WILL INTEGRATED SAFETY DELIVER CRASH PREVENTION?

Oliver Carsten

Institute for Transport Studies

University of Leeds

UK

o.m.j.carsten@its.leeds.ac.uk

Intensive research on Driver Assistance Systems goes back at least 20 years, and we are now reaping the fruits of that research with the rapid introduction of new systems into both the luxury and mass markets for cars as well as into trucks. In the future cooperative systems will enhance today's autonomous systems using vehicle-to-vehicle and infrastructure-to-vehicle communications. Both the autonomous and the cooperative technologies look very attractive in safety terms. But it is important to take a rational approach in promoting these systems. We need to know that they are effective in terms of crash prevention, that they are acceptable to users (and therefore used by them), and that they do not have any unanticipated negative side effects. We also need to look at cost-effectiveness and deployment strategies. Will market forces deliver the potential benefits or do we need a more regulated environment?

This presentation will discuss the potential of some of the new systems in the light of both real-world trials and more experimental findings. A distinction will be made between systems that encourage drivers to keep driving within safe boundaries and those that warn drivers or intervene when they exceed the margins of safe operation.