

# SAFE highways of the future

**12, 13, 14 February 2008**Brussels, Belgium

A conference exploring technologies and changes required to enable zero deaths on Europe's roads to become a reality



In association with















The three-day event will unveil, discuss and debate the technologies and approaches that could reduce road deaths to zero. Leading industry experts will present research and new technologies ranging from vehicle safety systems to intelligent road design, encompassing human factors and implementation strategies. The event will look towards the goal of a fully automated highway.

# TOPICS TO BE COVERED

## SAFER VEHICLES BY DESIGN

Safe Highways of the Future will investigate the active safety systems that might be adopted over the next 10-20 years, as well as further advances in passive safety. The conference will review how active systems can be reliably integrated and cost effectively deployed.

- Map-based ADAS: ACC and ALC
- Integrated passive/active safety

## SAFER ROADS BY DESIGN

Designing intrinsically safe roads is of key importance. but improvement of existing roads is a highly costeffective contribution to casualty reduction. Major highway schemes receive much attention but the conference will also look at minor and rural roads.

- Incident detection and Ecall
- Safe roadside design

## AUTOMATED VEHICLES AND HIGHWAY SYSTEMS

Moving from individually driven vehicles towards cooperative V2V and V2I systems. The conference will explore the technologies and challenges in delivering an automated highway.

# WORKSHOPS



# INTELLIGENT ROADS (INTRO) WORKSHOP

INTRO is a research project supported by the European Commission with the aim of developing innovative methods for increased capacity and safety of the road network. This combines sensing technologies and local databases with real-time networking technologies. The project is being conducted by FEHRL institutes together with partners from the ITS and research sector. The final reporting workshop will form part of the programme at Safe Highways of the Future.

## VEHICLE DESIGN WORKSHOP

Achieving vehicle safety improvements in an environment of conflicting requirements

Safety measures to improve vehicle and occupant survivability often result in extra weight, which works against improvements in CO, reduction. In the deployment of resources, too, there is a conflict; there are not infinite resources to undertake all improvements on all fronts - something has to give.

This workshop will explore these issues and discuss the possible approaches that vehicle designers can take towards reconciling these competing challenges.

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# OVERVIEW

We probably all agree that the 40,000 deaths that occur annually on Europe's roads can be reduced. The question posed by Safe Highways of the Future is whether they can be eliminated.

Safe Highways of the Future will explore the technologies and changes required to enable zero deaths on Europe's roads to become a reality. It is designed to create conversation among all the stakeholders in road safety. The conference will cover: vehicle technology, road design, human factors and all the other elements of policy and finance that have a role to play.

It will look at the trends in vehicle safety. It will explore the transition from autonomous vehicles to cooperative highway systems and examine the technology and integrated research that underpins these systems. It will include a dedicated session on the PreVENT Integrated Project and explore the practical steps needed to bring these technologies into service.

Safe Highways of the Future will investigate the design of major highways and rural roads. It will explore inexpensive changes that can have a major impact on safety, with examples from Europe and Australia.

The adage of 'smart' vehicles and 'dumb' roads is challenged as Safe Highways of the Future incorporates the Final Reporting Workshop of the Intelligent Roads Project INTRO.

Policy and finance, the role of the consumer, safety culture and driver behaviour are woven through the programme, and the format provides excellent opportunities for delegates to question experts, debate with each other and gain new insights into the work and approaches of others.

I look forward to you joining the debate and joining me in Brussels for Safe Highways of the Future 2008.

'Safe Highways of the Future will explore the technologies and changes required to enable zero deaths on Europe's roads to become a reality.'

Samuel Gee, conference director Safe Highways of the Future



















# OPENING **SESSION**

TUESDAY 12 FEBRUARY 2008 09:30 - 13:00

#### **OPENING SESSION SPEAKERS**





FROM LEFT: Professor Claes Tingvall, Yves Page, Dr Robert Zobel, Professor Adrian Hobbs, Lars-Göran Löwenadler, Eric Zimmerman

#### KEYNOTE PRESENTATION

#### Zero deaths is the most rational long-term safety target

Professor Claes Tingvall, director general, Swedish Roads Administration 'Eradication philosophy' makes a lot of sense. It is the type of approach that can lead us further than just intermediate targets or simply trying to make things a bit better every year. Vision Zero should be seen as the management tool for road safety in a modern society. The success and outcomes of this approach in Sweden will be discussed as well as some of the products and innovations that have resulted.

#### Accident causation issues and evaluating the safety benefits of technologies

Yves Page, deputy director Laboratoire d'Accidentologie, de Biomécanique et d'études du comportement humain (LAB) PSA Peugeot Citroen - Renault

The general objective of the TRACE project (TRaffic Accident Causation in Europe) is to provide stakeholders, the suppliers, the vehicle industry and the other integrated safety programme participants with a scientific overview of the road accident causation issues in Europe. The idea is to identify, characterise and quantify the nature of risk factors, groups at risk, specific conflict driving situations and accident situations; and to estimate the safety benefits of a selection of technology-based safety functions.

## Accident scene 2020 – trends in a changing accident environment

Dr Robert Zobel, head of accident research, Volkswagen AG

The future development of vehicle safety will be driven by accident avoidance much more than by injury mitigation. Rating systems of passenger vehicles should take this into account. Regulation, compliance testing and rating systems like the different international NCAP organisations should also take this into account. Accident avoidance is always the better solution. Future development should reflect this widely accepted philosophy. NCAP ratings should make sure that a 'best pick' is really a best pick based primarily on accident avoidance and not just with respect to injury mitigation.

#### Integrated safety for improved structural crashworthiness

Eric Zimmerman, manager safety and generic development R&D innovation, Faurecia Innenraum

Successfully integrating passive safety features such as crashworthiness with active safety techniques can help in the development of pre-crash systems which improve safety. This presentation looks at a practical example of this approach, which was able to dramatically improve structural behaviour in a side crash. This is but one of many concepts which prove that you can successfully integrate passive and active safety systems.

#### Creating a safe commercial road transport sector – a challenge for industry as well as society

Lars-Göran Löwenadler, safety director Volvo Truck Corporation

The growth in the European road sector has been significant and a transfer to other transport modes is not an option. Different means are required to increase the capacity of the transport system, like allowing for larger vehicle combinations, up to 60 tons GVW. However, fatal accidents or severe injuries must not simply be accepted. This is a huge challenge, which has to be approached by all stakeholders together: road authorities, transport industry, legislators and the road users.

#### EuroNCAP's achievements and future direction

Professor Adrian Hobbs, BSc, Eurlng, CEng, FIMechE, European New Car Assessment Programme

Over the last decade or so, EuroNCAP has provided the greatest incentive to encourage car manufacturers to improve the crash protection of their products. This has contributed to improved car secondary safety being responsible for the greatest reduction in road accident casualties in that period. For the future, there is great potential for EuroNCAP to encourage further improvements in both primary and secondary safety, through the provision of consumer information.

#### Panel Discussion

Professor Claes Tingvall, Yves Page, Dr Robert Zobel, Professor Adrian Hobbs, Lars-Göran Löwenadler, Eric Zimmerman.



















# **SESSION 2**

TUESDAY 12 FEBRUARY 2008 14:00 - 17:30



FROM LEFT: Dr Maxime Flament, Agneta Sjögren, Kay Fürstenberg, Kees Wevers, Paul Kompfner, Vincent Blervaque, Stefan Engels

#### PreVENT Integrated Project Special Session

Dr Maxime Flament, head of sector - Safety & Security ERTICO, ITS Europe

The PReVENT Integrated Project envisions the early availability of advanced, next-generation preventive and active safety applications and enabling technologies to achieve accelerated deployment on European roads. PReVENT demonstrates, tests and evaluates preventive safety applications, using advanced sensor, communication and positioning technologies. It facilitates the cooperation of all stakeholders: automotive OEMs, automotive suppliers, research institutes and universities, and public and road authorities. The technologies described in this presentation will underpin the active safety systems of the future for safe speed and following, for lane change assistance and departure warning, for intersection safety and for collision mitigation and the protection of vulnerable road users.

#### Creating a cost-effective integrated safety system

Agneta Sjögren, Intelligent Vehicle Technologies Volvo Technology Corporation

To prepare for future cost-effective and usable safety systems there are several issues that need to be addressed. First of all, the number of components. It is essential that the number of sensors and other components is kept low in order to save cost. This means that sensors must be able to support multiple applications, HMI devices should be flexible and the software should be portable between different ECUs. Second, since we are mainly discussing safety systems, reliability is of the highest importance.

#### Laser scanners for multiple safety applications

Kay Fürstenberg, research director, IBEO Automobile Sensor GmbH

Future driver assistance systems will provide road users with enhanced comfort and safety. Driven by the vision to further reduce the traffic accident numbers IBEO Automobile Sensor GmbH is developing laser scanners for driver assistance systems. A single laser scanner - as opposed to conventional sensor systems - possesses the capability of supporting numerous applications like ACC Stop & Go, Automatic Emergency Brake, Pre-Crash, Pedestrian Protection or Lane Departure Warning.

### Real-time updating of in-vehicle digital maps

Kees Wevers, Navteq

In the near future it will become possible to send incremental map updates to in-vehicle systems. The public road authorities implement the changes in safety-relevant road attributes, particularly traffic signs and speed limits, and are the most efficient source of information for in-vehicle digital map providers. The prerequisites for an efficient data chain are adequate data storage and maintenance at authorities, a flexible and robust data exchange infrastructure, and automatic data integration at map providers.

#### Creating safety through intelligent cooperative systems

Paul Kompfner, ERTICO - ITS Europe The CVIS Project

Intelligent cooperative systems are the next big challenge in automotive electronics and ITS. These systems, based on V2V and V2I communications, hold the promise of great improvements in the safety of all road users. Intelligent cooperative systems will build and expand on the functionality of the autonomous and standalone in-vehicle and infrastructure-based systems and offer increased information about the vehicles, their location and the road conditions to the road and infrastructure operators, creating the basis for a safer highway.

#### Integrating navigation data and ADAS systems

Vincent Blervaque, ERTICO - ITS Europe The ADASIS Forum

Advanced driver assistance systems (ADAS) such as adaptive cruise control or adaptive light control are of major importance to road safety. ADAS currently uses information generated by sensors. But navigation systems provide the ability to predict the road geometry, with its related attributes, ahead of the vehicle and should obviously benefit ADAS applications and offer new functionalities. This presentation looks at the technological challenges and the safety potential of integrating navigation data and ADAS systems.

## How accurate 3D road geometry can make vehicles of the future safer

Stefan Engels, director Intermap Technologies GmbH

A revolutionary digital mapping technology now allows contiguous 3D digital surface and terrain data to be collected quickly and efficiently. This accurate 3D map data can enable future predictive map-based ADAS applications, such as adaptive headlights, curve, hill and pass warnings and enhancements to ACC, ESC, lane departure warning systems and other applications, making the highways of the future far safer to navigate.

#### Panel Discussion

Dr Maxime Flament, Agneta Sjögren, Kay Fürstenberg, Kees Wevers, Paul Kompfner, Vincent Blervaque, Stefan Engels



















# **SESSION 3**

WEDNESDAY 13 FEBRUARY 2008

09:30 - 13:00



FROM LEFT: John Dawson, Claire Naing, Andreas Hegewald, Dr John C. Bullas, Jo Versavel, David Boulton

#### KEYNOTE PRESENTATION

#### Getting organised to make roads safe

John Dawson, chairman European Roads Assessment Programme (EuroRAP), chairman of International Roads Assessment Programme (IRAP), secretary of the FIA Foundation for the Automobile and Society The way roads are managed falls well short of what can be achieved. Yet investing in safer roads often requires little more than the organisation involved installing road markings and safety fencing. These programmes have some of the highest returns available anywhere in the European economy.

# Reducing casualties on major routes: a case study of success on the Pacific and Princes Highways in New South Wales

Michael DeRoos, manager, safer roads, Roads and Traffic Authority of NSW

The 1,025km Pacific Highway links Sydney, the capital of New South Wales, to Brisbane, the capital of Queensland. It was faced with a sharp rise in fatalities in 2003, while being one-third of the way through an upgrade to dual carriageway. A safety review was conducted. This paper details the review, the delivery of the resultant strategic plan and its safety outcomes. The plan cost \$35 million but over the following three years fatalities fell from 55 in 2003 to 25 in 2006. This paper also discusses the road safety benefits arising from the Princes Highway Safety Review, where \$30 million of safety works have delivered a reduction in fatalities from 24 in 2004 to four in 2006.

# Automatic incident video detection: future technology for traffic safety Jo Versavel, manging director Traffcon NV

Most major roads suffer from increasing traffic density resulting in more accidents and a larger risk of secondary accidents. Effective incident management depends completely on fast incident detection and verification of incidents. A high detection rate, a short reaction time and a low false alarm rate are the key characteristics required.

#### Safer roadside design for the future: lessons from the real world

Claire Naing, senior research officer - Vehicle Safety Research Centre, Loughborough University

A large proportion of European road casualties result when a vehicle leaves the main carriageway. Through the use of real-world accident data, the RISER project highlighted the main issues to consider when designing roadsides, including the treatment of hazards such as poles, trees or slopes, the benefits of using 'crash-friendly' systems and the response of drivers to roadside objects. From this, it has been possible to develop guidelines which can aid road designers, road operators and manufacturers of road equipment in improving the safety of roadsides for the future.

#### Safe design of rural road cross-sections

Andreas Hegewald, Highway Design Safety Analysis, German Federal Highway Research Institute (BASt) In focusing on highway design it is important to consider not only the major highway systems and major trunk roads but also minor and rural roads, where improved design can play a particularly important role.

# Stopping more safely and more quickly: the road surfaces of the future Dr John C. Bullas, research consultant Highways Asset Management Group, Atkins Highways and Transportation

To date, new road surfaces have been designed without any intentional consideration for whether these new designs provide better braking for ABS-equipped vehicles than the older, more traditional materials they are replacing. Recent research suggests that the increasing proportion of our road networks surfaced using modern materials may provide significantly improved emergency braking capability for those driving the ever-increasing proportion of automobiles that are ABS equipped.

#### Future digital mapping technologies for road safety

Rob van Essen, vice-president, strategic research and development, Tele Atlas

#### New standards for safety management of highway projects

David Boulton, senior manager sustainability and risk practice, Arthur D Little; Ryszard Gorell, principal safety consultant Intelligent Safety Solutions Group, Mouchel Parkman

UK Highways Agency projects have traditionally used a prescriptive approach to demonstrating safety, relying on adherence to detailed standards. However, this approach is becoming less appropriate for the more complex and innovative systems being installed now and in the future. This presentation will describe the work on these new approaches aimed at creating the right level of safety management for a wide range of projects.

#### Panel Discussion

John Dawson, Michael DeRoos, Claire Naing, Andreas Hegewald, Dr John C. Bullas, Jo Versavel, Rob Van Essen, David Boulton



















# WORKSHOPS

#### DELEGATES MAY ATTEND EITHER WORKSHOP

The INTRO Workshop is also open to non-delegates as a standalone workshop. A fee is payable by non-delegates.

## SESSION 4

WEDNESDAY 13 FEBRUARY 2008

14:00 - 17:30



#### INTRO Workshop

With EC funding, the three-year INTRO (Intelligent Roads) project has developed innovative methods to increase the capacity of road infrastructure and maximise the safety and well-being of drivers, passengers, crew and pedestrians. These involved the use and combination of existing technologies as well as combining them with developing technologies in the fields of road surface safety monitoring; traffic and safety monitoring; and intelligent pavement and intelligent vehicles.

#### Speakers will include;

Steve Phillips, secretary general, Forum of National Highways Research Laboratories (FEHRL)

Leif Sjögren, VTI, Swedish National Road and Transport Research Institute

Alex Wright, TRL Transport Research Laboratory, UK

Andrew Winder, Egis Mobilité, France

Edward Chung, EPFL Ecole Polytechnique Federale de Lausanne, Switzerland

Stefan Deix, arsenal research, Austria

## SESSION 5

WEDNESDAY 13 FEBRUARY 2008

14:00 - 17:30



#### Vehicle Design Workshop

Achieving vehicle safety improvements in an environment of conflicting requirements

Environmental and safety measures, both regulatory and market based, are putting huge pressures on the industry and governments to achieve order of magnitude improvements for consumers and society as a whole. In the case of safety, for example, measures to improve vehicle and occupant survivability often result in extra weight, which works against CO, reduction. In the deployment of resources, there is also a conflict: there are not infinite resources to undertake all improvements on all fronts - something has to give.

This workshop will explore these issues and discuss the possible approaches that vehicle designers can take towards reconciling these competing challenges.

#### Moderated by

Brian Knibb, Knibb Gormezano and Partners

#### Panel Members

Professor Adrian Hobbs, BSc, Eurling, CEng, FIMechE, European New Car Assessment Programme (EuroNCAP)

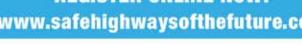
Professor Oliver Carsten, director of the Institute of Transport Safety & Professor of Transport Safety University of Leeds

Lars-Göran Löwenadler, safety director Volvo Truck Corporation

Plus others to be announced (see website for updates)

This session is open to all delegates at Safe Highways of the Future 2008. It will be an open forum with questions from the floor and the opportunity to debate the issues with the panel and with fellow delegates.

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## SESSION 6

THURSDAY 14 FEBRUARY 2008

09:00 - 13:00



FROM LEFT: Andre Vits, Fred Wegman, Professor Oliver Carsten, Nicolas Hautière, Robert Gifford, Dr Alan Stevens, Amon Rambaldini

Importance of co-funding integrated projects like PReVENT and an overview of where EC research will go after PReVENT Andre Vits, head of unit ICT for transport, European Commission

## Advancing sustainable safety: road safety in the Netherlands 2005-2020

Fred Wegman, managing director, SWOV Institute for Road Safety Research

In 2005 SWOV published a perspective for the coming 15 years, entitled Advancing Sustainable Safety. This presentation will outline issues that will characterise the next 15 years in road safety and how SWOV believes they can be approached.

#### Estimating the effects of ADAS introduction on safety: effects of scenario and system

Professor Oliver Carsten, director of the Institute of Transport Safety, and professor of Transport Safety University of Leeds

This presentation looks at the interplay between system effectiveness and scenarios for system introduction affecting predicted accident savings. Examples of systems such as eCall and SpeedAlert/ISA (Intelligent Speed Adaptation) will be used. A major issue in determining the safety potential of such systems is whether the market can be relied on to deliver high penetration rates or whether there is a need for additional encouragement to fit and use the systems.

#### Improving the credibility of, and compliance with, speed limits: a realworld approach

Nicolas Hautière, Laboratoire Central des Ponts et Chaussées (LCPC)

Drivers learn to anticipate difficulties in a natural way. This behaviour may provide insights into how all drivers should behave, and it may not be always consistent with information as simple as mandatory speed. In the French ANR DIVAS project, the speeds adopted by experienced drivers were used to obtain a nominal speed profile. A composite risk function was then used to compute a customised adaptive speed profile, which takes into account the current state of the road. Compared to purely computational approaches, this hybrid empirical and computational approach may be used to update speed limits and improve their credibility.

#### Creating common safety standards on Europe's roads

Yvon Loyaerts, Conference of European Directors of Roads (CEDR)

Clearly there are differences in casualty statistics across the countries of Europe. Some of this may have to do with infrastructure, but some has to do with safety culture. If we are to reduce casualties Europe-wide over 10-20 years, this issue will need to be addressed.

#### Casualty reductions beyond 2010: the challenges ahead

Robert Gifford, executive director Parliamentary Advisory Committee on Transport Safety (PACTS)

The current targets for casualty reduction in Great Britain come to completion in 2010. This presentation will look at progress to date and highlight the areas where further improvement is needed to deliver further significant reductions. In particular, the need for more comprehensive government involvement, for political leadership and for more partnership working.

#### User-centred design for driver assistance and cooperative vehicle-highway systems

Dr Alan Stevens, chief research scientist, Transport Research Laboratory (TRL)

This presentation will consider how the use of human factors data, principles and methods can be used to help design and evaluate systems that provide driver assistance, and those that require cooperation between the vehicle, the driver and the highway system. By using experience from European projects and specific work in the UK, it will illustrate how a driver-centred approach is currently being used, and how it might be used in the future as systems become partially automated.

#### A User-centred approach for designing and testing ADAS: Fiat Research Centre experiences

Amon Rambaldini, senior researcher product ergonomics, Fiat Research Centre

#### Panel Discussion

Andre Vits, Fred Wegman, Professor Oliver Carsten, Nicolas Hautière, Yvon Loyaerts, Robert Gifford, Dr Alan Stevens, Amon Rambaldini



















# SPEAKERS INCLUDE

Professor Claes Tingvall Dr Med Sc Director of traffic safety at the Swedish Road Administration. Chairman of EuroNCAP Claes Tingvall has held positions related to traffic

safety since 1976, and has mainly published in the area of injury epidemiology, vehicle occupant protection and design methods for in-depth analyses of accident data collected in the field. More recently, Claes Tingvall was director of the Monash University Accident Research Centre, Australia, where he currently still holds a professorship. Since 2001, Claes Tingvall has been director of traffic safety in Sweden.



#### Yves Page

Deputy director Laboratoire d'Accidentologie, de Biomécanique et d'études du comportement humain (LAB) PSA Peugeot Citroën - Renault

Yves Page has been deputy director of the Laboratory of Accidentologie, Biomechanics and human behaviour studies PSA Peugeot Citroën-RENAULT (LAB) since May 2004. He is responsible for accident research and primary safety, indepth accident investigations and analysis as well as the evaluation of the effectiveness of e-safety systems. He has worked at the Road Safety Department of the French Ministry of Transport and also coordinated the accident analysis at the European Centre for Safety Studies and Risk Analysis (CEESAR). He is a Fellow of the French Society of Statistics (SFdS) and of the Association of Francophone Epidemiologists. He has published about 50 articles and reports about road safety in the last 15 years.



#### Dr Robert Zobel

Head of accident research, Volkswagen AG Dr Robert Zobel is head of accident research for Volkwagen AG and has teams working in

Germany, the Czech Republic and China. His main topics of interest are biomechanics, advanced driver assistance systems and the structural behaviour of cars in front- and side-impact crashes. He has been at Volkswagen since 1980; prior to that he was assistant professor at the Technical University of Braunschweig.



# Professor Adrian Hobbs, BSc, Eurlng, CEng, FIMechE

European New Car Assessment Programme (Euro NCAP)

Adrian Hobbs was secretary general of Euro NCAP up to 2007. Prior to this he was chief research scientist of vehicle safety at the Transport Research Laboratory in the UK. He was responsible for initiating the development of EuroNCAP. Adrian was also responsible for the UK programme of Crash Injury Research, which he led for 30 years. This was preceded by 'on-the-spot' research into road accident causation. He has provided advice to the World Bank, the World Health Organisation, the European Commission and Central European and North African countries on the prevention of accidents and injury and on vehicle safety.



#### Lars-Göran Löwenadler

Safety director, Volvo Truck Corporation Lars-Goran Lowenadler holds a Masters degree in Engineering Physics from Chalmers University of

Technology and joined the Volvo Group 1973. Since 2002 he has been the safety director of Volvo Trucks and is responsible for the strategic planning of safety-related products, as well as supervising the development process and the outcome of safety projects. In 2004 he was personally nominated as one of 12 members of the European Commission's Group of Experts on Accident Investigations in Transport. He is chairing the board of STM (Swedish Industrial Group for Applied Mathematics) and Volvo Trucks Safety Council, and is a member of many groups and networks in the area of road safety.



#### **Eric Zimmerman**

Manager safety and generic development R&D innovation, Faurecia Innenraum Systeme GmbH Eric Zimmerman studied Mechanical Engineering

at the University of Kassel. He has been involved in the development of exterior and interior mirrors and safe door modules and has led a team developing door modules for the Ford Fiesta. Since 2003 he has been involved in the EU-Project APROSYS (Advanced Protection Systems), aiming to develop effective pre-crash safety systems. Since 2005 he has been manager, innovation structures and safety, at Faurecia Interior Systems, Scheuerfeld.



Dr Maxime Flament

Head of Sector - Safety & Security, ERTICO ITS Europe

Maxime Flament holds a degree in Civil Engineering from Université Libre de Bruxelles and an MSc EE and PhD EE in Digital Communication Systems from Chalmers University of Technology, Gothenburg, Sweden. Maxime joined ERTICO in January 2004 and his areas of expertise are in advanced driver assistance systems, active safety systems, map-based applications, telematics, wireless communication systems and technologies.



Paul Kompfner

ERTICO - ITS, CVIS Project

Paul Kompfner has a BA Physics (and Philosophy), University of California, San Diego, USA and

undertook post-graduate research in Astrophysics, University of Oxford, UK. He is a Fellow at The Institution of Highways and Transportation.



Kay Furstenberg

Director of research, IBEO Automobile Sensor GmbH

Kay Furstenberg has a degree in electrical engineering from the Technical University Hamburg. He has been involved in the development of algorithms for detection, tracking and classification of objects in the vehicles environment using laser scanners. Since 2004 he has been director of research, IBEO Automobile Sensor GmbH, coordinating the research activities of IBEO and planning the IBEO contribution to European projects.



















# SPEAKERS INCLUDE

**Kees Wevers** 

Navteg

Kees Wevers holds a Masters degree in Chemistry from the University of Utrecht and a Bachelor

degree in Economics from the University of Rotterdam. He has been with NAVTEQ since 1992. He is an expert in digital map databases, their application in navigation systems and other ADAS applications, and in location referencing. He is chair of the Location Referencing Group of the TMC Forum and has extensive experience in EU-funded research projects.



Agneta Sjögren

Intelligent Vehicle Technologies, Volvo **Technology Corporation** 

Agneta Sjögren holds a Master of Science degree in Electrical Engineering from Chalmers University, and started working for Volvo immediately after graduation. Her early focus was on driver assistance systems; developing filters, target trackers and control algorithms. Over the last few years her main responsibility has been as the project manager of INSAFES, a PReVENT subproject including 10 partners with a total of about 350 man-months. More recently she has taken responsibility for coordinating activities in the area of integration and automation within Volvo Technology.



Stefan Engels

Director, Intermap Technologies, GmbH Stefan Engels brings more than 12 years' experience as a general manager and international

key account manager for PTV AG (formerly MAP&GUIDE GmbH), Motorola, ReBASE International Group, Deutsche Telekom, DaimlerChrysler Services, and UPS Deutschland. Stefan leads the automotive division of INTERMAP Technologies as the director of business development for Europe, Middle East and Africa (EMEA).



#### Vincent Blervaque

ERTICO ITS Europe, ADASIS Forum

Vincent Blervaque is a computer science engineer, University of Technology in Compiègne

(UTC), France. His expertise is in international business development and project management in software engineering, training simulation intelligent speed management, digital maps and advanced driver assistance systems.



#### John Dawson

Chairman European Roads Assessment Programme (EuroRAP), chairman of International Roads Assessment Programme

(IRAP) and secretary of the FIA Foundation for the Automobile and Society

John Dawson is chairman of EuroRAP, the European Road Assessment Programme, the first regional road assessment programme, which he has led since its genesis in 2000. He is also chairman of iRAP, the International Road Assessment Programme, which was established in 2006 to coordinate Road Assessment Programmes, and secretary of the FIA Foundation for the Automobile and Society. He is also The Automobile Association's policy director.

#### Michael de Roos

Acting manager, safer roads, New South Wales Centre for Road Safety

Michael de Roos started working as a road designer with the Roads and Traffic Authority (RTA) in 1989. Since 1999 Michael has worked in the RTA Corporate Office, where he has conducted research into behavioural and engineering issues and developed policies and strategies that incorporate engineering, enforcement and behavioural programmes. Michael managed the installation of the first fixed digital speed cameras in Australia, reviewed and rewrote the NSW Speed Zoning Guidelines and has developed and implemented a programme that re-engineers local roads so that they are safe for pedestrians. Michael manages and influences road safety outcomes across NSW, through the development, implementation and promotion of the 'safe system' approach to road safety.



Claire Naing

Senior research officer - Vehicle Safety Research Centre, Loughborough University

Claire Naing has worked on a number of UK government-funded projects investigating vehicle conspicuity and driver vision. Claire has worked on the European-funded RISER project (Road Infrastructure for Safer European Roads), coordinating the development, data input and analysis of an in-depth accident database for single vehicle accidents for the project. Currently Claire is working on the European project TRACE (TRaffic Accident Causation in Europe), and has close links with the UK Department for Transport funded OTS (On The Spot) project, specialising in highways-related research.



Dr John Bullas

Research consultant, Highways Asset Management Group, Atkins Highways and Transportation

John Bullas is a 'forty-something', 'born-again student' who took research for the AA Motoring Trust forwards into a PhD study at the University of Southampton. A graduate geologist and geotechnical engineer, he lives with his computers, cars, cats and wife on the south coast of England.



Andreas Hegewald

Highway Design Safety Analysis, German Federal Highway Research Institute (BASt)

Andreas Hegewald graduated in 2006 as a Traffic

Engineer with special emphasis on traffic planning from the Technical University of Dresden. Since 2006 he has been working as a scientist at the Federal Highway Research Institute (BASt), section V1 Traffic Planning, Highway Design and Safety Analyses.



Jo Versavel

Managing director, Traficon n.v.

Jo Versavel started his career as head of R&D at Barco in 1972 (until 1982). During this period, he

started a project in cooperation with the University of Louvain. The result was their first CCD camera. This CCD camera was used as a basis for developing the first prototype for traffic video detection in the world. In 1982, he was co-founder of N.V. DEVLONICS. An agreement was made with the University of Louvain to commercialise this traffic video detection prototype. In 1992, he founded TRAFICON N.V.



















# SPEAKERS (CONTINUED)

#### Rob van Essen

Vice-president, strategic research and development, Tele Atlas

Rob van Essen graduated with a degree in Cartography (Geography) from the State University Utrecht in 1990. Currently he is globally responsible for Tele Atlas strategic research and development, which comprises map research, prototypes of maps and map related functionalities, advanced engineering and standardisation.



**David Boulton** 

Senior manager sustainability and risk practice, Arthur D Little

David Boulton has been working in the field of risk assessment and its application to transport for 13 years. In 1994 he joined ERA Technology as a specialist in risk assessment in the rail sector. As part of this role, he also undertook a number of independent safety assessment roles. In 2001 he joined Arthur D Little. David was heavily involved in the safety work that was carried out in support of the Active Traffic Management (ATM) scheme that is now operating on a section of the M42, and continues to be involved in several other highways-related projects, including the development of safety management procedures for application to Highways Agency projects.



Ryszard Gorell

Principal safety consultant Intelligent Safety Solutions Group, Mouchel Parkman

Ryszard has been working in road safety for 15 years. He began his career as a graduate civil engineer, working for WS Atkins in Cardiff. After obtaining an MSc in Transport he joined the Transport Research Laboratory in Crowthorne. During his time at TRL he managed a number of road safety research projects primarily for the Highways Agency and DfT. He joined the Technology Design and Implementation division of Mouchel Parkman in June 2005. He is currently involved in safety work associated with Active Traffic Management (ATM) schemes as well as several other highway schemes.

#### Steve Phillips

Secretary general, Forum of National Highways Research Laboratories (FEHRL)



**Brian Knibb** 

Chairman and managing director, Knibb Gormezano & Partners (KGP)

Brian is a mechanical engineer and gained his early industrial experience with Perkins Engines in manufacturing development, product and business planning. He spent seven years with A T Kearney European Automotive Group. His experience has included participation in and leading assignments concerned with on- and off-road vehicles, engines, components, materials, technologies and industry supply relationships. Over the last 15 years KGP, under Brian's leadership, has developed a strong position in technology assessment and forecasting in the industry. Clients have included vehicle manufacturers, Tier One suppliers, governments and investors. An area for special scrutiny has been active or eSafety systems. KGP's membership of the eSafety Aware Consortium and several EU working groups has generated a substantial body of knowledge and understanding.

#### André Vits

Head of Unit ICT for Transport, European Commission

André Vits studied electromechanical engineering and holds a PhD in Applied Sciences from the University of Leuven, where he became a lecturer on Traffic Control and Transport Management. In 1988 he joined the European Commission for the launch of the DRIVE 1 and DRIVE 2 RTD programmes. Since the end of 2001, he has been Head of Unit and in charge of Information and Communication Technologies (ICT) for Transport in Directorate-General Information Society and Media. Current activities focus on intelligent vehicle safety systems, The unit is also responsible for the Intelligent Car Initiative, which is an i2010 flagship project, and the eSafety Initiative.



Fred Wegman

Managing director, SWOV Institute for Road Safety Research

Fred Wegman gained an MSc Civil Engineering, traffic engineering from Delft University of Technology inNovember 1972. From 1974-1977 he was a traffic engineer in the Municipality of Amsterdam. In 1977 he joined SWOV Institute for Road Safety Research and since April 1999 has been its managing director. He is involved with many other organisations and is the author and co-author of numerous publications on road safety.



#### **Professor Oliver Carsten**

Director of the Institute of Transport Safety, and Professor of Transport Safety University of Leeds Professor Carsten graduated from Oxford

University and obtained his PhD from the University of Michigan. He worked at the University of Michigan Transportation Research Institute (UMTRI) for 10 years and joined the Institute for Transport Studies in 1987. He has coordinated several European projects, including HOPES, examining the safety impacts of various field trials; VRU-TOO, applying new technologies to improve the safety and mobility of pedestrians; HINT, examining the human implications of new technologies; and HASTE, which studied the effect on driving performance and safety of using invehicle information systems. He led the development of the advanced driving simulator at Leeds and directed projects to examine techniques for reducing unsafe driving on rural arterial roads and for investigating the benefits of intelligent speed adaptation (ISA). Work on ISA includes leading the UK External Vehicle Speed Control project and the current ISA-UK project. He has been chair of the DRIVE I safety and behavioural group, was a member of the DRIVE Safety Task Force, is chair of the Road User Behaviour Working Party of the Parliamentary Advisory Council for Transport Safety, has been is a member of several expert groups of the European Transport Safety Council, and is a member of the Programme Management Panel of the UK Foresight Vehicle Programme. He is the author of numerous reports and articles on traffic safety.



#### Dr Alan Stevens BSc PhD MBA FIET Chief research scientist, Transport Research Laboratory (TRL)

Alan Stevens is chief scientist and research director, transportation at TRL, the UK Transport Research Laboratory, and has over 20 years' experience of the application of new technology in the transport environment. His main technical interests are route guidance, driver information and assistance systems, road pricing and human-machine interaction (HMI). At TRL he is also involved in recruitment and training, and he teaches part of an MSc course at Surrey University on ITS. Alan is technical director of ITS (UK) and editor-in-chief of the IET journal Intelligent Transport Systems.



#### Amon Rambaldini

Senior researcher, Fiat Research Centre

Amon Rambaldini has a degree in Experimental Psychology and a Masters degree in Assistive Technology. He is the senior researcher in the Fiat Research Centre product ergonom-

the senior researcher in the Hat Research Centre product ergonomics department. He has been working on cognitive ergonomics in CRF since 2001. In particular, he has contributed to human factors evaluations of vehicle instrumentation and auxiliary controls and has been involved in the evaluation and development of on-board HMI systems adopting a user-centred approach. Moreover, he is involved in defining specific strategies to evaluate workload in a driving context. Since 2004 he has been working in the development and testing of an ADAS prototype, supporting technicians in the definition of HMI specifics.



#### Nicolas Hautière

Laboratoire Central des Ponts et Chaussées (LCPC) Nicolas Hautière has an MS degree in civil engineering from the National School of State Public Works (ENTPE),

Lyon, France and MS and PhD degrees in computer vision from the University Jean Monnet, Saint-Etienne, France. From 2002 to 2005, he was a PhD student at the Vehicle-Infrastructure-Driver Interactions Research Unit (LIVIC), a mixed research unit between INRETS (French National Institute for Transportation and Safety Research) and LCPC (French Public Works Research Laboratory). He was also involved in the French ARCOS project. He is currently involved in the FP6 integrated project SAFESPOT (Cooperative Systems for Road Safety) and is co-leader of the French ANR DIVAS project (Dialogue between the Infrastructure and Vehicle to Improve the Road Safety). He is establishing a partnership with the California PATH in the area of cooperative systems in the framework of the DIVAS America project.

#### M. Yvon Loyaerts

Conference of European Directors of Roads (CEDR)



#### **Robert Gifford**

Executive director Parliamentary Advisory Committee on Transport Safety (PACTS)

Robert Gifford is executive director of the Parliamentary Advisory Council for Transport Safety (PACTS) He is a member of the Ministerial Road Safety Advisory Panel. Since 1997 he has acted as a special adviser on transport safety matters to the House of Commons Transport Select Committee. He sits on the Safety Advisory Board set up by the Rail Safety and Standards Board and on the National Steering Group of the Driver Offender Retraining Group. He is also an external research adviser for the Department for Transport on road and vehicle safety.







# INFORMATION

## THE VENUE



The Royal Windsor Hotel
Grand Palace is an elegant
and sophisticated five-star
hotel in the heart of Brussels,
just off the world-famous Grand
Place and in front of the grand
Casino Brussels.

Royal Windsor Hotel Grand Palace 5 Rue Duquesnoy

1000 Brussels, Belgium Tel: +32 2 505 5555 Fax: +32 2 505 5500

Email: resa.royalwindsor@warwickhotels.com Web: www.royalwindsorbrussels.com

## **USEFUL INFORMATION**

Hotel Information: The Royal Windsor Hotel Grand Palace has been appointed as the main hotel for Safe Highways of the Future 2008 and this is where the majority of delegates will be staying. If you wish to choose alternative accommodation, please contact:

RESOTEL

Mr Ronny Vanderpooten 6, avenue Van Nieuwenhuyse 1160 Brussels, Belgium Tel: +32 2 777 0158

Fax: +32 2 779 3900 Email: ronny@resotel.be

Brussels: Hosting the headquarters of ERTICO-ITS, the European Commission and multinational corporations, Brussels works hard and plays hard, too. Expect cuttingedge culture and culinary delights. Composed of 19 autonomous districts, Brussels is Europe in miniature, making it the perfect destination for Safe Highways of the Future 2008.

## **CONTACT DETAILS**

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- Tel:+44 (0)1306 743744 Fax: +44 (0)1306 877411
- Email: samuelgee@ukintpress.com
- www.safehighwaysofthefuture.com

# **TRAVEL**

The Royal Windsor Hotel Grand Palace, the venue for Safe Highways of the Future 2008, boasts the best location in the heart of Brussels and is easily accessible by various types of transport. Please see the following directions:

#### By Air

Brussels Airport is located just 14 km from the city centre and can be reached directly from over 70 cities around the world. From Brussels Airport the venue is only 25-30 minutes away by either taxi or train. A taxi from the airport to the venue will cost about Euro15-20. Trains run directly from the airport to Brussels Central Station every 20 minutes. The walk from the Central Station to the Royal Windsor Hotel Grand Palace takes about 5 minutes.

#### By Train

Brussels South Station (Midi/ Zuid) is accessible in 2½ -3 hours by train from major European cities such as London, Paris, Amsterdam and Cologne. From the South Station the venue is only 10-15 minutes away by taxi.

#### By Car

Brussels is only 2-3 hours' drive from major European cities like Paris, Amsterdam, Rotterdam and Cologne.

# **VISA REQUIREMENTS**

You can find out if you require a visa to enter Belgium via the Foreign Affairs, Foreign Trade and Development Cooperation website, which is translated into a number of languages. Please visit www.diplomatie.be for further information.

If you do require a visa to enter Belgium, we can provide you with the necessary invitation letter

# **CONFERENCE HOURS**

Tuesday 12 February Wednesday 13 February Thursday 14 February

10.00hrs – 17.00hrs

10.00hrs - 17.00hrs

10.00hrs - 13.00hrs

If you do not wish to receive future mailings please visit; www.safehighwaysofthefuture.com/unsubscribe