TRAINER

System for driver Training and Assessment using Interactive Evaluation tools and Reliable Methodologies

Project details	
Domain	Training, education and campaigns
Duration	from 01/04/2000 until 01/03/2003
Website	
Other sources	Transport Research & Innovation Portal Deliverable 1: Survey of existing training methodologies and driving instructors' needs (426 kB) Deliverable 2: Inventory of driving training needs and major gaps in the relevant training procedures (6,35 MB) Deliverable 4: Truck Simulator Feasibility Study (479 kB) Deliverable 5: TRAINER assessment criteria and methodology (901 kB) Deliverable 6: Pilot Plans (242 kB) Deliverable 9: Project www Site with Interactive Demo (458 kB) Leaflet (3,41 MB)

Implication on quality of life, health and safety and European dimension of the problem

In accidents in the European Community around 55.000 people are killed and 1.700.000 are injured each year, from which 150.000 become permanently disabled. Novice drivers related accidents (people with less than 2 years experience) accounted for 15% of traffic accidents in 1995 in Great Britain. A mere reduction of 1/3 of them would mean 4.125 less fatalities, 12.750 less injuries and 560 Meuros less expenditure for medical treatment.

Implication on skills quality and training

It is well known that young drivers overestimate their driving skill more than older drivers. Furthermore, they are not familiar with the actual dynamics of their vehicle, which define for example the minimum stopping distance in a certain speed. Traditionally, driver training has focused on vehicle control skills and traffic rules without reaching far enough in the efforts to provide risk awareness and other higher order skills. The risk awareness problem is included in driver training in many countries but rather in a theoretical way, included in text books, and is not covered in practical training. This is unsatisfactory, since young drivers tend to think "It's only a problem for others, not for me as I am so clever". The reason is that this problem can not be systematically handled in practical training, as on roads it is very uncertain and even dangerous that a risk situation may occur. Hence, realistic, interactive, off-road tools are required.

Implication on environment and resources

Learners drivers in a city account for around 2% of the traffic volume. The employment of TRAINER tools is expected to reduce the urban traffic volume by 0.6%, reducing the environmental pollution accordingly.

Contribution to technological progress

Finally, driver assessment and training has not followed the rapid evolution of in-vehicle passive and active safety systems and telematic aids. Hence, drivers today are using or about to use equipment for which they have not been trained. The interactive multimedia s/w tool and simulators of TRAINER will enhance the risk awareness of novice drivers, while they will be acquainted with existing and emerging in-vehicle ADA systems (i.e. ABS, EDS but also Adaptive Cruise Control, Navigation aids, etc.) and they will be fully supported in all the driving task levels (Strategic, Tactical and Control) by adequate tools.

Scientific and technological approach and degree of innovative character TRAINER addresses the above problems with the following innovations:

- A new cost-effective Pan-European driver training methodology, which will pay significant attention to the enhancement of risk awareness of learners drivers and will familiarise them with emerging Advanced Driver Assistance Systems.A new cost-effective Pan-European driver training methodology, which will pay significant attention to the enhancement of risk awareness of learners drivers and will familiarise them with emerging Advanced Driver Assistance Systems.
- Development of a methodology to assess and support driver's cognitive skills.Development of a methodology to assess and support driver's cognitive skills.
- Development of a new interactive multimedia training tool to support driver training and assessment in strategic and manoeuvring tasks (theoretical driver training improvement).Development of a new interactive multimedia training tool to support driver training and assessment in strategic and manoeuvring tasks (theoretical driver training improvement).
- Development of a low cost and enhanced reliability stationarystationary driving simulator to support driver training and assessment in manoeuvring and control tasks for practical driver training improvement.Development of a low cost and enhanced reliability stationarystationary driving simulator to support driver training and assessment in manoeuvring and control tasks for practical driver training improvement.
- Development of a mean cost and high performance semi-dynamic driving simulator to support specific needs of selected driver cohorts (novice drivers with enhanced knowledge problems, re-training of drivers in high-risk groups).Development of a mean cost and high performance semi-dynamic driving simulator to support specific needs of selected driver cohorts (novice drivers with enhanced knowledge problems, re-training of drivers in high-risk groups).
- Development of concise and reliable driver assessment criteria and methodology and of normative driver behaviour database, to allow an objective assessment and support of the training procedure.Development of concise and reliable driver assessment criteria and methodology and of normative driver behaviour database, to allow an objective assessment and support of the training procedure.
- Verification of the above methodology and assessment of the effect on risk awareness enhancement of learners drivers through tests with 30 novice drivers (and an equal control group) in each of 4 European countries.Verification of the above methodology and assessment of the effect on risk awareness enhancement of learners drivers through tests with 30 novice drivers (and an equal control group) in each of 4 European countries.

- Development of recommendations and best practice guidelines for the adoption of common European driver training and assessment framework.Development of recommendations and best practice guidelines for the adoption of common European driver training and assessment framework.

Coordinator
• Belgian Road Safety Institute (BE)

Partners
• CDV - Transport Research Centre (CZ) • International commission for driver testing (NL) • Centre for Environmental and Traffic Psychology (University of Groningen) (NL) • Fiat research centre (IT) • EFA - Fédération Européenne des Auto-Ecoles (BE) • Institute for Human Factors and Technology Management (Stuttgart) (DE) • Institut für Arbeitsphysiologie (University of Dortmund) (DE) • POLE ProMotions sprl (BE) • Services in Informatics, Ergonomics & Management (GR) • Transport Engineering Laboratory of the Aristotle University of Thessaloniki (GR) • Automobile Laboratory of the Mechanical and Materials Engineering Department (Polytechnical university of Valencia) (ES) • VTI - Swedish Road and Transport Research Institute (SE)