

Reducing Road Safety Risk Driving for Work and To Work in the EU An Overview

Part 1 Overview of Work Related Road Safety in the EU

Introduction

A total of 39,000 people lost their lives in road traffic collisions in 2008, of those a large percentage were driving for work or to work whilst commuting. Improving work related road safety would improve road safety as a whole. This briefing paper gives an overview of the road safety level in the EU presenting existing data and the profile of those involved in work related road traffic deaths in the EU. It gives an idea of the key risks facing those driving for work and how to counter them. It also aims to give an overview of the past and possible future activity to improve work related road safety at a European, national and employer level with recommendations for future work. It draws on existing reports prepared by the ERSO, EU OSHA, European Commission, NIOSH and ETSC's PRAISE project.

Road Safety in the EU

The European Union has set itself the ambitious target of reducing the yearly number of road deaths by 50% by 2010 compared to 2001. A comparison of developments¹ up to 2008 shows that some countries have reached reductions of more than 40%. Luxembourg (- 49%), France (- 48%) and Portugal (- 47%) have progressed best and are well on track to reach the target ahead of 2010. Latvia and Spain reduced the number of road deaths by more than 42%, just about the reduction needed to be on track. There is however no place for complacency. Even frontrunners, Spain and Latvia need to strengthen their efforts and, if current trends continue, Belgium and Germany are the only other countries within reach of halving their numbers of road deaths before 2013. Since the EU target was set, road deaths dropped by 29% and if current trends continue road deaths are likely to fall by a third in 2010. Still 39,000 people lost their lives in road traffic collisions in 2008. Results and analysis covering the 2001- 2009 period will be published by ETSC in June 2009. The EU is due to come forward with a new European Action Programme for the period 2010 to 2020 this spring.

Recommendations to the EU

- New targets and measures which address driving for work and commuting must be set for 2020 which will mobilise action at a joint European level to work further towards reducing the unacceptably high level of deaths and disabling injuries on Europe's roads.

Road Traffic Deaths Whilst Driving for Work

¹ 3rd PIN Annual Report 2010 on the Horizon

Road Traffic accidents² accounted for 39% of fatal accidents at work in 2005³. More than one in four fatal accidents at work involved person 'driving a means of transport or motorized and mobile handling equipment' (ESAW 2005). The report 'Causes and Circumstances of accidents at Work in the EU' points to the differences in reporting. Underreporting present challenges when collecting and analysing the data (ESAW 2005). The main types of vehicles involved include light vehicles (42% of cases), heavy good vehicles (lorries, buses, coaches) in 28% of cases and two or three wheeled vehicles in 6% of cases. Young workers are particularly affected by fatal accidents involving loss of control of two or three wheeled vehicles, as 13% of workers who died as a result of this type of accident were under 25 years old (for comparison, in 2005 workers aged 18-24 accounted for only 8% of all fatal accidents at work)⁴.

Driving for work includes:

- Professional transport
- Driving whilst at work, for example sales people
- Workers on the roads for example carrying out repairs
- Commuting to work.

This paper focuses on the first two.

Commuting

At present there is little data covering commuting in the EU Member States and this remains somewhat a grey area. A report⁵ from 2003 on occupational road safety including collecting and comparing commuting data from five EU Member States by Eurogip, suggests that commuting, as well as driving for work is also an important road safety risk factor that organisations should focus on as part of their programs to protect the safety and wellbeing of key workers (Annex 1).

The issue of commuting accidents and their impact on the workers compensation system was also reviewed in detail for Germany and several other countries by MRG⁶ (2004). The report concluded that commuting accidents are a financial drain on the worker compensation systems due to their higher frequency and severity. Also that as populations decentralise and travel further to work commuting collisions has been increasing as a proportion of the road toll in many countries. It found that:

- 10% of occupational accidents (and 45% of fatalities) in Belgium involve commuting.
- 13% of occupational accidents (and 45% of fatalities) in Finland involve commuting.

² European Commission (2005) Causes and Circumstances of Accidents at Work in the EU.

³ This refers to the 'transport branch' and fatal Road Traffic and Transport Accidents in the Statistical Classification of Economic Activities in the European Community. The data do not include commuting nor do they include Ireland or the UK.

⁴ European Commission (2005) Causes and Circumstances of Accidents at Work in the EU

⁵ Eurogip (2009). Le risque routier encouru par les salariés en Europe Actualisation du rapport Eurogip-05/F publié en 2003 August, Eurogip-40/F, www.eurogip.fr/en/docs/Eurogip_risque_routier_2009_40F.pdf

⁶ MRG (2004) Commuting accidents. A challenge for workers' compensation systems, Munich Research Group, www.munichre.com/publications/302-04092_en.pdf

- 10% of occupational accidents (and 47% of fatalities) in France involve commuting.
- 15% of occupational accidents (and 43% of fatalities) in Germany involve commuting.
- 6% of occupational accidents (and 21% of fatalities) in Italy involve commuting.
- 6% of occupational accidents (and 16% of fatalities) in Portugal involve commuting (which has a very narrow definition).
- 8% of occupational accidents (and 29% of fatalities) in Spain involve commuting (which has a quite narrow definition).

Recommendations to EU and EU Member States

- Promote good practice to reduce commuting collisions from proactive employers that have chosen company locations with good links to local public transport, set up a collection service (works buses), car share schemes, encourage staff to switch to public transport or use flexi-time to help to stagger the rush hour.
- Data collection should be improved including collecting and monitoring "purpose of journey". What is monitored is more likely to be improved.
- Data collection should also extend to include collecting 'commuting' data.

Driver and Riders at Risk

Professional driving is a highly hazardous activity, involving far higher risks than those encountered in virtually any other occupation or most other activities of daily life. Despite the fact that their rate of death in road crashes is lower than for other groups of road users, professional drivers impose substantial risks on other groups of road users⁷. High mileage work-related driving in cars and light vans leads to a higher risk of crash involvement than similar non-work driving but crash causes are similar. Drivers at work are made up of drivers and riders of vehicles used for a range of purposes (e.g. company cars, vans, pickups, large goods vehicles, buses, taxis, minicabs, emergency vehicles, construction and agricultural machinery, motorcycles, mopeds and bicycles). Additionally many people work on, or near the road, for example maintenance workers, refuse collectors, postal workers, vehicle breakdown employees and the police⁸. The type of work-related driving is also highly varied. Vehicles can be company owned or leased or used solely for business; company owned vehicle use for work and private purposes, or privately owned but used for work purposes (ERSO 2007).

The road freight transport sector positions itself as the dominant freight mode covering 76% of the total market and employing 2.8 million people in 2006⁹. It is characterised by a considerable geographic concentration of the activity (more than half of the total good transport in thousand kms. is accounted for by Germany, Spain, France and Italy) and a high degree of market fragmentation (from 65% to 95% of companies have less

⁷ Elvik, R. (2007) Occupational risk in road transport in Norway, Working paper of January 30, 2007, Institute of Transport Economics, 2007

⁸ Clarke, D., Ward, P., Bartle, C. and Truman, W. (2005) School of Psychology University of Nottingham Road Safety Research Report No. 58 An In-depth Study of Work-related Road Traffic Accidents, August 2005, Department for Transport: London

⁹ DG Internal Policy European Parliament (2009) Shortage of Qualified Personnel in Road Freight Transport.

than ten employees) where a few big players tend to dominate the market and subcontract various activities to medium-size and small companies¹⁰.

Driving for work includes the freight transport sector but also many others who drive for work and to work whilst commuting. These include drivers who drive vehicles covered above such as cars and light vans and motorcycles who drive as part of their job.

Recommendation to the EU and EU Member States

- Measures to reduce death and serious injury should cover all driving for work beyond the road freight transport sector.

The Business Case

Duty of care, health and safety compliance are legal necessities in most EU Member States, and is an essential consideration for employers. Employers should also make sure that their employees are able to comply with the law for example making sure there are seat belts on all seats. But equally important, it most often makes sound business sense to draw up and implement a road safety action plan. For businesses there is a clear link between safety, quality, customer service, efficiency and the environment. Road safety has a massive impact on society, and for this reason can play a major role in improving – or damaging an organisations corporate social responsibility (CSR).

This can be reflected in different ways:

- Reduced running costs through better driving standards (fuel consumption/vehicle maintenance costs);
- Fewer working days lost due to injury;
- Reduced risk of work-related ill health;
- Reduced stress and improved morale / job satisfaction;
- Less need for investigation and paperwork;
- Less lost time due to work rescheduling;
- Fewer vehicles off the road for repair;
- Fewer missed orders and business opportunities, reduced risk of losing the goodwill of customers;
- Less chance of key employees being banned from driving¹¹.

Collisions most often have financial implications on a business that stretch well beyond reported costs. A proactive road risk program can also keep organisations ahead of and protected from regulations and legal requirements and gain a competitive advantage compared to more 'reactive' competitors.

¹⁰ Ibidem.

¹¹ © and Intellectual Property Dr Will Murray, Interactive Driving Systems, all rights reserved, 2009.

Key Risks

The main causes of road traffic collisions include speed, drink and drug driving, non use of seat belts and whilst driving for work especially also higher levels of fatigue. This section covers driving for work as a professional driver or a company car driver.

Speeding

There is a well documented relationship between speed and collisions resulting in death and injury with lasting effect. The adaptation of driving speed to the prevailing conditions and speed limits is a primary way of controlling the crash risk of the driver. Drivers travelling for work are often under pressure to meet tight deadlines and this means that they are a group that are often likely to speed. A British study found that speeding amongst company car drivers was common for over half the sample, and excessive speeding was common for 13% of the sample. The most important reason was the desire to arrive at meetings on time, even if this meant breaking the speed limit combined with a reduced perception of excess speeding as an important accident risk factor and lower driving experience¹².

Recommendations to the EU and the EU Member States

- Promote appropriate speeds whilst driving for work and making the link to benefits of lower emissions through eco driving.
- Undertake proper journey planning to ensure that 'just in time' delivery does not put pressure on drivers to speed.

Alcohol

Driving whilst under the influence of alcohol contributes annually to at least 10,000 deaths on EU roads. In the EU as a whole around 1% of journeys are associated with an illegal Blood Alcohol Limit (BAC) (ERSO 2006). If the number of alcohol impaired drivers dropped to zero, some 6,800 lives would be saved, representing 16% of road deaths in 2007. Driving under the influence is less common in commercial transport compared to individual transport. Yet, alcohol related road crashes in commercial transport tend to result in more serious outcomes due to the vehicle crash incompatibility caused by increased size and mass of commercial vehicles. Besides, the number of people injured in such a crash may be high in case of vehicles operated by public transport companies (Alcohol in Commercial Transport ETSC 2009). The EC's Recommendation on the maximum authorised level of alcohol in the blood of motor vehicle drivers recommends 0.2 G/l for drivers of HGVs and for novice drivers.

Recommendations to the EU

- consider proposing a Directive for 0.2 BAC limit for commercial and novice drivers thus stressing the seriousness of drink driving amongst these two target groups.

¹² Adams-Guppy, J. and Guppy, A. (1995) Speeding in relation to perceptions of risk, utility and driving style by British company car drivers. *Ergonomics*, 38, 12, 2525-2535

- launch an initiative for commercial transport service organisations to enhance safety of services by integrating prevention of drink driving as a competition factor into their business model, including but not limited to equipping all their vehicles with alcohol interlocks.

Drug Driving

The use of illegal or psychoactive substances and medicinal drugs whilst driving is a cause for concern. About 1% to 2% of drivers during roadside surveys tests positive for drugs in saliva (ECMDD 2008)¹³. The effect of drugs on road safety is more complex than that of alcohol, because impairment can be caused by a huge range of prescription drugs, illegal or 'recreational' drugs, solvents, or stimulants used to counter fatigue, many of whose effects are amplified when accompanied by alcohol. Moreover, for drugs other than alcohol, presence in the body does not necessarily imply impairment. Hence, it is very difficult to provide an objective enforcement 'benchmark' (as can be done for drink driving enforcement) against which impairment caused by drugs can be measured and related to driving performance and collision involvement.

Recommendations

- develop a drugs and driving code of practice to enable health professionals to provide advice to the public about the likely effects of medications on driving.
- initiate a publicity campaign targeting younger drivers for illicit drug use and a separate one targeting the older segment of the population for the psychoactive medicine use and effect on driving.
- work towards an appropriate classification and labelling of medicines that affect driving ability.
- support research and exchange of existing best practice between EU Member States to develop assessment techniques for police officers to use at the roadside in order to judge whether a driver is impaired by drugs.

Fatigue

Another major risk factor affecting driving for work is fatigue. Research shows that driver fatigue is a significant factor in approximately 20% of commercial road transport crashes. Surveys show that over 50% of long haul drivers have fallen asleep at the wheel. Increased crash risk occurs at night (peak levels at night can be 10 times daytime levels), the longer the working day and with irregular hours. Those fatigue factors that have been shown to influence road safety need to be better controlled in regulation policy and risk management. The most important factor that will ensure safety is to effectively implement and enforce regulation (ETSC 2003).

Recommendations to the EU and the EU Member States

- Target professional drivers with measures to combat fatigue this can be through information, education and training about the dangers of driving when tired.

¹³ European Monitoring Centre for Drugs and Drug Addiction (2008) Insights Drug Use, Impaired Driving and Traffic Accidents

- Ensure there are consistent levels of enforcement of working time across the EU with penalties designed to strongly influence behaviour towards compliance.
- Promotion of technologies including Lane Departure Warning that can pick up fatigue.
- Just as with speed include fatigue issues related to shift work and night time driving into journey planning and scheduling.

Example of Work Related Crashes - UK

As an example from one country here are the results of a recent in-depth study of work-related crashes in Britain explored the different crash circumstances of different types of work-related motor vehicle crashes¹⁴.

- Company car drivers had more of their crashes on slippery roads, or while under the influence of alcohol, or while speeding, than would be predicted by chance compared with drivers of other vehicles used for work purposes.
- Lorry drivers had a higher proportion of close following, fatigue/illness crashes as well as crashes resulting from load/handling problems associated with this type of working vehicle.
- Bus drivers showed a higher proportion of close following and failure to signal crashes although another driver shared blame with the 'at fault' bus driver in the majority of cases.
- Taxi drivers were the only group (albeit very small) that showed over-involvement in crashes caused by deliberate recklessness or failure to correctly judge gaps in traffic before making a manoeuvre.
- Emergency vehicle drivers showed over-involvement in crashes involving time pressure (understandably) and excess speed.

Part 2 Improving Work Related Road Safety at an EU level

This is an area of road safety in the EU that needs renewed commitment. This next section aims to give a short overview of which structures exist at a European level. The legislation covering this at present exists in different places including employment, transport safety and internal market legislation governing the transport of goods. This section covers driving for work as a professional driver or a company car driver.

Road Safety Action Programme

The Third Road Safety Action Programme is a central document for road safety policy making in the EU. The Action Programme was adopted in 2001 with a Mid Term Review in 2005 and it aimed to propose a series of measures to reach the objective of halving road deaths in the EU by 2010 set in the 2001 Transport White Paper. A number of measures have been adopted in the past decade which have had a direct impact on work related road safety. This includes some progress towards harmonising penalties for the main infringements of the road code for international hauliers. Under training the

¹⁴ Clarke, D., Ward, P., Bartle, C. and Truman, W. (2005) School of Psychology University of Nottingham Road Safety Research Report No. 58 An In-depth Study of Work-related Road Traffic Accidents, August 2005, Department for Transport: London

adoption of a Directive on training of commercial drivers as well as tightening of the legislation and enforcement of the driving and rest periods of commercial road haulage including also the installation of digital tachographs in commercial haulage. Best Practice Guidelines on cargo securing have been adopted as has the extension of compulsory seat belt wearing in coaches and heavy goods vehicles. The provision of visual and audible seat belt reminders for the driver's seat will be compulsory in new vehicles by the 1st of November 2012. The Road Safety Charter was launched in 2004. Stakeholders were encouraged to give a formal undertaking that they will cooperate and try to sign up to a specific commitment by subscribing to a European Road Safety Charter. It now has over 1,000 members including a whole variety of stakeholders from local government, SMEs, global business and the NGO community. The 4th Road Safety Action Programme is expected to be adopted in Spring 2010 and is hoped to come up with new measures to improve work related road safety.

Recommendations to the EU

- Ensure that employers draft a road safety plan in compliance with EU legislation and based on a solid business case to improve the health and safety of workers.
- Encourage companies also through incentives to adopt the new ISO international standard for road safety management.
- Deliver on the proposal from the Third Action Programme to draw up best practice guidelines concerning company policies to reduce accident and injury risk in road transport contracts.
- Lead by example and adopt work related road safety management programmes for the EU institutions and their vehicle fleets including vehicle safety into public procurement.

Community Strategy 2007-2012 on Health and Safety at Work

Within the field of employment policy the EU also adopted "Improving Quality and Productivity at work: Community Strategy 2007-2012 on health and Safety at work". As part of this the Commission proposed the ambitious goal of achieving by 2012 a 25% reduction in the total incidence rate of accidents at work (number of accidents at work per 100 000 workers) in the EU 27.

Recommendations to the EU

- Integrate specific measures focussing on reducing death and injury whilst driving for work in the next Community Health and Safety at Work Strategy as a priority.

Improvement of Health and Safety of Workers Directive

The scope of the problem varies from one organisation to another, the starting point for any employer should always be to undertake a risk assessment and draw up a road safety action plan, based on priorities identified in the assessment and as part of occupational health responsibilities. The European Framework Directive¹⁵ requires every

¹⁵ Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.

employer in Europe to undertake a risk assessment according to the principles of prevention. This Directive provides a minimum requirement and has also been supplemented by national legislation. It is also supported by a number of other Directives on workplace safety¹⁶.

Recommendations to the EU

- Ensure that employers are implementing the Directive to improve health and safety of workers, including the use of a vehicle both on-site and off site.
- Encourage Member States to develop specific guidance on the implementation of the Directive in relation to reducing work related road risk.
- Encourage Member States to collect data on death and injury whilst driving for work and commuting to and from work.

Professional Drivers in the Transport Sector

There are a number of EU laws¹⁷ on harmonising conditions of competition which aim also to improve working conditions and road safety under the EU's internal market legislation. The main ones regulate the driving time of professional drivers in the EU. The Working Time Directive (Directive 2002/15/EC) which applies to all mobile workers (excluding the self employed) performing road transport activities limits weekly working time to 48 hours, although weekly hours may increase exceptionally to a maximum of 60. The Directive also entails restrictions on night working and enforces rest breaks. The Driving Time and Rest Period Regulation (EC 561/2006) aims to introduce clearer and simpler rules about driving times, breaks and rest periods for professional drivers operating both in national and international transport. The basic principle is that by requiring a regular weekly rest period at least once per two consecutive weeks and a daily rest period, social conditions for drivers and road safety should be improved.

Legislation covers recording equipment (tachographs) with Regulation EEC 3821/85 amended in 1998 to introduce digital tachographs. Directive 2006/22/EC identified minimum levels of enforcement required to secure compliance with the rules set out in the Driving Times and Rest Periods and the Tachograph Regulations. It provides common methods to undertake roadside checks and checks at the premises of undertakings as well as promoting cooperation between Member State authorities in charge of road transport enforcement.

There is legislation on the admission to the occupation (Directive 96/26/EC) which introduced uniform criteria for mutual recognition of qualifications and better qualified transport operators. A Regulation (EC 484/2002) also exists on the attestation of driver documents to check the regularity of employment status of drivers from third countries.

A Directive on Driver Training of bus and truck drivers (2003/59/EC) recently came into force this aims to provide better training for professional drivers who must now pass a

¹⁶ Overview of Occupational Health and Safety Legislation
http://osha.europa.eu/en/legislation/index_html/directives

¹⁷ Directive 2006/22/EC, Regulation 484/2002, Directive 2002/15/EC, Regulation 561/2006, Regulation 3821/85.

test and undergo hours of periodic training. A new EU Driving Licence Directive was adopted in 2006 which brings in new requirements for qualifications and the continuous training for driving examiners. Under the Directive Driving Licences can only be issued to those who have completed training or passed a test of skills and behaviour,. This legislation plays a role in influencing road safety at work.

Recommendations to the EU

- Harmonise the way Member States enforcement authorities interpret the working and driving limits imposed by Directive 2002/15/EC and Regulation (EC) n° 561/2006
- Improve enforcement of driving times and rest period legislation by putting more focus on company checks.
- Support the setting up of a quality labelling scheme for post licence driver training.

Vehicle Safety Contributing to better Work Related Road Safety

EU legislation covering vehicle safety has also had an impact on work related road safety. Under the new Vehicle Safety Regulation 661/2009 the extension of seat belt reminders to all drivers' seats will certainly increase seat belt wearing rates and save lives. Furthermore lorries and other heavy vehicles must be fitted with Advanced Emergency Braking Systems (AEBS) and Lane Departure Warning (LDW) Systems as of 2013. Lane Departure Warning devices can be effective in managing fatigued drivers, those under the influence of alcohol and also those distracted by eating, smoking or using their mobile phones. Lane changing represents 4 to 10% of all crashes. An opportunity however has been missed under the adoption of the Vehicle Safety Regulation 661/2009 to tighten up underrun protection of heavy vehicles.

Other in vehicle technologies linked to tackling the greatest safety risks including speeding and drink driving could also be prioritised for use by employers. The starting point should be to draw up a road safety action plan and based on its priorities undertake a risk assessment. This action plan could then include in-vehicle safety equipment as part of the solution. Vehicle safety features including speed management devices such as Intelligent Speed Adaptation, alcohol interlocks and seat belt reminders can reduce the incidence and severity of crashes. There has been some progress made on each of these technologies under the ITS Directive and the new Vehicle Safety Type Approval Regulation, notably with seat belt reminders as mentioned above. But there is still scope for further improvement. The vehicle supply industry has developed many technology based interventions for fleet operators to consider in vehicle specification and purchase decisions. For a more complete overview read ETSC's PRAISE Thematic Report: How can in-vehicle Safety equipment improve road safety at work.

Progress has been made in adopting legislation for the fitting of blind spot mirrors to drivers of heavy duty vehicles with a Directive in 2003, which was extended in 2007 to include the retro fitting of Blind Spot Mirrors to all HGVs. This will improve vision of the driver ensuring that they better see cyclists and motorcyclists when making a turn.

Recommendations to the EU

- Prioritise the development and deployment of in-vehicle technologies such as ISA and alcohol interlocks to improve work related road safety.
- Adapt the EU Directive on the promotion of clean and energy-efficient road transport vehicles¹⁸ to include in vehicle technologies for safety in public procurement.

Part 3 EU Member State Level Legislation

Some Member State governments have taken action to improve work related road safety. Beyond the requirements of EU legislation on occupational health and safety legislation some governments have legislated further that employers should take specific action on improving road safety at work. In the UK, Health and Safety at Work legislation includes the requirement of ensuring health and safety of all employees while at work and not putting others at risk by work-related driving activities¹⁹ (DfT 2003). Others take the non-legislative approach and encourage employers to take action via different initiatives such as in France. Governments can bring about change by setting an example. They can influence demand through their own public procurement policies. This section covers driving for work as a professional driver or a company car driver and commuting.

Recommendations to Member States

- Elaborate specific guidelines for use on improving work related road safety.
- Require their own public authority fleets to comply with the ISO standard and make resources available to help them do so.
- Promote Best Practice by setting up initiatives which promote leading by example using peer to peer communication.
- Promote the business case through targeted information dissemination to employers of investing in and benefitting from work related road safety.
- Encourage employers via financial instruments to fit and purchase vehicles with in vehicle technologies which have high life saving potential.
- Lead by example and adopt work related road safety management programmes for government and public authority fleets including vehicle safety into public procurement.

UK

In 2003, the UK Department for Transport and Health and Safety Executive issued a guidance document on 'Driving at work: Managing work-related road safety'. It clarified that the vehicle is classed as part of the workplace under health and safety regulations, and that organisations need to have risk assessments in place for their

¹⁸ Directive 2009/33/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles

¹⁹ The Corporate Manslaughter and Corporate Homicide Act Newer legislation adopted in 2007 in the UK introduces an important new option for certain very serious senior management failures which result in death.

drivers, vehicles and the journeys they undertake. The document, can be found online (<http://www.hse.gov.uk/pubns/indg382.pdf>).

In the UK the Department for Transport has established an outreach programme to raise awareness of the importance of work related road safety in the business community and public sector. It uses advocates drawn from these communities to promote the business benefits of managing it effectively. Business champions, some of whom are featured in ETSC's PRAISE project constitute the central element of the Driving for Better Business campaign. They are those firms that are prepared to step forward to champion good practice in work related road safety by taking a business message to business. Each Champion makes public a case study to demonstrate how driving on business is managed.

Sweden

The Swedish Work Environment Authority has provided a brochure²⁰ for employers on occupational road safety including relevance of the Directive 89/391 on Health and Safety. It also includes advice on how to develop a road safety policy covering risk assessment.

Since the 1st of February 2009 Sweden introduced compulsory rules for governmental authorities concerning environmental and traffic safety requirements when purchasing a vehicle. The goal is that 75% of governmental authority vehicles (11 000 vehicles or 0.23% of the vehicle fleet in Sweden) shall be fitted with alcohol interlocks by 2012. A new national law requires all government bodies to buy or rent only 5-star Euro NCAP cars for occupant protection ("government specification" as is the case for environment standards). This also has another overspill effect as rental companies, such as Hertz, Avis and Europcar, are upgrading their whole fleet to offer 'SRA recommended cars' to all their customers (PIN Vehicle Flash 13 ETSC 2009).

France

In France the Government took the initiative to set up the "Steering Committee to prevent road risk amongst professional transport", an organisation responsible for advising a number of government bodies and putting forward proposals on work related road safety. The work of the Committee has the potential to reach 22 million employees in France. The Committee also disseminates information to all stakeholders involved in work related road safety, including the private sector.

The Committee underlines that both road safety 'at' work and road safety 'to' and 'from' work (commuting) should be addressed, and in this light in 2008 the French Interministerial Committee on Road Safety has asked the various Ministries to consider whether it would be possible to define motor vehicles as a piece of work equipment.

The Committee is also involved with the private sector actors, a number of which have signed charters declaring that road safety is one of their key concerns. The Committee also organises an awards programme to congratulate and encourage companies concerned with road safety to continue investing efforts. One of the awards concerns

²⁰ http://www.av.se/dokument/inenglish/broschures/adi_578eng.pdf

fleet management. When it comes to fleet management the Committee is especially concerned with Light Commercial Vehicles (LCVs), and publishes the following recommendations in terms of in-vehicle equipment: Airbags, ABS, ESC, a visual display in the dashboard in case of vehicle overload, and tyres fit for the professional use of vehicles.

Since 2002, all companies must identify and evaluate all their professional risks in a single document (Document Unique), this includes road traveling risks. Since 2003, the social security code has established the necessity for managers to prevent work related road accidents in all kinds of activities, including commuting. Some companies also propose various services, training and consulting, in order to reduce car accidents. Their customers are businesses with a car fleet, at least ten vehicles.

Part 4 Employer Level Initiatives

Across Europe employers can take the effective measure to draft a road safety plan based on the business case. This must also comply with EU legislation on improving the health and safety of workers. Alongside these financial and legal reasons for improving work related road safety employers also have moral obligations to care for their workers. Many companies also express this through their Corporate Social Responsibility policies. Being socially responsible means going beyond legal compliance and investing 'more' into human capital, the environment and relations with stakeholders. A holistic approach is needed and top management must be involved in the development of road safety plans that should include a strategy linked to a target with measures. These can cover areas such as fleet safety guidelines developed by road safety organisations, driver selection and induction procedures, vehicle selection, driver training and education, driver management, monitoring fleet safety performance, creating a continuous cycle of improvement. This section covers driving for work as a professional driver or a company car driver and commuting.

The Haddon Matrix (See Annex 1) is particularly useful as a framework for undertaking an overall review of the organisational safety context into which the driver assessment, monitoring and improvement program should fit. Haddon provides an all-encompassing pre-crash, at-scene and post-crash systems-based framework for fleet safety. As well as classifying improvement interventions to be piloted, implemented and embedded, it can be used as a gap analysis and investigation tool (Murray et al 2009a).

A new ISO international standard 39001 for road safety management is also under development. The new standard will consist of instructions on how to create continual improvement in road safety work. Any player with an influence on road safety should be able to use the standard as a complementary guidance in its efforts of contributing to safe road traffic. Thus the holistic approach of the standard will make it applicable to a broad range of players such as those involved in designing of roads, production of cars, transports of goods and people, the police, rehabilitation of accident victims. By adopting an ISO-39001 approach, all the useful but potential disconnected approaches of looking at individual risks get simplified into one that requires these risks to be looked at in the context of the overall safe system. A proposal for the new ISO-standard can be expected in October 2011.

Recommendations to Employers

- Evaluate the extent of the road safety impact on the company by undertaking a risk assessment, including the burden of road collision and injuries and endeavour to build mitigations into the business model which cover the driver, the journey and the vehicle.
- Draw up a road safety action plan, based on priorities identified in the assessment, as part of their health responsibilities.
- Implement or improve management systems within the company, to prevent collisions and track cost savings based on reductions in road collisions and incidents.
- Introduce in vehicle technologies linked to key identified risks such as Intelligent Speed Adaptation and alcohol interlocks to fleets of company cars.
- Identify corporate leaders to spread the road safety message: 'road safety is everyone's business' throughout the company.
- Undertake driver/rider assessment on recruitment, this should also include checking documentation; (licences, driver training records and fitness to drive records) and assess driving competence and attitudes. Continue to monitor driver and train as appropriate.
- Include safety criteria when purchasing vehicles, including 5 star EuroNCAP cars and vehicles using in-vehicle safety technologies.

Examples of Employers

Johnson and Johnson

Johnson and Johnson is one of the multinational companies working in Europe which has one of the world's most proactive organisations with regards to occupational road safety²¹. In the Europe, Middle East and Africa (EMEA) region alone the company operates over 13,500 field sales, service and management vehicles. Its SAFE Fleet programme has been in place for ten years and provides a standard framework that its subsidiary companies work to six key objectives. This includes that senior management support safe driving as part of the work culture through leadership, monitoring improvement, training and ongoing engagement. Local Safe Fleet teams are responsible for implementing measures such as training new drivers, reducing cases of high-risk driving and hiring field safety coordinators. Driver development including orientation, home study and behind the wheel training is one of these objectives as is meeting Health and safety objectives. These efforts have translated into real success SAFE Fleet has reduced injuries, accidents per million miles (APMM) and percentage of vehicles involved in incidents. Part of this success has also been due to a high-risk driver early detection system to identify drivers with the potential to drive unsafely. The company

²¹ Case Study Summary adapted from
<http://www.fleetsafetybenchmarking.net/main/repeat/sidemenu/casestudies.php>

uses innovative tools and technologies, including Virtual Risk Manager²², to identify risks in a proactive way and contribute to further decreases in collisions. J&J are also involved in the leadership of a pan-European fleet safety benchmark initiative and involvement in www.fleetsafetybenchmarking.net to exchange cross-company best practices and experiences. Finally their fleet safety does not end when engaging drivers to take the road safety message home to their families and friends.

Heracles General Cement Co.

Heracles General Cement Co. in Greece, a member of Lafarge group, has implemented a wide scale road safety programme including driver training. The success of the driver training component of the programme lies in its coordination within a wider road safety programme and policy developments, the continuous nature of the training, the collaboration with contractors and a marked accent on defensive Driving training. The company achieved the target of 0 roads fatalities.

In 2007, training in defensive driving of subcontractor drivers and Head Quarters personnel was implemented, as well as training of new employees through trips with instructors. A series of regular road transport safety meetings with all the company's drivers (more than 600 in total) were launched in 2008, providing an opportunity for discussion and collaboration on safety issues.

Finally, GPS was installed in 2009 in almost 90% of the fleet, providing information for assessing drivers' performance and their profile. As a result speed limit violations were reduced from a number of 14000 on 1,2million km in Jan 09 to 20 violations on 2,2 million km in Dec 09.

In addition to all the above, road safety is enhanced in terms of technical equipment, by the new "safe pass" of each vehicle, which certifies that the vehicle has passed specific technical inspections in certified workshops ensuring its regular monitoring.²³

Further Employer Case Study examples: PRAISE Case Studies DB Shenker, Suckling Transport.

Conclusion

Work Related Road Safety has a place in European policy making. This paper has presented the current scope of the problem and the profile of this driver group. It has identified the key risks such as speeding and fatigue. It has presented a short overview of progress made at a European, national and employer level in the last decade and also given ideas for new measures and actions to be taken in the next decade. Improvements in work related road safety can make a contribution to reducing death and serious injury on Europe's roads.

²² <http://www.virtualriskmanager.net/main/>

²³ EU-OSHA (in print) Case Studies Report Study of Protection of Road Haulage Workers, Bilbao

Further Reading

European Commission (2005) Causes and Circumstances of Accidents at Work

ERSO (2007) Work-Related Road Safety www.erso.eu

EU OSHA Facts (2001) Facts 16 Preventing Vehicle Transport Accidents at the Workplace

EU OSHA Facts (2001) Facts 18 Preventing Road Accidents Involving Heavy Good Vehicles

EU OSHA Facts (2001) Facts 54 CSR and OSH

EU OSHA (2010) OSH in Figures Occupational Safety and Health in the Transport Sector

ETSC (2008) Blueprint for a 4th Road Safety Action Programme

ETSC (2009) Third PIN Report 2010 on the Horizon

ETSC (2009) PRAISE Thematic Report 1 How Can In-Vehicle Safety Equipment improve Road Safety at Work

ETSC (2009) Drink Driving in Commercial Transport

ETSC (2010) PRAISE Thematic Report 2 Fit for Road Safety: From Risk Assessment to Training

EU Legislation Road Safety

http://ec.europa.eu/transport/road_safety/specialist/policy/index_en.htm

Murray, W., Pratt, S., Hingston, J. & Dubens, E. (2009). Promoting Global Initiatives for Occupational Road Safety: Review of Occupational Road Safety Worldwide (Draft),

www.cdc.gov/niosh/programs/twu/global, ISBN

Royal Society for the Prevention of Accidents (RoSPA) Road Safety Resources for Employers

<http://www.rospa.com/roadsafety/resources/employers.htm>

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Annex 1 Road Collisions while Working and Commuting

Road Collisions while working and commuting (Source: Eurogip 2009²⁴)

Country (data for 2007, except Germany 2006)	Austria	Belgium	France	Germany	Spain
Total fatal accidents	192	175	1,029	1,117	1,167
% of which on the road	54	53	48	61	40
Total fatal accidents at-work	130	96	622	642	826
% of which on the road	32	32	23	34	20
Total fatal commuting accidents	62	79	407	475	341
% of which on the road	100	81	86	97	89

Annex 2 Haddon Matrix

The starting point lies firmly at the top of the Management culture column of the matrix, as follows:

- Identify, obtain and analyse available data (e.g. insurance, licence & telemetry) on the extent of the problem.
- Use this to make a business case to relevant senior managers in the organisation.
- Focus on the other areas shown under Management culture first to ensure appropriate systems are in place.

	Management Culture	Journey	Road / Site Environment	People - Drivers & Managers	Vehicle	External / Societal / Community / Brand
Pre-Collision or Pre-Drive	<ul style="list-style-type: none"> - Business case - Legal compliance - Safety audit, claims analysis & focus group discussions - Benchmarking - Board level champion - Pilot studies & trials - Goals, policies & procedures - Safety culture / climate - Management 	<ul style="list-style-type: none"> - Travel survey - Travel policy - Purpose - Need to travel - Modal choice - Journey planning and route selection - Route risk assessment - Journey scheduling - Emergency 	<ul style="list-style-type: none"> -Risk assess -Observation -Guidelines & rules -Site layouts & signs -Work permits -Delivery & collection procedures -Road improvement -Black-spot mapping and hazard assessments 	<ul style="list-style-type: none"> - Select - Recruit - Contract - Induct - Licensed & qualified - Handbook - Risk assess - Train - Work instructions - Engage & encourage - Equip e.g. high viz - Communicate 	<ul style="list-style-type: none"> - Risk assessment - Selection - Specification - Active and passive safety features - Standards - Servicing - Maintenance - Checking - Use policy and legal compliance e.g. loading - Mobile communication and 	<ul style="list-style-type: none"> - Regulator / policy engagement - Insurer engagement - CSR - External benchmarking - External communications - Family members program - Community involvement - Engaging other road

²⁴Eurogip (2009). Le risque routier encouru par les salariés en Europe Actualisation du rapport Eurogip-05/F publié en 2003 August, Eurogip-40/F, www.eurogip.fr/en/docs/Eurogip_risque_routier_2009_40F.pdf

	<ul style="list-style-type: none"> structure - Fleet safety committee - Safety leadership by example and commitment - Communications program - Contractor standards - Grey fleet (own vehicle) policy 	<ul style="list-style-type: none"> plan - Shifts / working time - Fatigue management 	<ul style="list-style-type: none"> -Engage local and national agencies 	<ul style="list-style-type: none"> - Driving pledge/Code of Conduct/Risk Foundation - Health & wellbeing - Monitor - Correct 	<ul style="list-style-type: none"> navigation policy - Telematics to monitor - Wear and tear policy - Grey fleet standards 	<ul style="list-style-type: none"> users - Road safety weeks / days - Safety / ECO groups - European Road Safety Charter - Road safety conference presentations - Media / outreach / PR - Safety & environmental achievement awards
At Scene	<ul style="list-style-type: none"> - Emergency support to driver 	<ul style="list-style-type: none"> - Engage local investigators 	<ul style="list-style-type: none"> -Manage scene 	<ul style="list-style-type: none"> - Known process and 'crash pack / bumpcard' to manage scene 	<ul style="list-style-type: none"> - Reactive safety features - Crashworthy - Telemetry data capture 	<ul style="list-style-type: none"> - Escalation process
Post-Collision	<ul style="list-style-type: none"> - Policy and process to report, record & investigate incidents - Change management process - Ongoing claims data analysis - Data warehousing & linkages - Evaluation, KPI benchmarking & program development 	<ul style="list-style-type: none"> - Debrief and review - Review journey elements of collision data - Ongoing journey management review 	<ul style="list-style-type: none"> - Investigate and improve - Review site / road elements of collision data 	<ul style="list-style-type: none"> - Reporting and investigation process - Driver debrief and corrective action - Review people elements of collision data - Counselling, trauma management & support - Reassess / train 	<ul style="list-style-type: none"> - Strong open able doors - Investigate telemetry data - Vehicle inspection & repair - Review vehicle elements of collision data - Review vehicle selection & use 	<ul style="list-style-type: none"> - Manage reputation and community learning process

The freely available, UK Department of Transport supported, 10 question fleet gap analysis on the Fleet Safety Benchmarking project website at www.fleetsafetybenchmarking.net is also a good free resource for undertaking the initial review of an organisations fleet safety.

Annex II Table of Measures

Measure	Work Related Road Safety	Broader Road Safety Benefit
Targets and measures to mobilize action for 2020	x	x
Data collection	x	x
Employers to draw up a road safety plan	X	x
Community Health and Safety at Work Strategy includes work related road safety	x	x
Implement health and Safety at Work Directive on work related Road Safety Measures	x	x
Harmonise way MS enforcement authorities interpret working and driving limits of Directive 2002/15 and Regulation 561/2006	x	x
Improve enforcement of driving times and rest period legislation by putting more focus on company checks	x	x
Support the setting up of a quality labeling scheme for post driver training	x	x
Prioritise in vehicle technologies such as ISA and Alcolocks to improve work related road safety and fleet management	x	x
Include in vehicle technologies for safety in Public Procurement Directive 2009/33	x	x
Appropriate speeds whilst driving for work and eco driving	x	x
Journey Planning	x	x
0.2 BAC limit for commercial drivers	x	x
0.2 BAC limit for novice drivers	x	x
Drug Driving Code of Practice	x	x
Publicity campaign targeting younger drivers	x	x
Information, education and training measures to target fatigue	x	x
Lane Departure Warning to tackle fatigue	x	x
Guidelines for work related road safety	x	x
Public authority/private company fleets to adopt work related road safety management programmes	x	x
Promote business case on work related road safety	x	x
Involve senior management in work related road safety	x	x