integration of EDR technology into modern vehicle architectures.

3. A directive for the research directed exploitation of crash data.

For questions and feedback please turn to:

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